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CORRIGENDUM dated 7th July 2014

Tender Ref: NCAOR/OSSG/SK/84 (Closing date: 5th August 2014)

Subject : AMC for operation and maintenance of scientific equipment & related facilities onboard research ships **Sagar Kanya, Sagar Sampada, Sagar Nidhi & Sagar Manjusha.**

As per the clause 18.3 of above referred tender, the pre-bid meeting was held on 4th July, 2014. Following are the amendments to the tender document as per the pre-bid meeting discussions and decisions of NCAOR.

Clause No.	Subject	Amendment
2.2 (c)	OEM service support to NIOT vessels	To append the following sentence to the clause 2.2 (c): <i>NIOT shall issue letters to concerned OEMs for providing support to the identified AMC contractor.</i>
3.4	Onboard Sampling / Data Collection / Operations	To append the following sentence to the first para of clause 3.4: <i>Operation for testing of the equipment to the satisfaction of institutes shall also be considered as operation and accordingly payment would be effected.</i>
3.5	Underwater cleaning of transducers	To add following para as third para of clause 3.5: <i>In cases of grounding of vessel or any other major accidents and damages thereon to any equipment which is not due to the negligence of AMC, institutes will bear the expenditure towards inspection of underwater parts using divers, parts renewal, OEM services etc. AMC engineers' on-site and support services towards rectification of above faults shall be part of AMC.</i>
3.7	Calibration	To append the following sentences to the third para of clause 3.7: <i>To avoid downtime during calibration, institutes at their discretion may possess / acquire spare sensors for critical equipment. In such cases, if spare sensors are available and functional, no downtime will be accounted. In other cases and if foreign OEM is involved, the downtime will commence three months after sensors offloaded from vessel.</i>
3.8	Seatrials / testings	To append the following sentence to clause 3.8: <i>Institutes shall ensure the timeslot for trials.</i>
3.12	AMC meetings	To append the following sentence to clause 3.12: <i>During foreign port-calls, onboard AMC team leader may attend the meeting on behalf of Project Manager except during during drydockings and lay-offs.</i>
4.5	Shipping agency services	To replace the first para of clause 4.5 with following amendment: <i>On receiving details well in advance, Institutes will arrange needful through agents for sign on/off of AMC engineers, port passes etc as well as clearance of equipment for repairs / calibration and cost towards the same will be met by AMC. Contractors are allowed to use own agents also for above purposes. However, prior permission for activities through their own agents to be obtained from institutes. In case of FORV Sagar Sampada, CMLRE shall make necessary agency arrangements for men and materials including transport (for equipment only) at CMLRE cost.</i>

8.1	Payment	To add following sentences as fourth para of clause 8.1: <i>The payments shall be processed by NCAOR / CMLRE / NIOT as above based on the equipment performance and satisfactory deliverables. Payments shall be settled within 30 days from the date of submission of bills subject to fulfilling the conditions of the contract.</i>
4.1.	Transit insurance for equipment	To add following para as item no 14 of clause 4.1: <i>AMC shall arrange transit insurance for equipment offloaded from vessels for repairs / calibration. The premium shall be reimbursable by institutes on production of receipts from insurance companies. All other incidentals shall be borne by AMC.</i>
Annexures	Annexures updates	<i>The Annexures of tender document II, III, IV, VII, VIII, IX, X, XI & XIII are updated and enclosed herewith as part of this corrigendum. All other annexures remain unchanged.</i>

All other terms and conditions of the tender remain unchanged.

Sd/-
For & on behalf of NCAOR

FORV SAGAR SAMPADA

Length : 71m
Normal cruise duration : 15 to 20 days

LIST OF EQUIPMENT (SAGAR SAMPADA)

SI.No	Name of Equipment	Make & Type	Qty
1.00 WHEEL HOUSE			
1.01	Echosounder 50 KHz	Skipper GDS-101	1 No.
1.02	Echosounder 49KHz with a) Control Unit b) Recorder Unit	Simrad ET-1O2 Simrad MV 106 Simrad AR 801	1 No.
1.03	Doppler Speed Log 270 KHz with a) Main Control Unit b) Tranceiver Unit c) 3 Slave displays at various locations d) Gate Valve e) Transdicer and related equipments	Skipper DL-850	1 No.
1.04	Cableless Trawl sonde with a) Control & VGA unit b) Transceiver c) Temperature sensor d) Depth sensor e) Height sensor f) Catch sensor g) Spread sensor h) Fast charger unit and all related items i) Interface PCB j) Ethernet card	Simrad ITI	1 No. 1 No. 1 No. 1 No. 1 No. 1 No. 3 Nos 2 Nos 1 No. 1 No.
1.05	Integrated Fish Finding System with PC Intel D845EBT2, Pentium IV, 2.8 GHz, 256 MB, 120GB HDD, 17+LCD Monitor (2 Nos.) & MC-71 Processor Unit	Simrad CM-60	1 No.
1.06	Sonar SX90 1. TFT monitor & Operating panel. 2. Beam former unit 3. Processor unit 4. Interface unit 5. Motor control unit 6. Transceiver unit with heat exchanger. 7. Hull unit	Simrad	1 No. 1 No. 1 No. 1 No. 1 No. 1 No. 1 No. 1 No.
2.00 METEOROLOGICAL LABORATORY			
2.01	Aspiration Psychrometer	Wilh Lambrecht 761	1 No.
2.02	Aneroid Barometer	Wilh Lambrecht J/501106	1 No.
2.03	Marine Barograph	Wilh Lambrecht 290S9	1 No.
2.04	Marine Mercury Barometer	Wilh Lambrecht 604	1 No.
2.05	Automatic Weather Station	--	1 No.
3.00 EDP ROOM			

3.01	HP Server E5504, LED Monitor LE1902X, Intel Xeon Dual Core Processor, LED Monitor LE1902X, DVD, Ethernet Card, Keyboard, Mouse and standard accessories	HP E-5504	1 No.
3.02	HP Desktop 3000 Pro 3090MT, 18.5+LED Monitor, Intel Core 2 Duo Processor, DVD Writer, Mouse Keyboard, 0.65 KVA UPS Supra, Printer HP LJP 2055DN, HP Flatbed ADF Scanner and standard accessories	HP-3000 Pro 3090 MT	1 No.
3.03	LAN System complete with 12 Port LAN Hub, interconnections in all laboratories, LAN cabling and standard accessories		1 No.
4.00 ACOUSTIC DETECTION ROOM			
4.01	Echosounder 38/120/200 Khz unit with a) GPT b) Processor Unit c) Transducers d) Transceiver and other related accessories e) Pentium Computer, 1.44 MB Floppy Drive, CD-ROM Writer, Inkjet printer HP-960, 32 port Ethernet switch, MC-71/BI-60 post processing software, Keyboard, Mouse and related accessories	Simrad EK-60	1 No.
4.02	Acoustic Doppler Current Profiler with a) Deck Unit b) 75 Khz transducer and related equipments c) HP Deskjet 3000 Series PC with Intel Core 2 Duo Processor, 2.03 GHz, 2 GB RAM, 300 GB HDD, 18.5+LED Monitor, Keyboard, Mouse, DVD Writer, MS OS Windows 7 and other standard features.	RD Instruments HP Pro 3090 MT	1 No.
4.03	EA-600 Echosounder along with GPT 12KHz/2KW, PC HOS 192, Keyboard, Mouse, Printer HP Deskjet 5940, DVD Writer and accessories	Simrad	1 No.
4.04	Depth display units at various locations	Simrad	3 Nos
4.05	Depth display unit	Skipper IR-301	1 No.
4.06	Differential Global Positioning System (DGPS) with Display unit and all accessories	Simrad GN-30	1 No.
4.07	Portable Echosounder EY-60 with GPT 12 KHz, Transducer 12 KHs, Laptop HP Compaq NC6220, Intel Pentium M, 1.86 GHz, 1 GB RAM, 60GB HDD	Simrad EY-60	1 No.
5.00 C-14 LABORATORY			
5.01	Isotope Fume Cupboard	DB type SR 150-18/8	1 No.
5.02	Refrigerator	Gram K-130	1 No.

5.03	Incubator	Elab Electronic IM-10	1 No.
6.00 DRY CHEMICAL LABORATORY			
6.01	6-Channel Autoanalyser system with a) Sampler b) Proportioning pump c) Manifold d) Autovalve e) Calorimeters f) Recorders g) Pentium III Computer, Monitor, Mouse, Keyboard, DVD Drive and other accessories	SKALAR Compaq Deskpro EN	1 Unit
6.02	pH meter	Merck/Inolab	1 No.
6.03	Titration	Metrohm Dosimat 655	1 No.
6.04	Salinometer	Autosal 8400A/B	2 Nos.
6.05	CTD/Rosette Sampler with a) Underwater unit with sensors b) Niskin Bottles c) Deck unit and related equipments d) Triggering unit e) HP Deskjet 3000 Series PC with Intel Core 2 Duo Processor, 2.03 GHz, 2 GB RAM, 300 GB HDD, 18.5+LED Monitor, Keyboard, Mouse, DVD Writer, MS OS Windows 7 and other standard features. f) Multifunction I/O	Sea Bird Electronics/ General Oceanics HP Pro 3090MT Microsoft PCL 812	1 No.
6.06	Fume Cupboard	DB Type 10	1 No.
6.07	Refrigerator	Gram K-130	1 No.
6.08	Expendable Bathy Thermograph unit with HP Deskjet 3000 Series PC with Intel Core 2 Duo Processor, 2.03 GHz, 2 GB RAM, 300 GB HDD, 18.5+LED Monitor, Keyboard, Mouse, DVD Writer, Printer HP LJP2055DN, MS OS Windows 7 and other standard features.	Sippican Inc.MK-12 HP Pro 3090MT	1 No.
6.09	HP Deskjet 3000 Series PC with Intel Core 2 Duo Processor, 2.03 GHz, 2 GB RAM, 300 GB HDD, 18.5+LED Monitor, Scanner HP2410, Keyboard, Mouse, DVD Writer, MS OS Windows 7 and other standard features.	HP Pro 3090MT	1 No.
6.10	System Digital Clock	Navitronic SDC-4	1 No.
6.11	Underwater Camera		1 No.
6.12	Dual Beam Spectrophotometer HP Compaq, Intel Pentium IV, 2.8 GHz, 256 MB, 80GB HDD, LG CD Writer and standard accessories Inkjet Printer HP 5748	Perkin Elmer Lambda 25	1 No.
7.00 WET CHEMICAL LABORATORY			
7.01	Water purifying plant with Prefiltration unit	Millipore Elix-10 & Milli-Q Gradient A10	1 Set

7.02	Insulated water samplers	General Oceanics	12 Nos
7.03	Deep Sea Pressure protected reversing thermometer		06 Nos
7.04	Deep Sea Pressure unprotected reversing thermometer		12 Nos
7.05	Incubator	Heraeus T5042E	1 No.
7.06	Muffle Furnace	Heraeus MR250E	1 No.
7.07	Fume cupboard	BD Type 10	2 Nos.
7.08	Multiple Plankton Net Spare nets and buckets	Hydro Bios	1 No.
7.09	Bongo net		1 No.
8.00	Microbiology Laboratory		
8.01	Fume cupboard	BD Type 10	1 No.
8.02	Incubator	Heraeus B5050	1 No.
8.03	Refrigerator 190 lit.	BPL 195FF	1 No.
8.04	Electronic Marine Balance	Eilersen Electric 10Kg.	2 Nos.
8.05	Electronic Marine Balance	Eilersen Electric 0.5Kg.	1 No.
8.06	Electronic Marine Balance	Eilersen Electric	1 No.
8.07	Binocular Microscope	Nikon SMZ-10	2 Nos
8.08	Stereoscopic Microscope	Olympus SMZ-III	2 Nos.
8.09	Stereoscopic Microscope	Olympus SZ-TR	2 Nos
8.10	Binocular Microscope	Reichert-Lung Neovar-2	1 No.
8.11	Fluorescent Trinocular Microscope with Digital Camera and HP Deskjet 3000 Series PC with Intel Core 2 Duo Processor, 2.03 GHz, 2 GB RAM, 300 GB HDD, 18.5+LED Monitor, HP LJP2055DN, 0.65 KVA UPS, Keyboard, Mouse, DVD Writer, MS OS Windows 7 and other standard features. Inkjet Printer UPS HCL 500 VA	Nikon Eclipse E600 HP Pro 3090MT	1 No.
8.12	Vacuum Pump		1 No.
8.13	Hot Air Oven	Labline	1 No.
8.14	BOD Incubator	REMI	1 No.
8.15	Laminar Flow	Labline	1 No.
8.16	Vertical Deep Freezer	Labline	1 No.
8.17	Colony Counter		1 No.
8.18	Laboratory Autoclave with Foot Lifting Arrangement	Kumar	1 No.
9.00	WET FISH LABORATORY		
9.01	Fume cupboard	BD Type 10	1 No.
9.02	Electronic Marine Balance	Eilersen Electric. 100kg	2 Nos.
9.03	Electronic Marine Balance	Eilersen Electric-20kg	1 No.
9.04	Electronic Marine Balance	Eilersen Electric-10 tons	1 No.
9.05	Ice Machine	Ziegra VBE-220	1 No.
9.06	Mincing Machine	Baader 694	1 No.
9.07	Peeling Machine		1 No.
10.00	AQUARIA		

10.01	Aquaria	Linatex	12 Nos
10.02	Gravity Tank	BS Plastic	1 No.
10.03	Heating element for the reservoir tank	SANGZ 15KW	1 No.
10.04	Cooling Element for reservoir tank	Sabroe 205357-1	1 No.
10.05	Air Cooler	Sabroe FSS	1 No.
10.06	Circulation Pump	Iwaki MDH-32-CM	2 Nos
10.07	Seawater pump	Iwaki MDH-25-CV	1 No.
11.00 MISCELLANEOUS			
11.01	Oscilloscope	Philips	1 No.
11.02	Power Supply unit	Danica TPS-23A	1 No.
11.03	Power Supply unit	B&O RT-12	1 No.
11.04	Megger		1 No.
11.05	Digital Flow Meter	Hydro Bios	1 No.
11.06	Current Meter	Valeport DNC-3	1 No.
11.07	Smith Mc-Intyre Grab		3 Nos.
11.08	Dredge		1 No.
11.09	Box Corer		1 No.
11.10	HP Deskjet 3000 Series PC with Intel Core 2 Duo Processor, 2.03 GHz, 2 GB RAM, 300 GB HDD, 18.5+LED Monitor, Flatbed Scanner ADF, Keyboard, Mouse, DVD Writer, MS OS Windows 7 and other standard features.	HP Pro 3090MT	2 Nos.
11.11	Oscilloscope Infinium	Agilent Technologies	1 No.
11.12	Saw Microtome	Leica SP-1600	1 No.
11.13	Fluorescent Trinocular Microscope with digital camera, HP Deskjet 3000 Series PC with Intel Core 2 Duo Processor, 2.03 GHz, 2 GB RAM, 300 GB HDD, 18.5+LED Monitor, Printer LJP2055DN, Scanner HP 2410, Keyboard, Mouse, DVD Writer, MS OS Windows 7 and other standard features.	Leica DM4000B HP Pro 3090MT	1 set
11.14	Stereo Microscope with high resolution camera Canon Powershot S50, HP Deskjet 3000 Series PC with Intel Core 2 Duo Processor, 2.03 GHz, 2 GB RAM, 300 GB HDD, 18.5+LED Monitor, Keyboard, Mouse, DVD Writer, MS OS Windows 7 and other standard features.	Leica MZ-16 HP Pro 3090MT	1 set
11.15	Portable ADCP	RD Instruments	3 Nos.
11.16	Flurometer		1 No.
11.17	Quartz Distillation Plant		1 No.
12. List of Equipment for operation / sample / sub-sampling / data collection			
12.1	1.05 Integrated Fish Finding System		
12.2	1.06 Sonar SX90		
12.3	2.05 Automatic Weather Station		
12.4	4.01 Echosounder 38/120/200 Khz unit		

12.5	4.02 Acoustic Doppler Current Profiler	
12.6	4.03 EA-600 Echosounder	
12.7	6.05 CTD/Rosette Sampler	
12.8	10.00 AQUARIA	
13. New Equipment proposed to be procured / installed		
13.1	Auto Trawl System	1 No
13.2	6-Channel autoanalyser	1 No
14.3	XCTD	1 No
13.4	Spectrophotometer	1 No
13.5	Reservoir Tank	1 No

ORV SAGAR NIDHI

Length : 103 m
Normal cruise duration : 25 to 35 days

LIST OF EQUIPMENT (SAGAR NIDHI)

S.No	Name of the equipment	Qty	Make/ Model
1.	Deep Water Multi-beam Echo Sounder	1 Set	RESON / SeaBat 7150
2.	Shallow Water Multi-beam Echo Sounder	1 Set	RESON / SeaBat 7111
3.	Deep/ Shallow water Single-beam Echo Sounder with Pinger (Altimeter) / Digital Repeaters	1 Set	Kongsberg Maritime / EA-600
4.	Acoustic Doppler Current Profiler	1 Set	RD Instruments / Ocean Surveyor
5.	Sub-Bottom Profiler	1 Set	INNOMAR / SES 2000 Deep
6.	Deep sea CTD with Rosette	1 Set	Idronaut / General oceanic
7.	Deep sea CTD with Rosette	1 Set	Seabird Electronics / 911 Plus
8.	CTD Winch along with cables/slip rings & related systems	1 Set	Kley France
9.	Hydrographic Winch along with cables/slip rings & related systems	1 Set	Kley France
10.	Marine Data Management System	1 Set	Kongsberg Maritime / MDM400
11.	Thermo Salinograph (SST)	1 Set	Seabird-SBE21
12.	Scientific Weather Station	1 Set	Vaisala
13.	Fluorimeter	1 Set	Skalar Netherland
14.	Auto-Salinometer	1 Set	TSKI Japan
15.	Four Channel Auto analyzer	1 Set	Skalar Netherland
16.	Microscope	2 Set	Leica/Towa
17.	Millipore Plant with vacuum pump & manifold	1 Set	Millipore
18.	Spectrophotometer	1	Leica
19.	Centrifuge	1	Remi
20.	Incubator	2	Binder
21.	BOD Incubator	2	Naren Instruments
22.	Laminar-flow	1	
23.	Autoclave	1	Indigenous
24.	Acoustic Positioning System Operating Console	1 Set	Kongsberg Maritime
25.	HiPAP 500	1 Set	Kongsberg Maritime
26.	HPR LF400	1 Set	Kongsberg Maritime
27.	Transponders (MPT)	11	Kongsberg Maritime
28.	Transponders (MST)	5	Kongsberg Maritime
29.	Computers	22	HP/Dell/Acer
30.	Plotters	2	HP
31.	Printers	5	HP
32.	UPS	1	APC
33.	Corer 1.5m	1	Indigenous
34.	Corer 6m	1	Indigenous
35.	Grab	1	Indigenous

List of Equipment for Operation / Sample / Sub-sampling / Data collection	
1.	Deep Water Multi-beam Echo Sounder
2.	Shallow Water Multi-beam Echo Sounder
3.	Deep/ Shallow water Single-beam Echo Sounder with Pinger (Altimeter) / Digital Repeaters
4.	Acoustic Doppler Current Profiler
5.	Sub-Bottom Profiler
6.	Deep sea CTD with Rosette (Seabird)
7.	Deep sea CTD with Rosette (Idronaut / General oceanic)
8.	CTD Winch
9.	Hydrographic Winch
10.	Marine Data Management System
11.	Thermo Salinograph (SST)
12.	Scientific Weather Station
13.	Corer 1.5m
14.	Corer 6m
15.	Grab
16.	Plankton net

ORV SAGAR MANJUSHA

Length : 60 m
Normal cruise duration : 10 to 15 days

LIST OF EQUIPMENT (SAGAR MANJUSHA)

Sl. No.	Name of equipment	Qty
1.	Spectro photometer	1 set
2.	Multi beam Echo sounder (Reson . Seabat7111) Frequency 100 kHz , Sound Velocity profiler AML, Motion Sensor-IXSEA-III, DGPS Fugro.	1 set
3.	Single beam Echo sounder (Knudsen . Chirp 3260) Frequencies 12 kHz / 200 kHz, DGPS Hemisphere	1 set
4.	Fluoi-mager	1 set
5.	Zoom Stereo Microscope	1 set
6.	4 channel Auto Analyzer (Ammonia, Phosphate, Silicate, Nitrate + Nitrite)	1 set
7.	CTD (SBE 25Plus)	1
8.	Gravity Corer (6m)	1
9.	Sediment Grab	1
List of Equipment for Operation / Sample / Sub-sampling / Data collection		
10.	Gravity Corer (6m)	
11.	Sediment Grab	
12.	Sachi disc	
13.	Zoo Plankton Net	
14.	Multi beam Echo sounder (Reson . Seabat7111) Frequency 100 kHz , Sound Velocity profiler AML, Motion Sensor-IXSEA-III, DGPS Fugro.	
15.	Single beam Echo sounder (Knudsen . Chirp 3260) Frequencies 12 kHz / 200 kHz, DGPS Hemisphere	
16.	CTD (SBE 25Plus)	

Price bid format – ORV Sagar Kanya

Sr No	Name of the Equipment	Qty	AMC per unit per year (Rs)	Total AMC per year (Rs)
1. Chemical /Analytical Instruments				
1.1	UV oxidation Unit	1		
1.2	Oxygen Titration Unit (865 Dosimat Plus)	1		
1.3	Water Purifying System + Elix 3 Filtration unit	1 set		
1.4	Vacuum pumps (for filtration)	2		
1.5	pH meter	1		
1.6	Fume cupboards	2 Nos		
1.7	UV Lamp	1 no		
2. Geological/Geophysical Instruments				
2.1	Gravity corer	2		
2.2	Hydraulic Piston Corer	1		
2.3	Rock Saw	1		
2.4	Core Liner Cutters	2		
2.5	Rock Mill	1		
2.6	Bottom Grab (Small)	2		
2.7	Bottom Grab (Large)	4		
2.8	Pipe dredge	3		
2.9	Side-scan sonar system	1		
2.10	Pingers	2		
2.11	Shallow-water Echosounder	1		
2.12	Multibeam Echosounder with all data acquisition / recording / preliminary processing / plotting sub-units / softwares (including SSV Sensor, SVP, DGPS, Motion sensor etc).	1 set		
2.13	Sub-Bottom Profiler	1		
2.14	Spade Corer	2		
2.15	Chain bag Dredges	1		
2.16	Core subsampling station / rollers	1		
2.17	Tension meter for Deep Sea Winch	1		
2.18	Sieve Shaker / Sieves (set of 7)	1		
3. Oceanography/Meteorology/Biology Equipment				
3.1	Multi Plankton Net (Automatic plankton Sampler / Std. Pressure meter / Buckets / Flow meter etc)	1 set		
3.2	XBT System	1		
3.3	CTD Profiling System & Rosette sampler	1		
3.4	CTD Profiling System & Rosette sampler	1		
3.5	Niskin Water samplers 1.7 ltrs	60		
3.6	Niskin Water samplers 5 ltrs	10		
3.7	Niskin Water samplers 10 ltrs	18		
3.8	Niskin Water samplers 30 ltrs	1		
3.9	Go-Flo Water samplers 30 ltrs	6		
3.10	Go-Flo Water samplers 12 litres	1		
3.11	Bucket Thermometers	2		
3.12	Barometer	1		
3.13	Thermosalinograph	1		

3.14	Auto.Weather station	1		
3.15	Rotary Shaker	1		
4. Auxiliary / General Equipment				
4.1	GPS + Power Supply	1		
4.2	CCTV System	1 set		
4.3	Refrigerators (Chem., multi, Stbd. Wet)	3		
4.4	Dry Ovens	3		
4.5	Deep freezer (Stabd. Wet)	2		
4.6	Meter wheel units (for CTD / Net operations)	2		
4.7	Personal Computer/Server & Peripherals (12 CPUs, 15 monitors)	12		
4.8	Local Area Network	1 set		
4.9	Printers	9		
4.10	External CD writer	1		
4.11	Scanner	1		
4.12	Plotter HP Designjet 1050 C plus	1		
4.13	Autoclave	1 no		
4.14	LCD Projector	1		
4.15	Dynamic Positioning System & sub-units	1 set		
4.16	HiPaP System & sub-units	1 set		
One year total AMC rates for all equipment in Annexure VII for items at 1 to 4. TOTAL				
5. List of Equipment for operation / sample / sub-sampling / data collection			Per year rate (Rs.)	
5.1	Gravity corer			
5.2	Hydraulic Piston Corer			
5.3	Rock Saw			
5.4	Liner Saw			
5.5	Rock Mill			
5.6	Grab (Small & Large)			
5.7	Pipe dredge			
5.8	Side-scan sonar system			
5.9	Pinger operation			
5.10	Sub-Bottom Profiler			
5.11	Multibeam Echosounder			
5.12	Coring (Gravity & Spade)			
5.13	Chain bag Dredging			
5.14	XBT System			
5.15	CTD Profiling System / Rosette			
5.16	Thermosalinograph			
5.17	CTD & Hydrographic Winch Operation			
5.18	Deep Sea Winch operation			
5.19	Single Beam Echosounder (Deep)			
5.20	Single Beam Echosounder (Shallow)			
5.21	Multi-Plankton, Bongo and other nets			
5.22	CCTV			
One year total operations rates for items for operations in Annexure VII (5). TOTAL				
6. List of equipment under warranty				
6.1	Deep sea Echosounder	1		
6.2	Laboratory Salinometer	1		
Total AMC rates for equipment under warranty for the items in Annexure VII (6)				

Price bid format – FORV Sagar Sampada

Sl.No	Name of Equipment	Quantity	AMC per unit per year (Rs)	Total AMC per year (Rs)
1.00 WHEEL HOUSE				
1.01	Echosounder 50 Khz	1 No.		
1.02	Echosounder 49Khz	1 No.		
1.03	Doppler Speed Log 270 KHz	1 No.		
1.04	Cableless Trawl sonde	1 set		
1.05	Integrated Fish Finding System	1 No.		
1.06	Sonar SX90	1 set		
2.00 METEOROLOGICAL LABORATORY				
2.01	Aspiration Psychrometer	1 No.		
2.02	Aneroid Barometer	1 No.		
2.03	Marine Barograph	1 No.		
2.04	Marine Mercury Barometer	1 No.		
2.05	Automatic Weather Station	1 No.		
3.00 EDP ROOM				
3.01	HP Server E5504	1 No.		
3.02	HP Desktop 3000 Pro 3090MT	1 No.		
3.03	LAN System complete	1 No.		
4.00 ACOUSTIC DETECTION ROOM				
4.01	Echosounder 38/120/200 Khz unit	1 No.		
4.02	Acoustic Doppler Current Profiler	1 No.		
4.03	EA-600 Echosounder	1 No.		
4.04	Depth display units at various locations	3 Nos		
4.05	Depth display unit	1 No.		
4.06	Differential Global Positioning System	1 No.		
4.07	Portable Echosounder EY-60	1 No.		
5.00 C-14 LABORATORY				
5.01	Isotope Fume Cupboard	1 No.		
5.02	Refrigerator	1 No.		
5.03	Incubator	1 No.		
6.00 DRY CHEMICAL LABORATORY				
6.01	6-Channel Autoanalyser system	1 Unit		
6.02	pH meter	1 No.		
6.03	Titration	1 No.		
6.04	Salinometer	2 Nos.		
6.05	CTD/Rosette Sampler	1 No.		
6.06	Fume Cupboard	1 No.		
6.07	Refrigerator	1 No.		
6.08	Expendable Bathy Thermograph unit	1 No.		
6.09	HP Deskjet 3000 Series PC	1 No.		
6.10	System Digital Clock	1 No.		

6.11	Underwater Camera	1 No.		
6.12	Dual Beam Spectrophotometer	1 No.		
7.00	WET CHEMICAL LABORATORY			
7.01	Water purifying plant with Prefiltration unit	1 Set		
7.02	Insulated water samplers	12 Nos		
7.03	Deep Sea Pressure protected reversing thermometer	06 Nos		
7.04	Deep Sea Pressure unprotected reversing thermometer	12 Nos		
7.05	Incubator	1 No.		
7.06	Muffle Furnace	1 No.		
7.07	Fume cupboard	2 Nos.		
7.08	Multiple Plankton Net Spare nets and buckets	1 No.		
7.09	Bongo net	1 No.		
8.00	Microbiology Laboratory			
8.01	Fume cupboard	1 No.		
8.02	Incubator	1 No.		
8.03	Refrigerator 190 lit.	1 No.		
8.04	Electronic Marine Balance	2 Nos.		
8.05	Electronic Marine Balance	1 No.		
8.06	Electronic Marine Balance	1 No.		
8.07	Binocular Microscope	2 Nos		
8.08	Stereoscopic Microscope	2 Nos.		
8.09	Stereoscopic Microscope	2 Nos		
8.10	Binocular Microscope	1 No.		
8.11	Fluorescent Trinocular Microscope with Digital Camera and HP Deskjet 3000 Series PC with Inkjet Printer UPS HCL 500 VA	1 No.		
8.12	Vacuum Pump	1 No.		
8.13	Hot Air Oven	1 No.		
8.14	BOD Incubator	1 No.		
8.15	Laminar Flow	1 No.		
8.16	Vertical Deep Freezer	1 No.		
8.17	Colony Counter	1 No.		
8.18	Laboratory Autoclave with Foot Lifting Arrangement	1 No.		
9.00	WET FISH LABORATORY			
9.01	Fume cupboard	1 No.		
9.02	Electronic Marine Balance	2 Nos.		
9.03	Electronic Marine Balance	1 No.		
9.04	Electronic Marine Balance	1 No.		
9.05	Ice Machine	1 No.		
9.06	Mincing Machine	1 No.		
9.07	Peeling Machine	1 No.		
10.00	AQUARIA			
10.01	Aquaria	12 Nos		
10.02	Gravity Tank	1 No.		
10.03	Heating element for the reservoir tank	1 No.		

10.04	Cooling Element for reservoir tank	1 No.		
10.05	Air Cooler	1 No.		
10.06	Circulation Pump	2 Nos		
10.07	Seawater pump	1 No.		
11.00 MISCELLANEOUS				
11.01	Oscilloscope	1 No.		
11.02	Power Supply unit	1 No.		
11.03	Power Supply unit	1 No.		
11.04	Megger	1 No.		
11.05	Digital Flow Meter	1 No.		
11.06	Current Meter	1 No.		
11.07	Smith Mc-Intyre Grab	3 Nos.		
11.08	Dredge	1 No.		
11.09	Box Corer	1 No.		
11.10	HP Deskjet 3000 Series PC	2 Nos.		
11.11	Oscilloscope Infinium	1 No.		
11.12	Saw Microtome	1 No.		
11.13	Fluorescent Trinocular Microscope with digital camera, HP Deskjet 3000 Series PC	1 set		
11.14	Stereo Microscope with high resolution camera Canon Powershot S50, HP Deskjet 3000 Series PC	1 set		
11.15	Portable ADCP	3 Nos.		
11.16	Fluorometer	1 No.		
11.17	Quartz Distillation Plant	1 No.		
One year total AMC rates for all equipment in Annexure VIII for items at 1 to 11. TOTAL				
12. List of Equipment for operation / sample / sub-sampling / data collection			Per year rate (Rs.)	
12.1	1.05 Integrated Fish Finding System			
12.2	1.06 Sonar SX90			
12.3	2.05 Automatic Weather Station			
12.4	4.01 Echosounder 38/120/200 Khz unit			
12.5	4.02 Acoustic Doppler Current Profiler			
12.6	4.03 EA-600 Echosounder			
12.7	6.05 CTD/Rosette Sampler			
12.8	10.00 AQUARIA			
One year operations rates for items for operations in Annexure VIII (12). TOTAL				

Price bid format – ORV Sagar Nidhi

Sl. No.	Name of the equipment	Qty	AMC per unit per year (Rs)	Total AMC per year (Rs)
1.	Deep Water Multi-beam Echo Sounder	1 Set		
2.	Shallow Water Multi-beam Echo Sounder	1 Set		
3.	Deep/ Shallow water Single-beam Echo Sounder with Pinger (Altimeter) / Digital Repeaters	1 Set		
4.	Acoustic Doppler Current Profiler	1 Set		
5.	Sub-Bottom Profiler	1 Set		
6.	Deep sea CTD with Rosette	1 Set		
7.	Deep sea CTD with Rosette	1 Set		
8.	CTD Winch along with cables/slip rings& related systems	1 Set		
9.	Hydrographic Winch along with cables/slip rings & related systems	1 Set		
10.	Marine Data Management System	1 Set		
11.	Thermo Salinograph (SST)	1 Set		
12.	Scientific Weather Station	1 Set		
13.	Fluoimager	1 Set		
14.	Auto-Salinometer	1 Set		
15.	Four Channel Auto analyzer	1 Set		
16.	Microscope	2 Set		
17.	Millipore Plant with vacuum pump & manifold	1 Set		
18.	Spectrophotometer	1		
19.	Centrifuge	1		
20.	Incubator	2		
21.	BOD Incubator	2		
22.	Laminar-flow	1		
23.	Autoclave	1		
24.	Acoustic Positioning System Operating Console	1 Set		
25.	HiPAP 500	1 Set		
26.	HPR LF400	1 Set		
27.	Transponders (MPT)	11		
28.	Transponders (MST)	5		
29.	Computers	22		
30.	Plotters	2		
31.	Printers	5		
32.	UPS	1		
33.	Corer 1.5m	1		

34.	Corer 6m	1		
35.	Grab	1		
One year total AMC rates for all equipment for items at IX (1 to 35) TOTAL				
List of Equipment for operation / sample / sub-sampling / data collection			Per year rate (Rs.)	
36.	Deep Water Multi-beam Echo Sounder			
37.	Shallow Water Multi-beam Echo Sounder			
38.	Deep/ Shallow water Single-beam Echo Sounder with Pinger (Altimeter) / Digital Repeaters			
39.	Acoustic Doppler Current Profiler			
40.	Sub-Bottom Profiler			
41.	Deep sea CTD with Rosette (Seabird)			
42.	Deep sea CTD with Rosette (Idronaut / General oceanic)			
43.	CTD Winch			
44.	Hydrographic Winch			
45.	Marine Data Management System			
46.	Thermo Salinograph (SST)			
47.	Scientific Weather Station			
48.	Corer 1.5m			
49.	Corer 6m			
50.	Grab			
51.	Plankton net			
One year total operations rates for items for operations 36 to 51. TOTAL				

Price bid format – ORV Sagar Manjusha

Sl. No.	Name of equipment	Qty	AMC per unit per year (Rs)	Total AMC per year (Rs)
1.	Spectro photo meter	1 set		
2.	Multi beam Echo sounder (Reson . Seabat7111) Frequency 100 kHz , Sound Velocity profiler AML, Motion Sensor- IXSEA-III, DGPS Fugro.	1 set		
3.	Single beam Echo sounder (Knudsen . Chirp 3260) Frequencies 12 kHz / 200 kHz, DGPS Hemisphere	1 set		
4.	Fluoimager	1 set		
5.	Zoom Stereo Microscope	1 set		
6.	4 channel Auto Analyzer (Ammonia, Phosphate, Silicate, Nitrate + Nitrite)	1 set		
7.	CTD (SBE 25Plus)	1		
8.	Gravity Corer (6m)	1		
9.	Sediment Grab	1		
One year total AMC rates for all equipment for items at 1 to 9. TOTAL				
List of Equipment for operation / sample / sub-sampling / data collection			Per year rate (Rs.)	
10.	Gravity Corer (6m)			
11.	Sediment Grab			
12.	Sachi disc			
13.	Zoo Plankton Net			
14.	Multi beam Echo sounder (Reson . Seabat7111) Frequency 100 kHz , Sound Velocity profiler AML, Motion Sensor- IXSEA-III, DGPS Fugro.			
15.	Single beam Echo sounder (Knudsen . Chirp 3260) Frequencies 12 kHz / 200 kHz, DGPS Hemisphere			
16.	CTD (SBE 25Plus)			
One year total operations rates for items for operations in 10 to 16. TOTAL				

Annexure – XI
(part of corrigendum dated 7th July, 2014)

Quoted Annual cost of Maintenance / Operation
(shall be used as criteria for arriving at L1 bidder)

S No	Description	Amount (Rs.)
1.	One year total AMC rates for all equipment in Annexure VII for items at 1 to 4.	
2.	One year total operations rates for items for operations in Annexure VII (5).	
3.	10% of total AMC rates for equipment under warranty for the items in Annexure VII (6)	
4.	One year total AMC rates for all equipment in Annexure VIII for items at 1 to 11.	
5.	One year operations rates for items for operations in Annexure VIII (12).	
6.	One year total AMC rates for all equipment in Annexure-IX for items from 1 to 35.	
7.	One year total operations rates for all equipment in Annexure- IX for items from 36 to 51.	
8.	One year total AMC rates for all equipment in Annexure- X for items from 1 to 9.	
9.	One year total operations rates for all equipment in Annexure- X for items from 10 to 16.	
10.	Service tax as applicable for above 9 items. (Please indicate % of service tax)	
11.	Any other taxes to be stated in price bid by the bidder.	
TOTAL		

(Important Note: Financial bids of technically qualified bidders shall be evaluated and the bidder who has quoted lowest rate for undertaking all works under the clause-2 for all equipment will only be considered. Partial tender will not be considered and will be rejected. The financial bids should be strictly in the format as provided at Annexure-VII (for Sagar Kanya), Annexure-VIII (for Sagar Sampada), Annexure - IX (for Sagar Nidhi) and Annexure- X (for Sagar Manjusha). Discounts, if any, to be included in the prices and not to be shown separately. The total annual cost of maintenance / operation is also should be provided in this format at Annexure-XI)

Authorized Signatory

Company Seal:

EQUIPMENT UNDER PROCUREMENT FOR ORV SAGAR KANYA

(please give indicative AMC prices)

S No	Equipment	Quantity	Indicative AMC price per year (Rs)
1	Magnetometer	1	
2	Magnetometer operation	1	
3	Auto analyser (for high precision measurements of nutrients)	1	
4	ADCP	1	
5	ADCP operation	1	
6	Filtration Unit	1	
7	Microscope	1	

EQUIPMENT UNDER PROCUREMENT FOR FORV SAGAR SAMPADA

(please give indicative AMC prices)

S No	Equipment	Quantity	Indicative AMC price per year (Rs)
1	Auto Trawl System	1	
2	Operation of Auto Trawl System	1	
3	6-Channel autoanalyser	1	
4	Operation of 6-Channel autoanalyser	1	
5	XCTD	1	
6	Operation of XCTD	1	
7	Spectrophotometer	1	
8	Operation Spectrophotometer	1	
9.	Reservoir Tank	1	

Authorized Signatory