



Title: Purchase of probes for groundwater and surface water monitoring

Background

Project Reference: P04620

Donor reference: DR 04620

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About the Project

The Mainstreaming and Integrated Water Resources Management approach for More Resilient Basins in Mozambique [MozWaterR] is a geared project towards achieving water security and safety by supporting Mozambique in developing its capacity to implement effective integrated water resources management (IWRM) in key basins in the northern and central water administration regions and improve capacity at a national level. This project is a collaborative effort where joint action on the ground will produce critical lessons from tried

best practices that inform policy which strengthen business approaches, institutions, and rules around the sustainable use of land and water. MozWater is being implemented collaboratively with the Northern Regional Water Administration (ARA-Norte), Central Regional Water Administration (ARA-Centro) and the National Directorate for Water Resources Management (DNGRH) as primary Implementing Partners (IPs) to combat several challenges in the national water sector.

1. QUANTITY MAP AND TECHNICAL SPECIFICATIONS

1.1. Groundwater monitoring equipment

Equipment	Unit	Description	Specification
Groundwater collector	5	PVC or STEEL/Cast Iron	Diameter: 3.8 m Length: 100m Rope: over 50m
USB cables	15	Cables for computer, probe and sensor connections	Collapsible and flexible
Wading boots	30	2 pairs of size 36 5 pairs of size 38 15 pairs of size 42 5 pairs of size 43 3 pairs of size 40	100 percent micro polyester. 100 percent waterproof to over 16,000 mm and highly resistant to over 4,000 mm (mvp design and fit with rubber belt loops and elastic wading belt with back support. Deluxe front pocket design with water-repellent zipper and hand-warmer pockets. 2 D-rings for attaching tools)
PVC safety boots (wellies)	40	2 pairs of size 36 5 pairs of size 38 2 pairs of size 39 18 pairs of size 42 5 pairs of size 43 3 pairs of size 40 3 pairs of size 41	PVC Safety Boots Class II EN ISO 20347 SB + P Safety category: S5; Colour: Black Slip resistance: SRA; Coating: Bi-injected PVC; Toe cap: Steel; Midsole: Steel; Outsole: PVC;

			Certification: EN ISO 20345: 2011; Available sizes: 38 - 45; Weight: 1068 g.
Safety boots	40	2 pairs of size 36 5 pairs of size 38 2 pairs of size 39 18 pairs of size 42 5 pairs of size 43 5 pairs of size 40 3 pairs of size 41	External material: Premium leather Color: Black Type of closure: Laces PVC toecap Model number : CT100 Department : adult-unisex Brand: Catpriime Reinforced protection against falling objects and frontal impacts. Anti-puncture insole
Gloves	40		
Helmets	40	For safety	Type 2 front flap
Goggles	40	Safety glasses	Optical polycarbonate goggles with nylon frame and regular length stem
First aid kit	7	First aid kit in durable plastic case	Band-Aids of various sizes; Sterile and non-sterile compresses; Gauze and elastic bandages; Adhesive tape for bandages; Nanny pins; Pointless scissors and tweezers; Disposable gloves; Thermometer; Wipes or antiseptic solution; Saline solution; Small plastic bags for storing used materials and garbage; Hand washing solution (before and after care); Ointments for burns and insect bites; First aid manual; Protective masks. Spray for sports injuries; Packs for

			applying heat or cold; Insect repellent;
Training	-	-	The supplier must ensure that staff are trained to handle all the equipment purchased.

1.2. Battery charger

Battery charger	
Quantity	5
Technical Specifications	
Type of Compatible Batteries	Ni-MH (Nickel-Metal Hydride) / Ni-Cd (Nickel-Cadmium)
Supported sizes	AA (R6), AAA (R03), 9V (optional), C, D (in larger models)
Input voltage	100-240V AC, 50/60Hz (global use)
Output voltage	1.2V DC per channel (for AA/AAA)
Output current	200 mA - 1000 mA (varies according to model and battery type)
Independent Channels	2 to 8 independent channels (can charge different batteries at the same time)
Charging Time	1 to 8 hours (depending on battery capacity and charging current)
Charge indicator	LED per battery (red: charging / green: charged) or LCD display
Safety functions	Automatic ΔV shutdown, overload, short and reverse protection
Extra technology (optional)	Damaged battery detection, discharge mode, ventilation, fast charging
Operating temperature	0°C to 40°C
Housing material	Heat-resistant ABS plastic
Average weight	150g to 300g
Certifications	CE, RoHS, FCC

1.3. Technical specifications of multi-parameter probes

Quantity	5
Operating temperature (without freezing)	-5 to 50°C (23 to 122°F) ISE: Ammonia and Nitrate 0 to 40°C (32 to 104°F); Chloride 0 to 50°C (32 to 122°F)

Storage temperature	Components without fluid: -40°C to 65°C (-40 to 149°F) (non-freezing water); pH/ORP: -5°C to 65°C (-23 to 149°F); Ammonia/Nitrate: 0 to 40°C (32 to 104°F); Chloride: 0 to 50°C (32 to 122°F)
Dimensions	Diameter: 7.2 cm (2.84 inches) OD Length: 63.7 cm (25.08 inches) Length with handle: 74.7 cm (29.42 inches)
Wet materials	Buna-N, Noryl, Nylon, Polyphenylsulfone, Polycarbonate, Acetal, EPDM/Polypropylene, TPV, Fluoroelastomer FKM, Titanium, Fluorocarbon coating, Ceramic, Acrylic adhesive, Polyurethane adhesive, Graphite, PC/PMMA blend, Acrylic, Sapphire, PVC, Platinum, Glass
Weight	3.23 kg (7.12 lbs) (includes sensors, batteries and strap)
Maximum pressure rating	Up to 350 PSI
Output options	RS-485/MODBUS, SDI-12, Bluetooth®
Reading rates	1 reading every 2 seconds
Data logging	50 records (defined, programmed or stored)
Logging rate	1 minute to 99 hours
Environmental rating	IP68 with all sensors and cable connected IP67 without sensors or cable connected
Internal memory	16 MB
Micro SD card	8+ GB micro SD card included, user replaceable
Internal power supply	2 user-replaceable internal D alkaline batteries
Battery life	6+ months, depending on recording and wiper rates
External supply voltage	8-36 VDC; 0.1 mA typical Measurement: 16 mA typical; 45 mA maximum
Hexagonal screwdriver	1.3 mm
Communication device	TROLL Com or Wireless TROLL Com
Cable options	Ventilated or non-ventilated polyurethane or ventilated Tefzel® cable options
LCD display	Integrated display shows probe status, sensor ports, connectivity, power information, battery capacity and data logging status (applies to AT600 and AT800 only).

Software	Android™: VuSitu via Google Play and Amazon® App Store iOS: VuSitu via Apple® App Store, HydroVu
Certification	CE, FCC, WEEE, RoHS compliant

1.4. Technical specifications piezometric sensors

Quantity	15
Diameter	22 mm
Length	110 mm
Weight	104 g
Materials	Housing 316L stainless steel pickled and passivated
Pressure sensor	Alumina (Al ₂ O ₃)
Suspension blade	Nailon PA6 reinforced with 30% glass fiber
O-rings	Viton
Communication	Readout unit, separate interface cable and optical cable
Protocol	RS232 series
Memory capacity	144,000 measurements
working	72,000 measurements
measurements	72,000 measurements
Memory	Non-volatile memory. A measurement is made up of a continuous, fixed-length memory of date/time/pressure/temperature.
Battery life	Up to 10 years depending on use
Theoretical battery capacity capacity	10.5 million measurements + 1000x complete memory lectures + 2000x programing
Clock accuracy	Greater than ± 1 minute per year at 25°C
CE Marked	EMC in accordance with Directive 89/336/EEC Basic EN 61000-4-2 standard

Emissions	EN 55022 (1998) + A1 (2000) + A2 (2003)
Immunity	EN 55024 (1998) + A1 (2000) + A2 (2003)
Software/data download	Windows 7/10/11

6.2.4 Technical specifications for level probes

Groundwater Level Probes	
Quantity	5
Description	Technical Specifications
Structure	High-strength steel with polyethylene coating
Wet materials	Polyethylene, Santoprene, Delrin and PVC
Width	1 cm (0.4 in)
Weight	0.63 kg per 30 m (1.4lbs per 100 feet)
Markings	1 mm (0.01 ft)
Supported weight	127 kg (280 lbs)
Certifications	ASME (EU Class II), CE, WEEE, RoHS Compliant

Essential Requirements: N/A

Non-Essential Requirements: N/A

Optional Requirements: N/A

Delivery Times and Conditions

Delivery no later than 24 October 2025 in Maputo, Mozambique