arche noVa Somalia mission

BID TENDER QUOTE INVITATION

Bid No. 2026/028

PRF: AN/PRF/SOM/2026/189

BACKGROUND:
arche noVa – Initiative for People in Need founded in Dresden, Germany, in 1992, is an independent non-profit organization, currently working in 14 countries worldwide: Middle East (Syria, Lebanon, Iraq); Africa (Mali, Kenya, Somalia, Uganda, Ethiopia, Sudan); Asia (Nepal, Philippine, Myanmar) and Europe. Our primary expertise is in the WASH sector (Water, Sanitation and Hygiene promotion) with a wide range of interventions to support local communities and civil society organizations. arche noVa follows a multi-sectoral approach and most projects include other components such as livelihood, food security, health promotion, education, and disaster preparedness.

Project location:	Kismayu District-Jubba land state Somalia

Activity Description:
arche nova invites you to submit and fill the quotation attached for **Consultancy service of hydrogeological, geophysical investigation and environment and social impact assessment for borehole sitting in the villages of (1. Abaq Bambo 2. Bula Garasey and 3. Bula Hadafow) in Kismayo district (see attached ToR), Construction of 1 borehole upgraded with solar systems, Fencing, Caretaker room, and construction of 20M3 elevated water tank in Kismayo district, Construction of 2 animal troughs and the Construction of 2 water kiosk with Pipeline extension**

Requirements for Bid Submission:

1. The bid should include comprehensive subject matter and should be drawn-up in accordance with the following terms and conditions:

    a. The bid should be prepared on the attached RFP request quotation form.
    b. The bid should be prepared in English.
    c. The bid and annexed documents should be signed and stamped.

2. Companies with Valid registration and Tax Compliance certificates from the Federal Government and Jubba land state will be regarded as eligible for Evaluation.

3. Bids that are complete (RFP Quotation submission form, and BOQ attached) filled, stamped, and signed will only be accepted. Only submissions completed using the correct RFP template provided will be accepted.

4. The offer should be submitted in person to AN Office, in the same building with PAH, ***Airport Road, behind Turkish Maarif International Schools, Waaberi district, Mogadishu, Somalia*****, not later than 02nd March 2026 at 12:00 noon**.

Attached is the detailed Request for Proposal Quotation Submission Form which provides comprehensive information about the activity, offer bid requirements, and evaluation criteria (Please complete the vendor information section of the attached RFP quotation form thoroughly and attach all annexes requested to be attached).

Please fill all spaces Provided in the Quotation form attached.

Note: arche noVa does not charge any fees for this process.

REQUEST FOR OFFER / PROPOSAL	
Depending on need - PR Number should be eigther mentioned here, or linked to the specific Items	
RFO No:	Bid No. 2026/028
Page No:	
P.R.F NO:	AN/PRF/SOM/2026/189

C.A: arche noVa e.V. (country or project)
Contact pers: Mohamed Ahmed Hassan
Address: Mogadishu Somalia
Phone:
e-mail: mohamed.ahmed.hassan@arche-noVa.org

VENDOR Name:
Contact pers:
Address:
Phone:
e-mail:

Minimal requirement	filling and stamping the quotation,submission by deadline (Mandatory).
Qualitative criteria	Price, Previous similar Contracts of hydrogeological/geophysical investigation and borehole construction activity, Delivery days/period of the survey and construction activity, Warranty and Active bank statement for the last 6 months.

1. The seller agrees to quote for the goods in according with the specifications and quatity described below (by tarche noVa)
2. All taxes as well as the reconstitution of the capital are borne by the supplier. It is the same for any other tax that would apply under this order.

BUYER:

CLOSING DATE:	REQUESTED FOR (DATE):	PLACE OF DELIVERY:	DELIVERY TERMS (INCOTERMS):
02.03.2026	10.02.2026	Kismayu district	

VENDOR:

PAYMENT TERMS:	PAYMENT METHODS:	EXPERIENCE:	DELIVERY DAYS/PERIOD:	WARRANTY:	ACTIVE BANK STATEMENT (6months):	QUOTATION DELIVERY DATE:
Advance ☐ Partial ☐ After delivery ☐	Dahabshiil					

No	QTY	UNITS	DESCRIPTION	PROJECT REF.	PO No.	UNIT PRICE	AMOUNT
1	1	Consultancy	Consultancy service for hygrogeological, geophysical investigation and environment and social impact assessment for borehole sitting in Kismayo district (see attached ToR).				-
2	1	Borehole	Construction of 1 borehole upgraded with solar systems, Fencing, Caretaker room, and coinstruction of 20M3 elevated water tank in Kismayo district				-
3	2	Animal Trough	Construction of 2 animal troughs				-
4	2	Water Kiosk	Costruction of 2 water kiosk with Pipeline extension				-
							-
							-
							-
							-
							-
General observations:				Currency	Euro	Sub Total	-
						VAT :	-
						Total :	-

Vendor additional specifications is required or annexed ☐

1 Valid Registration License and TCC certificates from the Federal Government and Jubbaland state
2 Active bank statement for the last 6 months,
3 Previous similar Contracts of hydrogeological/geophysical investigation and borehole construction activity
4 Company profie and other supporting documents (Work plan, passport of the manager)

H.A.Y.

Supplier Reception / Stamp **arche noVa - Authorized Person**

No	Item description	Unit	QTY	Unit Rate	Total (USD)
BILL OF QUANTITIES (BOQ) CONSTRUCTION OF ANIMAL TROUGHS					
1.0	**Animal Troughs**				
1.1	**-Site clearance**: leveling and clear unnecessary materials	LMS	1		
1.2	**Excavation** of foundation Trough depth 600mm@400mm width plus the excavation of pipe trenches	CUM	5.28		
1.3	**Foundation Blinding:** Lay 50mm thick lean **c**oncrete **1:4:8 /3bags of cem/0.4cum of river sand /0.8cum of Graded stone 40mm nominal size AS PER SPECS**above the excavated footing and foundation trenchs, cure the	CUM	0.5		
1.4	**Hardcore:** supply and fill 300mm (imported or Excavated selected material over the ground floor compact AS PER Specification before recieving blinding	CUM	3		
1.5	**Backfilling with Good Hardcore and Crashed Stone:** supply and fill (imported or Excavated selected material over the ground floor compact AS PER Specification	CUM	1		
1.6	**Trough slab:** provide and cast 150MM RCC Wall MIX 1:2:4/6bags of cem/1cum of concrete___Reinforeced with Y10 linked with Y8mm stirupps @200mm c/c	CUM	1		
1.7	**HOLLOW BLOCKS WALLS:** provide and cast 200mm Hollow Blocks Wall with 1:2:4/6bags of cem/1cum of concrete___Reinforeced with Y12 linked with Y8mm stirupps @200mm c/c	SQM	13.2		
1.8	**RCC BEAM**:provide and cast 200mm X 200mm RCC with 1:2:4/6bags of cem/1cum of concrete___Reinforeced with Y12 linked with Y8mm stirupps @200mm c/c	CUM	0.88		
1.9	**Wall Plaster**: apply No 2 coats of 20mm thick plastering Mix 1:4 to intenal external walls including seiving sand and even finish as per line in levels , curing as per Field Engineer (2*16*0.8)	SQM	22		
1.10	**white washing & Emulsion paint:** apply No2 coats of emulsion paint to all int.and external of the trough (2*22*0.5)	SQM	22		
1.11	**FOOT STEP** laying o f 2m slope slab Footstep around the goat trough for the animal to stand on it	CUM	1.6		
1.12	*Supply, laying, test and commission of* ***PIPEWORK AND FITTINGS*** *including All Joint Pipe Fittings all as required in the pipework installation. (elbows, nipples, sockets, gate valves, reducers, Tee PVC pipes, etc.)*	LMS	1		
TOTAL OF ONE (CATTLE & GOATS/SHEEP) TROUGHS					**$ -**
TOTAL OF TWO (CATTLE & GOATS/SHEEP) TROUGHS				**2**	**$ -**

NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (USD)	AMOUNT (USD)
	BOREHOLE SOLAR WATER PUMPING SYSTEM WITH SUBMERSIBLE PUMP				
1	Solar Pump Inverter 18.5kw input 250-800VDC,380-440VAC,output0-380/440vdc,,25A)	Item	1		
2	Photo Voltaic Module, 345w monocrystalline, junction box, cable	Nr	66		
3	Float Switch Float Switch for tank, 2m cable, change-over switch function	Unit	1		
4	Surge Protector	Unit	1		
5	PV Disconnect disconnect switch 1000VDC/40A, max. 5 strings, plastic box, IP54	Unit	1		
6	PV Protect 1000V	Unit	1		
7	PV Combiner 1000V	Unit	1		
8	Water meter 3"	Unit	1		
9	Mounting Structure (Supply and construction of Mild Steel Structure/Tower, Module Support Structure and Concrete Foundation for Solar Panels of required high (according to the site requirements and supervisor Engineer instructions) for mounting the solar panels required to power the submersible pumps. The structure will be made of square hollow galvanized steel with vandal proofing. The structure steel for the support of the PV module will be made of galvanized medium gauge square hollow sections and angle iron anchored to the RC base in 800 mm deep hole 500 mm diameter.).	Unit	1		
10	Accessories and Installation, Testing and Commissioning of solar system including existing pump retrievals from the boreholes.	Lot	1		
11	Submersible Pump 15kw, 6" stainless steel electric pump with 6" motor connection, flow rate of 21m3/h; height 200m (American or European Made).	Nr	1		
12	Construct perimeter fencing for the water source, 40m x 40m, using reinforced concrete posts, G16 Galvanized Razor Wire, and a 2.5m high chain link.	Ls	1		
	TOTAL BOREHOLE SOLAR WATER PUMPING SYSTEM WITH SUBMERSIBLE PUMP & FENCING				**$ -**

BOQ of Caretaker Room					
NO	**ITEM DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE (USD)**	**AMOUNT (USD)**
1	-Site clearance: leveling and clear unnecessary materials	L S	1.00		
2	Excavation of foundation to a depth of 500mm (56.4mx0.5mx0.5m)	m^3	14.1		
3	Cast 50mm thick lean concrete for blinding layer with 1:4:8 cement/sand/aggregate	m^3	1.36		
4	- Construct 400mm Masonry foundation with mix ratio of 1:4cement/sand. Make sure the foundations wall is at least 20cm above the ground level	m^3	14.14		
5	- Construct 150mm reinforced concrete tie beam on the foundation mix ratio of 1:2:4 cement/sand/aggregate	m^3	3.26		
6	- Back filling with well compacted soil	m^3	1.80		
7	'- Provide and lay 200mm hardcore with gravel/sand blinding to hard core fill.	m^3	11.81		
8	- 150mm of floor concrete with mix 1:2:4 cement/sand/gravel ratio. With finishing and smoothing the floor.	m^3	8.86		
9	- Construct Hollow concrete block wall jointed with 1:4 cement /sand mortar	m^2	81.84		
10	- Construct S-block wall jointed with 1:4 cement /sand mortar for ventilation the generator room	m^2	19.80		
11	- Construct 150mm reinforced concrete lintel beam on the foundation mix ratio of 1:2:4 cement/sand/aggregate	m^3	0.96		
12	- Fixing GI pipes for verandeh with spacing @ 190mm c/c	Nos	5		
13	- Fix and provide corrugated #28 G.I .sheet on the roof	m^2	71.808		
14	- Plaster with 12mm thick mortar on the wall mix ratio of 1:4	m^2	203.28		
15	- Fix and provide facia board	m^2	2		
16	- Supply and apply two coats of white wash and painting on both internal and external walls of the rooms	m^2	71.808		
17	Supply and fix two steel windows (1.5mx1.2m) on the caretaker room	Pcs	2		
18	- Supply and fix Iron grilled double leaf gate complete with all fittings, shutters, hinges, locks, keys, screws and painting(3mx2m)	Pcs	1.00		
19	- Supply and fix single steel door complete with all fittings, hinges, locks, keys, screws and painting(0.9mx2m)	Pcs	1		
20	Construct Reinforced concrete ramp (3mx2m) with 20% slope	Pcs	1		
	Total cost for the caretaker room				**$ -**

20M^3 ELEVATED WATER TANK					
NO	**ITEM DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE (USD)**	**AMOUNT (USD)**
1.0	**Excavation**				
	Excavation including maintaining and supporting sides and keeping free from water, mud and fallen materials by bailing, pumping or otherwise				
1.1	Prepare site by stripping top 150 mm of soil to remove all debris including sand (if any) from site and carting away spoil.	m^2	25		
1.2	Excavate trench commencing at reduced levels depth not exceeding 1.50m deep.	m^3	18		
1.3	Pit excavation commencing at reduced levels depth not exceeding 1.50m deep	m^3	7		
1.4	Remove surplus excavated material from site	m^3	18		
1.5	Backfill around foundation	m^3	6		
1.6	300 mm thick approved hardcore filling spread, well rammed and compacted in 150mm layers	m^3	7		
	Mass Concrete class 15 (1:3:6) with 20mm thick maximum aggregate size in				
1.7	50mm Thick blinding.	m^3	1.5		
	Vibrated Reinforced Concrete class 25 (1:1.5:3) with 20mm thick maximum aggregate size in				
1.80	Column Base / Footings (1500mm x 1500mm x 400mm) with Y16 reinforced bars spaced 20cm.	m^3	4.5		
1.90	Ground Beam (400mm x 400mm) with Y16 reinforced bars spaced 20cm.	m^3	2.5		
	Vibrated Reinforced Concrete class 25 (1:1.5:3) with 20mm thick maximum aggregate size in				
1.10	Two tie beams (400mm x 300mm) with Y16 reinforced bars spaced 20cm.	m^3	5		
1.11	Columns (7.5m high from column base to the bottom of concrete slab (400mm x 400mm) with Y16 reinforced bars spaced 20cm.	m^3	4.8		
	Vibrated Reinforced Concrete class 30 (1:1:2) with 20mm thick maximum aggregate size in				
1.12	150mm thick Walls.	m^3	5.25		
1.13	200mm thick Base slab.	m^3	2.4		
1.14	150mm thick Cover slab.	m^3	1.8		
2.0	**Finishes**				
	Cement and sand mortar (1:3) rendering in:				
2.1	25 mm Thick screed to base slab with waterproof cement	m^2	12		
2.2	15mm internal plaster to cover slab with waterproof cement	m^2	12		
2.3	15mm plaster to internal sides of wall with waterproof cement	m^2	35		
2.4	12mm plaster to external sides of wall	m^2	35		
2.5	12mm plaster to cover slab	m^2	12		
2.6	12mm plaster to soffits of base slab	m^2	12		
2.7	12mm plaster to beams	m^2	45		
2.8	12mm plaster to columns	m^2	48		
2.9	***Painting all plastered areas with two coats of preimier coat and two coats of offwite color.***	m^2	211		
	Galvanized Mild Steel pipes class "B" medium thickness with and including jointing, fittings and fixe as described				

2.90	50mm diameter inlet high pressure pipe and fittings.	m	25		
2.91	50mm UPVC overflow pipe Ditto.	m	5		
2.92	75mm diameter scour UPVC Pipe.	m	5		
2.93	50mm diameter brass gate valve with wheel and head.	No	2		
2.94	50mm diameter stop corks	No	1		
2.95	600x600x6mm heavy gauge steel primed metal manhole cover on slab with and including metal framing all around.	No	1		
2.96	50mm Diameter bars, 'U' shaped to form steps with ends embedded into retaining wall, average width of 600mm.	No	20		
2.97	Visibility	LMS	1		
TOTAL COST OF 20M^3 ELEVATED WATER TANK					**$ -**
BOQs for Water Piping System from the Borehole to the Elevated water tank					
NO	**ITEM DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE (USD)**	**AMOUNT (USD)**
2.97	**Earth work : Excavation and Backfilling**				
2.98	Excavation and backfilling with selected clay material around the pipe and above the 2" GI pipe from Borehole to the elevated water tank of length around 200m. Width of trench 0.6m at the depth and 0.6m	m³	72		
2.99	**Sand Bedding :** Supply transport and spread 10cm thick approved fine sand in the bottom, top and around the uPVC and GI pipe	m³	31.00		
3	Pipe & fittings supply, laying and jointing (supply, transport to site, store including jointing materials, complete set of galvanized bolts washers, nuts and appropriate gaskets, packing, jointing glue etc., as applicable. Cost includes laying and joining. All diameters are nominal)	Ls	1		
3.01	Supply and install 2" GI classB pipe, between Boreole and the Tank with necessary valves, the pipe is from the borehole well to the water tank . The system should include all fittings (like tees, Sockets , gate valves, plug, unions, reducer, adaptors, elbows etc)	m	200		
	Sub-total of pipeline distribution				**$ -**
	Total cost for Elavted tank & Installation water system				**$ -**

CONSTRUCTION OF TWO OPEN WATER KIOSKS WITH 6 FAUCETS.					
NO	**ITEM DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE (USD)**	**AMOUNT (USD)**
	Excavation and Earthwork				
1	Excavate in soft material for foundation trenches not exceeding 300mm deep starting from stripped level	m^3	2.808		
	Selected filling				
2	300mm Thick hardcore filling compacted in layers not exceeding 150mm deep and well watered.	m^3	2.808		
3	50mm Thick quarry dust blinding to surfaces of hardcore (Measured Separately)	m^2	0.468		
	Concrete work and Construction				
	Plain Concrete Class 15 / (1:3:6)				
4	50 mm Thick slab on top of the laid hardcore.	m^3	6.12		
5	50mm thick concrete apron and drain channel	m^2	1.7		
6	Construction of water kiosk wall using 200mm concrete hollow blocks with Cement mortar 1:6 (1 cement :6 coarse sand).	m^2	5.435		
	Vibrated reinforced concrete class 25/20 with minimum cube crushing strength of 25N/mm² at 28 days				
7	200mm 20/20 (1:2:4) RCC Capping.	m³	0.068		
	Mesh reinforcement ; B.S. 4483 ref A142 weighing 2.22 kgs per square meter including bends, tying wire and spacing blocks				
8	Fabric mesh reinforcement to ground floor slab	m^2	12		
	Finishes				
9	Plaster (to wall, floor, etc) with cement and sand (1:6) mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course.	m²	13.08		
10	Finishing wall with 100%Premium acrylic emulsion paint of approved brand and manufacture on wall surface, content including scraping and preparing the surface thoroughly, removing of dust etc all complete as permanufacturer's specification and direction of the site engineer.	m²	13.08		
	Piping System				
11	*Supply, laying, test and commission the following:- PIPEWORK AND FITTINGS including All Joint Pipe Fittings all as required in the pipework installation. (elbows, nipples, sockets, gate valves, reducers, Tee PVC pipes, etc.)*	LMS	1		
12	Excavate trench in all materials include for joint holes, trimming sides and preparing trench bottom, backfill with part of the materials and compact. Depth of excavation 0.5m and width not less than 0.4mm.	m³	3		
13	Backfilling either with insitu material or imported selected granular material for pipe surrounds and bedding as specified by the engineer.	m³	3		
14	2 inch UPVC Pipe (High Preasure Pipe) Class C	m	20		
15	Ditto but 1 inch	m	12		
16	Taps 1" peglar	Nr	6		
17	Gate valve 1"	Nr	2		
	Soak away pit:				
18	Excavate (1000mm Diameter and 1500mm depth) soak pit, fill with granular material with high absorption capacity as shown in the drawing.	m^3	1.2		
	Vibrated reinforced concrete class 25/20 with minimum cube crushing strength of 25N/mm² at 28 days				
19	1100mm dia 75mm thick (1:2:4) soak pit cover slab.	No	1		
20	Construction of disable access-ramp 2m long 1m wide with slope of 2%.	pcs	1		
21	Constriction of guiding handrail in both side of the	pcs	1		
22	Construction of primeter fencing 4X4 m using chainlink with two doors opening outside with lockers bothsides	LMS	1		
23	Visibility board	Item	1		
TOTAL FOR CONSTRUCTION OF ONE WATER KIOSK					**$ -**
TOTAL FOR CONSTRUCTION OF TWO OPEN WATER KIOSK			**2**	**$ -**	

DRILLING AND COMPLETION OF ONE BOREHOLE IN KISMAYO					
NO	**ITEM DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE (USD)**	**AMOUNT (USD)**
1	**MOBILISATION, SETTING UP AND DISMANTLING, DEMOBILISATION AND RELATED COSTS**				
1.1	Allow for the cost of mobilization of all equipment, consumables for the entire borehole works and drilling team to the site and demobilization from the site	Ls	1		
2	**Drilling**				
2.1	drilling 10m of surface casing by bit diameter of 17 inch	M	10		
2.2	Drilling of borehole of minimum diameter of 12.25" with total depth of 180 m by using Mud drilling or air hammer drilling method or foam air rottery .	M	180		
3	**Logging and Sampling**				
3.1	Sampling and storing of drilling samples at 2 m interval	Ls	190		
4	**Supply and Installation of Material**				
4.1	Supply and installation of surface casing 14" (external Diameter). Minimum thickness 5mm. Upto 10m depth	M	10		
4.2	Supply and Installation of 8" dia uPVC bland Casings(Thickness=10mm)	M	100		
4.3	Supply and Installation of 8" dia uPVC filtered Casings (Thickness10mm)	M	80		
4.4	Supply and installation 3/4 observation pipe	M	180		
5	**Well Completion and Sanitary Protection Work**				
5.1	supply and installation clean well rounded and sorted river gravel (2-5mm diameter) into the annular space and casing	M^3	8		
5.2	Well cleaning and development	hrs	12		
5.3	construct of well head with an excellemt sanatary seal through construction of RCC concrete block around well from 1.5m deep and 1m above the ground	Ls	1		
5.4	Clearing and landscaping site	Ls	1		
6	**Pumping Tests including result analysis**				
6.1	Constant discharge test	hrs	24		
6.2	Monitoring Recovery	hrs	10		
	Total amount of one borehole drilling and completion				**$ -**

Terms of Reference for Consultancy Services

Hydrogeological, geophysical investigation & environmental and Social Impact Assessment of the "PoWEr - Promoting Women Empowerment and strengthening vulnerable groups through an integrated approach to create resilient communities in South Central Somalia" Project

arche noVa

December 2025

TERMS OF REFERENCE

HYDROGEOLOGICAL, GEOPHYSICAL INVESTIGATION AND ENVIRONMENT AND SOCIAL IMPACT ASSESSMENT FOR BOREHOLE SITTING IN KISMAYO DISTRICTS

Reference	AN-WASH-water sub-sector-Ground Water Consultancy
Area of Interest	Hydrogeological, geophysical investigation and environmental and social impact assessment for borehole sitting
Location	Abaq Bambo, Bula Garsey and Hadafow in Kismayo district
Consultant Type	Firm
Duration	21 days
Start date	February 2026

Introduction

arche noVa (AN) is a German NGO (www.arche-nova.org) working in humanitarian aid, development and emergency context in 14 countries all over the world, since 1992. AN expertise is in Water Sanitation and Hygiene (WASH) sector and support of livelihoods with a wide range of activities to support local communities; construction and rehabilitation of sustainable water structures, installation of filtering systems to improve water quality, hygiene promotion, latrine construction/rehabilitation, promotion of alternative livelihoods and climate-smart agriculture, capacity building of target communities and Community Managed Disaster Risk Reduction initiatives among others. Since 2008, arche noVa has consolidated its presence in the East African region through a Coordination Office which supports activities in Kenya, Somalia, Ethiopia, Uganda, Somaliland and Sudan.

Background and Scope

The recurrent drought together with other natural emergencies combined with poor WASH coverage and influx of internally displaced people in target region of Lower Juba highlights the needs for arche noVa to continue providing emergency services to vulnerable communities.

With funding from BMZ, arche noVa is implementing a multi-year integrated WASH, FSL and DRR project that aims to improve resilience of women, girls and other vulnerable groups in 3 target districts in southern and central Somalia. The target beneficiaries are drought and conflict affected most vulnerable members of the community. For water supply, in Lower Juba region Kismayo district, the project aims to provide lifesaving emergency and sustainable WASH service through drilling of **ONE** new strategic borehole with distribution network systems, solar system, fencing, Caretaker room, storage tank, animal troughs and new water kiosks.

Scope

The consultant is to carry out hydrogeological, geophysical investigation for borehole sitting, environment and social impact assessment followed by the drilling of one new strategic borehole, installation of solar power system, construction of an elevated concrete 20 cubic meter water tank, construction of two open water kiosks with pipeline extension for community access, Fencing, construction of caretaker room and construction of two animal troughs to support local livestock needs.

The assessment (*hydrogeological, geophysical investigation and environmental and social impact assessment for borehole sitting*) will help AN make the best decision in establishing the best possible site selection for the borehole drilling. Therefore, failure to use proper borehole sitting techniques including hydrogeological surveys and groundwater prospecting, will increase the probability of a sustainable and dry borehole. Considering this challenge, arche noVa is looking to contract the best highly qualified consultant firm to perform a hydrogeological study and groundwater prospecting, utilizing geophysical surveys in the selected locations for the new boreholes and ESIA, ensuring a "**No Water, No Payment**" approach backed by proven experience with the best drilling equipment.

The borehole sitting and ESIA should be completed before December 31, 2025, along with a comprehensive report. Based on the results of the hydro-geological survey report, the borehole will be drilled in the best suited location among the sites investigated in Kismayo district. A complete separate report shall be developed for each site for internal and donor records. Therefore, the objective of this survey is to ascertain the drilled borehole will meet or exceed the water demand for the next 20 years.

Overall Objectives of the Hydro-Geological and ESIA Survey

- Conduct hydrogeological and geophysical investigation for the optimal siting of a drinking water borehole in Kismayo district, Lower Juba Region
- To conduct geophysical survey of underground water in the aforementioned settlements in Kismayo district and identify the most suitable location for drilling of the new borehole in terms of getting sufficient amount of water with acceptable quality, quantity and affordable depths
- To review the local indigenous knowledge of the people regarding the hydro-geological conditions in the area.
- To identify the positive and negative environmental impacts of the proposed borehole and recommend appropriate mitigation measures considering potential impacts on natural

and secondary environment, as well as social issues such as conflict and assess potential on shorthand long-term impacts.

- Investigate Social and ecological effects of groundwater development including loss of agricultural and grazing land, population resettlement.
- Examine effects on the existing water supply such as Boreholes and Shallow wells, including fluctuation of water levels and interference of the cone of depression in the boreholes if any.
- Potential environmental and social impacts of planned and unplanned (spontaneous) immigration into the area.
- Effects of existing and predicted land use on the functioning and longevity of the water supplies.
- Propose mitigation measures for the potential environmental and social impacts of the proposed activity in the assessed sites.
- Implement the drilling of one new strategic borehole, installation of solar power system, Fencing, caretaker room, construction of an elevated concrete 20 cubic meter water tank, construction of two open water kiosks with pipeline extension from the ESIA feedback

Methodology of the Work

The Consultant shall use both quantitative and qualitative data collections methods including technical measurements/assessments to identify, obtain/collect, collate, and present baseline information/data on the Environmental and socio-economic characteristics of the proposed project activities and the selected locations.

The Consultant is expected to use both secondary and primary data in the exercise. Secondary data will involve desk study of available information/data on existing boreholes, drill logs, reports and maps while primary data will be obtained by carrying out field reconnaissance and measurements of existing boreholes and geophysical prospecting within the studied area using a combination of geophysical methods as below described.

The outcome of the consultancy will be a detailed hydrogeological survey report giving details of the findings and recommendations. Additionally, the consultant is expected to conduct conflict sensitive, socio-economic and environmental impact assessment to identify the positive and negative impacts of the proposed interventions and recommend appropriate mitigation measures considering potential impacts on natural and secondary environments and assessed potential on short and long-term impacts. The Consultant shall identify and describe the pertinent regulations and standards governing the environmental quality, health and safety, protection of sensitive areas, land use control at the national and local levels and ecological and socio-economic issues.

This should encompass environmental, ecological and social impacts as a result of the project. Analyze effects on human and natural environments such as land tenure system, population, settlements, land use, cultural practices, forestry, agriculture, water, soils, fragile habitats, air/climate, hydrological conditions and disturbance on vegetation among others. Make prioritization of all the concerns identified and differentiate between short, medium- and long-term in determination of the impacts of the project.

Survey Approaches Required

The hydrogeological/geophysical investigations and ESIA will be carried out in a multistep approach:

- Desk study - Review of existing data, topographical maps, satellite images, existing studies and Borehole site investigations in the area, geological reports and maps (if available), borehole and surface water records, etc.
- Hydrogeological fieldwork - Detailed reconnaissance survey of project area. (GPS coordinates/P codes, water level measurements, condition of these boreholes, usage and performance, estimation of the hydraulic characteristics from existing well test and aquifer test), vertical geophysical prospecting at known boreholes for calibration purpose in the measurement of the real resistivities of geological formations based on the existing borehole logs.
- Preparing hydro-geological maps which include location of existing boreholes and their water quality and environmental and social impact.
- Geophysical measurements vertical and horizontal electric sounding, vertical electric 3D tomography, EM method and possibly seismic refraction method are recommended for this assignment.
- Analysis and interpretation of field data for selection of potential sites for drilling
- Presentation of the results to hydrogeologist/geologist experts from AN for validation of the best possible site
- Field validation of the site to ensure there is no obstacle for drilling (explanation and agreement with the community, no land tenure or future urban planning issues, access to drilling machine, risk of contamination)

Reporting

The final report will be submitted to arche nova after signed off and approval by the AN Project manager and Program Officer/Program coordinator. The report will be a comprehensive account of the whole of the Consultancy; it will review the existing literature and other relevant information, such as drilling logs, satellite images, etc. The report shall include all field data, interpretations and justifications, hydrogeological evaluations, conclusions and recommendations relating to the areas investigated. In addition, appropriate maps, diagrams and data plots shall be presented. Of considerable importance will be an objective assessment of the applicability and success of the methods applied.

The outline table of contents of the final report will be as follows:

- ✓ Introduction, review of previous studies and environmental background hydrogeological information of the studied area, including history of groundwater depletion or known changes in quality: mineral content including unharmful –iron- and harmful -fluorides, nitrates and toxic elements such as arsenic; bacteriological pathogens.
- ✓ Geology and hydrogeology (incl. Inventory of positive and negative boreholes, aquifer characteristics storage and hydraulic- and well characteristics sustainable discharge rate-based on available data., and water quality)
- ✓ Methods of investigations, including Geophysical Techniques
- ✓ Calibration of the geophysical instrument at known boreholes (yield, log) for the geophysical characterization of the geological formations, including the aquifer(s).
- ✓ Methods of investigations, including combination of geophysical methods.
- ✓ Geophysical prospecting on different sites.
- ✓ Detailed resistivity survey (Wenner & VES) and seismic refraction to delineate the productive aquifer.
- ✓ Aquifer potential; sustainable yield & Water quality
- ✓ Interpretation and comparison of studied sites: aquifer and borehole potentials, most suitable drilling site and justification, target aquifer(s) for drinking water production, mentioning assumptions, risks and risk management.
- ✓ Proposed drilling method, with equipment characteristics (incl. estimation of the casing and screen positions)
- ✓ Simplified Environmental and societal impact of the drilling and required risks reduction measures as well as the mitigation measures for all the impacts identified.
- ✓ Conclusion and recommendations

Expected Deliverables

The consultant/firm is expected to deliver:

- ➢ An inception report presenting 1/ the steps and methodology for the assignment against the present Terms of Reference, and justifying any difference or discard with the TOR

- ➢ The implementation plan and requirements for the site investigation. A brief note with the recommended sites selected for borehole reconnaissance and geophysical survey, for SC's validation before the field deployment
- ➢ The presentation of the field work, interpretations and conclusions to the arche nova and the water authorities.
- ➢ The final technical report.

ACTIVITY DESCRIPTION	Timeline			
	W1	W2	W3	W4
Secondary data collection, review of field documents on existing boreholes and studies, and analysis				
Key informant interviews (face to face or remote)				
Field work - reconnaissance of existing boreholes, geophysical prospecting and final validation of the selected site				
Presentation to arche nova and reporting				

Requirements

arche nova seeks to invite qualified consultant firms who meet the following requirements to submit their detailed narrative and financial proposal on how to undertake the assignment.

The measurable qualifications and experience required:

arche nova seeks to invite qualified consultants/firms who meet the following requirements to submit their detailed narrative and financial proposal on how to undertake the assignment.

- Technical proposal on how the assignment will be conducted including methodologies, data analyses and interpretation, reports and schedules. (List software to be used for analysis)
- Proven field technical and field experience of lead Consultant with master's degree in geology, hydrology, engineering geology, physical, or earth science, or in any related field and having good experience of working in this sector.

Team composition (expertise required)

The firm/Consultant team shall include:

- **A team leader:** A minimum of a bachelor's degree in environmental, Physical or Biological Sciences from a recognized University and qualification as a Lead Expert registered with relevant authorities, with valid & current Practicing licenses.
- **Water Engineers:** A minimum of bachelor's degree in water engineering and registered with relevant authorities. At least 8 years' experience.
- **2 Researchers:** Preferably a minimum of a bachelor's degree in Sociology/Social Studies/Social Sciences from a recognized University. At least three (3) projects demonstrating professional and practical experience in social studies for infrastructural projects.
- Demonstration of consultant's similar past experience through the submission of copies of similar contracts in undertaking hydrogeological and ESIA surveys' consultancy.
- Proof of availability of all the equipment, personnel and ability to mobilize them in short notice (Include list of equipment, Brand/Manufacturer, CVs of the personnel) to perform the survey.
- Submit a detailed financial proposal including all professional fees, report costs and subsistence costs. Please note all costs must be broken into details (no lump sums, no contingencies etc.)

The consultant firm will be responsible for their own security; insurance while in the field and arche nova will not be responsible for any injuries or damages incurred during the assignment. The costs submitted must be inclusive of all anticipated expenses.

Application Process and requirements

All applications must be accompanied by technical and financial proposals. Interested consultant firms are expected to submit their applications, updated profile of applying company via hand-delivery to Kismayo AN office. Please indicate "Environmental and Social Impact Assessment (ESIA) for **PoWER Project** as the subject heading and submit not later than January 22, 2026.

Selection Process

All applications received within the deadline will be evaluated based on the following evaluation criteria: Technical proposal including previous work (60%) and financial proposal (40%). Applications received after the deadline will not be considered. The successful firm will be notified and contracted ASAP; unsuccessful consultants will be notified accordingly.