

# **INVITATION TO TENDER (ITB)**

09th April 2025

REF: ForAfrika/Juba/04/2025/005 (IR-0161)

Dear Sir/Madam,

## INVITATION TO TENDER

ForAfrika formerly Joint Aid Management South Sudan ("JAMSS") would like to procure the services/works described herein.

For Afrika hereby invites competent and legally registered companies to submit their bids for the provision of the below services/works.

S/No.	Description/Items	Unit	Quantity	Rate	Amount
01	Upgrade of 01 existing borehole at Alang , Aweil West	Borehole	01		
02	Upgrade of 01 existing borehole at Mathiang Dut Akot IDP area, Aweil West	Borehole	01		
03	Upgrade of 01 existing borehole at Mathiang Akoong IDP area, Aweil West	Borehole	01		
	Total				

### Terms & Conditions.

Provide the following documents,

- 1. Valid registration Company's Documents
- 2. Recent three (3) months Bank Statement
- 3. Office availability
- 4. Company's Memorandum of Association
- 5. Valid Tax Clearance Certificate
- 6. Valid Operations License
- 7. Recent or previous job references
- 8. Updated Company's Profile
- 9. Currency USD
- 10. Clearly indicate the validity of your quotation
- 11. Clearly mention the lead time for the delivery of your items.

The closing time and date for submission of bids is at <u>4:30 PM</u>, 17<sup>th</sup> April 2025 ForAfrika will not accept bid documents delivered after that time.

ForAfrika reserves the right to cancel the tender process at any time prior to awarding a contract for the Service.

For Afrika will not be responsible for any costs or expenses incurred by you in connection with preparing and delivering your tender regardless of the outcome of the tender process.

At any time prior to the Submission Deadline, you may make inquiries with, or seek further information or clarifications through the following email: jamss.logs@jamint.com

NB: Complete tender documents MUST be submitted in HARD COPIES

You can submit and Address your bids to,

Procurement Department ForAfrika 6<sup>th</sup> Flour Equatoria/UAP Tower Hai Neem, Juba South Sudan

Email: jamss.logs@jamint.com CC: j.samuel@forAfrika.org

Yours faithfully

Procurement Department- For Afrika

### BOQ CODE: FORAFRIKA/BH/NBeG/2025 For Afrika Drawing Number:- ForAfrika/South Sudan/NBeG/2025/ Date Specification:- Drilling of 6m high solar powered boreholes in PHCC without water supply with Location Aweil East and West 10,000 liters storage tanks supplying 10 tap head to serve 2500 people. NBeG Items Description Quantity Rate (USD) Total Cost (USD) Allow for mobilization and demobilization at borehole site of all construction equipment and maintain drill rigs for the complete construction of boreholes with all accessories, associated arrangement, auxiliary works, personnel as well as withdrawal after completion and successful drilling. Site establishments including amenities as necessary. Access roads, site security and all risk insurance Preliminaries Carried To Summary Drilling of borehole Conduct confirmatory geophysical survey (field work, interpretation and report) for the location of borehole at a suitable site use geoelectrical sounding (VES, vertical electrical sounding), profiling (CST, constant separation traversing) are the standard (\*), and electrical resistivity tomography (ERT) - atleast 4 points Drilling of 6.3 inches (160.02 mm)dia open hole through basement / Sedimentary formation, to accommodate 5 inches (127 mm) dia permanent casing, including all drilling fluids and lubricants, disposal of excavated material, taking any remedial measures to overcome caving in or over drilling to accommodate sloughed materials and keeping drilling record as specified between ground level and 30m below ground level. 120 2.3 Allow for taking sample of drill cuttings at two (2m) intervals through out the drilling m 120 Bore Hole installation Supply and install 5" 16bar MUTUNCHI PVC threaded joint uPVC slotted screen casing 5" in diameter (internal 2.4 diameter) with minimum thickness of 3mm and 3m length. Supply and install 5" 16bar PVC threaded joint uPVC solid plain casing 5" in diameter (internal diameter) with minimum thickness of 3mm 60 Supply and installation of filter gravel pack. (average dept 140m and standard thickness 50mm). Filter gravel siliceous, rounded with diameter of 2.0 - 4.0 mm depending on screen slot size. Backfilling wall, annulus and casings, back filling and, sealing abortive borehole if 2.7 applicable Flushing and development of borehole by airlifting, jetting, and pumping to attain optimum yield and clean water for minimum of 8 hours including measurements, records and proper disposal of water and in the presence of ForAfrika 2.8 Engineer Supply and place cement grout in borehole anulus aronud the casing and construction of concrete slab around the well cap (minimum of 10m depth required) 10 Construct well head casing as specified Pumping Tests and Water Quality Analysis Execution of Step Drawdown Test to determine the hydraulic perfermance of the well (Min 8 hrs) with 4 steps (2hr execution of step to awadown less to determine the hydraulic perfermance of the well (win a hrs) with 4 steps (zhr each) of increasing yields and ending with 8 - 10 cu. m/h followed by a Constant Rate Test (min. 12 hours) and full recovery measured, to determine the long term sustainability yield of te borehole including measurement of GW leve and yield, recording of EC, pH and temperature of the groundwater every hour during pumpping. A pump with minimum capacity of £5 cu. m/h and hydraulic head of 55m must be available with all equipments (generators, cables, discharge hose of 100m to ensure safe disposal of water from borehole and other anciliary materials). Submission of data in digital form and printouts (data sheet and graphs) Hours 12 Recovery Test (min. 6 hours), including measurement and records of water level, submission of data in digital form 2.11 and printouts (data sheet and graphs) A minimum of 2 litres each for chemical and bacteriological analysis shall be collected by the contractor in the presence of the Engineer or his representative. (3) Water samples should be collected in clean, sterilized properly sealed and protected plastic containers from the borehole for reference to a Water Testing Authority recognized and authorized by MWRAI for laboratory analysis, after compelition of test pumping. One sample will be used for each of these tests: physical, chemical and bacteriological analyses. The samples so collected should reach the authorized Water Testing Laboratories (Ministry of Water Resources and Irrigation), within 6 hours from the time of collection from the borehole unless otherwise. Specific parameters to be measured shall include. • Physical Parameters – Colour, Odour, Taste, Turbidity, pH Value, Electrical Conductivity, Temperature • Chemical Parameters – Nitrate, Nitrite, Total Hardness, Fluoride, Chloride, Sulphate, Copper, Manganese, TDS, Total Iron, Arsenic Total Iron Arsenic Biological Parameters - Faecal Coli form Counts Borehole Reports Borehole drilling detail report 4 Copies- including coordinates of the location, lithological description, pumping test result, pump size recommendation, etc.; with progress photographs in soft and hard copies. Borehole Completion Data and Water Chemical Analysis Report Carry out disinfection of well with chlorine solution. Add 10L of 1% chlorine solution per m3 of well water. Leave for 2.15 Construct and install tight fitted steel well cover with suitable fittings No Borehole drilling works carried to summary

	This E. No. 3. Construction and Securitation of a 10,000 blees on a see high tower bleet task	10 10 10			
	Footing/foundation/Metal works  Site Clearing, excavation and preparation of foundation (Rates for excavation and backfilling in trench shall include for trimming trench bottom and for providinf selected bedding and surround materials from the excavations with the				
3.1	specifications	m	20		
3.2	Excavate in ordinary soil for foundation footing Return fill around foundation	cu.m	9	-10-11-	
3.3	Plain insitu concrete (1:10-40mm aggregate), blinding, vibrated not exceeding 200mm thick. (footings)	cu.m	9		
3.4	Vibrated Reinforced insitu concrete (1.2.4-16mm aggregate) filled into formwork and well packed around	cu.m	1.2		
	reinforcement. Ground beams, columns, beams and slabs				
	Plain sawn formwork to horizontal sides of beams, stabs and	-			T
-	columns				
3.5	Casting of 1000mm x 1000mm x 1200mm RC plinth using RC (Mix 1:2:4) including Y25 threaded with nuts and washers to take bolts with double basket using Y12 in the presence of an ForAfrika Engineer.	Nos	4		
3.6	Supply and installation of 10mm thick steel base plate 500mm x 500mm with hole to receive vertical pillars	Nos	4		
	Casting of 300mm x 500mm x 2800mm tie RC ground Beam using RC (Mix 1:2:4) including reinforcements and				
3.7	shuttering using Y12 with Y10 stirrups in the presence of an ForAfrika Engineer	Nos	4		
3.8	Supply and installation of 8" x 4" x 6m High H-beam(vertical column) 12mm thickness mild steel welded to 50cm x 50cm x 20mm base plate with hole to collect bolts, painted with red oxide and finally with double quote aluminium paint				
3.9		Nos	4		
	Supply and installation 8" x 4" x 5.5m high H-beam (Primary beam), mild steel	Nos	2		
.10	Supply and installation of 5" x 3" x 5.2m H beam (Secondary Beams),mild steel	Nos	12		
3.11	Supply and installation of 4" x 2" x 2.8m U-channel (horizontal support brazing externally and internally), mild steel	Nos	14		
3,12	Supply and installation of 76 x 76x 5mm thick (3" x 3") angle x 6mm thick (Full length) Iron for Cross internal support to vertical beams (at intervals of 3m each) with hole to collect bolts and nuts and braces with angle iron by welding and screwed to the stanchion (Internally and externally)	Nos	20		
.13	Supply and installation of thick grating sheets (with opening to drain any waste water) to cover 5.5 x 5.2m to catwalk area welded to top rafter to receive overhead tank including 2x2 angle iron brazing in-between sheet length	sheet	4		
.14	Supply and installation of 76 x 76 x 5mm ( 3"x3"x5mm) thick angle fron Handrail to catwalk area. And other internal bracing	length	10		
3,15	Supply and installation of 6 meters ladder using 50x50x 5mm thick (2"x2") angle iron with thread at 300mm intervals covered with circular steel back rest protection to start at 3m high. Provide adquate fitted landing with hand rails at 6m (mid section)	Ls	1		i i
3.16	Supply and application of Anti rust red oxide coating to completed water tower.				-
3,17		Coat	1		
	Supply and application silver glossy oil paint coating to completed water tower.	Coat	1		
-	10,000 liters tank supply and installation				
.18	Supply and install water storage tank of 10m <sup>3</sup> (2500 uPVC tank liters each) capacity including accessories and connection fittings, incoluding washing and disinfection (Item 2.8) of tanks and plumbing fittings and fixtures	No	4		
	Construction and Installation of a 10,000 liters on a 6m high tower Steel tank Carried to Summary				
4	URLI NO 4: PUMP INSTALLATIONS				
	Supply and installation solar pump minimum 1.5HP (1.1KW), Maximum power rating 300v, pump minimum 150m up				
184	to 2000m, minimum output 2m3/hr. copper	2698	20		
.1	Supply and installation solar pump minimum 1.5HP (1.1KW), Maximum power rating 300v, pump minimum 150m up to 2000m, minimum output 2m3/hr, copper cable, wellhead, safety rope and other accessoriesof (Grundfos SQ Flex pump - SQ Flex 2.5-2)	No	1		
	to 2000m, minimum output 2m3/hr. copper	No No	1		
	to 2000m, minimum output 2m3/hr, copper cable, wellhead, safety rope and other accessories (Grundfos SQ Flex pump - SQ Flex 2.5-2)  Supply and installation of Grundfos CU 200 control box complete including cables, connections and accessories to pump and to float switch. (Converting DC to AC) - install earthen from switch to earthen rod		1		
1.2	to 2000m, minimum output 2m3/hr, copper cable, wellhead, safety rope and other accessories (Grundfos SQ Flex pump - SQ Flex 2.5-2)  Supply and installation of Grundfos CU 200 control box complete including cables, connections and accessories to pump and to float switch. (Converting DC to AC) - install earthen from switch to earthen rod  Supply and install circuit breaker 3 phase socket for dual use, connect generator cable with socket, change over on 1mm metal plate board with plank to receive generator connection - 3ft x 2ft		1		
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14.2 14.3 14.4 14.5	to 2000m, minimum output 2m3/hr, copper cable, wellhead, safety rope and other accessories of (Grundfos SQ Flex pump - SQ Flex 2.5-2)  Supply and installation of Grundfos CU 200 control box complete including cables, connections and accessories to pump and to float switch. (Gonverting DC to AC) - install earthen from switch to earthen rod  Supply and install circuit breaker 3 phase socket for dual use, connect generator cable with socket, change over on 1mm metal plate board with plank to receive generator connection - 3ft x 2ft  Supply and installation of metallic control switch protector to protect switch against sun, rain and weather (50x30x20cm box) with padlock  Supply and installation of automatic Water level switch to water tank with cables and connections  Supply and installation of 1 x 1/4" HDPE riser mains from pump to well head including connecting accessory (roll of 100m)  Supply and installation of 1 x 1/4" HDPE water supply pipes from well head to over head tanks installing non-return valves.	No Nr Nr Roll	1 1 1 1 1		
4.1 4.2 4.3 4.4 4.5 4.6	to 2000m, minimum output 2m3/hr, copper cable, wellhead, safety rope and other accessories of (Grundfos SQ Flex pump - SQ Flex 2.5-2)  Supply and installation of Grundfos CU 200 control box complete including cables, connections and accessories to pump and to float switch. (Converting DC to AC) - install earthen from switch to earthen rod  Supply and install circuit breaker 3 phase socket for dual use, connect generator cable with socket, change over on 1mm metal plate board with plank to receive generator connection - 3ft x 2ft  Supply and installation of metallic control switch protector to protect switch against sun, rain and weather (30x30x20cm box) with padlock  Supply and installation of automatic Water level switch to water tank with cables and connections  Supply and installation of 1 x 1/4" HDPE riser mains from pump to well head including connecting accessory (roll of 100m)  Supply and installation of 1 x 1/4" uPVC water supply pipes from well head to over head tanks installing non-return	No Nr Nr Roll	1 1 1 1 1		
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66	DIL NO. S. SOLAR POWER				
5.1	Supply and installation of sunshine solar panels 500 watts, 38-42V including connections and cables to control unit and should be installed to power the borehole. Sun intensity, wind speeds and orientation should be main considerations to optimize use.	Nr	6		
5.2	Supply and installation of 4x3" H-column metal frame double basket rack (top and bottom of panels) to hold solar panels above or below that water tanks (bottom of metal frame to top of tank should be atteast 0.7m). Fix rack with 4x3" H columns with brazings to secondary beams - see design)	Nr	1		
5.3	Supply and installation of thunder arrestor over the solar panel using pure copper tape, earth rod and cupper basket	Nr	1		
	Solar Power Carried to Summary				
	Supply and install the following pipes and accessories, depth no less than 0.4m, for transmitting water from borehole to storage tank and distribution to fetching points, group hand washing station.				
6.1	Supply and installation of 1" uPVC mains for distribution taps to connect handwashing station	Ls	1		***************************************
5.2	Construct a 5mx5mx1m tap stand and install 5 heavy duty pressure release 3/4" taps on concrete(1:2:4) platform in a space provided in the community including soak pit covered with concrete slab.	No	4		
	Pipe Water distribution network Carried to Summary				
	DILL NO. 7 PENCING AND VIRIBLARY			El ande	ARTER T
7.1	Allow for provision of branding and visibility of the water facility, including preparing surface with 2 coats of paints, engraving of words and logos as shown on the branding template (1 mounted on ground, 4 mounted on the handria at the four four sides)	No	2		
7.2	Procure and Install. BRC mesh wire coated fence with gate which is 6x6m perimeter on 3" galvanized steel post silver color painted, using two course 6" block and buried 150mm depth to hold the concrete. Including pedestrain gate (1m wide) around the tower stand the area to be cover with concrete including drainage and razor spiral wire installed at the top. GI pipes will carry two sides welded 2" angle iron to allow fitting of mesh - refer the attached design	Ls	1		
TE	Fencing and visibility Carried to Summary				
	THE NO. C. PINISHES	100		ASPEZA	
8.1	Borehole detail report 4 copies - including coordinates of the location, pumping test result, pump size recommendation, distribution pipe network profile surveys, etc.; with progress photographs in soft and hard copies. Borehole Completion Data and Water Chemical Analysis Report - print 4 hard copies and soft copy	Ls	1		
	Bill No 8 Carried to Summary				
-	SUMMARY LIST		r		
No.	Summary List	56190	The Control of	AND DOOR	and the same of th
ill 1	Preliminaries	all markets	Amount (U.	AUDI AND DESCRIPTION	
ill 2	Borehole drilling works		-		
1113	Construction and Installation of a 10,000 liters on a 6m high tower Steel tank				
11 4	Pump Installations				
11 5	Solar Power				
III 6	Pipe Water distribution network			- 10-10-1	
11 7	Fencing and visibility				
8 11	Finishes			100 miles	
	GRAND FOTAL				

PROJECT:

# CONSTRUCTION OF 10,000 LITERS OHT AND FETCHING POINTS

LOCATION:

SOUTH SUDAN

CLIENT:

O ForAfrika

WORKING DRAWINGS

MARCH, 2025

















