



# **TENDER DOCUMENT**

**FOR**

**PROCUREMENT OF PHYSICAL INSTRUMENTS AND HYDRODYNAMIC  
MODELING AND GRAPHING SOFTWARE**

PSDP Project:           Monitoring the Sea Water Intrusion, Sea Level Rise, Coastal Erosion, and  
Land Subsidence along Sindh and Baluchistan Coast

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## INSTRUCTIONS TO TENDERERS

(Note: These Instructions along with Tendering Data will not be part of the Contract and will cease to have effect once the Contract is signed).

### A. GENERAL

#### IT.1 Scope of Tender & Source of Funds

##### 1.1 Scope of Tender

The Director General/Project Director, PSDP, NIO as defined in the Tendering Data (hereinafter called "the Employers") wishes to receive tenders for the Procurement of Physical Instruments summarized in the Tendering Data (hereinafter referred to as "the Works").

Tenderers should quote for the latest model (top model) with accessories, consumables, and country of origin.

The bids must be quoted in Pak Rupees on FOR basis/FOR (Free delivery to NIO) and submitted (hard copy) to the undersigned by **08.12.2025**, and on e-Pak Acquisition & Disposal System (EPADS) online by **09.12.2025**, at 12:00 hrs.

The tenders will be opened on **9<sup>th</sup> December, 2025** (Tuesday) at **1230 hrs.**

##### 1.2 Source of Funds

The Employers have arranged funds from PSDP funded project "MONITORING THE SEA WATER INTRUSION, SEA LEVEL RISE, COASTAL EROSION, AND LAND SUBSIDENCE ALONG SINDH AND BALOCHISTAN COAST".

#### IT.2 Eligible Tenderers

2.1 Tendering is open to all eligible firms and persons. The tenderer should be a manufacturer / authorized distributor / authorized dealer / authorized agent who has the financial, and technical capability necessary to supply the Instrument(s) with software(s) / accessories along with in-person training(s) as indicated in the Tendering data, after-sales services, and designated engineers/technicians.

### **IT.3 Cost of Tendering**

- 3.1 The tenderer shall bear all costs associated with the preparation and submission of its tender and NIO will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

## **B. TENDER DOCUMENTS**

### **IT.4 Contents of Tender Documents**

- 4.1 The Tender Documents are those stated below and should be read in conjunction with any Addendum issued by Clause IT.6.1.
1. Instructions to Tenderers & Tendering Data
  2. Forms of Tender
  3. Standard Forms:
    - (I) Form of Performance Security
    - (II) Form of Contract Agreement
  4. Specification

### **IT.5 Clarification of Tender Documents**

- 5.1 A prospective tenderer requiring any clarification(s) in respect of the Tender Documents may notify the Project Director, NIO's PSDP project "**Monitoring the Sea Water Intrusion, Sea Level Rise, Coastal Erosion and Land Subsidence along Sindh and Baluchistan Coast**", at the address indicated in the Tendering Data.
- 5.2 The NIO will respond to any request for clarification that it receives earlier than 10 days before the deadline for the submission of tenders. Copies of the response will be forwarded to all prospective tenderers, at least 5 days before the deadline for submission of Tenders, who have received the Tender Documents including a description of the inquiry but without identifying its source.

### **IT.6 Amendment of Tender Documents**

- 6.1 At any time before the deadline for submission of tenders, the Project Director, PSDP, or NIO may, for any reason, whether at his initiative or in response to a clarification requested by a respective tenderer, modify the Tender Documents by issuing an addendum.
- 6.2 Any addendum thus issued shall be part of the Tender Documents under Sub-Clause 6.1 hereof and shall be communicated in writing to all purchasers of the Tender Documents. Prospective tenderers shall acknowledge receipt of each addendum in writing to the Project Director, PSDP, and NIO.

- 6.3 To afford prospective tenderers a reasonable time in which to take an addendum into account in preparing their tenders, the Project Director, PSDP, NIO on behalf of DG, NIO may extend the deadline for submission of tenders.

## **C. PREPARATION OF TENDERS**

### **IT.7 Language of Tender**

- 7.1 The tender prepared by the tenderer and all correspondence and documents relating to the Tender, exchanged by the tenderer and the NIO shall be written in the English language, provided that any printed literature furnished by the tenderer may be written in another language so long as accompanied by an English translation of its pertinent passages in which case, for purposes of interpretation of the Tender, the English translation shall govern.

### **IT.8 Documents Comprising the Tender**

- 8.1 The tender prepared by the tenderer shall comprise the following components:
- (a) Covering Letter
  - (b) Form of Tender duly filled, signed, and sealed, by Clause IT. I 4.3.
  - (c) Tender Security furnished by Clause IT. 13.
  - (d) Power of Attorney by Clause IT 14.5.
  - (e) Documentary evidence by Clause IT. II
  - (f) Documentary evidence by Clause IT. I2.

### **IT.9 Sufficiency of Tender**

- 9.1 Each tenderer shall satisfy himself before Tendering as to the correctness and sufficiency of his Tender and of the rates and prices entered in the Price Schedule, which rates and prices shall except in so far as it is otherwise expressly provided in the Contract, cover all his obligations under the Contract and all matters and things necessary for the proper supply of Physical Instruments, Software's, Multispectral Satellite Images & Miscellaneous Items.
- 9.2 The tenderer is advised to obtain for himself at his own cost and responsibility all information that may be necessary for preparing the tender and entering a Contract for the execution of the Works.

### **IT.10 Tender Prices, Currency of Tender, and Payment**

- 10.1 The tenderer shall fill up the Schedule of Prices (Schedule A to Tender) indicating the unit rates and prices of the Works to be performed under the Contract. Prices

on the Schedule of Prices shall be entered keeping in view the instructions contained in the Preamble to the Schedule of Prices.

- 10.2 Unless otherwise stipulated in the Conditions of Contract, prices quoted by the tenderer shall remain fixed during the tenderer's performance of the Contract and not subject to variation on any account.
- 10.3 The unit rates and prices in the Schedule of Prices shall be quoted by the tenderer in the currency as stipulated in Tendering Data.

#### **IT.11. Documents Establishing Tenderer's Eligibility and Qualifications**

- 11.1 Under Clause IT.8, the tenderer shall furnish, as part of its tender, documents establishing the tender's eligibility to tender and its qualifications to perform the Contract if its tender is accepted.
- 11.2 Tenderer must possess and provide evidence of the experience as stipulated in Tendering Data.

#### **IT.12. Documents Establishing Works Conformity to Tender Documents**

- 12.1 The documentary evidence of the Works' conformity to the Tender Documents may be in the form of literature, drawings, and data and shall furnish documentation as set out in Tendering Data.
- 12.2 The tenderer shall note that standards for material and equipment, and references to brand names or catalog numbers, designated by the Employer in the Technical Provisions are intended to be descriptive only and not restrictive.

#### **IT.13 Tender Security**

- 13.1 Each tenderer shall furnish, as part of his tender, a Tender Security of 2% of the bid price in Pak. Rupees in the form of a Bank Guarantee issued by a Scheduled Bank in Pakistan in favor of the Employer valid for a period of 28 days beyond the tender validity date.
- 13.2 Any tender not accompanied by an acceptable Tender Security shall be rejected by the Employer as non-responsive.
- 13.3 The tender securities of unsuccessful tenderers will be returned upon award of contract to the successful tenderer or on the expiry of the validity of Tender Security whichever is earlier.
- 13.4 The Tender Security of the successful tenderer will be returned when the tenderer has furnished the required Performance Security, under Clause IT.21, and signed

the Contract Agreement, under Clause IT.20.2.

**13.5 The Tender Security may be forfeited:**

- (a) If a tenderer withdraws his tender during the period of tender validity.
- (b) If a tenderer does not accept the correction of his Tender Price, under Sub-Clause 16 .4 (b) hereof; or
- (c) In the case of a successful tenderer if he fails to:
  - (I) Furnish the required Performance Security by Clause IT.21, or
  - (II) Sign the Contract Agreement, by Clause IT.20.2

**IT.14 Validity of Tenders, Format, Signing, and Submission of Tender**

- 14.1 Tenders shall remain valid for the period of 120 days as stipulated in the Tendering Data after the date of tender opening.
- 14.2 All Schedules to Tender are to be properly completed and signed.
- 14.3 No alteration is to be made in the Form of Tender except in filling in the blanks as directed. If any alteration is made or if these instructions are not fully complied with, the tender may be rejected.
- 14.4 Each tenderer shall prepare the Original and number of copies specified in the Tendering Data of the documents comprising the tender as described in Clause IT.8 and mark them "ORIGINAL" and "COPY" as appropriate. In the event of a discrepancy between them, the original shall prevail.
- 14.5 The original and all copies of the tender shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign (in the case of copies, Photostats are also acceptable). This shall be indicated by submitting a written Power of Attorney authorizing the signatory of the tenderer to act for and on behalf of the tenderer. All pages of the tender shall be initialized, and the official seal be affixed by the person or persons signing the tender.
- 14.6 The Tender shall be delivered in person or sent by registered mail at the address to the employer as given in Tendering Data.

## **D-SUBMISSION OF TENDER**

### **IT.15 Deadline for Submission, Modification & Withdrawal of Tenders**

- 15.1 Tenders must be received by the NIO at the address/provided in Tendering Data not later than the time and date stipulated therein.
- 15.2 Tenders submitted through telegraph, telex, fax, or e-mail shall not be considered.
- 15.3 Any tender received by the Employer after the date and time of tender opening prescribed in Tendering Data will be returned unopened to such tenderer.
- 15.4 Any tenderer may modify or withdraw his tender after tender submission provided that written notice of the modification or withdrawal is received by the Employer before the deadline for submission of tenders.
- 15.5 No tender may be modified by a tenderer after the deadline for submission of tenders. Withdrawal of a tender during the interval between the deadline for submission of tenders and the expiration of the period of tender validity specified in the Form of Tender may result in forfeiture of the Tender Security under Clause IT.13.5(a).

## **E. TENDER OPENING AND EVALUATION**

### **IT.16 Tender Opening & Clarification and Evaluation**

- 16.1 The NIO will open the tenders, in the presence of tenderers' representatives who choose to attend, at the time, date, and location stipulated in the Tendering Data.
- 16.2 The tenderer's name, Tender Prices, any discount, the presence or absence of Tender Security, and such other details as the Director General NIO at its discretion may consider appropriate, will be announced by the NIO at the tender opening.

Any Tender Price or discount not read out and recorded at the tender opening will not be considered in the tender evaluation.

- 16.3 To assist in the examination, evaluation, and comparison of Tenders the NIO may at its discretion ask the tenderer for a clarification of its Tender. The request for clarification and the response shall be in writing and no change in the price or substance of the Tender shall be sought, offered, or permitted.
- 16.4 (a) Before the detailed evaluation, under Sub-clause IT.16.7 to 16.9, the NIO will determine the substantial responsiveness of each tender to the Tender Documents. To these Clauses, a substantially responsive tender conforms to all the terms and conditions of the Tender Documents without material deviations. It will include determining the requirements listed in Tendering data.

(b) Arithmetical errors will be rectified on the following basis:

If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between the words and figures the amount in words shall prevail. If there is a discrepancy between the Total Tender price entered in the Form of Tender and the total shown in the Schedule of Prices-Summary, the amount stated in the Form of Tender will be corrected by the NIO by the Corrected Schedule of Prices.

If the tenderer does not accept the corrected amount of the Tender, his Tender will be rejected, and his Tender Security forfeited.

- 16.5. A Tender determined as substantially non-responsive will be rejected and will not subsequently be made responsive by the tenderer by correction of the nonconformity.
- 16.6 Any minor informality or non-conformity or irregularity in a Tender that does not constitute a material deviation may be waived by NIO, provided such waiver does not prejudice or affect the relative ranking of any other tenderers.
- 16.7 The Director General NIO will evaluate and compare only the tenders previously determined to be substantially responsive under Sub-clauses IT.16.4 to 16.6. as per requirements given hereunder. Tenders will be evaluated for the complete scope of work. The prices will be compared based on the Evaluated Tender Price under Sub-Clause 16.8 herein below.

(a) Technical Evaluation

It will be examined in detail whether the items offered by the tenderer comply with the Technical Provisions of the Tender Documents. For this purpose, the tenderer's data submitted will be compared with the technical features/criteria of the Tendering Data detailed in the Technical Provisions. Other technical information submitted with the tender regarding the Tendering Data will also be reviewed.

(b) Commercial Evaluation

It will be examined in detail whether the tenders comply with the commercial/contractual conditions of the Tender Documents. It is expected that no major deviation/stipulation shall be taken by the tenderers.

#### 16.8 Evaluated Tender Price

In evaluating the tenders, the Project Director, NIO will determine for each tender in addition to the Tender Price, the following factors (adjustments) in the manner and to the extent indicated below to determine the Evaluated Tender Price:

- (I) Making any correction for errors under Sub-Clause 16.4 hereof.

- (II) Making an appropriate price adjustment for any other acceptable variation or deviation.
- (III) Making an appropriate price adjustment for Deviations in terms of Payments (if any and acceptable to Director General, NIO).

#### 16.9 Evaluation Methods

Under Sub-Clause 16.8, Para (ii), and (iii) following evaluation methods for price adjustments will be followed:

##### (I) Price Adjustment for Technical Compliance

The cost of making good any deficiency resulting from technical noncompliance will be added to the Corrected Total Tender Price for comparison purposes only. The adjustments will be applied by taking the highest price quoted by other tenderers being evaluated in detail in their original Tenders for the corresponding item. In case of non-availability of price from other tenderers, the price will be estimated by the Project Director.

##### (II) Price Adjustment for Commercial Compliance

The cost of making good any deficiency resulting from any quantifiable variations and deviations from the Tender Schedules and Conditions of the Contract, as determined by the Project Director will be added to the Corrected Total Tender Price for comparison purposes only. Adjustments for commercial compliance will be added to the Corrected Total Tender Prices.

##### (III) Price Adjustment for Deviation in Terms: If Payments Refer to Tendering Data

#### **IT.17 Process to be Confidential**

- 17.1 Subject to Clause IT. 16.3 heretofore, no tenderer shall contact the Director General/ Project Director, NIO on any matter relating to its Tender from the time of the Tender opening to the time the Contract is awarded.
- 17.2 Any effort by a tenderer to influence Project Director, NIO in the Tender evaluation, Tender comparison, or Contract Award decisions may result in the rejection of his Tender.

## **F. AWARD OF CONTRACT**

### **IT.18. Post-Qualification**

- 18.1 In the absence of pre-qualification, the Project Director, PSDP, NIO will determine to its satisfaction whether the substantially responsive, fulfilling technical requirements, and the lowest evaluated tenderer is qualified to satisfactorily perform the Contract.
- 18.2 The determination will consider the tenderer's financial and technical capabilities. It will be based upon an examination of the documentary evidence of the tenderer's qualifications submitted under Clause IT.11, as well as such other information as the Project Director NIO deems necessary and appropriate.

### **IT.19 Award Criteria & Employer's Right**

- 19.1 Subject to Sub-clause IT.19 .2, the Director General/Project Director, PSDP, NIO will award the Contract to the tenderer whose tender has been determined to be substantially responsive to the Tender Documents fulfilling all technical specifications and who has offered the lowest evaluated Tender Price, provided that such tenderer has been determined to be qualified to satisfactory perform the Contract by the provisions of Clause IT. 18.
- 19.2 Notwithstanding Sub-clause IT.19.1, the Director General/Project Director NIO reserves the right to accept or reject any tender and to annul the tendering process and reject all tenders, at any time before the award of Contract, without thereby incurring any liability to the affected tenderers or any obligation to inform the affected tenderers of the grounds for the NIO's action.

### **IT.20 Notification of Award & Signing of Contract Agreement**

- 20.1 Before the expiration of the period of tender validity prescribed by the NIO, the NIO will notify the successful tenderer in writing ("Letter of Acceptance") that *his* tender has been accepted.
- 20.2 Within 7 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the NIO will send the successful tenderer the Form of Contract Agreement provided in the Tender Documents, incorporating all agreements between the parties.

## **IT.21 Performance Security**

- 21.1 The successful tenderer shall furnish to the NIO a Performance Security in the form and the amount stipulated in the Conditions of Contract within a period of 14 days after the receipt of Acceptance.
- 21.2 Failure of the successful tenderer to comply with the requirements of Sub-clauses IT.20.1 & 20.2 or clause 21 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security.

**IT.22 G. Tendering Data**

**(A) Conductivity, Temperature and Depth (CTD)**

S. No.	Description	Quantity																																								
01.	<p>Main Specifications:</p> <table border="1" data-bbox="354 520 1287 709"> <thead> <tr> <th>Parameters</th> <th>Conductivity</th> <th>Temperature</th> <th>Pressure</th> </tr> </thead> <tbody> <tr> <td>Range</td> <td>0-80 mS/cm</td> <td>-5°C to +35°C</td> <td>100, 200, 300 or 600 Bar</td> </tr> <tr> <td>Resolution</td> <td>0.001 m/s</td> <td>0.001°C</td> <td>0.001 % FS</td> </tr> <tr> <td>Accuracy</td> <td>±0.01 m/s</td> <td>± 0.01°C</td> <td>±0.01 % FS</td> </tr> </tbody> </table> <p>Other Specifications:</p> <table border="1" data-bbox="354 821 1287 1497"> <tbody> <tr> <td>Sound Velocity</td> <td>0.25 m/s</td> </tr> <tr> <td>Salinity</td> <td>± 0.01 PSU</td> </tr> <tr> <td>Density</td> <td>± 0.01 kg/m<sup>3</sup></td> </tr> <tr> <td>Depth Rating</td> <td>6,000 m</td> </tr> <tr> <td>Dimensions</td> <td>80mm x Length 330m</td> </tr> <tr> <td>Weight</td> <td>2.9KG</td> </tr> <tr> <td>Communications</td> <td>USB Serial, Bluetooth v4 - LE</td> </tr> <tr> <td>Battery</td> <td>Internal Rechargeable Li-ion 2 Battery Packs Required</td> </tr> <tr> <td>Battery Life</td> <td>5 Days Continuous Operation</td> </tr> <tr> <td>Charging</td> <td>USB Fast Charge</td> </tr> <tr> <td>Software's</td> <td>Windows Compatible CD/USB</td> </tr> <tr> <td>Miscellaneous</td> <td>Titanium Housing, Acetal, Temperature Sensor – Titanium, Pressure Sensor – Titanium, Conductivity Sensor – Polyurethane coated Titanium with Ceramic Core, Deployment Frame Stainless Steel and Polyurethane</td> </tr> </tbody> </table> <p>Supplier shall provide operational / maintenance manual and training.</p>	Parameters	Conductivity	Temperature	Pressure	Range	0-80 mS/cm	-5°C to +35°C	100, 200, 300 or 600 Bar	Resolution	0.001 m/s	0.001°C	0.001 % FS	Accuracy	±0.01 m/s	± 0.01°C	±0.01 % FS	Sound Velocity	0.25 m/s	Salinity	± 0.01 PSU	Density	± 0.01 kg/m <sup>3</sup>	Depth Rating	6,000 m	Dimensions	80mm x Length 330m	Weight	2.9KG	Communications	USB Serial, Bluetooth v4 - LE	Battery	Internal Rechargeable Li-ion 2 Battery Packs Required	Battery Life	5 Days Continuous Operation	Charging	USB Fast Charge	Software's	Windows Compatible CD/USB	Miscellaneous	Titanium Housing, Acetal, Temperature Sensor – Titanium, Pressure Sensor – Titanium, Conductivity Sensor – Polyurethane coated Titanium with Ceramic Core, Deployment Frame Stainless Steel and Polyurethane	01
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**(B) Hydrodynamic Modeling Software**

S. No.	DESCRIPTION		QUANTITY
01	Preprocessing & Postprocessing Tools for Hydrodynamics Numerical Modelling Software (for Ocean Modelling)	<ol style="list-style-type: none"> <li>1. Generate <b>2D/3D grids</b> (structured and unstructured) and detailed computational meshes</li> <li>2. Both <b>Cartesian</b> and <b>spherical coordinate</b> systems must be supported.</li> <li>3. Must be able to check the orthogonality of the grids</li> <li>4. Generate <b>boundary conditions</b></li> <li>5. Animate results and create amazing <b>3D video presentations</b></li> <li>6. Speed up model creation with easy <b>access to digital bathymetric data</b></li> <li>7. Boost productivity with sensitivity analysis and <b>auto-calibration features</b></li> <li>8. Benefit from an endless series of efficient analysis and <b>visualisation tools</b> with <b>GISVIEW</b></li> <li>9. Easily access Numerical Modelled data in <b>MATLAB, Python, QGIS</b> and other/supported programming languages.</li> </ol>	01
02	Hydrodynamics Simulation for Ocean Modeling	<ol style="list-style-type: none"> <li>1. Simulate <b>unsteady flow</b> taking into account bathymetric, density variations, point sources and external forcing</li> <li>2. Conduct <b>flooding simulations</b>, including tsunamis</li> <li>3. Assess <b>hydrographic conditions</b> in stratified and non-stratified waters</li> <li>4. Represents <b>storm surge</b> caused by wind and pressure</li> <li>5. Simulate the <b>dynamic effects of wave-induced currents</b>, tide and weather conditions</li> <li>6. Use with other Numerical Modelled modules to study spreading, <b>water quality</b> or <b>morphological processes</b></li> <li>7. The 2D3D suite allows to simulate the interaction of water, sediment, ecology, and water quality in time and space.</li> <li>8. The suite will be used for the modelling of <b>natural environments</b> like coastal, estuarine, lakes and river areas, but it is equally suitable for more <b>artificial</b></li> </ol>	

		<p><b>environments</b> like harbours, locks, urban areas, etc.</p> <p>9. computes the non-steady <b>propagation of short-crested waves</b> over an uneven bottom, considering wind action, energy dissipation due to bottom friction, wave breaking, refraction (due to bottom topography, water levels, and flow fields), shoaling and directional spreading.</p> <p>10. simulates complex <b>real-time control</b> of all hydraulic structures in reservoirs and estuarine, river, and canal systems.</p> <p>11. computes <b>sediment transport</b> (both suspended and bed total load) and morphological changes for an arbitrary number of cohesive and non-cohesive fractions.</p> <p>12. simulates the far- and mid-field water and <b>sediment quality</b> due to a variety of transport and <b>water quality</b> processes.</p> <p>13. capable of handling <b>curvilinear grids</b> that provide very good performance in terms of <b>computational speed</b> and <b>accuracy</b>.</p> <p>14. The <b>grid</b> may also consist of <b>triangles, quads, pentagons, and hexagons</b>.</p>	
03	License	<p>1. A 2–3 year licensed software with the complete package is needed from the relevant Software Company.</p> <p>2. 12 months of support on <b>Service Level 3</b> (the highest support tier in technical or IT support) with 64 support hours should be obligatory, initial and ongoing response within 1 business day</p>	
04	Training	Training in the relevant software must be needed from the relevant software company	

Note: it is requested that only authorized dealers should apply in the bid

**(C) Data Analysis and Graphing Software**

S. No.	DESCRIPTION	QUANTITY
01	<ul style="list-style-type: none"> <li>○ Graphing <ul style="list-style-type: none"> <li>○ Graph Types</li> <li>○ Extended Templates</li> <li>○ Multiple Axes and Panels</li> <li>○ Grouped Data Plot</li> </ul> </li> </ul>	01

	<ul style="list-style-type: none"> <li>○ Data Plots <ul style="list-style-type: none"> <li>○ Plot Modifiers</li> <li>○ Axes</li> <li>○ Graph Legends and Color Scales</li> <li>○ Annotation</li> <li>○ Graph Styles</li> <li>○ Setting Graph Defaults</li> <li>○ 3D Graphs</li> <li>○ User-friendly Interface</li> <li>○ Importing</li> <li>○ Data Exploration</li> <li>○ Slicer: Graph-based Data Filtering</li> <li>○ Change Parameter and Recalculate</li> <li>○ Data Analysis and Statistics</li> <li>○ Exploratory Analysis</li> <li>○ Curve and Surface Fitting</li> <li>○ Peak Analysis</li> <li>○ Statistics</li> <li>○ Signal Processing</li> <li>○ Mathematics (Column and Cell Calculations)</li> <li>○ Data Processing</li> <li>○ RS and GIS Data Processing</li> <li>○ Exporting and Presentation</li> <li>○ Batch Processing</li> <li>○ Project and Data Management</li> <li>○ Programming and Connectivity</li> </ul> </li> <li>○ Data Import <ul style="list-style-type: none"> <li>○ CSV Connector</li> <li>○ Excel Connector</li> <li>○ HTML Connector</li> <li>○ HDF Connector</li> <li>○ NetCDF Connector</li> <li>○ Import NMR Data</li> <li>○ Import PDF Tables</li> <li>○ Google Map Import</li> <li>○ Import Shapefile</li> </ul> </li> <li>○ Statistics <ul style="list-style-type: none"> <li>○ SPC</li> <li>○ DOE</li> <li>○ Stats Advisor</li> <li>○ PCA</li> <li>○ RDA</li> <li>○ Bootstrap Sampling</li> <li>○ Time Series Analysis</li> <li>○ Factor Analysis</li> <li>○ General Linear Regression</li> </ul> </li> </ul>	
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	<ul style="list-style-type: none"> <li>○ Logistic Regression</li> <li>○ SVM Classification</li> </ul>	
	Training in the relevant software must be needed from the relevant software company	

Note: it is requested that only authorized dealers should apply in the bid

**(D) Aerial Survey System**

S. No.	DESCRIPTION		QUANTITY
01	<b>FPV Camera Fixed payload</b>	Resolution 1080p FOV 142° Frame Rate 30fps	01
	<b>Infrared Sensing System</b>	Obstacle Sensing Range 0.1-8 m FOV 30° (±15°)	
	<b>Third party Payload capacity:</b>	Multispectral camera Zemuse P1(Photogrammetry (45 MP RGB) ) <b>Zemuse L2 – LiDAR</b> Zemuse L1- terrain modeling	
	<b>Global Navigation Satellite System</b>	GPS + GLONASS + BeiDou + Galileo	
	<b>Weather resistance:</b>	IP55	
	<b>RTK</b>	1 cm + 1 ppm (horizontal) 1.5 cm + 1 ppm (vertical)	
	<b>GNSS</b>	Vertical: ±0.1 m (with vision positioning) ±0.5 m (with GNSS positioning) ±0.1 m (with RTK positioning)  Horizontal: ±0.3 m (with vision positioning) ±1.5 m (with GNSS positioning) ±0.1 m (with RTK positioning)	
	<b>Flight time</b>	5000 m	
	<b>Max Flight Time</b>	55 minutes	
	<b>Max Flight Altitude</b>		
	<b>Operating Temperature</b>	-20° to 50° C (-4° to 122° F)	
	<b>Supported Gimbal Configurations</b>	Single downward gimbal Single upward gimbal Dual downward gimbals Single downward gimbal + single upward	

		gimbal Dual downward gimbals + single upward gimbal
	<b>Intelligent Flight Battery</b>	Capacity 5880 mAh Voltage 44.76 V Type Li-ion Energy 263.2 Wh
	<b>Charging Time</b>	With a 220V power supply, it takes approximately 60 minutes to fully charge two TB65 Intelligent Flight Batteries and approximately 30 minutes to charge them from 20% to 90%.  With a 110V power supply, it takes approximately 70 minutes to fully charge two TB65 Intelligent Flight Batteries and approximately 40 minutes to charge them from 20% to 90%.
	<b>LED Auxiliary Light</b>	Effective Illumination Distance 5 m  Illumination Type 60 Hz, solid glow
	<b>Remote Control</b>	
	<b>Screen</b>	7.02-inch LCD touchscreen; resolution: 1920×1200; max brightness: 1200 nits
	<b>Global Navigation Satellite System</b>	GPS + Galileo + BeiDou
	<b>Built-in Battery</b>	Type: Li-ion (6500 mAh@7.2 V)  Charging Type: Use the battery station or USB-C fast charger with a max power of 65 W (max voltage of 20 V).  Charging Time: 2 hours  Chemical System: LiNiCoAlO2
	<b>External Battery (WB37 Intelligent Battery)</b>	Capacity: 4920 mAh Voltage: 7.6 V Type: Li-ion Energy: 37.39 Wh Chemical System: LiCoO2
	<b>Operating Time</b>	Built-in Battery: approx. 3.3 hours  Built-in Battery + External Battery: approx. 6 hours

	<b>Operating Frequency</b>	2.4000-2.4835 GHz 5.725-5.850 GHz	
	<b>Transmitter Power (EIRP)</b>	2.4000-2.4835 GHz: < 33 dBm (FCC) < 20 dBm (CE/SRRC/MIC)  5.725-5.850 GHz: < 33 dBm (FCC) < 14 dBm (CE) < 23 dBm (SRRC)	
	<b>Wi-Fi Protocol</b>	Wi-Fi 6  Wi-Fi Operating Frequency 2.4000-2.4835 GHz 5.150-5.250 GHz 5.725-5.850 GHz	
	<b>Bluetooth Protocol</b>	Bluetooth 5.1 Frequency 2.4000-2.4835 GHz	
	<b>High End system</b>		
	CPU Options	Intel Xeon W (up to 18-core W-2195 2.3 4.3 GHz) or Intel Core X-Series (e.g. i9-7980XE)	
	Memory	Up to 64.0 GB DDR4-2933 MHz ECC; 8 DIMM slots	
	Graphics Support	Up to dual GPUs (NVIDIA Quadro/RTX A-series.30 GB.	
	Maximum Resolution	4096x2160 @24bpp (3 x 4K @ 60Hz, 4 x 4K @ 30Hz)	
	Lan	Interface: Gigabit Ethernet (10/100/1000 Mbit/s). dual Lan.	
	I/O & Expansion	1× PCIe 5.0 x16, 2× PCIe 4.0 x16, 2× PCIe 4.0 x4; front USB-A	
	Storage Capacity	Four 3.5"/2.5" drive bays + two M.2 slots; up to ~4 TB total	
		B&H example: 512 GB NVMe M.2, 2× 3.5" internal bays, external optical bay	
	Supplier shall provide operational / maintenance manual and training.		

Note: It is requested that only authorized dealers should apply in the bid

**(E) Multifunction Wireless Plotter Printer**

S. No.	DESCRIPTION		QUANTITY
01	Functions	Print, copy, scan	01
	Print speed, maximum	25 sec/page for D size, 90 D size 24" x 36" prints per hour	

Scan speed, maximum	Up to 1.5 in/sec (color, 200 dpi), up to 4.5 in/sec (grayscale, 200 dpi)
Resolution (color)	Up to 2400 x 1200 optimized dpi
Number of print cartridges	4 (C, M, Y, mK) cartridges
Print languages	TIFF, JPEG, URF, PDF, HP-GL/2, HP-RTL, CALS G4
Line accuracy	±0.1%
Maximum optical density (black)	15 L* min/1.7 D
Finished output handling	Sheet feed, roll feed, input tray (50 sheet capacity), media bin, automatic horizontal cutter
Media sizes supported	Input tray: A, B; Manual feed: A, B, C, D, E
Media sizes supported	Input tray: A4, A3; Manual feed: A4, A3, A2, A1, A0
Media sizes, custom	Input tray: 8.3 x 11 to 12 x 18 in; Manual feed: 8.3 x 11 to 36 x 66 in
Media types	Bond and coated paper (bond, coated, heavyweight coated, plain, bright white, blueprint), technical paper (natural tracing), film (clear, matte), photographic paper (ID satin, ID gloss), self-adhesive (adhesive matte/gloss, adhesive polypropylene gloss), Polypropylene (matte)
Media sizes, standard	14.5 to 36 in
Roll external diameter	3.9 in
Media thickness	Up to 11.8 mil
Power	Input voltage (auto ranging): 100-240 V (±10%), 50/60 Hz (±3 Hz), 1.2 A max
Power consumption	35 W (printing), <11 W (ready), <3.5 W (sleep), <0.1 W (off). Auto-scheduled printer on/off usage
Operating temperature range	41 to 104°F
Warranty	Two-year hardware warranty
Software included	Driver for Windows 11, relevant app for Windows, macOS, Android, and iOS
Dynamic security	Dynamic security enabled printer
Supplier shall provide operational / maintenance manual and training.	

Note: It is requested that only authorized dealers should apply in the bid

**IT-23. INSTRUCTIONS TO TENDERERS  
(CLAUSE REFERENCE)**

## INSTRUCTIONS TO TENDERERS (CLAUSE REFERENCE)

### 23.1 **Name of National Institute of Oceanography and Address**

Director General  
National Institute of Oceanography  
ST-47, Block-1, Clifton, Karachi-75600 Pakistan  
Phones: (92-21) 99251172-8, Fax: (92-21) 99251179, 34166418  
E-mail: [niopk.gov.pk@gmail.com](mailto:niopk.gov.pk@gmail.com)

### 23.2 Tender shall be quoted entirely in Pak. Rupees. The items to be imported for this tender should be quoted in Pak Rupees only. The payment shall be made to the supplier in Pak. Rupees.

- a. The tenderer/manufacturer/distributor / authorized dealer/agents have the financial, and technical capability necessary to supply Oceanographic Scientific Instruments / Accessories / Consumables & Miscellaneous Items.
- b. Tender validity is 120 days, after issuance of supply order(s) at NIO, ST-47, Block-1, Clifton, Karachi, at their expense and even at short notice if needed. Payment will be made after satisfaction (demonstration will be mandatory). Delivery will be by No. of days specified in the work/supply order.
- c. If supplied items are found sub-standard or in-genuine, the contract will be canceled Security Deposits will be forfeited and the Firm will also be blacklisted.
- d. The Firms must have Sales Tax Registration Certificate, National Tax Number, and Vendor Number and have proper offices, shops/stores in Karachi as well as facilities of telephone/fax and email.
- e. Submission of any false statement/documents including concealing of information is likely to disqualify the bidder.
- f. This Institute reserves the right to accept or reject any or all tenders without assigning any reason by rule 33(1) of PPRA-2004.
- g. The bid opening procedure is single stage two enveloping procedure Rule 36(b) of PPRA 2004.

- 23.3 (a) A detailed description of the Works, essential technical and performance characteristics.
- (b) Complete set of technical information, description data, literature, and drawings as required by Tendering Data, Specific Works Data. This will include but not be limited to a sufficient number of drawings, photographs, catalogs, illustrations, and such other information as is necessary to illustrate clearly the significant characteristics such as general construction dimensions and other relevant information about the works to be performed.

**23.5 Amount of Tender Security**

2% of the quoted price

**23.6 Period of Tender Validity**

120 days from the date of tender opening.

**23.7 Number of Copies of the Tender to be Submitted**

One original plus 1 copy.

**23.8 (a) National Institute of Oceanography's Address for Tender Submission**

Director General  
National Institute of Oceanography  
ST-47, Block-1, Clifton, Karachi-75600, Pakistan  
Phones: (92-21) 99251172-4, Fax: (92-21) 99251179, 34166418  
E-mail: [niopk.gov.pk@gmail.com](mailto:niopk.gov.pk@gmail.com)

**(b) Warning**

**DO NOT OPEN BEFORE: 9<sup>th</sup> December 2025 (1230 hrs).**

**23.9 Deadline for Submission of Tenders**

**Hard copy on 8<sup>th</sup> December, 2025.**

**Online on EPADS 9<sup>th</sup> December, 2025.**

**23.10 Venue, Time, and Date of Tender Opening**

National Institute of Oceanography  
ST-47, Block-1, Clifton, Karachi-75600, Pakistan

**Time: 1230 hrs**

**Date: 9<sup>th</sup> December, 2025 (Tuesday)**

**23.11 Responsiveness of Tenders**

- (i) the Tender is valid till the required period,
- (ii) the Tender prices are firm during the currency of the contract.
- (iii) completion period offered is within specified limits,

- (iv) the Tenderer/Manufacturer is eligible to Tender and possesses the requisite experience,
- (v) the Tender does not deviate from basic technical requirements and
- (vi) the Tenders are generally in order, etc.

**IT-24. FORMS OF TENDER  
AND  
SCHEDULES TO TENDER**

**SCHEDULE - TO TENDER**

**IT-24. FORM OF TENDER**

(LETTER OF OFFER)

To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Gentlemen,

1. Having examined the Tender Documents including Instructions to Tenderers, Tendering Data, Conditions of Contract, Contract Data, Specification, and Addenda Nos. \_\_\_\_\_ for the supply of the Oceanographic Scientific Instruments / Accessories / Consumables & Miscellaneous Items., we, the undersigned, being a company doing business under the name of \_\_\_\_\_ and address \_\_\_\_\_

\_\_\_\_\_ and being duly incorporated under the laws of Pakistan hereby offer to supply the Oceanographic Scientific Instruments / Consumables & Miscellaneous Items. and remedy any defects therein in conformity with the said Documents including Addenda thereto for the Total Tender Price of Rupees (\_\_\_\_\_) or such other sum as may be ascertained by the said Documents.

2. We understand that all the Schedules attached hereto form part of this Tender.

3. As security for the due performance of the undertakings and obligations of this Tender, we submit herewith a Tender Security in the amount of \_\_\_\_\_ drawn in your favor or made payable to you and valid for a period of 28 days beyond the period of validity of Tender.

4. We undertake, if our Tender is accepted, to supply the Oceanographic Scientific Instruments / Accessories / Consumables & Miscellaneous Items. comprised in the Contract within the time(s) stated in Contract Date.

5. We agree to abide by this Tender for the period of 120 days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

6. Unless and until a formal Agreement is prepared and executed, this Tender, together with your written acceptance thereof, shall constitute a binding contract between us.

7. We undertake, if our Tender is accepted, to execute the Performance Security referred to in the Conditions of the Contract for the due performance of the Contract.

8. We understand that you are not bound to accept the lowest or any Tender you may receive.

9. We do hereby declare that the Tender is made without any collusion comparison of figures or arrangement with any other person or persons making a Tender for the Works.

Dated this \_\_\_\_\_ day \_\_\_\_\_ Signature \_\_\_\_\_ in the capacity of \_\_\_\_\_ duly authorized to sign tenders for and on behalf of

(Name of Tenderer in Block Capitals)

Address:

Witness:

## FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the “Agreement”) made on the \_\_\_\_ day of 2025 between DIRECTOR GENERAL, NATIONAL INSTITUTE OF OCEANOGRAPHY (hereinafter called the “Employer”) of the one part and \_\_\_\_\_ (hereinafter called the “Contractor”) of the other part.

WHEREAS the Employer is desirous that certain Works, viz \_\_\_\_\_ should be executed by the Contractor and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW this Agreement witness as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents after incorporating addenda, if any except those parts relating to Instructions to Bidders, shall be deemed to form and be read and construed as part of this Agreement, viz:
  - (a) The Letter of Acceptance;
  - (b) The completed Form of Bid along with Schedules to Bid;
  - (c) Conditions of Contract & Contract Data;
  - (d) The priced Schedule of Prices;
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy defects therein in conformity and all respects within the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS WHEREOF the parties hereto have caused this Contract Agreement to be executed on the day, month, and year first before written by their respective laws.

Signature of the Contactor

\_\_\_\_\_

(Seal)

Signature of the Employer

\_\_\_\_\_

(Seal)

Signed, Sealed, and Delivered in the presence of:

Witness:

\_\_\_\_\_

(Name, Title, and Address)

Witness:

\_\_\_\_\_

(Name, Title, and Address)

**IT-25. BID TECHNICAL EVALUATION  
CRITERIA FOR DATA ANALYSIS AND  
GRAPHING SOFTWARE**

## IT-25. BID TECHNICAL EVALUATION CRITERIA

### (A) Conductivity, Temperature and Depth (CTD)

#### 1. Preliminary Evaluation (Pass/Fail)

Criteria	Description	Requirement	Pass/Fail
Legal eligibility	Valid business license, tax clearance, registration	Mandatory	
Bid submission format	Properly filled forms, signed with stamp documents	Mandatory	
Bid security	As per PPRA requirement	Mandatory	
Compliance with terms of reference	Statement of compliance with technical specifications	Mandatory	

#### 2. Technical Evaluation (70 points minimum passing: 50)

#	Criteria	Description	Max Points
1	<b>Core Parameters</b>	Compliance with required <b>range, resolution, and accuracy</b> for Conductivity, Temperature, and Pressure	20
2	<b>Secondary Specs</b>	Compliance with Sound Velocity, Salinity, Density, Depth Rating, Dimensions, Weight	10
3	<b>Construction Material</b>	Sensor and frame materials as specified (Titanium, Ceramic Core, Stainless Steel, Polyurethane)	10
4	<b>Power &amp; Communication</b>	USB serial, Bluetooth v4-LE, internal Li-ion battery (2 packs), fast charging, 5-day operation	10
5	<b>Software</b>	Compatible with Windows, provided via CD/USB	5
6	<b>Training and Documentation</b>	Quality of manuals, training content, delivery method	5
7	<b>After-Sales Support</b>	Availability of technical support, spare parts, and service	10

3. Financial Evaluation (30 points)

<b>Criteria</b>	<b>Description</b>	<b>Max Points</b>
<b>Bid Price</b>	Lowest evaluated cost (incl. licenses, Instrument, accessories, delivery, technical support)	30

**(B) Hydrodynamic Modeling Software**

1. Preliminary Evaluation (Pass/Fail)

<b>Criteria</b>	<b>Description</b>	<b>Requirement</b>	<b>Pass/Fail</b>
Legal eligibility	Valid business license, tax clearance, registration	Mandatory	
Bid submission format	Properly filled forms, signed with stamp documents	Mandatory	
Bid security	As per PPRA requirement	Mandatory	
Compliance with terms of reference	Statement of compliance with technical specifications	Mandatory	
License Terms	2–3, year license offered with full features included	Mandatory	
Training	Official training from the software company or certified partner included	Mandatory	
Technical Support Commitment	Minimum 12 months of Service Level 3 support with 64 hours and 1-day response time	Mandatory	

2. Technical Evaluation (70 points minimum passing: 50)

<b>Criteria</b>	<b>Description</b>	<b>Max Points</b>
Grid Generation	2D/3D structured & unstructured grids, Cartesian & spherical coordinates	5
Mesh & Boundary Tools	Orthogonality checks, boundary condition generation	4
Data Integration	Use of digital bathymetric data	3
Sensitivity & Auto-calibration	Tools for auto-calibration and sensitivity analysis	4
Interoperability	Compatibility with MATLAB, Python, QGIS, etc.	4
Visualization	3D animation, video presentation, GISVIEW	5
Flow Simulation	Unsteady flow, stratified/non-stratified, storm surge, wave/current effects	6
Flood Modeling	Flooding, tsunamis, surge, coastal & estuarine modeling	5
Coupled Models	Interaction with sediment transport, water quality, ecological models	5
Grid Versatility	Supports curvilinear & mixed polygon grids (tri, quad, hex, etc.)	4
Hydraulic Control	Simulates real-time control of structures (locks, reservoirs, etc.)	4
Morpho dynamics	Sediment transport & morphological change (cohesive & non-cohesive)	6
License Scope	Full-feature license for 2–3 years from the developer or official partner	5
Support Level	SLA Tier 3 with 64 hours and 1-business-day response	5
Training	Delivered by software company or certified expert	5

3. Financial Evaluation (30 Points)

<b>Criteria</b>	<b>Description</b>	<b>Points</b>
Price Competitiveness	Evaluated total cost (software + license + technical support + training + delivery)	30

(C) **Data Analysis and Graphing Software**

1. Preliminary Evaluation (Pass/Fail)

<b>No.</b>	<b>Criteria</b>	<b>Requirement</b>	<b>Status</b>
1	Authorized Dealer Certificate	Vendor must be an <b>authorized dealer</b> or <b>partner</b> of the software developer	Pass/Fail
2	Complete Proposal	Bid must include all required documents and technical compliance checklist	Pass/Fail
3	Valid Business License	Company must be legally registered and licensed	Pass/Fail
4	Past Experience	At least 2 successful implementations of similar software in the past 5 years	Pass/Fail
5	Commitment to Training	Must provide <b>official training</b> from the software provider	Pass/Fail

2. Technical Evaluation (Total: 70 Points – Minimum to Qualify: 50 Points)

<b>No.</b>	<b>Criteria</b>	<b>Description</b>	<b>Max Points</b>
1	<b>Graphing Capabilities</b>	Includes graph types, templates, axes, modifiers, 3D plots, slicers, etc.	15
2	<b>Data Analysis Features</b>	Curve fitting, surface fitting, peak analysis, statistics, signal processing, etc.	15

3	<b>Import/Export &amp; Integration</b>	Connectors for Excel, CSV, HTML, NetCDF, Shapefile, PDF, Google Maps, etc.	10
4	<b>Advanced Statistical Methods</b>	PCA, RDA, Bootstrap, Time Series, Regression (GLR, Logistic), SVM Classification, etc.	10
5	<b>Project/Data Management &amp; Batch Processing</b>	Ability to manage multiple projects and process data in batch mode	5
6	<b>Programming &amp; Connectivity</b>	Custom scripting, API access, automation support	5
7	<b>User Interface &amp; Usability</b>	Intuitive GUI, annotation tools, graph legends, customization	5
8	<b>Training Program</b>	Training from the software developer or certified trainer; includes certification	5

### 3. Financial Evaluation (30 Points)

<b>Criterion</b>	<b>Description</b>	<b>Max Points</b>
Total Cost of Ownership	Includes software license, training, Technical support, and updates for 3–5 years	30

### (D) Aerial Survey System

#### 1. Preliminary Evaluation (Pass/Fail)

<b>Criteria</b>	<b>Description</b>	<b>Requirement</b>	<b>Pass/Fail</b>
Legal eligibility	Valid business license, tax clearance, registration	Mandatory	
Bid submission format	Properly filled forms, signed with stamp documents	Mandatory	
Bid security	As per PPRA requirement	Mandatory	

Compliance with terms of reference	Statement of compliance with technical specifications	Mandatory	
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2. Technical Evaluation (70 points minimum passing: 50)

No.	Criteria	Description	Max Points
1	<b>Camera &amp; Sensor Specs</b>	FPV Camera 1080p @ 30fps, IR sensing range, multispectral/LiDAR payload support	15
2	<b>Navigation &amp; Positioning</b>	GNSS system accuracy (GPS, GLONASS, BeiDou, Galileo), RTK precision, altitude, flight time	15
3	<b>Battery &amp; Power</b>	Battery specs, charging times, operating times with external battery	8
4	<b>Remote Control &amp; Communication</b>	Screen specs, frequency bands, Wi-Fi 6, Bluetooth 5.1, transmitter power	7
5	<b>Environmental &amp; Operational Conditions</b>	IP rating, operating temperature range, max flight altitude	5
6	<b>Computing System</b>	CPU options, memory, GPU, storage, LAN, I/O expansion	10
7	<b>Support &amp; Training</b>	Quality and comprehensiveness of training, manuals, after-sales support	10

3. Financial Evaluation (30 Points)

Criteria	Description	Max Points
Total Cost	Full cost including hardware, software, training, manuals, maintenance support	30

**(E) Multifunction Wireless Plotter Printer**

1. Preliminary Evaluation (Pass/Fail)

No.	Criteria	Description	Requirement	Pass/Fail
1	<b>Authorized Dealer</b>	Bidder must be an officially authorized dealer for the offered printer brand	Mandatory	
2	<b>Compliance Documentation</b>	Bidder must provide a detailed compliance matrix against all listed specs	Mandatory	
3	<b>Operational / Maintenance Manual</b>	Must be included in the proposal	Mandatory	
4	<b>Operating Guidelines</b>	(on-site or virtual)	Mandatory	
5	<b>Warranty</b>	Two-year hardware warranty (minimum)	Mandatory	
6	<b>Company Registration</b>	Legal business license/registration	Mandatory	

2. Technical Evaluation (70 points minimum passing: 50)

No.	Criteria	Description	Max Points
1	<b>Functionality</b>	Print, Copy, Scan – all in one system	10
2	<b>Print Performance</b>	Max speed (25 sec/page for D size), resolution (up to 2400 x 1200), line accuracy ( $\pm 0.1\%$ )	15
3	<b>Scanning Capabilities</b>	Color and grayscale scan speed, supported resolutions	10
4	<b>Media Handling</b>	Roll feed, sheet feed, input tray, supported media sizes/types, media thickness	10

5	<b>Connectivity &amp; OS Support</b>	Wireless functionality, drivers/apps for Windows/macOS/Android/iOS	5
6	<b>Power &amp; Efficiency</b>	Auto-scheduled on/off, low consumption in sleep/off modes	5
7	<b>Dynamic Security Features</b>	Compliance with dynamic security protocols	5
8	<b>Training &amp; Support</b>	Quality of training plan, including manuals, ongoing support commitment	10

### 3. Financial Evaluation (30 Points)

<b>Criterion</b>	<b>Description</b>	<b>Points</b>
Price Competitiveness	Total cost including device, installation, training, manuals, and warranty with technical support	30

#### Scoring formula:

$$\text{Score} = (\text{Lowest Bid} / \text{Bidder's Price}) \times 30$$

\* Lowest bid (Whose bidder price lowest of all bidders)

\*Bidder's Price is just the individual total cost offered by each bidder.

<b>Evaluation Phase</b>	<b>Weight</b>
Technical Score	70%
Financial Score	30%

$$\text{Final Score} = (\text{Technical Score} \times 0.7) + (\text{Financial Score} \times 0.3)$$

The bidder with the **highest combined score** is recommended for award according to PPRA (35,36 and 41).