



RFQ Date: January 6th, 2025

To: Interested Suppliers

Subject: Fisheries monitoring equipment for Djibouti
PERSGA-2213-GO-RFQ

REQUEST FOR PRICE QUOTATION

Dear Sir/Madam

The Regional Organization for the Conservation of the Red Sea and Gulf of Aden (PERSGA) has received a grant from the International Development Association - **IDA Grant No. P178143** towards the cost of implementation of the **Sustainable Fishery Development in Red Sea and Gulf of Aden (SFISH) Project** and intends to apply part of the proceeds of this grant to make eligible payments under the contract for which this announcement is being published.

Please provide price quotations for the following items.

Fisheries monitoring equipment to Djibouti, Republic of Djibouti as detailed in the table “Fisheries monitoring equipment for Djibouti”, Djibouti.

Subject to the Following Requirements:

1. **Delivery Location:** Djibouti, Djibouti
2. **Expected Delivery Date:** 75 days from the date of contract signing
3. **Type of Contract:** Unit Price in USD
4. **Payment Conditions:** 15 days after successful delivery and installation
5. **Currency:** Prices can be quoted in USD or any transferable currency
6. **Warranty Period:** 12 months
7. **Prices:** Shall include all duties, taxes, transport, and installation
8. **Quotation Validity Period:** 60 days from the latest date for submission of the price quotation
9. **Submission Address:** Via email to sourcing@persga.org
10. **Latest Date for Submission of Quotation:** January 31, 2025
11. **Pre-offer Meeting:** N/A
12. **Pre-offer Site Visit:** N/A
13. **Specifications:** included
14. **Alternative Quotations (Specifications):** Allowed
15. **Partial Quotation:** Allowed
16. **Partial Award:** Possible

Fisheries and marine environmental monitoring equipment (Specifications in Annex A)

Item	Description	Quantity	Unit price US\$	Total price US\$
1	Handheld GPS <ul style="list-style-type: none"> • Components: <ul style="list-style-type: none"> ○ Satellites: At least 24 orbiting Earth, transmitting signals. ○ Ground Stations: Monitor and control satellites. ○ Receivers: Devices that receive signals to determine location. • Accuracy: <ul style="list-style-type: none"> ○ Typical: 5 to 10 meters; higher with Differential GPS (DGPS) or Real-Time Kinematic (RTK). • water-resistant, Floats if dropped in water, high-resolution color display and scratch-resistant, fog proof glass. • Supports multiple satellite constellations, Accurate Tracking. • Connectivity: Bluetooth, USB • Memory: Can store extensive waypoints and routes. • Battery life: up to 20 hours in GPS mode 	2		
2	Fish finder Echo Sounder GPSMAP range for locating different fishing zones Technology: Dual Beam technology for clearer images and better seabed detection. Transducer: 200/455/800 KHz. Power supply: 10 - 20 VDC Display: Sunlight-readable screen for clear viewing. Mounting: Strong bracket for stability and quick disassembly. Accessories supplied: Transom Probe, Probe bracket, Screen mounting bracket, Power cord	2		
3	Dissection kits	For fish dissection	10	
4	Measuring tape 100 meters	<i>Measuring tape 100 meters for measuring</i>	5	
5	Measurements Dynamometers	Scales or measurements dynamometers for measuring fish weight	15	
6	Digital Ichthyometer	Instrument/apparatus for measuring fish size	10	
7	Vernier Caliper	<i>Measuring instrument for bivalve molluscs and gastropods, as well as crustaceans</i>	10	
8	Precision scale	Precision balance 45 kg 2 g Ref. SOC-CBW45	10	
9	Cooler box	Capacity: 70 liters	10	
10	Tablet for collecting fish catch data	Samsung Galaxy Tab A12 tablet : Rear camera; 132 Mega Pixels. Memory: 1 TB - 128 GB . RAM: 14 GB RAM. Processor: Mediatek Helio P111T. Battery: 5700mA	10	

11	Go pro Waterproof camera	<ul style="list-style-type: none"> • with Removable Water-repelling Cover Glass • Memory Storage microSD (microSD™ with at least V30 or higher UHS-3 rating) • USB-C Connector • Digital Lenses • HDR Video up to 5.3K (16:9) 30/25/24 fps • Color Video Bit Depth: up to 10-bit • Maximum Video Bit Rate 120Mbps • Zoom (Video) Up to 2x • with Looping Video, HindSight, Scheduled Capture, Duration Capture and Live Streaming • Photo Modes: Standard Photo, Burst Photo, Night Photo • Photo Resolution up to 27.13MP (5568x4872), RAW Photo Capture 27.13MP (5568x4872) • 3.5 Audio Mic Input • Pro 3.5mm Mic Adapter • Support AirPods and other bluetooth headsets • Wi-Fi • Bluetooth • USB-C Port • Housing Case: Waterproof down to 196ft (60m) at least.Top of Form • Pack Dive Filters 	4		
12	Wide field & Confocal microscopes	<p>Optical System:</p> <ul style="list-style-type: none"> ○ Objective Lenses: 4x to 100x magnification, NA from 0.1 to 1.4, types include Achromatic and Apochromatic. ○ Eyepieces: Usually 10x or 15x, wide-field or compensating. ○ Condenser: Abbe or Köhler type, NA matched to objective. <p>Illumination:</p> <ul style="list-style-type: none"> ○ Light Source: Halogen, LED, or Mercury Arc Lamp with adjustable intensity. ○ Filters: Bandpass, longpass, or shortpass for applications like fluorescence. <p>Mechanical Components:</p> <ul style="list-style-type: none"> ○ Stage: Mechanical with x-y movement, 75 mm x 50 mm travel. ○ Focusing: Coarse and fine focus knobs with micrometer precision. <p>Camera and Imaging:</p> <ul style="list-style-type: none"> ○ Camera: CCD or CMOS, resolutions from 2 MP to higher. ○ Software: For image acquisition and analysis. <p>Build:</p> <ul style="list-style-type: none"> ○ Frame: Typically, aluminum or steel, ergonomic design. 	2		

		<ul style="list-style-type: none"> ○ 13Adjustments: Inclination and positioning for eyepieces and objectives. <p>Additional Features:</p> <p>Fluorescence: Specific filter sets available.</p> <p>Phase Contrast & Polarization: Optional attachments for specialized imaging.</p> <p>Power &Safety:</p> <ul style="list-style-type: none"> ○ Electrical: 110V or 220V, 50/60 Hz. ○ Compliance: Adheres to safety standards like CE or UL. <p>Accessories:</p> <ul style="list-style-type: none"> ○ Optional Objectives: For specialized imaging. ○ Additional Stages: For varied sample types. 			
13	Chemical reagents for Dissolved oxygen probes	<ul style="list-style-type: none"> ● Electrochemical Probes: <ul style="list-style-type: none"> ○ Polarographic (Clark-type) Probes: <ul style="list-style-type: none"> ▪ Electrolyte Solution: Potassium chloride (KCl). ▪ Membrane: Gas-permeable polymer. ○ Galvanic Probes: <ul style="list-style-type: none"> ▪ Electrolyte: Potassium hydroxide (KOH) or similar. ▪ Membrane: Gas-permeable. ● Optical Probes: <ul style="list-style-type: none"> ○ Fluorescence Quenching Probes: <ul style="list-style-type: none"> ▪ Luminescent Dyes: Ruthenium-based or phosphorescent dyes. ▪ Coating: Dye embedded in a polymer or applied to sensor surface. ● Maintenance: <ul style="list-style-type: none"> ▪ Electrochemical Probes: Regular membrane replacement and electrolyte refilling. ▪ Optical Probes: Ensure dye stability and clean optical surfaces. 	1		
14	Chlorophyll measuring instrument	<ul style="list-style-type: none"> ● Measures: <ul style="list-style-type: none"> ○ total chlorophyll [$\mu\text{g chl-a/l}$] ○ concentration of green algae [$\mu\text{g chl-a/l}$] ○ concentration of cyanobacteria [$\mu\text{g chl-a/l}$] ○ concentration of diatoms/brown algae [$\mu\text{g chl-a/l}$] ○ concentration of cryptophytes [$\mu\text{g chl-a/l}$] ○ depth ○ temperature ● Chlorophyll range: 0 - 500 $\mu\text{g chl-a/l}$ ● Resolution 0.01 $\mu\text{g chl-a/l}$ ● Operating Temperature: -2 - 40°C ● Voltage: 24 V 	1		

		<ul style="list-style-type: none"> Battery capacity: 3900 mA h Operating time: continuously up to 10 h; interval up to 30 days Memory capacity: at least 2 GB memory card, 10 million datasets Maximal diving depth up to 200 m hard plastic case power supply protection cap USB adapter USB stick Manual software 			
15	Chemical reagents for pH meter and conductivity meter and Calibrations solutions and buffers	<ol style="list-style-type: none"> pH meter: <ul style="list-style-type: none"> Calibration Buffers: <ul style="list-style-type: none"> pH 4.00: Acidic buffer. pH 7.00: Neutral buffer. pH 10.00: Alkaline buffer. Properties: <ul style="list-style-type: none"> Composition: Phosphate, acetate, or borate salts in distilled water. Accuracy: Standardized and certified. Conductivity meters: <ul style="list-style-type: none"> Standard Solutions: <ul style="list-style-type: none"> 0.01 $\mu\text{S}/\text{cm}$: Low conductivity. 1413 $\mu\text{S}/\text{cm}$: General-purpose standard. 12.88 mS/cm: High conductivity. 	1		
16	Chemical reagents for Portable turbidity meter	<ol style="list-style-type: none"> Turbidity Standards: <ul style="list-style-type: none"> Formazin Solutions: <ul style="list-style-type: none"> Description: Standard turbidity solution made from formazin. NTU Levels: Commonly 0.1 NTU, 10 NTU, 100 NTU, and 1000 NTU. Commercial Standards: <ul style="list-style-type: none"> Description: Pre-prepared turbidity standards available in various NTU levels. Ready-to-use 	1		
17	Chemical reagents for Salinity meter	<ul style="list-style-type: none"> Calibration Solutions: <ul style="list-style-type: none"> Standard Salinity Solutions: <ul style="list-style-type: none"> Types: <ul style="list-style-type: none"> Sea Water Standards: Simulates natural seawater, typically around 35 ppt (parts per thousand). Brine Solutions: Known concentrations of salt, such as 0 ppt, 10 ppt, 20 ppt, and 35 ppt. Purpose: Provides known salinity levels for accurate calibration. Properties: <ul style="list-style-type: none"> Composition: Sodium chloride or other salts dissolved in distilled water. 	1		
18	ArcGis software with license	<ul style="list-style-type: none"> ArcGIS Software: 	3		

		<ul style="list-style-type: none"> ○ ArcGIS Desktop: Includes ArcMap (legacy) and ArcGIS Pro (modern with 3D capabilities). ● Features: <ul style="list-style-type: none"> ○ Mapping and Visualization: Advanced tools for creating maps and visualizing data. ○ Spatial Analysis: Tools for analyzing geographic information. ○ Data Management: Integration and management of spatial and attribute data. ○ Collaboration: Sharing and collaboration through ArcGIS Online and Enterprise. 			
19	High-resolution photo camera with minimum 400-meter zoom	<ul style="list-style-type: none"> ● Camera Type: <ul style="list-style-type: none"> ○ Superzoom Cameras: Examples include the Nikon Coolpix P1000, which offers a 24-3000 mm equivalent zoom. ○ DSLR/Mirrorless with Telephoto Lenses: For instance, Canon EF 800mm f/5.6L IS USM or Nikon AF-S NIKKOR 800mm f/5.6E FL ED VR lenses paired with high-resolution camera bodies. ● Resolution: <ul style="list-style-type: none"> ○ High Resolution: Typically, 20 MP or more for detailed imaging. ● Zoom Capability: <ul style="list-style-type: none"> ○ Optical Zoom: Achieves a focal length equivalent to at least 400 meters (e.g., 4000 mm in 35mm terms). ● Key Features: <ul style="list-style-type: none"> ○ Image Stabilization: Reduces shake and enhances clarity at long distances. ○ Durable Construction: Weather-sealed and designed for harsh conditions. ○ Tripod Compatibility: Essential for stability during high zoom use. 	1		
20	High-resolution binoculars and monocular, minimum 50 KM	<ul style="list-style-type: none"> ● Binoculars: <ul style="list-style-type: none"> ○ Features: High magnification (20x to 50x), large objective lenses (50 mm to 100 mm), high resolution. ● Monoculars: <ul style="list-style-type: none"> ○ Features: High magnification (20x to 50x), large objective lenses, high resolution. 	2		
21	LED Waterproof Torch Minimum 400 lumens LED discharge	<ul style="list-style-type: none"> ● Brightness: Minimum 400 lumens for powerful illumination. ● Waterproof Rating: Typically, IPX7 or higher, meaning it can withstand immersion in water up to 1 meter deep. 	3		

		<ul style="list-style-type: none"> • LED Technology: Uses high-performance LEDs for bright, efficient light; color temperature often around 5000K to 6000K. • Battery: Rechargeable lithium-ion or replaceable AA/AAA batteries, with a runtime lasting several hours. • Durability: Rugged construction, often aluminum or reinforced plastic, with impact resistance. • Features: Multiple modes (high, medium, low, strobe), adjustable focus, and a beam distance of 100 meters or more. 			
22	Waterproof Cellphone Case	<ul style="list-style-type: none"> • Waterproof Rating: Typically, IPX8 or higher, protecting against continuous submersion in water. • Material: Made from durable materials like silicone, TPU, or plastic with waterproof seals. • Design: Custom-fit for specific phones, touch-sensitive membrane for screen use, and transparent sections for camera/port access. • Additional Features: May include floatation, dustproofing, and drop protection. 	10		
23	Solar battery charger	<ul style="list-style-type: none"> • Solar Panels: Typically, monocrystalline or polycrystalline with varying power outputs. • Charging Capabilities: Compatible with various batteries and output voltages, often including USB ports. • Portability: Compact, lightweight, and sometimes foldable for easy transport. • Durability: Designed to be weather-resistant for outdoor use. • Additional Features: May include integrated batteries, charge controllers, and multiple charging ports 	3		
24	Protective equipment (anti-UV T-shirt and pants, field shoes, anti-UV glasses)	<ul style="list-style-type: none"> • Anti-UV T-Shirt and Pants: Made from UV-blocking fabrics with a UPF rating of 30 or higher, providing protection from UV radiation while being lightweight and breathable. • Field Shoes: Durable and protective, featuring reinforced toes, waterproofing, and rugged soles for traction and comfort on various terrains. • Anti-UV Glasses: Lenses that block 100% of UVA and UVB rays, often polarized to reduce glare, made from impact-resistant materials 	5		

25	Fixed Container lab to carry out physico-chemical analysis	<ul style="list-style-type: none"> • Material: Durable and chemical-resistant materials, such as stainless steel or high-grade plastic. • Design: Includes multiple compartments, airtight seals, and temperature control options. • Safety: Features secure closures, shock absorption, and clear labeling to prevent contamination and damage. 	1		
26	Split 2 CV Samsung to equip the Container Lab	<p>Samsung Split 2 CV</p> <ul style="list-style-type: none"> • A wall-mounted split system air conditioner with a 2 horsepower (hp) capacity, suitable for efficiently cooling medium-sized spaces. Reliable and energy efficient, with modern features such as remote control and programmable modes. 	1		
27	Wimo multi-parameter probes (to monitor in depth, integrated Temperature sensor, integrated sensor Conductivity Salinity (sea version) Turbidity Dissolved Oxygen (DO), Chlorophyll A Fluorescence, Phycocyanin Fluorescence, pH, REDOX.)	<ul style="list-style-type: none"> • Features: Equipped with sensors for temperature, conductivity, salinity, turbidity, dissolved oxygen (DO), chlorophyll A fluorescence, phycocyanin fluorescence, pH, and REDOX. • Applications: Ideal for environmental monitoring, marine studies, aquaculture, and water treatment. 	1		
28	Marine Compass with Clinometers	<p>Handheld, Light weight and suitable dimensions</p> <p>Compass: Accuracy 1/3°; Graduation interval 0.5°; Scale: Azimuth 360°, Reversed 360°; Adjustable diopter; Saphire bearing; Liquid filled capsule for stable operation; Anodized light-alloy housing; Nylon pouch with belt-loop</p> <p>Lanyard;</p> <p>Clinometer: Accuracy 1/4°; Graduation interval 0.5°</p> <p>Scale: slope ±90°, slope %; Adjustable diopter; Dual saphire bearing; Liquid filled capsule for stable operation</p> <p>At least 2-year warranty</p>	2		
29	Temperature Logger (Water Temperature Pro v2 Data Logger)	<p>Water Temperature Pro v2 Data Logger:</p> <p>Operation range†: -40° to 70°C (-40° to 158°F) in air; maximum sustained temperature of 50°C (122°F) in water</p> <p>Accuracy: ±0.21°C from 0° to 50°C (±0.38°F from 32° to 122°F)</p> <p>Resolution: 0.02°C at 25°C (0.04°F at 77°F)</p> <p>Response time: (90%) 5 minutes in water; 12 minutes in air moving 2 m/sec (typical)</p> <p>Stability (drift): 0.1°C (0.18°F) per year</p> <p>Real-time clock: ± 1 minute per month 0° to 50°C (32° to 122°F)</p>	20		

		<p>Battery: 2/3 AA, 3.6 Volt Lithium, factory-replaceable ONLY</p> <p>Battery life (typical use): 6 years with 1 minute or greater logging interval</p> <p>Memory (non-volatile): 64K bytes memory (approx. 42,000 12-bit temperature measurements)</p> <p>Weight: 42 g (1.5 oz)</p> <p>Waterproof: To 120 m (400 ft.)</p> <p>Logging interval: Fixed-rate or multiple logging intervals, with up to 8 user-defined logging intervals and durations; logging intervals from 1 second to 18 hours.</p> <p>Launch modes: Immediate start and delayed start</p> <p>Offload modes: Offload while logging; stop and offload</p> <p>Environmental Rating: IP68</p>			
30	Communication kite (Optic USB Base Station)	<p>Optic USB Base Station:</p> <p>A splash-resistant base station and couplers used to offload data from any HOBO data logger with an Optic USB interface</p> <p>Operating temperatures range: 0 to 50°C (32 to 122°F)</p> <p>Cable length: 183 cm (6 ft.)</p> <p>Offload rate: Offloads full 64K logger in 30 seconds</p>	2		
31	Temperature loggers Required Software	<p>Support for all data loggers</p> <p>Quickly generate presentation-quality graphs</p> <p>Copy & paste series</p> <p>Merge data files</p> <p>Save modified graphs as projects</p> <p>Easy data export to XLS, CSV & TXT files</p> <p>Linear & pulse scaling data assistants</p> <p>Multi-Language Support</p> <p>Data Assistants for Dissolved Oxygen, Conductivity, Water Level, Growing Degree Days, Grains per Pound & kWh</p> <p>Ability to create Pie Charts</p> <p>Crop a series to a specific time frame</p> <p>Subset Statistics Tool for details within a time frame</p> <p>Data Shuttle support</p>	2		
32	Central Unit	CORE I7 CENTRAL UNIT for storing statistical data	1		
	TV smart screen	M24 Smart screen	1		
33	Laptop	<ul style="list-style-type: none"> • Processor: Intel Core i7-12th Gen • Memory: 16 GB RAM • Storage: 1 TB SSD • Display: 14.0 inches • Operating System: Windows 13 pro 	2		

34	Laptop for data storage and analysis	Laptop 8 core 8 GB ram 1 TB .HDD 15.6 for the statistical data collection cell.	2		
35	Desktop computer	2.8 GHz Intel Core i7 4-Core (11th Gen) 16GB of DDR4 RAM 512 GB M.2 SSD, 27" Full HD IPS Touchscreen, 1920 x 1080 Screen Resolution, Integrated Intel Iris Xe Graphics, 3-in-1 SD, SDHC & SDXC Card Reader, Wi-Fi 5 (802.11ac) / Bluetooth 5.0, USB 3.2 Gen 1 & 2.0 HDMI, 1080p Full HD Webcam, Windows 10 Home	2		
36	Color Laser printer	Laser Jet Pro Multifunction Printer	1		
37	Laser printer	Canon I sensys LBP6030 printer	2		
38	Video projector	High resolution video projector	1		
39	External Hard drive	High performance Capacity storage 2 Terabytes or more Solid State Drive USB3.0 and compatible with USB 2.0 Compatible with PC, Desktop, Laptop, Mac, cameras...etc	3		
40	Blower (UPS)	Run time with a 20 W load (modem and router): 4-6 hours run time with a 300 W load (modem, router, PC, and hard drive): 15-20 minutes max output: around 700 watts surge protection:500 let-through volts battery-backed outlets: 5-6 Warranty: at least 2 years	1		
41	Advanced Antivirus Software for computers for Professional Users for 3 devices/Users	5-years Kaspersky internet total security for MacOS/ Windows Kaspersky Security 3 Devices 3 Mobile 1 Server 5 Year Activation License	3		

Sincerely,

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