



Mandatory documents

1. The signed and sealed copy of NIT document
2. Duly filled and signed commercial compliance sheet
3. Scanned copy of EMD related document as per NIT
4. Any other Tender related document as per NIT

All the above documents shall be uploaded in single pdf file

 <p>राष्ट्रीयसमद्रप्रौद्योगिकीसंस्थान NATIONAL INSTITUTE OF OCEAN TECHNOLOGY</p>	<p>सविदाआमंत्रणसूचना(नन.आ.स.) NOTICE INVITING TENDER (NIT)</p> <p>फ़ॉर्मसंख्या: NIOT/S&P/NIT Form No. e-procurement schedule</p>	
ननविदासंख्या/ Tender No.	NIOT/HVT/1416/2025-2026	
कोजारी/ Tender Title	Total Management of MoES Research Vessels including maintenance and operation of scientific equipment	
ननविदाप्रणाली/Tender Mode	OTTB (Open Tender Two Bid) - Domestic	
ननविदाजारीहोनेकीनिगथ/Tender Issue date	10.10.2025	
Pre-Bid Meeting	17.10.2025 at 11.00am through webex	
ननविदाबंदहोनेकीनिगथिसमय/Tender Closing Date and Time	31.10.2025 at 11.00am	
ननविदाखुलनेकीनिगथिसमय/ Tender Opening Date and Time	31.10.2025 at 11.30am	
Submission of EMD/ ईएमडीजमाकरना	INR. 1,33,00,000/- a) Scanned copy of the EMD to be uploaded in the Central Procurement portal b) Original EMD should be submitted through courier/speed post or in person dropped at the tender box. The original EMD should reach NIOT well before the Closing date and time of the tender.	
विविदाप्रलखेउपलब्धिस्थान/ Tender Documents available place	Tender documents can be downloaded from www.eprocure.gov.in/eprocure/app , Official website of NIOT, CMLRE, NCPOR & MoES till closing date and time of the Tender. The tender document fee is waived for downloading the Tender.	
Bidding Type & Tender submission/ बोलीकाप्रकार&ननविदाजमाकरना	The tender is being Two Bid system, Techno- commercial Bid and BOQ(Price Bid) should be submitted electronically through e-tender portal www.eprocure.gov.in/eprocure/app	
ई-ननविदाकेललयेसहायिमनैल/ Help manual for e-tender	Bidders may download the help documents and Bidders manual kit from www.eprocure.gov.in/eprocure/app For any technical queries related to operation of the Central Procurement Portal please mail to support-eproc@nic.in Helpdesk numbers are: Mobile Numbers- 91 8826246593 Tel: The 24 x 7 Help Desk Number 0120-4200462, 0120-4001002, 0120-4001005. For any issues / clarifications relating to the tender(s) published kindly contact the respective Tender Inviting Authority.	
अपनेप्रश्नईमेलआईडी परभेजें/ Send your queries to the email IDs	ननविदाकेअनिम चरणिक/ Upto Tender finalization	hvt@niot.res.in & stores@niot.res.in

राष्ट्रीयसमद्रप्रौद्योगिकीसंस्थान NATIONAL INSTITUTE OF OCEAN TECHNOLOGY
वेल्चेरीताम्बरममेनरोड VELACHERY TAMBARAM MAIN ROAD
नारायणपुरम, चेन्नै 600 100 NARAYANPURAM, CHENNAI 600 100
रा.स.प्रौ.सं. वेबसाइट/NIOT Website : <http://www.niot.res.in/tender>

BID PREPARATION AND TENDER SUBMISSION PROCEDURE INSTRUCTIONS FOR BIDDERS

Bidders may download the help documents and Bidders manual kit and FAQ from www.eprocure.gov.in/app. Toll free Help desk phone number 180030702232

a) For any technical queries related to operation of the Central Procurement Portal please mail to cphp-nic@nic.in OR please call 24x7 Toll Free No. **180030702232** and Mobile Numbers **91 7878007972, 91 7878007973, 91 7574889871, 917574889874**.

b) In addition to the above numbers, the new helpdesk numbers are: Mobile Numbers-91 8826246593 **Tel:** The 24 x 7 Help Desk Number 0120-4200462, 0120-4001002, 0120-4001005. Please mail to support-eproc@nic.in

c) For any policy related matter/clarifications please contact cphp-doe@nic.in - managed by Dept of Expenditure, Min of Finance.

d) For any issues / clarifications relating to the tender(s) published kindly contact the respective Tender Inviting Authority (NIOT).

e) The prospective Bidders should register them selves in the CPPP Portal and submit the Bids electronically through the CPPP portal. The paper based physical Tender submission is not permitted.

INTRODUCTION

National Institute of Ocean Technology (NIOT), an autonomous body under the Ministry of Earth Sciences is engaged in developing technology for utilizing ocean resources in an eco-friendly manner.

Notice Inviting Tender Document

E-bids are invited on behalf of the Ministry of Earth Sciences [MoES], Govt. of India for the **Total Management of MoES Research Vessels including maintenance and operation of scientific equipment** as per specifications attached in SCC and as per details given below

1. A. Submission of bids:

Bidders are requested to submit their Bid/quotation in single parts containing Technical proposal and price bid (BOQ) should be submitted electronically through **CPP Portal** eprocure@nic.in. The responsibility to ensure timely submission of bid lies with the bidder. Bids submitted through FAX or e-mail will not be considered. Bidders shall also attach scanned copies of all the requisite documents i.e. other certificates/documents specified in the tender documents. The bids are to be submitted (electronically) as per the bidding type indicated in the front page of the NIT. The bidders are advised to obtain DSC (Digital signature Certificate) from the authorized register with. The bid/quotation cannot be submitted without DSC, **no manual tender is acceptable.**

Part-1 should contain Techno-Commercial Bid and duly signed blank price bid (without indicating the cost). All documents to be submitted for tender to be uploaded to the portal only. **The price/cost should not to be revealed in the technical bid, if the price/ cost is revealed, the tender will be treated as invalid.**

The bids are to be submitted as per the bidding type indicated in the front page of the NIT.

Part-2 should contain only the price bid indicating the cost

The Part-1 (Technical bid) and Part-2 (Price bid) should be uploaded separately, indicating the Tender No, Tender date, Tender due date and time. Please note that to participate in the tender, Digital Signature (DSC) has to be obtained. If you are a regular supplier of NIOT it is requested to register your company with portal and to procure if not owned already.

1. B. Evaluation of Bids

i. Evaluation based only on declared criteria

The evaluation shall be based upon scrutiny and examination of all relevant data and details submitted by Bidder in its/ his bid and other allied information deemed appropriate by Procuring Entity. Evaluation of bids shall be based only on the criteria/ conditions included in the Tender Document (NIT & SCC and Corrigendum)

ii. Infirmary/ Irregularity/ Non-Conformity/ Deviations - Substantive or Minor

1. An infirmity/ irregularity or non-conformity/ exception/ deviation/ reservation/ omission from the requirements of the Tender Document shall be considered as a substantive deviation as per the following norm, and the rest shall be considered as Minor deviation: which affects in any substantive way the scope of work, quality, or performance of the service;

(i) which limits in any substantive way, inconsistent with the Tender Document, the Procuring Entity's rights or the Bidder's obligations under the contract.

2. The decision of the Procuring Entity shall be final in this regard. Bids with substantive deviations shall be rejected as nonresponsive

3. The Procuring Entity reserves the right to accept or reject bids with any minor deviations. Wherever necessary; the Procuring Entity shall convey its observation as per sub-clause below, on such 'minor' issues to Bidder by registered/ speed post/ electronically etc. asking Bidder to respond by a specified date. If Bidder does not reply by the specified date or gives an evasive reply without clarifying the point at issue in clear terms, that bid shall be liable to be rejected as non-responsive.

iii. Clarification of Bids and shortfall documents;

During the evaluation of Techno commercial or Financial Bids, the Procuring Entity may, at its discretion, but without any obligation to do so, ask Bidder to clarify its bid by a specified date. Bidder should answer the clarification within that specified date (or, if not specified, 7 days from the date of receipt of such request). The request for clarification shall be submitted in writing or electronically, and no change in prices or substance of the bid shall be sought, offered, or permitted that may grant any undue advantage to such bidder

The Procuring Entity reserves its right to, but without any obligation to do so, to seek any shortfall information/ documents only in case of historical documents which pre-existed at the time of the tender opening, and which have not undergone change since then and does not grant any undue advantage to any bidder. There is a provision on the portal for requesting Short-fall documents from the bidders. The system allows taking the shortfall documents from any bidders only once after the technical bid opening

iv. Contacting Procuring Entity during the evaluation

From the time of bid submission to awarding the contract, no Bidder shall contact the Procuring Entity on any matter relating to the submitted bid. If a Bidder needs to contact the Procuring Entity for any reason relating to this tender and/ or its bid, it should do so only in writing or electronically. Any effort by a Bidder to influence the Procuring Entity during the processing of bids, evaluation, bid comparison or award decisions shall be construed as a violation of the Code of Integrity, and bid shall be liable to be rejected as non-responsive in addition to other punitive actions for violation of Code of Integrity as per the Tender Document

v. Techno-commercial Evaluation

Only substantively responsive bids shall be evaluated for techno-commercial evaluation. In evaluating the techno-commercial bid, conformity to the eligibility/ qualification criteria, technical specifications, and commercial conditions of the offered service to those in the Tender Document is ascertained. Additional factors incorporated in the Tender Document shall also be considered in the manner indicated therein. Bids with substantive techno-commercial deviations shall be rejected as nonresponsive. Procuring entity reserves its right to consider and allow minor deviations in technical and Commercial Conditions

vi. Evaluation of Conformity to Commercial and Other Clauses

Bidder must comply with all the Commercial and other clauses of the Tender Document as per NIT, SCC. The Procuring Entity shall also evaluate the commercial conditions quoted by Bidder to confirm that all terms and conditions stipulated in the Tender Document have been accepted without substantive omissions/ reservations/ exception/ deviation by the Bidder. Performance Bond/ Security, Force Majeure, Taxes & Duties, payment, and Code of Integrity, etc.

vii. Declaration of Techno-commercially Suitable Bidders and Opening of Financial Bids

Bids that succeed in the above techno-commercial evaluation shall be considered techno-commercially

suitable, and financial evaluation shall be done only of such Bids. The list of such techno-commercially suitable bidders and a date/time and venue for the opening of their financial bids shall be declared on the Portal.

viii. **Evaluation of Financial Bids and Ranking of Bids**

Unless otherwise stipulated, evaluation of the financial bids shall be on the price criteria only. Financial Bids of all Techno-commercially suitable bids are evaluated and ranked to determine the lowest priced bidder

2. This NIT shall form part of the Letter of Intent (LOI)&Contract document.

3. Terms and conditions indicated in the NIT (GCC) shall be superseded by the terms and conditions mentioned in the Special conditions of contract (SCC) indicated below wherever difference arises.

INSTRUCTIONS TO THE BIDDER

4. Pre Bid meeting:

Pre bid meeting shall be held on **17.10.2025 at 11.00 am** through video conference to clarify queries from all potential bidders. Potential bidders are advised to send their queries sufficiently in advance by email on or before **16.10.2025 at 3.00 pm** to hvt@niot.res.in & stores@niot.res.in.

Corrigendum issued based on pre bid meeting clarification shall form part of the tender and the LOI/Contract will be issued to the successful bidder.

5. Security

Any information / material / document supplied along with this tender or after placement LOI Should not be disclosed or copied without written permission from NIOT.

6. Contacting NIOT

No correspondence / discussion /visits whatsoever will be entertained on the subject unless specifically called by this office after opening the tender for clarifications. Any violation of this will render the quotation as invalid. However, if the bidder requires any clarification on the bid, the query may be mailed to the mail ID hvt@niot.res.in.

7. Tender Opening:

All the tenderer can participate in the tender opening with proper authorization letter from the respective Company.

8. Default in Performance:

If any Contractor is not successfully discharging their contractual obligations against the LOI /contract placed on them by NIOT/MoES within the agreed time limit, (OR) if there is any deficiency in performing such obligations, NIOT/MoES reserves the right to suspend such Contractor from participation in future tenders of NIOT/MoES for a minimum period of one year after encashing /forfeiting the EMD / Performance Security submitted by the contractor. Even after revoking the suspension period if the Contractor's performance still continues to be the same without any improvement, NIOT/MoES reserves its right to BAN such contractor permanently from participation in all the tenders of NIOT/MoES and other organizations under MoES.

9. LOI Acceptance:

A Letter of Intent (LOI) will be issued to the successful lowest bidder. The successful bidder (contractor)

should accept LOI within 14 days from the date of the LOI issuance by NIOT/MoES, failing which it shall be presumed that the contractor is not interested, and the EMD submitted by the bidder will be cashed or forfeited. The copy of the PS should be submitted along with the LOI acceptance and original through courier.

10. Service: Successful bidder shall sign the contract within 15 days from the date of LOI acceptance. The work should commence only after signing of the contract.

11. Signing of Contract:

The contract to be signed on INR 1000 non-judicial stamp paper within 15 days from the date of LOI acceptance. The contractor should submit Power of Attorney and Board Resolution Copy for the official who is authorized to sign the contract with NIOT/MoES. If the contract is signed by the Director of the firm, copy of the memorandum of Association (MOA) to be submitted. Any deviation or non-compliance on the time-line of Clause number 44 will be invoked.

12. One Bid per Bidder:

A firm shall submit only one bid either individually or as a partner of a joint venture. A firm that submits either individually or, as a member of a joint venture, if a bidder submitting more than one bid will result in rejection of all the bids.

13. Techno-Commercial Criteria

a) Technical Criteria

1. The prospective bidder must be a reputed Shipping Management company having a registered office in India fulfilling all the eligibility criteria as specified in the following paragraphs. Necessary documents in satisfactory proof of each of the criteria stated below are to be submitted as part of the Technical offer.
2. The prospective firm has to fulfill the following conditions to get technically qualified for the ship management and operation contract.
 - a. The firm should have experience of the mentioned services as per work scope. Offers from stand-alone firms only and not from bidders joined together with others will be considered. Consortium bids will not be entertained. However, if any potential bidder is not having requisite experience and expertise in ship-catering and scientific equipment maintenance and operation, arrangement with firms with such expertise through legally enforceable agreement can be considered. Bidders having such an arrangement should produce the relevant documentary proof.
 - b. The firms must have prior experience in maintenance, manning and operation of at least 2 vessels of minimum 4000 GT each. The reference vessels of experience to be minimum of 70m LOA and should have more than 20 days endurance at sea. Eligible firms to produce documentary evidence for satisfactory Management of vessels. The firm to provide performance certificate, work orders, track record, etc., for each and every contract being claimed as experience by the bidders.
 - c. The firms shall have shore-based maintenance establishment throughout the contract period to carry-out any running Maintenance of Equipment including structural/mechanical/Piping/Electrical workshop support/ OEM service, calibration supply of consumables for electronic, navigational, communication and Scientific equipment onboard these vessels.
 - d. The associate partner, if any, for the scientific operation and maintenance should have a minimum of 2 years of experience in maintenance of scientific equipment. Proven experience of maintenance of scientific equipment onboard vessels is required with minimum 11 experienced engineers

(Meteorological, Hydrography, Survey, seismic, oceanographic, fisheries, geo technical etc). The main contractor is responsible for the satisfactory discharge of all obligations under this contract, even if it is arranged through the associate partner.

3. Management capabilities: The firm should have an established Business-house and should have enlisted/own Agents in all major Indian ports. If not own agency, an MOU with a shipping agency is to be submitted along with the bid. Details with documentary evidence are required to be produced by the firm. The shipping agent should have at least five years of experience in all shipping-agency related works with good knowledge of Government of India procedures on documentation.
4. Management Experience: The technical personnel operating and manning the office should have a minimum of five years experience as on 31.3.2025 in vessel management and operations. These technical personnel shall comprise one Certified Marine Engineer with MOT first class and one Master mariner (Master FG) certificate holder and three Marine Engineers with experience in Marine/Electrical and Electronics Engineering
5. The catering and housekeeping services should have a minimum of three years experience in marine operations under their control either on own or through a sub-contract.
6. Firm shall have to provide Document of Compliances (DOC) for “other cargo ships” type for the last five years.
7. For each of the above criteria, necessary documents in proof to be submitted as part of Technical bid that shall satisfy the criteria irrespective of whether this documents requirement is stated against each criteria or not. Technical compliance check list may be filled in and submitted

b) Financial Criteria

- 1 The average annual gross billing of the bidder during the last three years, ending on ‘31st March 2025, should be at least INR 200 crores as per the annual report (a. audited balance sheet and b. profit & loss account report) of the relevant period, duly authenticated by a Chartered Accountant/Cost Accountant in India.
- 2 The net worth of the Bidder firm should not be negative year ending 31.03.2025 and also should not have eroded by more than 30% (thirty percent) in last three years, year ending 31.03.2025.

BIDDING CONDITIONS

14. Due date Extension, Corrigendum to NIT:

Any corrigendum including due date extension for NIT, Pre-bid minutes of meeting if any will be notified in NIOT/CMLRE/NCPOR website and NIC CPP Portal. Hence bidders are requested to visit the above websites for such due date extension and corrigendum if any.

15. In case of the unscheduled holiday in Chennai

Being declared on the prescribed closing /opening day of the tender, the next working day will be treated as the scheduled prescribed day of closing /opening of the tender.

16. Un solicited correspondences:

NIOT/MoES will not entertain any unsolicited correspondence or queries on the status of offer against this tender.

17. Submission of tender:

Submission of tender by any Indian bidder implies that he has read this notice and all other documents and has made himself aware of the scope and specifications of the work to be done and conditions of the NIT

and SCC. Conditional offers are liable for rejection. Bidders also to understand that being e-tender shall submit their tenders as per e-tender instructions well before the due date and time.

18. Non Receipt of Tender:

NIOT/MoES will not be responsible for the non receipt of the tender due to any network problem.

19. Bid Validity:

Bids shall remain valid and open for acceptance for a minimum period of **120 days** from the date of opening of Un-priced Techno-Commercial Bids when fully compliant tender is submitted by the bidder without any requirement for NIOT/MoES to seek additional documents towards evaluation of techno-commercial criteria and/or in ensuring conformance to the specifications /requirements of the tender. In the event of any delay in evaluation attributable to the bidder, bidders shall extend the tender validity by such a time taken by them in addition to above minimum tender validity period. A Bid valid for shorter validity period will be considered as a conditional tender and treated as invalid tender.

20. Bid validity extension:

In exceptional circumstances, prior to expiry of the original Bid validity period, NIOT/MoES may request the Bidder for a specified extension in the period of validity. The request and the responses there to shall be made in writing. A Bidder agreeing to the request will not be required nor permitted to modify his bid, and will be required to extend the bid as requested by NIOT/MoES as per the bid security declaration [Annexure-D] submitted.

21. Conditional offers

Any Conditional Offer /quotations shall not be accepted and shall be treated as invalid tender and liable for rejection.

21 a. Acceptance of bids: NIOT/MoES may accept or reject any/all tenders including the lowest tender without assigning any reasons whatsoever. NIOT/MoES also reserves its right to accept any tender in part or parts only with such conditions as it may prescribe. NIOT/MoES is not bound to accept the lowest tender. NIOT/MoES expects full technical compliance and experts full scope of integrated service as per scope/tender specification and do not accept partial tenders.

22. EMD / Bid Security:

The EMD / Bid security is mandatory requirement as indicated in the cover page and should be submitted along with the technical bid for the value indicated in the front page of this tender document. Bids without EMD will be summarily rejected.

The EMD / Bid Security shall be in the form of a Bank demand draft drawn in favour of “NIOT OTHER RECEIPT ACCOUNT” in INR or in equivalent foreign currency or a guarantee from a public sector bank or reputed foreign bank acceptable to NIOT/MoES and the original should be submitted to NIOT before tender due date. The format of the guarantee shall be in accordance with the sample form of Bid Security available at NIOT web site.

The format can be downloaded from the website <https://www.niot.res.in/index.php/vendor/login>.

- a) By Demand Draft / Banker's Cheque drawn in favour of “NIOT-OTHER RECEIPTS ACCOUNT”, NIOT, payable at Chennai (or)
- b) Bank Guarantee as per prescribed format [Annexure-B] issued by an Indian nationalized bank or indicate in stamp paper of appropriate value and valid for 60 days beyond the validity of the bid. (or)

- c) Insurance Security Bond (or)
- d) Fixed Deposit Receipt (or)
- e) Online payment in an acceptable form.

If the EMD (scanned copy of the EMD) is not submitted along with Techno-commercial(Part-I). The bid will be summarily rejected. The original EMD should be submitted (or) reach NIOT on or before closing date the time of the tender.

MSME Clause:

“Micro and Small Enterprises (MSE’s) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME)” are exempt from submission of EMD (Bid Security). Bidders claiming exemption of EMD under this rule (170 of GFR) are however required to submit a signed bid securing declaration (format to be enclosed) along with the relevant and valid exemption certificate issue by the appropriate authorities, accepting that if they withdraw or modify their bids during the period of validity, or if they are awarded the contract and they fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document, they will be suspended for the period of one year from being eligible to submit bids for tenders with NIOT/CMLRE/NCPOR and all the departments under MoES. The bid declaration format to be attached.

MSME Conditions:

- (a) The MSE’s bidder who claims EMD exemption as per their eligibility are requested to submit the Bid securing Declaration.
- (b) the MSE’s bidder to note and ensure that nature of service and goods/items manufactured mentioned in MSE’s certificate matches with the nature of the service and goods/item to be supplied as per tender.
- (c) Retail & Whole sale Traders : Any bidder who are re-tailer / Traders claim EMD / Bid security exemption shall refer Ministry OM 5/2(2)/2021-E/P&G/Policy dt. 02.07.2021 &5/2(1)2020/E-P&G/Policy dt. 01.12.2020.

The MSME is classified as mentioned below;(Ref Ministry of MSME Revised Classification applicable w.e.f 1st April 2025)

- (i) Micro Enterprises : Where the investment in plant and machinery or equipment does not exceed 2.5 crore rupees and turnover does not exceed 10 crore rupee,
- (ii) Small Enterprises : Where the investment in plant and machinery or equipment does not exceed 25 crore rupees and turnover does not exceed 100 crore rupee,
- (iii) Medium Enterprises : Where the investment in plant and machinery or equipment does not exceed 125 crore rupees and turnover does not exceed 500 crore rupee

Start-up Enterprises:

1) Up to a period of ten years from the date of incorporation/ registration, if it is incorporated as a private limited company (as defined in the Companies Act, 2013) or registered as a partnership firm (registered under section 59 of the Partnership Act, 1932) or a limited liability partnership (under the Limited Liability Partnership Act, 2008) in India, and Turnover of the entity for any of the financial years since incorporation/ registration has not exceeded one hundred crore rupees, and The entity works towards innovation, development or improvement of products or processes or services or a scalable business model with a high potential for employment generation or wealth creation.

As defined by DPIIT, an entity shall be considered as a 'Start-up':

- 2) Provided that an entity formed by splitting up or reconstructing an existing business shall not be considered a 'Start-up'.
- 3) A Start-up so identified under the above definition shall be required to obtain and submit along with his bid a certificate of an eligible Start-up from the inter-Ministerial Board of Certification to obtain support.

Relaxation to Start-ups

The Government of India has ordered the following support to Start-ups (as defined by the Department of Promotion of Industrial and Internal Trade - DPIIT).

Exemption from submission of Bid Security: Such Start-ups shall be exempted from payment of Earnest Money. (as per ITB-clause 9.4 below, they shall be required only to submit Bid Security Declaration)

Relaxation in Prior Turnover and Experience: The Procuring Entity reserves its right to relax the condition of prior turnover and prior experience for start-up enterprises subject to meeting of quality & technical specifications.

EMD Exemption for MSEs and Registered Vendor

The EMD exemption shall be applicable for the following bidders

- i). MSEs registered with valid MSEs registration number
- ii). Registered vendor of NIOT/CMLRE/NCPOR for the similar tender category
- iii). Registered with the Central Procurement Organization or the concerned department for the similar tender category.

The bidder who is claiming EMD exemption shall be required only to submit a Bid Security declaration.

23. Conditions for EMD/Bid Security:

EMD shall be returned / discharged to unsuccessful bidders within 15 days after the expiration of the period of bid validity or replacement of LOI whichever is later.

EMD may be forfeited:

- a) If a bidder withdraws, modifies or provides unsolicited offer voluntarily revising the price in whatsoever aspect, its bid during the period of bid validity specified by the bidder on the bid form; or
- b) In case of a successful bidder, fails to furnish LOI acceptance within 7 days of the LOI and /or fails to furnish Performance Security.

EMD for a successful bidder shall be adjusted against performance security payable, if EMD is submitted in the form of DD / refunded, if performance security is paid in full / performance security is submitted in the form of Bank Guarantee.

24. Signing of bids:

Each page of the tender and tender document shall be signed and uploaded by the bidder in e-Procurement portal.

25. Submission of the compliance sheets along with tender

Submission of all compliance sheets as per Annexure-A.

Technical & commercial compliance sheets along with their documentary evidence and offer as per table-

3 - check list for technical bid submission.

Tenders without compliance sheets will not be evaluated.

The price bid should be unconditional.

26. Bid or modification to bids:

Bid or modification to bids received after closing date and time shall not be considered. Such modified bid together with original bid will summarily be rejected. Modification to the bid after reopening the bid will not be considered unless specifically requested for by NIOT/MoES. Such unsolicited communication will result in rejection of the tender submitted by the bidder and other action as per GoI guidelines.

27. Canvassing:

Exerting pressure and/or offering induce meant in any form by the bidder or by any other person on behalf of the bidder shall disqualify the bid and lead to its rejection.

28. Award of the Contract:

NIOT/MoES shall place the LOI to the successful bidder as per NIT / SCC / Corrigendum terms only. Model Contract is provided herewith as Annexure-III.

29. Commercial compliance shall be uploaded along with the offer as per the NIT.

TERMS AND CONDITIONS GOVERNING THE CONTRACT

30. Currency of bids:

Prices should be quoted in Indian Rupees (INR) only and Payments shall be made in Indian Rupees only.

31. Guaranteed period of Completion–specific performance of contract:

The Guaranteed time of commencement of Total Vessel Management of Research Vessels as per tender technical specifications / scope within 30 days from the date of signing of the contract. The contractor will be subject to continued progress monitoring by the MoES/NIOT/CMLRE/NCPOR and any short fall in the proposed physical progress shall be made good at the earliest opportunity. However, in the assessment of MoES that contractor is not committed to ensure timely performance, MoES can take any action including the Risk Purchase guidelines of Govt. of India and in public interest to ensure timely completion of the work without cost and time over run. Time is the essence of the contract. Contractor shall ensure that the entire contractual obligations are fulfilled / completed well within guaranteed completion period.

32. Extension of Completion period:

If the completion of service is delayed due to force majeure such as acts of God, acts of Public enemy, acts of Government, fires, floods, epidemics, quarantine restrictions, illegal strikes and freight embargoes, the Contractor shall within 3 days from the date of such occurrence, give notice to MoES in writing of his claim for extension of Completion period. MoES on receipt of such notice may agree to extend the Contract completion period as may be reasonable but without prejudice to other terms and conditions of the contract. Unless the extended delivery period is agreed by MoES in writing, contractor cannot claim the extension of delivery period as a matter of right. MoES shall have the right to either cancel / extend the time period / levy LD as appropriate.

33. Delay incompletion/Liquidated Damage (LD):

If the Contractor fails to complete the Scope of work or fails to accept the vessel and such delay [based on the contract clause 44] is attributable to the contractor, NIOT/CMLRE/NCPOR shall recover from the contractor as liquidated damages a sum of 1% of the contract price of the respective year for each week of delay. The total liquidated damages shall not exceed 10%(ten percent) of the contract price of the respective year.

34. Insurance:

The successful bidder should get the personnel, equipment and material supplied under this contract insured against all risk loss or damage that may be caused during the course of manufacturing, transportation, supply, erection / Installation and acceptance of components of this tender within contract price well before commencement of the work in the manner specified in SCC. The proof shall be submitted to NIOT/NCPOR/CMLRE. Copy of insurance shall be submitted to NIOT/NCPOR/CMLRE and it is contractor's responsibility to keep in force the insurance policy to cover all risk during the entire currency of contract and until the work is handed over to NIOT/NCPOR/CMLRE. Any accidents occurred in the due process of work shall be insured in all risk insurance policy and within the contract price. Any claim arising under this contract shall be settled by the contractor without waiting for settlement of insurance claim and shall proceed with the work for timely completion as envisaged under this contract. All risk policy covering entire project activities shall be submitted well before commencement of any work under this contract.

35. Service contract Insurance:

Contractor shall take out and keep in force adequate insurance to cover all risks. (a) In respect of their personnel deputed to work under the Contract. (b) In respect of their own as well as hired equipment (to the extent of their insurance interest) tools, materials, and operational facilities used during the entire period of their engagement in connection with the Contract to the insurable value of equipment, manpower and other things. NIOT /CMLRE/NCPOR shall have no liability whatsoever in this regard. Such insurance policies of the Contractor shall embody the following clauses.

“The Insurers hereby waive their rights of subrogation against National Institute of Ocean Technology, or any of their employees or their subsidiaries, affiliates or assigns.”

36. Force Majeure:

For purposes of this Clause, "Force Majeure" means an event beyond the control of the Contractor and not involving the Contractor's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of NIOT/NCPOR/CMLRE either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes. If a Force Majeure situation arises, the Contractor shall promptly notify NIOT/NCPOR/CMLRE in writing of such conditions and the cause thereof. Unless otherwise directed by NIOT/NCPOR/CMLRE in writing, the Contractor shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

37. Taxes and duties:

GST will be paid as per applicable HSN Code to that extent.

Deductibles:

- a) **Deduction of Indian Income Tax Deduction at Source for the Indian bidders:** TDS will be deducted as per the extant government norms. Valid Permanent Account Number (PAN) is mandatory.

b) GST-TDS:

GST-TDS is deductible on supply of goods or Service in respect of Intra-State supplies per the extant government norms and in case of Inter-State supplies @ the rate of 2% IGST from the payment made or credited to the supplier of taxable goods or Service.

38. Performance Security:

- a. The successful bidder (contractor) should deposit 5% of the total annual contract value as Performance Security **within 15 days** from the date of issue of LOI. Further, Performance Security should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier as per
- b. The PS should be submitted for each year separately @ 5% of the annual contract value. The successful bidder should submit 2nd year PS within 15 days from the date of the contract renewal and before expiry of the 1st year PS. Similarly, the 3rd year PS should be submitted within 15 days from the date of the contract renewal and before the expiry of 2nd year PS.
- c. The first year PS will be discharged after accepting the 2nd year PS and 2nd year PS will be discharged after accepting 3rd year PS. The 3rd year PS will be discharged after a period of sixty days beyond the date of completion of all contractual obligations of the supplier as per GFR guidelines.

The value of performance security shall be at prevalent rates and as per Govt. of directives in force from time to time in one of the following forms:

- (1) Insurance Surety Bonds,
- (2) Account Payee Demand Draft (drawn in favour of “The Director N.I.O.T”, Chennai in INR or in equivalent foreign currency),
- (3) Fixed Deposit Receipt from any Commercial Bank.
- (4) Bank Guarantee from any of the Commercial Banks.
- (5) Online payment in an acceptable form.

Performance security shall be forfeited in the event of breach of contract by the contractor in terms of the contract. If Performance Security is not paid within the specified time, MoES/NIOT/CMLRE/NCPOR reserves its right to cancel the LOI and the EMD submitted shall be forfeited.

The performance security shall be refunded / discharged after virtual completion certification of the work scope as per the contract. The performance security shall be liable to be forfeited at the option of NIOT/MoES, if the Contractor fails to carry out the work or to perform / observe any of the conditions of the Contract.

MoES/NIOT/CMLRE/NCPOR shall be at liberty to deduct / recover any of their dues from the performance guarantee. All compensation or any other sums of money payable by the Contractor to NIOT/MoES under the terms of the Contract may be deducted from or paid by encashment/ adjustment of a sufficient part of the performance guarantee or from any sum due or maybe come due to the Contractor by NIOT/MoES on any account whatsoever and in the event of his Contract Performance Guarantee being reduced by reason of any such deduction or encashment as afore said, the Contractor shall within fifteen days thereafter, make good the amount so reduced, in the form of Bank Guarantee in the prescribed format. If not made good within the said period, if MoES/NIOT/CMLRE/NCPOR feels in public interest to terminate the contract and complete the work at the risk and cost of the contractor.

39. Termination of contract by MoES/NIOT/CMLRE/NCPOR:

a) The contract shall become effective from the date of signing of contract and the contract shall automatically get terminated after successful completion of all contractual obligation as per the terms of the contract.

b) (i) Termination of the contract due to breach of contract by the contractor

(ii) Termination of contract due to default,

(iii) Termination of the contract due to insolvency,

(iv) Termination of the contract for convenience.

If the termination of the contract happens due to the above factors, [(i), (ii) &(iv)] initially the written notice will be issued within 30 days to settle the issue on mutually agreed terms with mutual consent. Else, the matter will be referred to the Mediators (IEMs) for their advise / settlement. If the settlement is not fruitful the parties can proceed for arbitration as per the clause 40. During this process the contract will be in live and continue to be live till the termination notice is issued. If the contract is terminated due to the any factors above, except (iii) depending on the merit of the case, the contractor shall be suitably compensated and mutual agreed terms for terminating the contract shall be arrived with the consent of IEMs.

The contract may also be terminated in respect of one or more vessels, without necessarily terminating the contract in its entirety for all vessels.

40. Mediation/Arbitration/Dispute

In the event of any dispute at any time during the entire duration of the contract, both the parties shall try to resolve through mutual decisions to resolve such disputes. In case of the same is not resolved, parties will submit for mediation to IEM under the integrity pact and as per extent instructions of Govt. of India for resolution. No party shall rush to any court of law without completion of the mediation process directed in Dept. of Expenditure order no. F.11212024-PPD dated 03.06.2024. In the event of any disputes, differences, interpretation or application relating to this agreement arise, the same shall be settled amicably by the parties.

In the event of any dispute, difference, interpretation or application relating to this agreement arises, the same shall be settled amicably by the parties. In case the dispute or differences could not be settled amicably, the same shall be referred for adjudication through Mediation by any authority to be appointed as Mediator by the MoES.

However, expenses incurred by each party in connection with the preparation, presentation etc., shall be borne by each party if any. The Jurisdiction / venue for arbitration will be at New Delhi.

41. Indemnities:

The Contractor hereby agrees to indemnify and hold harmless MoES/NIOT/CMLRE/NCPOR, its Director, officers and employees, from and against any and all suits, losses, liabilities, damages, claims, settlements, costs and expenses, including reasonable attorneys' fees, based on or arising, directly or indirectly, from:

i) Breach of this contract / Agreement by the Contractor

ii) Not performing the Scope of Work or any other obligation under this Agreement or Tender in accordance with the provisions and schedules of this Agreement or the Tender

iii) Violation or contravention of any Legislation on the part of the Contractor

iv) Any negligence or willful misconduct of Contractor, which violates any provision of this Agreement

- v) Infringement of any intellectual property belonging to any third party by the Contractor
- vi) Any breach of an agreement or misunderstanding between Contractor and any and all Third Parties due to which a liability arises on MoES/NIOT/CMLRE/NCPOR
- vii) Any claim that any representations or warranties contained herein are not true or any breach thereof
- viii) Any loss or damage caused by the Contract or to MoES/NIOT/CMLRE/NCPOR, its personnel or property
- ix) Any loss or damage caused by the Contractor to any and all Third Parties for which a claim against MoES/NIOT/CMLRE/NCPOR has arisen
- x) Breach, expiry, cancellation, revocation or invalidity of any and all licenses, permits, authorizations and registrations which the Contractor is required to obtain, keep valid and comply with under any Legislation in order to perform its obligations hereunder
- xi) Any obligation of the Contractor performed by MoES/NIOT/CMLRE/NCPOR under this Agreement or under any Legislation
- xii) Payment of all royalties, rent, toll charges, local taxes, other payments or compensation, if any, for getting all materials and equipment required for the work.
- xiii) Unauthorized obstruction or nuisance caused by the contract or in respect of Public or Private Road, railway tracks, foot paths, crane tracks, waterways, quays and other properties belonging to any person.
- xiv) Damage / injury caused to any high way and bridge on account of the movement of Contractor's equipment and materials in connection with the work.
- xv) Pollution of water way and damage caused to river, lock, seawall or other structure related to waterway, in transporting contractor's equipment and materials, except where such pollution is normal to the activities carried out.

42. Assignment and Subcontracting

The Contractor shall not assign the Contractor any part thereof, or any benefit or interest there in or here under, nor assume a fresh partner or partners nor dissolve the partnership at present subsisting between them in reference to this contract without a formal written request and approval by MoES/NIOT/CMLRE/NCPOR. Also the Contractor shall not assign the Contractor any part thereof, or any benefit or interest therein or here under, nor assume a fresh partner or partners nor dissolve the partnership at present subsisting between the min reference to this contract without a formal written request and approval by MoES/NIOT/CMLRE/NCPOR. Contracting arrangements for the purpose of qualifying shall be ensured throughout the currency of contract and not subject to any change post award of contract.

43. Pre-Integrity Pact

NIOT/MoES have to adopt an Integrity Pact (IP) to ensure transparency, equity and competitiveness in major public procurement activities. The integrity pact envisages an agreement between the successful bidders with MoES/NIOT/CMLRE/NCPOR committing the persons/officials of both the parties with the aim not to exercise any corrupt influence on any aspect of the contract. The bidders shall agree to enter in to such an integrity pact with MoES/NIOT/CMLRE/NCPOR as per forms available in the web site: www.niot.res.in (pre-contract integrity pack format is Attached – Annexure-C)

44. Consolidated timeline of the contract

- a. The LOI acceptance is to be submitted within 14 days from the date of LOI issue.
- b. Performance Security should be submitted within 15 days of the LOI issue
- c. Signing the contract shall be executed within the 15 days from the date of LOI acceptance
- d. Vessel should accept by the Contractor within 30 days from the date of Signing the Contract
- e. The works shall be carried out as per the contract

If any deviation / Non-compliance on the above time-line shall be considered as non-compliance of the tender conditions, the clause number 33 & 38 or separately will be invoked/applied suitably.

45. Negotiations:

Normally, there will not be a negotiation. Negotiations shall be a rare exception rather than the rule and may be resorted to only in exceptional circumstances. If it is decided to hold negotiations for reduction of prices, it will be held only with the lowest acceptable bidder (L1),

46. Tolerance clause:

- a) In terms of duration: The tender is for three years i.e approximately 1095 days. The department is allowed for an increase or decrease the number of days by 180 days (~6 months) i.e 15% of the contract period shall be the tolerance in terms of time.
- b) In terms of services / procurement: The purchaser also reserves the right to increase or decrease the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates.

47. Intellectual Property:

NIOT/MoES shall have a right of use to all deliverables provided by CONTRACTOR for the ordinary purpose of this contract and make similar systems in the future. As long as the payment for services according to the milestone payment plan plus any additional costs if applicable does not take place, all rights in the CONTRACTOR deliverables remain with CONTRACTOR.

Annexure-A - Commercial Terms Compliance sheet (To be filled by bidder)

Sl. No	Particulars	Yes	No	Page Ref
1.	Whether every page of the tender document is signed and uploaded in the CPP portal along with the other documents.			
2.	Whether Taxes and duties are shown separately in the quote.(Registration numbers for claiming the same to be strictly indicated and the copy of the certificates enclosed)			
3.	Whether EMD for Rs.1,33,00,000/- is uploaded along with the Technical bid Part A?			
4.	Whether accepted to submit the LOI acceptance within 7 days from the date of receipt of the LOI ?			
5.	Whether submission of 5% of the contract value as Performance Security is acceptable?			
6.	Whether Quote is valid for 120 days from the date of tender opening or time specified in the tender document whichever is later?			
7.	Whether payment terms of the tender is complied with?			
8.	Whether the tender is fully complying with tender specification / Adjustment. If no, list out deviations very clearly along with the Appropriate reason for the deviation?			
9.	Whether item-wise price is quoted as per price bid and quoted price is realistic?			
10	Whether liquidated damage as specified in the NIT accepted Un conditionally?			
11	Whether duly signed un-priced commercial bid (Part-B) is Submitted along with (part-A)Technical Bid?			
12.	Whether the completion period is acceptable as per the tender, and firm availability complied as per clause 31			
13.	Whether a copy of your GST/TIN/ST Registration certificates and PAN details are uploaded			
14.	Whether the Integrity Pact is signed and uploaded.			
15.	Whether clause no.21 is acceptable			
16.	Whether clause no.44 is acceptable			
17.	Whether all relevant document prescribed in the Techno-commercial criteria [as per clause 13] are attached			

ANNEXURE – B (PBG Format)

PROFORMA OF BANK GUARANTEE FOR BID BOND

(To be stamped in accordance with the stamp Act)

Bank Guarantee No. _____ Date : _____

Valid up to : _____ Amount : _____

To

National Institute of Ocean Technology Velachery-Tambaram Road, Pallikaranai, Chennai 600 100

Dear Sir,

1. Where as the NATIONAL INSTITUTE OF OCEAN TECHNOLOGY, an autonomous body of Ministry of Earth Sciences, Govt. of India having its office at Velachery-Tambaram Road, Pallikaranai – 600100, Chennai, India (herein after called “NIOT” which expression shall unless repugnant to the context or meaning thereof include all its successors, administrators, executors and assigns) has floated a Tender No. _____ and M/s. _____ having registered/ head office at _____ (hereinafter called the ‘bidder’ which expression shall, unless repugnant to the context or meaning thereof mean and include all its successors, administrators executors and assigns) have submitted a quotation No.

_____ and bidder having agreed to furnish as a condition precedent for participation in Tender an unconditional and irrevocable bank guarantee of _____ only (Words _____ only) for the due performance of bidder’s obligations as contained in the terms and conditions contained in the Tender Document supplied by NIOT especially the conditions that

- (a) bidder shall keep his Tender open for a period of days i.e. from _____ to _____ or any extension thereof and shall not withdraw or modify it in a manner not acceptable to NIOT, (b) the bidder will execute the contract, if awarded and shall furnish performance guarantee in the format prescribed by NIOT within the required time. The bidder has absolutely and unconditionally accepted these conditions.

2. NIOT and the bidder have agreed that the Notice Inviting Tender (NIT)/Tender Document (TD) is an offer made on the condition that the Tender, if submitted, would be kept open in its original form without variation or modification in a manner acceptable to NIOT for a period of days, i.e. from to

or any extension thereof and that the making of the Tender itself shall be regarded as an unconditional and absolute acceptance of the conditions contained in NIT and the Tender Document.

They have further agreed that the Agreement consisting of NIT/Tender Document as the Offer and the submission of the Tender as the Acceptance shall be separate Agreements distinct from the Contract which will come in to existence when the Tender is finally accepted by NIOT. The

consideration for this separate initial Agreement preceding the main Agreement is that NIOT is not agreeable to sell the NIT/Tender Document to the bidders and to consider the Tender to be made except on the condition that the Tender shall be kept open for the period indicated above and the bidder desires to make a Tender on this condition and after entering into this separate initial Agreement with NIOT, NIOT promises to consider the Tender on this condition and the bidder agrees to keep this Tender open for the required period. These reciprocal promises form the consideration for this separate initial Agreement between the parties.

3. There fore, we(Bank)_____registered under the laws of____having head/ registered office at_____(hereinafter referred as the “Bank” which expression shall unless repugnant to the context or meaning thereof, include all its successors, administrators and executors)here by issue irrevocable and unconditional bank guarantee and undertake to pay immediately on first demand in writing in Rupees or in such convertible currency as acceptable to NIOT any and all monies to the extent of_____only (WORDS_____only) at any time immediately on such demand without any demur, reservations, recourse, contest or protest and / or without any reference to the bidder and any such demand made by NIOT on the Bank shall be conclusive and binding not with standing any difference between NIOT and the bidder or any dispute pending before any court, arbitrator or any other authority and / or any other matter what so ever. We also agree that guarantee here in contained shall be irrevocable unless it is discharged earlier by NIOT in writing. This guarantee shall not be determined / discharged / affected by the liquidation, winding up, dissolution, on insolvency of the bidder and will remain valid, binding and operative against the Bank.
4. The Bank also undertakes that NIOT at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance, with out proceeding against the bidder.
5. The Bank further agrees that as between the Bank and the NIOT for the purpose of this guarantee any notice for the breach of the conditions contained in NIT and other terms and conditions contained in the Tender Documents as referred above, given to the Bank by NIOT shall be conclusive and binding on bank without any proof, notwithstanding any other matter or difference or dispute whatsoever. We further agree that this guarantee shall not be affected by any change in our constitution, in the constitution of NIOT or that of the bidder. We also undertake not to revoke in any case this Guarantee during its currency.
6. The Bank agrees with NIOT that NIOT shall have the fullest liberty without our consent and with out affecting in any manner our obligations hereunder to vary any of the terms of the Tender or get extension of the validity period from time to time. We shall not be relieved from our liability by reason of any such variation or extension of the validity period or for any forbearance, act of omission and commission on the part of NIOT or any indulgence shown by NIOT to the said bidder or by any such matter or thing what so ever which under the law relating to sureties would, but for this provision have the effect of so relieving us.
7. Not withstanding any thing contained here in above, our liability under this Guarantee is limited to_____only (WORDS_____only) in aggregate and it shall remain in full force up to & including 60 days after_____

_ unless extended in writing by M/s. _____ on whose behalf this Guarantee has been given, in which case remain in full force up to and including 60 days after the extended period. Any claim under this Guarantee must be received by us before the expiry of 60 days from before the expiry of the 60 days from the extended period, if any, if no such claim has been received by us with in the 60 days after the said date / extended date, all rights of NIOT under this Guarantee will cease subject to para 8 below. However, if such a claim has been received by us with in & up to 60 days after the said date/extended date, all rights of NIOT under this Guarantee shall be valid and shall not cease until we have satisfied that claim.

8. In case contract is awarded to the bidder (here in after referred to as “Consultant”) the validity of this Bank Guarantee will stand automatically extended until the Contract or furnishes to NIOT a Bank Guarantee for only (WORDS only) towards performance guarantee for satisfactory performance of the Contract. In case of failure to furnish Performance Bank Guarantee in the format prescribed by NIOT by the required date, the claim must be submitted to us within 120 days after the last date of validity period or extended period, if any. If no such claim has been received by us within 120 days after the said date/extended date, rights of NIOT under this guarantee shall be valid and shall not cease until we have satisfied that claim.
9. The Bank confirms that this Guarantee has been issued with the approval of the appropriate Exchange Control Authorities in _____ (if required) and any other authority if required as per the laws of the country of issue of guarantee.
10. We also agree that this Guarantee shall be governed by and construed in accordance with Indian Laws and subject to exclusive jurisdiction of Indian Courts. The Bank also agrees that courts of the place from where Tenders have been invited shall have exclusive jurisdiction.

In witness where of the bank, through its authorized officer has put its hand and stamp on this day of _____ 20- _____ at.

WITNESS No.1

Name in full

(Signature with full name and Designation) Date (address)

WITNESS No.2

Name in full

(Signature with full name and Designation) Date (address)

PRE-CONTRACT INTEGRITY PACT

General

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on _____, between on one hand, the President of India acting through The Director, NIOT, Ministry of Earth Science, Government of India (hereinafter called the "BUYER", which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First part and represented by Shri _____, (hereinafter called the BIDDER/Seller" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part. WHEREAS the BUYER proposes a service for **"Total Management of MoES Research Vessels including maintenance and operation of scientific equipment"** and the BIDDER/Seller is willing to offer/has offered the stores and

WHEREAS the Bidder is a private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is a Ministry/Department of the Government of India/PSU performing its functions on behalf of the President of India.

NOW THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudices dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling the BUYER to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Commitments of the BUYER

The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantages from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.

The BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS

All the officials of the BUYER will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER will full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

Commitments of BIDDERS

3. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-

The BIDDER will not offer directly or through intermediaries, any bribe, gift, consideration, reward favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward favour, any material or immaterial benefit or any other advantage, commission, fees, brokerage or inducement to any official of the BUYER, or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavor to any person in relation to the contract or any other contract with the Government.

BIDDERS shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principles or associates.

BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary in connection with this bid/contract.

The BIDDER further confirms and declares to the BUYER that the BIDDER is the original manufacturer / integrator / authorized government sponsored export entity of the defect stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

The BIDDER, either while presenting the bid or during pre contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other Intermediaries in connection with the contract and the details of services agreed upon for such payments.

The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass onto others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.

The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filling of tender.

The term 'relative' for this purpose would be as defined in Section 6 of the Companies ACT1956.

The Bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

4. Previous Transgression

The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.

The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5. Earnest Money (Security Deposit)

While submitting commercial bid, the BIDDER shall deposit an amount Rs.1,33,00,000/-as Earnest Money/Security Deposit, with the buyer as per the following instruments:

- i) A confirmed guarantee by an Indian Nationalized bank, promising payment of the guaranteed sum to the BUYER on demand within three working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the BUYER shall be treated as conclusive proof of payments.
- ii) Any other mode or through any other instrument

The Earnest Money/Security Deposit shall be valid for 60 days beyond the validity of the bid.

In case of the successful BIDDER a clause would also be incorporated in the Article pertaining to Performance Bond in the Purchase Contract that the provisions of Sanctions for Violation shall be applicable for forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this pact.

No interest shall be payable by the BUYER to the BIDDER on Earnest Money/Security Deposit for

the period of its currency.

6. Sanctions for Violations

Any breach of the aforesaid provisions by the BIDDER or any one employed by I to racting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required:-

- i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
- ii) The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/ Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.
- iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
- iv) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while incase of a BIDDER from a country other than India with interest there on at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
- vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- vii) To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of Five years, which may be further extended at the discretion of the BUYER.
- viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
- ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.
- x) Forfeiture of Performance Bond incase of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this pact.

The BUYER will be entitled to take all or any of the actions mentioned at para 6.1(i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption ACT, 1988 or any other statute enacted for prevention of corruption.

The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes of this Pact.

7. Fall Clause

The BIDDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or subsystems was supplied by the BIDDER to any other Ministry/Department of the Government of India or PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to the BUYER, if the contract has already been concluded for a period of 3 years from the date of the signing contract.

8. Independent Monitors

The BUYER has appointed Independent Monitors (hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission

Shri.Ajay Kumar Lal, IRAS (Retd)

e-mail: ajay_k_lal@yahoo.com

Mobile:9560712003

Address:DDA,HIG,block3A/101A Motia Khan (near Jhandewalan Temple)DBGuptaroad,
NewDelhi-110015

Shri.PavanKumar Jain, IDSE(Retd)

e-mail: mespkj@gmail.com

Mobile:9313498388

A-402,Shree Ganesh Apartments
Plot No.12B,
Sector 7 Dwaraka,
NewDelhi110075

The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.

The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.

But the parties accept that the Monitors have the right to access all the documents relating to the project /procurement, including minutes of meetings.

As soon as the Monitor notices, or has reason to believe, a violation of this pact, he will so inform the Authority designated by BUYER.

The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.

The BUYER will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations

between the parties. The parties will offer to the Monitor the option to participate in such meetings.

The Monitor will submit a written report to the designated Authority of BUYER/Secretary in the Department/within 8 to 10 weeks from the date of reference or intimation to him by the BUYER/BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

10. Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is these at of the BUYER.

11. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

12. Validity

The validity of this Integrity pact shall be from date of its signing and extend up to 5 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

Should one or several provisions of this pact turn out to be invalid; the remainder of this act shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

13. The parties here by sign this Integrity Pact at NIOT Chennai on

THE DIRECTOR
National Institute of Ocean Technology

BIDDER

Witness

Witness

1. _____

1. _____

2. _____

2. _____

SCC (Special Conditions of Contract)

TENDER SPECIFICATION FOR

**“Total Management of MoES Research Vessels
including maintenance and operation of scientific
equipment”**



National Institute of Ocean Technology (NIOT)

राष्ट्रीयसमुद्रप्रौद्योगिकीसंस्थान

Ministry of Earth Sciences (MoES), Govt. of India

पृथ्वीविज्ञानमंत्रालय

Velachery-Tambaram Main Road, Pallikarnai,

Chennai-600100, India

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SPECIAL CONTRACT CONDITION (SCC)

Ministry of Earth Sciences (Govt. of India) owned Research vessels namely 1) Sagar Nidhi, 2) Sagar Kanya, 3) Sagar Sampada, 4) Sagar Manjusha, 5) Sagar Anveshika and 6) Sagar Tara. These vessels are being utilized for scientific research and operations viz., Deep Ocean Mission programmes – MATYSA6000 and Deep Sea Mining, Bathymetry survey of Exclusive Economic Zone [EEZ], Fishery research, Geo-scientific studies, deployment & retrieval of Ocean observation buoys, testing of various underwater components, Coastal Environmental study, Sea Water Quality Monitoring, marine litter and marine plastics and various other programmes of MoES along the Indian coast.

National Institute of Ocean Technology (NIOT), on behalf of Ministry of Earth Sciences (Govt. of India) invites bids from reputed firms for **Total Management of Research Vessels including maintenance and operation of scientific equipment** in the prescribed format. The contract is for Running, Manning, Maintenance (including maintenance and operation of scientific equipment), Catering for the Crew and Scientists and Housekeeping of the Research Vessels of the Ministry of Earth Sciences [MoES], Govt. of India for a period of 3 years subject to the contract is initially valid for one year and can be extended for 2 more years on yearly basis based on the performance of contractor which will be reviewed by an expert committee of MoES. The Research Vessels include Sagar Nidhi, Sagar Kanya, Sagar Sampada, Sagar Manjusha, Sagar Tara & Sagar Anveshika.

2

Chapter – 1 :General Information

- 1.1.** This NIT is to identify the suitable company that are capable of total management of the vessels including maintenance and operation of scientific equipment for MoES.
- 1.2.** Role of the company will be for the total management of the vessels i.e. running, operation, manning, catering and maintenance including maintenance and operation of scientific equipment. Detailed specifications of the machinery, equipment and other systems are provided in *Annexure-I*.
- 1.3.** Prospective Bidders should provide detailed description of the background and organizational setup. The description should include ownership details, date and place of incorporation of the firm, location of facilities etc. Corporate dossier soft copy and print form may be included.
- 1.4.** Prospective Bidders to submit details of experience, Infrastructure details, technical and commercial information fulfilling the criteria as sought in NIT clause 13. Only the price bids of techno-commercially qualified bidders will be opened for further evaluation.

1.5. Contract price and payments:

The MoES shall compensate the Contractor, for services rendered by the successful bidder in the following manner separately for each of the six (Sagar Kanya, Sagar Sampada, Sagar Manjusha, Sagar Nidhi, Sagar Tara and Sagar Anveshika) vessels. The prices will be finalised for each vessel after evaluation of bids. One invoice per vessel to be submitted for all services including scientific equipment services and housekeeping/catering services etc as may be applicable. The prices are fixed and firm irrespective of whether the vessel is operating in the Indian or foreign port.

1.6. Following are the general parts of prices for each vessel:

Lump sum amount for all general services and basic maintenance for the following:

- 1.6.1. Annual service charges for routine, preventive and breakdown maintenance of both deck and engine department, labours and service charges etc.
- 1.6.2. Annual charges for watch & ward services during port calls.
- 1.6.3. Charges for annual service of all Life Saving Applications (LSA), FFA (Fire Fighting Apparatus) and LSS (Life Saving Systems) equipment and Annual surveys including transportation.
- 1.6.4. Annual complete housekeeping and catering services.
- 1.6.5. Annual expenditure for spares and consumables for all equipment including scientific equipment as per non-reimbursable clause no.13.
- 1.6.6. Annual Garbage and sludge clearance.
- 1.6.7. Maintenance of all equipment including (Original Equipment Manufacturer) OEM/ OEM authorized/non-OEM services shall be required. Competitive price should be established for the price reasonability and after approval of Managers, the work shall be carried out. For equipment/machinery under warranty, preventive maintenance and coordination with OEM for availing warranty services to be done.
- 1.6.8. Ship machinery which are required for service/repair/calibration at outside of the vessel, the necessary port clearances, transport etc to be arranged
- 1.6.9. All other non-reimbursable services as listed in model contract.
- 1.6.10. The above claim should be accompanied by the reports with pictures signed by Master/Chief Engineer/VMC rep.

1.7. Other costs : Payments as per the agreed unit cost, to be quoted.

Quoted per unit rate will be considered for payment purposes. In the price bid approx. no of units for each item (quantity) for one year is provided and total cost of which will be used for arriving at L1. This quantity is estimated and not guaranteed. Per unit price will be used for actual payment.

- 1.7.1. Manning (including their victualling).
- 1.7.2. Fresh Water Supply. Following is the estimated annual freshwater (shore supply) requirement for each vessel: Sagar Kanya-1500 Tonnes, Sagar Nidhi 3000 Tonnes, Sagar Sampada 1400 Tonnes, Sagar Manjusha 1200 Tonnes, Sagar Tara 800 Tonnes& Sagar Anveshika 800 Tonnes.
- 1.7.3. Underwater diving for cleaning transducers / repairs, propellers and hull.
- 1.7.4. Positioning of Experienced Superintendent for drydocking period (including travel, boarding & lodging all inclusive charges).
- 1.7.5. Scientific equipment operation & maintenance. Scientific data/sample collection as per the requirement of respective scientific cruise and as per standard protocol for testing and validation of the systems, processing and submission of report to Chief scientist and VMC (Including manpower, their victualling & spares as per the NIT terms)
- 1.7.6. Annual Agency Service charges for clearance at ports, pilotage etc including customs/immigration/port clearances for the vessel, scientists, equipment etc (additionally all bills from these government agencies would be reimbursed on actuals).
- 1.7.7. AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer
- 1.7.8. AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer

1.7.9. Annual fumigation (one fumigation per year) including shore-accommodation for ship crew and all miscellaneous expenditure.

1.7.10. Painting of Deck, Super Structure paints, all bilge areas, void spaces and machinery spaces, accessible external hull without scaffolding (ship side, weather decks) as per specifications.

1.7.11. Spot fumigation [green fumigation services] during port call as per MoES institutes instructions

1.7.12. Required capacity Shore crane to be arranged based on the MoES institute request for the Ship and scientific equipment loading and unloading to place onboard apart from the Ship crane usage. The cost of the rated capacity at Kochi to be reimbursed on actual utilization.

1.7.13. OEM spares/consumables bills will be reimbursed on actual with 5% overhead. The overhead charges include all direct and indirect cost towards re export and import customs compliance processes, transport etc and until installing on board the vessels. The contractor needs to replace the spares only from OEM facility. In case, the spare is not available with OEM, minimum three competitive quotes may be obtained from the respective authorized dealers for approval from the respective institutes for procurement as per GFR.

1.7.14. Non-OEM spares/consumables bills will be reimbursed on actual with 7% overhead. The overhead charges include all customs processes, transport etc and to be placed onboard. The spares should be procured through competitive tender mode from the authorized dealers for approval from the respective Managers for procurement as per GFR.

1.8. Payment terms.

1.8.1. MoES/NCPOR/NIOT/CMLRE shall pay to the Contractor the above payments on monthly basis on receipt of invoices submitted in compliance with contract terms with all supporting documents. The payment towards reimbursement of spares/consumables cost would be made as and when the bills are submitted along with relevant documents.

1.8.2. MoES shall pay to the contractor a lump-sum amount per day or part thereof on aggregate basis for the days the vessels are in operation payable on completion of each calendar month as detailed in the tender. Tentative payment schedules for each vessel would be as below:

1.8.3. Payment terms for Running, Manning and Maintenance:

1.8.3.1. The payment in case of normal operation of vessel shall be made in two parts for the monthly invoice. First part (limited to 60% of invoice) will be paid within 15 days of receipt of the invoice. The second part shall be released subject to cl. 1.8.3.2.

1.8.3.2. Second part of the current monthly charges (40%) shall be processed after ensuring compliance as per governing clauses and based on the verification of the following documents.

1.8.3.2.1. performance reports as Annexure-V

1.8.3.2.2. daily deck & engine logs with the work done

1.8.3.2.3. Work done report as per clause 1.7 and including routine, preventive and breakdown of the scientific equipment. Routine, preventive and breakdown of the vessel machineries report as per clause 2.2.

1.8.3.2.4. It is the responsibility of the contractor to make the timely payment to all entities engaged under this contract. In the event of any compliant receiving on non-payment same shall be forwarded for prompt settlement and submission of necessary

proof. In case the contractor has not made due payment, respective institute may levy 2% of the outstanding payable as a penalty in any of the bills payable to the contractor. Any penalty/charges to be paid to such entity due to non-payment/ delay in payment will be borne by the contractor.

1.8.3.2.5. Proof for payments to the associate partners, sub-contractors, crewmembers for the preceding month. If there is any due for some reason for the subcontractor, it shall not exceed 40% of their payable at any point of time.

1.8.3.2.6. Scientific equipment operational status & work done report towards the maintenance of the equipment.

1.8.3.2.7. Cruise feedback report & action taken against the scientific user feedback along with required documents and certification by MoES Institutes.

1.8.3.2.8. Other Reports as per clause 1.7

1.8.3.2.9. The contractor is bound to submit all necessary documents within 30 days of invoice. The claims with unambiguous support documents will be settled / adjusted within the first part of payment (60%) and remaining payables will be released and accounted for in the second part (40%) within 45 days of invoice. Processing of remaining claims if any, will be subject to satisfactory submission of supporting documentation.

1.8.4. Services charges for providing specialized Dry docking technical superintendent if any besides regular superintendent on owners request and Diving services if any etc. shall also be paid.

1.8.5. The payments shall be processed by MoES Institutes based on the equipment performance and satisfactory deliverables as per clause 1.8.3.

1.8.6. The payment for catering services to scientific team members shall be as per actual numbers on agreed unit cost of meal per day per person. Full day charges shall be leviable if more than two meals are served to a person. The rate shall be per day per person which is to include cost of all food, beverages and service charges. Less than two main meals will be charged 50% of per day charges. The certificate of onboard MoES representative for number of scientific team persons/days to be submitted along with the bill.

1.8.7. For operation & maintenance of scientific equipment, the charges shall be paid to the contractor on satisfactory services and submission of cruise wise and monthly reports. Periodic calibration / service at OEM place to be undertaken by the contractor. The Contractor has to ensure that each of the equipment for which payments are sought during the quarter is tested at least once in a month. Operation for testing purpose shall also be considered as operation. The contractor shall maintain the equipment in a working condition and shall submit the report on readiness periodically once in month. The charges towards Operation & Maintenance of scientific equipment onboard six vessels shall be stated separately in the contract. The Operation & Maintenance charges for scientific equipment will be deducted proportionately for the downtime period if any equipment is non-functional, till rectification. It is essential that the equipment and all the sub-units are fully operational always. For partially operational equipment, the Institute at its discretion will consider such equipment as operational or non-operational depending on the usefulness of the data / samples depending on the cruise objectives / chief scientists' inputs and deductions thereof fully or proportionately. Any equipment not under AMC or Warranty, cost towards break down repair will be considered with prior approval with estimates. Also expenses if any incurred with prior approval towards cost of reverting into service / repairing any equipment found non-operational during time of commencement of contract will be paid separately as mutually agreed by MoES & bidder. For scientific equipment under

warranty, Contractor is to do only preventive maintenance during the warranty period. The warranty services would be taken care by OEM, and the contractor has to coordinate with OEM for availing warranty services. If any new equipment is added, the necessary training will be provided through OEM and operation of the equipment & data collection and processing shall be carried out and if any repair, the same shall be serviced through under warranty with OEM.

1.8.8. L1 value will be arrived at as per the price bid format based on expected contractual responsibilities. Contract value shall be as determined from the price bid and shall be the basis for all financial instruments governed under this contract. Prevailing statutory taxes as applicable & shall be paid.

Chapter -2 The Broad Scope of Work or Service

2.1 Running, manning and maintenance & catering & housekeeping (total management of the research vessels).

2.1.1 Inventory and status verification on acceptance of the vessels.

2.1.2 Manning of the vessels with suitably qualified officers, including Fishing Master for Sagar Sampada, Hydraulic Expert (as per requirement) crew and settlement of their wage accounts, replacement and repatriation and other establishment matters from time to time as required in accordance with prevailing statutory and other regulatory requirements.

2.1.3 To operate the vessels with Master and other Crew members with all requisite valid certificates as per statutory requirements and in compliance with the Annexure-VI to carry-out deployment and retrieval of data buoys, current moorings, benthic stations, deployment of tsunami systems, ROSUB, Autonomous coring system, Autonomous Underwater Vehicle [AUV], Manned submersible system, Seabed sampling, water column samplings, Geophysical survey, swath bathymetry survey, fishing Operations & any programme authorized by MoES at high seas and coastal-waters as described in the document at different places, and to assist the Scientists in collection of samples/CTD measurements/Seabed scanning/other data collection and all their activities.

2.1.4 Operating the vessels as per the cruise-plan provided and as per the instruction of MoES Institutes/Chief Scientist on-board. The vessel shall be operated strictly as per the instruction manual outlining general responsibilities and procedures of ship crew as well as the science team, which shall be provided by the Contractor duly approved by MoES Institutes after signing the contract.

2.1.5 Clearance of the vessels at ports [Indian & Foreign], submitting ship's documents to port authorities, arrangement of berths, pilotage etc. The contractor shall be responsible for obtaining port clearance, arrangement of berths, pilotages (where required) at each calling port and shall maintain safe stay of the vessels in ports for the stipulated period in the cruise programme. No delay on account of the above is permitted. The contractor shall be responsible for clearing men and material that shall be embarking and disembarking through customs/Port/CISF/Immigration and security. Above services to be provided by nominating Shipping agent of good repute/efficiency and their presence should be at all major ports [copy of Shipping agent undertaking letter shall be submitted along with the technical documents].

2.1.6 Ensuring supply of sufficient quantity of potable fresh-water through entire period of cruise/port stay/anchorage and replenishing at every port call as and when required apart from utilization of onboard FW generator i.e. in addition to output from RO system onboard. Fresh-water is

required in the laboratories and for washing deck and deck-equipment also. The fresh-water should be potable as per IS Standard-IS 10500 (2012).

2.1.7 Bunkering of vessels: The contractor shall bunker the vessels as and when required, to make the vessels available for scientific operation at all times. The log-book containing the fuel levels on-board should be strictly maintained and a report on fuel consumption of the vessel shall be submitted to MoES Institutes along with monthly reports. The Fuel on-board before and after bunkering (BDN copy of Bunker supplier) shall be certified by the Chief Engineer and Master, MoES Institute's representative or Chief Scientist and to be certified by a third-party surveyor (acceptable to MoES Institute) and reports to be submitted to Owner at the earliest. Timely bunkering is the responsibility of the contractor and any delay after due payments will be treated as deficiency in performance of contract. Timely payment to IOC or BPCL or any other companies shall be the owners. Bunkering when done in India shall be done through IOC/BPCL. If bunkering is done through other private companies, the rates will be admissible as per IOC rates. MoES Institutes shall pay directly to IOC/BPCL/or any other Nationalized bunker company for procurement of fuel & necessary liaison is to be done by the Contractor for smooth & proper bunkering of the vessel. All associated costs like Pumps/Hoses, collection of keys, third party survey etc., shall be borne by the contractor. Bunkering in foreign parts shall be done through foreign port agents against bunker advance paid to the contractor. Also to ensure supply of lubricants, chemicals, coolant etc both in India and abroad, and arranging/attending to surveys and repairs, painting, supply of shore labour as required. Contractor to arrange for sampling and Testing of Fuel Oil sample during receiving Bunkers as applicable.

2.1.8 Periodic checking of Lube Oil/Hyd. Oil Testing for running machinery including Aux. Engines, Emergency DG sets, Winches, Cranes, Power pack units etc. to be arranged & replaced/replenishment and reports to be submitted to the Owner once in three months.

2.1.9 The bidder shall submit a panel of repair or DG authorised workshop (Mechanical and Electrical) with rate contract along with technical documents

2.2 Maintenance of the vessels

2.2.1 As far as the maintenance of the vessels is concerned, the bidder is required to ensure that day-to-day routine & periodic maintenance for all machinery is done by ship staff, OEM/OEM approved service dealer/Govt. /PSU/ DG Shipping/ Indian Navy /Port trust/ Coast guard empaneled workshops as on when required and as per respective item manual suggested by OEM. The major machinery shall include& not limited to main engine, auxiliary engine, Air Compressor, Air Conditioning system [centralized/common/ split], Emergency DG, Sanitary system & STP system, DP system, Scientific handling system, Navigation & communication equipment, scientific equipment, LSA & FFA system and Class survey related systems.

2.2.2 If there is any rate contract with Shipyard/ Shipping Corporation of India/ Indian Navy/ Port Trust etc. the same should be submitted along with the bid. The rate contract shall be considered for approval under reimbursement clause.

2.2.3 Maintenance of the vessels (including and not limited to hull/plate renewal, 'A' frames and also cabins, galleys, mess-room including furniture's etc. and all associated equipment etc., as provided in this NIT document. This list is not exhaustive, and the bidders are requested to visit the vessels to ascertain the equipment onboard.

2.2.4 Preventive maintenance of all machinery should be done by the OEM /OEM authorized engineer as per standard maintenance schedule. The contractor shall engage the OEM/OEM authorized engineer for the above job at least once in one year. The service/work covers the all

maintenance/service/overhaul/replacement of consumables etc. The report along with spare requirement& health of the system shall be submitted within 15 days of the respective engineer visit to MoES, at no additional cost to Owner.

2.2.5 Break down maintenance. If any machinery/equipment [vessel & scientific] found breakdown, the contractor should engage the OEM/ OEM authorized engineer for repair& visit if required. The contractor should ensure the minimum downtime of the machinery/equipment to facilitate the scientific operation and improve the vessel efficiency. If the contractor found the non-availability of OEM /OEM authorized engineer to attend the breakdown maintenance, MoES institutes shall take a call on case-to-case basis to avail the non-OEM engineer to address the problem & for further repair. Supply of stores, tools, instruments, spares and consumables required for the periodic maintenance or as specified by equipment manufacturer or as specified above to be done by the Contractor. To maintain sufficient spares/consumables/ repair kit required for efficient working of all machineries including servicing kit, Top Overhauling kit (minimum required for top overhauling of Main &Aux. Engines) Inlet Valves, Exhaust Valves, Injector Nozzles, Valve seats, Lapping paste, O-rings, cylinder studs, Air filters, Fuel Pumps, Cylinder packings, Fuel Filters etc., Hydraulic Hoses, different types of belts, Compressor overhauling kits, Pump overhauling kit including impellers, bearings, bushes, etc.to be provided/inventory to be maintained and supplies to be provided to the vessel.

2.2.6 all deck machinery, winches, cranes, A-frames, booms, wires etc related to general vessel operational activity are under the scope of vessel maintenance.

2.2.7 Ships are mainly deployed for various scientific operations for approximately 300plus days in a year. Operational days shall be allotted as per MoES committee's recommendation after considering the age of the vessels

2.2.8 All the LSA, FFA, LSA Extinguishers must be serviced and maintained by the Contractor as per the statutory compliance.

2.2.9 The number of ship maintenance-days (lay-off) are around 15 days in a year when no drydocking is planned. However, these days may exceed in case of any major maintenance routines of machineries/equipment or any unforeseen breakdowns of machinery/fumigation/de-ratting/annual survey etc. The contractor should plan the preventive maintenance schedule along with OEM engineer in advance to undertake the scheduled job during this period. Also the contractor should position the shore engineer at least two or more without additional cost to facilitate the work as well as the completion of the job as prescribed time. Required spares/consumables should be arranged by the contractor and should be available for this period.

2.2.10 The ship shall be given 3 to 5 days of maintenance-time after every cruise simultaneous with the scientific team changeover& cruise preparation. The contractor is requested to carry out the periodic maintenance/ routine /breakdown maintenance during this period. Also, the contractor/Master shall provide the list of works/jobs to be undertaken during the port call in advance [three days before berthing of the vessel] along with action taken plan.

2.2.11 Providing Independent competent person as a Technical superintendent to supervise the maintenance and general efficiency of the vessel during the port call. Also, this will ensure the smooth handling of the work and enhance the vessel efficiency and avoid vessel down time at Port.

2.2.12 Technical superintendent should submit the detailed work carried out report at the end of port call as per clause 2.2.10.

2.2.13 If any lapses in the above jobs, the penalty clause shall be applicable

2.3 In addition to their work on-board, the multipurpose Crew/deckhands should assist the Scientists onboard carrying out scientific activities, including operation of winches, work boats and all deck

machineries as and when required. Work shall be carried out round the clock with no restriction on timings including Saturdays, Sundays and other holidays. The Contractor/ Master shall ensure crew work rotation is planned so as to ensure that stipulated mandatory work/rest hours rules are complied with, while maintaining operations as and when called for.

- 2.4 Arrangement of statutory/class surveys [DNV /IRS /MMD] and keeping the vessels under valid class at all times would be the responsibility of the TVM contractor. Necessary fees of the classification society /surveyors would be reimbursed at actuals.
- 2.5 The contractor shall engage a catering and housekeeping contractor with Cooks and Assistant &catering/ housekeeping Crew [daily cleaning of accommodation &labs]staying on-board. It shall be the responsibility of contractor to support requirements for catering services onboard and necessary co-ordination for catering services as part of 'Total Management' contract. This is in case catering services are outsourced/ sub-contracted through an associate partner. The victualing for all the Ship crew & Officers onboard shall be within the contract price.
- 2.6 The number of Crew & Officers shall be as per DG Shipping guidelines or as per MoES Institute's operational requirements whichever is higher over and above the Minimum Safe Manning prescribed for the vessels.(Minimum Safe manning may be applicable only when suggested by MoES)
- 2.7 Operation and maintenance of scientific equipment onboard by experienced engineers [at least five years with Diploma or three years with B.E. of similar work experience] directly or through an Associate partner Contractor. To provide minimum 2 service Engineers for Sagar Nidhi, 3 engineers for Sagar Kanya& Sagar Sampada, 1 service Engineer each on Sagar Manjusha, Sagar Tara & Sagar Anveshika, sailing with the vessel all the times& to be victualed under Total Management scope. Scientific equipment which are required for service/repair/calibration at outside of the vessel, the necessary port clearances, transport etc to be arranged.
- 2.8 Number of Scientists & Crew and Catering and housekeeping of the vessels is as per the instruction of MoES Institute onboard.
- 2.9 To do housekeeping and catering, necessary cooks and assistants should be positioned onboard as indicated in the NIT and also to serve the Scientists onboard.
- 2.10 Housekeeping: Maintaining clean and tidy vessel's all Officers/ Scientist/all crew cabins, galleys, Officers / Scientist /Crew mess-room, dish wash-room, toilets, conference-room, gymnasium, sauna, Scientist change-room, linen / laundry store spaces, day-room for Officers / Scientist, labs, alley-ways and all accommodation spaces. List of particulars of the vessels shall be as per the delivery protocol and takeover inventory.
- 2.11 Monthly submission of performance report [Annexure-V] are provided along with individual certificates (NCV/FG/CDC), shall be certified by the Master and MoES Institute's representative. Performance report for each scientific cruise by Master endorsed by the Chief Scientist and MoES representative is also to be submitted.
- 2.12 Sign-on/ sign-off of all the Crew/Officers/catering Crew/housekeeping /travelling/Transfers/ Insurance matters/providing PPE on-board/medical expenses for Crew and officers to be included in offer./Scientific equipment maintenance Crew/any extra person to form part of Crew is the responsibility of contractor without any additional expenditure to MoES.
- 2.13 The firm shall employ Officers/Crew from RPS certificate holding company or firm shall have RPS license. Crew recruited shall not be first timers and should be having minimum sea experience to work on-board in the specific rank, they will hold Indian CDC having sufficient working experience and qualification (including FG as will be detailed in NIT)-Crew/Ship officer experience shall be provided along with NIT as Annexure-VI. The crew/officer/engineer should have the prescribed minimum of experience in the FG vessels will be considered as an FG crew/officer/engineer and will be allowed to

position the MoES vessels wherever required.

- 2.14** Contractor to arrange underwater diving services for cleaning transducers / repairs, and for all the maintenance requirements and also whenever instructed by the owner including hull /propeller cleaning. Underwater diving should be undertaken as and when required at the quoted rates and reports [video/photos] shall be submitted. The service shall be undertaken along with the associate scientific partner and MoES institutes representative.
- 2.15** The contractor shall undertake the painting of the vessels [as specified in NIT] periodically.
- 2.16** Ensuring vessel complies with the requirements of law of the Flag State and complies with ISM Code and ISPS Code.
- 2.17** Operating Drug and Alcohol Policy as per statutory regulations.
- 2.18** Supervising DD, repairs, alterations and maintenance of the vessel to the standards agreed with the Owners to ensure that the vessel will comply with all requirements of the classification Society and with the law of Flag State and the places where the vessel is required to be deployed.
- 2.19** Arranging supply of necessary stores, spares and Lub. Oil. Hydraulic oil, refrigerant, grease and all consumables within the quoted price[as per non-reimbursable clause].
- 2.20** Crew Management:-
 - 2.20.1 Ensuring that all Crew has passed medical examination with a qualified Doctor certifying [DG approved] that they are fit for duties for which they are engaged.
 - 2.20.2 Ensuring that the Crew has common working language of English and Hindi of a sufficient standard,
 - 2.20.3 Crew to be provided with proper familiarization with their duties in relations to vessels SMS and ISM Code
 - 2.20.4 INSA/MUI/NUSI base/minimum rates to be complied
 - 2.20.5 Employment of Ship crew will be governed as per the agreement between Maritime Union of India (MUI) and Indian National Ship Owner's Association (INSA)
 - 2.20.6 Crew Insurance to be arranged by the TVM Contractors and copies to be submitted to MoES before the taking over of the MoES vessels & during crew changes
 - 2.20.7 Minimum experience of Crew is provided in Annexure VI.
 - 2.20.8 With respect to FORV Sampada, rates of NCV certified officers/ crew & FG certified officers are to be mentioned separately, so that payment for officers/ crew may be processed without any glitch.
 - 2.20.9 Statement of manpower compliance to the contract and Crew list shall be submitted along with monthly bills
- 2.21** Responsibilities of the Contractor during Drydock & repairs.
 - 2.21.1 Six months before the due date for drydocking, TM contractor shall submit the Drydock work scope in line with the survey requirements and defect lists to MoES institutes with a copy to PD-MoES.
 - 2.21.2 Along with DD work scope, a long lead spares required for all the machinery during drydock shall be submitted to MoES institutes with a copy to PD-MoES.
 - 2.21.3 MoES Institutes shall tender the dry-docking lay-up repairs and identify/ select suitable yard to do the jobs.
 - 2.21.4 The selected shipyard shall be placed on the administrative control of the Contractor to get the

jobs executed in the stipulated period.

- 2.21.5 During the drydock, the Contractor shall depute experience Master, Chief Engineer, Chief Officer and Second engineer, until completion of drydock repair works.
- 2.21.6 The vessels shall be dry-docked as per class requirements for hull cleaning, sand blasting and painting, overhauling of ship side valves and other classification society surveys as per the procedures.
- 2.21.7 Contractor shall liaise, co-ordinate and get the jobs done in the time frame fixed jointly by MoES/NCOR/CMLRE/NIOT, contractor and Shipyard.
- 2.21.8 During Dry-dock, the contractor has to arrange at his own cost for the stay and food & transport for the Crew outside the vessel and arrange to provide security for the vessel and systems round the clock at his own cost.
- 2.21.9 Competent / Experienced Technical Superintendent [at least three number of drydock experience] shall be deputed who will act as a single point of contact for entire period of drydocking. The report should be submitted a weekly basis along with progress and plan. He should attend the all jobs in the dry-docking and certify the works done satisfactorily.
- 2.21.10 During the end of Dry-docking, DNV/IRS surveyors should be arranged to inspect the vessel and certificate should be updated/ validated /renewed.
- 2.21.11 Technical Superintendent shall extend his service up to the warranty period if any claim & pending jobs.
- 2.21.12 The scope for the contractor, yard and MoES will be as per standard operating procedure of MoES.

2.22 Brief outline Specifications of the Vessels and the details on major instruments/equipment onboard are given at Annexure-I.

The Ship details are not exhaustive and the bidders are requested to visit ships to know the exhaustive equipment details.

3. Check list for technical bid submission

[bid will be evaluated based on the below documents only]

Sl.No	Description	Yes/No	Page no in submitted bid document
1	The bidding agency has at least 5 years' experience in the relevant work – proof attached.		
2	The bidding agency has experience of managing at least 2 vessels of 4500 GRT – Proof attached.		
3	List of clients during last 5 years as on 31.3.2025 with clear communication details (Postal, Email and phone)		
4	Work orders of similar nature along with Satisfactory work completion certificate during last 5 years (with vessels of more than 4000 GT and 70 m length)		
5	Any information on accidents, mishaps etc, that are related to vessel management. If so, detailed report to be attached otherwise indicate “No”		
6	Technical Management capability [relevant document should be submitted] a. Planned PMS / ERP /Technical Systems b. Safety Management (ISM/ISO/MLC) c. Special commendations/Sustainability/Green initiatives		

7	Crew Management & HR [relevant document should be submitted] a. Crew recruitment & training b. Manning strategy & wage structure c. MLC documentation, welfare & grievance redressal		
8	Methodology & Work plan for undertaking Total Management of research vessels, Mobilization schedule and emergency response		
9	Agree to have working arrangement / agreement with Shipyard for maintenance works of vessel (other than dry dock) within 30 days in the event of award of the contract. Minimum three shipyard should be registered- at least one in West coast and another in East coast for undertaking repairs.		
10	Registration certificate as a Shipping Management Company Year of company incorporation		
11	Name, Address, telephone & Email of the company		
12	GST & PAN Certificates		
13	Copy of Undertaking/agreement for supporting Shore based establishment pertaining to navigation & communication equipment		
14	Copy of Undertaking/agreement with associate partner if any, for supporting Scientific operation & maintenance work		
15	Copy of Undertaking/agreement for supporting Shipping Agency & availability in all major ports		
16	Copy of payroll/ agreement showing the Crew/Officer manpower strength along with their details for last 5 years as on 31.03.2025. Confirmation/ proof of their availability to be enclosed		
17	Documentary evidence of experience in catering & housekeeping at least three years		
18	Firm shall have to provide Document of Compliances (DOC) for “other cargo ships” type for the last five years		
19	Audited financial statement for last three Financial year ending 31.03.2025 including profit & loss report duly authenticated by a Chartered accountant/ Cost Accountant in India.		
20	Documentary evidence of the net worth of the firm should not be negative year ending 31.03.2025 and also should not have eroded by more than 30% in last three years.		
21	Legal declaration: The Contractor/Company should also declare whether at any time has been prosecuted by any court in India or abroad for violation of any specific rules either in India or abroad laid down for execution of work/contract of any time subjected to Industrial Disputes Act / DG Shipping / any Governing loss for operation management of the research vessels for violation of said provisions of the Act		
22	Any other information un-support of the Contractor’s etc. Particularly with information on accidents, mishaps etc. encountered		
23	Document shows ongoing litigation/arbitration/ dispute/blacklisting with the any organization if any. If yes, please attached relevant documents or say “NO”		
24	Copy of duly signed blank price bid confirming no deviation to the price bid schedule or format		
25	RPS certificate		
26	Implementation of ISO, ISM, ISPS procedure in the company		
27	Undertaking that the bidder has not been banned/barred/ blacklisted by any Government agency for participating in any of the tender processes.		
28	Duly signed Pre-Integrity Pact as per Annexure-C		

29	Detailed management plan for maintenance and operation of vessels		
30	Bid securing declaration		
31	Bid validity of 120 days from the date of opening of Technical bid		
32	Duly signed model contract, EMD bid bond		
33	Details of branches all over India		
34	Unconditional acceptance letter as per NIT clause no. 21		
35	Rate contract with Shipyard/ Shipping Corporation of India/ Indian Navy/ Port Trust authorized workshop etc. the same should be submitted along with the bid as per SCC cl. 2.2.2.		
36	Any other documents as per NIT (please specify)		

Authorized Signatory

ANNEXURE I – Broad Vessel specification and Scientific equipment onboard details

Note: The details stated below are not exhaustive and the bidders are requested to visit ships to know the exhaustive equipment details.

I. Ship Name: SAGAR KANYA

A. Technical details of the Vessel

In the year 1983, under Indo-German collaboration, a multidisciplinary research vessel was built in Germany and delivered in India to Ministry of Earth Sciences (then Department of Ocean Development). The vessel is a versatile ocean observing platform equipped with technologically advanced scientific equipment and related facilities. The vessel has been built in conformity with highest class requirements of “Lloyd’s Register of Shipping” and “Indian Register of Shipping”. The vessel is fully automatic diesel-electric type equipped with DP System. In addition to the twin-screw propulsion two fin rudders and one bow thruster and one Azimuth Thruster will give the vessel excellent maneuvering ability.

Technical details of the Vessel

Length OA:	100.34 m
Breadth:	16.39 m
Max. draft:	5.6 m
Gross tonnage:	4209 GR
Fresh Water Generator Capacity	30 m ³ /day
Cruising Speed:	8 to 10 kts.
Endurance:	45 days

Bidder may visit the vessel to ascertain the exact nature and types of machineries and equipment available onboard.

Engine room machinery	
Diesel Generator Sets- 5 nos	Wartsila 6L20 with AVK alternators
Propulsion Motors – 4 nos	AEG
Electronic engine control system	300 rpm: 1000kW x 1no. Brunvoll
Bow Thruster	300 rpm: 1200kW x 1no. Brunvoll
RO Plant – 2nos	Enwa
Centralized Air Conditioning System	Sabroe SMC116
Deck & Navigation Equipment	
CTD winches – 2nos	Make: Sea-mac, Type : 3560 EHLWR50 Cap: 8000lbs
A-frame	Mac Gregor, Type: MG 2896
Deep Sea Winch	WILLIBAENCH, Type: SPV27P00044
Deck cranes 2T – 2nos	Atlas
Deck crane 12T	National Oilwell
DP system	Kongsberg
Telegraph	AEG
Radars	JRC / Furuno
Communications	JRC

B. Scientific Equipment/Instruments

Geology / Geophysics:

1. Kongsberg EM304 MK II Deep Sea Multibeam Echosounder with post-processing / plotting facilities.
2. Deep Sea Echosounder (SyQwest 12 kHz / 30 kHz)
3. Shallow-water Echosounder (Skipper ESN200)
4. G-882 Cesium Magnetometer
5. Geoacoustics Sub-Bottom Profiler

6. Side Scan Sonar
7. Pingers
8. 18m Hydraulic Piston Corer
9. 6m Gravity Core
10. Spade Corer
11. Sediment Grabs
12. Chain Bag Dredges
13. Pipe Dredges
14. Core Liner Cutter
15. Rock Saw
16. Rock Mill
17. Sieves / Sieve Shaker
18. Agate Mortar / Pestle.
19. Deep Sea Winch / Cable / A-frame etc (18 Tonnes capacity) / CCTV System
20. Deck Cranes (Max capacity: 12 Tonnes)

Chemical / Biological Oceanography:

1. Skalar Autoanalyser.
2. Hydro-Bios Automatic Multi-Plankton Net
3. UV-Oxidation Unit
4. Titration Unit
5. Millipore Water Purifying System
6. Vacuum Pumps
7. pH Meter
8. UV Chamber
9. Rotary Shaker

Physical Oceanography / Meteorology:

1. Seabird & Idronaut CTD (with winch)
2. 24-bottles 1.7 litres Rossette Sea-water Sampling facility.
3. Sippican Expendable Bathy Thermograph (XBT)
4. RDI 150 kHz Acoustic Doppler Current Profiler
5. Automatic Weather Station etc.
6. Bucket Thermometer
7. Salinometer
8. Thermosalinograph
9. Barometer

Others / General:

1. Kongsberg Dynamic Positioning System
2. Hull-mounted Hi-Precision Acoustic Positioning System / Transponders
3. Refrigerators / Deep Freezer
4. Ovens
5. Autoclave
6. Microscopes
7. Conference facilities / LCD Projectors
8. Computing / Printing / Scanning / CD-DVD writing facilities.
9. Local Area Network (LAN)
10. E-mail / Fax / Phone through Satcom.
11. Wifi Facility
12. State-of-the-art positioning / navigation systems.
13. CCTV System

II. Ship Name: SAGAR NIDHI

A. Specification

Broad specification and scientific details on equipment onboard

Length overall	103.6m
Length BP	87.60 m
Beam (Moulded)	18.00 m
Draft (Moulded)	4.20 m
GRT	4769 MT
Dead weight	1500 MT
Endurance	45 days
Maneuvering	DP (dynamic position)-II
Classification	IRS and DNV
Type	FG
Class Notations	DNV Class + 1A1, E0, DYNPOS AUTR, ICE 1C, DK (+) IRS Class + SUL, SYJ, GS (SK), Ha (B).
Fuel Capacity	900 CUM
Freshwater capacity	350 MT
Crew onboard	25
Scientists onboard	30

B. Machineries details of Sagar Nidhi

Name of Machinery	Supplier/Make
Auxiliary Engines with Electronic engine control system – 4 nos	Wartsila
Generator - 4nos	AEM
Bow Thrusters& AT – VFD Panels – 4 nos	GEPC
Centralized Air Conditioning system -1 set	De Martini
STP(Sewage Treatment Plant) * Vacuum Toilet System – 1 set	EVAC& ORCA II-A
CTD &hydrographic winches with Control panels, VFDs & operator panel - 1set	Kley France
Deep sea winch system with AHC, Control panels, VFDs and Operator panel =- 1set	Kleyfrance
60T, 10T A-Frames&10ton deck crane -1set	PELLIGIRINI
Deck cranes - 4nos	HEILA
Engine room Ventilation Fan – 2nos	De Martini
Bridge console – 1set	Raytheon/Kongsberg
Antifouling system – 1set	Azienda Chimica Genovese
Searchlights in wheel house	Aquasignal
Light and signal equipment - 1set	Aquasignal
Navigational Echosounder – 1set	Raytheon Anshutz
Lift – 1set	NAVINT
Bilge water separator – 1set	Facet International
Rescue/MOB boat	Hatecke
Rescue/MOB Davit/Crane	Hatecke
Inflatable lifeboats	Hatecke
Life rafts	Zodiac
Anchor with chain	Posidonia
Capstan and Tugger winches	Marine Equipment Pellegrini
Windlass, mooring winches	Marine Equipment Pellegrini
Starting Air Compressor	Sauer & Sons
Noise and vibration manager	Fincantieri/Cetena

Active heave compensation system	Kleyfrance
Load and stability calculator	wartsila
BNWAS	Raytheon Anshutz
DP/ joystick	Kongsberg
Acoustic position system-USBL/LBL with hoisting system (Port & Stbd)	Kongsberg
Gyro compass and autopilot	Raytheon Anshutz
Log, Doppler log	Raytheon Anshutz
Integrated Navigation systems and GMDSS	Raytheon Anshutz
CCTV surveillance system	HIKVISION
Weather station	Vaisala
ECDIS	Raytheon Anshutz
GPS/DGPS	Raytheon Anshutz
Voyage Data Recorder	CONSILIUM
Automatic identification system	Raytheon Anshutz
GMDSS Radio Station	Raytheon Anshutz
Portable waterproof VHF transceiver for GNDSS	Raytheon Anshutz
SART radar transponder	Raytheon Anshutz
EPRIB	Raytheon Anshutz
Satcom system	Raytheon Anshutz
Maritime LAN Manager/General	Tyco
VHF/UHF	Raytheon Anshutz
Portable VHF transceiver	Raytheon Anshutz
Portable UHF transceiver	Raytheon Anshutz
Radar X & S band/ARPA	KODEN & FURUNO
Ship Tracking System	SATLYNK
V-Sat broadband system with accessories	
Telephone, Intercom	GitiesseGirotecnica
Incinerator	DEERBERG
Sanitary modules (prefabricated WET units)	
Wall and ceiling accommodation system	
Water tight sliding doors	Navint
Doors with coamings etc.in accommodation	Libra
Watertight and Weather tight Fire doors	AlvedoorAB
External doors with coamings etc.	Libra
Windows	Coapind
Windows wiper	Speech
Furniture in accommodation	Volpi
Furniture in laboratory	Volpi
External doors with coamings etc.	Libra
Wheelhouse chairs	Norsap

Galley and pantry equipment	Gaioni
Refrigerators	Gaioni
Provision cooling plant : chillers	De Martini
Laundry Equipment	SAMSUNG
Gangway	Valvara
Ventilation system general	De Martini
Propulsion Electric motor – 4 nos	VEM
Azimuth propulsion units – 2 sets	Schottel
Boiler	ISAF
Emergency/ Harbour generator	MAN
Fuel oil purifiers	Alfa Laval
Lube oil purifiers	Alfa Laval
Plate coolers	Alfa Laval
F.W Generator reverse osmosis	VANSON
F.W Generator: evaporator	Alfa Laval
Main console bridge (frame)	Fincantieri
Alarm and monitoring system	GEPC
Emergency telegraph	SAM Electronics
Power Management system(PMS)	GEPC
Pumps	Garbarino
Bilge ejector	Rizzio Valvole Medana Visca
Bilge water separator	Facet International
Fire alarm panel	Microdata DUE
Remote sounding system	VEGA
Relays ,contactors ,control equipment	MerlinGerin TRAS
Circuit breakers	MerlinGerin TRAS
Transformer	TRASFOR
Battery chargers	Merlin Gerin TRAS
UPS with Battery bank	Various make. Total 25 nos
Working Air Compressors – 3nos	Sauer & Sons
Hydrophore system	ISAF
Electric cable	CCI (Control Cavi It) Pirelli
Multi cable Transit	Bratberg
Lighting fixture ,interior	Aquasignal
Lighting fixture ,exterior	Aquasignal
Flood lights (halogen/sodium vapor)	Aquasignal
Electric heating fans	De Martini
Electric motors generally	Marelli ABB
Planned Maintenance System	
Speed Logger	Skipper
Single beam Echo sounder	RAYTHEON ANSCHUTS

The above stated details are not exhaustive and the bidders are requested to visit ship to know the exhaustive equipment details.

LIST OF SCIENTIFIC AND SURVEY EQUIPMENTS- ORV SAGAR NIDHI

Sl. No	Item	Make & Model.
1	Deep sea Multi beam Echo sounder – MD30 -RESON including DGPS, MRU, S.V probe & S.V profiler, Data Acquisition System & processing system with software, Repeaters, Helsman display and accessories	Make-RESON

2	Deep sea Single beam Echosounder (EA640) with DAS	Make: KONGSBERG . Model: EA640.
3	ADCP (Acoustic Doppler Current Profiler) with DAQ	Make: Teledyne RD INSTRUMENTS. Model: Pinnacle ADCP (45kHz)
4	Shallow water Multi beam echo sounder (Norbit) including DGPS and accessories	Make: Norbit . Model: B57S (100-200KHz).
5	Sub bottom profiler: Innomar-2000 deep with DAQ and processing system	Make: INNOMAR. SES-2000 - Parametric Echo sounder. SN:
6	pH meter	Make: Eutech.; Model: pH510; PN: 54X002606;
7	Spectrophotometer	Make: SHIMADZO CORP; Model:UV-1800;
8	Autoclave	Make: MURUGAPPA INSTRUMENTS
9	MILLIPORE Water Purification System.	Make: Merk Life Science- Millipore; Model: Milli Q Advantage A10;
10	CTD with rosette setup (CTD and aux sensors). SBE-9/11Plus.	SBE 911Plus CTD SN: 09P75462-1169; Model No.: 9Plus 6800m; SI No.: 09P75462-1169
11	CTD (Conductivity, Temperature & Depth Profiler). SBE-9 Plus (Stand-By unit).	SBE 911Plus CTD SN: 09-1466; Mod; l: 9Plus. S/N: 09-1466
12	Shallow water CTD 19Plus.	Make: Seabird Electronics; PN: 19P1420; SN: 19-7994.
13	Niskin water samplers 5Ltrs	19 Nos.
14	Niskin water samplers 4 Ltrs	30 Nos.
15	Thermosalinograph including temp. sensor, interface box & DAQ	Make: SBE ELECTRONICS- USA. Model: SBE-21. SI No.: 2143476-3289
16	Thermosalinograph (Stand-By unit) including temp. sensor	Model No.: 21; SI No.:2143476-3290
17	AUTOMATIC WEATHER STATION (AWS).	Make: Vysala- Netherlands. Model No.: AWS43.
18	Computer, Monitor with peripherals.- 4 nos	
19	Printers- 3nos plus Multibeam printer	
20	HiPAP102 / Hi-PAP500 Acoustic Positioning system & accessories	HIPAP, HPR (LF) & APOS
21	Stereo Microscope with camera attached with PC connection	Make: NIKON; Model:C-DSS230; P/N:NIKON-SMZ1500;
22	Electronic balance	Make: METTLER TOLEDO; Model:AB104; S/N:1114500422
23	Hot plate with magnetic stirrer	Make: GUNA Enterprises; S/N:373; S/N:361
24	Vaccum Pump with filtration, manifolds, flasks & hoses	Cat.No:X10422050; Lot.No:BM7CN0666; S/N:BM7CN0666A
25	Hot air Oven	Make: BINDER; S/N:07-26143
26	Laminar flow	Make: ASALAIR 1200; S/N:127.
27	BOD incubator	Make: NAREN.
28	Bacteriological incubator	Make: NAREN.

29	Auto Burette	Make: Metrohm; Model: 765 Dosimat; S/N:11220131
30	Refrigerator centrifuge	Make: Plasto crafts industries (P) Ltd.; (Super spin R-V/FM); Model: SSR-V/FM; S/N:2009/122409
31	Plankton Net	Make: NORINCO
32	Sieve(for sediment collection)	Make: JAYANT; Micron: 75mic; Micron: 600mic; MM: 4.75mm; MM:2mm
33	Autosalinometer.	Make: Guildline; Part No.: 8400B; SI No.: 70311.
34	Deep Freezer.	Make: Sub Zero India; (- 40°C, 195 Litters).
35	Shallow water CTD winch with umbilical cable with slip ring and accessories.	Make: Kley France; S/N: 799 M 0000-V1.
36	Gravity corer including core head, barrel, catcher and cutter	Make: Norinco.
37	Auto Analyser.	Make: SKALAR, SA++
38	UPS online	APC (Lab5 Transmitter rack)
39	Deep Sea Winch with umbilical cable	Make: Kleyfrance
40	Deep Sea Winch with aramid cable	Make: Kleyfrance
41	CTD and Hydrographic winch with umbilical cables& accessories	Make: Kleyfrance
42	Multi-Plankton Net with DAS	
43	3-Axis anemometer with sensors and DAS & Repeaters	

III. Ship Name: SAGAR SAMPADA

A. Technical details of the Vessel

Fishery Oceanographic Research Vessel Sagar Sampada (FORV Sagar Sampada) is an Indian research vessel that is equipped to carry out multidisciplinary research in oceanography, marine biology and fishery science. The vessel is currently managed and operated by the Centre for Marine Living Resources & Ecology (CMLRE), Kochi, a research institute under the Ministry of Earth Sciences, Government of India, and is operated from Kochi. FORV Sagar Sampada is a platform for interdisciplinary expeditions in and around the Indian Exclusive Economic Zone, with participation from various institutions, from India and abroad.

Built in Denmark, the vessel was commissioned at Mumbai in 1984. As of Sept. 2024, FORV Sagar Sampada has completed 417 oceanographic expeditions, which includes one expedition to the Southern Ocean in the winter of 1995-96 for surveying fishery resources in Antarctic waters (Krill Expedition, FIKEX 1995).

The vessel has an overall length of 71.5m and is ice strengthened. The scientific facilities onboard includes, SeaBird CTD (Conductivity-Temperature-Depth) Profiler, Acoustic Doppler Current Profiler (75 kHz), AutoSal, Multiple Plankton Net (MPN), Grab, Dredge, Bongo Net for fish egg larvae and surface zooplankton collections, Continuous Underway Fish Egg Sampler (CUFES), Big-eye Binocular, Thermosalinograph, Echo Sounders (50kHz) ES80, Sonar, Integrated Trawl Instrumentation System, Integrated Fish Finding System, Automated Weather Stations, Multiple Frequency Echo Sounders (333kHz, 200 kHz, 120 kHz and 38 kHz), Facilities for fishing operations up to a depth of 1,200 metres (3,900 ft), facilities for sediment core sample collection etc. The vessel can accommodate 22 research personnel and 35 crew.

General Specifications of the Vessel

Port of registry	Kochi , India
Builder:	Euroflex Marine, Aarhus , Denmark

Launched:	1984
Type:	Fishery protection/research vessel
Tonnage:	<ul style="list-style-type: none"> • 2,661 GT • 1,140 DWT
Length:	71.5 m (234 ft 7 in)
Beam:	16.4 m (53 ft 10 in)
Draught:	5.6 m (18 ft 4 in)
Propulsion:	1 × 2,285 hp (1,704 kW) engine
Speed:	13 knots (24 km/h; 15 mph)
Range:	13,000 nmi (24,000 km; 15,000 mi)
Endurance:	25 days
Complement:	35 crew + 22 scientists

List of Scientific Equipment On-board Sagar Sampada

S.no.	Equipment Name	Make & Model
1.	Echo sounder 50Khz	Skipper GDS 101
2.	Fish Finding Echosounder ES80	Simrad ES 80
3.	Doppler Speed Log	Skipper DL-850
4.	Cableless Trawl sonde (ITI)	Simrad ITI
5.	Integrated Fish Finding system (CM60)	Simrad CM-60
6.	Sonar SX90	Simrad Kongsberg
7.	Server Hp	HP
8.	HP desktop 3000 pro, Printer & Scanner	HP
9.	Lan system 12 port LAN hub	-
10.	75kHz ADCP with deck unit	Teledyne-RDI
11.	Echo Sounder EA600	Simrad Kongsberg
12.	Depth display units at various locations	Skipper IR-301
13.	Depth Display unit	Skipper IR-301
14.	DGPS with display unit	Simrad MX-610
15.	Isotope Fume cupboard	DB type SR 150-18/8
16.	Refrigerator	-
17.	Salinometer	Autosal 8400B
18.	CTD /Rosette	Sea Bird, SBE911Plus
19.	Fume cupboard	DB type 10
20.	Refrigerator	-
21.	HP PC	HP
22.	System Digital Clock	Navitronic SDC-4
23.	Water Purifying Plant	Millipore
24.	Insulated water Sampler	General Oceanics
25.	Incubator	Heraeus T 5042E
26.	Muffle Furnace	Heraeus MR 250E
27.	Fume cupboard	BD type 10
28.	MPN	Hydro Bios, Midi
29.	Bongo Net	-
30.	Fume Cupboard	BD type 10
31.	Incubator	Heraeus B
32.	Refrigerator 190 Lit	-
33.	Vacuum Pump	-
34.	Hot Air Oven	Labline
35.	BOD Incubator	REMI
36.	Laminar Flow	Labline
37.	Vertical Deep Freezer	-
38.	Colony Counter	ACOLYTE
39.	Laboratory Autoclave	Kumar
40.	Fume Cupboard	BD type 10
41.	Marine Balance 100kg	Eilersen
42.	Ice machine	-
43.	Power Supply Unit	B&O RT-12

44.	Megger	HHA
45.	Digital Flow Meter	Hydro-Bios
46.	Smith Mc-Intyre Grab	Norinco
47.	Dredge	-
48.	Box corer	OSIL
49.	HP Deskjet 3000	HP
50.	Oscilloscope	Agilent Technologies
51.	Thermosalinigraph SBE-21	Seabird
52.	CUFES	-
53.	Big Eye Binocular	Fujinon
54.	EK-80 Scientific Echo Sounder 38/120/200/333kHz & MRU	Simrad Kongsberg
55.	Trinocular Microscope	-
56.	Stereo Microscope	Leica
57.	Automatic Weather Station	Campbell Scientific

IV. Ship Name: SAGAR MANJUSHA

A. Technical details of the vessel

General Specifications of the Vessel

Length	60.00m
Length BP	52.80 m
Beam Mld	11.00 m
Depth upto main deck	5.00 m
Draft (Moulded)	3.00 m
Draft (Scantling)	3.20 m
GRT	1065 tons
NRT	319 tons
Endurance	20 days
Fuel Capacity	125 MT
Freshwater capacity	125 MT
Lube oil capacity	3 Tons
Classification	IRS
Crew onboard	18
Scientists onboard	11

B. Scientific Equipment available on-board Sagar Manjusha

Sr. No	Equipment Name	Qty.	Make
1.	Niskin Water Samplers -5Ltrs	08 Nos	GENERAL OCEANICS
2.	Niskin Water samplers – 4 Ltrs.	16 Nos.	
3.	MESSENGERS	(5+1) 06 Nos	GENERAL OCEANICS and RUBY ENGG INDS
4.	GRAB 25Kg SS 55 kgs	1No 1 no	VARYA TECH
5.	GRAB 10Kg	01 No	Hydro Bios.
6.	CORER (GRAVITY CORER) with catcher (3nos), cutter (5nos)	01 No	VARYA TECH
7.	CORE PIPE	30 Nos	VARYA TECH
8.	PLANKTON NET (300micron)	02 Nos	NIL
9.	FLOW METER	02 Nos	GENERAL OCEANICS

10.	FLOW METER	02 Nos	HydroBios.
11.	SECCHI DISC	01 No	NIL
12.	SPECTROPHOTO METER	01 No	LABOMED
13.	VACUUM PUMPS & Filtration unit	03 Nos	MILLIPORE
14.	CENTRIFUGE	01 No	REMI ELEKTROTECHNIK
15.	MBES & Accessories:-Data Acquisition- Work Station Monitors Keyboard Mouse DGPS CPU	01 Set	RESON
16.	POST PROCESSING UNIT MONITORS, KEYBOARD	01 No	
17.	Single beam Echo Sounder, DGPS, Monitor, CPU, Mouse, Keyboard	01 Set	KNUDSEN ENG.
18.	BOD INCUBATOR	01 No	NAREN INSTRUMENTS Date: January 2011 SRIV No.: 2482.
19.	UPS with Battery Bank	01 No	DELTA
20.	REFRIGERATOR	01 No	GODREJ PENTACOOOL is replaced by GODREJ EDGE PRO Model RD EDGEPRO 210 CT3.2/2017 198 Liters
21.	Deep Freezer	01No	Indigenous make
22.	MICROSCOPE & ACCESSORIES	01 No	LEICAS8AP0
23.	Computer and its accessories	02 Nos	WINDOWS
24.	Shallow water CTD Winch (Online with umbilical cable & accessories)	01No	Kley France
25.	Shallow water CTD 19Plus	01No	Seabird Electronics
26.	IDRONAUT CTD Ocean seven 320 plus with GO1018 Rosette.	01 No	IDRONAUT
27.	Milli-Q RO System	01No	Merck Life Sciences pvt ltd
28.	Thermosalinograph	01No	Seabird Electronics
29.	Thermosalinograph (standby unit)	01 No	Sea Bird Electronics
30.	Multiple Corer	01No	OSIL
31.	Auto Clave	01No	Zigma
32.	Dosimat	01No	Metrohm
33.	Manta Net	01No	Aiswarya
34.	Hot Air Oven	01No	Digiquel Systems
35.	CO2 Analyser	01	LI-COR
36.	ADCP	01	SeaTRANK
37.	Sub Bottom Profiler	01	SyQwest
38.	Auto Salinometer	01	Guildline 8400B
39.	CTD winch (offline)	01	Make:Seamac
40.	Deep Sea winch system and its accessories	01	Pelligerini

41.	3 Axis anemometer with sensors & DAS	01	
42.	Wave height meter with DAS	01	
43.	U-CTD with DAS	01	

C. Machineries details of Sagar Manjusha:

SL. No.	ITEMS	QTY	SR NO.	TYPE	MAKE / MODEL
1	MAIN ENGINES CAT 3508B	2 NOS	S2.D00132 S2.D00133	4 STROKE,V TYPE,8 CYLINDER TURBOCHARGED, NON - REVERSIBLE, WET SUMP. 578KW(775BHP) X 2 NO'S	M/S CATER PILLAR
2	PROPULSION ELECTRONIC ENGINE CONTROL SYSTEMS	2 NOS		FIXED PITCH WITH ELECTRO PNEUMATIC REMOTE CONTROL SYSTEM. PROPELLER DIA :2M, RPM :269	M/S. STONE MARINE
3	REVERSE REDUCTION GEAR BOX	2 NOS	90BL056/57 Ratio 4.46:1	REVERSE REDUCTION GEAR BEX WITH HYDRAULIC CLUTCH AND VERTICAL OFFSET SHAFTS	TWIN - DISC NICO CO.LTD.
4	FLEXIBLE COUPLING	2 NOS		VULASTIK - L 3411 S	NIPPON VULKAN CO.LTD
5	DIESEL GENERATOR WITH ALTERNATOR	3 NOS	BLF03650/5 1/ 52	FOUR STROKE ,6 CYLINER,INLINE,SINGLE ACTING. 215 KW, @1500RPM x 3NO'S	3406 C / M/S. CATERPILLAR
6	EMERGENCY GENERATOR WITH ALTERNATOR	1 No.	CTCN.00326	4 STROKE, SINGLE ACTING, VERTICAL. 75Kva@1500rpm	CAT 3054 / M/S. CATERPILLAR
7	STERN THRUSTER	1 No.	5RN315L06 A6	HRP 2010 (SD 52) CAPACITY = 120kw @ 1800 RPM	M/S. HRP THRUSTER SYSTEMS .
8	BOW THRUSTER	1 No.	4348HD131	HRP 2010 (SD 52) CAPACITY = 120kw @ 1800 RPM	M/S. HRP THRUSTER SYSTEM
9	A - FRAME	1 No.		Capacity= 12.5tons	M/S. MARINE EQUIPMENT PELLEGRINI
9a	A-Frame of Online CTD winch	1 no			Make: Indigenious
10	DEEP SEA WINCH	1 No.	7273	4000m depth; Capacity= 12 tons	M/S. MARINE EQUIPMENT PELLEGRINI
11	HYDRAULIC POWER PACK FOR DEEP SEA WINCH &A FRAME	1 No.	0314V0P4	C.I, 75 + 75 KW	M/S. MARINE EQUIPMENT PELLEGRINI.
12	STEERING GEAR SYSTEM	2 No	Cap: 2 x 1.2 t-m	Serial no: W9368	M/S WILLS RIDLEY

	&EMERGENCY STEERING SYSTEMS (PRIMARY OPERATION FROM WHEEL HOUSE, EMERGENCY OPERATION BY HAND WHEEL FROM STEERING ROOM, EMERGENCY POWER STEERING BY MANUAL ACTUATION OF SOLENOID OPERATED D.C VALVE)		Type:electro-Hydraulic (twin) MOTOR – 3 HP, 1440 RPM		
13	DECK CRANES	2no	ELECTRO HYDRIC FOLDABLE BOOM ; 4 TON AT 8 M RADIUS & 1 TON AT12 M RADIUS	TYPE M 45 FB / 4S;	M/S SORMEC MARINE CRANES, ITALY
14	MAIN AIR COMPRESSER WITH MOTOR	2 NOS	23058/59	CFM 7.2 & 12.4m3/hr @ 30BAR, reciprocating ,air cooled HP 05 300 /	M/S.ELGI EQUIPMENTS LTD.
15	EMERGENCY AIR COMPRESSER(DIESEL ENGINE DRIVEN)	1 No.	23062	CFM 7.2 12.4m3 /hr @ 30BAR, reciprocating ,air cooled, ENGINE MODEL – GREAVES 1080	HP 05 300 / M/S.ELGI EQUIPMENTS LTD.
16	MAIN AIR RECEIVERS	2 NOS	Z04041	VERTICAL EXECUTION Capacity=300ltrs at 30 bar	M/S. ELGI EQUIPMENTS LTD.
17	AUXILARY AIR RECEIVER	1 No.	Z0403	VERTICAL Capacity =125ltrs @30bar	M/S. ELGI EQUIPMENTS LTD.
18	SEA WATER PUMPS FOR AC & REF.PLANT	2 NOS	1252005	BV 65 - 125 L VERTICAL NON SELF – PRIMING, Capacity =60m3/hr@ 20 MWC	BE PUMPS PVT.LTD
19	WASTER WATER DISCHARGE PUMPS	2 NOS	A90AFK162 3		M/S. POMPE GARBARNIO SPA, C 41 E. Capacity =2.5ltr/sec,0.75kw M/S.ROTO PUMPS, Capacity= 1.15kw @935rpm;6.81m3 /hr
20	STP with Vacuum Toilet System	1 No.	82408	ORCA IIA – 36 14.4 LIT/MIN @ 24 MWC	M/S. EVAC

21	STAND BY L.O. PUMP	2 NOS	049480/1680 /81	T3SI - 38/46 Gear pump, capacity =136 ltrs/hr @ 5 BAR	M/S.TUSHACO PUMPS LTD.
22	F.O. TRANSFER PUMP	2 NOS	S 100/1/1	IN 100, Capacity= 6m3/hr@25 MWC	M/S. POMPE GARBARNIO SPA
23	HOT WATER CIRCULATION PUMP	1 No.	6067479	BT 202 Capacity= 5m3/hr@46 MWC	M/S. POMPE GARBARNIO SPA
24	DIRTY OIL TRANSFER PUMP	1 No.		P35 Capacity=3.2m3/hr@3bar	M/S. POMPE GARBARNIO SPA.
25	HYDROPHORE PUMP (2 SEA WATER & 2 FRESH WATER)	4 NOS	2/4/40431	CENTRIFUGAL, VERTICAL, SELF PRIMING 2 New pumps fitted one each on sea water and fresh water hydrophore system	M/S. POMPE GARBARNIO SPA
26	BILGE/GENERAL SERVICE/FIRE/BAL LAST PUMPS MOTOR DRIVEN MONO BLOCK SUBMERSIBLE PUMP HAND PUMPS	3 NOS 1 no 2no's	55753/54	HORIZONTAL, SELF PRIMING, CENTRIFUGAL Capacity =35/26 m3/hr Capacity =500ltrs/min@3bar Size 40NB	M/S. POMPE GARBARNIO SPA MU40 – 200 ME
27	FW COOLER FOR M.E	2 NOS		SHELL & TUBE	3408 / M/S. CATERPILLAR
28	BILGE SEPERATOR	1 No.	7514	SKIT S Capacity= 0.5m3/hr	M/S. RWO MARINE WATER TECHNOLOGIE S

V. Ship Name: SAGAR TARA

A. Technical details of the vessel

General Specifications of the Vessel

- Length Overall - 43 m
- Breadth moulded - 9.6 m
- Draught - 2.5 m
- GRT - 497
- Main Engine - 2 x 552 kW
- Speed - 12 knots
- Endurance - 15 Days
- Scientists - 8
- Officers & Crew - 12
- Type - CRV
- Classification - IRS

B. Machineries details of Sagar Tara:

Sl.No	Description of item	Make
1.	Main Engines – 2nos	SCANIA
2.	Gear Box – 2 nos	Twin Disc
3.	Stern Gear	Michigan Marine Propulsion

4.	Bow Thruster	Thrust Master
5.	DG Sets – 3nos	SCANIA
6.	Oily Bilge Separator	Victor Marine LTD
7.	Steering Gear	Wills Ridley
8.	FW Generator – 2nos	ROCHEM
9.	Service Air Compressors	Elgi
10.	Emergency Generator	
11.	STP& Vacuum Toilet Systems	Orca& EVAC
12.	Bilge/GS/Fire/Ballast Pumps	Roysons Engineering
13.	F.O.Transfer pump	Roysons Engineering
14.	F.W.Hydrophore pumps	Roysons Engineering
15.	Hot Water circulating pump	Roysons Engineering
16.	Dirty oil Transfer pump	Roysons Engineering
17.	Grey water discharge pump	Roysons Engineering
18.	Sea water pumps for A/C Refrigeration	Roysons Engineering
19.	Calorifier	RajashreeEnterprize
20.	FW Hydrophore tank	ROYSONS
21.	Deck Cranes	SORMEC
22.	A-Frame	MASCOT, KOLKATA
23.	Side J-Frame for CTD (STBD)	KLEY FRANCE
24.	Side A-Frame (PORT)	MASCOT, KOLKATA
25.	General purpose winch	KLEY FRANCE
26.	CTD Winch system	KLEY FRANCE
27.	Oceanographic Winch system	KLEY FRANCE
28.	Hydraulic Power pack for A-Frame, Deep sea winch and sampling winch systems	KLEY FRANCE
29.	Anchors	Jiangshu, China
30.	Anchor Chain	Jiangshu, China
31.	Anchor Handling Windlass	Geeta Engg
32.	Capstan , 2 nos., 2T capacity, Vertical	Geeta Engg
33.	Accommodation System-panelling,	S-One Marine & Offshore / Korea
34.	Ceiling, insulation, flooring	BIP MARINE
35.	TOILET MODULES	S ONE M&O / BIP MARINE
36.	Rescue Boat	Ningbo Life boats , China
37.	Davit for Rescue Boat	Hemant Engg
38.	Life Rafts	SHM Shipcare
39.	LSA &FFA	SHM Shipcare
40.	System Valves	AV Marine / Malhar
41.	U/W Valves	AV Marine

42.	Electrical Cables	HELKAMA CABLES
43.	Main Switch Board, Starter Panels, Distribution Boards, Light Panels etc.	Marine Electrical
44.	WH Console	Marine Electrical
45.	E/R Console	Marine Electrical
46.	FDA System	ZEAL MARKEING
47.	UPS with Battery bank - Two sets	

Navigational Equipment

Sr. No.	Description of item	Make
1.	Speed Log	Consilium
2.	Magnetic Compass	Elcome Marine / Lilley & Gilley
3.	Automatic Identification System	Elcome Marine /JRC
4.	SVDR	Elcome Marine /JRC
5.	Radar	Elcome Marine /KODEN
6.	DGPS	Elcome Marine /JRC
7.	Gyro System	Elcome Marine / Raytheon
8.	Auto Pilot	Elcome Marine / NautoPilot
9.	ECDIS	Elcome Marine /Transas
10.	Course Recorder & ROT	Elcome Marine / Raytheon
11.	Wind Speed and Direction indicator	Elcome Marine / Lilley & Gilley
12.	Air Horn	Elcome Marine / Kahlenberg
13.	BNWAS & SSAS	Elcome Marine / JRC
14.	ALDIS Lamp	Elcome marine

Internal Communication System

Sr. No.	Description of item	Make
1.	Marine Auto telephone Exchange	MEL/IMCOS
2.	Public Address /Entertainment System.	MEL/IMCOS
3.	Talkback System	MEL/IMCOS
4.	Galley Call Bell System	MEL
5.	Loud Hailer System	Elcome
6.	Communal Ariel System	Elcome Marine / KNS Korea
7.	External Comm. System-GMDSS Sea area A1+A2+A3 Equipments-1 shipset	Elcome Marine / JRC
8.	CCTV System	MEL/ WISKA

C. Scientific Equipment of Sagar Tara:

Sr. No.	Description of item	Make
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1.	BOD incubator (Bio-Chemical Oxygen Demand)	Lab Kit, Hongkong
2.	Hot Air Oven	HL Scientific, Chennai
3.	Laboratory water purification System	Millipore
4.	Refrigerator (-15°C), Qty-2 Nos	Haier/LG/Voltas/Blue star
5.	Deep freezer (-80 DegC) , Qty-2 Nos	Lab Freeze
6.	Double Beam UV-VIS (Visible) Spectrophotometer	Shimadzu
7.	Zoom stereo Microscope	Leica
8.	Auto salinometer	OSIL
9.	Thermosalinograph	Sea Bird
10.	Gravity corer	Norinco
11.	Gyro compass and Motion Reference Unit/sensor	IX BLUE/ SAMHITA
12.	USBL Acoustic positioning system	IX BLUE/ SAMHITA
13.	Multi Beam Echo Sounder	KONGSBERG
14.	Single Beam Echo Sounder	KONGSBERG
15.	Sediment sampler (Van Veen Grab)	Norinco
16.	Automatic weather station	Observator
17.	CTD profiler	Sea Bird
18.	Autoclave	Bio technology
19.	Refrigerated centrifuge	Lab Kit, Hongkong
20.	Portable nutrient analyser	Clean grow
21.	Underway CTD data logging	Teledyne
22.	Niskin water sampler (go devil messenger type) and Messengers	Norinco
23.	Zooplankton net with flow meter	Aishwarya
24.	Dosimate Auto dispensing unit	Metrohm/ Mettler Toledo
25.	Vacuum pump and filtration unit	Rocher
26.	Bacteriological Incubator	iGeneLabserve Pvt Ltd
27.	Laminar Flow	iGeneLabserve Pvt Ltd
28.	UV Cabinet	iGeneLabserve Pvt Ltd
29.	Fume Hood Explosion proof	iGeneLabserve Pvt Ltd
30.	Texture Analyzer	Horiba
31.	Auto analyser	Skalar/Agaram Industries
32.	Carbon dioxide analyser	Elron instrument co. Pvt. Ltd.
33.	Ultrasonic Scientific Anemometer	Electrotek International
34.	ADCP	Teledyne
35.	Sub Bottom Profiler	Kongsberg
36.	Scientific handling system & Winches	Kley France
37.	Manta net (Microplastics)	(K.C Denmark) Nipun Engg. Solutions
38.	Fourier-transform infrared spectroscopy (FTIR)	JASCO – Anatek service

39.	Side Scan Sonar with DAS & winch	Edgetech
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VI. Ship Name: SAGAR ANVESHKA

A. Technical details of the vessel

General Specifications of the Vessel

- Length Overall - 43 m
- Breadth moulded - 9.6 m
- Draught - 2.5 m
- GRT - 497
- Main Engine - 2 x 552 kW
- Speed - 12 knots
- Endurance - 15 Days
- Scientists - 8
- Officers & Crew - 12
- Type - CRV
- Classification - IRS

B. Machineries details of Sagar Anveshika:

Sl.No	Description of item	Make
1.	Main Engines – 2nos	SCANIA
2.	Gear Box -2nos	Twin Disc
3.	Stern Gear	Michigan Marine Propulsion
4.	Bow Thruster	Thrust Master
5.	DG Sets -3nos	SCANIA
6.	Oily Bilge Separator	Victor Marine LTD
7.	Steering Gear	Wills Ridley
8.	FW Generator – 2nos	ROCHEM
9.	Service Air Compressors	Elgi
10.	Emergency generator	
11.	STP& Vacuum Toilet System	Orca& EVAC
12.	Bilge/GS/Fire/Ballast Pumps	Roysons Engineering
13.	F.O.Transfer pump	Roysons Engineering
14.	F.W.Hydrophore pumps	Roysons Engineering
15.	Hot Water circulating pump	Roysons Engineering
16.	Dirty oil Transfer pump	Roysons Engineering
17.	Grey water discharge pump	Roysons Engineering
18.	Sea water pumps for A/C Refrigeration	Roysons Engineering
19.	Calorifier	RajashreeEnterprize
20.	FW Hydrophore tank	ROYSONS
21.	Deck Cranes	SORMEC
22.	A-Frame	MASCOT, KOLKATA
23.	Side J-Frame for CTD (STBD)	KLEY FRANCE
24.	Side A-Frame (PORT)	MASCOT, KOLKATA
25.	General purpose winch	KLEY FRANCE

26.	CTD Winch system	KLEY FRANCE
27.	Oceanographic Winch system	KLEY FRANCE
28.	Hydraulic Power pack for A-Frame, Deep sea winch and sampling winch systems	KLEY FRANCE
29.	Anchors	Jiangshu, China
30.	Anchor Chain	Jiangshu, China
31.	Anchor Handling Windlass	Geeta Engg
32.	Capstan , 2 nos., 2T capacity, Vertical	Geeta Engg
33.	Accommodation System-panelling,	S-One Marine & Offshore / Korea
34.	Ceiling, insulation, flooring	BIP MARINE
35.	TOILET MODULES	S ONE M&O / BIP MARINE
36.	Rescue Boat	Ningbo Life boats , China
37.	Davit for Rescue Boat	Hemant Engg
38.	Life Rafts	SHM Shipcare
39.	LSA &FFA	SHM Shipcare
40.	System Valves	AV Marine / Malhar
41.	U/W Valves	AV Marine
42.	Electrical Cables	HELKAMA CABLES
43.	Main Switch Board, Starter Panels, Distribution Boards, Light Panels etc.	Marine Electrical
44.	WH Console	Marine Electrical
45.	E/R Console	Marine Electrical
46.	FDA System	ZEAL MARKEING
47.	UPS with battery bank - Two sets	

Navigational Equipment

Sr. No.	Description of item	Make
1.	Speed Log	Consilium
2.	Magnetic Compass	Elcome Marine / Lilley & Gilley
3.	Automatic Identification System	Elcome Marine /JRC
4.	SVDR	Elcome Marine /JRC
5.	Radar	Elcome Marine /KODEN
6.	DGPS	Elcome Marine /JRC
7.	Gyro System	Elcome Marine / Raytheon
8.	Auto Pilot	Elcome Marine / NautoPilot
9.	ECDIS	Elcome Marine /Transas
10.	Course Recorder & ROT	Elcome Marine / Raytheon
11.	Wind Speed and Direction indicator	Elcome Marine / Lilley & Gilley
12.	Air Horn	Elcome Marine / Kahlenberg
13.	BNWAS & SSAS	Elcome Marine / JRC

14.	ALDIS Lamp	Elcome marine
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Internal Communication System

Sr. No.	Description of item	Make
1.	Marine Auto telephone Exchange	MEL/IMCOS
2.	Public Address /Entertainment System.	MEL/IMCOS
3.	Talkback System	MEL/IMCOS
4.	Galley Call Bell System	MEL
5.	Loud Hailer System	Elcome
6.	Communal Ariel System	Elcome Marine / KNS Korea
7.	External Comm. System-GMDSS Sea area A1+A2+A3 Equipments-1 shipset	Elcome Marine / JRC
8.	CCTV System	MEL/ WISKA

C. Scientific Equipment of Sagar Anveshika:

Sr. No.	Description of item	Make
1.	BOD incubator (Bio-Chemical Oxygen Demand)	Lab Kit, Hongkong
2.	Hot Air Oven	HL Scientific, Chennai
3.	Laboratory water purification System	Millipore
4.	Refrigerator (-15°C), Qty-2 Nos	Haier/LG/Voltas/Blue star
5.	Deep freezer (-80 DegC) , Qty-2 Nos	Lab Freeze
6.	Double Beam UV-VIS (Visible) Spectrophotometer	Shimadzu
7.	Zoom stereo Microscope	Leica
8.	Auto salinometer	OSIL
9.	Thermosalinograph	Sea Bird
10.	Gravity corer	Norinco
11.	Gyro compass and Motion Reference Unit/sensor	IX BLUE/ SAMHITA
12.	USBL Acoustic positioning system	IX BLUE/ SAMHITA
13.	Multi Beam Echo Sounder	KONGSBERG
14.	Single Beam Echo Sounder	KONGSBERG
15.	Sediment sampler (Van Veen Grab)	Norinco
16.	Automatic weather station	Observator
17.	CTD profiler	Sea Bird
18.	Autoclave	Bio technology
19.	Refrigerated centrifuge	Lab Kit, Hongkong
20.	Portable nutrient analyser	Clean grow
21.	Underway CTD data logging System	Teledyne
22.	Niskin water sampler (go devil messenger type) and Messengers	Norinco
23.	Zooplankton net with flow meter	Aishwarya

24.	Dosimate Auto dispensing unit	Metrohm/ Mettler Toledo
25.	Vacuum pump and filtration unit	Rocher
26.	Bacteriological Incubator	iGeneLabserve Pvt Ltd
27.	Laminar Flow	iGeneLabserve Pvt Ltd
28.	UV Cabinet	iGeneLabserve Pvt Ltd
29.	Fume Hood Explosion proof	iGeneLabserve Pvt Ltd
30.	Texture Analyzer	Horiba
31.	Auto analyser	Skalar/Agaram Industries
32.	Carbon dioxide analyser	Elron instrument co. Pvt. Ltd.
33.	Ultrasonic Scientific Anemometer	Electrotek International
34.	Multiple corer	OSIL (Advance Technical Systems Private Limited)
35.	ADCP	Teledyne
36.	Sub Bottom Profiler	Kongsberg
37.	Scientific handling system & Winches	Kley France
38.	Manta net (Microplastics)	(K.C Denmark) Nipun Engg. Solutions
39.	Fourier-transform infrared spectroscopy (FTIR)	JASCO – Anatek service
40.	Side scan Sonar with DAS & Winch	Edgetech

ANNEXURE-II – PRICE BID FORMAT

PRICE BID FORMAT (Refer 1.8)

A. SAGAR KANYA

S. No.	Item Descriptions	Quantity	Unit	Actual Qty	I year		II year		III year	
					Unit rate	Total rate	Unit rate	Total rate	Unit rate	Total rate
i	ii	iii	iii(a)	iii(b)	iv	v	vi	vii	viii	ix
1.1	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the Model contract)	1 year	Per Year	1						
1.2	Agency Services (Indian port call)	10	Per port call	10						
1.3	Agency Services (Foreign port call)	1	Per port call	1						
1.4	Management Fee as per work scope	1	Per Year	1						
2	Per day manning cost (including victualling)									
2.1	Master FG	365 days	Per day	365						
2.2	Chief Officer FG	365 days	Per day	365						
2.3	2nd Officer FG	365 days	Per day	365						
2.4	3rd Officer FG	365 days	Per day	365						
2.5	Chief Engineer FG	365 days	Per day	365						

2.6	2nd Engineer FG	365 days	Per day	365						
2.7	3rd Engineer FG	365 days	Per day	365						
2.8	4th Engineer FG	365 days	Per day	365						
2.9	Electro-Technical Officer (ETO)	365 days	Per day	365						
2.10	Medic / Nurse	365 days	Per day	365						
2.11	Catering /Housekeeping officer FG	365 days	Per day	365						
2.12	Chief Cook	365 days	Per day	365						
2.13	Fitter / Oiler –2 nos	2 nos x 365 days Per person per day rate	Per man day	365x 2						
2.14	2 nd cook	2 nos. x 365 days	Per day	365 x 2						
2.15	Deck crew / Helmsman / ratings –6 nos	6 nos x 365 days Per person per day rate	Per man day	365x6						
2.16	Engine crew / ratings –6 nos	6 nos x 365 days Per person per day rate	Per man day	365x6						
2.17	Laundryman / Saloon ratings - 4 nos	4 nos x 365 days Per person per day rate	Per man day	365x 4						
2.18	UH crew	365 days	Per day	365						
3	Fresh water rate / ton	1500 tons	Per ton	1500						
4	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	1						
5.1	Superintendent for drydocking (all inclusive) per day rate-Indian Yard	35 days	Per day	35						
5.2	Superintendent for drydocking (all inclusive) per day rate-Foreign Yard	35 days	Per day	35						
6	Scientific equipment maintenance [routine, preventive & break down] only (annual charges including requisite manpower and their victualling).									
6.01	Kongsberg EM304 MK II Deep Sea Multibeam Echosounder with post-processing / plotting	1	Per Year	1						

	facilities.									
6.02	Deep Sea Echosounder (SyQwest 12 kHz / 30 kHz)	1	Per Year	1						
6.03	Shallow Water Echosounder	1	Per Year	1						
6.04	G-882 Cesium Magnetometer	1	Per Year	1						
6.05	Sub-Bottom Profiler	1	Per Year	1						
6.06	Side Scan Sonar	1	Per Year	1						
6.07	Pinger	2	Per Year	2						
6.08	18m Hydraulic Piston Corer	1	Per Year	1						
6.09	6m Gravity Core	2	Per Year	2						
6.10	Spade Corer	2	Per Year	2						
6.11	Sediment Grabs	(2+4)	Per Year	2 4						
6.12	Core Sub-Sampling Stn	1	Per Year	1						
6.13	Pipe Dredge	3	Per Year	3						
6.14	Core Liner Cutter	2	Per Year	2						
6.15	Skalar Autoanalyser.	1	Per Year	1						
6.16	Hydro-Bios Automatic Multi-Plankton Net	1	Per Year	1						
6.17	Seabird CTD with Rossette Sea-water Sampling facility.	1	Per Year	1						
6.18	Idronaut CTD with Rossette Sea-water Sampling facility.	1	Per Year	1						
6.19	Niskin Water Sampler									
	1.7 Ltrs	60	Per Year	60						
	5 Ltrs	10	Per Year	10						
	10 Ltrs	18	Per Year	18						
	30 Ltrs	1	Per Year	1						
6.20	Go Flow Water Sampler		Per Year							
	30 Ltrs	6	Per Year	6						
	12 Ltrs	1	Per Year	1						
6.21	Sippican Expendable Bathy Thermograph (XBT)	1	Per Year	1						
6.22	RDI 150 kHz Acoustic Doppler Current Profiler	1	Per Year	1						
6.23	Salinometer	1	Per Year	1						
6.24	Thermosalinograph	1	Per Year	1						
6.25	DP system	1	Per Year	1						
6.26	HiPAP system	1	Per Year	1						
6.27	LCD projector / screen	1	Per Year	1						
6.28	GPS + Power Supply	1	Per Year	1						
6.29	Meterwheel Unit (For CTD)	2	Per Year	2						
6.30	Autoclave	1	Per Year	1						
6.31	Tension meter for Deep	1	Per Year	1						

	Sea Winch									
6.32	Rock Saw	1	Per Year	1						
6.33	Rock Mill	1	Per Year	1						
6.34	Deep Sea Winch / Friction Winch / Zibboom	1	Per Year	1						
6.35	CTD Winches - 2 nos + 1 Gantry	1	Per Year	1						
6.36	Magnetometer winch	1	Per Year	1						
6.37	Side Scan Sonar winch	1	Per Year	1						
6.38	A-frame	1	Per Year	1						
6.39	N/Oilwell Crane	1	Per Year	1						
6.40	Atlas Cranes - 2nos	1	Per Year	1						
7	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)									
7.01	Kongsberg EM304 MK II Deep Sea Multibeam Echosounder with post-processing / plotting facilities.	1	Per Year	1						
7.02	Deep Sea Echosounder (SyQwest 12 kHz / 30 kHz)	1	Per Year	1						
7.03	Shallow Water Echosounder	1	Per Year	1						
7.04	G-882 Cesium Magnetometer	1	Per Year	1						
7.05	Sub-Bottom Profiler	1	Per Year	1						
7.06	Side Scan Sonar	1	Per Year	1						
7.07	Pinger (2nos.)	1	Per Year	1						
7.08	18m Hydraulic Piston Corer	1	Per Year	1						
7.09	6m Gravity Core (2nos.)	1	Per Year	1						
7.10	Spade Corer (2nos.)	1	Per Year	1						
7.11	Sediment Grabs (2nos+4nos)	1	Per Year	1						
7.12	Core Sub-Sampling Stn	1	Per Year	1						
7.13	Pipe Dredge (3 nos.)	1	Per Year	1						
7.14	Core Liner Cutter (2nos.)	1	Per Year	1					oko	
7.15	Skalar Autoanalyser.	1	Per Year	1						
7.16	Hydro-Bios Automatic Multi-Plankton Net	1	Per Year	1						
7.17	Seabird CTD with Rossette Sea-water Sampling facility.	1	Per Year	1						
7.18	Idronaut CTD with Rossette Sea-water Sampling facility.	1	Per Year	1						
7.19	Niskin Water Sampler									
	1.7 Ltrs (60 nos.)	1	Per Year	1						
	5 Ltrs (10 nos.)	1	Per Year	1						
	10 Ltrs (18 nos.)	1	Per Year	1						
	30 Ltrs (1 no.)	1	Per Year	1						
7.20	Go Flow Water Sampler		Per Year							

	30 Ltrs (6 nos.)	1	Per Year	1						
	12 Ltrs	1	Per Year	1						
7.21	Sippican Expendable Bathy Thermograph (XBT)	1	Per Year	1						
7.22	RDI 150 kHz Acoustic Doppler Current Profiler	1	Per Year	1						
7.23	Salinometer	1	Per Year	1						
7.24	Thermosalinograph	1	Per Year	1						
7.25	DP system	1	Per Year	1						
7.26	HiPAP system	1	Per Year	1						
7.27	LCD projector / screen	1	Per Year	1						
7.28	GPS + Power Supply	1	Per Year	1						
7.29	Meterwheel Unit (For CTD) (2 nos.)	1	Per Year	1						
7.30	Autoclave	1	Per Year	1						
7.31	Tension meter for Deep Sea Winch	1	Per Year	1						
7.32	Rock Saw	1	Per Year	1						
7.33	Rock Mill	1	Per Year	1						
7.34	Deep Sea Winch / Friction Winch / Zibboom	1	Per Year	1						
7.35	CTD Winches - 2 nos + 1 Gantry	1	Per Year	1						
7.36	Magnetometer winch	1	Per Year	1						
7.37	Side Scan Sonar winch	1	Per Year	1						
7.38	A-frame	1	Per Year	1						
7.39	N/Oilwell Crane	1	Per Year	1						
7.40	Atlas Cranes - 2nos	1	Per Year	1						
8	Scientific equipment Operation & maintenance [routine, preventive & break down , data collection & processing/analysis] (annual charges including requisite manpower and their victualling).									
8.01	Sieves / Sieve Shaker	1	Per Year	1						
8.02	Agate Mortar / Pestle.	1	Per Year	1						
8.03	UV-Oxidation Unit	1	Per Year	1						
8.04	Titration Unit	1	Per Year	1						
8.05	Water Purifying System	1	Per Year	1						
8.06	Vaccum Pumps	2	Per Year	2						
8.07	pH Meter	1	Per Year	1						
8.08	UV Chamber	1	Per Year	1						
8.09	Rotary Shaker	1	Per Year	1						
8.10	Bucket Thermometer	2	Per Year	2						
8.11	Barometer	1	Per Year	1						
8.12	LAN	1	Per Year	1						
8.13	Personal Computers/servers & Peripherals	12	Per Year	12						
8.14	Printers	9	Per Year	9						
8.15	External CD writer	1	Per Year	1						
8.16	Scanner	1	Per Year	1						
9.1	Meals cost (per person per day of 3 meals and twice	7000 man days	Per man day	7000						

	snacks/tea/coffee)									
9.2	VIP meal	300 meals	Per meal	300						
10	Labourer Charges (for science team)	100	Per day	100						
11	Boat Arrangement	1	Per day	1						
12	Taxi Arrangement	150	Per day	150						
13	Port Pass Arrangement	300	Per Pass	300						
14	Painting: Deck (polyurethane) and super structure paints (Alkyd)	4	Per painting	4						
15	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	2	Per painting	2						
16	Painting: Accessible external hull without scaffolding (ship side, weather decks)	3	Per painting	3						
17	Annual fumigation charges including shore-accommodations for Ship crew/Officer	1	Per year	1						
18	Spot fumigation as per standard, minimum of 10 locations	4	Per year	4						
19	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	1						
20	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	1						
21	AMC service charges for Central AC System (3 nos. systems) by OEM/OEM Authorized engineer	1	Per Year	1						
	Grand Total		TOTAL for Sagar Kanya for 3 years : = A							

B. SAGAR NIDHI

S. No.	Item Descriptions	Quantity	Unit	Actual Qty	I year		II year		III year	
					Unit rate	Total rate	Unit rate	Total rate	Unit rate	Total rate
i	ii	iii	iii(a)	iii(b)	iv	v	vi	vii	viii	ix
1.1	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the Model	1 year	Per Year	1						

	contract)									
1.2	Agency Services (Indian port call)	15	Per port call	15						
1.3	Agency Services (Foreign port call)	1	Per port call	1						
1.4	Management Fee as per work scope	1	Per Year	1						
2	Per day manning cost (including victualling)									
2.1	Master FG	365 days	Per day	365						
2.2	Chief Officer FG	365 days	Per day	365						
2.3	2nd Officer FG	365 days	Per day	365						
2.4	3rd Officer FG	365 days	Per day	365						
2.5	Chief Engineer FG	365 days	Per day	365						
2.6	2nd Engineer FG	365 days	Per day	365						
2.7	3rd Engineer FG	365 days	Per day	365						
2.8	4th Engineer FG	365 days	Per day	365						
2.9	Electro-Technical Officer (ETO)	365 days	Per day	365						
2.10	Electro-Technical Officer (ETO) - Electronics	365 days	Per day	365						
2.11	Medic / Nurse	365 days	Per day	365						
2.12	Deck crew / Helmsman / ratings –7 nos	7 nos x 365 days Per perso n per day rate	Per man day	365x 7						
2.13	Engine crew / ratings –3 nos	3 nos x 365 days Per perso n per day rate	Per man day	365x 3						
2.14	Fitter / Oiler –1 no	365 days	Per day	365						
2.15	Chief cook	365 days	Per day	365						
2.16	2nd cook	365 days	Per day	365						

2.17	Saloon rating- 3nos	3 nos x 365 days Per perso n per day rate	Per man day	365x 3						
3	Fresh water rate / ton	3000 Tons	Per ton	3000						
4	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	1						
5.1	Superintendent for drydocking (all inclusive) per day rate-Indian Yard	60 days	Per day	60						
5.2	Superintendent for drydocking (all inclusive) per day rate-Foreign Yard	45 days	Per day	45						
6	Scientific equipment maintenance [routine, preventive & break down] only (annual charges including requisite manpower and their victualling).									
6.01	Deep sea Multi beam Echo sounder – MD30 -RESON including DGPS, MRU, S.V probe & S.V profiler, Data Acquisition System & processing system with software, Repeaters, Helsman display and accessories	1	Per year	1						
6.02	Deep sea Single beam Echosounder with DAS (EA 640)	1	Per year	1						
6.03	ADCP (Acoustic Doppler Current Profiler): with DAQ	1	Per year	1						
6.04	Shallow water single echo sounder	1	Per year	1						
6.05	Shallow water Multi beam echo sounder (Norbit) including DGPS and accessories	1	Per year	1						
6.06	Sub bottom profiler: Innomar-2000 deep with DAQ and processing system	1	Per year	1						

6.07	CTD with rosette setup (CTD and aux sensors). SBE-9/11Plus.	1	Per year	1						
6.08	CTD with rosette setup (CTD and aux sensors). SBE-9/11Plus. (Stand-By unit).	1	Per year	1						
6.09	Shallow water CTD 19Plus with rosette.	1	Per year	1						
6.10	Thermosalinograph including temp. sensor, interface box & DAQ	1	Per year	1						
6.11	Thermosalinograph (Stand-By unit) including temp. sensor	1	Per year	1						
6.12	HiPAP102 / Hi-PAP500 Acoustic Positioning system & accessories	1	Per year	1						
6.13	Autosalinometer	1	Per year	1						
6.14	Shallow water CTD winch with cable and accessories.	1	Per year	1						
6.15	Gravity corer including core head, barrel, catcher and cutter	1	Per year	1						
6.16	Auto Analyser.	1	Per year	1						
6.17	Deep Sea Winch with umbilical cable	1	Per year	1						
6.18	Deep Sea Winch with aramid cable	1	Per year	1						
6.19	CTD winch with cables	1	Per year	1						
6.20	Hydrographic winch with cables	1	Per year	1						
7	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)									
7.01	Deep sea Multi beam Echo sounder – MD30 -RESON including DGPS, MRU, S.V probe & S.V profiler, Data Acquisition System & processing system with software, Repeaters, Helsman display and accessories	1	Per year	1						

7.02	Deep sea Single beam Echosounder with DAS (EA 640)	1	Per year	1						
7.03	ADCP (Acoustic Doppler Current Profiler): with DAQ	1	Per year	1						
7.04	Shallow water single echo sounder	1	Per year	1						
7.05	Shallow water Multi beam echo sounder (Norbit) including DGPS and accessories	1	Per year	1						
7.06	Sub bottom profiler: Innomar-2000 deep with DAQ and processing system	1	Per year	1						
7.07	CTD with rosette setup (CTD and aux sensors). SBE-9/11Plus.	1	Per year	1						
7.08	Shallow water CTD 19Plus with rosette.	1	Per year	1						
7.09	Thermosalinograph including temp. sensor, interface box & DAQ	1	Per year	1						
7.10	HiPAP102 / Hi-PAP500 Acoustic Positioning system & accessories	1	Per year	1						
7.11	Autosalinometer	1	Per year	1						
7.12	Shallow water CTD winch with cable and accessories.	1	Per year	1						
7.13	Gravity corer including core head, barrel, catcher and cutter	1	Per year	1						
7.14	Auto Analyser.	1	Per year	1						
7.15	Deep Sea Winch with umbilical cable	1	Per year	1						
7.16	Deep Sea Winch with aramid cable	1	Per year	1						
7.17	CTD winch with umbilical cables	1	Per year	1						
8	Scientific equipment Operation & maintenance [routing, preventive & break down , data collection & processing/analysis] (annual charges including requisite manpower and their victualling).									
8.01	Ph meter	1	Per year	1						
8.02	Spectrophotometer	1	Per year	1						
8.03	Autoclave	1	Per year	1						
8.04	MilliQ-Water Purification system	1	Per year	1						

8.05	Niskin water samplers 5Ltrs	1	Per year	1						
8.06	Niskin water samplers 4 Ltrs	1	Per year	1						
8.07	AUTOMATIC WEATHER STATION (AWS).	1	Per year	1						
8.08	Computer, Monitor with peripherals.- 4 nos	1	Per year	1						
8.09	Printers - 5nos	1	Per year	1						
8.10	Stereo Microscope with camera attached with PC connection	1	Per year	1						
8.11	Electronic balance	1	Per year	1						
8.12	Hot plate and Magnetic stirrer	1	Per year	1						
8.13	Vacuum Pump	1	Per year	1						
8.14	Filtration unit (PVC manifold)	1	Per year	1						
8.15	Filtration unit (SS manifold)									
8.16	Filtration unit (flask type-47 mm)	1	Per year	1						
8.17	Filtration unit (flask type-25 mm)	1	Per year	1						
8.18	Hot air Oven	1	Per year	1						
8.19	Laminar flow	1	Per year	1						
8.20	BOD incubator	1	Per year	1						
8.21	Bacteriological incubator	1	Per year	1						
8.22	Auto Burette	1	Per year	1						
8.23	Refrigerator Centrifuge	1	Per year	1						
8.24	Plankton Net	1	Per year	1						
8.25	Sieve (for sediment collection)	1	Per year	1						
8.26	Deep Freezer.	1	Per year	1						
8.27	UPS online	1	Per year	1						
9.1	Meals cost (per person per day of 3 meals and twice snacks/tea/ coffee)	6500 man days	Per man day	6500						
9.2	VIP meal	300 meals	Per meal	300						
10	Labourer Charges (for science team)	75	Per day	75						
11	Boat Arrangement	2	Per day	2						
12	Taxi Arrangement	125	Per day	125						

13	Port Pass Arrangement	1000	Per Pass	1000						
14	Painting: Deck (polyurethane) and super structure paints (Alkyd)	4	Per painting	4						
15	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	2	Per painting	2						
16	Painting: Accessible external hull without scaffolding (ship side, weather decks)	3	Per painting	3						
17	Annual fumigation including shore-accommodations for Ship crew/Officer	1	Per year	1						
18	Spot fumigation as per standard, minimum of 10 locations	4	Per year	4						
19	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	1						
20	AMC Service charges of Scientific handling System [CTD (Deep & Shallow), Hydrographic, Deep Sea Winches] by OEM/OEM Authorized engineer	1	Per Year	1						
21	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	1						
	Grand Total				TOTAL for Sagar Nidhi for 3 years: =B					

C. SAGAR SAMPADA

S. No.	Item Descriptions	Quantity	Unit	Actual Qty	I year		II year		III year	
					Unit rate	Total rate	Unit rate	Total rate	Unit rate	Total rate
i	ii	iii	iii(a)	iii(b)	iv	v	vi	vii	viii	ix
1.1	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3	1	Per Year	1						

	of the Model contract)									
1.2	Agency Services (Indian port call)	12	Per port call	12						
1.3	Agency Services (Foreign port call)	1	Per port call	1						
1.4	Management Fee as per work scope	1	Per Year	1						
2	Per day Manning cost (including victualling)									
2.01	Master FG	365 days	Per day	365						
2.02	Chief Officer FG	365 days	Per day	365						
2.03	2nd Officer FG	365 days	Per day	365						
2.04	3rd Officer FG	365 days	Per day	365						
2.05	Chief Engineer FG	365 days	Per day	365						
2.06	2nd Engineer FG	365 days	Per day	365						
2.07	3rd Engineer FG	365 days	Per day	365						
2.08	4th Engineer FG	365 days	Per day	365						
2.09	Master NCV	365 days	Per day	365						
2.10	Chief Officer NCV	365 days	Per day	365						
2.11	2nd Officer NCV	365 days	Per day	365						
2.12	3rd Officer NCV	365 days	Per day	365						
2.13	Chief Engineer NCV	365 days	Per day	365						
2.14	2nd Engineer NCV	365 days	Per day	365						
2.15	3rd Engineer NCV	365 days	Per day	365						
2.16	4th Engineer NCV	365 days	Per day	365						
2.17	Electro-Technical Officer (ETO)	365 days	Per day	365						
2.18	Fishing Master (as & when required)									
2.19	Medical officer / Nurse	365 days	Per day	365						
2.20	Chief Cook	365 days	Per day	365						
2.21	Fitter / Oiler –2 nos	2 nos x 365 days Per person per day rate	Per man day	365x 2						
2.22	2nd cook - 2 nos	2 x 365 days	Per man day	365x2						

2.23	Deck crew / Helmsman / ratings – 6 nos	6 nos x 365 days Per person per day rate	Per man day	365x 6						
2.24	Engine crew / ratings –6 nos	6 nos x 365 days Per person per day rate	Per man day	365x 6						
2.25	Laundryman / Saloon ratings - 4 nos	4 nos x 365 days Per person per day rate	Per man day	365x 4						
3	Fresh water rate / ton	1400 tons	Per ton	1400						
4	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	1						
5.01	Superintendent for drydocking (all inclusive) per day rate-Indian Yard	35 days	Per day	35						
5.02	Superintendent for drydocking (all inclusive) per day rate-Foreign Yard	35 days	Per day	35						
6	Scientific equipment Maintenance (routine, preventive & breakdown) only (annual charges including requisite manpower and their victualling)									
6.01	Echo sounder 50Khz	1	Per year	1						
6.02	Fish Finding Echo sounder ES80	1	Per year	1						
6.03	Doppler Speed Log	1	Per year	1						
6.04	Cableless Trawl sonde (ITI)	1	Per year	1						
6.05	Integrated Fish Finding system (CM60)	1	Per year	1						
6.06	Sonar SX90	1	Per year	1						
6.07	75kHz ADCP with deck unit	1	Per year	1						
6.08	Echo Sounder EA600	1	Per year	1						
6.09	DGPS with display unit	1	Per year	1						
6.10	Salinometer	1	Per year	1						
6.11	CTD SBE 911plus /Rosette	1	Per year	1						
6.12	Water Purifying Plant	1	Per year	1						

6.13	MPN	1	Per year	1						
6.14	Bongo Net	1	Per year	1						
6.15	Incubator	1	Per year	1						
6.16	Refrigerator 190 Litre	1	Per year	1						
6.17	Vertical Deep Freezer	1	Per year	1						
6.18	Smith Mc-Intyre Grab	1	Per year	1						
6.19	Dredge	1	Per year	1						
6.20	Box corer	1	Per year	1						
6.21	Thermosalinograph	1	Per Year	1						
6.22	CUFES	2	Per Year	2						
6.23	Big Eye Binocular	2	Per Year	2						
6.24	EK-80 Scientific Echo Sounder 38/120/200/333kHz & MRU	1	Per Year	1						
6.25	Trinocular Microscope	1	Per Year	1						
6.26	Stereo Microscope	1	Per Year	1						
6.27	Automatic Weather Station (AWS)	1	Per Year	1						
6.28	CTD winch	1	Per Year	1						
6.29	Plankton winches- 2nos	1	Per Year	1						
6.30	Split Trawl winches [upper & lower drum and Gilson]- 2 nos	1	Per Year	1						
6.31	Sweep Trawl winch	1	Per Year	1						
7.00	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)									
7.01	Echo sounder 50Khz	1	Per year	1						
7.02	Fish Finding Echo sounder ES80	1	Per year	1						
7.03	Doppler Speed Log	1	Per year	1						
7.04	Cableless Trawl sonde (ITI)	1	Per year	1						
7.05	Integrated Fish Finding system (CM60)	1	Per year	1						
7.06	Sonar SX90	1	Per year	1						
7.07	75kHz ADCP with deck unit	1	Per year	1						
7.08	Echo Sounder EA600	1	Per year	1						
7.09	DGPS with display unit	1	Per year	1						
7.10	Salinometer	1	Per year	1						
7.11	CTD SBE 911plus /Rosette	1	Per year	1						
7.12	Water Purifying Plant	1	Per year	1						
7.13	MPN	1	Per year	1						

7.14	Bongo Net	1	Per year	1						
7.15	Incubator	1	Per year	1						
7.16	Refrigerator 190 Litre	1	Per year	1						
7.17	Vertical Deep Freezer	1	Per year	1						
7.18	Smith Mc-Intyre Grab	1	Per year	1						
7.19	Dredge	1	Per year	1						
7.20	Box corer	1	Per year	1						
7.21	Thermosalinograph	1	Per Year	1						
7.22	CUFES	2	Per Year	2						
7.23	Big Eye Binocular	2	Per Year	2						
7.24	EK-80 Scientific Echo Sounder 38/120/200/333kHz & MRU	1	Per Year	1						
7.25	Trinocular Microscope	1	Per Year	1						
7.26	Stereo Microscope	1	Per Year	1						
7.27	Automatic Weather Station (AWS)	1	Per Year	1						
7.28	CTD winch	1	Per Year	1						
7.29	Plankton winches- 2nos	1	Per Year	1						
7.30	Split Trawl winches [upper & lower drum and Gilson]- 2 nos	1	Per Year	1						
7.31	Sweep Trawl winch	1	Per Year	1						
8.00	Scientific Equipment Operation & Maintenance (routine, preventive & break down, data collection & processing/analysis) (annual charges including requisite manpower and their victualling)									
8.01	Server Hp	1	Per year	1						
8.02	HP desktop 3000 pro, Printer & Scanner	1	Per year	1						
8.03	Lan system 12 port LAN hub	1	Per year	1						
8.04	Depth display units at various locations	1	Per year	1						
8.05	Depth Display unit	1	Per year	1						
8.06	Isotope Fume cupboard	1	Per year	1						
8.07	Refrigerator	1	Per year	1						
8.08	Fume cupboard	1	Per year	1						
8.09	Refrigerator	1	Per year	1						
8.10	HP PC	1	Per year	1						
8.11	System Digital Clock	1	Per year	1						
8.12	Insulated water Sampler	1	Per year	1						
8.13	Incubator	1	Per year	1						
8.14	Muffle Furnace	1	Per year	1						
8.15	Fume cupboard	1	Per year	1						
8.16	Vacuum Pump	1	Per year	1						

8.17	Hot Air Oven	1	Per year	1						
8.18	BOD Incubator	1	Per year	1						
8.19	Laminar Flow	1	Per year	1						
8.20	Colony Counter	1	Per year	1						
8.21	Laboratory Autoclave	1	Per year	1						
8.22	Fume Cupboard	1	Per year	1						
8.23	Marine Balance 100kg	1	Per year	1						
8.24	Ice machine	1	Per year	1						
8.25	Power Supply Unit	1	Per year	1						
8.26	Megger	1	Per year	1						
8.27	Digital Flow Meter	1	Per year	1						
8.28	HP deskjet 3000	1	Per year	1						
8.29	Oscilloscope	1	Per year	1						
9.01	Meals cost (per person per day of 3 meals and twice snacks/tea/coffee)	6500 man days	Per man day	6500						
9.02	VIP meal	300 meals	Per meal	300						
10	Labourer Charges (for science team)	100	Per day	100						
11	Boat Arrangement	1	Per day	1						
12	Taxi Arrangement	150	Per day	150						
13	Port Pass Arrangement	300	Per Pass	300						
14	Painting: Deck (polyurethane) and super structure paints (Alkyd)	4	Per painting	4						
15	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	2	Per painting	2						
16	Painting: Accessible external hull without scaffolding (ship side, weather decks)	3	Per painting	3						
17	Annual fumigation charges including shore-accommodations for Ship crew/Officer	1	Per year	1						
18	Spot fumigation as per standard, minimum of 10 locations	4	Per year	4						
19	Shore Crane - 40 Ton Mobile Crane with 32 Meters Boom Length at Kochi	1	Per Year	1						

20	Shore Crane - 100/120 Ton Mobile Crane with 40 Meters Boom Length with counter weight Handling Facility at Kochi	1	Per Year	1						
21	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	1						
22	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	1						
	Grand Total			TOTAL for Sagar Sampada for 3 years : = C						

D. SAGAR MANJUSHA

S. No.	Item Descriptions	Quantity	Unit	Actual Qty	I year		II year		III year	
					Unit rate	Total rate	Unit rate	Total rate	Unit rate	Total rate
i	ii	iii	iii(a)	iii(b)	iv	v	vi	vii	viii	ix
1.1	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the Model contract)	1 year	Per Year	1						
1.2	Agency Services (Indian port call)	25	Per port call	25						
1.3	Management Fee as per work scope	1	Per Year	1						
2	Per day manning cost (including victualling)									
2.1	Master	365 days	Per day	365						
2.2	Chief Officer	365 days	Per day	365						
2.3	2nd Officer	365 days	Per day	365						
2.4	Chief Engineer	365 days	Per day	365						
2.5	2nd Engineer	365 days	Per day	365						
2.6	4th Engineer	365 days	Per day	365						
2.7	Electro-Technical Officer (ETO)	365 days	Per day	365						
2.8	Deck crew / Helmsman / ratings –5 nos	5 nos x 365 days Per person per day rate	Per man day	365x 5						
2.9	Engine crew / ratings –2 nos	2 nos x 365 days Per person per day rate	Per man day	365x 2						
2.10	Chief cook	365 days	Per day	365						
2.11	2nd cook	365 days	Per day	365						
2.12	Saloon rating - 2 nos	2 nos x 365 days Per person per day rate	Per man day	365x 2						

3	Fresh water rate / ton	1200 tons	Per ton	1200						
4	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	1						
5	Technical Superintendent for drydocking (all inclusive) per day rate	45 days	Per day	45						
6	Scientific equipment maintenance [routine, preventive & break down, data collection & processing/analysis] (annual charges including requisite manpower and their victualling).									
6.01	CTD profiler and sensors	1	Per year	1						
6.02	Corer (Gravity Corer)	1	Per year	1						
	Core Catcher	3	Per year	3						
	Core cutter	5	Per year	5						
	Core Pipe	30	Per year	30						
6.03	MBES & Accessories:- Data Acquisition-Work Station Monitors Keyboard Mouse DGPS CPU	1 set	Per year	1						
6.04	Single beam Echo Sounder, DGPS, Monitor, CPU, Mouse, Keyboard	1 set	Per year	1						
6.05	Shallow water CTD Winch (Online with cable & accessories)	1	Per year	1						
6.06	Shallow water CTD 19Plus	1	Per year	1						
6.07	IDRONAUT CTD Ocean seven 320 plus with GO1018 Rosette.	1	Per year	1						
6.08	Thermosalinograph	1	Per year	1						
6.09	Thermosalinograph (standby unit)	1	Per year	1						
6.10	Multiple Corer	1	Per year	1						
6.11	ADCP	1	Per year	1						
6.12	Sub Bottom Profiler	1	Per year	1						
6.13	Auto Salinometer	1	Per year	1						
6.14	CTD winch (offline)	1	Per year	1						
6.15	Deep Sea winch system with its accessories	1	Per year	1						
7	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)									
7.01	CTD profiler and sensors	1	Per year	1						

7.02	Corer (Gravity Corer)	1	Per year	1						
	Core Catcher	3	Per year	3						
	Core cutter	5	Per year	5						
	Core Pipe	30	Per year	30						
7.03	MBES & Accessories:- Data Acquisition-Work Station Monitors Keyboard Mouse DGPS CPU	1 set	Per year	1						
7.04	Single beam Echo Sounder, DGPS, Monitor, CPU, Mouse, Keyboard	1 set	Per year	1						
7.05	Shallow water CTD Winch (Online with cable & accessories)	1	Per year	1						
7.06	Shallow water CTD 19Plus	1	Per year	1						
7.07	IDRONAUT CTD Ocean seven 320 plus with GO1018 Rosette.	1	Per year	1						
7.08	Thermosalinograph	1	Per year	1						
7.09	Multiple Corer	1	Per year	1						
7.10	ADCP	1	Per year	1						
7.11	Sub Bottom Profiler	1	Per year	1						
7.12	Auto Salinometer	1	Per year	1						
7.13	CTD winch (offline)	1	Per year	1						
7.14	Deep Sea winch system with its accessories	1	Per year	1						
8	Scientific equipment Operation & maintenance [routine, preventive & break down] (annual charges including requisite manpower and their victualling).									
8.01	Niskin water sampler	8 (5 litres)	Per year	8						
		16 (4 litres)	Per year	16						
	Messengers	(5+1)	Per year	6						
8.02	Grab sampler-25Kg SS	1	Per year	1						
	Grab sampler-10Kg- HydroBias	1	Per year	1						
8.03	Plankton Net	2	Per year	2						
8.04	Flow meter (General Oceanic)	2	Per year	2						

	Flow meter (Hydro bias)	2	Per year	2						
8.05	Secchi Disk	1	Per year	1						
8.06	Spectrophotometer	1	Per year	1						
8.07	Vaccum pump & Filtration unit	3	Per year	3						
8.08	Centrifuge	1	Per year	1						
8.09	Post Processing Unit Monitors Keyboard Mouse CPU	1 set	Per year	1						
8.10	BOD Incubator	1	Per year	1						
8.11	UPS and Battery Bank	1	Per year	1						
8.12	Refrigerator	1	Per year	1						
8.13	Deep Freezer	1	Per year	1						
8.14	Microscope & Accessories	1	Per year	1						
8.15	Computer and its accessories	2	Per year	2						
8.16	Milli-Q RO System	1	Per year	1						
8.17	Auto Clave	1	Per year	1						
8.18	Dosimat	1	Per year	1						
8.19	Manta Net	1	Per year	1						
8.20	Hot Air Oven	1	Per year	1						
8.21	CO2 Analyser	1	Per year	1						
9.1	Meals cost (per person per day of 3 meals and twice snacks/tea/coffee)	2500 man days	Per man day	2500						
9.2	VIP meal	100 meals	Per meal	100						
10	Labourer Charges (for science team)	100	Per day	100						
11	Boat Arrangement	2	Per day	2						
12	Taxi Arrangement	150	Per day	150						
13	Port Pass Arrangement	250	Per Pass	250						
14	Painting: Deck (polyurethane) and super structure paints (Alkyd)	6	Per painting	6						

15	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	4	Per painting	4						
16	Painting: Accessible external hull without scaffolding (ship side, weather decks)	5	Per painting	5						
17	Annual fumigation charges including shore-accommodations for Ship crew/Officer	1	Per year	1						
18	Spot fumigation as per standard, minimum of 10 locations	4	Per year	4						
19	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	1						
20	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	1						
Grand Total			TOTAL for Sagar Manjusha for 3 years : = D							

E. SAGAR ANVESHIKA

S. No.	Item Descriptions	Quantity	Unit	Actual Qty	I year		II year		III year	
					Unit rate	Total rate	Unit rate	Total rate	Unit rate	Total rate
i	ii	iii	iii(a)	iii(b)	iv	v	vi	vii	viii	ix
1.1	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the Model contract)	1 year	Per Year	1						
1.2	Agency Services (Indian port call)	45	Per port call	45						
1.3	Management Fee as per work scope	1	Per Year	1						
2	Per day manning cost (including victualling)									
2.1	Master	365 days	Per day	365						
2.2	Chief Officer	365 days	Per day	365						
2.3	Chief Engineer	365 days	Per day	365						
2.4	2nd Engineer	365 days	Per day	365						
2.5	4th Engineer	365 days	Per day	365						
2.6	Electrical Engineer	365 days	Per day	365						

2.7	Deck crew / Helmsman / ratings – 4 nos	4 nos x 365 days Per person per day rate	Per man day	365x 4						
2.8	Engine crew / rating – 1 no	365 days	Per day	365						
2.9	Cook	365 days	Per day	365						
2.1	Saloon rating	365 days	Per day	365						
3	Fresh water rate / ton	800 tons	Per ton	800						
4	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	1						
5	Technical Superintendent for drydocking (all inclusive) per day rate	35 days	Per day	35						
6	Scientific equipment maintenance [routine, preventive & break down] only (annual charges including requisite manpower and their victualling).									
6.01	Multibeam Echo Sounder up to 1000m depth with sound velocity profiler	1	Per year	1						
6.02	CTD profiler and sensors	1	Per year	1						
6.03	Auto Salinometer	1	Per year	1						
6.04	Thermosalinograph	1	Per year	1						
6.05	Gravity corer of with accessories	1	Per year	1						
6.06	Ultra Short Base Line (USBL) Acoustic positioning system	1	Per year	1						
6.07	Scientific Winches with Handling System (make;KleyFrance)	1	Per year	1						
6.08	General Purpose Winch	1	Per year	1						
6.09	CTD winch	1	Per year	1						
6.10	Hydrographic winch	1	Per year	1						
6.11	Underway Data Logging System	1	Per year	1						
6.12	Single Beam Echo Sounder	1	Per year	1						
6.13	Acoustic Doppler Current Profiler (ADCP)	1	Per year	1						
6.14	Sub Bottom Profiler	1	Per year	1						
6.15	Side Scan Sonar with DAS & related system	1	Per year	1						
6.16	Multiple Corer	1	Per year	1						

7	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)									
7.01	Multibeam Echo Sounder up to 1000m depth with sound velocity profiler	1	Per year	1						
7.02	CTD profiler and sensors	1	Per year	1						
7.03	Auto Salinometer	1	Per year	1						
7.04	Thermosalinograph	1	Per year	1						
7.05	Gravity corer with accessories	1	Per year	1						
7.06	Ultra Short Base Line (USBL) Acoustic positioning system	1	Per year	1						
7.07	Scientific Winches with Handling System (make;KleyFrance)	1	Per year	1						
7.08	General Purpose Winch	1	Per year	1						
7.09	CTD winch	1	Per year	1						
7.10	Hydrographic winch	1	Per year	1						
7.11	Underway Data Logging System	1	Per year	1						
7.12	Single Beam Echo Sounder	1	Per year	1						
7.13	Acoustic Doppler Current Profiler (ADCP)	1	Per year	1						
7.14	Sub Bottom Profiler	1	Per year	1						
7.15	Side Scan Sonar with DAS & related system	1	Per year	1						
7.16	Multiple Corer	1	Per year	1						
8	Scientific equipment Operation & maintenance [routine, preventive & break down , data collection & processing/analysis] (annual charges including requisite manpower and their victualling).									
8.01	Bio-Chemical Oxygen Demand BOD Incubator	1	Per year	1						
8.02	Double beam UV Visible spectrometer	1	Per year	1						
8.03	Zoom Stereo Microscope	1	Per year	1						
8.04	Sediment Sampler (25 kg)-1 No	1	Per year	1						
8.05	15Kg-1 No	1	Per year	1						
8.06	Autoclave	1	Per year	1						
8.07	Refrigerated Centrifuge	1	Per year	1						
8.08	Hot Air Oven	1	Per year	1						
8.09	Laboratory water purification system	1	Per year	1						
8.10	Refrigerators (-15°C)	2	Per year	2						

8.11	Deep Freezers (-80°C)	2	Per year	2						
8.12	Automatic Weather Station	1	Per year	1						
8.13	Motion Reference Unit [GAPS]	1	Per year	1						
8.14	Portable Nutrient Analyzer	1	Per year	1						
8.15	Niskin Water Samplers (5lt capacity) with go devil messenger	10	Per year	10						
8.16	Zoo Plankton net with Flow meter	1	Per year	1						
8.17	Dosimate-Auto Dispensing Unit	1	Per year	1						
8.18	Vaccum Pump with filtration Unit-	2	Per year	2						
8.19	Bacteriological Incubator	1	Per year	1						
8.20	Laminar Flow	1	Per year	1						
8.21	UV Cabinet	1	Per year	1						
8.22	Fume Hood Explosion Proof	1	Per year	1						
8.23	Texture Analyzer	1	Per year	1						
8.24	Auto Analyzer	1	Per year	1						
8.25	Carbon Dioxide Analyser	1	Per year	1						
8.26	Ultrasonic Scientific Anemometer	1	Per year	1						
8.27	FTIR	1	Per year	1						
8.28	Manta net	1	Per year	1						
9.1	Meals cost (per person per day of 3 meals and twice snacks/tea/coffee)	2000 man days	Per man day	2000						
9.2	VIP meal	100 meals	Per meal	100						
10	Labourer Charges (for science team)	150	Per day	150						
11	Boat Arrangement	3	Per day	3						
12	Taxi Arrangement	150	Per day	150						
13	Port Pass Arrangement	300	Per Pass	300						
14	Painting: Deck (polyurethane) and super structure paints (Alkyd)	7	Per painting	7						
15	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	4	Per painting	4						

16	Painting: Accessible external hull without scaffolding (ship side, weather decks)	5	Per painting	5						
17	Annual fumigation charges including shore-accommodations for Ship crew/Officer	1	Per year	1						
18	Spot fumigation as per standard, minimum of 10 locations	4	Per year	4						
19	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	1						
20	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	1						
	Grand Total			TOTAL for Sagar Anveshika for 3 years : = E						

F. SAGAR TARA

S. No.	Item Descriptions	Quantity	Unit	Actual Qty	I year		II year		III year	
					Unit rate	Total rate	Unit rate	Total rate	Unit rate	Total rate
i	ii	iii	iii(a)	iii(b)	iv	v	vi	vii	viii	ix
1.1	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the Model contract)	1 year	Per Year	1						
1.2	Agency Services (Indian port call)	45	Per port call	45						
1.3	Management Fee as per work scope	1	Per Year	1						
2	Per day manning cost (including victualling)									
2.1	Master	365 days	Per day	365						
2.2	Chief Officer	365 days	Per day	365						
2.3	Chief Engineer	365 days	Per day	365						
2.4	2nd Engineer	365 days	Per day	365						
2.5	3rd Engineer	365 days	Per day	365						

2.6	Electro-Technical Officer (ETO)	365 days	Per day	365						
2.7	Deck crew / Helmsman / ratings – 4 nos	4 nos x 365 days Per person per day rate	Per man day	365x 4						
2.8	Engine crew / rating – 1 no	365 days	Per day	365						
2.9	Cook	365 days	Per day	365						
2.10	Saloon rating	365 days	Per day	365						
3	Fresh water rate / ton	800 tons	Per ton	800						
4	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	1						
5	Technical Superintendent for drydocking (all inclusive) per day rate	35 days	Per day	35						
6	Scientific equipment maintenance [routine, preventive & break down] only (annual charges including requisite manpower and their victualling).									
6.01	Multibeam Echo Sounder up to 1000m depth with sound velocity profiler	1	Per year	1						
6.02	CTD profiler and sensors	1	Per year	1						
6.03	Auto Salinometer	1	Per year	1						
6.04	Thermosalinograph	1	Per year	1						
6.05	Gravity corer with accessories	1	Per year	1						
6.06	Ultra Short Base Line (USBL) Acoustic positioning system	1	Per year	1						
6.07	Scientific Winches with Handling System (make;KleyFrance)	1	Per year	1						
6.08	General Purpose Winch	1	Per year	1						
6.09	CTD winch	1	Per year	1						
6.10	Hydrographic winch	1	Per year	1						
6.11	Underway Data Logging System	1	Per year	1						
6.12	Single Beam Echo Sounder	1	Per year	1						

6.13	Acoustic Doppler Current Profiler (ADCP)	1	Per year	1						
6.14	Sub Bottom Profiler	1	Per year	1						
6.15	Side Scan Sonar with DAS & related system	1	Per year	1						
7	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)									
7.01	Multibeam Echo Sounder up to 1000m depth with sound velocity profiler	1	Per year	1						
7.02	CTD profiler and sensors	1	Per year	1						
7.03	Auto Salinometer	1	Per year	1						
7.04	Thermosalinograph	1	Per year	1						
7.05	Gravity corer with accessories	1	Per year	1						
7.06	Ultra Short Base Line (USBL) Acoustic positioning system	1	Per year	1						
7.07	Scientific Winches with Handling System (make;KleyFrance)	1	Per year	1						
7.08	General Purpose Winch	1	Per year	1						
7.09	CTD winch	1	Per year	1						
7.10	Hydrographic winch	1	Per year	1						
7.11	Underway Data Logging System	1	Per year	1						
7.12	Single Beam Echo Sounder	1	Per year	1						
7.13	Acoustic Doppler Current Profiler (ADCP)	1	Per year	1						
7.14	Sub Bottom Profiler	1	Per year	1						
7.15	Side Scan Sonar with DAS & related system	1	Per year	1						
8	Scientific equipment Operation & maintenance [routine, preventive & break down , data collection & processing/analysis] (annual charges including requisite manpower and their victualling).									
8.01	Bio-Chemical Oxygen Demand BOD Incubator	1	Per year	1						
8.02	Double beam UV Visible spectrometer	1	Per year	1						
8.03	Zoom Stereo Microscope	1	Per year	1						
8.04	Sediment Sampler (25 kg)-1 No	1	Per year	1						
8.05	15Kg-1 No	1	Per year	1						

8.06	Autoclave	1	Per year	1						
8.07	Refrigerated Centrifuge	1	Per year	1						
8.08	Hot Air Oven	1	Per year	1						
8.09	Laboratory water purification system	1	Per year	1						
8.10	Refrigerators (-15°C)	2	Per year	2						
8.11	Deep Freezers (-80°C)	2	Per year	2						
8.12	Automatic Weather Station	1	Per year	1						
8.13	Motion Reference Unit [GAPS]	1	Per year	1						
8.14	Portable Nutrient Analyzer	1	Per year	1						
8.15	Niskin Water Samplers (5lt capacity) with go devil messenger	10	Per year	10						
8.16	Zoo Plankton net with Flow meter	1	Per year	1						
8.17	Dosimate-Auto Dispensing Unit	1	Per year	1						
8.18	Vaccum Pump with filtration Unit-	2	Per year	2						
8.19	Bacteriological Incubator	1	Per year	1						
8.20	Laminar Flow	1	Per year	1						
8.21	UV Cabinet	1	Per year	1						
8.22	Fume Hood Explosion Proof	1	Per year	1						
8.23	Texture Analyzer	1	Per year	1						
8.24	Auto Analyzer	1	Per year	1						
8.25	Carbon Dioxide Analyser	1	Per year	1						
8.26	Ultrasonic Scientific Anemometer	1	Per year	1						
8.27	FTIR	1	Per year	1						
8.28	Manta net	1	Per year	1						
9.1	Meals cost (per person per day of 3 meals and twice snacks/tea/coffee)	2000 man days	Per man day	2000						
9.2	VIP meal	100 meals	Per meal	100						
10	Labourer Charges (for science team)	150	Per day	150						
11	Boat Arrangement	3	Per day	3						

12	Taxi Arrangement	150	Per day	150						
13	Port Pass Arrangement	300	Per Pass	300						
14	Painting: Deck (polyurethane) and super structure paints (Alkyd)	7	Per painting	7						
15	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	4	Per painting	4						
16	Painting: Accessible external hull without scaffolding (ship side, weather decks)	5	Per painting	5						
17	Annual fumigation charges including shore-accommodations for Ship crew/Officer	1	Per year	1						
18	Spot fumigation as per standard, minimum of 10 locations	4	Per year	4						
19	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	1						
20	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	1						
	Grand Total			TOTAL for Sagar Tara for 3 years : F						

Lowest bidder shall be arrived at total of all 6 vessels for 3 years :A+B+C+D+E+F

-Rates quoted include all applicable levies, liabilities and except GST.

- Agreed to the extension for the contract on the prices quoted for the 2nd and 3rd year as per the extension clause no. 1.9 of model contract.

-It is certified that the above bid has been submitted after understanding total scope of the tender, after getting all necessary clarifications and visit to the Ship. Our tender is fully compliant without any exceptions or exclusions whatsoever.

Signature of the bidder & Stamp

MODEL CONTRACT FOR ‘TOTAL MANAGEMENT OF RESEARCH VESSELS

(Note: All NIT terms, prices finalised during evaluation shall be included in the final contract)

This CONTRACT is made and executed at _____, on this day _____

BY AND BETWEEN

_____ having its office at _____ through its representative/ authorised signatory _____ (herein after referred as MoES or the nominated Institute which terms or expressions shall, unless excluded by or repugnant to the subject or context, mean and include its successors-in-office, administrator or permitted assignees) of the First part

AND

_____, a company incorporated under the Companies act, having its registered/corporate office address at _____ through its representative/ authorised signatory _____ (herein after referred as “CONTRACTOR” or “contractor” which terms or expressions shall, unless excluded by or repugnant to the subject or context, mean and include its successors-in-office, administrator or permitted assignees) of the Second part.

For the purposes of this contract, the MoES and CONTRACTOR/contractor shall be individually referred to as “Party” and collectively as “Parties”

WHEREAS, MoES or the nominated Institute is the Owner of Research Vessels Sagar Kanya, Sagar Nidhi, Sagar Sampada, Sagar Manjusha and Sagar Tara and Sagar Anveshika (hereinafter referred to as VESSELS), the Contractor is in the business of operation of such vessels and does possess such expertise in this field.

AND WHEREAS MoES or the nominated Institute selected and desires the “CONTRACTOR” to operate, maintain and manage the vessels.

NOWHEREFORE, in consideration of the promises and the mutual covenants of the parties herein after set forth, it is hereby agreed as follows:

1.0. DEFINITIONS:

- 1.1. “MoES’s OPERATIONS”:** means various works to be performed by the vessels along with Crew and as per scope of work.
- 1.2. “TOTAL MANAGEMENT”:** means Running, Manning, Maintenance (including maintenance and operation of onboard machinery and scientific equipment), Catering for the Crew and Scientists and Housekeeping of the Research Vessels of the Ministry of Earth Sciences [MoES], Govt. of India. The Research vessels include Sagar Nidhi, Sagar Kanya, Sagar Sampada, Sagar Manjusha, Sagar Tara & Sagar Anveshika.
- 1.3. “CONTRACTOR”:** means the Contractor for ‘Total Management’ of Research Vessels.
- 1.4. “CATERING OPERATIONS”:** means Catering and Housekeeping work to be performed by the catering Crew as per scope of work covered under Total Management.

1.5. “DAY”: means a calendar day of twenty four (24) hours consecutive hours beginning at 00.00 hours (midnight) following with reference to local time at the site.

1.6. “HEADINGS”: The headings in this Agreement are inserted for the sake of convenience only and expressions and clauses in the paragraphs shall prevail over the heading in case of any dispute in construing this Agreement.

1.7. “SINGULAR/ PLURALWORDS”: Save where the context otherwise requires words imparting singular number shall include the plural and vice-versa and words imparting neutral gender shall include masculine or feminine gender.

1.8. “CONFLICT BETWEEN SCHEDULE AND PRINCIPAL TEXT”: It is not intended that there be any conflict between this Agreement and the Schedules attached here to, but in the event that there is any conflict between the Principal text of the Agreement and the Schedules, the Principal text shall prevail.

1.9. “TERMS”:

This Agreement shall initially for one year and be valid for a maximum period of three years from the date of commencement of contract for “Total Management’ to the Contractor i.e., from _____ or the commencement of the contract shall be from the date of takeover of these vessels by the contractor. The contract shall be reviewed by a committee after completion of every year (every 12 months from the date mentioned above). MoES shall extend the contract to second and third years only if the performance is satisfactory which shall be reviewed by a committee constituted by MoES. Contractor cannot claim extension of contract, as a matter of right and the decision of MoES shall be final and binding.

1.10 “MoES Institute / Vessel Manager /VMC”

Autonomous Institutes& Attached office of MoES managing the MoES research vessels.

Sl.No.	Vessel Manager	Vessel Name
1	Scientist I/c Vessel Operation & Management NCPOR-National Centre for Polar & Ocean Research, Goa.	Sagar Kanya
2	The Manager, Vessel Management Cell NIOT-National Institute of Ocean Technology, Chennai.	Sagar Nidhi Sagar Manjusha Sagar Tara Sagar Anveshika
3	Scientist I/c Vessel Operation & Management CMLRE – Centre for Marine Living Resources & Ecology, Kochi.	Sagar Sampada

1.11. “Technical Superintendent”

Technical expert of Contractor -Certified Marine Engineer with MOT first class or Master mariner (Master FG) certificate holder with 10 years experience in marine sailing operations after obtaining the essential qualifications or B.E. Marine Engineers with drydock (minimum 2 drydocks) experience.

2. Work scope of the contract -Running, manning and maintenance & catering & housekeeping

(total management of the research vessels).

- 2.1.** Inventory and status verification on acceptance of the vessels.
- 2.2.** Manning of the vessels with suitably qualified officers, including Fishing Master for Sagar Sampada, Hydraulic Expert (as per requirement) crew and settlement of their wage accounts, replacement and repatriation and other establishment matters from time to time as required in accordance with prevailing statutory and other regulatory requirements.
- 2.3.** To operate the vessels with Master and other Crew members with all requisite valid certificates as per statutory requirements and in compliance with the tender requirement[Annexure-VI] to carry-out deployment and retrieval of data buoys, current moorings, benthic stations, deployment of tsunami systems, ROSUB, Autonomous coring system, Autonomous Underwater Vehicle [AUV], Manned submersible system, Seabed sampling, water column samplings, Geophysical survey, swath bathymetry survey, fishing Operations & any programme authorized by MoES/NIOT/CMLRE/NCPOR at high seas and coastal-waters as described in the document at different places, and to assist the Scientists in collection of samples/CTD measurements/Seabed scanning/other data collection and all their activities. The total management contractor will be responsible for complete performance, maintenance and operation of scientific equipment including any OEM/non-OEM services. Any new equipment to be procured including that for complying with new guidelines would be met by MoES/NIOT/CMLRE/NCPOR.
- 2.4.** Operating the vessels as per the cruise-plan provided and as per the instruction of MoES Institutes/Chief Scientist on-board. The vessel shall be operated strictly as per the instruction manual outlining general responsibilities and procedures of ship crew as well as the science team, which shall be provided by the Contractor duly approved by MoES Institutes after signing the contract.
- 2.5.** Clearance of the vessels at ports [Indian & Foreign], submitting ship's documents to port authorities, arrangement of berths, pilotage etc. The contractor shall be responsible for obtaining port clearance, arrangement of berths, pilotages (where required) at each calling port and shall maintain safe stay of the vessels in ports for the stipulated period in the cruise programme. No delay on account of the above is permitted and delay attributable due to contractor or contractor's representative shall attract a penalty as per LD of such delays. The contractor shall be responsible for clearing men and material that shall be embarking and disembarking through customs/Port/CISF/Immigration and security. Above services to be provided by nominating Shipping agent of good repute/efficiency and their presence should be in all major ports [copy of Shipping agent undertaking letter shall be submitted along with the technical documents].
- 2.6.** Ensuring supply of sufficient quantity of potable fresh-water through entire period of cruise/port stay/anchorage and replenishing at every port call as and when required apart from utilization of onboard FW generator i.e. in addition to output from RO system onboard. Fresh-water is required in the laboratories and for washing deck and deck-equipment also. The fresh-water should be potable as per IS Standard-IS 10500 (2012).
- 2.7.** Bunkering of vessels: The contractor shall bunker the vessels as and when required, to make the vessels available for scientific operation at all times. Contractor shall ensure timely bunkering without delays by efficient coordination with owners and petroleum companies. Any delay contributing due to contractors negligence will attract a penalty of Rs.10000 per day. The log-book containing the fuel levels on-board should be strictly maintained and a report on fuel consumption

of the vessel shall be submitted to MoES Institutes along with monthly reports. The Fuel on-board before and after bunkering (BDN copy of Bunker supplier) shall be certified by the Chief Engineer and Master, MoES Institute's representative or Chief Scientist and to be certified by a third party surveyor (acceptable to MoES Institute) and reports to be submitted to Owner at the earliest. Bunkering when done in India shall be done through IOC/BPCL. If bunkering is done through other private companies, the rates will be admissible as per IOC rates. MoES Institutes shall pay directly to IOC/BPCL/or any other Nationalized bunker company for procurement of fuel & necessary liaison is to be done by the Contractor for smooth & proper bunkering of the vessel. All associated costs like Pumps/Hoses, collection of keys, third party survey etc., shall be borne by the contractor. Bunkering in foreign parts shall be done through foreign port agents against bunker advance paid to the contractor. Also to ensure supply of lubricants, chemicals, coolant etc both in India and abroad, and arranging/ attending to surveys and repairs, painting, supply of shore labour as required. Contractor to arrange for sampling and Testing of Fuel Oil sample during receiving Bunkers as applicable.

Periodic checking of Lub Oil/Hyd. Oil Testing for running machinery including Aux. Engines, Emergency DG sets, Winches, Cranes, Power pack units etc. to be arranged & replaced/ replenished and reports to be submitted to the Owner once in three months.

2.8. Maintenance of the vessels

2.8.1. As far as the maintenance of the vessels is concerned, the contractor is required to ensure that day-to-day routine & periodic maintenance for all machinery is done by ship staff, OEM/OEM approved service dealer/Govt./PSU/ DG empaneled/ Indian Navy /Port trust/ Coast guard authorized workshops as on when required and as per respective item manual suggested by OEM. The major machinery shall include & not limited to main engine, auxiliary engine, Air Compressor, Air Conditioning system [centralized/common/ split], Emergency DG, DP System Sanitary system & STP system, Scientific handling system, Navigation & communication equipment, scientific equipment, LSA & FFA system and Class survey related systems.

2.8.2. If there is any rate contract with Shipyard/ SCI/Indian Navy/Coast guard/Port trust etc., the same shall be considered for price reasonable & further approval under reimbursement clause.

2.8.3. Maintenance of the vessels (including and not limited to hull/plate renewal, 'A' frames and also cabins, galleys, mess-room including furniture's etc. and all associated equipment etc., as provided in this NIT document. This list is not exhaustive, and the bidders are requested to visit the vessels to ascertain the equipment onboard.

2.8.4. Preventive maintenance of all machinery should be done by the OEM /OEM authorized engineer as per standard maintenance schedule. The contractor shall engage the OEM/OEM authorized engineer for the above job at least once in one year. The service/work covers the all maintenance/service/overhaul/replacement of consumables etc. The report along with spare requirement & health of the system shall be submitted within 15 days of the respective engineer visit to MoES, at no additional cost to Owner.

2.8.5. Break down maintenance. If any machinery/equipment [vessel & scientific] found breakdown, the contractor should engage the OEM/ OEM authorized engineer for repair & visit if required. The contractor should ensure the minimum downtime of the machinery/equipment to facilitate the scientific operation and improve the vessel efficiency. If the contractor found the non-availability of OEM /OEM authorized engineer to attend the breakdown maintenance, MoES

institutes shall take a call on case-to-case basis to avail the non-OEM engineer to address the problem & for further repair. Supply of stores, tools, instruments, spares and consumables required for the periodic maintenance or as specified by equipment manufacturer or as specified above to be done by the Contractor. To maintain sufficient spares/consumables/ repair kit required for efficient working of all machineries including servicing kit for machinery/equipment-, Top Overhauling kit (minimum required for top overhauling of Main & Aux. Engines) Inlet Valves, Exhaust Valves, Injector Nozzles, Valve seats, Lapping paste, O-rings, cylinder studs, Air filters, Fuel Pumps, Cylinder packings, Fuel Filters etc., Hydraulic Hoses, different types of belts, Compressor overhauling kits, Pump overhauling kit including impellers, bearings, bushes etc. to be provided/inventory to be maintained and supplies to be provided to the vessel.

2.8.6. Ships are mainly deployed for various scientific operations for approximately 300plus days in a year. Operational days shall be allotted as per MoES committee's recommendation after considering the age of the vessels

2.8.7. All the LSA, FFA, LSA Extinguishers must be serviced and maintained by the Contractor as per the Statutory compliance. Contractor shall promptly verify and submit a report along with monthly bills that all such critical safety items are functional and work in order.

2.8.8. The number of ship maintenance-days (lay-off) are around 15 in a year when no drydocking is planned. However, these days may exceed in case of any major maintenance routines of machineries/equipment or any unforeseen breakdowns of machinery/fumigation/de-ratting/annual survey etc. The contractor should plan the preventive maintenance schedule along with OEM engineer in advance to undertake the scheduled job during this period. Also the contractor should position the shore engineer at least two or more without additional cost to facilitate the work as well as the completion of the job as prescribed time. Required spares/consumables should be arranged by the contractor and should be available for this period.

2.8.9. The ship shall be given 3 to 5 days of maintenance-time after every cruise simultaneous with the scientific team changeover& cruise preparation. The contractor is requested to carry out the periodic maintenance/ routine /breakdown maintenance during this period. Also, the contractor/Master shall provide the list of works/jobs to be undertaken during the port call in advance [three days before berthing of the vessel] along with action taken plan.

2.8.10. Providing Independent competent person as a Technical superintendent to supervise the maintenance jobs and general efficiency of the vessel during port call. Also, this will ensure the smooth handling of the work and to avoid vessel down time at Port.

2.8.11. Technical superintendent should submit the detailed work carried out report at the end of port call as per clause no. 2.8.8.

2.8.12. If any lapses in the above jobs, the penalty clause shall be applicable.

2.9. In addition to their work on-board, the multipurpose Crew/deckhands should assist the Scientists onboard carrying out scientific activities, including operation of winches, work boats and all deck machineries as and when required. Work shall be carried out round the clock with no restriction on timings including Saturdays, Sundays and other holidays. The Contractor/ Master shall ensure crew work rotation is planned so as to ensure that stipulated mandatory work/rest hours rules are complied with, while maintaining operations as and when called for.

2.10. Arrangement of statutory/class surveys [DNV /IRS /MMD] and keeping the vessels under valid

class at all times would be the responsibility of the TVM contractor. Necessary fees of the classification society /surveyors would be reimbursed at actuals.

- 2.11.** The contractor shall engage a catering and housekeeping contractor with Cooks and Assistant &catering/ housekeeping Crew [daily cleaning of accommodation &labs] staying on-board. It shall be the responsibility of contractor to support requirements for catering services onboard and necessary co-ordination for catering services as part of 'Total Management' contract. This is in case catering services are outsourced/ sub-contracted through an associate partner. The victualing for all the Ship crew &Officers and other personnel of the contractor onboard shall be within the contract price. No extra payment will be made if services are provided in foreign ports.

Minimum no. of staff to be deployed [cost as quoted in the price bid] for catering and housekeeping department for each vessel as below;

Sagar Kanya	-	1 C&H officer, 3 cooks[Chief & 2 nd cook], 3 GS, 1UH
Sagar Nidhi	-	2 cooks [Chief & 2 nd cook], 3 GS.
Sagar Sampada	-	3 cooks[Chief cook and 2 nd cook-2 nos], 3 GS, 1UH
Sagar Manjusha	-	2 cooks[Chief & 2 nd cook], 2 GS
Sagar Tara	-	1 cook, 1 GS
Sagar Anveshika	-	1 cook, 1 GS

- 2.12.** The number of Crew & Officers shall be as per DG Shipping guidelines or as per MoES Institute's operational requirements whichever is higher over and above the Minimum Safe Manning prescribed for the vessels.(Minimum Safe manning may be applicable only when suggested by MoES)
- 2.13.** Operation and maintenance of scientific equipment onboard by experienced engineers [at least five years with Diploma or three years with B.E of similar work experience] directly or through an Associate partner Contractor. To provide minimum 2 service Engineers for Sagar Nidhi, 3 engineers for Sagar Kanya& Sagar Sampada & 1 service Engineer each on Sagar Manjusha, Sagar Tara & Sagar Anveshika, sailing with the vessel all the times & to be victualed under Total Management scope. Scientific equipment which are required for service/repair/calibration at outside of the vessel, the necessary port clearances, transport etc to be arranged
- 2.14.** Number of Scientists & Crew and Catering and housekeeping of the vessels is as per the instruction of MoES Institute onboard.
- 2.15.** To do housekeeping and catering, necessary cooks and assistants should be positioned onboard as indicated in the NIT-SCC and also to serve the Scientists onboard.
- 2.16.** Housekeeping: Maintaining clean and tidy vessel's all Officers/ Scientist/all crew cabins, galleys, Officers / Scientist /Crew mess-room, dish wash-room, toilets, conference-room, gymnasium, sauna, Scientist change-room, linen / laundry store spaces, day-room for Officers / Scientist, labs, alley-ways and all accommodation spaces. List of particulars of the vessels shall be as per the delivery protocol and takeover inventory. If required by Institutes, the contractor shall arrange the cleaning team from shore during the port call to improve the hygienic of the vessels within the contract price.
- 2.17.** Monthly submission of performance report [Annexure-IV] are provided along with individual certificates (NCV/FG/CDC), shall be certified by the Master and MoES Institute's representative. Performance report for each scientific cruise by Master endorsed by the Chief Scientist and MoES representative is also to be submitted.

- 2.18.** Sign-on/ sign-off of all the Crew/Officers/catering Crew/housekeeping /travelling/ Transfers/Insurance matters/providing PPE on-board/medical expenses for Crew and officers to be included in offer. Scientific equipment maintenance Crew/any extra person to form part of Crew is the responsibility of contractor without any additional expenditure to MoES.
- 2.19.** The firm shall employ Officers/Crew from RPS certificate holding company or firm shall have RPS license. Crew recruited shall not be first timers and should be having minimum prescribed years as per Annexure-VI sea experience to work on-board in the specific rank, they will hold Indian CDC having sufficient working experience and qualification (including FG as will be detailed in NIT)-Crew/Ship officer experience shall be provided along with NIT as Annexure-VI. The crew/officer/engineer should have the prescribed minimum of experience in the FG vessels will be considered as a FG crew/officer/engineer along with COC and will be allowed to position the MoES vessels wherever required.
- 2.20.** Contractor to arrange underwater diving services for cleaning transducers / repairs, and for all the maintenance requirements and also whenever instructed by the MoES institutes including hull /propeller cleaning. Underwater diving should be undertaken as and when required at the quoted rates and reports [video/photos as required by Class wherever required] shall be submitted. The service shall be undertaken along with the associate scientific partner and MoES institutes representative. The diving services be reimbursable as per contract rates.
- 2.21. Painting:**
- Painting once in three months for floor deck (polyurethane), super structure (Alkyd paints), common place such as labs, lavatories. The paint shall be of AKZO NOBLE/ SIGMA/ JOTUN.
 - Painting of all bilge areas (epoxy primer and epoxy paints), void spaces and machinery spaces once in six months.
 - Painting of accessible external hull (without scaffolding) shall be carried out once in four months
 - All painting jobs shall be undertaken by employing suitable labour at pier/ anchorage.
 - The cost shall be reimbursed as per the rates of the paintings provided in the price bid. Spot-painting requirements from time to time at rusted/ damaged areas are to be done as part of routine maintenance and are not part of price bid and no additional cost.

3. General Service Work scope:-

3.1 Lumpsum amount for all general services and maintenance jobs

- 3.1.1. Annual service charges for routine, preventive and breakdown maintenance of both deck and engine department, labours and service charges etc. as per clause 2.8.
- 3.1.2. Security of vessel and equipment at port calls and during drydock.
- 3.1.3. Charges for annual servicing and maintenance of all Life Saving Applications (LSA), FFA (Fire Fighting Apparatus) and LSS (Life Saving Systems) equipment and Annual surveys including transportation.
- 3.1.4. Annual charges for complete housekeeping and catering services.
- 3.1.5. Annual expenditure for spares and consumables for all equipment including scientific equipment as per non-reimbursable clause no.13.

3.1.6. Garbage and sludge clearance.

3.1.7. Maintenance of all equipment including (Original Equipment Manufacturer) OEM/ OEM authorized/non-OEM services shall be required. Competitive price should be established for the price reasonability and after approval of Managers, the work shall be carried out. For equipment/machinery under warranty, preventive maintenance and coordination with OEM for availing warranty services to be done.

3.1.8. Ship machinery & scientific equipment which are required for service/repair/calibration at outside of the vessel, the necessary port clearances, transport etc to be arranged

3.1.9. Arrangement of bunkers and miscellaneous items

3.1.10. All other non-reimbursable services as listed in the clause 13.

3.1.11. The above claim should be accompanied by the reports with pictures signed by Master/Chief Engineer/VMC rep.

3.2 Other Services: (payment as per the agreed unit cost)

3.2.1 Manning (including their victualling)

3.2.2 Fresh water Supply: Following are the estimated annual freshwater (shore supply) requirement for each vessel: Sagar Kanya-1500 Tonnes, Sagar Nidhi 3000 Tonnes, Sagar Sampada 1400 Tonnes, Sagar Manjusha 1200 Tonnes, Sagar Tara 800 Tonnes & Sagar Anveshika 800 Tonnes.

3.2.3 Underwater diving for cleaning transducers/ repairs and also for underwater hull cleaning and propeller cleaning as per the instructions of owner.

3.2.4 Positioning of experienced Superintendent for dry-docking period (including travel, boarding & lodging all inclusive charges). Payment to superintendent shall be on per day basis at the contract rates including the delayed period if any except delays due to the Contractor.

3.2.5 Scientific equipment operation & maintenance. Scientific data/sample collection as per the requirement of respective scientific cruise and as per standard protocol for testing and validation of the systems, processing and submission of report to Chief scientist and VMC (including manpower, their victualling & spares as per the contract terms)

3.2.6 Agency services for Indian/foreign port calls (one port call comprised of one arrival and one departure of the vessel) including clearance at ports, pilotage etc including customs/immigration/ port clearance for the vessel, scientists, equipment etc (additionally all bills from these government agencies would be reimbursed on actual).

3.2.7 Annual AMC service charges for navigational, GMDSS and communication equipment by OEM/OEM authorized engineer.

3.2.8 Annual fumigation (one fumigation per year) including shore-accommodation for ship crew and all miscellaneous expenditure.

3.2.9 Spot fumigation [green fumigation services] during port call as per MoES institutes instructions

3.2.10 Required capacity Shore crane to be arranged based on the MoES institute request for the Ship and scientific equipment loading and unloading to place onboard apart from the Ship crane usage. The cost of the rated capacity at Kochi to be reimbursed on actual utilization.

3.2.11 OEM spares/consumables bills will be reimbursed on actual with 5% overhead. The overhead charges include all direct and indirect cost towards re-export and import customs compliance process, transport, etc. and until installing onboard vessels. In case, the spare is not available with OEM, three competitive quotes may be obtained through tendering mode from the respective authorized dealers for approval from the respective Managers for procurement as

per GFR.

3.2.12 Non-OEM spares/consumables bills will be reimbursed on actual with 7% overhead. The overhead charges include all customs processes, transport etc and to be placed onboard. The spares should be procured through competitive tender mode from the authorized dealers for approval from the respective Managers for procurement as per GFR.

3.2.13 All other services as listed in the price schedule in the BoQ

4. Terms of Payment

- 4.1. Contractor may submit the invoices on monthly basis, 60% of which may be paid within 15 working days and balance 40% may be paid after due verifications within 45 days from the date of submission of all relevant documents as per the contract. Invoices for spares reimbursement may be submitted as part of monthly claims.
- 4.2. The payment for catering services to scientific team members shall be as per actual numbers on agreed unit cost of meal per day per person. Full day charges shall be leviable if two or more than two meals are served to a person. The rate shall be per day per person which is to include cost of all food, beverages and service charges. Less than two main meals will be charged 50% of per day charges. The certificate of onboard MoES representative for number of scientific team persons/days to be submitted along with the monthly bill.
- 4.3. For operation & maintenance of scientific equipment, the charges shall be paid to the contractor on satisfactory services and submission of cruise wise and monthly reports. Periodic calibration / service at OEM place to be undertaken by the contractor. The contractor has to ensure that each of the equipment for which payments are sought during the month is tested at least once in a month. The operation & maintenance charges for scientific equipment will be deducted proportionately for the downtime period if any equipment is non-functional, till rectification. It is essential that the equipment and all the sub-units are fully operational always. For partially operational equipment, the Institute at its discretion will consider such equipment as operational or non-operational depending on the usefulness of the data/ samples depending on the cruise objectives/ Chief scientists inputs and deductions thereof fully or proportionately. Cost of reverting into service/ repairing any equipment found non-operational during time of commencement of contract will be paid separately as mutually agreed by MoES and Contractor. For scientific equipment under warranty, Contractor is to do only preventive maintenance during the warranty period. The warranty services would be taken care by OEM, and the contractor has to coordinate with OEM for availing of warranty services.
- 4.4. Though the payments will be varying as per the services, the L1 value arrived at price bid evaluation will be considered as contract value for LD/Penalties, PBG and other purposes for 3 years.
- 4.5. For all equipment/machinery under warranty, preventive maintenance, and coordination with OEM for availing warranty services to be done, without any additional cost.
- 4.6. The estimated quantities stated for each service are tentative and not guaranteed. Per unit prices for each service are also provided separately. Actual quantity of services shall be used for claims by the Contractor and payments by Owner. If the price is stated as Zero (0), such services shall also be provided satisfactorily by the Contractor at zero cost.

5. LIQUIDATED DAMAGES:

The cruise plans shall be strictly adhered to. The Operator agrees to compensate MoES for any delay in the deployment of Contractor's personnel or deficiency in their performance on-board the Vessel

that leads to idling of vessel, non-sailing of vessel, and any reasons on account of the Contractor that lead to delay in sailing /idling, non-availability of cook and assistant leading to non-availability of food onboard/ non-supply of provisions, non-availability of critical spares& services, service engineer for operation and maintenance of scientific equipments, any other event like strike by the crew, which would cause any delay/ disruption of work. The compensation by way of liquidated damages shall be calculated at the rate of 1% of particular vessel annual contract value for each day of delay due to the above said or any other reasons owing to the Contractor up to maximum of 10% for each vessel and would be recovered from the payments due to the Contractor. This is also applicable for any time loss at sea for the above reasons. Delays as above shall be sufficient basis for imposing LD, and damages actually suffered may not be required to be proved or quantified. In case the total amount of compensation exceeds the performance deposit, the bank guarantee shall be encashed and a new bank guarantee shall be provided immediately. In case of any delay in submission of Bank Guarantee, the total management bills payable submitted by the bidder shall be retained until BG is submitted to MoES.

The delays/ causes for levying LD are defined as under;

- Delay in sailing for scientific cruise on account of non-readiness of vessel or sailing with non-readiness of onboard machinery / equipment due to reasons attributable to the Contractor more than 12 hours
- Suspension/ termination of scientific operations/ surveys at sea. Idling of vessel at sea for the failure of ship / machinery / scientific equipment more than 48 hours.
- For any scientific failure and non-availability beyond 24 hours the LD equivalent to the contract cost for that equipment would be deducted.
- If any damages result due to negligence of the Contractor whereby the Ship is rendered irreparable/ useless, then the damages will include but not limited to the cost of the ship. The decision regarding the damages as arrived at by the Surveyor will be the criteria for determination of damages. The charges towards replacements/ repairs of such damages will be borne by the Contractor so that the vessel is again made operational. The owner shall provide necessary assistance, of required.
- Loss/damage of any items due to negligence of the crew, the Contractor shall replace the lost/damaged items onboard immediately at no cost to MoES/NCPOR/CMLRE/NIOT.
- In an event of strike by the ship crew, the contractor shall have to do needful as per the prevailing guidelines by MLC, 2006 issued by DG Shipping.
- Poor show on upkeep and appearance of the vessel will attract the severe penalty.

6. PERFORMANCE BANK GUARANTEE (PBG)

- a. At the time of execution of this Agreement, the Contractor shall submit an irrevocable bank guarantee issued by a Scheduled bank in India including Nationalized Bank acceptable to MoES equivalent to 5% (five percent) of the annual contract value valid for the period of the contract should remain valid for a period of sixty days beyond the date of completion fulfilling satisfactory performance and completion of all contractual obligations of the supplier as per GFR guidelines.
- b. Performance of the Contractor shall be judged by MoES on the recommendation of the vessel manager of the ships for the competence of the Master and Crew in handling the vessel, machinery and all equipment including the scientific equipment and also preventive maintenance, carrying out routine and emergency repairs in shortest possible time, keeping the vessels in a seaworthy condition during the tenure of this agreement.
- c. The Contractor shall have the use of all outfit, equipment and appliances available onboard vessels without extra-cost provided the same or their substantial equivalent shall be returned to

MoES/NIOT/NCPOR/CMLRE on redelivery in the same good order and conditions as and when received, ordinary wear and tear excepted.

- d. In the event the Contractor fails to return the items mentioned in clause-6(c) above in a satisfactory condition, MoES/NIOT/CMLRE/NCPOR reserves the right to recover the cost of such of the damage/ missing items from the monthly bills as well as from the Performance Guarantee. This shall be without prejudice to all the other rights and remedies available to MoES/NIOT/CMLRE/NCPOR, under the terms of this Agreement.
- e. The PBG will be encashed for failure of the contractor in fulfilling any of the terms, conditions and work scope of the NIT and Contract conditions including below points
 - a. Termination of contract on account of unsatisfactory performance, breach of contract by the Contractor and liquidation, bankruptcy etc of Contractor's firm as per Terminations clause (a& h).
 - b. If the vessel is inoperative and is not made available for use for 15 continuous days, MoES at their option may terminate the contract and encash the PBG with due notice to contractor for such delays.
 - c. Any other recoveries/ compensations for the losses attributable to the Contractor as per contract

7. Law and Place of Jurisdiction

This CONTRACT is subject to Indian Law. The place of performance and jurisdiction is New Delhi.

8. Amicable Resolution

Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to or in connection with this Contract (including its interpretation) between the parties, and so notified in writing by either party to the other party (the "Dispute") shall, in the first instance, be attempted to be resolved amicably through discussion between authorised representative of the parties. The parties agree to use their best efforts for resolving all Disputes arising under on in respect of this contract promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non-privileged records, information and data pertaining to any Dispute.

8.1. Mediation/Arbitration/Dispute Clause:

- a) In the event of any dispute at any time during the entire duration of the contract, both the parties shall try to resolve through mutual decisions to resolve such disputes. In case of the same is not resolved, parties will submit for mediation to IEM under the integrity pact and as per extent instructions of Govt. of India for resolution. No party shall rush to any court of law without completion of the mediation process directed in Dept. of Expenditure order no. F.11212024-PPD dated 03.06.2024. In the event of any disputes, differences, interpretation or application relating to this agreement arise, the same shall be settled amicably by the parties.
- b) In the event of any dispute, difference, interpretation or application relating to this agreement arises, the same shall be settled amicably by the parties. In case the dispute or differences could not be settled amicably, the same shall be referred for adjudication through Mediation by any authority to be appointed as Mediator by the MoES.
- c) However, expenses incurred by each party in connection with the preparation, presentation etc., shall be borne by each party if any.

9. FORCE MAJEURE:

For purposes of this Clause, "Force Majeure" means an event beyond the control of the Contractor and not

involving the Contractor's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of NIOT/MoES either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes. If a Force Majeure situation arises, the Contractor shall promptly notify NIOT/MoES in writing of such conditions and the cause thereof. Unless otherwise directed by NIOT/MoES in writing, the Contractor shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

- i. In the event of either party being rendered unable by Force Majeure to perform any obligation required to be performed by it under this contract, the relative obligation of the party affected by such Force Majeure shall after notice under this clause be suspended for the period during which such cause lasts.
- ii. The term "Force Majeure" as used herein shall mean acts of God. War (declared or undeclared) riots or civil commotion, fires, floods, and Acts of Regulations of the Government of India or any of its authorized agencies. Force majeure may also include events that shall be declared by Government of India as Force Majeure event.
- iii. Upon the occurrence of any Force Majeure cause and upon its termination, the party alleging that it has been rendered unable as aforesaid shall notify the other party in writing, within seventy two (72) hours of the alleged beginning and ending thereof giving full particulars and satisfactory explanation in support of its claim.
- iv. Time for performance of the relative obligation suspended by the "Force Majeure" shall then stand extended by the period for which such causes lasts.
- v. Payment during "Force Majeure": It is understood and agreed by the parties to this Agreement that during the period of "Force Majeure", full fee shall be payable to the Contractor. MoES shall pay for any fuel and water consumed during the period of "Force Majeure".
- vi. Force majeure shall not apply to 'bad weather' due to cyclones or such weather phenomenon, which are being predicted and forecast regularly. Master's decision shall be final for all safety related matters. However, the Master must inform/ consult the Chief Scientist/ Vessel Manager/ MoES before taking any action regarding heavy weather-related decisions.

10. LODGING:-

The Contractor shall provide lodging for any and all personnel authorized by the MoES/NIOT/CMLRE/NCPOR, to stay on-board within the capacity of the vessel accommodation.

11. Vessels Specifications

Detailed specifications of the Vessels and the details of major instruments/equipment onboard are given at Annexure-1.

12. REIMBURSEMENTS:

Reimbursement of spares/consumables(This does not include the items listed at Sl.No. 13 below under 'Non-reimbursable' category.). For reimbursement, the bills, payment receipt (bank transfer) and relevant documentary evidence should be submitted.

- 12.1.** OEM Spares/consumables bills will be reimbursed on actual with 5% overhead. The overhead charges include all CHA, customs processes/ duty, transport including international freight etc and to be placed onboard. Spares invoice cost along with payment proof shall only be considered for reimbursement and overhead payment. Necessary approvals be sought from MoES/NIOT/CMLRE/NCPOR with need, justifications and cost reasonable

- 12.2. Non-OEM spares /consumables will be reimbursed on actual with 7% overhead. The overhead charges include all CHA, customs processes/ duty, transport including international freight etc and to be placed onboard. Spares invoice cost along with payment proof shall only be considered for reimbursement and overhead payment. The contractor is to ensure competitive prices through tendering process and necessary approvals be sought from MoES/NIOT/CMLRE/NCPOR with need, justifications.
- 12.3. The expenditure towards packing/ air freight/ Customs duty/ transportation /CHA/ insurance etc., in case of repairs of existing equipment at OEM facilities abroad shall be reimbursed by MoES at actuals. The repairs cost is not reimbursable. Maintenance of equipment and repair shall be under contractor's scope to make equipment operational and available for scientific purpose all times. NIT terms may be retained for all other points. Necessary approvals for spares be sought from MoES/NIOT/CMLRE/NCPOR with need & justifications & the same shall be reimbursed at actual.
- 12.4. For Calibration: The expenditure towards packing/ air freight/ Customs duty/ transportation /CHA/ insurance etc., in case of calibrations of existing equipment at OEM facilities abroad shall be reimbursed by MoES at actuals. The service/calibration/repairs cost is not reimbursable. Periodical calibrations/service as per standard practise of the equipment shall be under contractor's scope to make equipment fully operational. NIT terms may be retained for all other points. Necessary approvals for spares be sought from MoES/NIOT/CMLRE/NCPOR with need & justifications & the same shall be reimbursed at actual.
- 12.5. Fee of Classification society /surveyors on actual after producing necessary bills with supportive documents.
- 12.6. Bills from Port/Customs/ Immigration authorities or payment made to them would be reimbursed on actual. (Bills of private port authorities on their letterhead shall be accepted for reimbursement).
- 12.7. Reimbursement of DGPS subscription charges, Ship tracking system subscription charges, SAT-C usage fee and FBB/V-SAT subscription charges on actual with the prior approval.
- 12.8. Reimbursement may be as per contract rates.
- 12.8.1. Charges of vehicles/ conveyance for the distance beyond 50km
 - 12.8.2. Agency services for port-calls(one port call comprised of one arrival and one departure of the vessel)
 - 12.8.3. underwater hull cleaning and propeller cleaning as per the instructions of MoES institutes.)
 - 12.8.4. Painting
 - 12.8.5. Port entry passes (personnel and vehicles), Port passes with one year validity to be arranged for MoES Institute staff/Vessel Managers
 - 12.8.6. Boat arrangement& required permission
 - 12.8.7. Labours charges for embarkation/disembarkation of scientific team/equipment
 - 12.8.8. Winding of motors above 5HP
 - 12.8.9. Any other reimbursable services not listed in the non-reimbursable clause 13.

13. NON-REIMBURSABLES:

Contractors obligations that shall not be reimbursed by MoES Institutes irrespective of cost: The charges for the below services should be offered in the price bid like in the General services,

Management fee and respective line items.

1. Consumables and spares like:
 - i. Cleaning materials, buckets, mugs, soaps, washing powder, V-belts, bolts, nuts, clamps and gaskets (not special in nature).
 - ii. Freon Gas / Refrigerant for A/C plant, Split A/C Grease.
 - iii. OBM petrol.
 - iv. Painting tools such as paintbrush, chipping machine, brush and materials for surface preparation.
 - v. Electrical spares such as, fuses, MCB[upto64A], bulbs, tube-lights, flood light bulbs, navigational lights bulbs, diode, capacitor, small transformer, contactor, over load relays, bulb holders, PLA relay, measuring instruments, choke, starter, push button, switches (lighting), socket (15A), petroleum jelly, PVC flexible hose, insulator, terminal connector.
 - vi. transport service for new spares /used spares deposition from/to MoES/NIOT/CMLRE/NCPOR/ship at port.
2. Log-books for Deck, Engine & Communication and SRB and relevant stationery onboard. Log-book and other stationery items to be printed annually as per the requirement.
3. The service/ maintenance of the items will be the Contractor's account.
4. Renewal(service and material) of pipelines up to 200 m of different sizes and all material per annum per vessel, valves of all material up to 4 inches size, flanges of all material and sizes of 150 nos. per annum per vessel and wooden furniture door lock beadings. Mooring line accessories and ropes up to 10mm size.
5. Repairs of all metal doors/hatches/guard rails/PU ceilings/ aluminium frames/ SS frames.
6. Minor carpentry work like: i). Repair of doors, door locks, cupboard, chairs etc. ii). Fitting, placement and lashing of scientific equipments, computer etc., including labs also.
7. OEM recommended engine lubricating oils, coolants, hydraulic oils for all engine, deck and other Shipboard machineries. Hydraulic power pack oil for Winches, Cranes, A-Frames, Thrusters, Windlass etc. All hydraulic oil as recommended by OEM/ MoES at no additional cost to MoES/NIOT/CMLRE/NCPOR.
8. Sign-on/ Sign-off of Scientific team [Agency fee in India is inclusive of Sign on/ Sign off in Indian ports]
9. The Contractor shall carry out the sign-on/ sign off for three number scientists per vessel (Sagar Kanya, Sagar Nidhi, Sagar Sampada) per year at foreign ports. This is only towards the sign-on/ sign-off activity of the scientist at the foreign port where the vessel has made a port call.
 - a. However, all other expenses towards visa, flight tickets, transportation, Travel Insurance, Hotel Stay for any reasons, Vaccination, PCR/ Antigen Tests etc., that may have to be incurred while sign-on or sign-off shall be account of MoES/CMLRE/NIOT/NCPOR. If the contractor has to arrange any of these activities it shall be reimbursable to the contractor.
 - b. For any sign-on/ sign off at a foreign port exceeding three number scientists per vessel per year for whatever reasons, all costs towards such sign-on/ sign-off carried out for the Scientific team outside at foreign ports shall be reimbursable to the contractor.
 - c. All other clearances will be as per the clause no. 18.5 "Clearance of the Vessels at Ports" of the contract account.
10. Fumigation/ de-rating charges including charges of accommodation/ transport and boarding of Crew

11. Expenditure towards OEM /Non-OEM/ OEM authorised service.
12. Repair cost on flood lights, minor electrical circuit components, fuses, 24Vbulb, control panel bulbs and up to 24W LED lights & fittings. Expenditure towards all electrical spares (not mentioned under reimbursable clause) procured from local sources/ NON-OEM sources.
13. Repair of entertainment equipments like TVs/ music-systems/ VCD/ DVD players/ dish antenna as required.
14. Repair of wall mounted/table top fans, general purpose power cables and telephone cables.
15. Expenditure towards scientific team's personal belongings, scientific material/any material authorized by MoES for clearance by customs/ CISF/ Port/ Coast Guard/ PHO/ Immigration.
16. Plumbing work/ pipe repair work, repair/renewal of fresh water and sea water taps, flushes, showers, mixers or any fresh water or sea water leaks in the concealed panels.
17. Any crane / lifting tackles used for vessel repair and maintenance.
18. Contractor's communication costs with his own Crew, AMC contractor, statutory authorities, MMD, DGS, IRS or any other agency.
19. Lodging and food expenditure for the contractors' personnel including the partners for house keeping, catering and scientific equipment maintenance.
20. Repair of general inventory of ship. Minor components renewal is also non-reimbursable.
21. Repair of side panel / ceiling panels and renewal. The colour of the renewed ceiling shall reasonably match the existing colour.
22. Repair and maintenance of electrical switch board, panels and distribution systems.
23. Replacement of oxy acetylene gas cylinders, maintenance/ replacement of the gas welding/ cutting accessories.
24. ENC Charts and navigational publications on any IMO/ DG shipping publication weekly/ yearly. Publications weekly/ monthly or any periodicals necessary to supply to the vessel as per statutory requirements.
25. All batteries (for back up, used for Inverters, UPS) on-board including navigational, GMDSS, emergency lighting and scientific lab.
26. Maintenance of computers, printers, photo copier machines etc.
27. Replacement of buckets, mugs, linens, every six months.
28. Bathroom mirror and curtains replacement once in every year.
29. Hire of gen-sets during top overhauling and major overhauling as required.
30. Medical kits, medicines and first aid boxes replacements as per Statutory compliance.
31. LSA, LSS and FFA – service, repair and spare & accessories replacement charges. Any repairs on the existing system to satisfy and pass the surveys are to the cost of the Contractor and any new additions warranted by the change of law are to be MoES account. Transportation/class fee is to the account of Contractor.
32. All log books/ monthly reports/ other documents that are to be submitted to MoES/CMLRE/NIOT/NCPOR will be bound by the Contractor prior to submission for safe stowage or once in 6 months.
33. Cost towards removal and proper disposal of garbage, oily-sludge or contaminated bilge water generated during the operation of ship.
34. Cost towards consumables like fuel additives, deck salt for Southern Ocean cruises.
35. Cost towards all standard and general tools for utilities onboard ships.

36. Cost towards winding of motors for 5HP & less capacity.
37. Decoration of vessel for functions / VIP visits.
38. Local transport– adequate number of Car/Tempo [based on the scientific team of the respective vessel] & one number of truck service each for embarkation and disembarkation for every cruise for scientific team & equipment with labours for loading & unloading. Number of car/tempo is based on the actual number of participants from the scientific team.

14. PENALTY CLAUSES:

- a. For any scientific equipment failure and non-availability or non-functional for reasons not attributable to owner, a penalty equivalent to its contract cost per day will be levied for each day and part thereof.
- b. If any damages result due to the negligence of the Contractor whereby the ship is rendered irreparable/useless, then the damages will include but not limited to the cost of the ship. The decision regarding the extents as arrived by the surveyor will be the criteria for determination of damages. The charges towards replacements / repairs of such damages will be borne by the Contractor so that the vessel is again made operational. The Owner shall provide all necessary documentary assistance.
- c. Any critical item [Class related item] if not in working condition, the penalty of Rs. 5000/- day per item up to bringing it to the normal operation
- d. Any propulsion related machinery if not functional (fully or partially) - a penalty of Rs. 5000/- day per item up to bringing the machinery to its normal operation
- e. Any deck machinery is not functional (partially or fully), a penalty of Rs. 3000/- day per item up to bringing it to the normal operation
- f. Any item listed other than the c, d, e if not functional, a penalty of Rs. 2000/- day per item up to bringing it to the normal operation
- g. If there is no maintenance call as per clause no.2.8, additional penalty of Rs. 10000/- per day shall be applicable and if the situation continues to the next port of call, LD as per cl. 5 shall be applicable.
- h. Loss/damage of any items due to negligence of the crew, the Contractor shall replace the lost/damaged items onboard immediately at no cost to MoES Institutes.
- i. Above are in addition to the Liquidated Damage claims as cl. 5.

15. DELIVERY / RE-DELIVERY OF VESSEL:

The vessel shall be available to the Contractor at any port in India. An inventory of the vessel's entire equipments, outfit, appliances, spares, stores, vessel's galley equipments, outfit, appliances, spares and utensils shall be prepared jointly by Contractor, in the presence of MoES/NIOT/CMLRE/ NCPOR representative at the time of delivery and by the same parties at the time of re-delivery. Vessels may go for Sea-trials before take-over of the vessels on the request of Contractor. Incoming Master and C/E with C/O, 2nd Engineer, ETO (max.5) may be allowed to take part in the trial cruise before take over. Familiarization of other crew may be done by the above personnel. All expenditure including salary etc (except embarkation/ disembarkation/ victualling) for these staff till 'take-over' may be borne by the contractor. The Contractor shall redeliver the vessel with all equipment tools, tackles, spares, store and other accessories to MoES/NIOT/CMLRE/NCPOR on completion / termination of this Agreement in the same good order and ship shape condition in which it was delivered to him (normal wear and tear excepted). In case of missing of any item, suitable replacement will be made by the Contractor well before handing over and if the Contractor fails to do so, MoES/ NIOT/CMLRE/NCPOR shall arrange the same and deduct the incurred expenses as appropriate. In case of any repair, expenditure incurred towards rectification of these

deficiencies shall be borne by the Contractor.

The Contractor shall pay any/ all charges of repair and survey which are required to be carried out to bring the vessel fully operational and in same ship shape condition without any condition of class (CoC) as at the time of delivery, normal wear and tear excepted.

During take-over of the Vessels by the Contractor from MoES /NIOT/CMLRE/NCPOR, the Contractor has to ensure the operational status of all equipment/ material status for any deficiencies, Same to be brought to the attention of MoES/ NIOT/CMLRE/NCPOR. Expenditure incurred towards rectification of these deficiencies shall be addressed/borne by MoES institutes.

The re-delivery of the vessel shall be effected at any port in India as determined by MoES/ NIOT/CMLRE/NCPOR. At takeover, any Condition of Class (CoC) by class to be rectified by the Contractor failing which same shall be rectified by MoES/ NIOT/CMLRE/NCPOR and cost recovered from the Contract or from the performance bank guarantee. In the event of such losses exceeding the performance bank guarantees or any money payable, contractor shall bear and reimburse all such expenses.

The contractor has to submit NO DUES certificates from all subcontractors.

List of particulars of the vessel shall be as per the current delivery protocol and takeover inventory.

16. PERIODIC INSPECTION:

MoES/ NIOT/CMLRE/NCPOR shall have the right to inspect/ survey, at its option and cost, at any and all times and at any port in India/ abroad, the vessel, housekeeping, quality of food materials supplied, quality of food served, maintenance & status of machinery and equipment etc. as well as supplies being provided by the Contractor under this Agreement. The Contractor undertakes and guarantees full and unhindered access to the vessel for inspection by the representative of MoES/ NIOT/CMLRE/NCPOR at any and all times. Items rejected on inspection, following standard Marine Practices shall be replaced by the Contractor. It is understood by both parties that any inspection by MoES/ NIOT/CMLRE/NCPOR referred to in this clause shall in no way reduce or diminish the Contractor's responsibility and obligation with respect to the statutory/ class requirements. It is the Contractor's express obligation to follow and observe all applicable laws, rules, regulations and orders of the land to keep the vessel afloat, in a safe, good, seaworthy and operational conditions at all times during the currency of this Agreement and any other extension thereof.

17. Area of operation:

The vessel is required to operate anywhere in Indian off-shore or deep waters at any depth as admissible, and undertake voyages as required to proceed to such area of operation as directed by MoES/NIOT/CMLRE/NCPOR. The vessels may be stationed at any other Indian/ foreign Ports for any period within the currency of the Agreement, adhering to the cruise plan projected for the vessels by MoES/NIOT/CMLRE/NCPOR. Coastal vessels are generally operated in seas around India, the deep sea vessels are expected to be operated in any seas in Indian Ocean Region and elsewhere as may be required.

18. DETAILED SCOPE OF WORK:

18.1. MANNING / CREW REQUIREMENT:

1. *Running, Manning and Maintenance:*

To operate the vessel with Master and other Crew and assist the Scientists in collection of samples, retrieval and deployment of data buoys, testing of deep sea mining crawlers, ROV/ AUV/Submersibles and any other technology demonstration activities as decided by MoES/NIOT/CMLRE/NCPOR. The expected number of Officers and Crew to be deployed by the Contractor or for the vessel shall be as per

details given below. All the Officers and Crew shall have the experience mentioned in the NIT & necessary training and should have completed the STCW courses prescribed by DGS. All officers and crew to meet all mandatory requirements / certificates as required by statutory authorities also. Crew list including crew change if any, shall be submitted along with monthly report.

i. ORV Sagar Kanya

1	Master FG
2	Chief Officer FG
3	2nd Officer FG
4	3rd Officer FG
5	Chief Engineer FG
6	2nd Engineer FG
7	3rd Engineer FG
8	4th Engineer FG
9	Electro-Technical Officer (ETO)
10	Medic / Nurse
11	Engine fitter/oiler
12	Deck fitter
13	Deck crew / Helmsman / ratings –6 nos
14	Engine crew / ratings –6 nos

ii. TDV Sagar Nidhi

1	Master FG
2	Chief Officer FG
3	2nd Officer FG
4	3rd Officer FG
5	Chief Engineer FG
6	2nd Engineer FG
7	3rd Engineer FG
8	4th Engineer FG
9	Electro-Technical Officer (ETO)-2 nos
11	Medic / Nurse
12	Deck crew / Helmsman / ratings –7 nos
13	Engine crew / ratings –3 nos
14	Fitter / Oiler –1 no

iii. FORV Sagar Sampada

1	Master FG/ NCV
2	Chief Officer FG/ NCV
3	2nd Officer FG/ NCV
4	3rd Officer FG/ NCV
5	Chief Engineer FG/ NCV
6	2nd Engineer FG/ NCV
7	3rd Engineer FG/ NCV
8	4th Engineer FG/ NCV
9	Electro-Technical Officer (ETO)

10	Medic / Nurse
11	Engine fitter/oiler
12	Deck fitter
13	Deck crew / Helmsman / ratings –6 nos
14	Engine crew / ratings –6 nos

iv. RV Sagar Manjusha [NCV crew]

1	Master
2	Chief Officer
3	2nd Officer
4	Chief Engineer
5	2nd Engineer
6	4th Engineer
7	Electro-Technical Officer (ETO)
8	Deck crew / Helmsman / ratings –5 nos
9	Engine crew / ratings –2 nos

v. CRV Anveshika / Tara [NCV crew]

1	Master
2	Chief Officer
3	Chief Engineer
4	2nd Engineer
5	3rd Engineer
6	Electro-Technical Officer (ETO)
7	Deck crew / Helmsman / ratings – 4 nos
8	Engine crew / rating – 1 no

The Master is to execute the cruise programme in accordance with the instructions from the Chief Scientist on-board; however Master shall be responsible for the safety of the vessel and personnel on-board. Any two of the Officers should possess GMDSS endorsement who shall function as a GMDSS Contractor in lieu of GMDSS Contract or as per N-1 safe manning rules of DG Shipping.

All Officers and rating should have all relevant certificates (STCW, Fire fighting, etc.) approved by DG Shipping and as required by statutory authority. The minimum safe manning plan approved by DG Shipping will be the basic guideline for employing personnel on the ship, however MoES/NIOT/CMLRE/NCPOR requirements need to be taken care of without compromising on MSMP in view of the operational requirements of the vessels. Any extra manpower requirement shall be as per the quoted price.

vi. Crew Management:-

- The entire Crew and Officers shall be Indians only
- Minimum experience of Crew as per Annexure-VI
- All the Officers and Crew are expected to maintain cordial relationship with the Scientists and assists them in executing the scientific tasks.
- Ensuring that all Crew has passed medical examination with a qualified Doctor certifying [DG approved] that they are fit for duties for which they are engaged.
- Ensuring that the Crew has common working language of English and Hindi of a sufficient standard,

- f) All officers, engineers, deck and engine crew should be properly certified as per STCW/ DG Shipping rules, including any revised rules that may come into force from time to time. Crew to be provided with proper familiarization with their duties in relations to vessels SMS and ISM Code.
- g) With respect to FORV Sampada, rates of NCV certified officers/ crew & FG certified officers are to be mentioned separately, so that payment for officers/ crew may be processed without any glitch.
- h) Crew to be provided with proper familiarization with their duties in relations to vessels SMS and ISM code.
- i) INSA/MUI/NUSI base/minimum rates to be complied
- j) Employment of Ship crew will be governed as per the agreement between Maritime Union of India (MUI) and Indian National Ship Owner's Association (INSA)
- k) Crew Insurance to be arranged by the TVM Contractors and copies to be submitted to MoES before the taking over of the MoES vessels & during crew changes
- l) Statement of manpower compliance to the contract shall be submitted along with monthly bills.
- m) Payment to the manpower to be paid on 10th of every month through digital mode to their respective bank accounts.
- n) Deployment of manpower should be done after proper police verification and providing a file containing full credentials/personal details of manpower staff, including Aadhar / Election card, passport, CDC, certificates etc.
- o) Deployed manpower should have a decent dress code with a name tag for proper identity and security point of view.
- p) Undertaking by Bidder/service provided regarding maintaining the confidentiality of data by the deployed manpower, Undertaking that Procurement Entity will not be responsible for any accidental/death/mishap with deployed manpower while on duty at Govt official premises, Undertaking that in case of loss/damage to Govt. property while working on vessel by their manpower and later at any stage by the deployed manpower for security/operation etc. will be at the cost of Bidder/service provider may be required.

2. *Catering and Housekeeping:*

To do housekeeping, catering with cooks and assists to serve to the Scientists. Details of each cruise programme will be provided well in advance providing number of scientists and operations plan etc.

18.2. TERMS AND CONDITIONS:

1. *Running, Manning and Maintenance:*

The Contractor shall employ qualified (as per Annexure-VI) and competent and certified people to ensure smooth operation and safety of the vessels and ensure that the minimum requirements like INDOS registration, STCW, ISM, ISPS as laid down by statutory authorities are met with. MoES/ NIOT/CMLRE/NCPOR has every right to ask replacement of any Crew who is/are non-operative in carrying out the planned works onboard by the Scientists or MoES personnel in running of the Vessel or incompetent to do the work assigned to him/them or not performing up to the satisfaction of MoES/Chief Scientist/VMC. A list of persons declared Person a non-grata earlier as available with MoES/NIOT/CMLRE/NCPOR should not be reemployed by Contractor on MoES vessels under this contract.

Operation of the vessel shall be as per the cruise plan provided and as per the instruction of MoES/ NIOT/CMLRE/NCPOR /Chief Scientist on-board. The vessel shall be operated strictly as per the statutory

regulations and standard operating procedures.

Consumption of alcohol, drugs, etc., by the Master and his Crew members is strictly prohibited onboard the vessel and also should not indulge in any anti-national activities.

Contractor shall implement ISM code onboard the vessels. Contractor should fulfil requirement of ISM and maintain documentation as per the ISM code and practice the same. ISM auditors shall conduct periodic ISM audit of the vessels and Contractors office for compliance of the same.

The Contractor/ ship staff shall maintain documentation onboard as mandated by the statutory authorities and as required by MoES/NIOT/CMLRE/NCPOR. The documentation consisting of SRB, Inventory, defects occurred and material in and out etc. are also to be maintained.

2. ISPS:

The Contractor shall implement the requirements of the ISPS code if any as specified by DGS/ Statutory authorities for the vessels of this nature. Contractor shall implement the procedures of security on-board as well as a shore and shall maintain, file with authorities the relevant records for compliance and smooth operation, entry/ exit of vessel. The Contractor shall nominate trained, certified personnel for appropriate functions like Company Security Officer (CSO), onboard Security Officer, etc if applicable.

3. Catering to all Scientists, MoES Personnel onboard:

- 3.1. The Contractor shall provide food and other beverages to the Scientists/ MoES/VMC personnel onboard. The contractor is required to provide the following for the scientific team members

Breakfast
Lunch
Dinner
Tea/Coffee/Snacks [twice]

- The payment shall be as per actual number on agreed unit cost of per day per person of scientific team. The certificate of onboard MoES representative for number of persons/days to be submitted along with the monthly bill. Full day charges shall be leviable of two or more than two meals are served to a person. The rate shall be per day per person which is to include cost of all food, beverage and service charges. Less than two main meals will be charged 50% of per day charges. Minimum number of cooks and stewards to be deployed on-board as specified. No separate charges for cooks/stewards/ utility-hands can be claimed from MoES/NIOT/CMLRE/NCPOR.
- The meals to be served to the scientific team members at the designated places
- Following are the estimated man days numbers (scientific team) for each vessel;

Sagar Nidhi	- 6500 man days
Sagar Kanya	- 7000 man days
Sagar Sampada	- 6500 man days
Sagar Manjusha	- 2500 man days
Sagar Tara	- 2000 man days
Sagar Anveshika	- 2000 man days
- Atleast one special VIP meals per week should be served to all MoES/VMC personnel onboard. Approx. number of meals per year including meetings onboard etc. is estimated as below;

Sagar Nidhi	- 300 meals
Sagar Kanya	- 300 meals
Sagar Sampada	- 300 meals
Sagar Manjusha	- 100 meals

Sagar Tara - 100 meals

Sagar Anveshika - 100 meals

Catering services for Contractor's personnel onboard shall be taken care by Contractor as part of contract price and not chargeable separately.

3.2. The Contractor shall provide food and other beverages to the Scientists, MoES/VMC personnel onboard. A weekly menu is given at Annexure-IV. All items listed shall have to be provided as per schedule. The terms and conditions are as follows:

- i. If the food is rejected for a particular time of a day by the Chief Scientist on behalf of the scientific team and MoES personnel, an alternate substitute food with equal calories shall have to be provided immediately.
- ii. The Contractor shall procure good quality food materials.
- iii. The utensils in the ship shall have to be handled carefully and all the damaged utensils shall have to be replaced by the Contractor. In case the Contractor feels that there is a need for replacement of the utensils/ stove/heater, etc., prior approval has to be taken for the replacement and charges for the same shall have to be intimated at that time.
- iv. The food expenses of Scientists and MoES personnel shall be paid by MoES for the days they occupy the vessel, and shall be on daily rate basis. The Chief Scientist / MoES/NIOT/CMLRE/NCPOR personnel shall certify the number of persons to whom catering facilities have been provided. The number of Scientist on-board shall be intimated before commencement of a cruise. The prescribed menu has to be followed and not to be cut-short without proper authorization from MoES/ Chief Scientist/VMC.
- v. If a Crew member/ Scientist / MoES personnel suffering from sickness, including sea sickness, an appropriate diet shall have to be provided to him/ her.
- vi. The catering service to the contractor's personnel onboard (Officers/crew/scient eqpt engrs) are to be taken care by the Contractor.
- vii. **Spare Utensils:-**In case of requirement, Contractor may utilize utensils from the vessel's stock or from the MoES's stock with the consent of MoES/NIOT/CMLRE/NCPOR. Any additional utensils and cooking appliances requirement shall be informed to MoES/NIOT/CMLRE/NCPOR for approval in accordance with reimbursable / non-reimbursable clauses of the contract. On approval, the Contractor may replace such items and the cost of the same at actuals excluding any transportation charges shall be reimbursed by MoES/NIOT/CMLRE/NCPOR as per the following conditions:
- viii. The supply on-board must be accompanied by original Invoice from the supplier. Delivery challan may be acceptable during the supply and original invoices, mate receipt & payment proof shall be provided while reimbursing amount MoES/NIOT/CMLRE/NCPOR requirement (if any).
- ix. The supply should be entered in the Stores Received Book (SRB) duly signed by Master and MoES/NIOT/CMLRE/NCPOR Representative and spares ledger maintained on board.
- x. The supply should be recorded and signed by the mate in the mate receipt on board.
- xi. Mate receipt signed by Master, mate and MoES/NIOT/CMLRE/NCPOR representative along with SRB entry, ORIGINAL invoice and bank transfer receipt must accompany the claim of the Contractor for reimbursement. This is applicable to all the materials supplied and received on-board under reimbursement clause.
- xii. Mere Invoices from supplier without proof for payment by the Contractor shall not be entertained. Proof of payment against the supplier Invoice must be enclosed. As far as possible, MoES/NIOT/CMLRE/NCPOR would supply linen/ utensils/ cutlery to the ship.

3.3. Catering during Dry-docking

The Contractor shall coordinate and provide sufficient food for the MoES/VMC personnel who are involved in dry-docking work. In case Galley is not operable during dry-docking period, Contractor shall have to supply food from outside at contract rates. Contract rate for food shall be irrespective of India or foreign locations. Providing food to MoES/VMC personnel during dry-docking also shall be Contractor's obligation as per contract rates. Accommodation for the crew & officers during the drydock shall be the liability of the Contractor.

4. *Housekeeping:*

The entire vessel, its system, galleys, cabins, recreation rooms, Officers/Scientists toilets, etc., will have to be kept tidy, clean and serviced regularly. The cabins and spaces are to be mopped and cleaned every day.

Only approved cleaning material shall have to be used. All housekeeping tools including vacuum cleaner, mops, buckets, mugs, brooms etc., and consumables of reputed brand will have to be provided by the Contractor.

The catering Crew shall function under the control of the Master.

The towel, soap, toilet paper will have to be provided. The toilet utilities like buckets, cleaning materials for bathroom shall have to be replaced periodically **every six months**.

The Contractor may keep adequate number of linen for changing. Initially the ship shall contain only two set of linen. Every week-end, bed and bath linens should be changed. The bed should be maintained. Whenever any damage occurs, the replacement of linens/ bed materials (reimbursable) to be replaced if the Chief Scientist of the cruise/ MoES/VMC personnel asks to do so.

Poor show on upkeep and appearance of the vessel will attract the severe penalty

5. *Replacement of Medicines as per ILO:*

The medicines in the clinic shall be replaced as per the MMD / Port Health Department norms at the cost of the Contractor.

18.3. *OPERATIONAL BASE:*

As the vessels cruise continuously, it may become necessary to relieve and change the Crew at any port of India. The Contractor should schedule of change of Crew and its personnel to match the tentative cruise programme. The Contractors should have a local base or establish one or may have sub-contractors/agent at Chennai/Goa/Cochin for co-ordination with MoES/NIOT/CMLRE/NCPOR for running the vessels.

18.4. *CRUISE PROGRAMME:*

The vessel shall be used for various programmes of the Institute such as retrieval and deployment of data buoys under the control of MoES in the coastal and anywhere in the Indian-waters, International-waters as per the plan provided, and all lawful duties as directed by MoES/NIOT/CMLRE/NCPOR including but not limited to list provided. A model cruise programme of the vessel will be given during pre-bid meeting. During the cruises following activities shall be conducted at each location/point:

- 1 Collection of plankton samples using plankton net in one of the winches.
- 2 Collection of fish samples using a trawl net.
- 3 Deployment of workboat for collection of samples from shallow water and selected estuaries.
- 4 Conduction of scientific and technology experiments in sea.
- 5 Deployment of current meters as per scientist schedule.
- 6 Deployment/ recovery of soil tester.
- 7 Deployment/ recovery of anchor pile.

- 8 Bathymetric survey using echo-sounders, Multibeam, side scan sonar, ADCP and sub bottom profiler etc., at grid level of 1 or less or more.
- 9 Testing of Crawler and deep sea mining at deep sea.
- 10 Testing and operation of ROV, AUV, ACS, Submersibles and etc., at deep sea.
- 11 Underway Swath Multibeam Surveys, Geophysical & Seismic surveys in coastal seas, deep and polar waters.
- 12 CTD profiling, water sampling operations.
- 13 Biological sampling using vertical and horizontal sampling through various nets.
- 14 Surface and deep sea mooring operations / Data buoy operations.
- 15 Seabed samplings using corers and grabs. Rock dredging with chain bag dredges.
- 16 Underway Oceanic observations, Upper air atmospheric data collection etc.
- 17 Underway surface met and current measurements.
- 18 Deployment / retrieval of heavy test / prototype equipment with DP.
- 19 Deployment / retrieval of submersibles (AUV, ROV, Deep Sea Mining vehicles etc) in DP.
- 20 Onboard analytical works and data processing.
- 21 Training to researchers / students.
- 22 Any other activities as advised by MoES/NIOT/CMLRE/NCPOR.

The cruise programme is subject to change dynamically due to change in priorities as decided by MoES/NIOT/CMLRE/NCPOR and Contractor shall ensure compliance of the same.

For any major jobs like Installation and removal of AUV/ ROV/ LARS/ MATSYA/ Crawler/ Soil-tester may happen time to time as per MoES requirements. Ship staff is expected to extend fullest cooperation for the same during loading/ unloading on the ship.

18.5. *CLEARANCE OF THE VESSEL AT PORTS:*

The Contractor shall be responsible for obtaining port clearances, arrangement of berths, pilotage (where required) at each calling port and shall maintain safe stay of the vessel in ports for the stipulated period in the cruise programme. All requirements of ISM, ISPS, etc., shall be complied with. The Contractor shall be responsible for clearing of men and material of the Scientists who shall be embarking and disembarking through customs and security following appropriate procedures. A copy of equipment shipping bill copies to be provided to MoES while loading the scientific equipment for every cruise.

18.6. *SUPPLY OF FRESH WATER:*

The Contractor should ensure the supply of sufficient quantity of potable fresh-water through entire period of cruise/port stay/anchorage and replenishing at every port call as and when required apart from utilization of onboard FW generator i.e. in addition to output from RO system onboard. Fresh-water is required in the laboratories and washing of deck and deck equipment also. The Contractor should have a prior arrangement with the port for filling up of fresh-water. The fresh-water should be potable as per IS Standard-IS 10500 (2012).

18.7. *BUNKERING OF VESSEL:*

The contractor shall bunker the vessels as and when required, to make the vessels available for scientific operation at all times. The log-book containing the fuel levels on-board should be strictly maintained and a report on fuel consumption of the vessel shall be submitted to MoES Institutes along with monthly reports. The Fuel on-board before and after bunkering (BDN copy of Bunker supplier) shall be certified by the Chief Engineer and Master, MoES Institute's representative or Chief Scientist and to be certified by a third-party surveyor (acceptable to MoES Institute) and reports to be submitted to Owner at the earliest. Bunkering

when done in India shall be done through IOC/BPCL. If bunkering is done through other private companies, the rates will be admissible as per IOC rates. MoES Institutes shall pay directly to IOC/BPCL/or any other Nationalized bunker company for procurement of fuel & necessary liaison is to be done by the Contractor for smooth & proper bunkering of the vessel. All associated costs like Pumps/Hoses, collection of keys, third party survey etc., shall be borne by the contractor. Bunkering in foreign parts shall be done through foreign port agents against bunker advance paid to the contractor. Also to ensure supply of lubricants, chemicals, coolant etc both in India and abroad, and arranging/ attending to surveys and repairs, painting, supply of shore labour as required. Contractor to arrange for sampling and Testing of Fuel Oil sample during receiving Bunkers as applicable. Also periodic checking of Lub Oil/Hyd. Oil Testing for running machinery including Aux. Engines, Emergency DG sets, Winches, Cranes, Power pack units etc. to be arranged and reports to be submitted to the Owner once in three months.

18.8. SPARES:

Any reimbursable spares to the vessel viz. machinery spares/ material etc. must adopt the following procedure, without which the reimbursement shall not be allowed.

- i. Prior approval of MoES/NIOT/CMLRE/NCPOR is to be obtained.
- ii. To establish competitive price through tendering process.
- iii. price reasonability has to be submitted along with the spare procurement proposal.
- iv. The supply on-board must be accompanied by an original copy of the Invoice from the supplier.
- v. The supply should be entered in the Stores Received Book (SRB) duly signed by Master or MoES representative and ledger maintained on-board.
- vi. The supply should be recorded and signed by the Mate in the Mate receipt on-board.
- vii. Mate receipt signed by Master, Mate and MoES representative along with SRB entry, Delivery challan, ORIGINAL invoice and bank transaction summary/receipt must accompany the claim of the Contract or for reimbursement. This is applicable to all the reimbursable materials supplied and received on-board.
- viii. Spare parts bill shall be from the source of supply / OEM and purchased from authorized dealers and recognized dealer. The purchases made shall be on competitive basis with minimum three quotations if sourced from the open market other than OEM's or as per MoES/NIOT/CMLRE/NCPOR norms if any.
- ix. The detailed report should be submitted for spare availability, utilization and requirement once in three months.

18.9. DRYDOCKING:

The vessel shall be dry-docked as per class requirements for hull cleaning, sand blasting and painting, overhauling of ship side valves and other classification society surveys as per the procedures. The entire expenditure towards dry-docking shall be borne by MoES. The drydocking yard will either be in India or abroad. Contract rate for food shall be irrespective of India or foreign locations. Providing food to MoES/VMC personnel during dry-docking also shall be Contractor's obligations as per the contract rates. Accommodation for the crew & officers during the dry-dock shall be liability of the Contractor.

The following procedure shall be adopted for dry-docking jobs.

- a. Six months before the due date for drydocking, TM contractor shall submit the Drydock work scope in line with the survey requirements and defect lists to MoES institutes with a copy to PD-MoES.
- b. Along with DD work scope, long lead spares required for all the machinery during drydock shall be submitted to MoES institutes with a copy to PD-MoES.

- c. MoES Institutes shall tender the dry-docking lay-up repairs and identify/ select suitable Shipyard to do the jobs.
- d. The selected shipyard shall be placed under administrative control of Contractor to get the jobs executed within the stipulated period.
- e. The vessels shall be dry-docked as per class requirements for hull cleaning, sand blasting and painting, overhauling of ship side valves and other classification society surveys as per the procedures.
- f. Contractor shall liaise, co-ordinate and get the jobs done in the time frame fixed jointly by MoES/NCOR/CMLRE/NIOT, contractor and Shipyard.
- g. During Dry-dock, the contractor has to arrange at his own cost for the stay, transport and food for the Crew outside the vessel and arrange to provide security for the vessel and systems round the clock at his own cost.
- h. During the drydock, the Contractor shall depute experience Master, Chief Engineer, Chief Officer and Second engineer, until completion of drydock repair works.
- i. Competent / Experienced Technical Superintendent [at least three no of drydock experience] shall be deputed who will act as a single point of contact for entire period of drydocking. The report should be submitted on a weekly basis along with progress and plan. He should attend all jobs in the dry-docking and certify the works done satisfactorily.
- j. Per day charges of Superintendent shall be paid as per agreed rates on pro-rata basis.
- k. During the end of Dry-docking, DNV/IRS surveyors should be arranged to inspect the vessel and certificate should be updated/ validated /renewed.
- l. Technical Superintendent shall extend his service up to the warranty period if any claim & pending jobs.
- m. Likely shipyards for dry-docking shall be any port in India /Chennai /Mumbai /Cochin /Vizag /Goa /Bangkok/ Colombo /Singapore/ Malaysia/ Dubai. Other coastal vessels are expected to be dry-docked in India yards.
- n. Cost of the dry-dock paints shall be included in the scope of the dry-docking.
- o. The scope for the contractor, yard and MoES will be as per standard operating procedure of MoES.

18.10. MAINTENANCE AND REPAIR OF THE SHIP: [charges in this regard, shall be included in the price bid -Sl. No. 1.1]

- a) The Contractor is to maintain and carry out the repairs of the ship (hull, machinery and equipment) and all the systems in the ship other than the scientific equipment in the laboratories by engaging authorized service Engineers of the systems/ competent service Engineer/ Ship staff. These systems include engine room machines, navigational equipment and winches, refrigerators, A Frame, Deep freezers, A/C plant, Split Air conditioners, all furniture, including the furniture in the scientific laboratories, galley equipment and other items such as window panes, glass, etc.
- b) During port stay, Gen-sets, Diesel Electric propulsions systems, A/E, motors, pumps, bow thruster, winches, windlass, A/C etc., to be serviced by suitable service agency as per maintenance schedule recommended by the OEM. All reimbursable expenses towards spares provided by OEM/ OEM authorized dealer/ recognized dealer shall be done as per contract terms.
- c) all deck machinery, winches, cranes, A-frames, booms, wires etc related to general vessel operational activity are under the scope of vessel maintenance.
- d) All the statutory surveys including the Classification Society (IRS and DNV) Surveys, Special Purpose Ship Surveys and any other mandatory surveys must be arranged by the Contractor. All the LSA, FFA, LSS Extinguishers must be serviced and maintained by Contractor. Any repairs/service on the existing

equipment to satisfy and pass surveys are to the cost of the Contractor and any new additions warranted by change of law are to MoES/NIOT/CMLRE/NCPOR account.

- e) The service and maintenance charges in this regard shall be included under lump sum. These charges include cost of bringing the servicing personnel on-board, their service (labour) charges, transportation, stay, communication, crange and other costs.
- f) The Contractor should ensure adequate maintenance of ship and all systems, failing which, the down-time clause and penalty as per LD clause shall be applicable. Contractor shall be allowed 15 days per operating year for maintenance / repair of the vessel.
- g) Pest control sprays should be done every month. The vessel should be maintained insect-free and rodent-free always. Necessary preventive actions should be taken on regular/daily basis.
- h) Underwater Diving Inspection: Contractor to arrange underwater diving services for cleaning hull, transducers / repairs, and for all the maintenance requirements including hull /propeller cleaning. Underwater diving should be undertaken at least once in a year and reports [video/photos] shall be submitted. The service shall be undertaken along with the associate scientific partner and MoES institutes representative.
- i) De-ratting: De-ratting should also be done once in three months. The cost of de-rating is deemed to be included in the price bid.
- j) Contractor should depute Superintends for superintending all the jobs given to workshops. Contractor should buy and supply genuine spare parts to the workshop/ ship repairer. Any spares are to be procured by the contractor for operational maintenance of the vessel, approval of MoES vessel Managers is to be taken.
- k) **Hot-work onboard:** The Contractor shall obtain all the relevant hot-work permissions for any welding jobs on-board ship at pier or at anchorage. With the changes in scientific activities MoES/ NIOT/CMLRE/NCPOR may modify various handling systems on-board which may require considerable amount of hot-works on-board. Hiring of welders/ fitters will be done by MoES/NIOT/CMLRE/NCPOR for this purpose. Hot work permissions and fire sentries to be arranged by the contractor as part of contract without any additional cost.

18.11. Monthly Submission of Performance Report

Monthly submission of performance report [Annexure-V] is provided along with individual crew certificates (NCV/FG/CDC) shall be certified by the Master and MoES Institute's representative. Performance report for each scientific cruise by Master endorsed by the Chief Scientist and MoES representative is also should be submitted along with the claim of the payment. Any additional reports as required by MoES/NIOT/CMLRE/NCPOR.

18.12. INVOICING:

- 1 The Invoices raised by the Contract or must be serially numbered for the vessel.
- 2 The Invoices must be entered in a database/register with serial number to track the payment made.
- 3 Invoice must contain the claim details, vessel name, clause and sub division under which it is payable, mate receipt, Original supporting bills/Invoices/Receipts etc.
- 4 Invoices may be pre-receipted to avoid delay in receiving payment.
- 5 Invoices must contain competitive quotation for spares procurement (Authorized sales dealer/ wholesale)

The Contractor while taking over of the vessel shall prepare an inventory of spares for all systems. The Contractor can utilize these spares for repairing and maintenance of systems and replace them. For procurement of new spares, prior approval has to be obtained. The cost of replaced reimbursable spares shall be reimbursed by MoES/NCPOR/NIOT/CMLRE. Lube oil supply should be strictly as per the recommendations of the manufacturers and equivalent product as approved by OEM/

MoES/NCPOR/NIOT/CMLRE is acceptable.

18.13. Payment terms.

18.13.1. MoES/NCPOR/NIOT/CMLRE shall pay to the Contractor the above payments on monthly basis on receipt of invoices in order. The payment towards reimbursement of spares/consumables cost would be made as and when the bills are submitted along with relevant documents irrespective of monthly cycles.

18.13.2. MoES shall pay to the contractor a lump-sum amount per day or part thereof on aggregate basis for the days the vessels are in operation payable on completion of each calendar month as will be detailed in the NIT. Tentative payment schedules for each vessel would be as below:

18.13.3. **Running, Manning and Maintenance:**

- a. The payment in case of normal operation of vessel shall be made in two parts for the monthly invoice, First part (limited to 60% of Invoice) will be paid within 15 days of receipt of the invoice. The second part shall be released subject to cl. b.
- b. Second part of current monthly charges (40%) shall be processed after ensuring compliance as per governing clauses and based on the due verification of the following documents.
 - i. performance reports as Annexure-V
 - ii. daily deck & engine logs with the work done
 - iii. Work done report as per clause 3.2 of the model contract and including routing, preventive and breakdown reports of the scientific equipment. Routine, preventive and breakdown of the vessel machineries report as per clause 2.8
 - iv. It is the responsibility of the contractor to make the timely payment to all entities engaged under this contract. In the event of any compliant receiving on non-payment same shall be forwarded for prompt settlement and submission of necessary proof. In case the contractor has not made due payment, respective institute may levy 2% of the outstanding payable as a penalty in any of the bills payable to the contractor. Any penalty/charges to be paid to such entity due to non-payment / delay in payment will be borne by the contractor.
 - v. Proof for payments to the sub-contractors, crew members for the preceding month. If there is any due for some reasons for the subcontractor, it shall not exceed 40% of their payable at any point of time.
 - vi. Scientific equipment operational status & work done report towards the maintenance of the equipment
 - vii. Cruise feedback report & action taken against the scientific user feedback along with required documents and certification by MoES Institutes.
 - viii. Other Reports as per contract clause 2.8 of the model contract
 - ix. The contractor is bound to submit all necessary documents within 30 days of invoice. The claims with unambiguous support documents will be settled/ adjusted within the first part of payment (60%) and remaining payable will be released and accounted for in the second part (40%) within 45 days of invoice. Processing of remaining claims if any, will be subject to satisfactory submission of supporting documentation.

18.13.4. Services charges for providing specialized Dry docking technical superintendent if any besides regular superintendent on owners request and Diving services if any etc. shall also be paid.

18.13.5. The payments shall be processed by MoES Institutes based on the equipment performance

and satisfactory deliverables as per clause 18.13.3

18.13.6. The payment for catering services to scientific team members shall be as per actual numbers on agreed unit cost of meal per day per person. Full day charges shall be leviable if more than two meals are served to a person. The rate shall be per day per person which is to include cost of all food, beverages and service charges. Less than two main meals will be charged 50% of per day charges. The certificate of onboard MoES representative for number of scientific team persons/days to be submitted along with the monthly bill.

18.13.7. For operation & maintenance of scientific equipment, the charges shall be paid to the contractor on satisfactory services and submission of cruise wise and monthly reports. The Contractor has to ensure that each of the equipment for which payments are sought during the quarter is tested at least once in a month. Operation for testing purpose shall also be considered as operation. The contractor shall maintain the equipment in a working condition and shall submit the report on readiness periodically once in month. The charges towards Operation & Maintenance of scientific equipment onboard six vessels shall be stated separately in the contract. The Operation & Maintenance charges for scientific equipment will be deducted proportionately for the downtime period if any equipment is nonfunctional, till rectification. It is essential that the equipment and all the sub-units are fully operational always. For partially operational equipment, the Institute at its discretion will consider such equipment as operational or non-operational depending on the usefulness of the data / samples depending on the cruise objectives / chief scientists' inputs and deductions thereof fully or proportionately. Cost of reverting into service / repairing any equipment found non-operational during time of commencement of contract will be paid separately as mutually agreed by MoES & bidder. For scientific equipment under warranty, Contractor is to do only preventive maintenance during the warranty period. The warranty services would be taken care by OEM, and the contractor has to coordinate with OEM for availing warranty services. If any new equipment is added, the necessary training will be provided through OEM and operation of the equipment & data collection and processing shall be carried out and if any repair, the same shall be serviced through under warranty with OEM.

18.14. *COMMUNICATION EQUIPMENTS ONBOARD:*

- a) The satellite telephone/ telex/ fax as the case shall be within the overall control of Master and he should maintain a log-book for all calls/ messages originated from the vessel. The Master shall be responsible for any discrepancy between the log-book details and telephone/telex bills from Communication Company. Charges for the telephone/telex/fax made by the Contractor and his men shall be borne by the Contractor. The relevant amount shall be deducted while making schedule payment to the Contractor. The quarterly report [status & work carried out] shall be submitted for all communication & navigation equipment from the shore based annual maintenance contractor.
- b) The shore based annual maintenance contractor of the communication equipment employed by the Contractor shall be under the overall control of Contractor. Contractor to be solely responsible for satisfactory up-keep and maintenance of overall communication and navigation equipment as required by the statutory authorities.
- c) Contractor must anticipate delay in sailing if any due to non-functionality of GMDSS equipment, and must liaise with concerned AMC contractor and rectify the same or arrange any alternate on his own and sail the vessel.
- d) Contractor can use the email facility onboard to communicate with their base and agents for Logistics and other official communications pertaining to the vessel operations which shall be allowed without charge and be borne by Owner.
- e) The subscription charges of fleet broadband/V-SAT shall be reimbursable as per tariff & approved by

- f) The monthly charges of Sat-C terminal charges for GMDSS equipment shall be reimbursable as per tariff & approved by MoES/NIOT/NCPOR/CMLRE.

19. PERIODIC INSPECTION:

MoES shall have the right to inspect/ survey, at its option and cost, at any and all times and at any port in India and abroad, the vessel, any and all items of machinery, equipments, tools, materials as well as supplies being provided by the Contractor or under this Agreement.

The Contractor undertakes and guarantees full and unhindered access to the vessel for inspection by the representative of MoES at any and all times. Items rejected on inspection, following standard Marine Practices shall be replaced by the Contractor. It is understood by both parties that any inspection by MoES, referred in this clause shall in no way reduce or diminish the Contractor's responsibility and obligation with respect to the statutory/ class requirements. It is the Contractor's express obligation to follow and observe all applicable laws, rules, regulations and orders of the land to keep the vessel afloat, in a safe, good, seaworthy and operational conditions at all times during the currency of this Agreement and any other extension thereof.

20. STATUTORY REQUIREMENT:

The vessel shall be employed in such lawful activities in the operational areas of offshore Indian-waters / International-waters. During the tenure of this contract, nothing shall be done by the Contractor in contravention to any law, Act and/ or Rules/Regulations, there under, or any amendment thereof governing inter-alia, sea-customs, "Stowaways", foreign exchange, Marine Pollution and National Security.

21. INSURANCE:-

- a) MoES/NIOT/NCPOR/CMLRE would directly take all insurances policies required for the vessels and premiums would be paid directly. Co-insurer shall be the contractor/ Ship Manager.
- b) In case of any accidents, leading to a liability, damage, injury, disability or death, an incident report (IR) must be filed within two days failing which the responsibility on liability shall be on the Contractor. Based on the incident report and enquiry, if the accident is attributed to the negligence of the Contractor and/ or his staff, the entire expenses towards repair and refit compensation shall be initially borne by the Contractor. Thereafter, any reimbursement, if and to the extent received from H&M or P&I Insurance shall be adjusted in favour of Contractor and any shortfall/ deductions in reimbursement received from the insurers/ P&I Club shall not be reimbursed. If the inquiry established otherwise, Contractor shall carry out the entire repairs, which shall be reimbursed by MoES/NIOT/NCPOR/CMLRE. In such cases the Insurance claims received shall be to MoES/NIOT/NCPOR/CMLRE account. Contractor to liaise with insurer of Hull and machinery, P&I to file claims and conduct surveys at no extra cost to MoES/NIOT/NCPOR/CMLRE. Contractor shall promptly settle any insurance claims payable under this contract to any employee or workmen employed under this contract pending settlement by insurance company directly to contractor where the insurable interest is that of contractor.

22. Support to Scientist:

The multipurpose Helmsman/ Seaman should assist the Scientist in carrying out scientific deck activities, including operation of winches, trawling workboats, collection of samples, operation of inflatable craft, Data buoy deployment and retrieval operation and operations of all other deck machineries and to assist in the operation/installations of scientific equipment as and when required.

23. CONTRACTOR'S DUTIES/OBLIGATIONS:

The Contractor's duties and obligations are detailed in the workscope and shall include, inter-alia, manning,

operation, victualling, repair and maintenance and provisioning of the vessel, with a view to provide round the clock logistics support services to MoES/NIOT/NCPOR/CMLRE Research operations. The Contractor shall keep the vessel in good running order and condition and in substantially the same condition in which it was received from MoES/NIOT/NCPOR/CMLRE. The Complete inventory of the vessel entire equipment, outfit, fixture appliances and of all stores and spares, are to be maintained at all time during the Agreement and any extension thereof.

23.1. WORKING HOURS AND UNIFORMS:

1. *Running, Manning and Maintenance:*

- a. The Contractors shall be responsible for the operation as mentioned in this agreement round-the-clock including Sundays/Holidays and other closed/public holidays through out the currency of this agreement.
- b. The Crew should be provided with working uniform and ceremonial uniform of the following nature at the Contractor's cost.
- c. Overall with safety helmet, ear muffs, gloves and safety shoes as working uniform for all ship staff.
- d. Black long pants and white full arm shirt with appropriate head gear and shoes as ceremonial uniform for Crew.
- e. All Officers to have white/black long pants and white full arm shirt and shoes with appropriate head gear and insignia as ceremonial uniform.
- f. Rain coats during the rainy season.
- g. Safety gears.
- h. Winter clothing for Southern Ocean cruise and other cold region sailings reflectors during night time.

2. *Catering and Housekeeping:*

- i. The Contractor shall be responsible for Catering and Housekeeping as mentioned in this agreement round-the-clock including Sundays/ Holidays and other closed/ public holidays throughout the currency of this agreement.
- j. The cook and the Assistant should be provided with a working uniform and a ceremonial uniform of the following nature at the quoted cost.
- k. Overall with a white Apron, shoes and appropriate head gear as working uniform.
- l. Black long pants and white full arm shirt, shoes with appropriate head gear as ceremonial uniform.
- m. Winter clothing for Southern Ocean / Cold region cruises-Appropriate clothing while handling freezer compartments.

23.2. OPERATIONS:-

1. *Running, Manning and Maintenance:*

- i. The Contractor shall be required to confirm the availability of Master, Officers and Crew on-board the vessel as required by Merchant Shipping Act.1958 as amended subsequently and or relevant National, International Maritime Acts as applicable to provide uninterrupted operation of the vessel round the clock throughout the period of this Agreement or any extension thereof.
- ii. The Master and Crew shall be experienced, trained, and competent man to operate and maintain supervise repair and survey of Research Vessels to the satisfaction of MoES/NIOT/ CMLRE/NCPOR, and also must invariably be in possession of requisite valid certificate of competency in accordance with the applicable law enforced by the Govt. of India or equivalent certificates from any other country recognized and approved by Govt. of India. The Crew should also have STCW training and to meet any eventuality that may arise onboard the Vessel or otherwise.
- iii. The Contractor shall be responsible for all operations, including, but not limited to, full maintenance and upkeep of the vessel and its equipment (including on-board spares and stores) and for carrying out repairs to hull, machinery, electrical/ electronic equipment and facilities on the vessels, regular cleaning

of furnishings as required by MoES/NIOT/CMLRE/NCPOR classification surveyors and to maintain the vessel in good shape, cleaned and painted and in efficient running condition during the currency of this Agreement.

- iv. The Contractor shall be responsible for periodical surveys and obtaining the renewal/ endorsements of various certificates from competent authorities required for the operation of the vessel under existing laws, rules and regulations of Govt. of India and classification societies as applicable and any other organization required by law/ under writers including any amendment thereof.
- v. The Contractor shall exclusively own all liabilities for and in respect of the Master and Crew deployed by the Contractor pertaining to their salaries, victuals, medical facilities, insurance coverage and any other requirement pertaining to the Master and Crew, including but not limited to their transport on shore/ offshore, laundry, welfare expenses, laundry of linen and furnishings etc. The copy of insurance coverage should be submitted during the takeover of the vessels. Any claim approved for ship crew under P&I coverage shall be passed to the contractor.
- vi. In the performance of its obligations under this Agreement the Contractor shall be deemed to be an independent Contractor and neither of their employees nor the Master nor Crew of the vessel shall be deemed to be servants, agents or employees of MoES, under any circumstances. Accordingly it will be the sole responsibility of the contractor with regard to the safety, security, conditions of employment including payment of minimum wages, insurance etc for such employees, master and crew as per all applicable laws and statutes.
- vii. The Contractor shall carry out all related jobs required to operate the vessel which shall include inter-alia navigation, maintenance, scientific operations / maintenance, handling of cargo on deck, receiving water, fuel into the tanks, be the case including handling lifting gears, slinging, protection of cargo on deck, provision in cold room/cool room, external and onboard or any other job warranted by the circumstances.
- viii. The Contractor shall attend to all port and customs formalities obtain port clearance and other services, if and as required. The Contractor shall pay port and light dues at all port(s). Such payments shall be reimbursed to the Contractor as per clause for reimbursements.
- ix. The Contractor shall be responsible for maintenance of daily Deck and Engine logbooks and submit the same to MoES/NIOT/CMLRE/NCPOR every month by the **7th of the following month**. In addition, monthly consumption of supplied fuel oil indicating receipts, consumption and balance on-board to be submitted along with the log-books duly signed by the Master and Chief Engineer of the vessel and Scientists/VMC who were on-board during that period and any additional details as and when required by MoES/NIOT/CMLRE/NCPOR.

2. *Catering and Housekeeping:*

- i. The Contractor shall be required to confirm the availability of cook and Assistant.
- ii. The cook and the Assistant shall be experienced, trained, and competent to perform to the satisfaction of the MoES/NIOT/CMLRE/NCPOR, and also must invariably be in possession of requisite valid certificate of competency in accordance with the applicable law enforced by the Govt. of India or equivalent certificates from any other country recognized and approved by Govt. of India. The cook and Assistant should also have training to meet any eventuality that may arise on-board the Vessel or otherwise.
- iii. **The Contractor shall be responsible for all the cleaning work, including, but not limited to, full maintenance and upkeep of the vessel and facilities on the vessel**, regular cleaning of ship's linen and furnishings as required by MoES/NIOT/CMLRE/NCPOR and to maintain the vessel in good shape, during the currency of this Agreement.

- iv. In the performance of its obligations under this Agreement the Contractor shall be deemed to be an independent Contractor and neither of their employees nor the Master nor Crew of the vessel shall be deemed to be servants, agents or employees of MoES/NIOT/CMLRE/NCPOR, under any circumstances.

23.3. REPLACEMENT OF THE VESSEL'S PERSONNEL:

MoES/NIOT/CMLRE/NCPOR may at any time request the Contractor to replace any member of the Crew (including its Master) as indicated in this Agreement, if MoES/NIOT/CMLRE/NCPOR has reasonable ground to come to the conclusion that any Crew member (inclusive of the Master) is professionally incompetent and might jeopardize safety of the vessel and personnel on-board or is otherwise undesirable due to such behaviour towards the representative of MoES/NIOT/ CMLRE/NCPOR in Offshore or in base port which may cause acute embarrassment to MoES/NIOT/CMLRE/NCPOR.

Such request by MoES/NIOT/CMLRE/NCPOR shall be made in writing to the Contractor who shall be obliged to accept such request and shall forthwith take necessary steps to replace the said person and provide suitable substitute within seven (7) days from the date of such request made in writing. It is hereby agreed that the person replaced as provided above shall not be reemployed by the Contractor without prior written consent of MoES/NIOT/CMLRE/NCPOR.

23.4. WATCH & WARD:

The Contractor should ensure adequate safety to the vessel and its contents. Ship crew may take care of security aspects. Contractor shall be responsible for security to the vessel and equipment onboard. Any loss of material should be reported immediately to MoES/NIOT/CMLRE/NCPOR and should be replaced by the Contractor at his cost. Any claim money through insurance received shall be to the benefit of the Contractor.

23.5. MAINTENANCE OF THE VESSELS:-

The upkeep of the vessel shall be the prime and exclusive responsibility of the Contractor. The Contractor shall ensure that the vessel is always safe, seaworthy and in ship shape condition to the entire satisfaction of MoES/NIOT/CMLRE/NCPOR, the classification society and the statutory surveyors.

- a. **Maintenance:** The Contractor is to go through the list of equipment minutely to place a maintenance strategy with OEM or NON-OEM schedule. AMC with OEMs for EVAC, Navigation, communication & GMDSS equipment and Scientific winch shall be established, and respective charges will be paid as per the contract price based on the work submission report and payment proof with OEMs.
- b. As it is practically not possible to have OEM service coming from abroad to be available for emergency breakdown jobs, the Contractor shall make the best efforts to get the Service Engineers from abroad for timely attendance of repair. It is however allowed to use NON-OEM specialists to attend to OEM equipment where OEM services are not readily available for emergencies with approval from MoES/NIOT/CMLRE/NCPOR.
- c. **Maintenance contract on shipboard system with OEMs:** It is also the responsibility of the Contractor to foresee the spares requirement and liaise with OEM for obtaining quotations and other procurement procedures with MoES/NIOT/CMLRE/NCPOR. In case of any break-down of any OEM equipment (covered under total management scope), the Contractor shall make efforts to send the defective component to OEM for repair/replacement. The expenditure towards packing/ airfreight/ Customs duty/ transportation /insurance, etc., shall be reimbursed by MoES at actuals in case of repairs at foreign OEM facilities. Repairs cost not reimbursable.

23.6. SCHEDULING:-

Without affecting the general obligation provided in the foregoing clause, the Contractor shall be responsible for the following in particular:

- a. To plan and implement a suitable preventive maintenance schedule as per OEM/MoES/NIOT/CMLRE/NCPOR requirement for minimizing breakdown of machinery in order to ensure the operational availability of all equipment for a maximum period
- b. Plan, report and requirement of spare should be submitted to MoES/NIOT/CMLRE/NCPOR for approval within 60 days from the date vessel is handed over to the Contractor and every month thereafter.
- c. To plan and keep stand by various requirement so all types of spares, stores, specialized equipment tools and services required for specific job, and various types of consumable items required for operations.

23.7. REVALIDATION OF STATUTORY CERTIFICATES:

The Contractor shall arrange for revalidation of different class and statutory certificates of the vessel, as and when required and MoES/NIOT/CMLRE/NCPOR shall reimburse the cost of surveyor's fees and classification society charges excluding charges as specified under Contractor's obligation.

23.8. ACCIDENT:

All expenses incurred including but not limited to inspection survey, dry-docking, pilotage, wharfage, port and light charges etc. in respect of repairs arising out of damages caused by an accident due to the negligence of Contractor and his Crew, other than total loss, shall be borne exclusively by the Contractor. No liability on this account shall occur to MoES/NIOT/CMLRE/NCPOR under any circumstances. However, any reimbursement as received by MoES/NIOT/CMLRE/NCPOR from the underwriters on above account shall be for the benefit of the Contractor, except in the case of total loss.

23.9. SUPPLY OBLIGATION:

The Contractor shall at his own cost fully store and provision the vessel without any additional cost to MoES for Transportation, customs clearance, loading and unloading. His liability shall extend to all stores including but not limited to fully store the saloon stores, galley stores, bosun stores, stationery, freon gas, engine room stores, all equipment and machinery fitted in vessel, tools, supplies including lubricants, greases and all other stores required to run the machinery, mooring lines, shackles and any other items required for vessel operation reimbursement if any shall be governed by items indicated in the chapter 'Reimbursements'.

23.10. The Contractor shall supply all log-books and other stationeries to the vessel after getting the approval of MoES to the format. Stationery includes computer, printer, stationeries and photocopier cartridges also.

24. LIABILITY OF MoES:

The MoES Institutes shall:

- a. Make available drawings, manuals and literature of the vessel, if available, to the Contractor as and when required for carrying out his obligations hereinafter.
- b. Assist the Contractor at his cost without any commitment, in obtaining clearances from Govt. agencies to import spares and such other assistance permissible under law of the land.
- c. To reimburse all charges connected with pilotage, berth hire charges, Customs duties, Port and light dues at all ports of India/ abroad reimburse to the Contractors at actual and any other reimbursements as per the agreement.
- d. Cost of supply of fuel oils on-board shall be borne by MoES.

- e. Boarding and lodging on-board (Catering, salaries, etc.) for Contractor Crew during non-compensable down-time shall be to the Contractor's account.

25. TAXES:-

GST as applicable shall be paid at actuals. The Contractor has to submit the proof of payment made to the tax regulatory authority on regular basis for claiming reimbursement.

a. *PERSONNEL:*

Any taxes assessed on employees of the Contractor and / or his sub-contractor based on income earned in the performance of work under this Agreement shall be the responsibility of the Contractor and / or employees, and not of MoES/NIOT/NCPOR/CMLRE.

b. *CORPORATE:*

Any taxes assessed on the income of the Contractor shall be the responsibility of the Contractor and paid by the Contractor. MoES/NIOT/NCPOR/CMLRE may, however, deduct income tax at source in accordance with Indian Income-tax Act and rules.

- c. Any other duties, levies (except GST) that are payable or that may be levied during the currency of this agreement, as per the Central/State Government/ local authorities' laws/regulations/rules shall be paid by the Contractor and no reimbursement of such payments shall be made by MoES.
- d. The reimbursements will not attract GST, however GST shall be applicable for cost of services rendered like overheads etc.

26. Lay-off / Downtime:-

- a. The Contractor shall be allowed Lay-off of 15days per vessel per operating year for maintenance/ repair of the vessel. For these allowable/permissible down-time, the Contractor shall be paid normal day rate. This lay-off is provided if no drydocking is taken up in that year.
- b. For any down-time due to major break-down of machinery just before sailing (12hours), an allowable of down-time of 12 hours is provided from the scheduled sailing time beyond which the appropriate penalty/LD clause shall apply.

27. CHANGE IN LAW:-

If there is a change in or enactment of any law in India after the date of placement of LOI/ TOI which results in subsequently additional cost/ savings to MoES/NIOT/NCPOR/CMLRE on account of such enactment having effect on this Agreement, the Contractor shall reimburse MoES/NIOT/NCPOR/CMLRE or MoES/NIOT/NCPOR/CMLRE shall pay to the Contractor as the case may be for such cost/ savings and the two parties shall discuss and mutually agree on the method and extent to which MoES/NIOT/NCPOR/CMLRE Contractor should be compensated/paid for provided. However, that provision of this Article shall not apply to any other levies except GST.

28. CONSEQUENTIAL DAMAGES:-

Neither MoES/NIOT/NCPOR/CMLRE nor Contractor shall have any claim against each other for any consequential damages.

29. SAFETY DRILLS:-

The Contractor should carry out the following safety drills as per schedules mentioned below:

- a. Boat drill and fire drill—as per regulations or once in a week and within 24 hours of starting of

every voyage.

- b. Trial of rescue boat in water should be done every 15 days.
- c. Compliance of above must be recorded in Log-book and authenticated by MoES/NIOT/NCPOR/CMLRE representative.

30. INDEMNITY:-

- a. MoES/NIOT/NCPOR/CMLRE agrees to protect and hold the Contractor and the employees of the Contractor, harmless from against all claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation there to, demands cost and expenses for personal injuries illness of death of any other MoES/NIOT/NCPOR/CMLRE employees, arising out of work performance here under.
- b. The Contractor agrees to protect and hold MoES/NIOT/NCPOR/CMLRE and all its employees harmless from and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation there to demands, costs and expenses for personal injuries, illness or death of any of Contractor's employees, its agents, contractors or sub-contractors, arising from any case whatsoever, throughout the period of this Agreement, except to the extent that can be claimed and is paid by the H&M or P&I insurers.

31. TERMINATION:

- i. In the event of the Contractor going into liquidation or winding up of business or making arrangement with his creditors, this agreement shall stands terminated from the date of occurrence of such event. This termination shall be without prejudice to any other rights to remedies, available to MoES/NIOT/CMLRE/NCPOR under this Agreement. In such a case the performance bank guarantee shall be encashed by MoES/NIOT/CMLRE/NCPOR.
- ii. In the event of MoES deciding to wind up the operations of the vessels due to technical or other reasons, the contract stands terminated after two months notice. Under such circumstances MoES shall compensate the Contract or for losses incurred on account of bank guarantee charges and other certified claims.
- iii. In the event of any breach of terms and conditions of this Agreement or unsatisfactory performance of the Contractor, MoES shall have the right to terminate the Agreement forth with. The decision of MoES under this clause shall be final.
- iv. In the event of any breach of terms and conditions of this Agreement due to the part of MoES, the Contractor shall have the right to request for termination of this agreement by giving a notice of **90** days.
- v. MoES reserves the right to terminate the Agreement at any time after expiry of six months of contract by giving **90** days notice in writing to the other party without assigning any reason whatsoever.
- vi. In the event the Contractor becomes insolvent and assigns its interest under this Contract agreement for the benefit of creditors or is adjudged bankrupt, the Contract shall stand terminated from the date and the performance bank guarantee shall be encashed by MoES/NIOT/CMLRE/NCPOR.
- vii. If the vessel is in operative and is not made available to MoES/NIOT/CMLRE/NCPOR for its use for **30** continuous days, MoES at their option can terminate this Agreement without giving any further notice.
- viii. If terminated on non-performance of contractual obligation such Contractor shall be banned from participation in all future tenders of MoES/NIOT/CMLRE/NCPOR.
- ix. The contract may also be terminated in respect of one or more vessels, without necessarily terminating

the contract in its entirety for all vessels.

32. POLLUTION AND CONTAMINATION:

Notwithstanding anything to the contrary contained herein, it is understood and agreed by and between the Contractor and MoES/NIOT/CMLRE/NCPOR that the responsibility for pollution or contamination seashore and environment caused by the vessel and/ or the equipment of the vessel shall be as follows:

- a. The Contractor shall assume all responsibility for clearing up and containing pollution or contamination caused as a result of the negligence of the Contractor's Crew which originates from the vessel or its equipment on the surface of the water from spills of fuels, lubricants, motor oils, ballast, bilge and garbage, engine exhaust and effluents. All costs incurred thereto may be claimed from the H&M and/or P&I insurers or third parties and reimbursements received would be adjusted in favour of the Contractor.
- b. MoES/NIOT/CMLRE/NCPOR shall assume all responsibility for (including control and removal of pollution involved) and shall protect, defend and save the Contractor harmless from against all claims, demands and causes of action of every kind and nature arising from all pollution or contamination of sea shore and environment other than that described above which may occur during the term of this Agreement, or as a result of MoES/NIOT/CMLRE/NCPOR operation hereafter, including but not limited to that which may result from fire or damage to the vessel. In such cases, any reimbursements received from the H&M and/or P&I insurers or third parties shall be to the account of MoES/NIOT/CMLRE/NCPOR.

33. ASSIGNMENT:

The Contractor shall not except without the express prior approval in writing of the assigning of specific responsibilities to such approved sub-contractor or assign his obligations or any benefit or interests in the contracts or any part thereof in any manner whatsoever. Any such assignment shall not absolve the Contractor from their primary responsibilities and specific performance under this contract.

34. INTERPRETATION:

The titles and readings of the sections in this Agreement are inserted for convenient reference only and shall not be construed as limiting or extending the meaning of any provision of this agreement.

35. LABOUR LAWS:

The Contractor shall comply with all labour laws of the country as applicable for shipping management and operations including but not limited to the Contract labour (Regulation and Abolition) Act 1971, Minimum wages Act, INSA-MUI agreement and MLC. Violation of any of the labour laws by the Contractor shall be entirely at his risk and cost. Should MoES is required to pay deposit any amount to any employee of the Contractor under the orders of any authority for enforcement of labour laws, the same shall be deducted from Contractor's bills and for by enforcing the Bank Guarantee furnished by the Contractor.

36. COMPLIANCE OF LAWS:

Compliance of all laws such as labour income tax, corporate tax, etc., shall be to Contractor's account.

37. PAYMENT OF WAGES:

The Contractor shall pay the wages directly to the workmen as per governing laws of such employment for shipping operations The Contractor shall also ensure that no amount by way of MoES or otherwise is deducted or recovered by them or their sub contractors from the wages of any employee under this contract. All Manpower and its emoluments details are required to be submitted by the contractor as and when required by the MoES/NIOT/CMLRE/NCPOR.

38. NOTICE:

All notice required herein to be given shall be deemed to have properly made when delivered or when sent in writing like Fax/Letter addressed to the applicable party as follows: All notices on behalf of MoES shall be sent by signatory of this contract who shall be the overall coordinator of this contract from MoES.

39. Integrity Pact (IP):-

The Integrity Pact would be implemented through a panel of two Independent External Monitors (IEMs) appointed by the Ministry of Earth Sciences. The names and contact details of the IEMs are mentioned in the Integrity Pact as enclosed as Annexure-C. Signed by both Contractor and Owner. The IEM would review independently and objectively assess, as to whether and to what extent parties have complied with their obligations under the IP. Also, IEM would have access to all documents, whenever required. The Contractor may raise disputes / complaints if any, with the IEMs (Shri. Ajay Kumar Lal, IRAS (Retd.): ajay_k_lal@yahoo.com, Shri. Pavan Kumar Jain, IDSE (Retd.): mespkj@gmail.com). The sanctions stated in Integrity Pact as at Annexure- C for violation of any clause of the Integrity Pact are applicable.

40. Severability:-

If for any reason whatever, any provision of this contract is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be valid, illegal or unenforceable, the validity, legality or unenforceability of the remaining provisions shall not be affected in any manner, and the parties shall negotiate on good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the dispute resolution procedure set forth under this contract or otherwise.

41. No Partnership or employee relationship

This contract shall not be interpreted or constructed to create an association, joint venture, partnership and principal-agent or employer-employee relationship between the parties. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, on act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other party, other than as expressly provided in this contract.

42. Successor and assigns:-

This contract shall be binding upon and ensure to the benefit of the parties and their respective successors and permitted assigns.

43. Stamp Duty:-

The Contractor will purchase of two numbers Non-Judicial Stamp Paper of Rs. One Thousand (Rs.1000/- each) (to be borne by the Contractor) for the purpose of executing the contract between MoES and Successful bidder.

In case MoES wishes to register the agreement for whatever reasons, all costs towards this shall be on account of MoES.

44. Confidentiality: -

- i. The contractor shall maintain confidentiality during the contract period as well as after the completion/termination/cancellation of the contract.
- ii. An undertaking from the Scientific partner shall be submitted to MoES to maintain confidentiality during the contract period as well as after the completion/termination/ cancellation of the contract

IN WITNESS WHERE the parties here to sign the Agreements as of the date herein above written.

FOR AND ON BEHALF OF CONTRACTOR

FOR AND ON BEHALF OF MoES

CONTRACTOR

MoES

1 WITNESS

1. WITNESS

2 WITNESS

2. WITNESS

Bid Securing Declaration Form

Date: _____

E-Tender No: NIOT/HVT/1416/2025-2026

E-Tender Title: Total Management of MoES Research Vessels including maintenance and operation of scientific equipment

To,

NATIONAL INSTITUTE OF OCEAN TECHNOLOGY
VELACHERY TAMBARAM MAIN ROAD,
NARAYANAPURAM, CHENNAI 600 100

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am/ We are in a breach of any obligation under the bid conditions, because I/We

- a) Have withdrawn/modified /amended impairs or derogates from the tender, my /our Bid during the period of bid validity specified in the form of Bid: or
- b) Having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder:

Signed: (Insert signature of person whose name and capacity are shown)

In the capacity of (insert legal capacity of person signing the Bid Security Declaration)

Name: (insert complete name of person signing the Bid Security Declaration)

Duly authorized to sign the bid for an on behalf of (insert complete name of Sole bidder/ Joint Venture /Leader of Consortium)

Dated on _____ day of _____ (insert date of signing)

Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Security Declaration must be in the name of all partners to the Joint Venture that submits the bid)

(Note: In case of a Consortium, the Bid Security Declaration to be signed by consortium lead partners that submits the bid)

Housekeeping & Catering menu

Housekeeping works include

- Change of linens, stating of new cruise & after towels weekly
 - Regular replenishment of paper tissues/room fresheners in all accommodation areas/ rest rooms
 - Cleaning of Toilets twice a day i.e. morning and night
 - Vacuum cleaning of carpets, cabins, labs and alleyways daily
 - Mopping and cleaning of Cabins, Labs and alleyways daily
 - Soaps and washing power 500grms should be provided once every fifteen days for all scientists
- Every fortnight
- Soap: Mysore sandal/Chandrika/Cinthol/Lux
 - Washing power: Ariel/Surf XL (500 grs)

Breakfast 08:00 to 09:00 Hrs	Juice – 200 ml Bread toast, butter, jam, Cereal, Egg to order Dosai / Idly / Pongal / Vada / Chapathi / Puri / Paratha Chutney Sambar / Kurma Tea / Coffee / Milk
Snacks 10:30 Hrs	Lime Juice / Tea / Coffee / Fruit Juice (reputed brands) Biscuits / snack
Lunch 13:00 to 14:00 Hrs	Vegetable salad One soup One non-veg item – (Dry or Gravy) One vegetable item (Gravy) with Paneer or mushroom One vegetable item (dry) Dhal / Sambar / other type of veg kozhumbu / Rasam Pappad, pickles Rice/ Noodles / Pulav / Biryani / Veg. fried rice / Burger / Pizz or equivalent, Biryani weekly twice. Chapathi / Roti Fresh curd / Cheese Dessert
Snacks 15:30 Hrs	Tea / Coffee Biscuits / snack / Samosa / Chaat
Dinner 19:00 Hrs to 20:00 Hrs	Vegetable salad One soup One non-veg item – (Dry or Gravy) One vegetable item (Gravy) with special items like kofta /Stuffed/Chinese type One vegetable item (dry) Chapathi / Roti Dhal / Sambar / other type of veg kozhumbu / Rasam Rice (Vegetable fried rice or Biryano weekly twice) / Noodles / Pasta Dessert – Sweets / Canned fruits / ice cream

- Packaged drinking water to be supplied along with food for all scientists

- Night tray with bread butter, ready-to-cook-noodles, tea/coffee, snacks. Eggs to be provided on all days. Drinks (like soft drinks, Amul cool, Butter Milk, Lassi etc) to be provided once a day for all scientists.
- Tea/Coffee round the clock

Menu for VIP meal;

- i. Vegetable salad
- ii. One soup [veg/non-veg]
- iii. One non-veg item – (Dry-starter)
- iv. One veg item – (Dry-starter)
- v. One vegetable item (Gravy) with Paneer or mushroom
- vi. One non-veg gravy
- vii. Boiled egg
- viii. Dhal / Sambar / Rasam
- ix. Pappad, pickles
- x. Pulav / Biryani / Veg. fried rice or equivalent
- xi. Rice
- xii. Chapathi / Roti
- xiii. Fresh curd
- xiv. Dessert [Ice cream, sweet and fruits]

Monthly reports (to be submitted with monthly bill)

Sl.No	Service	Report
1	Performance of Master	Enclose chief scientists & owner representative reports
2	Performance of Chief Officer	
3	Performance of Chief Engineer	
4	Performance of ETO	
5	Performance of Deck Crew	
6	Performance of Housekeeping	
7	Performance of Catering services	
8	Performance of Scientific equipment operator	
9	Overall upkeep of the vessel and availability of the vessel machinery for scientific cruise support	
10	Service rendered for clearance at Ports, Pilotage etc	
11	Maintenance in Engine side	Enclose maintenance record and condition of machinery for the month. Log for corresponding month to be submitted along with Fuel & lube oil consumption and availability
12	Maintenance in Deck side	Enclose maintenance record and condition for the month Log for corresponding month to be submitted along with freshwater generation, purchase and availability
13	Work done details/report	a. As per contract clause 2, 3 & 13 b. Spares/consumables supplied as per contract clause 13
14	Operation of scientific equipments and status of the same	Complete details of maintenance and operation carried out for each scientific equipment with the endorsement of Chief Scientist Scientific cruise raw, processed data and test data shall be submitted to VMC
15	Crew List	Crew list including crew change if any, shall be submitted

Comments of :

Master

Operator Representative

Owner Representative

Annexure – VI - Ship Crew/ Officer experience

Sl.No	Crew Name	CRV Sagar Tara & Sagar Anveshika
2.1	Master	Qualified NCV Master certificate, valid COC and CDC along with minimum of two years experience as a Master in above 300GT vessel
2.2	Chief Officer cum OICNW	Qualified NCV Chief mate, Radio certificate, valid COC and CDC along with minimum of two years as a Chief Officer in above 300GT vessel
2.3	Chief Engineer	Qualified MEO Class II/ MEO Class III (NCV Chief engineer) with One year exp., valid COC and CDC as a Chief Engineer in above 300GT vessel
2.4	2nd Engineer	Qualified MEO Class III(NCV second engineer) with One year exp., valid COC and CDC as a Second Engineer in above 300GT vessel
2.5	3rd Engineer	Qualified MEO Class IV with one year experience of OICEW, valid COC and CDC as a Fourth Engineer in above 300GT vessel
2.6	Electro-Technical Officer (ETO)	Certified ETO with minimum of two years experience
2.7	Helmsman/Navigational watch keeper	Minimum of two years experience as a Navigational watch in addition to the Reg.II/4 or II/5 STCW'78 as amended
2.8	Deck crew / ratings – 3 nos	Minimum of two years experience as a deck crew/engine rating in above 200GT vessel
2.9	Engine crew / rating – 1 no	
2.10	Cook	Minimum of three years experience as a chief cook in above 300GT vessel
2.11	Saloon rating	Minimum of two years experience as a saloon rating in above 200GT vessel
Note: At least two officers should possess COC as GMDSS Operator		

Sl.No.	Particulars	Sagar Nidhi
2.1	Master FG	Qualified FG Master certificate, valid COC and CDC along with minimum of two years experience as a Master, DP certified and with the experience of handling DP vessels for two years
2.2	Chief Officer FG	Qualified FG Chief Mate certificate, valid COC and CDC along with minimum of two years experience as a Chief Officer, experience of handling DP vessels for two years
2.3	2nd Officer FG	OICNW, Qualified FG Second Mate certificate, valid COC and CDC along with minimum of two years experience as a Second Officer
2.4	3rd Officer FG	NW rating, Qualified FG Third Mate certificate, valid COC and CDC along with minimum of two years experience as a Third Officer
2.5	Chief Engineer FG	Qualified FG Chief Engineer certificate [MEO Class I], valid COC and CDC along with minimum of two years experience as a Chief Engineer, with the experience of handling DP vessels for two years
2.6	2nd Engineer FG	Qualified FG Second Engineer certificate [MEO Class II], valid COC and CDC along with minimum of two years experience as a Second Engineer
2.7	3rd Engineer FG	OICEW, Qualified MEO Class IV certificate, valid COC and CDC along with minimum of two years experience as a Fourth Engineer
2.8	4th Engineer FG	EW rating, Qualified MEO Class IV certificate, valid COC and CDC along with minimum of one year experience as a Fourth Engineer
2.9	Electro-Technical Officer (ETO)	Certified ETO with minimum of two years experience
2.10	Electro-Technical Officer (ETO)	Certified ETO with two years exp. of Electronics background
2.11	Medic / Nurse	As per DG guidelines
2.12	Helmsman/ Navigational Watch	Minimum of two years experience as a Navigational watch in addition to the Reg.II/4 STCW'78 as amended

2.12a	Deck crew / ratings	Minimum of two years experience in FG vessel as a deck crew/engine rating
2.13	Engine crew / ratings	
2.14	Fitter / Oiler	Minimum of two years experience in FG vessel as a fitter/oiler
2.15	Chief cook	COC as a cook with minimum of three years experience in FG vessel
2.16	2nd cook	Minimum of three years experience as a second cook in FG vessel
2.17	Saloon rating	Minimum of two years experience as a saloon rating in above 200GT vessel
Note: At least two officers should possess COC as GMDSS Operator		

Sl.No	Crew Name	Sagar Manjusha
2.1	Master	Qualified NCV Master certificate, valid COC and CDC along with minimum of two years experience as a Master in above 500GT vessel
2.2	Chief Officer	Qualified NCV Chief mate, Radio certificate, valid COC and CDC along with minimum of two years as a Chief Officer in above 500GT vessel
2.3	2nd Officer	Office in charge of Navigational watch (OICNW), valid COC and CDC with minimum of two years experience as a second officer in above 500GT vessel
2.4	Chief Engineer	Qualified MEO Class II/ MEO Class III (NCV Chief engineer) with One year exp., valid COC and CDC as a Chief Engineer in above 500GT vessel
2.5	2nd Engineer	Qualified MEO Class III(NCV -second engineer) with One year exp., valid COC and CDC as a Second Engineer in above 300GT vessel
2.6	4th Engineer	Qualified MEO Class IV with one year experience of OICEW, valid COC and CDC as a Fourth Engineer in above 300GT vessel
2.7	Electro-Technical Officer (ETO)	Certified ETO with minimum of one year experience
2.8	Helmsman/ Navigational Watch	Minimum of two years experience as a Navigational watch in addition to the Reg.II/4 STCW'95
2.9	Deck crew / ratings	Minimum of two years experience as a deck crew/engine rating in above 200GT vessel
2.10	Engine crew / ratings	
2.11	Chief cook	COC as a cook with minimum of three years experience as a chief cook in above 300GT vessel
2.12	2nd cook	Minimum of three years experience as a second cook in above 300GT vessel
2.13	Saloon rating	Minimum of two years experience as a saloon rating in above 200GT vessel
Note: At least one officer should possess COC as GMDSS Operator apart from sl. No. 2.3		

Sl.No.	Particulars	Sagar Sampada	
2.1	Master FG	Qualified FG Master certificate, valid COC and CDC along with minimum of two years experience as a Master, DP certified and with the experience of handling DP vessels for two years	For NCV crew/officer, the crew shall have the respective experience in NCV instead of FG prescribed here.
2.2	Chief Officer FG	Qualified FG Chief Mate certificate, valid COC and CDC along with minimum of two years experience as a Chief Officer, experience of handling DP vessels for two years	
2.3	2nd Officer FG	OICNW, Qualified FG Second Mate certificate, valid COC and CDC along with minimum of two years experience as a Second Officer	
2.4	3rd Officer FG	NW rating, Qualified FG Third Mate certificate, valid COC and CDC along with minimum of two years experience as a Third Officer	
2.5	Chief Engineer FG	Qualified FG Chief Engineer certificate [MEO Class I], valid COC and CDC along with minimum of two years experience as a Chief Engineer, with the experience of handling DP vessels for two years	
2.6	2nd Engineer FG	Qualified FG Second Engineer certificate [MEO Class II], valid COC and CDC along with minimum of two years experience as a Second Engineer	
2.7	3rd Engineer FG	OICEW, Qualified MEO Class IV certificate, valid COC and CDC along with minimum of two years experience as a Fourth Engineer	
2.8	4th Engineer FG	EW rating, Qualified MEO Class IV certificate, valid COC and CDC along with minimum of one year experience as a Fourth Engineer	
2.9	Electro-Technical Officer (ETO)	Certified ETO with minimum of two years experience	
2.10	Helmsman/Navigational watch keeper	Minimum of two years experience as a Navigational watch in addition to the Reg.II/4 or II/5 STCW'78 as amended	
2.11	Medic / Nurse	As per DG guidelines	
2.12	Oiler/Fitter	Minimum of two years experience in FG vessel as a fitter/oiler	
2.13	Deck crew / Helmsman / ratings –6 nos	Minimum of two years experience as a deck crew/engine rating in above 200GT vessel	
2.14	Engine crew / ratings –6 nos		
2.15	Cook	COC as a cook with minimum of three years experience in FG vessel	
2.16	2nd cook	Minimum of three years experience as a second cook in FG vessel	
2.17	Laundryman /UH / Saloon ratings	Minimum of two years experience as a saloon rating in above 200GT vessel	
Note: At least two officers should possess COC as GMDSS Operator			

Sl.No.	Particulars	Sagar Kanya
2.1	Master FG	Qualified FG Master certificate, valid COC and CDC along with minimum of two years experience as a Master, DP certified and with the experience of handling DP vessels for two years
2.2	Chief Officer FG	Qualified FG Chief Mate certificate, valid COC and CDC along with minimum of two years experience as a Chief Officer, experience of handling DP vessels for two years
2.3	2nd Officer FG	OICNW, Qualified FG Second Mate certificate, valid COC and CDC along with minimum of two years experience as a Second Officer
2.4	3rd Officer FG	NW rating, Qualified FG Third Mate certificate, valid COC and CDC along with minimum of two years experience as a Third Officer
2.5	Chief Engineer FG	Qualified FG Chief Engineer certificate [MEO Class I], valid COC and CDC along with minimum of two years experience as a Chief Engineer, with the experience of handling DP vessels for two years
2.6	2nd Engineer FG	Qualified FG Second Engineer certificate [MEO Class II], valid COC and CDC along with minimum of two years experience as a Second Engineer
2.7	3rd Engineer FG	OICEW, Qualified MEO Class IV certificate, valid COC and CDC along with minimum of two years experience as a Fourth Engineer
2.8	4th Engineer FG	EW rating, Qualified MEO Class IV certificate, valid COC and CDC along with minimum of one year experience as a Fourth Engineer
2.9	Electro-Technical Officer (ETO)	Certified ETO with minimum of two years experience
2.10	Helmsman/Navigational watch keeper	Minimum of two years experience as a Navigational watch in addition to the Reg.II/4 or II/5 STCW'78 as amended
2.11	Medic / Nurse	As per DG guidelines
2.12	Oiler/Fitter	Minimum of two years experience in FG vessel as a fitter/oiler
2.13	Deck crew / Helmsman / ratings –6 nos	Minimum of two years experience as a deck crew/engine rating in above 200GT vessel
2.14	Engine crew / ratings –6 nos	
2.15	Catering /Housekeeping officer FG	COC as a Cook with minimum of three years experience as a Catering /Housekeeping officer in FG vessel

2.16	Cook	COC as a Cook with minimum of three years experience in FG vessel
2.17	2nd cook	Minimum of three years experience as a second cook in FG vessel
2.18	Laundryman / UH /Saloon ratings	Minimum of two years experience as a saloon rating in above 200GT vessel
Note: At least two officers should possess COC as GMDSS Operator		

Tender Inviting Authority: Director, National Institute of Ocean Technology, Chennai

Name of Supply: Total Management of MoES Research Vessels including maintenance and operation of scientific equipment

Tender No: NIOT/HVT/1416/2025-2026

Name of the Bidder/ Bidding Firm /												
PRICE SCHEDULE												
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)GST to be entered by the bidder as per the applicable HSN Code												
NUMBER #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER	NUMBER	NUMBER	NUMBER	TEXT	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Quoted Currency in INR / Other Currency	Unit Rate for 1st Year	Total Rate for 1st Year	Unit Rate for 2nd Year	Total Rate for 2nd Year	Unit Rate for 3rd Year	Total Rate for 3rd Year	TOTAL AMOUNT Without Taxes	TOTAL AMOUNT In Words
1	2	3	4	5	6	7	8	9	10	11	12	13
1.00	ORV Sagar Kanya											
1.01	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the model contract)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
1.02	Agency Services (Indian port call)	10	Per port call	INR		0.00		0.00		0.00	0.00	INR Zero Only
1.03	Agency Services (Foreign port call)	1	Per port call	INR		0.00		0.00		0.00	0.00	INR Zero Only
1.04	Management Fee as per work scope	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.00	Per day manning cost (including victualling)											
2.01	Master FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.02	Chief Officer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.03	2nd Officer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.04	3rd Officer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.05	Chief Engineer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.06	2nd Engineer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.07	3rd Engineer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.08	4th Engineer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.09	Electro-Technical Officer (ETO)	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.10	Medic / Nurse	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.11	Catering /Housekeeping officer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.12	Chief Cook	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.13	Fitter / Oiler –2 nos (365*2 persons)	730	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.14	2 nd cook (365*2 persons)	730	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.15	Deck crew / Helmsman / ratings –6 nos (365*6 persons)	2190	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.16	Engine crew / ratings –6 nos (365*6 persons)	2190	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.17	Laundryman / Saloon ratings - 4 nos (365*4 persons)	1460	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
2.18	UH crew	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
3.00	Fresh water rate / ton	1500	Per ton	INR		0.00		0.00		0.00	0.00	INR Zero Only
4.00	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	INR		0.00		0.00		0.00	0.00	INR Zero Only
5.01	Superintendent for drydocking (all inclusive) per day rate-Indian Yard	35	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
5.02	Superintendent for drydocking (all inclusive) per day rate-Foreign Yard	35	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.00	Scientific equipment maintenance [routine, preventive & break down] only (annual charges including requisite manpower and their victualling).											
6.01	Kongsberg EM304 MK II Deep Sea Multibeam Echosounder with post-processing / plotting facilities.	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.02	Deep Sea Echosounder (SyQwest 12 kHz / 30 kHz)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.03	Shallow Water Echosounder	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.04	G-882 Cesium Magnetometer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.05	Sub-Bottom Profiler	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.06	Side Scan Sonar	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.07	Pinger	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.08	18m Hydraulic Piston Corer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.09	6m Gravity Core	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.10	Spade Corer	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only

6.11	Sediment Grabs [2 nos - area of 0.2 m ² and approx. weight-85 kg 4 nos - area of 0.5 m ² and approx. weight-150 kg]	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.12	Core Sub-Sampling Stn	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.13	Pipe Dredge	3	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.14	Core Liner Cutter	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.15	Skalar Autoanalyser.	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.16	Hydro-Bios Automatic Multi-Plankton Net	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.17	Seabird CTD with Rossette Sea-water Sampling facility.	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.18	Idronaut CTD with Rossette Sea-water Sampling facility.	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.19	Niskin Water Sampler [Capacity is provided below]											
6.20	1.7 Ltrs	60	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.21	5 Ltrs	10	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.22	10 Ltrs	18	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.23	30 Ltrs	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.24	Go Flow Water Sampler [Capacity is provided below]											
6.25	30 Ltrs	6	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.26	12 Ltrs	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.27	Sippican Expendable Bathy Thermograph (XBT)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.28	RDI 150 kHz Acoustic Doppler Current Profiler	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.29	Salinometer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.30	Thermosalinograph	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.31	Dynamic Positioning system	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.32	HiPAP system	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.33	LCD projector / screen	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.34	GPS + Power Supply	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.35	Meterwheel Unit (For CTD)	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.36	Autoclave	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.37	Tension meter for Deep Sea Winch	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.38	Rock Saw	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.39	Rock Mill	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.40	Deep Sea Winch / Friction Winch / Zibboom	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.41	CTD Winches - 2 nos + 1 Gantry	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.42	Magnetometer winch	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.43	Side Scan Sonar	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.44	A-frame	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.45	N/Oilwell Crane	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
6.46	Atlas Cranes - 2nos	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.00	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)											
7.01	Kongsberg EM304 MK II Deep Sea Multibeam Echosounder with post-processing / plotting facilities.	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.02	Deep Sea Echosounder (SyQwest 12 kHz / 30 kHz)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.03	Shallow Water Echosounder	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.04	G-882 Cesium Magnetometer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.05	Sub-Bottom Profiler	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.06	Side Scan Sonar	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.07	Pinger (2nos.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.08	18m Hydraulic Piston Corer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.09	6m Gravity Core (2nos.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.10	Spade Corer (2nos.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.11	Sediment Grabs [2 nos - area of 0.2 m ² and approx. weight-85 kg 4 nos - area of 0.5 m ² and approx. weight-150 kg]	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.12	Core Sub-Sampling Stn	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.13	Pipe Dredge (3 nos.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.14	Core Liner Cutter (2nos.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.15	Skalar Autoanalyser.	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.16	Hydro-Bios Automatic Multi-Plankton Net	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.17	Seabird CTD with Rossette Sea-water Sampling facility.	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.18	Idronaut CTD with Rossette Sea-water Sampling facility.	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.19	Niskin Water Sampler [Capacity is provided below]											
7.20	1.7 Ltrs (60 nos.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.21	5 Ltrs (10 nos.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.22	10 Ltrs (18 nos.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.23	30 Ltrs (1 no.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.24	Go Flow Water Sampler [Capacity is provided below]											
7.25	30 Ltrs (6 nos.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.26	12 Ltrs	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.27	Sippican Expendable Bathy Thermograph (XBT)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only

7.28	RDI 150 kHz Acoustic Doppler Current Profiler	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.29	Salinometer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.30	Thermosalinograph	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.31	Dynamic Positioning system	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.32	HiPAP system	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.33	LCD projector / screen	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.34	GPS + Power Supply	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.35	Meterwheel Unit (For CTD) (2 nos.)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.36	Autoclave	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.37	Tension meter for Deep Sea Winch	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.38	Rock Saw	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.39	Rock Mill	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.40	Deep Sea Winch / Friction Winch / Zibboom	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.41	CTD Winches - 2 nos + 1 Gantry	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.42	Magnetometer winch	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.43	Side Scan Sonar	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.44	A-frame	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.45	N/Oilwell Crane	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
7.46	Atlas Cranes - 2nos	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.00	Scientific equipment Operation & maintenance [routine, preventive & break down, data collection & processing/analysis] (annual charges including requisite manpower and their victualling).											
8.01	Sieves / Sieve Shaker	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.02	Agate Mortar / Pistle.	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.03	UV-Oxidation Unit	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.04	Titration Unit	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.05	Water Purifying System	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.06	Vaccum Pumps	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.07	pH Meter	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.08	UV Chamber	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.09	Rotary Shaker	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.10	Bucket Thermometer	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.11	Barometer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.12	LAN	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.13	Personal Computers/servers & Peripherals	12	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.14	Printers	9	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.15	External CD writer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
8.16	Scanner	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
9.00	Meals cost (per person per day of 3 meals and twice snacks/tea/coffee)	7000	Per man day	INR		0.00		0.00		0.00	0.00	INR Zero Only
9.01	VIP meal	300	Per meal	INR		0.00		0.00		0.00	0.00	INR Zero Only
10.00	Labourer Charges (for science team)	100	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
11.00	Boat Arrangement	1	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
12.00	Taxi Arrangement	150	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
13.00	Port Pass Arrangement	300	Per Pass	INR		0.00		0.00		0.00	0.00	INR Zero Only
14.00	Painting: Deck (polyurethane) and super structure paints (Alkyd)	4	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
15.00	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	2	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
16.00	Painting: Accessible external hull without scaffolding (ship side, weather decks)	3	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
17.00	Annual fumigation charges including shore-accommodations for Ship crew/Officer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
18.00	Spot fumigation as per standard, minimum of 10 locations	4	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
19.00	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
20.00	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
21.00	AMC service charges for Central AC System (3 nos. systems) by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
21.01	Total Value for Sagar Kanya - (A)	1	Sub total	INR		0.00		0.00		0.00	0.00	INR Zero Only
22.00	FORV Sagar Sampada											
22.01	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the model contract)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
22.02	Agency Services (Indian port call)	12	Per port call	INR		0.00		0.00		0.00	0.00	INR Zero Only
22.03	Agency Services (Foreign port call)	1	Per port call	INR		0.00		0.00		0.00	0.00	INR Zero Only
22.04	Management Fee as per work scope	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.00	Per day Manning cost (including victualling)											
23.01	Master FG	50	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only

23.02	Chief Officer FG	50	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.03	2nd Officer FG	50	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.04	3rd Officer FG	50	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.05	Chief Engineer FG	50	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.06	2nd Engineer FG	50	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.07	3rd Engineer FG	50	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.08	4th Engineer FG	50	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.09	Master NCV	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.10	Chief Officer NCV	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.11	2nd Officer NCV	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.12	3rd Officer NCV	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.13	Chief Engineer NCV	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.14	2nd Engineer NCV	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.15	3rd Engineer NCV	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.16	4th Engineer NCV	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.17	Electro-Technical Officer (ETO)	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.18	Fishing Master (as & when required)	50	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.19	Medical officer / Nurse	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.20	Chief Cook	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.21	Fitter / Oiler -2 nos (365x2 persons)	730	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.22	2nd cook - 2 (365x2 persons)	730	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.23	Deck crew / Helmsman / ratings -6 (365x6 persons)	2190	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.24	Engine crew / ratings -6 (365x6 persons)	2190	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
23.25	Laundryman / Saloon ratings - 4 (365x4 persons)	1460	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
24.00	Fresh water rate / ton	1400	Per ton	INR		0.00		0.00		0.00	0.00	INR Zero Only
25.00	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	INR		0.00		0.00		0.00	0.00	INR Zero Only
26.00	Superintendent for drydocking (all inclusive) per day rate-Indian Yard	35	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
26.01	Superintendent for drydocking (all inclusive) per day rate-Foreign Yard	35	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.00	Scientific equipment Maintenance (routine, preventive & breakdown) only (annual charges including requisite manpower and their victualling)											
27.01	Echo sounder 50Khz	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.02	Fish Finding Echo sounder ES80	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.03	Doppler Speed Log	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.04	Cableless Trawl sonde (ITI)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.05	Integrated Fish Finding system (CM60)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.06	Sonar SX90	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.07	75kHz ADCP with deck unit	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.08	Echo Sounder EA600	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.09	DGPS with display unit	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.10	Salinometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.11	CTD SBE 911plus /Rosette	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.12	Water Purifying Plant	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.13	MPN	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.14	Bongo Net	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.15	Incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.16	Refrigerator 190 Litre	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.17	Vertical Deep Freezer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.18	Smith Mc-Intyre Grab	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.19	Dredge	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.20	Box corer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.21	Thermosalinograph	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.22	CUFES	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.23	Big Eye Binocular	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.24	EK-80 Scientific Echo Sounder 38/120/200/333kHz & MRU	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.25	Trinocular Microscope	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.26	Stereo Microscope	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.27	Automatic Weather Station (AWS)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.28	CTD winch	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.29	Plankton winches- 2nos	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.30	Split Trawl winches [upper & lower drum and Gilson]- 2 nos	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
27.31	Sweep Trawl winch	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.00	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)											
28.01	Echo sounder 50Khz	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.02	Fish Finding Echo sounder ES80	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only

28.03	Doppler Speed Log	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.04	Cableless Trawl sonde (ITI)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.05	Integrated Fish Finding system (CM60)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.06	Sonar SX90	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.07	75kHz ADCP with deck unit	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.08	Echo Sounder EA600	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.09	DGPS with display unit	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.10	Salinometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.11	CTD SBE 911plus /Rosette	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.12	Water Purifying Plant	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.13	MPN	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.14	Bongo Net	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.15	Incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.16	Refrigerator 190 Litre	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.17	Vertical Deep Freezer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.18	Smith Mc-Intyre Grab	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.19	Dredge	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.20	Box corer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.21	Thermosalinograph	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.22	CUFES	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.23	Big Eye Binocular	2	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.24	EK-80 Scientific Echo Sounder 38/120/200/333kHz & MRU	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.25	Trinocular Microscope	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.26	Stereo Microscope	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.27	Automatic Weather Station (AWS)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.28	CTD winch	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.29	Plankton winches- 2nos	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.30	Split Trawl winches [upper & lower drum and Gilson]- 2 nos	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
28.31	Sweep Trawl winch	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.00	Scientific equipment Operation & maintenance [routine, preventive & break down, data collection & processing/analysis] (annual charges including requisite manpower and their victualling).											
29.01	Server Hp	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.02	HP desktop 3000 pro, Printer & Scanner	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.03	Lan system 12 port LAN hub	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.04	Depth display units at various locations	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.05	Depth Display unit	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.06	Isotope Fume cupboard	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.07	Refrigerator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.08	Fume cupboard	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.09	Refrigerator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.10	HP PC	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.11	System Digital Clock	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.12	Insulated water Sampler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.13	Incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.14	Muffle Furnace	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.15	Fume Cupboard	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.16	Vacuum Pump	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.17	Hot Air Oven	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.18	BOD Incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.19	Laminar Flow	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.20	Colony Counter	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.21	Laboratory Autoclave	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.22	Fume Cupboard	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.23	Marine Balance 100kg	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.24	Ice machine	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.25	Power Supply Unit	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.26	Megger	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.27	Digital Flow Meter	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.28	HP deskjet 3000	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
29.29	Oscilloscope	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
30.00	Meals cost (per person per day of 3 meals and twice snacks/tea/coffee)	6500	Per man day	INR		0.00		0.00		0.00	0.00	INR Zero Only
30.01	VIP meal	300	Per meal	INR		0.00		0.00		0.00	0.00	INR Zero Only
31.00	Labourer Charges (for science team)	100	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
32.00	Boat Arrangement	1	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
33.00	Taxi Arrangement	150	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
34.00	Port Pass Arrangement	300	Per Pass	INR		0.00		0.00		0.00	0.00	INR Zero Only

35.00	Painting: Deck (polyurethane) and super structure paints (Alkyd)	4	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
36.00	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	2	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
37.00	Painting: Accessible external hull without scaffolding (ship side, weather decks)	3	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
38.00	Annual fumigation charges including shore-accommodations for Ship crew/Officer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
39.00	Spot fumigation as per standard, minimum of 10 locations	4	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
40.00	Shore Crane - 40 Ton Mobile Crane with 32 Meters Boom Length at Kochi	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
41.00	Shore Crane - 100/120 Ton Mobile Crane with 40 Meters Boom Length with counter weight Handling Facility at Kochi	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
42.00	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
43.00	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
43.01	Total Value for Sagar Sampada - (B)	1	subtotal	INR		0.00		0.00		0.00	0.00	INR Zero Only
44.00	ORV Sagar Nidhi											
44.01	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the model contract)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
44.02	Agency Services (Indian port call)	15	Per port call	INR		0.00		0.00		0.00	0.00	INR Zero Only
44.03	Agency Services (Foreign port call)	1	Per port call	INR		0.00		0.00		0.00	0.00	INR Zero Only
44.04	Management Fee as per work scope	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.00	Per day manning cost (including victualling)											
45.01	Master FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.02	Chief Officer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.03	2nd Officer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.04	3rd Officer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.05	Chief Engineer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.06	2nd Engineer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.07	3rd Engineer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.08	4th Engineer FG	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.09	Electro-Technical Officer (ETO)	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.1	Electro-Technical Officer (ETO) - Electronics	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.11	Medic / Nurse	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.12	Deck crew / Helmsman / ratings -7 (365x7 persons)	2555	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.13	Engine crew / ratings -3 (365x3 persons)	1095	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.14	Fitter / Oiler -1 no	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.15	Chief cook	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.16	2nd cook	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
45.17	Saloon rating- 3(365x3 persons)	1095	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
46.00	Fresh water rate / ton	3000	Per ton	INR		0.00		0.00		0.00	0.00	INR Zero Only
47.00	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	INR		0.00		0.00		0.00	0.00	INR Zero Only
48.00	Superintendent for drydocking (all inclusive) per day rate-Indian Yard	60	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
48.01	Superintendent for drydocking (all inclusive) per day rate-Foreign Yard	45	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.00	Scientific equipment maintenance [routine, preventive & break down] only (annual charges including requisite manpower and their victualling).											
49.01	Deep sea Multi beam Echo sounder - MD30 - RESON including DGPS, MRU, S.V probe & S.V profiler, Data Acquisition System & processing system with software, Repeaters, Helmsman display and accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.02	Deep sea Single beam Echosounder (EA 600)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.03	ADCP (Acoustic Doppler Current Profiler): with DAQ	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.04	Shallow water single echo sounder	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.05	Shallow water Multi beam echo sounder (Norbit) including DGPS and accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.06	Sub bottom profiler: Innomar-2000 deep with DAQ and processing system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.07	CTD with rosette setup (CTD and aux sensors). SBE-9/11Plus.	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.08	CTD with rosette setup (CTD and aux sensors). SBE-9/11Plus. (Stand-By unit).	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.09	Shallow water CTD 19Plus with rosette	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.10	Thermosalinograph including temp. sensor, interface box & DAQ	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.11	Thermosalinograph (Stand-By unit) including temp. sensor	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.12	HiPAP102 / Hi-PAP500 Acoustic Positioning system & accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.13	Autosalinometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.14	Shallow water CTD winch with cable and accessories.	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only

49.15	Gravity corer including core head, barrel, catcher and cutter	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.16	Auto Analyser.	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.17	Deep Sea Winch with umbilical cable	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.18	Deep Sea Winch with aramid cable	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.19	CTD winch with cables	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
49.20	Hydrographic winch with cables	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.00	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)											
50.01	Deep sea Multi beam Echo sounder – MD30 -RESON including DGPS, MRU, S.V probe & S.V profiler, Data Acquisition System & processing system with software, Repeaters, Helsman display and accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.02	Deep sea Single beam Echosounder (EA 600)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.03	ADCP (Acoustic Doppler Current Profiler): with DAQ	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.04	Shallow water single echo sounder	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.05	Shallow water Multi beam echo sounder (Norbit) including DGPS and accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.06	Sub bottom profiler: Innomar-2000 deep with DAQ and processing system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.07	CTD with rosette setup (CTD and aux sensors). SBE-9/11Plus.	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.08	Shallow water CTD 19Plus with rosette	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.09	Thermosalinograph including temp. sensor, interface box & DAQ	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.10	HiPAP102 / Hi-PAP500 Acoustic Positioning system & accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.11	Autosalinometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.12	Shallow water CTD winch with cable and accessories.	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.13	Gravity corer including core head, barrel, catcher and cutter	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.14	Auto Analyser.	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.15	Deep Sea Winch with umbilical cable	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.16	Deep Sea Winch with aramid cable	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
50.17	CTD winch with umbilical cables	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.00	Scientific equipment Operation & maintenance [routine, preventive & break down, data collection & processing/analysis] (annual charges including requisite manpower and their victualling).											
51.01	Ph meter	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.02	Spectrophotometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.03	Autoclave	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.04	MilliQ-Water Purification system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.05	Niskin water samplers 5Ltrs	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.06	Niskin water samplers 4 Ltrs	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.07	AUTOMATIC WEATHER STATION (AWS).	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.08	Computer, Monitor with peripherals.- 4 nos	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.09	Printers - 3nos	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.10	Stereo Microscope with camera attached with PC connection	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.11	Electronic balance	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.12	Hot plate and Magnetic stirrer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.13	Vacuum Pump	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.14	Filtration unit (PVC manifold)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.15	Filtration unit (SS manifold)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.16	Filtration unit (flask type-47 mm)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.17	Filtration unit (flask type-25 mm)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.18	Hot air Oven	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.19	Laminar flow	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.20	BOD incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.21	Bacteriological incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.22	Auto Burette	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.23	Refrigerator Centrifuge	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.24	Plankton Net	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.25	Sieve (for sediment collection)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.26	Deep Freezer.	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
51.27	UPS online	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
52.00	Meals cost (per person per day of 3 meals and twice snacks/tea/coffee)	6500	Per man day	INR		0.00		0.00		0.00	0.00	INR Zero Only
52.01	VIP meal	300	Per meal	INR		0.00		0.00		0.00	0.00	INR Zero Only
53.00	Labourer Charges (for science team)	75	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
54.00	Boat Arrangement	2	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
55.00	Taxi Arrangement	125	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
56.00	Port Pass Arrangement	1000	Per Pass	INR		0.00		0.00		0.00	0.00	INR Zero Only

57.00	Painting: Deck (polyurethane) and super structure paints (Alkyd)	4	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
58.00	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	2	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
59.00	Painting: Accessible external hull without scaffolding (ship side, weather decks)	3	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
60.00	Annual fumigation including shore-accommodations for Ship crew/Officer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
61.00	Spot fumigation as per standard, minimum of 10 locations	4	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
62.00	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
63.00	AMC Service charges of Scientific handling System [CTD (Deep & Shallow), Hydrographic, Deep Sea Winches] by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
64.00	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
64.01	Total Value for Sagar Nidhi - (C)	1	subtotal	INR		0.00		0.00		0.00	0.00	INR Zero Only
65.00	Sagar Manjusha											
65.01	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the model contract)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
65.02	Agency Services (Indian port call)	25	Per port call	INR		0.00		0.00		0.00	0.00	INR Zero Only
65.03	Management Fee as per work scope	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.00	Per day manning cost (including victualling)											
66.01	Master	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.02	Chief Officer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.03	2nd Officer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.04	Chief Engineer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.05	2nd Engineer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.06	4th Engineer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.07	Electro-Technical Officer (ETO)	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.08	Deck crew / Helmsman / ratings -5 (365x 5 persons)	1825	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.09	Engine crew / ratings -2 (365x2 persons)	730	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.10	Chief cook	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.11	2nd cook	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
66.12	Saloon rating - 2 (365x2 persons)	730	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
67.00	Fresh water rate / ton	1200	Per ton	INR		0.00		0.00		0.00	0.00	INR Zero Only
68.00	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	INR		0.00		0.00		0.00	0.00	INR Zero Only
69.00	Technical Superintendent for drydocking (all inclusive) per day rate	45	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.00	Scientific equipment maintenance [routine, preventive & break down] only (annual charges including requisite manpower and their victualling).											
70.01	CTD profiler and sensors	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.02	Corer (Gravity Corer)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.03	Core Catcher	3	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.04	Core cutter	5	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.05	Core Pipe	30	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.06	MBES & Accessories:-Data Acquisition-Work Station Monitors Keyboard Mouse DGPS CPU	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.07	Single beam Echo Sounder, DGPS, Monitor, CPU, Mouse, Keyboard	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.08	Shallow water CTD Winch (Online with cable & accessories)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.09	Shallow water CTD 19Plus	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.10	IDRONAUT CTD Ocean seven 320 plus with GO1018 Rosette.	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.11	Thermosalinograph	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.12	Thermosalinograph (standby unit)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.13	Multiple Corer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.14	ADCP	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.15	Sub Bottom Profiler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.16	Auto Salinometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.17	CTD winch (offline)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
70.18	Deep Sea winch system with its accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.00	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)											
71.01	CTD profiler and sensors	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.02	Corer (Gravity Corer)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.03	Core Catcher	3	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.04	Core cutter	5	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.05	Core Pipe	30	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.06	MBES & Accessories:-Data Acquisition-Work Station Monitors Keyboard Mouse DGPS CPU	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only

71.07	Single beam Echo Sounder, DGPS, Monitor, CPU, Mouse, Keyboard	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.08	Shallow water CTD Winch (Online with cable & accessories)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.09	Shallow water CTD 19Plus	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.10	IDRONAUT CTD Ocean seven 320 plus with GO1018 Rosette.	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.11	Thermosalinograph	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.12	Multiple Corer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.13	ADCP	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.14	Sub Bottom Profiler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.15	Auto Salinometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.16	CTD winch (offline)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
71.17	Deep Sea winch system with its accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.00	Scientific equipment Operation & maintenance [routine, preventive & break down, data collection & processing/analysis] (annual charges including requisite manpower and their victualling).											
72.01	Niskin water sampler -5 litres	8	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.02	Niskin water sampler -4 litres	16	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.03	Messengers	6	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.04	Grab sampler-25Kg SS	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.05	Grab sampler-10Kg-HydroBias	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.06	Plankton Net	2	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.07	Flow meter (General Oceanic)	2	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.08	Flow meter (Hydro bias)	2	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.09	Secchi Disk	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.10	Spectrophotometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.11	Vacuum pump & Filtration unit	3	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.12	Centrifuge	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.13	Post Processing Unit Monitors Keyboard Mouse CPU	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.14	BOD Incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.15	UPS and Battery bank	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.16	Refrigerator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.17	Deep Freezer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.18	Microscope & Accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.19	Computer and its accessories	2	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.20	Milli-Q RO System	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.21	Auto Clave	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.22	Dosimat	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.23	Manta Net	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.24	Hot Air Oven	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
72.25	CO2 Analyser	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
73.00	Meals cost (per person per day of 3 meals and twice snacks/tea/coffee)	2500	Per man day	INR		0.00		0.00		0.00	0.00	INR Zero Only
73.01	VIP meal	100	Per meal	INR		0.00		0.00		0.00	0.00	INR Zero Only
74.00	Labourer Charges (for science team)	100	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
75.00	Boat Arrangement	2	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
76.00	Taxi Arrangement	150	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
77.00	Port Pass Arrangement	250	Per Pass	INR		0.00		0.00		0.00	0.00	INR Zero Only
78.00	Painting: Deck (polyurethane) and super structure paints (Alkyd)	6	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
79.00	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	4	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
80.00	Painting: Accessible external hull without scaffolding (ship side, weather decks)	5	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
81.00	Annual fumigation charges including shore-accommodations for Ship crew/Officer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
82.00	Spot fumigation as per standard, minimum of 10 locations	4	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
83.00	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
84.00	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
84.01	Total Value for Sagar Manjusha - (D)											
85.00	Sagar Tara											
85.01	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the model contract)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
85.02	Agency Services (Indian port call)	45	Per port call	INR		0.00		0.00		0.00	0.00	INR Zero Only
85.03	Management Fee as per work scope	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
86.00	Per day manning cost (including victualling)											
86.01	Master	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
86.02	Chief Officer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
86.03	Chief Engineer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only

86.04	2nd Engineer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
86.05	3rd Engineer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
86.06	Electro-Technical Officer (ETO)	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
86.07	Deck crew / Helmsman / ratings – 4 (365x4 persons)	1460	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
86.08	Engine crew / rating – 1 no	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
86.09	Cook	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
86.10	Saloon rating	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
87.00	Fresh water rate / ton	800	Per ton	INR		0.00		0.00		0.00	0.00	INR Zero Only
88.00	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	INR		0.00		0.00		0.00	0.00	INR Zero Only
89.00	Technical Superintendent for drydocking (all inclusive) per day rate	35	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.00	Scientific equipment maintenance [routine, preventive & break down] only (annual charges including requisite manpower and their victualling).											
90.01	Multibeam Echo Sounder up to 1000m depth with sound velocity profiler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.02	CTD profiler and sensors	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.03	Auto Salinometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.04	Thermosalinograph	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.05	Gravity corer with accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.06	Ultra Short Base Line (USBL) Acoustic positioning system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.07	Scientific Winches with Handling System (make;KleyFrance)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.08	General Purpose Winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.09	CTD winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.10	Hydrographic winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.11	Underway Data Logging System	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.12	Single Beam Echo Sounder	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.13	Acoustic Doppler Current Profiler (ADCP)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.14	Sub Bottom Profiler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
90.15	Side Scan Sonar with DAS & related system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.00	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)											
91.01	Multibeam Echo Sounder up to 1000m depth with sound velocity profiler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.02	CTD profiler and sensors	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.03	Auto Salinometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.04	Thermosalinograph	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.05	Gravity corer with accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.06	Ultra Short Base Line (USBL) Acoustic positioning system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.07	Scientific Winches with Handling System (make;KleyFrance)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.08	General Purpose Winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.09	CTD winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.10	Hydrographic winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.11	Underway Data Logging System	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.12	Single Beam Echo Sounder	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.13	Acoustic Doppler Current Profiler (ADCP)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.14	Sub Bottom Profiler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
91.15	Side Scan Sonar with DAS & related system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.00	Scientific equipment Operation & maintenance [routine, preventive & break down, data collection & processing/analysis] (annual charges including requisite manpower and their victualling).											
92.01	Bio-Chemical Oxygen Demand BOD Incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.02	Double beam UV Visible spectrometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.03	Zoom Stereo Microscope	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.04	Sediment Sampler (25 kg)-1 No	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.05	15Kg-1 No	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.06	Autoclave	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.07	Refrigerated Centrifuge	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.08	Hot Air Oven	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.09	Laboratory water purification system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.10	Refrigerators (-15°C)	2	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.11	Deep Freezers (-80°C)	2	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.12	Automatic Weather Station	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.13	Motion Reference Unit [GAPS]	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.14	Portable Nutrient Analyzer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.15	Niskin Water Samplers (5lt capacity) with go devil messenger	10	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.16	Zoo Plankton net with Flow meter	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only

92.17	Dosimate-Auto Dispensing Unit	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.18	Vaccum Pump with filtration Unit-	2	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.19	Bacteriological Incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.20	Laminar Flow	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.21	UV Cabinet	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.22	Fume Hood Explosion Proof	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.23	Texture Analyzer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.24	Auto Analyzer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.25	Carbon Dioxide Analyser	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.26	Ultrasonic Scientific Anemometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.27	FTIR	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
92.28	Manta net	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
93.00	Meals cost (per person per day of 3 meals and twice snacks/tea/coffee)	2000	Per man day	INR		0.00		0.00		0.00	0.00	INR Zero Only
93.01	VIP meal	100	Per meal	INR		0.00		0.00		0.00	0.00	INR Zero Only
94.00	Labourer Charges (for science team)	150	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
95.00	Boat Arrangement	3	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
96.00	Taxi Arrangement	150	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
97.00	Port Pass Arrangement	300	Per Pass	INR		0.00		0.00		0.00	0.00	INR Zero Only
98.00	Painting: Deck (polyurethane) and super structure paints (Alkyd)	7	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
99.00	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	4	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
100.00	Painting: Accessible external hull without scaffolding (ship side, weather decks)	5	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
101.00	Annual fumigation charges including shore-accommodations for Ship crew/Officer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
102.00	Spot fumigation as per standard, minimum of 10 locations	4	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
103.00	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
104.00	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
104.01	Total Value for Sagar Tara - (E)	1	subtotal	INR		0.00		0.00		0.00	0.00	INR Zero Only
105.00	Sagar Anveshika											
105.01	Lumpsum amount for all general services and basic maintenance for one year (refer clause 3 of the model contract)	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
105.02	Agency Services (Indian port call)	45	Per port call	INR		0.00		0.00		0.00	0.00	INR Zero Only
105.03	Management Fee as per work scope	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
106.00	Per day manning cost (including victualling)											
106.01	Master	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
106.02	Chief Officer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
106.03	Chief Engineer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
106.04	2nd Engineer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
106.05	4th Engineer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
106.06	Electrical Engineer	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
106.07	Deck crew / Helmsman / ratings - 4 (365x4 persons)	1460	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
106.08	Engine crew / rating - 1 no	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
106.09	Cook	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
106.10	Saloon rating	365	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
107.00	Fresh water rate / ton	800	Per ton	INR		0.00		0.00		0.00	0.00	INR Zero Only
108.00	Underwater diving, cleaning of transducers, propellers and hull	1	Per operation	INR		0.00		0.00		0.00	0.00	INR Zero Only
109.00	Technical Superintendent for drydocking (all inclusive) per day rate	35	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.00	Scientific equipment maintenance [routine, preventive & break down] only (annual charges including requisite manpower and their victualling).											
110.01	Multibeam Echo Sounder up to 1000m depth with sound velocity profiler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.02	CTD profiler and sensors	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.03	Auto Salinometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.04	Thermosalinograph	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.05	Gravity corer with accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.06	Ultra Short Base Line (USBL) Acoustic positioning system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.07	Scientific Winches with Handling System (make;KleyFrance)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.08	General Purpose Winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.09	CTD winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.10	Hydrographic winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.11	Underway Data Logging System	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.12	Single Beam Echo Sounder	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.13	Acoustic Doppler Current Profiler (ADCP)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.14	Sub Bottom Profiler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only

110.15	Side Scan Sonar with DAS & related system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
110.16	Multiple Corer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.00	Scientific Equipment Operation (Data/ Sample Collection & Data processing) only (annual charges including requisite manpower and their victualling)											
111.01	Multibeam Echo Sounder up to 1000m depth with sound velocity profiler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.02	CTD profiler and sensors	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.03	Auto Salinometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.04	Thermosalinograph	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.05	Gravity corer with accessories	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.06	Ultra Short Base Line (USBL) Acoustic positioning system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.07	Scientific Winches with Handling System (make;KleyFrance)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.08	General Purpose Winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.09	CTD winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.10	Hydrographic winch	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.11	Underway Data Logging System	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.12	Single Beam Echo Sounder	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.13	Acoustic Doppler Current Profiler (ADCP)	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.14	Sub Bottom Profiler	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.15	Side Scan Sonar with DAS & related system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
111.16	Multiple Corer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.00	Scientific equipment Operation & maintenance [routine, preventive & break down, data collection & processing/analysis] (annual charges including requisite manpower and their victualling).											
112.01	Bio-Chemical Oxygen Demand BOD Incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.02	Double beam UV Visible spectrometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.03	Zoom Stereo Microscope	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.04	Sediment Sampler (25 kg)-1 No	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.05	15Kg-1 No	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.06	Autoclave	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.07	Refrigerated Centrifuge	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.08	Hot Air Oven	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.09	Laboratory water purification system	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.10	Refrigerators (-15°C)	2	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.11	Deep Freezers (-80°C)	2	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.12	Automatic Weather Station	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.13	Motion Reference Unit [GAPS]	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.14	Portable Nutrient Analyzer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.15	Niskin Water Samplers (5lt capacity) with go devil messenger	10	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.16	Zoo Plankton net with Flow meter	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.17	Dosimate-Auto Dispensing Unit	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.18	Vaccum Pump with filtration Unit-	2	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.19	Bacteriological Incubator	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.20	Laminar Flow	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.21	UV Cabinet	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.22	Fume Hood Explosion Proof	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.23	Texture Analyzer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.24	Auto Analyzer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.25	Carbon Dioxide Analyser	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.26	Ultrasonic Scientific Anemometer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.27	FTIR	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
112.28	Manta net	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
113.00	Meals cost (per person per day of 3 meals and twice snacks/tea/coffee)	2000	Per man day	INR		0.00		0.00		0.00	0.00	INR Zero Only
113.01	VIP meal	100	Per meal	INR		0.00		0.00		0.00	0.00	INR Zero Only
114	Labourer Charges (for science team)	150	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
115	Boat Arrangement	3	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
116	Taxi Arrangement	150	Per day	INR		0.00		0.00		0.00	0.00	INR Zero Only
117	Port Pass Arrangement	300	Per Pass	INR		0.00		0.00		0.00	0.00	INR Zero Only
118	Painting: Deck (polyurethane) and super structure paints (Alkyd)	7	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
119	Painting: All bilge areas (epoxy primer and epoxy), void spaces and machinery spaces	4	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
120	Painting: Accessible external hull without scaffolding (ship side, weather decks)	5	Per painting	INR		0.00		0.00		0.00	0.00	INR Zero Only
121	Annual fumigation charges including shore-accommodations for Ship crew/Officer	1	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only

122	Spot fumigation as per standard, minimum of 10 locations	4	Per year	INR		0.00		0.00		0.00	0.00	INR Zero Only
123	AMC Service charges of Vacuum based Sanitary System by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
124	AMC service charges for Navigational, GMDSS and communication equipment by OEM/OEM Authorized engineer	1	Per Year	INR		0.00		0.00		0.00	0.00	INR Zero Only
124.01	Total Value for Sagar Anveshika (F)	1	subtotal	INR		0.00		0.00		0.00	0.00	INR Zero Only
125.00	Sub-Total (without GST) for (A+B+C+D+E+F)	1	LUMPSUM	INR		0.00		0.00		0.00	0.00	INR Zero Only
126.00	GST @ the rate of 18%	1	PERCENTAGE	INR		0.00		0.00		0.00	0.00	INR Zero Only
Total in Figures										0.00		INR Zero Only
Quoted Rate in Words		INR Zero Only										