

Bill of Quantities (BOQ) for construction of Borehole water supply infrastructure
Project Title:TV-Gala water project

SL	Description	Unit	Qty	Unit Price (USD)	Total price (USD)
1	Installation of Borehole tube equipment (submersible pump,riser pipes, Cables, and other accessories).				
1.1	Crane truck hiring with minimum 35-ton capacity for installation of column riser pipes and pump equipment inside the borehole.	Job	1.0		
1.2	Supply and installation of 3-inch uPVC/ GI Class C column riser pipes (5.8m length each), including sockets, adapters, reducers, centralizers, clamps and fittings	Pcs	34.0		
1.3	Purchase and install a multiple-stage of 18.5kw Submersible pump (Grundfos or Lowara products) with probe sensor (Protection sensor + 200m wire 4mm ²): The pump must have a minimum head of 400m, and have minimum capacity of 10M ³ /h against a pump head of 300m.	No	1.0		
1.4	Supply and install heavy-duty 3-inch borehole pipe clamp complete with galvanized bolts, nuts, rubber protection lining, and fixing accessories, suitable for deep borehole submersible pump installations up to 400m length.	Ls	1.0		
1.5	Supply and install 3-core 16 mm² pure copper pump cable .	M	200.0		
1.6	Supply and install high-quality 3-inch bulk water meter approved by SOS supervising engineer	PC	1.0		
1.7	Borehole water level probe sensor	PC	1.0		
1.8	Probe sensor cable (4mm ²)	M	200.0		
1.9	Non-return/check valve suitable for 3-inch pumping system	No	1.0		
1.10	Air release valve installation complete	LS	1.0		
1.11	Apply smooth, high-quality plastering and painting to the borehole wellhead.	Ls	1.0		
	Sub-Total 1 : Installation of Borehole tube equipment (submersible pump,riser pipes, Cables, and other accessories).				
2	Installation of solar-powered system				
2.1	Monocrystalline solar panels with a Total peak power min 33.2kw: Pannel power rating 615W in STC, Voltage max 40.6V,Current max 15.15A, WITH 132 Cells, efficiency>20, 1500V system voltage, with manufacturer's datasheet. - Connector Type MC4 . - Warranty of minimum 10 years Note: The supplier may use larger/smaller solar panels with the same total of power required but he/she must inform the SOS engineers for approval.	No.	54.0		
2.2	DC wires (Pure copper or Good quality solar cables) provide PVC insulated DC Wire double core for solar 1x6mm ² (for series and parallel connections) and 1x10mm ² (for main phase from solar site to the pannel in the generator room) in Black and Red pure solar copper wires to reduce resistance, power loss and heating. Provide Wires and PVC pipes running through an excavated trench and backfilled. 1Roll= 100 yards.	Rolls	6.0		
2.3	Supply and installation of INVT/RSI solar pump inverter , 3-phase 380-440V, IP66 weatherproof protection, 22kW, 38A, suitable for operation and protection of 18.5kW submersible borehole pump, complete with dry-run protection, overload protection, over/under voltage protection, phase failure protection, automatic restart function, and hybrid operation compatibility with solar power and generator systems	No	1.0		

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2.4	Supply and installation of 100A heavy-duty manual changeover switch for solar-generator power selection, complete with electrical panel connections, MCCB protection, circuit breakers, cable terminations, grounding system, control accessories, testing, commissioning, and all required installation materials for manual hybrid solar-generator operation of the 18.5kW submersible pump system.	No.	1.0		
2.5	Provide Complete Protection Solar Cabinet Contents. - PV Combiner Box - PV Disconnect Switch - Surge protector device - very sensitive AC and DC automatic circuit breakers or MCB (Miniature Circuit Breakers).	Set	1.0		
2.6	Provide and fix Ground rod connected to global ground circuit, including panels, stands, cabinets, controller and pump.	No.	1.0		
2.7	Solar Mounting Structure : Supply and fix 3-inch GI pipes Class-B for the columns of ground mount structure with Concrete at the base. Provide all steel grids/rafters that must be a minimum 8cm by 4cm steel box pre-painted and 6x3cm Purlin steel boxes as per design drawings. Bolts are fixed tightly between solar panel frames and the steel grid/Appropriate steel angle. Fixed Tilt Angle 9°-10° (North-South) using solar angel Maps. Corrosion Preventative measures: Apply GI Pipes, and Boxes, angles with anti-corrosion painting. Concrete footing: Base 40cmx40cm and 50cm deep, and 40cm above the ground level. Minimum Elevation of solar from the ground: 1m at the lowest part. Note: provide all necessary accessories for the mount structure installation, and the mounting structure should meet the specifications and design of the attached Solar drawing designs.	NO	54.0		
2.8	Installation, Testing and Training of the borehole operators for operation of the solar hybrid system.	days	2.0		
Sub-total 2: Installation of solar-powered system					
3	Installation of new Generator				
3.1	Supply, delivery, installation, testing, and commissioning of brand-new 45KVA Perkins diesel generator set, EU standard compliant , 3-phase, 400/230V, 50Hz, water-cooled, complete with heavy-duty alternator, anti-vibration mounting system, acoustic/weatherproof canopy, electric dual starting system, control panel, and all standard accessories, suitable for hybrid solar-borehole water supply operation. Generator shall be genuine Perkins branded or approved equivalent.	No	1.0		
3.2	Supply of Basic generator spare parts and consumables including 10 new genuine oil filters, 10 genuine fuel filters, 2 new air filters, and 1 heavy-duty spare maintenance-free battery compatible with the supplied Perkins generator set.	LS	1.0		
3.3	Supply of initial operation consumables including 200 liters of diesel fuel , engine lubricants, coolant, first filling service materials, and complete generator commissioning requirements for initial startup and testing operations.	litres	200.0		

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3.4	Generator installation works including foundation fixing, exhaust system installation, grounding and earthing system, cable terminations, testing, commissioning, operator training, and submission of operation & maintenance manuals.	Job	1.0		
3.5	Branding and labeling of the borehole well head and the generator canopy with SOS logo and approved project information using durable weather-resistant paint/sticker materials as per SOS Engineer guidance.	LS	1.0		
	Sub-total 3: Installation of new Generator				
4	Construction of New RCC Elevated water tank (50m³, 10m high from the ground) near Durdur IDP site.				
4.1	Pre-construction				
4.1.1	Site clearance: clear site from vegetation, debris, and unwanted material and dispose it to a safe place.	LS	1.0		
	Sub-total 4.1.1				
4.2	Sub-structure				
4.2.1	Footing Excavation: Excavate 4 (2.3 x2.3*2)m holes for footings, level, and compact well (before receiving foundation blinding)/cut and trim all projected faces.	M ³	42.3		
4.2.2	Footing Hardcore: Provide 15cm thick Hardcore and compacted at the base of the footings.	M ³	3.2		
4.2.3	Footing Blinding: Provide 5cm thick lean/blinding concrete 1:2:4 /6bags of cem/0.44cum of river sand /0.88cum of gravel above excavated foundation trenches.	M ³	1.1		
4.2.4	Footing concrete: provide and cast 4 (2x2x0.6)m R.C.C footing over the blinding mix 1:2:4 /7bags of cem/1cum of concrete Reinforced with double layered box Y16 @100mmc/c deformed steel in both directions/use the vibrator.	M ³	9.6		
4.2.5	Footing Column (500x500mm) : provide and cast 4 (500x500x2600 high)mm R.C.C columns over the footing mix 1:2:4 /7bags of cem/1cum of concrete Reinforced with 8Y16, link R8@150mmc/c.	M ³	2.6		
4.2.6	Trench excavation for Rubble stone Foundation: excavate 700mm wide*500mm deep and 16000mm long in total.	M ³	5.6		
4.2.7	Ground beam Hardcore supply: Provide 200mm thick Hardcore and compacted at the base of the Rubble stone Foundation.	M ³	1.6		
4.2.8	Construction of Rubble stone foundation 0.4m wide and 0.3m above the ground, 0.5m deep in the ground. All joints between stones should be filled with 1:4 cement/sand mortar.	M ³	5.1		
4.2.9	Backfilling: Rubble stone and selected material backfilling of the foundation.	M ³	10.1		
4.2.10	Beam Blinding: Lay 50mm thick lean (400 mm wide x400mm deep x17500mm long) concrete 1:4:8 /4bags of cem/0.4cum of river sand /0.8cum of Graded stone 40mm nominal size AS PER SPECSabove the excavated footing and foundation trenches, cure the blinding.	M ³	0.4		
4.2.11	Diagonal Ground TIE Beams and Foundation Beam: provide and cast (300x400x27000) R.C.C beam MIX 1:2:4/7bags of cem/1cum of concrete_Reinforced with 5Y16 linked with Y8mm stirrups @150mm c/c as shown on the drawing Designs, must followed.	M ³	3.2		
4.2.12	Backfilling spaces between ground Tie Beam with compacted selected Material and 50mm Lean concrete/Mass concrete.	M ²	12.3		
	Sub-total 4.2				

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4.3	Superstructure				
4.3.1	Columns: Cast in place 4 (400x400x10000)mm R.C.C Columns Mix 1:2:4/7bags of cement/1cum of concrete ____ Reinforced with 8Y16mm +R8@150mm c/c.	M ³	6.4		
4.3.2	First and Second Middle Tie Beams: provide and cast (300x400) mm R.C.C beam MIX 1:2:4/7bags of cem/1cum of concrete ____ Reinforced with 6Y16 linked with Y8mm stirrups @150mm c/c.	M ³	3.8		
4.3.3	Diagonal and Tie Beams for load bearing at the bottom of the water holding slab: it similar layout as ground tie beams except width of the beam (provide and cast (400x450x27500)mm R.C.C beam MIX 1:2:4/7bags of cem/1cum of concrete_ Reinforced with 8Y16 linked with Y8mm stirrups @150mm c/c as shown on the drawing Designs, must be followed).	M ³	5.0		
4.3.4	Bottom Slab (Water holding) Plus outside safety slab: Cast in place 250mm Thick R.C.C Slab on the Water storage Mix 1:2:4/7bags of cem/1cum of concrete ____ Reinforced with double Y12mm for bar Distribution with spacing of 100mm. c/c.	M ³	5.7		
4.3.5	RCC WALLS (3200mm high* 200mm thick): provide and cast 200MM RCC Wall MIX 1:2:4/7bags of cem/1cum of concrete Reinforced with Y12 with spaces of 100mm and U-shape bars from the base, bars are linked with Y8mm stirrups @200mm c/c. Provide all protruding outlet pipes from the RCC wall as shown on the design, all pipes are 3-inch pipes one inlet, one overflow, and three outlets and have stop valves.	M ³	11.3		
4.3.6	Top Slab with Access cover manhole: Cast in place 120mm Thick R.C.C Slab on the Water storage Mix 1:2:4/7bags of cem/1cum of concrete ____ Reinforced with double Y12mm for bar Distribution with spacing of 200mm c/c.	M ³	2.4		
4.3.7	Plastering of the ground beam, Tie beams, columns, and Walls applying waterproofing cement and waterproofing material inside the water tank (Water Holding compartment).Note: The plastering should be smooth, and no roughness should be observed. The SOS Engineer shall approve the completed work before any paint is applied.	M ²	212.0		
4.3.8	Pipes: Supplying and Fixing inlet and outlet GI pipes with 2inch class B (5.8m per length) including all fittings (sockets , elbows, union and other required accessories) and One high-quality Watermeters.	No.	8.0		
	Sub-Total 4.3				
4.4	Finishing				
4.4.1	Apply two coats of emulsion paint and oil paint to the water surface, using white and blue as the primary colors. Ensure that all paint used maintains its original color and quality.	M ²	212.0		
	Subtotal 4.4				
	Sub Total total 4 (Grand Total) : Construction of New RCC Elevated water tank (50m³)				
5	Construction of Fiber Plastic Water Storage Tank with Metal Support Structure				

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SL	Description	Unit	Qty	Unit Price (USD)	Total price (USD)
5.1	Site clearance, setting out, excavation of (1mx1mx 0.65m deep), and preparation works for construction of elevated tank support structure foundation.	LS	1		
5.2	Supply and casting of reinforced concrete foundations (0.9m × 0.9m × 0.6m deep) to securely anchored for the tank support legs including cement, sand, aggregate, reinforcement bars, formwork, curing, and all related civil works.	M ³	0.486		
5.3	Supply, fabrication, and installation of 4 vertical support legs using 4-inch GI Class B pipes for elevated tank structure standing 3 meters above ground level.	No.	4		
5.4	Supply and installation of 3-inch GI cross beams, horizontal bracing members, and welded reinforcement framework for structural stability of the elevated tank tower.	No.	8		
5.5	Supply and installation of top tank support platform using welded GI steel mesh/frame suitable for supporting 1m ³ fiber plastic water storage tank.	LS	1		
5.6	Anti-rust treatment, metal primer application, and final protective paint coating for all exposed steel structure components.	LS	1		
5.7	Supply, delivery, and installation of 1m ³ high-quality fiber plastic water storage tank complete with inlet, outlet, overflow, washout connections, and fixing accessories.	no	1		
5.8	Supply and installation of 1 or 2-inch PPR water inlet pipeline from borehole to storage tank including fittings, reducers, elbows, unions, clamps, and other accessories needed should be included.	M	45		
5.9	Supply and installation of 1 or 2-inch gate valve/T-junction control valve arrangement for tank inlet control system.	No	3		
5.10	Construction of RCC water tap stand complete with reinforced concrete base, block masonry, plastering, drainage channel, and pipe connection works.	LS	1		
5.11	Supply and installation of 2 heavy-duty water taps complete with GI fittings, reducers, elbows, and all plumbing accessories.	no.	2		
5.12	Construction of concrete water collection apron and wastewater drainage channel around the water taps area.	LS	1		
	Sub-total 5: Construction of Fiber Plastic Water Storage Tank with Metal Support Structure				
6	Construction of Three Water kiosks with fence				
6.1	Pre-construction				
6.1.1	Site clearance: clear site from vegetation, debris, and unwanted material and dispose it to a safe place	LS	1		
6.2	Sub-structure				
6.2.1	Water Kiosk Base Area Excavation: Excavate a depth of 100mm in an area of (2400*2000)mm.	M ³	0.48		
6.2.2	Water kiosk Base Area Hardcore: Provide 100cm Thick Hardcore or crushed stones and compact.	M ³	0.48		
6.2.3	Water kiosk base area Stone construction: Provide 400mm thick stone construction at the base of the water Kiosk, which is 250mm above the ground level with a plaster-of-mix ratio of 1:4.	M ³	1.92		
6.3	supper structure				

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6.3.1	Water kiosk pipework (only Pipes and fittings for kiosk, not networking pipes): Provide and fix a 1 piece of 1-inch diameter GI pipe with a minimum of four outlets (Taps) and provide an underground stop valve small chamber and concrete cover. Provide all fittings needed such as Elbows, T-tee, Needles, sockets, 3/4-inch taps, 1-inch to 3/4-inch reducers, and Unions.	Ls	1		
6.3.2	Water Kiosk Base Concrete (1800*200*150)mm: provide and cast 150mm thick base mass concrete with a small number of bars (1:2:4) mixing, Provide 4Y10 with a spacing and 2 vertical bars those will anchor the Vertical concrete in place, and Anchor the small shade of the Kiosk.	M ³	0.54		
6.3.3	Masonry work to put on Jerrycans (300mm wide and 400mm high on the base concrete): provide and construct with hallow blocks or Stone work.	M ³	0.24		
6.3.4	Mass concrete wall (200 mm thick, 1000mm High, and 2000mm long): provide and cast a mass concrete with a mixing ratio of (1:2:4) and 2 bars from the base (see 3.2) passing through it.	M ³	0.4		
6.3.5	Provide two hallow block columns construction (400x200) with a hight of 875mm, and Complete plastering using 1:2:4 cement Plaster ratio. Note: Two 12mm Steel bars from Base concrete Must Protrude at the top of each column for anchoring the Roof.	M ²	0.7		
6.3.6	Provide small Shade as per the design with complete Timber and Blue Steel sheet Roof-28 guage, and Anchored firmly on the columns.	LS	1		
6.3.7	Excavation of Soak pit away for water drainage 1.2m deep x 1 m diameter connected with 2-inch heavy gauge waste pipe and its accessories. Also, supply and fill filtration Stones in the pit and cement on top.	M ³	1.2		
6.3.8	Provide for 2-inch Plastic waste pipe with 2 elbows for the water drainage to the soaking pit.	LS	1		
6.4	Finishing				
6.4.1	Provide and apply two coat of emulsion paint on the all face surface of wall, columns and Roof. White Colour is the major color for walls and columns, and provide Blue color to the water kiosk small shade/Roof.	LS	1		
6.4.2	Construction of 5m*5m Water Kiosk Fence: Provide and install a fence wall+ Door chain link in standard rhomboidal mesh Galvanized of 2000mm High with RCC basement Foundations fence wall protect water Kiosk. Use 2-inch GI class-B pipe support column, with 1.5m spacing and top GI pipe beam.	M	20		
	Total cost of One Kiosk Construction:				
	Sub-total 6: Construction of three Water kiosks with Fence				
7	Construction of Generator and Guard Room				
7.1	Pre-construction				
7.1.1	site clearance	LS	1		
7.2	sub-structure				
7.2.1	Excavation of foundation 50cm wide, 30cm deep, and 25 m Long (Foundation total length).	M ³	3.75		
7.2.2	Provide 5cm thick lean concrete	M ³	0.625		

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7.2.3	Provide and Construct 40 cm foundation stone wall 300mm high from the ground and 300mm deep in the ground. All joints between stones should be filled with 1:4 cement/sand mortar. Minimum height of the foundation wall from the Ground level is 40cm as approved by an Engineer.	M ³	6		
7.2.4	RCC Foundation lintel Beam (40cm wide, 20cm deep). Provide 4pc of 10mm diameter bars, and use link bars of 8mm steel 150mm/c at 1:2:4 mixing ratio.	M ³	2		
7.2.5	Room area Backfilling with compacted soil, 320mm thick.	M ³	6.4		
7.2.6	Hardcore: provide Compacted 100mm thick backfilling with Hardcore/Crashed stones	M ³	2		
7.2.7	Flooring with plain concrete 80mm thick with a mixing ratio of 1:2:4 (Grade 15), Make the surface smooth finishing	M ³	1.6		
7.3	Supper structure				
7.3.1	wall construction narrow Block(40cm long *20cm wide*20cm high) masonry work made from the mortar of 1:3 mixing ratio, with good quality of Sand. The wall area will be deducted from the Windows area.	M ²	99.3		
7.3.2	RCC Middle lintel Beam (20cm Wide, 20cm deep). Provide 4pc of 12mm diameter bars, and use link bars of 8mm steel at 1:2:4 mixing ratio.	M ³	1		
7.3.3	Installation of 2m Wide metal door, painted with blue-light anti-corrosion coat painting	pc	1		
7.3.4	installation of steel metal windows (1.5m by 1.2m) and anti-thief 12mm crossing bars installed exterior of the window combined with Mesh metal wires.	LS	2		
7.3.5	Installation of a steel metal door and window to the Guard room, as shown on the Drawing Designs.	LS	1		
7.3.6	Plastering 2cm minimum with 1:4 mixing ration of Plaster	M ²	198.6		
7.4	Roof				
7.4.1	Room and Verendah roofing (As per the desing), Verendah 1.5mx3.5: Supply and fix iron sheets gauge #28 on pre-painted (White) or onsite painting with timber roof trusses c/c 150cm. All the roof trusses should be anchored with 6 mm dia. bars in the Middle lintel. Roof purlins should be 8x4 cm, Rafter 8cmx8cm and at gable ends should be anchored with 6 mm dia. bars, flat metal sheet should be anchored where trusses and purlins meet, as approved by an Engineer.	M ²	34		
7.4.2	Provide and fix Ceiling made of 4mm plywood, painted with white color including Verendah ceiling.	M ²	20		
7.4.3	Verendah support pipes :provide and install G.I Ciruclar pipes for verendah	Pc	3		
7.4.4	Fixing Facia Boards :200mm x 25mm Fascia /barge board	M	9		
7.5	Finishing				
7.5.1	Provide and apply two coat of gloss paint on Walls and Roof. White Colour is the major coloured, Small amount of Blue painting will be used.	M ²	198.6		
7.5.2	Electrical wiring and installation with switches and sockets	LS	1		
7.5.3	Visibility for project information and SOS logo on the front walls.	LS	1		
Sub-total 7: Construction of Generator and Guard Room					
8	Construction of Animal Trough				
8.1	Reinforced concrete Trough for goats/sheep				

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8.1.1	Site clearance: clear site from vegetation, debris, and unwanted material and dispose it to a safe place	LMS	1.00		
8.1.2	Excavation of Trough footings and trough area of excavate 70cm wide and 70cm deep footings plus excavation of the trough area (6.3m*1.45) in a depth of 20cm.	M ³	3.20		
8.1.3	Footing Blinding: Lay 50mm thick lean concrete 1:4:8 /3bags of cem/0.4cum of river sand /0.8cum of Graded stone 40mm nominal size AS PER SPECSabove the excavated footing and foundation trenches, cure the blinding	M ³	0.10		
8.1.4	RCC footing: Provide and Cast 4 footings (700*700)mm and 200mm thick. Provide double 3Y10 with a mixing Ratio (1:2:4) and Column bars.	M ³	0.34		
8.1.5	RCC Columns: Provide and Cast four Columns, Having 4Y10, R6@150mmc/c and a Mixing Ratio of 1:2:4.	M ³	0.09		
8.1.6	Well compacted Hardcore Back filling: supply and fill 200mm depth of crashed stornes/Hardcore below the trough slab and animal stepping area.	M ³	11.23		
8.1.7	Plain Concrete trough slab and Blinding: construct a 100mm thick Plain concrete slab (1450*6300*100)mm with a mixing ratio of 1:2:4 with a blinding of 50mm thick.	M ³	1.37		
8.1.8	RCC walls of the Trough (200mm high for Goat/sheept troughs as shown on the Drawing Designs): Reinforced 150mm thick concrete wall/floor with 10mm bars and mixing ratio of 1:2:4 cement/sand/gravel.	M ³	0.88		
8.1.9	150 Thick solid concrete block walling (75cm high).	M ³	0.71		
8.1.10	Plastering and Waterproofing: Apply Plastering and Waterproofing Cement three times to the water catchment areas of the trough.	LS	1.00		
8.1.11	Animal stepping Area: Provide 80mm thick Plain Concrete (1:4:6) of the animal stepping area around the Animal trough.	M ³	3.76		
8.1.12	Apply two coating of emulsion painting and IR logo on the side of the animal trough.	LS	1.00		
	Sub-total 8: Construction of Animal Trough				
9	Water distribution pipeline networks (Water supply system)				
9.1	Earth excavation 6700m long pipe trench, 0.4width x 0.9m depth pipe trench including backfilling.	M	6700.0		
9.2	Main pipe line: Supply and install high-pressure uPVC pipe 3"(inch) diameter, PN10/PN16, (100 m long per roll) from the borehole to the water tank with all the required fittings including (Tap + valve,cap + union+reducer+ Elbow +stop cack & Plastic Glue) and any other required accessories.Allow for leakage test.	M	5450.0		
9.3	Distribution pipe line: Supply and install high-pressure uPVC pipe 2" and 1.5"(inch) diameter, PN10, (100 m long per roll) from the water tank to the water kiosk and animal troughs with all the required fittings including (Tap + valve,cap + union+reducer+ Elbow +stop cack & Plastic Glue) and any other required accessories.Allow for leakage test.	M	1250.0		
9.4	Allow for 2" brass gate valves, and 3-inch Brass gate valves	No.	6.0		
9.5	2" Double Air Valve 2"	No.	3.0		

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9.6	Installation of one water standpipe near the elevated water tank: Construct the RCC base of one water standpipe (1m*0.4m*0.4m). The concrete must be 60cm deep in the ground, and 40cm above the ground. RCC specifications; 1:2:4 of mixing ration, 4Y12, and R6 @150mm c.	M ³	0.2		
9.7	Supply and install GI class-B pipes (2-inch Diameter) 5.8 m for the Water standpipe. All accessories fittings such as sockets, elbows, reducers, valves, etc should be installed.The pipeline between the water tank and the water standpipe should be included in the cost, with a minimum length of 20 meters.	Ls	1.0		
9.8	Connection Water supply system to pre-exisiting ground water tank: Site clearance, setting out and route alignment for installation of 2-inch HDPE pipeline from elevated water tank to the existing water distribution connection point.	LS	1.0		
9.9	Excavation of pipeline trench to required depth and width in all soil conditions, including removal of unsuitable materials along the pipeline route, and Back filling.	M	456.0		
9.10	Supply and installation of 2-inch HDPE Pipe PN10/PN16 complete with all necessary fittings, joints, couplings and accessories, including jointing works. Please provide a 2-inch GI pipe for the inlet pipe connection to the tank, installed at the same height as the water tank.	M	456.0		
9.11	Construction of valve chambers/manholes complete with covers where required along the pipeline route	LS	1.0		
	Sub-total 9: Water distribution pipeline networks (Water supply system).				
10	Fencing for the Borehole, Plastic elevated Water tank, Generator room & guard room, Solar system area, and RCC Water tank				
10.1	Fencing for the Borehole, Plastic elevated Water tank, Generator room & guard room, and Solar system area (24 x24).				
10.1.1	Fence the area around the borehole,plastic elevated water tank,generator & caretaker room, latrine and solar system 24 m length x 24m wide x 2m height, using metal mesh wire, with barbed wire for fastening as well as provide 50mm painted steel angle support with spacing of 2.4m supply and provide concrete footing with 20cmx20cmx50cm,Provide, place and compact mass concrete to the base of the metal mesh wire with 15cm below the ground and 20cm above the existing ground level. in addition also provide fence two leaf fence door (3.5m wide and 2m high).	M	96		
10.2	Fencing for RCC elevated water tank (10m x 10m)				
10.2.1	Fence the area around the elevated water tank, 10 m length x 10m wide x 2m height, using metal mesh wire, with barbed wire for fastening as well as provide 50mm painted steel angle support with spacing of 2.4m supply and provide concrete footing with 20cmx20cmx50cm,Provide, place and compact mass concrete to the base of the metal mesh wire with 15cm below the ground and 20cm above the existing ground level. in addition also provide fence two leaf fence door (2m wide and 2m high).	M	40		

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SL	Description	Unit	Qty	Unit Price (USD)	Total price (USD)
10.3	Visibility and branding				
10.3.1	Visibility and branding including SOS and donor logos, together with project information, shall be displayed on two sides of the elevated water tank as directed by the SOS Engineer. Provision and installation of two billboards as guided by the SOS Engineer. Branding of the water kiosk on both walls and roof sides, as well as the animal through walls, with the SOS logo.	LS	1		
Sub-total 10: Fencing for the Borehole, Plastic elevated Water tank, Generator room & guard room, Solar system area, RCC water tank and visibility & branding					
Summary : Construction of Borehole water supply infrastructure					
					Amount in USD
1	Sub-Total 1 : Installation of Borehole tube equipment (submersible pump,riser pipes, Cables, and other accessories).				
2	Sub-total 2: Installation of solar-powered system				
3	Sub-total 3: Installation of new Generator				
4	Sub Total total 4 (Grand Total) : Construction of New RCC Elevated water tank (50m3)				
5	Sub-total 5: Construction of Fiber Plastic Water Storage Tank with Metal Support Structure				
6	Sub-total 6: Construction of three Water kiosks with Fence				
7	Sub-total 7: Construction of Generator and Guard Room				
8	Sub-total 8: Construction of Animal Trough				
9	Sub-total 9: Water distribution pipeline networks (Water supply system).				
10	Sub-total 10: Fencing for the Borehole, Plastic elevated Water tank, Generator room & guard room, Solar system area, RCC water tank and visibility & branding				
Grand Total					