Minutes of the Pre-bid meeting for 'Procurement of Software and Hardware for Establishment of GIS lab for the Assam Project on Forest and Biodiversity Conservation-Phase II.'

Date: 05.11.2024   _Time:_ 11:30 AM   _Venue:_ Wildlife Conference Hall, Aranya Bhawan

IFB No: APFBC/PMU/Phase-II/SW&HW/2024/356/15, dated 21th October 2024.

The following APFBCS officials and prospective vendor representatives were present at the pre-bid meeting:

Officials of the APFBCS:

1.	Shri Sandeep Kumar, IFS	: PCCF (Wildlife) & CWLW, Assam and Project Director (PD), APFBCS
2.	Shri Prashant Dhanda, IFS	: Activity Director (IT & GIS), O/o the PCCF & HoFF, Assam

Representatives of the Firms (Physically Present):

1.	Shri Sanjib Pathak	: M/s Esri India Technologies Pvt. Ltd.
2.	Dr. Amitava Mukherjee	: M/s Neo Geo Info Technology.
3.	Shri Kamal Lochan Baishya	: M/s SISL Infotech Pvt Ltd.
4.	Shri Indrajit Debnath	: M/s Microviews Infosystem Pvt. Ltd.
5.	Shri Monmoth Bordoloi	: M/s Siqes Quality and Excellence.
6.	Shri Mrinmoy Roy	: M/s Siqes Quality and Excellence.
7.	Shri Sandip Choudhury	: M/s Neo Geo Info Technologies.
8.	Shri D. Bishs	: M/s Vertiv
9.	Shri B.M.Reddy	: M/s Vertiv

Representatives of the Firms (Virtually Present):

1.	Shri SP (Sauvik Pal)	: M/s Esri India Technologies Pvt. Ltd.
2.	Shri Shuvo Sur	: M/s Neo Geo Info Technologies.
3.	Shri Bhupendra Rajput	: M/s SISL infotech Pvt Ltd.
4.	Shri Dravin Singh	: M/s SISL infotech Pvt Ltd.
5.	Smti. Narender Kumar	: M/s Geo Solutions India.

Attendance sheet of the meeting is enclosed at **Annex-1**.

1. The Project Director welcomed all participants to the pre-bid meeting and briefly outlined the purpose of engaging vendors for the non-consultancy work related to the project.

2. During the meeting, APFBCS officials addressed queries from the representatives of the attending firms. Responses to the questions raised during the meeting, as well as those received via email, have been included in the minutes, which are enclosed as Annex-2.

Minutes approved

Sd/-
(Sandeep Kumar, IFS)
Project Director, PMU, APFBCS

Memo No: APFBC/PMU/Phase-II/SW&HW/2024/356/41   **Dated 05th November, 2024**

Copy to:

1. All concerned officials of the APFBCS joined the meeting.
2. Email to the Bidders: **(1) M/s Esri India Technologies Pvt. Ltd** Email: sanjib.pathak@esri.in **(2) M/s Neogeo Info Technology.;** Email: amitava.mukherjee@neogeoinfo.com , sadip@neogeoinfo.com, shuvo.chowdhury@neogeoinfo.com **(3) SISL Infotech Pvt Ltd;** Email: Kamal_lochan@sislinfotech.com, bhupendra_rajput@sislinfotech.com, dravin_singh@sislinfotech.com; **(4) M/s Microviews Infosystem Pvt. Ltd.**. Email: indrajit.debnath@microviewslimited.com ; **(5) M/s Siqes Quality and Excellence**. Email: monmoth@siqes.com , mrinmoy.roy@siqes.com ; **(6) M/s Vertiv**.Email: d.insh@vertiv.com, bmarsudhan.raddy@vertiv.com; **(7) M/s Geo Solutions India**; Email: naren@geosolutionsindia.com
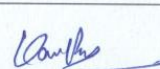
Annexe-1
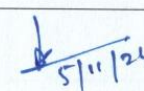
Attendance Sheet for the Pre-Bid Meeting on for ' Procurement of Software and Hardware for Establishment of GIS lab under APFBC - Phase II for the Assam Project on Forest and Biodiversity Conservation-Phase II'.

Date: 05th November 2024

Time: 11.30 AM   Venue: PMU, APFBC Society

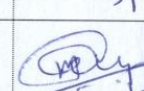| Sl.	Name of the Attendant	Designation & Organization	Email ID & Contact no.	Signature
1.	Sandeep Kumar, IFS	Project Director, APFBC Society		
2.	Sanjib Pathak	Regional Manager Esri India Pvt Technologies Ltd	Sanjib.Pathak @esri.in 8011917350	
3.	Dr. Amitava Mukherji	AGM, Neogeo Info Technology	amitava.mukherji @neogeoinfo. com. 9836586330	Mukherji
4.	Kamal Lochan Baishya	Sr. Manager SISL Infotech Pvt Ltd	Kamal_Lochan @ SisLinfotech.com 8587008651	
5.	Indrajit Debnath	T. L Microviews infosystem Pvt. Ltd.	indrajit.debnath @microviews limited.com 9435110033	5/11/24
6.	Monmoth Bordoloi	Director, Business & operations	monmoth @siges.com 8876409064	5/11/24
7.	Mrinmoy Roy	Manager Sales & operation	mrinmoy.roy @siges.com 9864369533	5/11/24
8.	Sandip Chamling	Neogeo infot Sales (Hardware)	8336965906 Sadip@neogeoinfo.co	5/11/24
9.	D. Bish	Vertiv	9339002447 d.hosh@vertiv. com.	5/11/24
10.	B. M. Reddy	Vertiv	9433324838 bonarsudham.reddy @vertiv.com	5/11/24
11.				
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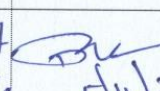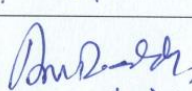**Attendance Sheet for the Pre-Bid Meeting for ' Procurement of Software and Hardware for Establishment of GIS lab under APFBC - Phase II for the Assam Project on Forest and Biodiversity Conservation-Phase II'.**

Date: 05th November 2024

Time: 11.30 AM

Venue: PMU, APFBC Society

Sl.	Name of the Attendant	Designation & Organization	Email ID & Contact no.	Signature
13.	SP (Sauvik Pal) (Online)	ESRI India	Mobile:8100797208	
14.	Shuvo Sur Chowdhury (Online)	NeoGeoInfo Technologies Pvt. Ltd.	shuvo.chowdhury@neogeoinfo.com Mobile: +91 9874636244	
15.	Bhupendra Rajput(Online)	SISL Infotech Pvt Ltd	Mobile:- 9810626915, bhupendra_rajput@sislinfotech.com	
16.	Dravin Singh(Online)	(SISL Infotech)	dravin_singh@sislinfotech.com Mobile:9899626285	
17.	Narender Kumar (Online)	Geo solutions india	naren@geosolutionsindia.com Mobile:+91 9988772356	
18.				
19.				
20.				
21.				
22.				
23.				

Queries and Responses on the APFBC/PMU/Phase-II/SW&HW/2024/356/15,   **Dated Guwahati the 21st October, 2024**
for 'Procurement of software and hardware for the establishment of GIS lab'.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
1	Technical Qualification 4. Experience 4.1 Similar Experience (iii); Pg 28	(iii) Valid ISO 9001:2015 certifications for Quality Management System.	The mentioned Certification is Quality Management System (ISO-QMS 9001: 2015). As per our understanding the Certification shall be in Information Security Management System (ISO 27001: 2022) Please clarify our understanding on the above.	Agreed, Valid ISO 27001: 2022 certification also needed in addition to ISO 9001:2015
2	Technical Qualification 4. Experience 4.1 Similar Experience (ii); Pg 28	(ii) A minimum number of similar contracts highlighting clearly the scope as mentioned above that have been satisfactorily and substantially completed3 as prime Supplier, or joint venture member, between 1st April 2019 and bid submission deadline: Up to 3 contracts demonstrating the scope mentioned above cumulatively2 with a minimum combined total value of INR 50 million	The time of contracts is too less as it is mentioned from 1st April 1019 Kindly increase the time bound upto 10 years at least.	Not accepted as suggested time period is too large for technical experience to be considered recent and relevant.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
3	Section II–Bid Data Sheet (BDS) Document Checklist: Pls Note: 5; Pg 22	5. 1 Original Bid + 1 Paper Copy of Technical Bid + 1 digital copy of Technical Bid (.pdf in pen drive) shall be submitted mandatorily.	Suggest Bid Submission via eProcurement System	e-Procurement is not approved under AFD procurement guidelines for the present project.
4	2. Technical Specifications 18. Smart Rack Specifications; Pg 79	Size of Rack Enclosure: 27U	Kindly clarify the usable space in the rack. 27U size is OEM specific. Kindly consider 24U or 36U as per industry standard.	36U smart rack
		Rear door thickness in mm: 2	Kindly Make this as per OEM standard	Accepted
		Doors with Perforation: Rear	Self-contain racks cannot have perforation as AC will be Colling only the inner part of the rack	The requirement is only for a smart rack and not a self-contained rack
		Side Panels With Key Locks and Slam Latch: Yes	Side panels are fixed in case of self-contain racks. Kindly remove this clause.	
		Number of cooling Fan For Heat dissipation: 2	Self-contain racks cannot have fans as AC will be Colling only the inner part of the rack	
		Number of Fan trays: 2		
		Heavy Duty Caster Wheels: Yes, with front brake options	As the AC is mounted inside the rack caster wheel is not possible to manage the vibration. Kindly change this to base frame with 100 mm depth.	

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		Load Bearing Capacity (Kgs): 200 kilograms	As per industry standards, load bearing capacity will be 1000 Kg in 19" mounting rail and 1400 kg on rack frame kindly clarify.	1000 kilograms
		Power of Cooling Unit (kW): 1	1. Normally this kind of AC is panel type which emits heat inside the room. Kindly clarify the available room ventilation option for this rack. 2. In addition to that please specify if water outlet is available in room or not. If not available kindly consider PAC with PTC heater which enables to operate AC without drain point. 3. Please specify the heat load inside the rack.	The requirement is only for a smart rack and not a self-contained rack hence AC is not required in the rack Clause Deleted
		Certifications: ISO 27001, SOC2, ISO 14001, BEE Star Rating, IP rating	SOC2, BEE Star Rating, IP rating is OEM specific kindly remove this points.	Accepted - only ISO 27001, ISO 14001 needed.
		PDU Power Strips: Available	Kindly specify the number of sockets and type IEC/ Indian in PDU and PDU type i.e. 32A / 16 A	Based on the equipment's to be housed inside the smart rack, the bidder should provide accordingly

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
			- The self-contain racks comes with monitoring option as per the below mentioned points. - Detailed Monitoring & Diagnostics through 1U rack mountable monitoring unit & Capable for sending Email Alerts - Monitoring unit should be able to integrate & monitor environmental parameters like temperature, humidity, door access, smoke etc. along with cooling unit in a single dashboard. - The monitoring unit should support basic protocols like Telnet, SSH, FTP,SFTP, HTTP, HTTPS, NTP, DHCP, DNS Server, smtp,TCP/IP4. It should support network interface of 10/100M self-adaptable Ethernet ports. - The monitoring unit should monitor all critical parameters for Cooling unit (Cooling unit: Unit status, supply & return air temperature, humidity)	The requirement is only for a smart rack and not a self-contained rack hence the monitoring unit is not required.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
5	2. Technical Specifications 5. Workstation and Monitor Specifications; Pg 73	Processor: AMD Ryzen 9 9900 / Intel Core i9- 13900 / equivalent or better; VR Heatsink, CPU heatsink, if required.	Intel Xeon W9-3475X 4.60G 82.5 MB 36 cores 300W CPU	For our use case the minimum specifications are mentioned. However, better specifications are always acceptable if supplied at a cost not much higher than the cost of the workstation of desired minimum specifications
		Memory: 64GB, DDR 5 or above	64GB (2x32GB) DDR5 4800 ECC RAM	
		Storage configuration: NVMe SSD 1 TB or equivalent	1TB SSD+ 2TB HDD	
		Screen Resolution: Full HD (1920 x 1080 pixels); IPS Anti-Glare Display; 300 nits Brightness,	IPS 2560 x 1440	Minimum specifications remain unchanged
		Aspect Ratio: 16:9; 178° Horizontal and Vertical Viewing Angle; Height Adjustable Stand; Tilt, Swivel, Pivot Ergonomic Design	YES. Tilt -5 to 23° Swivel ±45° Pivot ±90° Height Adjust Range 150mm Vesa Mounting 100 mm x 100 mm	
		Connector and Port: Should support HDMI/Display port	DisplayPort 1 DisplayPort 1.2 DisplayPort Out 1 DisplayPort 1.2-out HDMI 1 HDMI 1.4 HDCP Yes, DisplayPort and HDMI USB Type-C Video and Data Transfer 1 USB Type C (Alt Mode DisplayPort 1.2, power delivery up to 65W) USB- A 4 USB-A	

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
			AUDIO PORT 1 x 3.5 mm Audio Jack (Audio In/Out Combo)	
6	2. Technical Specifications 6. Video Wall Specification; Pg 73	Display Configuration: A 2X2 indoor video wall made of 55-inch 4K UHD LCD panels with ultra- thin bezels (0.8mm or less).	A 2X2 indoor video wall made of 55-inch **HD** LCD panels with ultra- thin bezels (0.8mm or less).	A 2X2 indoor video wall made of 55-inch Full HD (minimum) LCD panels with ultra-thinbezels (0.8mm or less).
		Speakers: 5-Watt x 2	NA	Agreed. Needed for Video Bar and not for Video Wall
		Certifications: BEE Star Rating	NA	Agreed
7	Section II–Bid Data Sheet (BDS): ITB 4.1: Pg 20		1. We request for JV with local company from Guwahati, so that some Guwahati based company can also be a part of the tender process, so Kindly allow JV for local empowerment. 2. JV partner should have experience in similar nature of work specially in the states of North East India	Modified. Maximum number of members in the JV shall be: 2 Experience of both JV partners shall be considered as per details mentioned in the corrigendum
8	Section II–Bid Data Sheet (BDS): ITB 4.1: Pg 20	Maximum number of members in the JV shall be: Not Allowed	1. Whether the JV is allowed or not? 2. We request you to consider the Experience of both JV	Modified. Maximum number of members in the JV shall be: 2 Experience of both JV partners shall be considered as per details mentioned in the corrigendum

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
			partners for the Eligibility as Eligibility Criteria (page No 28, and Clause 4. Experience and Sub Clause 41. Similar Experience (i))	
9	Manufacturer's Authorization; Pg 49	We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm. We further certify that the product(s) manufactured by us meet the technical specifications as mentioned in the section VII of the bidding document.	Request to kindly modify as below "We hereby extend our full guarantee and warranty with respect to the Goods offered by the above firm. We further certify that the product(s) manufactured by us meet the technical specifications as mentioned in the section VII of the bidding document."	Clause 28 of GCC, not applicable to software providers.
10	Section VII – Schedule of Requirements: 1. Scope of Work, List of Goods and Delivery Schedule: a. Scope of Work; Pg 55	8. The OEM of the GIS software is expected to provide guidance in customization /automation of solutions specific to Assam Forest Department and provide training on using various modules of the supplied software and their features and advanced algorithms like AI/ML/Deep Learning applicable to	Standard OEM training of products will be provided, however the clause mentions guidance in customization/automation. Hence, request you to kindly provide details of exact scope of work.	Department wants Deep learning Model for Plantation monitoring, Canopy Density Estimation, Tree Enumeration, Tree species identification and Mapping Tree species Extent (Agar, Bamboo etc.), Wildlife species Identification, Plantation Landbank Identification, Forest Health Monitoring, Encroachment Detection etc. The GIS platform should provide either various pre trained deep learning models or support for training and developing such deep learning models, which can generate outputs relating to usecases mentioned in the clause. It is understood that a single dataset (satellite imagery or drone imagery) cannot provide outputs related to all the use cases mentioned

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		various forestry use cases.		therein. During the project period, we want the software provider to guide us in developing such models and help us in choosing the right type of imageries (resolutions etc.) on which such models can run to generate the outputs specific to the mentioned use cases. The guidance on automation may be needed to automate the work flows composed of functionalities already provided in the desired GIS platform. The guidance on customisation may be needed to customise the templates as mentioned in **Pre-Built Native and 3rd party Forestry Solutions on page 61.**
11		Introduction: The GIS lab is being established to support forest conservation, wildlife protection, encroachment monitoring, disaster management (like forest fires), and environmental research for the Assam Forest Department. To ensure scalability and future proofing, the lab shall be equipped with modern tools like cloud based enterprise GIS, Desktop GIS software, image processing and real time monitoring systems.	In several sections, cloud infrastructure is mentioned for GIS software, Drone software, and database software. 1) Could you please clarify which cloud service the department plans to use? 2) Additionally, should the OEM propose a cloud deployment sizing sheet, or will the department provide it?	Cloud Tender has been floated by the Department for engaging a cloud service provider for a period of 3 years.
12		2. Supply, Installation and commissioning of	The department requires cloud infrastructure,	DC and DR will be both on cloud, with DR being a back-up and restore mode.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		Workstations, Video wall, Storage Solution, Smart rack, Networking and other hardware mentioned in list of goods and delivery schedule.	hardware, and high availability (HA). Based on the licensing requirements, we understand that the data center (DC) will be on the cloud, while the disaster recovery (DR) site will be on physical infrastructure, operating in an active-passive mode. Kindly confirm.	
13	2. Technical Specifications: 19. Integrated Network and Security Hardware Appliance Specifications; Pg 80	HA: Active/active and Active/standby		
14	Section IX- Special Conditions of Contract: GCC 28.5 and GCC 28.6: Pg 101	Service Standards: The period of time for repair or replacement shall be: Minor Repair - < 2 days Major Repair - < 10 days Replacement of hardware/devices/furniture - < 15 days	As per the clause this is limited to Hardware/Device/Furniture, Kindly confirm.	Yes

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
15	2. Technical Specifications: 1. Specifications for Enterprise GIS Software with image handling capability including drone image processing capability: Cloud based Drone Image Processing capability; Pg 62	The software should have drone image processing engine as well as the front ending application thereby providing seamless image upload, seamless processing, viewing and analysing environment.	We suggest the department to mandate drone image processing engine as well as the front ending application from a same OEM (Original Equipment Manufacturer). This will help the department in providing seamless image upload, seamless processing, viewing and analysing environment.	For seamless image upload, seamless processing, viewing and analysing environment, the Bidder may provide both the drone image processing engine and the front ending application either from same or from different OEMs.
16		Other capabilities mentioned in desktop-based drone imagery processing specifications shall also be met by the cloud option of drone image processing.	As both the technologies and use-cases are different, it is suggested to cater to them separately and exclude this requirement	The Bidder should try to match the capabilities of both the options to the maximum possible extent.
17	2. Technical Specifications: 3. Specifications for Desktop GIS Software with image handling capability including Drone image processing capability: Drone Imagery Processing; Pg 72	Should Build a stereo model of a mosaic dataset, based on a user-provided stereo pair.	The AFD will be capturing images and ingesting it directly on the software for drone data processing and hence would not be capturing or using the stereo images. Considering new age drone image processing software it is redundant to use stereo pair and stereo mapping, especially for forestry use-cases. We suggest to exclude this requirement	Agreed, This will be treated as a non-mandatory requirement.
18		Should provide API, model development or scripting	Considering the requirement to be a COTS solution, it is	Agreed, however, model development or scripting support may also be provided

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		support to create custom workflows needed for automating repetitive tasks.	suggested that the repetitive workflows are saved and used easily instead of complex scripting, model development, etc.	
19	2. Technical Specifications: 3. Specifications for Desktop GIS Software with image handling capability including Drone image processing capability: Support; Pg 72	License should be perpetual in nature and all software license should have same capability of functionality or level	We request to exclude drone image processing software from perpetuality as they have multiple dependencies such as cloud dependencies, Enterprise Integrations, etc.. Kindly consider this as a subscription type.	All subscription items, if any, won't need a perpetual license and the cost should be bundled into software procurement cost (inclusive of 1 year warranty) and 2 years AMC cost.
20	2. Technical Specifications: 1. Specifications for Enterprise GIS Software with image handling capability including drone image processing capability: General capabilities of Enterprise GIS Software: 2D and 3D data handling, data integration, data processing,	Enterprise GIS Software must support reading and writing standard and common data file types using industry and international standard data formats, and via the web through OGC web service for all the following. o Geospatial Formats: SHP, KML, GML o Tabular Files: CSV, Excel, TDF, CDF o Documents: JSON, GeoJSON o Open Geospatial	Our Understanding of WPS is to run Geoprocessing on the web either through web processing service or OGC API processing service. Kindly confirm.	Agreed, WPS or OGC API Processing Service

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
	data visualization and modelling, data sharing, data security and data analysis tools; Pg 59, 60	Standard Services: WCS, WFS, WMS WMTS and RESTful, WPS		
21		Enterprise GIS software must have support on Windows and Linux x86_64 operating system, x86_64 architecture (64 bit), with supported Linux releases.	Microsoft Windows being the widely used OS, most of the application software's are designed to run only on Microsoft Windows. Thus keeping this in mind we request you to kindly provide SIs to choose either windows or Linux for implementation as the SIs has to supply the H/W environment. Kindly confirm.	We can currently accept Windows or Linux versions, however for the future we may require migration to open source GIS solutions. For Linux based softwares such migration is easier and for Windows based such migration may require some adjustments and configurations from the GIS software provider. Hence, Windows based GIS software provider should agree to the same.
22	2. Technical Specifications: 1. Specifications for Enterprise GIS Software with image handling capability including drone image processing capability: Public geospatial data support; Pg 61	Enterprise GIS software should provide access to a vast repository of ready-to-use, authoritative geospatial datasets from governments and organizations around the world.	Please provide details of the type of data required. Also please clarify the data should be provided on-premise or as a service. Kindly confirm that the department will provide those data.	**We are looking for geospatial data relevant to Assam provided as a service. Our primary requirement from the Bidder/GIS Software provider should catalogue/consume these datasets through APIs and provide to us the datasets in the GIS platform itself as a service. The dataset updates shall also be reflected in the GIS platform. These datasets should be available in form of WMS/WMTS or WFS options for consumption by users and applications.** These data sources cannot be ingested by the department into the GIS software. Hence, the GIS software provider should incorporate the Assam specific data layers into the GIS software for direct

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
				consumption by the department users with minimum technical competence or effort.
				Few Government/Organisation datasets, which are relevant to Assam's Forests, shall be integrated with the platform and made available to the department, are as follows:
				1. Bhuvan Datasets, Global Forest Watch (Deforestation alerts), NASA Earth Data (MODIS/VIIRS Fire Alerts), NASA or similar other Open Climate data(temperature, soil moisture, rainfall etc.), Landsat and Sentinel freely available Imageries and derived products, Terrain data, IUCN data and freely available abiotic layer data (like soil, geology etc.). FSI Data(Forest Cover, Forest Type) when provided by the department to the bidder, shall be vectorised and classified and ingested into the enterprise by the bidder. The GIS Software provider is expected to provide further integrations with open and freely available data sources in future also whenever department needs it.
				2. Regularly updated(at least once a year) high quality and cloud free satellite Imagery base maps of very high resolution (less than 1 meter) specific to Assam integrated into GIS software to allow Forest Department to monitor even minor encroachments and detect changes and identify and map important species in forest areas.
				3. GIS data relevant to Assam, such as demographic data, Rural Road Data, Population projection data, other government department data and administrative boundaries of India, for further

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
				analysis to understand the community profile around the forests and understand socio-economic profile of people dependent on forests. **Pls Note: Costs of integration, if any, shall be bundled into the software cost.**
23		Enterprise GIS software should provide NASA web services feeds for temperature, Soil moisture, humidity, and rainfall to the understand the weather observations and climate change and its effect on forests of Assam.	We understand that NASA web services, not in the public domain, will be arranged by the forest department. Please clarify.	As clarified above, this is one of the freely available climate related datasets provided by NASA and can be integrated with various enterprise GIS software using web services. We only need integration of freely available datasets provided by NASA. Any other agency providing open and free similar data is also acceptable but it has to be integrated in the enterprise GIS platform, by the bidder/software supplier. * **Pls note a Col 4 is given in specifications where bidder can mention equivalent or better.**
24		Enterprise GIS software should provide archived very high resolution satellite imagery basemap layers for past few years to understand land use changes. The software should have a capability of running deep learning object detection models on such basemaps for change analysis.	This point is OEM specific. We request the department to facilitate the SIs to get the latest high resolution Satellite images from NESAC or ASSAC as these data will provide more authentic information and land changes in the present context. The data provided by SACs would be valid and reliable in Govt. context and can be used	Provisioning of such basemaps is an actual need of the Department and a very general requirement. As we are looking for a comprehensive GIS solution (with customisations and automations as mentioned in several specifications) it is required that GIS software provider should integrate such basemaps into the software. The Department is well aware of the geospatial services of NESAC & ASSAC andutilizes these services as and when required. The GIS software provider may integrate available data feeds from these organisations into the GIS system.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
			by any SI successful in the bidding process. Kindly clarify.	However, The present requirement is for archived and updated (at least once a year) geo-referenced and processed satellite imagery base maps of very high resolution (less than 1 meter) specific to Assam only to allow for Forest Department to study past and present encroachments (up to the individual structure/habitation level), land use changes and identify and map important tree species in forest areas. It is also understood that base maps are for visual representation and on-screen digitization - they are not images where detailed analysis can be done. However, such base maps, which cost much lower than the actual imageries, are fit for the present use case of encroachment, land use change monitoring and species identification and mapping. **As the bidders may be aware that, the higher the resolution, better is the species identification and enumeration capability, better is the detection of even very small encroachment attempts and thus, better forest protection. And all this comes at a much lower cost than actually acquiring the satellite data.** The Department expects the Bidder/Enterprise GIS service provider to provide such base maps as service integrated into the enterprise GIS software, so that analyses relating to forest management objectives can be carried out, with minimum technical competence or effort.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
				As far as the software's capability to run deep learning model on such basemaps and provide change detection output is concerned it is a desirable feature and not a mandatory requirement as it may not be technologically feasible as of now but the Software provider should provide it as and when it becomesavailable. **Pls Note: Costs of integration , if any, shall be bundled into the software cost.**
25		Enterprise GIS software should provide GIS data, such as demographic data, Rural Road Data, Population projection data, School and Health centre data, other government department data, pin code boundaries, and administrative boundaries of India, as web layer services for further analysis to understand the community profile around the forests and understand socio-economic profile of people dependent on forests.	Kindly confirm that the extent of the mentioned data required is for the whole state of Assam.	Yes, required for the whole State of Assam, as forest areas are dispersed across the State.
26	2. Technical Specifications: 1. Specifications for Enterprise GIS Software with image handling	The cloud based drone processing option should have a Dashboard showing all the projects on a global geographical base map.	Since the Drone processing software is already there in BOM as a part of Desktop GIS, kindly suggest either of them would be provided. Otherwise it will be duplicate delivery.	Cloud based option is adopted to access drone data from anytime, anywhere basis. Hence this cloud based option is also needed in addition to desktop based drone image processing capability for more flexibility in processing of drone imagery.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
27	capability including drone image processing capability: Cloud based Drone Image Processing capability; Pg 62	The cloud based drone imagery processing option should generate a detailed processing report with parameters for (not limited to) quality check, camera and tie point positions, overlap details, bundle block adjustment, geolocation and accuracy details.	Kindly confirm.	
28		Ortho mosaic, DSM/DTM Elevation, DSM/DTM Hill shade, Point Cloud Scene Layer Integrated Mesh Scene Layer, Processing Report, Image Locations Feature Service and Ground Control Points Feature Service should publish from cloud based drone imaging processing to Web GIS Platform directly.		
29		Other capabilities mentioned in desktop-based drone imagery processing specifications shall also be met by the cloud option of drone image processing.		
30	2. Technical Specifications: 2. Specifications for Desktop GIS Software with	Software should provide Online Access of high-resolution Imagery base map services and should allow running deep	Please provide details of the type of data required.

Also please clarify the data should be provided on- | As answered above in Query No. 24 and Online High resolution imagery base maps (less than 1 meter resolution) specific to Assam only should be provided as a service integrated into the Desktop GIS software, by the Bidder/Desktop GIS service |

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
	image handling capability: Handling 2D, 3D, Large dataset and Raster, Vector data; Pg 62,63,64	learning/AI/ML object detection models for change detection on these basemaps.	premise or as a service. Kindly confirm that the department will provide those data.	provider.
31		The software should provide free base map Services (OSM, High Resolution Imagery, Topographic etc.). The base maps should also be viewable without internet also.	"This point is OEM specific. We request the department to facilitate the SIs to get the latest high resolution Satellite images from NESAC or ASSAC as these data will provide more authentic information and land changes in the present context. The data provided by SACs would be valid and reliable in Govt. context and can be used by any SI successful in the bidding process. Kindly clarify."	Already answered above in Query No. 24. All base maps relevant to Assam are required as a service, therefore this line stands deleted. "The base maps should also be viewable without internet also."
32		The software should provide GIS data, such as demographic data, Rural Road Data, Population projection data, School and Health centre data, other government department data, pin code boundaries, and	Kindly confirm that the extent of the mentioned data required is for the whole state of Assam.	Already answered above in Query No. 22

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		administrative boundaries of India, as web layer services for further analysis to understand the community profile around the forests and possible encroachment threat nearby forest boundary.		
33		Software should provide tools for designing the schema and structure of geodatabases. Users can define feature classes, attribute domains, subtypes, relationship classes, and spatial indexes. They can establish rules, validations, and behaviors for maintaining data integrity.	This is OEM specific functionality to ESRI ARCGIS. Kindly remove the functionality so that other OEMs can also comply.	Please treat these words as indicative pointing to the required functionality. The words like geodatabase, feature classes, spatial indexes etc. are in common parlance and should not be treated as specific to a particular GIS software but as desired functionalities. Bidders are required to provide similar functionality and should mention **their nomenclature of equivalent or better functionality in the Column no. 4 of the specifications in the tender document which has been provided for the same.** In essence, GIS software should provide tools for designing the schema and structure of GIS databases and allow users to create comprehensive GIS database elements and frame data integrity rules.
34		The software should provide 3D analysis capabilities for Tree Height and Canopy Analysis, detailed topographical analysis, Surface Volume Analysis to estimate the biomass and volume of vegetation and TIN (Triangulated Irregular Network)	Kindly provide the details of use case.	Use cases such as biomass, growing stock estimation as well as surface volume estimation are clearly mentioned.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		Creation for terrain surface representation		
35		Ability to import and export multiple 3D data formats like .3ds, .dae, .obj, .las etc.	Kindly provide the use case of the 3D data format in forestry application. If the requirement is not relevant under current situation, Kindly remove the clause.	3D Data formats are required to import LIDAR Datasets and other 3D datasets available from various drones and sensors being procured by the department.
36		Software should have Schedule window, specify the task name, start date and time, recurrence, expiration, and other options for how and when the scheduled tool will run for automation practice to reduce the time of the project.	Please provide the use case	All the tasks that may require automation in present or future, for example, change detection based on scheduled data updates, Scheduling tasks to synchronize data collected by field teams (e.g., survey data, observations) into a central database at specific intervals, scheduling real time monitoring tasks to trigger alerts when specific conditions are met etc.
37		Software should provide Online Access of high-resolution Imagery base map services and should allow running deep learning/AI/ML object detection models for change detection on these basemaps.	Please provide details of the type of data required. Also please clarify the data should be provided on-premise or as a service. Kindly confirm that the department will provide those data.	As answered above in query no. 24 and Online High resolution imagery base maps (less than 1 meter resolution) specific to Assam only should be provided as a service integrated into the Desktop GIS software, by the Bidder/Desktop GIS service provider.
38		The software should provide free base map Services	"This point is OEM specific. We request the department to	Already answered above in Query No 24. All base maps relevant to Assam are required as a

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		(OSM, High Resolution Imagery, Topographic etc.). The base maps should also be viewable without internet also.	facilitate the SIs to get the latest high resolution Satellite images from NESAC or ASSAC as these data will provide more authentic information and land changes in the present context. The data provided by SACs would be valid and reliable in Govt. context and can be used by any SI successful in the bidding process. Kindly clarify."	service, therefore this line stands deleted. "The base maps should also be viewable without internet also."
39		The software should provide GIS data, such as demographic data, Rural Road Data, Population projection data, School and Health centre data, other government department data, pin code boundaries, and administrative boundaries of India, as web layer services for further analysis to understand the community profile around the forests and possible encroachment threat nearby forest boundary.	Kindly confirm that the extent of the mentioned data required is for the whole state of Assam.	Yes, for the whole State of Assam, as forest areas are dispersed across the State.
40		Software should provide tools for designing the schema and structure of geodatabases.	This is OEM specific functionality to ESRI ARCGIS. Kindly remove the functionality so that other	Please treat these words as indicative pointing to the required functionality. The words like geodatabase, feature classes, spatial indexes etc. are in common parlance and should not be treated as specific to a

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		Users can define feature classes, attribute domains, subtypes, relationship classes, and spatial indexes. They can establish rules, validations, and behaviours for maintaining data integrity.	OEMs can also comply.	particular GIS software but as desired functionalities. Bidders are required to provide similar functionality and should mention their nomenclature of equivalent or better functionality in the Column no. 4 of the specifications in the tender document which has been provided for the same. **In essence, GIS software should provide tools for designing the schema and structure of GIS databases and allow users to create comprehensive GIS database elements and frame data integrity rules.**
41		The software should provide 3D analysis capabilities for Tree Height and Canopy Analysis, detailed topographical analysis, Surface Volume Analysis to estimate the biomass and volume of vegetation and TIN (Triangulated Irregular Network) Creation for terrain surface representation	Kindly provide the details of use case.	Use cases such as biomass, growing stock estimation as well as surface volume estimation are clearly mentioned.
42		Ability to import and export multiple 3D data formats like .3ds, .dae, .obj, .las etc.	Kindly provide the use case of the 3D data format in forestry application. If the requirement is not relevant under current situation, Kindly remove the clause.	3D Data formats are required to import LIDAR Datasets and other 3D datasets available from various drones and sensors being procured by the department.
43		Software should have Schedule window, specify the task name, start date and time, recurrence, expiration, and other	Please provide the use case	All the tasks that may require automation in present or future, for example, change detection based on scheduled data updates, Scheduling tasks to synchronize data collected by field teams (e.g., survey data, observations) into a central database at specific

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		options for how and when the scheduled tool will run for automation practice to reduce the time of the project.		intervals, scheduling real time monitoring tasks to trigger alerts when specific conditions are met etc.
44	2. Technical Specifications 2. Specifications for Desktop GIS Software with image handling capability: Handling Point Cloud, LiDAR, SAR data; Pg 64	- Must support formats like .las, .laz, etc. and offer tools for generating canopy height models, DTM, DSM from point cloud data. - The software must be able to View, manage and analyze lidar and other point clouds in LAS format natively and as a collection of files in a LAS dataset. The LiDAR or high-resolution satellite data will help to generate canopy height model, calculate biomass and canopy cover to analyze and visualize tree density and generate report. - Should have classification tools for separating vegetation, ground points and other features in LiDAR data sets. - Use deep learning to classify point clouds for specific real-world features or use one of the purpose-built classification tools to classify various earth	Please clarify the detail to be captured in the report.	The words "generate report" have been deleted

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		features. - Fusion of point cloud with Aerial photo/ drone / satellite Imagery, Bare earth DTM extraction from LiDAR data. - Edit point classification of lidar data using geoprocessing and interactive tools. For example, use profile viewing to manually classify selected points. - Should have support for industry standard SAR data. It should be able to visualize, geo-reference, orthorectify SAR data. - The software should be able to detect flood areas from SAR images and able to access Biomass from SAR images. The Biomass thus derived should be presented in form of .tiff format.		
45	2. Technical Specifications 2. Specifications for Desktop GIS Software with image handling capability: Remote	- Must support formats like .las, .laz, etc. and offer tools for generating canopy height models, DTM, DSM from point cloud data. - The software must be able to View, manage and	Please clarify the detail to be captured in the report.	The words "generate report" have been deleted

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
	Sensing & Image Analysis; Pg 65	analyze lidar and other point clouds in LAS format natively and as a collection of files in a LAS dataset. The LiDAR or high-resolution satellite data will help to generate canopy height model, calculate biomass and canopy cover to analyze and visualize tree density and generate report. - Should have classification tools for separating vegetation, ground points and other features in LiDAR data sets. - Use deep learning to classify point clouds for specific real-world features or use one of the purpose-built classification tools to classify various earth features. - Fusion of point cloud with Aerial photo/ drone / satellite Imagery, Bare earth DTM extraction from LiDAR data. - Edit point classification of lidar data using geoprocessing and interactive tools. For example, use profile viewing to manually classify selected		

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		points. - Should have support for industry standard SAR data. It should be able to visualize, geo-reference, orthorectify SAR data. - The software should be able to detect flood areas from SAR images and able to access Biomass from SAR images. The Biomass thus derived should be presented in form of .tiff format.		
46	2. Technical Specifications 2. Specifications for Desktop GIS Software with image handling capability: Remote Sensing & Image Analysis; Pg 65	- Should be able to generate LULC maps based on several satellite/ aerial/ drone/ LiDAR imagery. It should be able to combine different datasets to generate LULC. - Should be able to support Forest cover analysis, Species distribution modelling, etc. - Provide automated Change Detection tool so that change between two or more georeferenced raster images can be identified and summarized in form of map, charts and tables. - Software should have facility to carry out Raster Mosaicking and Dynamic	Kindly provide the information's to be captured in the "Species distribution modelling"	Species distribution modelling is to be as per standard forestry parlance.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		Mosaic Preview of output without creating a physical output file. - Should have radiometry and algorithm-based change detection tools with automatic raster to vector conversion facility. - Should support Principal Component Analysis, convolution, non-directional, focal analysis, texture, adaptive filter, statistical filter, LUT stretch, histogram equalization, histogram matching etc. - Software should support standard image classification tools like K-Means, iso data etc. - Software should support Resolution Merge. - The software should have separate hyperspectral image processing tools like anomaly detection, target detection, material mapping along with a spectral comparison facility.		
47	2. Technical Specifications 3. Specifications for Desktop GIS	- Should be able to generate LULC maps based on several satellite/ aerial/ drone/ LiDAR imagery. It should be	Kindly provide the information's to be captured in the "Species distribution modelling"	Species distribution modelling is to be as per standard forestry parlance.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
	Software with image handling capability including Drone image processing capability: Remote Sensing & Image Analysis; Pg 69	able to combine different datasets to generate LULC. - Should be able to support Forest cover analysis, Species distribution modelling, etc. - Provide automated Change Detection tool so that change between two or more georeferenced raster images can be identified and summarized in form of map, charts and tables. - Software should have facility to carry out Raster Mosaicking and Dynamic Mosaic Preview of output without creating a physical output file. - Should have radiometry and algorithm-based change detection tools with automatic raster to vector conversion facility. - Should support Principal Component Analysis, convolution, non-directional, focal analysis, texture, adaptive filter, statistical filter, LUT stretch, histogram equalization, histogram matching etc. - Software should support		

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		standard image classification tools like K-Means, iso data etc. - Software should support Resolution Merge. - The software should have separate hyperspectral image processing tools like anomaly detection, target detection, material mapping along with a spectral comparison facility.		
48	2. Technical Specifications 2. Specifications for Desktop GIS Software with image handling capability: Data Science/AI/ ML/Deep Learning Capabilities; Pg 66	Department wants Deep learning Model for Plantation monitoring, Canopy Density Estimation, Tree Enumeration, Tree species identification and Mapping Tree species Extent (Agar, Bamboo etc.), Wildlife species Identification, Plantation Landbank Identification, Forest Health Monitoring, Encroachment Detection etc. Due to this software must provide the following deep learning capabilities: - Convolutional neural networks or deep learning models to detect objects, classify objects, or classify	"Query to be raised- Kindly clarify the source of the required data. Various software as different approaches to tackle AI/ML frame works. Thus, Kindly re-phrase the clause as "TensorFlow or PyTorch"	There is no data required here but only various deep learning models which are capable of operating on various varying resolution imagery datasets and generate outputs relating to different use cases mentioned in the clause. It is understood that a single dataset cannot provide outputs related to all the use cases mentioned therein. We only want the software provider to provide the source of imageries and models which have been successfully trained on those imageries to generate the outputs specific to the mentioned use cases. The department can take a call to buy those imageries in future based on effectiveness of the model reported. For framework either Tensorflow or Pytorch is acceptable

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		image pixels. - Use a model definition file multiple times to detect change over time or detect objects in different areas of interest. - Generate a polygon feature class showing the location of detected objects to be used for additional analysis or workflows. - Most importantly, should either possess pre-trained models for all of the above use cases in Assam's context or provide extensive training support for enabling users to train custom models using frameworks like TensorFlow and PyTorch on the above use cases in Assam's context. - Software should have data science and data engineering tools to explore, visualize, clean, and prepare your missing forestry-related data and interpret that data to find insights and patterns.		
49	2. Technical Specifications 2. Specifications for Desktop GIS	-License should be perpetual in nature and all software licenseshould have same capability of functionality or	"OEM must provide Regular software updates (New SoftwareReleases, Service Packs & Patches.) to ensure	This applies to a maximum of 3 year period only.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
	Software with image handling capability: Support; Pg 67	level -OEM must provide Regular software updates (New SoftwareReleases, Service Packs & Patches.) to ensure the access oflatest geospatial technology and security patches. -The OEM should provide wide ranging training videos and elearningsupport about different tools, functionalities, customized developments etc. with 24*7*365 access. -The OEM should have active online community engagementforum that can assist with troubleshooting when required. -The OEM should have email & Toll-Free number where theuser can call to log tickets for support related to softwarelicenses and products. -OEM must provide a Phone and online support from Monday toFriday, 9 AM to 5:30 PM IST.	the access oflatest geospatial technology and security patches.""-Kindly rephase the above clause as ""OEM must provide Regular software updates (New Software Releases, Service Packs & Patches) to ensure the access oflatest geospatial technology and security patches with warranty period "	
50	2. Technical Specifications 3. Specifications	- Department wants Deep learning Model for Plantation monitoring,	Query to be raised- Kindly clarify the source of the required data.	There is no data required here but capability of the GIS platform to provide either various pre trained deep learning models or support for training and

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
	for Desktop GIS Software with image handling capability including Drone image processing capability: Data Science/ AI/ ML/Deep Learning Capabilities; Pg 71	Canopy Density Estimation, Tree Enumeration, Tree species identification and Mapping Tree species Extent (Agar, Bamboo etc.), Wildlife species Identification, Plantation Landbank Identification, Forest Health Monitoring, Encroachment Detection etc. Due to this software must provide the following deep learning capabilities: - Convolutional neural networks or deep learning models to detect objects, classify objects, or classify image pixels. - Use a model definition file multiple times to detect change over time or detect objects in different areas of interest. - Generate a polygon feature class showing the location of detected objects to be used for additional analysis or workflows. - Most importantly, should either possess pre-trained models for all of the above use cases in Assam's context or provide extensive training	Various softwares as different approaches to tackle AI/ML frame works. Thus, Kindly repharase the clause as ""TensorFlow or PyTorch	developing such deep learning models, which can generate outputs relating to use cases mentioned in the clause. It is understood that a single dataset (satellite imagery or drone imagery) cannot provide outputs related to all the use cases mentioned therein. During the project period, we want the software provider to guide us in developing such models and help us in choosing the right type of imageries (resolutions etc.) on which such models can run to generate the outputs specific to the mentioned use cases. For framework either Tensorflow or Pytorch is acceptable

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		support for enabling users to train custom models using frameworks like TensorFlow and PyTorch on the above use cases in Assam's context. - Software should have data science and data engineering tools to explore, visualize, clean, and prepare your missing forestry-related data and interpret that data to find insights and patterns.		
51	2. Technical Specifications 3. Specifications for Desktop GIS Software with image handling capability including Drone image processing capability: Support; Pg 72	-License should be perpetual in nature and all software license should have same capability of functionality or level -OEM must provide Regular software updates (New Software Releases, Service Packs & Patches.) to ensure the access of latest geospatial technology and security patches. -The OEM should provide wide ranging training videos and elearningsupport about different tools, functionalities,customized developments etc. with 24*7*365 access.	OEM must provide Regular software updates (New SoftwareReleases, Service Packs & Patches.) to ensure the access oflatest geospatial technology and security patches.""-Kindly rephase the above clause as ""OEM must provide Regular software updates (New Software Releases, Service Packs & Patches) to ensure the access oflatest geospatial technology and security patches with warranty period	This applies to a maximum of 3 year period only.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		-The OEM should have active online community engagementforum that can assist with troubleshooting when required. -The OEM should have email & Toll-Free number where the user can call to log tickets for support related to software licenses and products. -OEM must provide a Phone and online support from Monday toFriday, 9 AM to 5:30 PM IST.		
52	Section III – Evaluation and Qualification Criteria Technical Qualification Criteria 4.1 Similar Experience; Pg 28	(i) The bidder should demonstrate relevant experience of GIS Lab deployment and set-up as prime supplier or JV member1 of similar enterprise/desktop software and hardware as mentioned in Section VII, Schedule of Requirements. The bidder should also demonstrate experience in integration of GIS hardware and software, providing training and support services, geospatial manpower services and should have proficiency in GIS customization,	It is requested to kindly relax this criteria this criteria and accept experience in deployment of IT hardware and manpower and implementation of software in Govt. projects	The deployment and integration of GIS software and hardware, although similar in certain aspects, is largely different from deployment and integration of any other IT software and hardware.

However, for the sake of clarity and to ensure more participation, the experience requirements is rephrased as -

"The Bidder should demonstrate relevant experience of GIS Lab/System deployment and set-up as prime supplier or JV member. The relevant project experience should include provisioning and installation of Enterprise / Desktop GIS software and associated hardware, along with implementation, operation/ maintenance support."

A JV of 2 members is also being allowed to enable JV |

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		development and cloud-based GIS system operation.		members to combine their experience and bid.
53		Up to 3 contracts demonstrating the scope mentioned above cumulatively with a minimum combined total value of INR 50 million	It is requested to kindly make the value 10 million.	The minimum combined total value required is as per norms.
54		Up to 3 contracts demonstrating the scope mentioned above with a minimum combined total value of INR 50 million	Estimated Project Value: Please confirm an estimate of total project value	
55	Section VII – Schedule of Requirements 1. Scope of Work, List of Goods and Delivery Schedule a. Scope of Work; Pg 55	1. Supply, Installation and commissioning of Enterprise GIS Software, DBMS etc. on cloud and Desktop GIS Software on workstations.	Who will provide the cloud client or vendor. Please confirm	Department will provision for Cloud through a separate tender.
56	General Queries		**GIS Components:** All kind of base map, all data feeds,satellite imagery, others map will come as a GIS service. Requesting you kindly consider.	Agreed
57			In the BOQ Web and Desktop	All subscription items should be bundled into software

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
			based Done software comes as a yearly subscription basis. Please confirm.	procurement (inclusive of 1 year warranty) and 2 years AMC cost.
			Please confirm about SQL Server Database License Core? How many Cores license required.	2 licenses required. Physical Core (vCPU) = 4,RAM (in GB)=32,OS Sizing =250
58			We have comprehended the requirements and, as system integrators, are collaborating with various manufacturers to provide optimal solutions. Several OEMs have requested a deadline extension via our channel, as they need additional time to determine the architecture that best meets your needs. In this context, we kindly request an extension of the tender submission deadline by a minimum of 15 days from the date of the pre-bid responses published by the department.	Extended upto 11th December 2024.
			We have comprehended the requirements and, as system integrators, are collaborating with various manufacturers to provide optimal solutions. Several OEMs have requested a deadline extension via our channel, as they need additional time to determine	

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
			the architecture that best meets your needs. In this context, we kindly request an extension of the tender submission deadline by a minimum of 25 days from the date of the response of the clarifications published by the department.	
59			What would be cloud architecture infrastructure? Is it available to us?	DC and DR will be both on cloud, with DR being a back-up and restore mode. May be made available as per the needs of the project.
			What would be the total area available for the proposed GIS lab? Who would provide electricity during lab preparation?	The area available for proposed lab is around 350 to 400 sq. ft. The department would provide electricity during lab preparation.
60	Price Schedule for Goods:	Price Schedule for Goods: Table	Table regarding GIS components, you are asking 2 years AMC but again you are asking 2 years AMC separately in services. Can you clarify how many years AMC required?	It is clearly outlined in the tender document that the AMC will start from the 2nd year. The bidder should give the price of 2 year AMC in services and software price, inclusive of 1-year warranty in the price schedule of goods.
61			**Cloud based Drone Image Processing capability:** As it is a cloud based software, there are several costs and is better offered as a subscription. Kindly consider it and mention a maximum threshold as the number of	Approx. 1,00,000 images per year

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
			images that would be considered for processing per year to quantify the requirement better. Preferably as a multiple of 50,000 images.	
62	Payment Mode		Request for change the payment mode as following as most of the items are brought of items and bidder has to pay the OEM/Partners in advance full within 30 days of date of contract.	Not Accepted. Original Payment Terms stand.
63	GCC 16.1: Payment for Goods supplied from within the Purchaser's country; Pg 100	Payment for Goods supplied from within the Purchaser's country shall be made in INR Rupees, as follows: (iv) Advance Payment: Ten (10%) percent of the Contract Price, excluding CMC/AMC (as applicable), shall be paid post signing of the Contract against a simple receipt and a bank guarantee for the equivalent amount and in the form provided in the bidding documents or another form acceptable to the Purchaser. (v) On Delivery: Fifty (50%) percent of the Contract Price, excluding	Payment for Goods supplied from within the Purchaser's country shall be made in INR Rupees, as follows: (iv) Advance Payment: Ten (10%) percent of the Contract Price, excluding CMC/AMC (as applicable), shall be paid post signing of the Contract against a simple receipt and a bank guarantee for the equivalent amount and in the form provided in the bidding documents or another form acceptable to the Purchaser. (v) On Delivery: Fifty (70%) percent of the Contract Price, excluding CMC/AMC, shall be paid after the Purchaser	Not Accepted. Original Payment Terms stand.

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		CMC/AMC, shall be paid after the Purchaser certified successful installation of all the IT components (Supply as per specifications + Installation + Testing + Commissioning to the satisfaction of the Purchaser's representative) and on submission of the supporting documents specified in GCC Clause 13. (vi) Final Payment: The remaining Forty (40%) percent, excluding CMC/AMC, shall be paid within 30 days after 3 months of issuance of operational acceptance certificate by the Purchaser on the receipt of positive feedback issued by the Lab-in-Charge or any other agency engaged for testing the desired operational effectiveness of the system.	certified successful installation of all the IT components (Supply as per specifications + Installation + Testing + Commissioning to the satisfaction of the Purchaser's representative) and on submission of the supporting documents specified in GCC Clause 13. (vi) Final Payment: The remaining Forty (20%) percent, excluding CMC/AMC, shall be paid within 30 days after 3 months of issuance of operational acceptance certificate by the Purchaser on the receipt of positive feedback issued by the Lab-in-Charge or any other agency engaged for testing the desired operational effectiveness of the system	
64		The current requirement for a Manufacturer Authorization Form (MAF) from OEMs inadvertently restricts access for some	Instead of mandating an MAF, we suggest an OEM partnership agreement or a proven track record of delivering similar projects.	In AFD tenders, requiring a Manufacturer Authorization Form (MAF) is a well-established practice to ensure the confirmed technical delivery of goods and services. Without a MAF or similar support from the manufacturers of the required products, it

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
		qualified bidders by giving OEMs undue control over vendor participation. A primary objective of any competitive bidding process is to allow all technically capable vendors a fair chance to submit proposals. By empowering OEMs to selectively authorize participants, the MAF requirement risks creating a de facto gatekeeping system where OEMs can limit competition and choose bidders based on commercial interests, not technical qualifications. This approach may limit vendor participation, reduce competition, and ultimately impact the bid outcome.	This would enable you to receive bids from experienced vendors while preventing OEMs from restricting entry, fostering a more transparent and competitive process. The current MAF requirement also allows OEMs control over the Bill of Materials and pricing, leading to a less competitive and potentially cartelized approach. This dynamic may not be in the best interests of your organization, as it allows OEMs to influence the pricing and participation, hindering a truly open bid.	becomes challenging for the client department to guarantee that the products supplied by the bidder will meet the specified requirements. Only the manufacturer can confirm that the supplied product adheres to the desired specifications. Additionally, the GIS software required in the present tender involves configuration changes and customizations that must be undertaken by the software developer/manufacturer, making a confirmation from the software developer/manufacturer a mandatory requirement. However, as suggested, an authorized OEM partnership agreement confirming that the partner OEM is the official manufacturer of goods meeting the required technical specifications and possesses the capability to supply these products to the bidder as and when required, will be considered an equivalent certificate to the MAF. The technical capability of the bidder to deliver similar projects is already being checked through various technical qualification requirements in the tender, hence OEM choosing somebody not having technical qualifications and then expecting to deliver his product is not a logical submission. The OEMs may be having their own criteria of authorising some technically competent partners over others. The department has no purview over such authorisations.
65	Note under Technical Specifications:	Note: The client wants software which meet all the above specifications under all the	Requesting you to modify the compliance format by adding a column of mentioning weblink/brochure page	Bidders are required to include an additional column labelled 'Proof of Compliance' following Column 4*. This column should contain reference to the weblink or brochure/technical datasheet page number,

#	Reference	Existing Clause	Queries/Suggestions	PMU's Response
	Page 72&73	capabilities. The bidder ideally should meet all the specifications against all the capabilities by means of "Yes" against each individual specification under each capability. In case there is a "No" against any specification requirement in any capability and the bidder is in position to offer an equivalent or better specification against that requirement, then the bidder may do so by entering the specification and reasoning for the same by adding a Column 4* for consideration of the client. The client reserves the right to accept or reject the offered specification.	no/screenshot of software features so that the required document can be provided from concerned GIS OEM.	screenshot showcasing the software feature. All the software specifications that have been updated through the corrigendum shall be included in the compliance table by the bidder.**This table has to be provided by the GIS Software provider(signed and sealed) certifying that all the specifications are presently being met by the supplied software.**