

**Ministry of Energy  
(Petroleum Division)  
Geological Survey of Pakistan**



Request for Proposal (RFP)

For

**Hiring of Services for the Development, and Maintaining GIS Based Geodatabase Solution and  
Integrated Field Data Collection Mobile App**

**Director Procurement (AGM)  
Geological Survey of Pakistan  
Trade Center near Expo Center,  
M.A. Johar Town, Lahore  
Ph. # 0092-42-99232932-3**

## **ADDENDUM/CORRIGENDUM**

1. Reference to Tender Notice No. PID (L)3104 for the Development, and Maintaining GIS Based Geodatabase Solution and Integrated Field Data Collection Mobile App published on PPRA & GSP websites and in ‘**The News (Lahore, Karachi and Rawalpindi), Daily “Jang” (Lahore, Rawalpindi, Karachi and Quetta), Daily “Frontier Post, Peshawar, Daily “92News” Peshawar dated 6<sup>th</sup> April, 2024.** All the prospective bidders are hereby informed that in the light of the Pre-bid meeting, GSP has extended the date of bid submission as well as necessary amendments incorporated in the bidding documents.
2. The bidding process will now follow “**Two Stage Bidding Procedures**” in accordance with the Rule 36 (c) of PPRA Rule 2004.
3. Public sector Organizations willing to participate in the bidding process are requested to fulfill the legal requirement for their eligibility. Exemption certificates/Proof of compliance with regard to prevailing tax laws must also be provided.
4. Updated bidding documents can be downloaded from GSP website [www.gsp.gov.pk](http://www.gsp.gov.pk) and PPRA website [www.ppra.org.pk](http://www.ppra.org.pk).
5. The Technical bids complete in all respects may reach Office of the undersigned by **8<sup>th</sup> May 2024 at 12:00 hours.**, and will be opened on the **same day at 12:30 hours** in the presence of representatives of the bidders.

**SAJJAD KARAMAT**  
**Director Procurement, AGM Project,**  
**Geological Survey of Pakistan,**  
**Trade Center near Expo Center, M.A. Johar Town, Lahore.**  
**Tel: 042-99232932-3**

**SECTION – I**  
**GENERAL INSTRUCTIONS TO BIDDERS**

**1. Introduction:**

- 1.1. This section “General Instructions to Bidders” (GIB) provides the relevant information as well as instructions to assist the prospective Bidders in preparation and submission of tenders.
- 1.2. Bidders shall have to agree/accept all the terms and conditions of the Tender document including payment terms etc. Acceptance shall be unconditional and Bidders shall have no claim and right in future on their terms, if any.

**2. Tender Language:**

The tender submitted by the Bidder, all subsequent correspondence and documents relating to the tender exchanged between the Bidder and the GSP shall be written in English language.

**3. Tender Validity:**

- 3.1. The tenders shall remain valid for acceptance for a period of 180 days (one hundred eighty days) after the date of financial bid opening.
- 3.2. The GSP reserves the right to accept or reject any tender or to cancel the tendering process and reject all tenders at any time prior to award of contract as per PPRA rules, without incurring any liability, whatsoever to the affected Bidder or Bidders.

**4. Tendering Expenses:**

The Bidder shall bear all the costs and expenditure incurred and/ or to be incurred by them in preparation and submitting their tender including demonstration of Services or Presentations before the Committee that may be deemed necessary by the GSP.

**5. Tender Queries:**

- 5.1. The queries can be sent to GSP through email at muhammadimran@gsp.gov.pk, muhammadusman@gsp.gov.pk and/ or posted to Director Procurement, AGM Project, Geological Survey of Pakistan, Trade Center near Expo Center, M.A. Johar Town, Lahore.
- 5.2. Queries sent Via email to aforementioned email addresses and/or by post at aforementioned address shall be entertained on or before **06-May-2024**. No correspondence will be entertained after this date.
- 5.3. **Regular visit of website:** Prospective Bidders are advised to visit PPRA website ( <https://www.ppra.org.pk> ) and GSP website( <https://gsp.gov.pk> ) on regular basis for any change in NIT schedule, amendment / corrigendum in Tender Document including technical requirements etc.

**6. Bidder’s Eligibility Criteria:**

- 6.1. Successful Bidder should have a turnover of 15 million PKR during the last five years and must have experience in design, development of GIS based, dynamic solution in server environment.
- 6.2. Successful Bidders must have completed at least two similar natures of work (GIS based, Database oriented Dynamic solution and Mobile app) during the last 05 years.
- 6.3. Successful Bidder has to provide completion certificates from such clients.
- 6.4. The successful bidder must have a valid firm/company registration certificate from Securities and Exchange Commission (SECP) of Pakistan or Registrar of Firms and must be sales tax/income tax registered with FBR and must be on active taxpayer list. Public sector Organizations willing to participate in the bidding process are requested to fulfill the legal requirement for their eligibility. Exemption certificates/Proof of compliance with regard to prevailing tax laws must also be provided.

- 6.5. The Bidder must provide the details on technical team including GIS solution developers.
- 6.6. The registration number, GST and NTN/FTN numbers of the bidder/firm must be submitted along with registration certificates (where necessary). Bids without these details will stand rejected at the time of evaluation of technical criteria.
- 6.7. The Bidder must submit the details of agreements entered into with various Manufacturers/ Partners/ Subcontractors for execution of work as per TORs framed at the time of award of the contract for evaluation of technical criteria.
- 6.8. A self-certificate stating that the Bidder is not presently blacklisted and hasn't been blacklisted by any institution of the Federal/ Provincial Government in the past three years must be submitted.
- 6.9. The Bidders are requested to furnish documents to establish their eligibility for each of the above clauses. Relevant portions, in the documents submitted in pursuance of eligibility criteria mentioned above, should be highlighted. If tender were not accompanied by all the above documents mentioned, the same would be rejected. Undertaking for subsequent submission of any of the above documents will not be entertained. However, GSP reserves the right to seek a fresh set of documents or seek clarifications on the already submitted documents. If upon verification, evaluation/ assessment, the information furnished by the Bidder is found to be false/incorrect, their bid shall be summarily rejected and no correspondence on the same shall be entertained.
- 6.10. The bid submitted by any bidder failing to fulfill the eligibility conditions/criteria detailed above, will not be considered.

## 7. Bid Submission:

- 7.1. All information provided in the proposals should be firm, irrevocable, and not subject to change or escalation on any account. No modification, alteration or deletion in the provided information will be accepted after the bid submission.
- 7.2. This is “**Two Stage Bidding Procedures**” in accordance with the Rule 36 (c) of PPRA Rule 2004. The bidders shall submit their proposals in one sealed envelope marked as “Technical Proposal”. Technical envelopes will be opened in the presence of bidders on 8<sup>th</sup> May 2024 at 12:30 pm for further evaluation. The final date of submission of Financial Bids along with revised Technical Bids will be communicated to all the bidders after the successful completion of first stage of bidding procedure. Furthermore, final evaluation reports containing technical and financial evaluation determining the “**Most Advantageous Bid**” will be published on GSP website and PPRA as well. After the finalization of evaluation, the successful bidder will be issued “Letter of Intent” which will be followed by the Contract agreement.
- 7.3. The earnest money/bid security amounting **Rs: 200,000/-** in the form of original Bank Draft/ Bank Guarantee of any Scheduled Commercial Bank drawn in favor of the **Director General, Geological Survey of Pakistan** must be placed in technical proposal in the first stage.
- 7.4. Sealed proposals shall be received in the office of GSP within the deadline as mentioned above and bids will be opened on the same day at time indicated above in the presence of bidders or their authorized representatives who choose to attend.
- 7.5. The detailed proposal must be submitted at the address mentioned in the advertisement in person or by courier or by any other means, but it shall be the bidder's responsibility to ensure that proposals so submitted are delivered to the above address by the specified bid

submission date and time. Proposals received after the tender closing time shall not be considered and will be returned to the concerned bidder unopened.

- 7.6.** All the forms enclosed & information provided will be the basis for technical evaluation. Forms must be completed properly and with evidence. Incomplete information may lead to disqualification of the bidder.
- 7.7.** Technical qualification criteria will be based on the mentioned requirements in subsequent sections of the tender document.
- 7.8.** The proposals should be signed by a person having the authority for this purpose. In case of a proposal submitted by a corporate entity/ Public Sector Organization, the same shall bear its seal and be duly signed by its competent authority. All pages of the bid being submitted **must be sequentially numbered by the Bidder.**
- 7.9.** Without the earnest money deposit (EMD)/Bid Security, the bid will be treated as canceled.
- 7.10. Technical Proposal should contain the following details, should be titled as “Technical Proposal.**

- Company profile and Infrastructure
- Registration Certificates
- All the mandatory documents required for Eligibility Criteria
- Summary of relevant projects as per **Form-A** and the supporting documents.
- Profile of full-time technical team as per **Form-B.**
- Details of Offices as per **Form-C.**
- Financial Information of the bidder as per **Form-D.**
- Compliance sheet as per **Form-E** and the supporting documents.
- Authority letter as per **Form-F**
- Submission of Tender Acceptance form as per format given in **Form-G.**
- Checklist section (as per **Form-H**) properly filled and signed.
- Bid Security (original bank draft)
- Any other information/document listed in Form-H.

The Technical Proposal, NOT containing the above documents will lead to rejection of the bid.

- 7.11. Financial Proposal:** The financial bid (as per the format specified in **Form-I** needs to be submitted after the successful evaluation of technical bids in accordance with following guidelines.

- The rates are to be quoted in strict compliance to the format (specified in **Form-I**) otherwise the bid is liable to be rejected.
- The rates are to be quoted by the Bidders in Pakistani Currency and payment shall be made to successful Bidders in Pakistani currency only.
- The Bidder shall bear all the applicable tax liability as per rates prevailing at the time of undertaking the job in accordance with the tax Ordinance/laws/rules/regulations.
- The price quoted should be inclusive of all applicable taxes and duties.

## **8. Opening of Technical Bids:**

The GSP will open the bids at the specified date and time and at the specified place as indicated in the Tender Notice/corrigendum. In case the specified date of bids opening falls on /is subsequently declared a holiday or closed day for the GSP, the tenders will be opened at the appointed time and place on the next working day. Authorized representatives of the Bidders, who have submitted bids on time may attend the tender opening, provided they bring with them letters of authority from the corresponding Bidders. The Technical Proposals are to be opened at the prescribed time and date. These Bids shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the tender document. During the Technical Bids opening, the Bids opening official(s) will read the salient features of the tenders like Eligibility Criteria, Earnest Money Deposit/Bid Security and any other special features of the tenders, as deemed fit by the tender opening official(s).

## **9. Unresponsive Bids:**

The bids will be scrutinized to determine whether they are complete and meet the requirements, conditions etc. as prescribed in the tender document.

## **10. Technical Evaluation:**

- 10.1.** A duly constituted Technical Evaluation Committee (TEC) will first select Bidders based on the eligibility criteria of this tender. The Bids conforming to the eligibility criterion will be considered for further evaluation.
- 10.2.** Bidders should present their offered solutions including but not limited to selection of services, technologies, business plan, implementation timeline, testing procedure and maintenance plan before the TEC for further evaluation of their technical proposal.
- 10.3.** If during the preliminary examination, the GSP find any minor informality and/ or irregularity and/ or non-conformity in a tender, the GSP may waive the same provided it does not constitute any material deviation and, also, does not prejudice or affect the ranking order of the Bidder. Wherever necessary, the GSP will convey its observation on such 'minor' issues to the Bidder asking the Bidder to respond by a specified date. If the Bidder does not reply by the specified date or gives evasive reply without clarifying the point at issue in clear terms, that tender will be liable to be ignored.
- 10.4.** Technical Evaluation Committee (TEC) will shortlist Technical Bids on the basis of technical parameters, presentation on offered technical solutions and features offered. The TEC can make any inquiry/seek clarification from the Bidders on the offered Service Solution. In this regard, the bidders will be asked to present/discuss their offered solution on the bid opening day (i.e. 08-05-2024) or the following day/s. In such a situation, the Bidder shall extend full cooperation. The Bidders will be asked to give technical presentation/ discussion on the offered solution, in a short period notice, as such the Bidders have to be ready for the same.
- 10.5.** For Detailed Technical Presentations/Discussions, Bidder has to ensure availability of appropriate specialists, along with required documentation for interacting with the Technical Evaluation Committee.

## TECHNICAL SELECTION CRITERIA

Technical Proposal (Weightage) 80%								
Company Profile				20%				
Project Team				20%				
Approach and Methodology				50%				
Launching & Technical Support Plan				10%				
Name of Firm/Consortium:				<b>ABC</b>				
(1) Company Profile: (100 Points)								
a) No. of Similar assignments				60 Points				
Five or more projects				60				
Four Projects				48				
Three Projects				36				
Two Projects				24				
One Project				12				
(i) Similarity will be established and weightage will be given as under:								
Sr. No.	Project Title	Similarity	Date of Start	Date of Completion	Marks Obtained			Marks Obtained
					Strong (100%)	Medium (80%)	Weak (60%)	
					12	9.6	7.2	
1								0
2								0
3								0
4								0
5								0
							Total Marks	0
b) Value of similar assignments (Only Top 5 Projects)					20 Points	Value PKR		
For each completed project with value					4	~Rs. 10 million		
For each completed project with value					2.5	≥ 7 million		
For each completed project with value					1.7	≥ 4 million		
For each completed project with value					1	≤ 2 million		
Sr. No.	Value of Project (Rs.)				Marks Obtained			
1								
2								
3								
4								
5								
	<b>Total Marks Obtained</b>							
c) Financial Capability (to provide bank statement/Audit Reports for Last 05 years) 20 points								
Sr. No.	Financial Year			Status	Marks			
1	Turnover of more than 25 Million (20 Points)							
2	Turnover between 20 to 24.9 Million (14 Points)							
3	Turnover between 15 to 19.9 Million (7 Points)							
Total Marks Obtained								
Total Marks Obtained in Company Profile								

**(2) Project Team (100 Points)**

Each member of Bidder team will be evaluated on the following criteria

Sr. No.	Name of Person	Designated Post	Max Marks	Education (25%)				Experience/No. of similar assignment (70%)				Time with Firm (05%)			
				Ph.D (100%)	M.Phil/MS (90%)	BS/M.Sc (80%)	Total	5 or more (100%)	3 or less than 5 (80%)	<03 (60%)	Total	>= 05 year or more (100%)	>03 years or less than (80%)	<03 (60%)	Total
1		GIS Solution Developer		7.5	6.75	6		21	16.8	12.6		1.5	0.24	0.9	
			30												
2		GIS Solution Developer		5	4.5	4		14	11.2	8.4		1	0.16	0.6	
			20												
3		GIS Solution Developer		5	4.5	4		14	11.2	8.4		1	0.16	0.6	
			20												
4		Software Developer/Web Developer/Application Developer/Programmer		2.5	2.25	2		7	5.6	4.2		0.5	0.08	0.3	
			10												
5		Software Developer/Web Developer/Application Developer/Programmer		2.5	2.25	2		7	5.6	4.2		0.5	0.08	0.3	
			10												
6		Manager Technical/O & M/ Finance		2.5	2.25	2		7	5.6	4.2		0.5	0.08	0.3	
			10												
Total			100												
<b>Total Marks Obtained in Project Team</b>															



<b>(3) Approach and Methodology (100 points)</b>							
<b>Understanding and Innovativeness (40)</b>							
		<b>Mark Distribution</b>	<b>Excellent (100%)</b>	<b>Very Good (80%)</b>	<b>Good (65%)</b>	<b>Average/ below average (40%)</b>	<b>Total Marks</b>
(i)	Has the bidder understood and appreciated the requirements and objectives of the Project?	15	15	12	9.75	6	
		Mark Obtained =>					
(ii)	What is the quality of the improvements/modifications proposed by the Bidder to the Scope of Work to improve the outcome of the assignment	15	15	12	9.75	6	
		Mark Obtained =>					
(iii)	Has the Bidder identified any potential risks which might or can affect the execution of the Project? What is the level of appreciation of the nature and scope of such potential risks? Whether any mitigation strategies have been proposed? If yes, what is the quality of such proposed mitigation strategies?	10	10	8	6.5	4	
		Mark Obtained =>					
<b>Methodology; Work Plan and Schedule (60)</b>							
(i)	How developed is the Work Plan and Schedule? Does it fully cover the Scope of Work? Proposed Design? Development execution Methodology? Bussiness Plan? Proposed Platform/technology? Consultation Mechanism? Is the bidder sufficiently developed to ensure completion of the Project within the Proposed timelines.	40	40	32	26	16	
		Mark Obtained =>					
(ii)	Is the Bidder's proposed human resource adequate for the Work Plan and Schedule? Is the human resource utilization sufficient and practical?	10	10	8	6.5	4	
		Mark Obtained =>					
(iii)	How does the overall methodology conform to industry standards?	10	10	8	6.5	4	
		Mark Obtained =>					
<b>Total Marks Obtained in Approach and Methodology</b>							

- **Technical evaluation scores will be given on cumulative profile of the venders/firms participating as Joint Venture (JV) with the exception of mandatory requirements regarding Firm Registration and TAXPAYER status. The leading firm of the JV must meet both of the above-mentioned mandatory requirements.**
- **Minimum 60% technical score for qualification & further evaluation**
- **Decision of the Evaluation Committee will be final.**

#### **11. Financial Evaluation:**

- 11.1.** The Financial Bids of only those Bidders short-listed from the Technical Bids by TEC will be opened in the presence of their representatives on a specified date and time to be intimated to the respective Bidders, and the same will be evaluated by a duly constituted Finance Evaluation Committee (FEC).
- 11.2.** There will be NO NEGOTIATION regarding the financial bid.
- 11.3. Financial Score (Sf) = Lowest offered price/Bid Price x100**

**Final Evaluation Score (Most Advantageous Bid Criteria) = 80% of the Total Marks Obtained in Technical Evaluation + 20% of the Total Marks Obtained in Financial Evaluation**

## **12. Bid Security/Earnest Money Deposit (EMD):**

- 12.1.** The Bidder shall furnish along with its technical proposal, earnest money/bid security amounting **Rs: 200,000/-** in the form of original Bank Draft/ Bank Guarantee of any Scheduled Commercial Bank drawn in favor of the **Director General, Geological Survey of Pakistan**. The Earnest Money is required to protect the GSP rights against the risk of the Bidders unwarranted conduct. EMD also known as bid security deposit.

## **13. Refund of EMD:**

- 13.1.** In the case of those Bidders who fail to qualify the eligibility criteria, the Earnest Money Deposit (EMD) will be refunded without any interest accrued immediately thereafter.
- 13.2.** In the case of those Bidders who are not willing to conform their respective bids to the procuring agency's technical requirements, will be allowed to withdraw from the bidding without forfeiture of their bid security as per PPRA rules.
- 13.3.** EMD of the Bidders whose revised technical bids do not qualify will be refunded without any interest accrued within one month of the acceptance of TEC's recommendations.
- 13.4.** In the case of those Bidders whose technical bids have qualified but are not selected, the EMD will be refunded without any interest accrued within one month of the acceptance of Financial Evaluation Committee's (FEC) recommendations.

## Section-II

### Technical Specification

#### 1. Background:

- 1.1. The Geological Survey of Pakistan (GSP) is an attached department of the Ministry of Energy (Petroleum Division), Government of Pakistan. It is a national organization which is primarily responsible for collection and dissemination of geological information about the country so that the earth's resources could be best exploited and utilized. The geological information is compiled and disseminated in the form of geological reports and maps.
- 1.2. The geological maps and their accompanying digital database incorporate geographical, geological, tectonic, and geochronological data in a form which can easily be manipulated using geographic information system (GIS) technology so that new ideas and insights for the map region can be tested. Essential to the ongoing research on the economic minerals of Pakistan, is the early design and implementation of a comprehensive GIS based database solution. It will integrate various types of geological maps and associated data, including mineralogical, geophysical, geochemical, geological cross-sections, stratigraphic sections, and borehole logs. This database will incorporate all the fields of Geoscientific research (geology; tectonics; geochronology; geochemistry; geophysics; exploratory drilling; etc.). It can enhance communication and collaboration between different stakeholders involved in mineral resource management, like geoscientists, engineers, managers, investors, regulators, and communities.
- 1.3. The GSP intends to have a GIS based geodatabase solution that would approximately cater one (1) TB of geoscientific information in raster and vector formats. Additionally, an android based mobile application needs to be developed for field data collection having real time integration with the GIS database solution.

#### 2. Scope of Work:

##### 2.1. Geological Database Solution

- 2.1.1. Design, Development, and maintaining a GIS based geodatabase solution along with administrative and public Dashboards

###### 2.1.1.1. Key Features of GIS Solution will include:

- a) Creation, Storage and Processing of GIS data
- b) Import, export, share and print tools for vector and raster data
- c) View Published Geological, Mineral Occurrences
- d) Simultaneously display maps from different map layers, including the transparency adjustment for displayed layers.
- e) Query for Mineral Occurrences Database.
- f) Query for datasets in the Database.
- g) Provide intuitive mouse control for simple map navigation and better user experience.
- h) Measure distances and areas with measuring functions within the map: 2D.
- i) Save and restore current map views.
- j) Show overview window.
- k) Search and browse data (raster, vectors, services, and business data) via Explore Data Catalog Tab from Database Catalog archive.
- l) Provides 2D map control supporting the display of a base map and rendering other supported data sources properly.
- m) Data request form.
- n) Multilingual.

- o) Role based access for Content Management System (CMS) and users.

#### 2.1.1.2. Essential Requirements for GIS Solution

- a) Incorporate interactive mapping functionalities, allowing users to navigate, zoom, and query GIS data seamlessly.
- b) Implement tools for overlaying different layers and conducting spatial analyses.
- c) Develop a user-friendly and intuitive design for the GIS portal.
- d) Define the overall framework, including the structure of the portal and its interactive components.
- e) Establish user roles and permissions to control access levels based on responsibilities and requirements.
- f) Implement secure login mechanisms to protect sensitive GIS data.
- g) Develop visualizations, including charts, graphs, and thematic maps, to enhance data interpretation.
- h) Enable customization of visualizations based on user preferences
- i) Implement robust search and query capabilities to allow users to quickly find and extract specific information from the GIS database.
- j) Ensure the portal supports both spatial and attribute-based queries.
- k) Ensure the GIS portal is fully responsive for at least 1000 concurrent users, compatible with various devices and screen sizes for optimal user experience.
- l) Prioritize mobile responsiveness to enhance accessibility.
- m) Integrate standardized GIS data into the portal, ensuring real-time or periodic updates.
- n) Implement mechanisms for data synchronization and maintain data integrity
- o) Implement security measures to safeguard against potential threats and vulnerabilities. Monitor portal performance and address any issues promptly.
- p) Integrate new features or functionalities as needed during warranty period.
- q) Administer and maintain the email server to ensure reliable and secure communication.
- r) Implement spam filters and security protocols to enhance email security
- s) Provide technical support for any email-related issues.
- t) Implement a rigorous testing process to identify and rectify any bugs or issues in the GIS portal.
- u) Conduct user acceptance testing to validate the portal's functionality and usability.
- v) Develop a maintenance plan and provide ongoing support to address any technical issues or updates needed after the portal is launched.
- w) Establish protocols for regular system updates and improvements.

#### 2.1.1.3. General Instructions

- a) The bidder will be responsible to provide the detailed description of required hardware including but not limited to Servers, Network Switch, Firewall, power backup etc.
- b) The bidder will be responsible to design and develop the solution using its own logistics and hardware resources.

- c) Work closely with GSP at each stage of design/ development for understanding of requirements, functionalities, etc.
- d) Firms must implement the system with a selection of such Hardware and Software technologies that are able to provide security of the servers/ website/database/and other related entities.
- e) Latest, standard, proven, preferably open-source technologies (for basemaps/imageries and database) shall be used. Entire software Licensing (including third party, if any) shall be the responsibility of the bidder for sustaining the solution until the end of warranty period.
- f) Auto-backup of all the dynamic and static content of the database.
- g) Successful bidder should provide the source code with documentation of all customized software exclusively developed for this project under non-disclosure guarantee.
- h) Successful bidder should be ready to accommodate changes in web-application-software and its customization etc., to fulfill such requirements that may arise during the intervening period between preparation of this document and commissioning of the system within the scope of the project.
- i) Bidder shall provide onsite support during warranty.
- j) The dashboard shall be compatible with all popular web browsers like Chrome, Mozilla, Opera, Edge, etc.
- k) Any other work/development/design/requirement etc. which is not mentioned here in this document but are operationally essential and may arise during the execution of work/design/development/testing/ maintenance of the solution.
- l) The bidder will be responsible to link the solution with GSP website (<https://gsp.gov.pk>)
- m) Solution is to be linked with the GSP website through an in-house server. Following sites/links may be seen for reference only for dashboard. (to have an idea about type of products to be catered on the solution tentatively).

<https://ngdp.sgs.gov.sa/ngp/>

<https://ngd.sgs.gov.sa/media/1049/ngd-portal-userguide-en.pdf>

[https://ngmdb.usgs.gov/ngmdb/ngmdb\\_home.html](https://ngmdb.usgs.gov/ngmdb/ngmdb_home.html)

#### 2.1.2. Design, Development, Hosting and Maintaining of Android application for smart data collection in the field.

##### 2.1.2.1. Key Features of application will include:

- a) Digital data entry forms of different templates (i.e. geological mapping, mineral investigations, geophysical surveys, and exploratory drilling)
- b) Real time integration with the GIS database solution.
- c) Live GPS location pointer and compass on the base map
- d) Facility to acquire data on desired points through integrated GPS.
- e) Tools to snap geotagged photos and link them with data points.
- f) Facility to import and view interactively, the offline georeferenced maps and images.
- g) Display online basemaps/imageries preferably open source and facility to download and use basemaps/imageries offline through cache.
- h) Facility to add vector data by creating points, lines and polygon features and link the data to GIS platform.
- i) Facility to import vector data in flexible formats.
- j) Integrated compass/clinometer to measure trends and orientation of geological features.
- k) Interactive search tools
- l) Facility to visualize data in 3D preferably through open-source DEM.
- m) Facility to share/export app data online to Desktop and web GIS solutions.

### 2.1.2.2. General Instructions and Essential Requirements for Mobile Application

- a) The bidder has the responsibility to release and maintain as well as update the app on Android Play store.
- b) Ensure the application is fully responsive for at least 200 concurrent users, compatible with various devices and screen sizes for optimal user experience.
- c) The app should only be accessible to GSP employees through controlled user registration.
- d) The solution for mobile application needs to incorporate the data security of the client.
- e) Facility/mechanism of inclusion and or omission of products.
- f) Any other work/development/design/requirement etc. which is not mentioned here in this document but are operationally essential and may arise during the execution of work/design/development/testing/maintenance of the app.
- g) Responsive design of mobile application for various devices (min. 4" phone to all commercially available Tabs)
- h) The apps GEO5 Data Collector, FieldMove Clino, Qfield, PocketTransit, Lambert, ArcGIS Survey123, may be seen for reference only for Mobile application. (to have an idea about the type of products to be catered on the app tentatively).
- i) Latest, standard, proven, preferably open-source technologies shall be used. Entire software Licensing (including third party, if any) shall be the responsibility of the bidder for sustaining the solution until the end of warranty period.
- j) The successful Bidder is required to provide a turn-key solution, which would include supply / installation / development of the required software and other accessories & services thereof, for commissioning of the system (GIS Solution as well as Mobile App).

### 3. GSP's Obligation:

- 3.1. GSP will provide administrative support for the development and maintenance of the solution.
- 3.2. GSP will procure and install required hardware (i.e. Server including backup Server, Firewall, Network Switch, power backup etc. at its premises.
- 3.3. GSP will provide technical details and data to develop the GIS solution and mobile application.
- 3.4. GSP will provide, data files having geoscientific information to be incorporated in the system.
- 3.5. GSP will provide data collection templates to be incorporated in Mobile Application

### 4. Special Terms and Conditions

- 4.1. The firms will endeavor to carry out required job within specified time period communicated by the procuring agency at the time of award of job.
- 4.2. Payments with regards to the activities done by the firm will only be made in case the work done is approved by the management. Payment plan will be finalized at the time of contract signing on successful award. No claim for any payment in relation to rejected/unaccepted tasks will be entertained. Prospective bidders are required to deposit **200,000/-** bid security.
- 4.3. Performance Standards: The firm will undertake to perform the services more specifically with the highest standards of professional/ethical competence and integrity. Furthermore, the firm undertakes to verify the technical specifications of developed/supplied/installed items/products/software/solutions. Performance guarantee arrangement will be finalized at the time of contract execution.
- 4.4. Personal Liability: The firm shall be held liable for its inability to meet procuring agency's deadlines and will be held responsible for its will-full failure to perform the services enumerated.
- 4.5. Warranties and Covenants: The firm hereby covenants that it has obtained all permissions, and is compliant with all laws, rules and regulations and meets all national/international

standards of software/solutions development and that it will undertake to meet all deadlines for the successful and complete deployment of the solution.

- 4.6. Taxes and Duties:** The payments will be subject to tax deduction at source as applicable under the relevant laws of the Government of Pakistan.
- 4.7. No incurrence of Liability:** Neither Party shall, without the other Party's prior written approval, incur any liability on behalf of such other Party nor make any representation unless defined nor give any warranty on behalf of such other Party.
- 4.8. Termination:** The award of job may be terminated by the procuring agency in case the firm is unable to process further / complete the job without making any payments.
- 4.9. Confidentiality:** The firm shall ensure that its attorney, officers, directors, professionals and agents, and each of its respective permitted successors and assigns, will hold in confidence all documents and other information and whether technical or commercial which is of a confidential nature supplied to it by or on behalf of GSP relating to this project and shall not (save as required by law or appropriate regulatory authorities or prospective lenders, or investors as aforesaid), publish or otherwise disclose or use the same of any of its obligatory other than as set out. If the award is terminated for any cause the firm undertakes to deliver to management or to its designated representatives, compilations / studies and other documents and similar materials and copies thereof. Any confidential information provided, disclosed or revealed to the firm, its offices, employee's agents and representatives prior to the date hereof shall be subject to all the terms.
- 4.10. Governing Law:** The firm shall be solely governed by the substantive and procedural laws of the Islamic Republic of Pakistan and the language of correspondence and reporting shall be English.
- 4.11. Testing and Acceptance:** Firm should submit a test and acceptance plan well in advance for the approval by the GSP. The test and acceptance plan must include the following.
- 4.11.1** GIS Database Dashboard should be continuously accessible except during power failure and should be live without fail/crash for continuous 15 days on 24x7 basis.
- 4.11.2** Requisite information on the GIS solution as well as on mobile application should be accessible on the fly.
- 4.12. Warranty:** Entire system including Dashboard, associated softwares, services, applications and Mobile APP, etc. shall be under warranty for 24 months from the date of acceptance & commissioning of the system. Upgradation of the system if required due to any change in technology, software, or any other unforeseen reasons, shall be done by the firm during warranty period.
- 4.13. Penalty Clause:** The complete system should be failure proof at any point of time except during power or hardware failure (during warranty period) without which a penalty shall be imposed as per following:

**4.13.1. During Warranty**

Down time of System	Penalty
Less than 2 Hour	NIL
2-4 Hour	0.1% of the total work order
4-8 Hour	0.5% of the total work order
More than 8 Hour	In addition to above @ 0.1% per hour of the total work order subject to ceiling of 2% of the total work order per quarter

Beyond the 5% limit period, the GSP is free to get issues resolved through outside vendors and recover the amount thereof from Performance security.

- 4.14. Training:** Firm shall provide 10 working days training each for maintenance/administration and operation of the complete system for 10 GSP officials. Firm shall also provide training material in hard and soft copy separately each for system maintenance/ administration and system operation.

- 4.15. Documentation:** Firm shall provide three sets of hard copy along with softcopies of

“Technical manual”, “Operational manual’ and “System Administrator manual”.

- 4.16. Licensing:** Bidder must provide lifetime licenses for all the applicable software and services; if any.
- 4.17. Firm will provide** educational details and working experience of the persons (Software developer/Program Manager/Coordinator etc.) who are going to handle this project till the final products go live.
- 4.18.** Firm will not have any kind of ownership of the developed system including data/codes/scripts/tools/software generated /produced /developed/ inferred for this work.






**SUMMARY OF RELEVANT PROJECTS**

Sr. #	Client Name	Industry	Location/Address	Duration & Cost	Relevant Details

\*Additional pages may be used, if required. Format may be modified.

(Signature of the Bidder)  
Name, Sign and Stamp

Note: Please provide documentary evidence for the above.



MUHAMMAD USMAN JEELANI  
Chemist  
Geological Survey of Pakistan  
Lahore.


### PROFILE OF THE FULL-TIME TECHNICAL TEAM

Give the profiles of key peoples/core members who will be involved in the subject project. Roles & Responsibilities to be mentioned clearly.

Sr. #	Item	Detail
1	Name	
2	Role in subject project	
3	Current job title	
4	Experience in years	
5	Number of years with the organization	
6	Number of Similar Projects Handled	
7	Number of Other Projects	
8	Summary of Professional / Domain Experience	
9	Highlights of assignments handled and significant accomplishments	
10	Educational Background, Trainings/ Certifications	

\*Additional pages may be used, if required. Format may be changed.

(Signature of the Bidder)  
Name, Sign and Stamp


  
 MUHAMMAD USMAN JEELANI  
 Chemist  
 Geological Survey of Pakistan  
 Lahore.

**DETAIL OF OFFICES**

Sr. #	Address	City	Contact Number

\*Additional pages may be used if required.

(Signature of the Bidder)  
Name, Sign and Stamp

  
MUHAMMAD USMAN JEELANI  
Chemist  
Geological Survey of Pakistan  
Lahore.


**FINANCIAL INFORMATION (If Any)**

(Please attach copies of Audited Financial Statement(s), if any)

Gross Turnover of the Firm/ Company

<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>

(Signature of the Bidder)  
Name, Sign and Stamp

  
MUHAMMAD USMAN JEELANI  
Chemist  
Geological Survey of Pakistan  
Lahore.


**COMPLIANCE CERTIFICATE/UNDERTAKING**

I, (Name); (CNIC#); (Designation), (Company Name) have gone through the Terms/Conditions of this TENDER Document and have found the document in whole as non-biased to any particular company/contractor/vendor or product/ brand. I hereby undertake and firmly bound myself to abide by/comply with all sections / conditions of this TENDER Document.

I do not have any objection/comment on any item and fully understand the item as compliant with PPRA Rules.

Authorized Signature of the bidder: \_\_\_\_\_

Name and Title of Signatory: \_\_\_\_\_

  
MUHAMMAD USMAN JEELANI  
Chemist  
Geological Survey of Pakistan  
Lahore.

**FORMAT OF AUTHORITY LETTER**

**Authority Letter**

Know all men by these presents, we (name of the company and address of the registered office) do hereby appoint and authorize Mr./Ms. (full name and CNIC #) who is presently employed with us and holding the position of [ \_\_\_\_\_] in [name of the company] to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our proposal for the development & launching of GIS Solution in response to the TENDER invited by the GSP including signing and submission of all documents and providing information/responses to GSP in all matters in connection with our expression.

We hereby agree to ratify all acts, deeds and things lawfully done by our said authorized representative pursuant to this Authority Letter and that all acts, deeds and things done by our aforesaid authorized representative shall and shall always be deemed to have been done by us.

Dated this \_\_\_\_\_ day of April, 2024.

For:

[Signature]

[Name, designation and Address]

Accepted

[Signature]

[Name, title address of the Authorized Representative]

Date:

**TENDER Submission**

**The Director Procurement (AGM)**

Geological Survey of Pakistan (GSP)

Trade Center near Expo Center, M.A. Johar Town, Lahore

Ph. 0092 42 99232932, 99232934

Reference your advertisement dated \_\_\_\_\_  
\_\_\_\_\_ regarding TENDER for Hiring of Services for the Development,  
and Maintaining GIS Based Geodatabase Solution and Integrated Field Data Collection Mobile App

1. We, hereby submit our bid along-with the requirements as per the TENDER document. We acknowledge that GSP is not bound to accept any proposal in this regard and reserve the right to accept or reject any offer and to annul the TENDER process and reject all proposals with/without assigning any reason or having to owe any explanation whatsoever, as per PPRA guidelines.
2. The decision of the Selection / Evaluation Committee shall be final and the Committee will not be liable for any loss or damage to any party acting in reliance thereon.
3. We agree to respond to GSP requests within required time in case we qualify for the subject project as mentioned in TENDER documents.
4. We submit herewith our bid as one original.
5. We undertake that all the information submitted by us is correct and true to the best of our knowledge and belief and nothing has been concealed and misstated by us in the TENDER. In case any information is found wrong, misleading or misstated in this TENDER, the same may lead to rejection of our bid and our disqualification for further proceedings in the subject procurement process.
6. We declare that our TENDER is our only and final and no unsolicited offer of any description shall be made for consideration of the GSP.

Authorized Signature:

Name and Title of Signatory:

Name & Address of Firm:



## Mandatory Requirements for Bidders

S/N	Attributes	Reference Page in Proposal
1.	Complete firm profile including name, office address, telephone/fax and e-mail address and web address (if any), contact person details etc.	
2.	Proof of Certificate of Incorporation of Registration (SECP), registrar of Firms, if applicable	
3.	NTN/FTN & GST registration certificates where applicable	
4.	Audited Financial Statements, if applicable	
5.	Proof of Experience	
6.	List of Clients of similar projects along-with Clientele testimonials (References / Recommendations, if any)	
7.	Proof of Specific / Similar Jobs Completed	
8.	Profiles of all employees who will carry out this assignment, if awarded.	
9.	Details of established office setup	
10.	Signed TENDER submission form.	
11.	Authority Letter for the appointment of an authorized representative.	
12.	Undertaking that the Bidder/firm and its employee(s) have never been blacklisted by any government, semi-government, autonomous or state-owned organization and their cases regarding black listing are not under trial by any Court of Law	
13.	Proof of any other information provided for submission of this TENDER.	
14.	Bid Security	



**Financial bid form**

SN	Item	Rate (PKR)
1	Development, and Maintaining GIS Based Geodatabase Solution and Integrated Field Data Collection Mobile App	

- **Rate must be inclusive of all applicable taxes and duties.**

**Signature of Tenderer** \_\_\_\_\_

**Seal of Tenderer** \_\_\_\_\_