CORRIGENDUM

(Relating toAPFBC/PMU/Phase-II/SW&HW/2024/356/15-A, dated the 21st October 2024)

With reference to IFB NoAPFBC/PMU/Phase-II/SW&HW/2024/356/15-A, dated the 21st October 2024, issued for the 'Procurement of Software and Hardware for the establishment of GIS Lab,' the following amendment is hereby issued:

Section	Clause	Page No	Original provision	Amendment
Section II–Bid Data Sheet (BDS)	ITB 4.1	20	Maximum number of members in the JV shall be: Not Allowed	Maximum number of members in the JV shall be: 2 Two members allowed (Lead Bidder 60% share, JV Partner 40% share)
Section II—Bid Data Sheet (BDS)	ITB 22.1	21	The deadline for Bid submission is: Date: 21 st November 2024	The deadline for Bid submission is: Date:11 th December 2024
Section II-Bid Data Sheet (BDS)	Document Checklist:	22	-New Inclusion-	Insertion: ii.(a) In case of a JV, Bidder Information Form ELI 1.2 along with certificate of Incorporation / Registration / for each JV partner and Agreement /letter of Intent for a JV (ELI 1.2 as given below in Modification Chart 1)
-do-	-do-	22	iii. Bid Security by bidder strictly in accordance with ITB 19.1 (BG format given on page 47 may be used).	Iii Bid Security by bidder strictly in accordance with ITB 19. BG format given on page 47 may be used.
-do-	-do-	22	viii. (1) ISO 9001:2015 certification for Quality Management System	viii. (1) Self-attested copy of a valid ISO 9001:2015 certificate and ISO 27001:2022 certificate
-do-	-do-	22	viii. (2) Self-Certification from Manufacturer/Supplier mentioning that bidder has after sales services facilities in operation for at least 3 years for the Goods offered in the Bid.	viii. (2) Self-Certification from the Bidder mentioning that the bidder has after sales services facilities in operation for at least 3 years before the date of bid submission for the Goods offered in the Bid.
-do-	-do-	22	x. Filled Manufacturer Authorization forms (as per the format given on page 49) for GIS software(mandatory)and3-yearsuppliers warranty for other major hardware items.	x. OEMPartnership Agreement/Filled Manufacturer Authorization forms (as per the format given on page 49) for GIS software (mandatory) and 3-year suppliers warranty/OEM Partnership Agreement for other major hardware items. Pls Note: OEM partnership agreement should confirm that the partner OEM is the official manufacturer of

Section	Clause	Page No		Or	iginal	prov	visior	n					Ame	endm	ent																	
											possess bidder	neeting the re ses the capabi as and when r	lity to equir	supp ed.	oly the	se pro	ducts	to the														
Section III-	Technical	25			1.	Eligibility					Modifi	ed form as be	low –	· (Mod	dificati	on Ch	art 3 b	elow)														
Evaluation and	Qualification	alification		Criterion	Requirement	Single Entity	,	ure (existing o	r intended)	Submie	ssion Requirements				Eligibility Joint Ven	nture (existing or in	tended)															
Qualification	Criteria		Citterion	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Jubilis	ssion requirements	Criterion	Requirement	Single Entit	All Parties Combined	Each Member	One Member	Submission Req	uirements														
Criteria	1.Eligibility		1.1 Nationality	Nationality in accordance with ITB 4.3	Must meet requirement	N/A	N/A	N/A	Forms ELI-1.	1 with attachments	1.1 Nationality	Nationality in accordance with ITB 4.3	Must meer requiremen	t Must meet requiremen	Must meet requirement	with	is ELI-1.1 or ELI-1 member of the A attachments and orised signatory o	.2 (provided by /, separately) signed by the f the JV.														
			1.2 Conflict of Interest	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	N/A	N/A	N/A	Bid Submissio	ion Form	1.2 Conflict of Interest	No conflicts of interest in accordance with ITB 4.2	Must mee requiremen	t Must meet requiremen	N/A		ubmission Form ase of JV, a single orised signatory/r V)	form signed by epresentative of														
			1.3 AFD Eligibility	Not being ineligible to AFD financing, as described in ITB 4.3	Must meet requirement	N/A	N/A	N/A	Statement of Letter of Bid)	of Integrity (appendix to	1.3 AFD Eligibili	Not being ineligible to AFD financing as described in ITB 4.3	, Must meer	t Must meet requiremen	t N/A	N/A (In c	ement of Integrity nission Form) ase of JV, a single to prised signatory/n	form signed by														
				1.4 State-Owned Entity	Meet conditions of ITB 4.3	Must meet requirement	N/A	N/A	N/A	Forms ELI-1.	1 with attachments	1.4 State-Owne	d Meet conditions of ITB 4.3	Must mee requiremer (if applicable	t Must meet requiremen	Must meet requirement (if applicable)	N/A Form	s ELI-1.1 with att	achments													
Section III-	Technical	26									Modifi	ed form as be		- прриссию,	dificati	on Ch	art 4 b	pelow)														
Evaluation and	Qualification			2	. Historical Con	tract Non-Pe	erformance						1. Historio	cal Contract Non-				,														
Qualification	Criteria	2.Historical Contract Non-	Historical Contract Non-	.Historical ontract Non-	2.Historical Contract Non-	2.Historical Contract Non-	Criterion	Requirement	Single	Entity Al	Joint Venture (Each	One Su	ubmission Requirements	Criterion	Requirement		Single Entity	All Parties Combined	ch Member Me	one Submit	ssion Requirements										
Criteria	2.Historical Contract Non- Performance						Contract Non-	Contract Non-	Contract Non-	Contract Non-	2.1 History of Non-Performing Contracts	Termination of a contract ¹ did n as a result of Bidder's default in five (5) years.	ot occur the past requir	meet	N/A	Member N/A	Member N/A	Form CON-2	2.1 History of Non-Perform Contracts	Termination of a contract ¹ did r a result of Bidder's default in th (5) years.	not occur as se past five	Must meet requirement ² .		Must meet equirement	VA (provide	Form CON-2 ad by each member of separately) and signed uthorised signatory of						
											Performance	Performance	Performance	Performance	nce	2.2 Suspension Base Execution of Bid Securing Declar by the Purchase withdrawal of the	Not under suspension based on execution of a Bid Securing Decla r or pursuant to ITB 4.4 or withdrawa Bid pursuant ITB 19.9.		meet	N/A	N/A	N/A	Bid Submission Form	2.2 Suspension B Execution of I Securing Dec the Purchase withdrawal of within Bid val	or ITB 4.4 or withdrawal of a Bid p the Bid 19.9.	ursuant to	Must meet requirement	Must meet requirement r	Must meet aquirement	Bid Subn (In cas	mission Form se of JV, a single form hed by authorised y/representative of the JV)	
											2.3 Pending Litigati	All pending litigation shall in to represent more than one it percent (100%) of the Bidde worth and shall be treated as a against the Bidder.	nundred er's net Must	meet	N/A	N/A	N/A	Form CON-2	2.3 Pending Litiga	All pending litigation shall in tor represent more than one hund (100%) of the Bidder's net wor be treated as resolved against	red percent	Must meet requirement		Must meet aquirement	(provide	Form CON-2 ad by each member of separately) and signed uthorised signatory of the JV.						
Section III-	Technical	27		'							Modifi	ed form as be	low –	· (Mod	dificati	on Ch	art 2 b	pelow)														
Evaluation and	Qualification			1	Financial Situat	ion and Perfe	отпарсе								d Performance																	
Qualification	Criteria		Criterion.	Resignant	No.	le Entity		re (existing o		Submission	Criterion	Bornionen		Olerate Frank		nture (existing or		Submission														
Criteria	3. Financial						All Parties Combined	Lach Memore	One Member	nequentum		Requirement		Single Entit	Y All Parties Combined	Each Member	One Member	Requirements														
Situation and Performance	Situation and	Situation and	Situation and			ation and	Situation and	tuation and	Situation and								Capabilities	obtaination of audited balance sheets en opinized by the law of the Bidder's count matchin attenues acceptable to the Pact he last three [3] years [2002-34, 2002-38, on dominant the current soundness of the matchin journism based on the following critic]. Average liquidity ratio for the last the years 2 L1. (Current assets of Current liabilities 2 L1. o) Positive Net Worth for last three years	ry, other requisioner, for 2021-22) e Bidder's riss. see (3)	of moves	N/A	N/A	M/A	Form PIN-3.1, with anti-change	3.1 Financial Capabilitie	financial statements acceptable to the for the last three (3) years (2023-42) to demonstrate the current the Bidder's financial position based following criteria: a) Average liquidity ratio for the lyears 2 1.1 (Current assets / Current 1.1):	country, other ne Purchaser, is, 2022-23, at soundness of d on the last three (3) nt liabilities≥	Must meet requiremen	: Must meet t requirement	Must meet requirement	Must meet requirement	Form FIN-3.1, with attachments for each JV Member
				Annual y Turnover to from supply p of goods	finisms overage annual removes for the ware(2023-34, 2022-22) & 2022-22) calcul- dat certified payments received for con- regress or completed during last 3 years/3: NR 100 million (1p croses)	eted from requi	it speet irrespent	N/A	N/A	M/A	Form PIN-12	3.2 Minimum Annual Turnover from suppl of goods	b) Positive Net Worth for last thre Minimum average annual turnover years (2023-24; 2022-23 & 2021-2 from total certified payments receiv contracts in progress or completed years: INR 100 million (10 crores)	for the last 3 2) calculated ed for	Must meet requiremen		Must meet forty per cent (40%) of the requirement	Lead Bidder must meet sixty per cent (60%) of the requirement	Form FIN-3.2 with attachments for each IV Member													

Section	Clause	Page No	Original provision	Amendment
Section III- Evaluation and Qualification Criteria	Technical Qualification Criteria 4. Experience	28	Criterion Requirements Single Builty Combined Member Combined Member Member Member Combined Member NA NA NA NA NA NA NA NA NA N	Criterion Requirements Single Entity Joint Venture (existing or intended) Submission Requirements
Section IV- Bidding Forms Section IV – Bidding Forms	Form: EXP-4.1 Experience Notes to the Form Price and Completion Schedule - Related Services	39 45	Scope of the project should be clearly highlighted on the work order/self-certificate and the cumulative scope of projects (up to 3 projects) should meet the desired scope of project as mentioned in the Section III 4.1.(i). Table: Column 7 Total cost of CMC/ AMC for the desired period exclusive of duties and applicable taxes (Col. 5X6)	Scope of the project should be clearly highlighted on the work order/self-certificate Table: Column 7 Total cost of CMC/ AMC for the desired period exclusive of duties and applicable taxes 2X (Col.5X Col.6)
Section IV – Bidding Forms	Price and Completion Schedule - Related Services	46	 Please note: Financial Evaluation shall be done on the total bid price exclusive of duties and taxes. A 3 year onsite Comprehensive Warranty/ Comprehensive Maintenance Contract (CMC) is required for all the hardware items starting from the date of operational acceptance. The client assumes that comprehensive warranty will be equivalent to a CMC that would include features like accidental insurance, help-desk support, logistics (inclusive of shipping) for repairs/replacement etc.The 3 year onsite comprehensive warranty shall be included in the price schedule for goods. 	 Please note: Financial Evaluation shall be done on the total bid price exclusive of duties and taxes. A 3 year onsite Comprehensive Warranty/

Section	Clause	Page No	Original provision	Amendment
Section VII –	2 Technical		o If any bidder feels that a 3 year onsite comprehensive warranty offered by him does not include all the features under the CMC (as defined above) for any line item(s) then the bidder may quote for CMC against such line item(s) in this price and completion schedule separately. Note: The client wants software which meet all the above	the price schedule for goods and bundled into the final price of the goods. O The continuation of AMC for software and the engagement of manpower beyond 1 st year shall be subject to necessary approvals obtained by the purchaser. Note: The client wants software which meet all the
Section VII – Schedule of Requirements	2. Technical Specifications	59-72	Note: The client wants software which meet all the above specifications under all the 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. Specification	Note: The client wants software which meet all the above specifications under all the 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.
			centers. Enterprise GIS software to entalogue, manage, and deliver large Enterprise GIS software to entalogue, manage, and deliver large Enterprise GIS software should allow simulated that an inholding reater, vector, LAS, terrain, and digital object or business data. Enterprise GIS software should allow simulatinasous access to GIS resource by multiple users with robe-based access. A diministrator that lets administrators to add, update, manage and maintain GIS data and user management, content Sharing and the capability to build various GIS applications out of the Enterprise GIS Server application should record various service statistics, such as total requests, average response time, and timeouts, and reports this information in Energy Hongger for The Enterprise GIS Software must support Scan methodology to procect Cross-site scripting (XSS) attacks from malicious inject and run one does for Security concern.	

Section	Clause	Page No	Original provision		Amendm	ent	
				labelled 'F column sh brochure/ showcasir specificati	re required to include Proof of Compliance' fo nould contain reference technical datasheet p ng the software featur ions that have been up um shall be included i	ollowing Col e to the web age number e. All the sof odated throu	umn 4*. This olink or screenshot tware ugh the
				SL	Specifications	Compliance (Yes/ No)	Col 4* Proof of compliance
				Software	modelling etc. mentioned in the GIS software (specifications give shall exist in the Enterprise GIS software should geospatial data such as geomethy network, Raster, Tat such as Text, Numeric, date, is specialized datasets such as 5D, real time, time series. • Enterprise GIS Software should geospathy, Network, Raster, Tat such as Text, Numeric, date, is specialized datasets such as 60 specialized datasets such	handling, dizations, Desktop in below) oftware. I support ical (line, netc), ultar data ime, and cadastral, support common stry and hats, and ervice for HP, KML, cel, TDF, SON Standard S, WMS	the GIS
Section VII –	2. Technical	59	Enterprise GIS Software must support reading and	Enterpris	e GIS Software must s	upport read	ing and
Schedule of	Specifications;		writing standard and common data file types using	_	andard and common	, ,	•
Requirements	1.		industry and international standard data formats, and via	,	and international stan		•
	Specifications		the web through OGC web service for all the following.		eb through OGC web	service for a	ll the
	for Enterprise		o Geospatial Formats: SHP, KML, GML	following			
	GIS Software		o Tabular Files: CSV, Excel, TDF, CDF		oatial Formats: SHP, KI	•	
	with image		o Documents: JSON, GeoJSON		ar Files: CSV, Excel, TD	•	
	handling		o Open Geospatial Standard Services: WCS, WFS,	o Docui	ments: JSON, GeoJSOI	N	

Section	Clause	Page No	Original provision	Amendment
	capability including drone image Processing capability; General capabilities of Enterprise GIS Software: 2D and 3D data handling, data integration, data processing, data visualization and modelling, data sharing, data security and data analysis tools	NO	WMS WMTS and RESTful, WPS	o Open Geospatial Standard Services: WCS, WFS, WMS WMTS and RESTful, WPS and OGC API Processing Service
-do-	-do-	59, 60	Enterprise GIS software should be able easily integrate & embed with Microsoft Office application like excel, PowerPoint etc. for management and administrators as a native functionality.	The Enterprise GIS software should support seamless integration with Microsoft Office applications such as Excel and PowerPoint, enabling users, including management and administrators, to embed and interact with GIS content within these applications. This capability may be provided either as a native functionality or through effective integration tools and workflows.
-do-	-do-	60	Enterprise GIS software must have support on Windows and Linux x86_64 operating system, x86_64 architecture (64 bit), with supported Linux releases.	Enterprise GIS software must have support on Windows or Linux x86_64 operating system, x86_64 architecture (64 bit), with supported Linux releases.
-do-	-do-	60	Enterprise GIS software should have inbuilt utility for	Enterprise GIS software should have inbuilt utility/

Section	Clause	Page No	Original provision	Amendment
			checking availability of server software updates/ patches	notification support for checking availability of server
			once connected to internet.	software updates/ patches once connected to internet.
-do-	2. Technical Specifications;	60,61	Enterprise GIS software should support AI/ML/deep learning standard Jupyter Notebooks to create, share,	The Enterprise GIS software should support AI/ML and deep learning capabilities for creating, sharing, and
	1.		and run data science script/models for applications like	running data science scripts/models that enable
	Specifications		plantation monitoring, Canopy Density Estimation, Tree	applications such as plantation monitoring, canopy
	for Enterprise		Enumeration, Tree species identification and Mapping	density estimation, tree enumeration, tree species
	GIS Software		Tree species Extent (Agar, Bamboo etc.), Wildlife species	identification and mapping, wildlife species
	with image		Identification, Plantation Land bank Identification, Forest	identification, plantation land bank identification, forest
	handling		Health Monitoring, Encroachment Detection etc. The	health monitoring, and encroachment detection. The
	capability		Software provider is expected to provide guidance on	system should allow integration with common data
	including		building/adapting these models in Assam forest's	science tools and workflows, facilitating seamless
	drone image		context.	geospatial analytics. The Software provider is expected
	Processing			to provide guidance on building/adapting these models
	capability;			in Assam forest's context.
	Developer			
	Ecosystem			
	Support			
-do-	2. Technical	61	Enterprise GIS software should possess Out of the box	The Enterprise GIS software should include out-of-the
	Specifications;		Mobile survey and field data collection apps for forestry	box mobile survey and field data collection applications
	1.		and wildlife uses, which should be compatible with iOS,	designed for forestry and wildlife use. These mobile
	Specifications		Android, Universal Windows Platform etc. The mobile	applications should be compatible with major platforms
	for Enterprise		apps should preferably be able to integrate with SOIs	such as iOS, Android, and Universal Windows Platform
	GIS Software		CORS Network with COTS GPS/mobile devices for	(UWP). The mobile apps should preferably support
	with image		accurate geo location.	integration with CORS (Continuously Operating
	handling			Reference Stations) networks and be compatible with
	capability			Commercial Off-The-Shelf (COTS) GPS/mobile devices to
	including			enable accurate geolocation.
	drone image			
	Processing			
	capability;			
	Field apps and mobile			
	solutions			
	SOIULIONS			

Section	Clause	Page No	Original provision	Amendment
-do-	2. Technical Specifications; 1. Specifications for Enterprise GIS Software with image handling capability including drone image Processing capability; Public geospatial data support	61, 62	 Enterprise GIS software should provide access to a vast repository of ready-to-use, authoritative geospatial datasets from governments and organizations around the world. 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. Enterprise GIS software should provide customisable web services for Thermal activity detected by the MODIS sensors on the NASA Aqua, Terra satellites and/or VIIRS sensors on S-NPP satellites etc. during the last 48 hours and 7 days to detect the thermal hotspot. This would help for monitoring forest fire activity in Assam Forests. Enterprise GIS software should provide access to free Online 2D, 3D, Street, LULC Base maps for previous few years with minimum resolution of 10m, imagery Services for location reference out of the box without any added cost or requirement of license. 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. 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 	 Enterprise GIS software should provide access to a vast repository of ready-to-use, authoritative geospatial datasets relevant to Assam from governments and organizations around the world. GIS Software provider should catalogue/consume these datasets through APIs and provide in the GIS platform as a service. The dataset updates shall also be reflected in the GIS platform. These datasets should be made available in form of WMS/WMTS or WFS options for consumption by users and applications. The data sources include but are not limited to: 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. 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 in forest areas. GIS data relevant to Assam, such as demographic data, Rural Road Data, Population projection data,

Section	Clause	Page No	Original provision	Amendment
			socio-economic profile of people dependent on forests.	other government department data and administrative boundaries of India, for further analysis to understand the community profile around the forests and understand socio-economic profile of people dependent on forests.
-do-	2. Technical Specifications; 1. Specifications for Enterprise GIS Software with image handling capability including drone image Processing capability; Cloud based Drone Image Processing capability;	62	The cloud based drone processing option should have a Dashboard showing all the projects on a global geographical base map.	The cloud-based drone processing option should include a dashboard that displays all projects on a global geographical base map. This dashboard should provide users with an intuitive, interactive view of project locations, statuses, and related data, facilitating easy access, monitoring, and management of drone imagery projects.
-do-	-do-	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.	The cloud-based drone imagery processing option should generate a detailed processing report that includes, but is not limited to, parameters for quality checks, camera and tie point positions, overlap details, bundle block adjustments, geolocation, and accuracy metrics. The report should provide comprehensive insights into the processing workflow and output quality.
-do-	-do-	62	Enterprise GIS software should have Ortho Maker tools to create orthoimage mosaics and terrain surface products using imagery from drones. where user can set Project Setup, Block Adjustment and Final Product Generation from Drone Image.	The Enterprise GIS software should provide tools for creating orthoimage mosaics and terrain surface products from drone imagery. These tools should enable users to manage the full workflow, including project setup, block adjustment, and final product generation,

Section	Clause	Page No	Original provision	Amendment
				ensuring accurate and high-quality outputs tailored to
				user-defined specifications
-do-	-do-	62	Other capabilities mentioned in desktop-based drone	Other relevant capabilities mentioned in desktop-based
			imagery processing specifications shall also be met by the	drone imagery processing specifications shall also be met
	2.7.1.1	60	cloud option of drone image processing.	by the cloud option of drone image processing.
-do-	2. Technical	62,	The software must be able to create a single Forest	The software must enable the creation of a
	Specifications;	67	Division, Range wise project name, which will contain	comprehensive project structure for a Forest Division,
	2.		that area related Maps and scenes, Layouts containing	organized by Range, which contains area-specific maps
	Specifications for Desktop		map frames and map, Toolboxes containing models and scripts, Connections to folders, databases, servers, styles,	and scenes. This project structure should include layouts with map frames and maps, toolboxes with models and
	GIS Software		and other resources.	scripts, and connections to relevant folders, databases,
	with image		and other resources.	servers, styles, and other resources
	handling			scrvers, styres, and other resources
	capability;			
	Handling 2D,			
	3D, Large			
	dataset and			
	Raster, Vector			
	data			
	&			
	2. Technical			
	Specifications;			
	3.			
	Specifications			
	for Desktop			
	GIS Software			
	with image			
	handling			
	capability			
	including			
	Drone image			
	processing			
	capability;			
	Handling 2D,			

Section	Clause	Page No	Original provision	Amendment
	3D, Large dataset and Raster, Vector data			
-do-	-do-	63, 67	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.	Software should provide Online Access of high-resolution Imagery base maps specific to Assam integrated as a service in the GIS platform and it is preferable (not mandatory) to allow running deep learning/AI/ML object detection models for change detection on these basemaps.
-do-	-do-	63, 68	The software should provide free base map Services (OSM, High Resolution Imagery, Topographic etc.). The base maps should also be viewable without internet also.	The software should provide free base map services relevant to Assam(OSM, High Resolution Imagery, Topographic etc.).
-do-	-do-	63, 68	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.	The Software should provide GIS data relevant to Assam, such as demographic data, Rural Road Data, Population projection data, other government department data and administrative boundaries of India, as web layer service for further analysis to understand the community profile around the forests and understand socio-economic profile of people dependent on forests.
-do-	-do-	63, 68	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 behaviours for maintaining data integrity.	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.
-do-	2. Technical Specifications; 2. Specifications for Desktop GIS Software with image handling	64, 69	The software must be able to View, manage and analyse 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 analyse and visualize tree density and generate report.	The software must be able to View, manage and analyse 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 analyse and visualize tree density.

Section	Clause	Page No	Original provision	Amendment
	capability; Handling Point Cloud, LiDAR, SAR data & 2. Technical Specifications; 3. Specifications for Desktop GIS Software with image handling capability including Drone image processing capability; Handling Point Cloud, LiDAR,			
-do-	SAR data 2. Technical Specifications; 2. Specifications for Desktop GIS Software with image handling capability; Remote Sensing & Image Analysis	65, 70	The software should have separate hyperspectral image processing tools like anomaly detection, target detection, material mapping along with a spectral comparison facility	Clause Deleted

Section	Clause	Page No	Original provision	Amendment
	& 2. Technical Specifications; 2. Specifications for Desktop GIS Software with image handling capability; Remote Sensing & Image Analysis			
-do-	2. Technical Specifications; 2. Specifications for Desktop GIS Software with image handling capability; Data Science/ AI/ ML/Deep Learning Capabilities & 2. Technical Specifications; 3. Specifications for Desktop GIS Software	66, 71	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.	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 or PyTorch on the above use cases in Assam's context.

Section	Clause	Page No	Original provision	Amendment
	with image handling capability including Drone image processing capability; Data Science/AI/ML/Deep Learning Capabilities			
-do-	2. Technical Specifications; 3. Specifications for Desktop GIS Software with image handling capability including Drone image processing capability; Drone Imagery Processing	72	Should Build a stereo model of a mosaic dataset, based on a user-provided stereo pair.	Clause Deleted
-do-	2. Technical Specifications 6. Video Wall Specification	74	 Speakers: 5-Watt x 2 Certifications: BEE Star Rating Display Configuration: A 2X2 indoor video wall made of 55-inch 4K UHD LCD panels with ultrathinbezels (0.8mm or less). 	 Speakers: Clause Deleted Certifications: Clause deleted Display Configuration: A 2X2 indoor video wall made of 55-inch Full HD (minimum) LCD panels with ultra-thinbezels (0.8mm or less).
-do-	2. Technical Specifications	74	 To be used for video conferencing To support VC systems such as Zoom and Teams 	 To be used for video conferencing To support VC systems such as Zoom and Teams

Section	Clause	Page Original provision No		Amendment
	7. Video Bar Specification		etc. 4K camera, 120 degree FOV or better. Noise cancelling Microphone with coverage range 10-20 feet Connectivity: 1Gbps Ethernet, USB, HDMI Cables: 5-meter USB Type-A to Type-C, Ethernet, HDMI Power Adaptor	etc. 4K camera, 120 degree FOV or better. Noise cancelling Microphone with coverage range 10-20 feet Connectivity: 1Gbps Ethernet, USB, HDMI Cables: 5-meter USB Type-A to Type-C, Ethernet, HDMI Power Adaptor Speakers: 5-Watt x 2
-do-	2. Technical Specifications 8. Storage solution Specifications	74	 Operating System for offered hardware, with 10 user licences: Windows Server 22 Standard Edition Protocol Support: NFS,SMB RAID: 5 Usable storage space (adding for RAID redundancy) using NVMe SSD drives in RAID 5 mode; Each drive maximum size is 3.5 TB; Controller with RAID support (software or hardware): 20 TB 	 Operating System for offered hardware, with 10 user licences: The Windows Server 2022 or equivalent Protocol Support: Minimum NFS,SMB RAID: 5 or above Usable storage space (adding for RAID redundancy) using NVMe SSD drives in RAID 5 or above mode; Each drive maximum size will be 4 TB; Controller with RAID support (software or hardware): 20 TB
-do-	2. Technical Specifications 18. Smart Rack Specifications	79	Size of Rack Enclosure: 27U*	Size of Rack Enclosure: 36U
-do-	-do-	79	Rear door thickness in mm: 2	Rear door thickness: as per OEM standard
-do-	-do-	79	Load Bearing Capacity (Kgs): 200 kilograms	Load Bearing Capacity (Kgs): 1000 kilograms
-do-	-do-	80	Power of Cooling Unit (kW): 1	Clause Deleted
-do-	-do-	80	Certifications: ISO 27001, SOC2, ISO 14001, BEE Star Rating, IP rating	Certifications: ISO 27001, ISO 14001
Section IX- SpecialConditions of Contract	GCC 15.1	99	12. APFBCS reserves the right to cancel contract in case of consecutive sub-par performance by the replacements 15. In regard to AMC/CMC items, the payment for the same will be payable after the issuance of operational	12. APFBCS reserves the right to cancel the availing of manpower services due to sub-par performance by the replacements or due to lack of necessary approvals beyond 1 st year or due to any other reason.
			acceptance certificate by the Purchaser in equal quarterly	15. In regard to AMCitems for a 2 year period after the

Ī	Section	Clause	Page	Original provision	Amendment
			No		
				instalments at the end of each quarter as per the rates quoted in the Price Schedules and on submission of relevant supporting documents and certification of satisfactory service provided during the quarter.	1 st year, the payment for the same shall be made after obtaining the necessary approvals in yearly instalments at the beginning of each year as per the rates quoted in the Price Schedules and on submission of relevant supporting documents and certification of satisfactory service provided during the previous year.

^{* 27}U will be replaced everywhere in the document by 36U (For ex: In Price Schedule of Goods (Item 18, Page 44), In List of Goods and Delivery Schedule (Item 18, Page 57) and In Technical Specifications Compliance Sheet (Item 18, Page 82))

Form: ELI-1.2 Bidder's JV Information Form

[The following table shall be filled by each member of a Joint Venture]

Date: [Insert day, month, year]
IPC No. and title: [Insert IPC number and title]
Page [insert number] of [insert total number] pages

Bidder's JV name:	
Bidder's JV member's name: [insert full name Bidder's JV Member]	
Bidder's JV member's country of constitution:	
Bidder's JV member's year of constitution:	
Bidder's JV member's legal address (in country of constitution):	
Bidder's JV member's authorized representative information:	
Name:	
Address:	
Telephone/Fax numbers:	
Email address:	
 Attached are copies of original documents of: a. Certificate of Incorporation/Registration for each JV member and JV agreer Letter of Intent for JV formation. b. In case of State-owned enterprise or institution, in accordance with IT documents establishing:	В 4.3,
Purchaser	

Note: This form is mandatory for JV, to be provided by each JV member separately alongwith the attachments mentioned and signed by authorised signatory of the JV. No other format is acceptable.

1. Financial Situation and Performance

			Single	Joint Ventu	Submission			
	Criterion	Requirement	Entity	All Parties Combined	Each Member	One Member	Requirements	
3.1	Financial Capabilities	Submission of audited balance sheets or if not required by the law of the Bidder's country, other financial statements acceptable to the Purchaser, for the last three (3) years (2023-24, 2022-23, 2021-22) to demonstrate the current soundness of the Bidder's financial position based on the following criteria: a) Average liquidity ratio for the last three (3) years ≥ 1.1 (Current assets / Current liabilities≥ 1.1); b) Positive Net Worth for last three years	Must meet requirement	Must meet requirement	Must meet requirement	Must meet requirement	Form FIN-3.1, with attachments(In case of a JV, separate form for each JV Member signed and sealed by authorised representative of JV)	
3.2	Minimum Annual Turnover from supply of goods	Minimum average annual turnover for the last 3 years (2023-24; 2022-23 & 2021-22) calculated from total certified payments received for contracts in progress or completed during last 3 years: INR 100 million (10 crores)	Must meet requirement	Must meet requirement	Must meet forty per cent (40%)of the requirement	Lead Bidder must meet sixtyper cent (60%)of the requirement	Form FIN-3.2 with attachments(In case of a JV, separate for each JV Member signed and sealed by authorised representative of JV)	

1. Eligibility							
			Cinalo	Joint Ventur	e (existing or	intended)	
	Criterion	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Submission Requirements
1.1	Nationality	Nationality in accordance with ITB 4.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI-1.1 or ELI-1.2 (provided by each member of the JV, separately) with attachments and signed by the authorised representative of the JV.
1.2	Conflict of Interest	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	Must meet requirement	N/A	N/A	Bid Submission Form (In case of JV, a single form signed by authorised representative of the JV)
1.3	AFD Eligibility	Not being ineligible to AFD financing, as described in ITB 4.3	Must meet requirement	Must meet requirement	N/A	N/A	Statement of Integrity (appendix to Bid Submission Form) (In case of JV, a single form signed by authorised representative of the JV)
1.4	State-Owned Entity	Meet conditions of ITB 4.3	Must meet requirement (if applicable)	Must meet requirement (if applicable)	Must meet requirement (if applicable)	N/A	If applicable, Forms ELI-1.1 or ELI-1.2 (provided by each member of the JV, separately) with attachments and signed by the authorised representative of the JV.

	1. Historical Contract Non-Performance								
				Joint Ventu	ire (existing or i	Submission			
	Criterion	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Requirements		
2.1	History of Non-Performing Contracts	Termination of a contract ¹ did not occur as a result of Bidder's default in the past five (5) years.	Must meet requirement ² .	Must meet requirement	Must meet requirement	N/A	Form CON-2 (provided by each member of the JV, separately) and signed by the authorised representative of the JV.		
2.2	Suspension Based on Execution of Bid Securing Declaration by the Purchaser or withdrawal of the Bid within Bid validity	Not under suspension based on execution of a Bid Securing Declaration pursuant to ITB 4.4 or withdrawal of a Bid pursuant ITB 19.9.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Bid Submission Form (In case of JV, a single form signed by authorised representative of the JV)		

¹Non-performance shall include all terminations of contracts where (a) non-performance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Non-performance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism.

²This requirement also applies to contracts executed by the Bidder as JV member.

	1. Historical Contract Non-Performance								
				Joint Ventu	re (existing or i	Submission			
	Criterion	Requirement	Single Entity	All Parties Combined	Each Member	One Member	Submission Requirements		
2	2.3 Pending Litigation	All pending litigation shall in total not represent more than one hundred percent (100%) of the Bidder's net worth and shall be treated as resolved against the Bidder.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Form CON-2 (provided by each member of the JV, separately) and signed by the authorised representative of the JV.		

		2.	Experience				
				Joint Venture	e (existing or	intended)	
Criterion		Requirements	Single Entity	All Parties Combined	Each Member	One Member	Submission Requirements
4.1 Similar Experience	experience set-up as prelevant p provisioning Desktop Galong with maintenar (ii) A minimur highlightin above that substantia joint ventuand bid su	r should demonstrate relevant e of GIS Lab/System deployment and prime supplier or JV member ¹ . The roject experience should include ng and installation of Enterprise / IS software and associated hardware, implementation, operation/ nce support. In number of similar contracts ng clearly the scope as mentioned thave been satisfactorily and Illy completed ³ as prime Supplier, or ure member, between 1st April 2019 bmission deadline:	Must meet requirement	Must meet requirement	N/A	N/A	 Form EXP-4.1 along with annexures mentioned therein, strictly as per format. Self-attested copy of a valid ISO 9001:2015 certificate and ISO 27001:2022 (in case of a JV, from any of the JV Member)

	2. Experience								
			Joint Venture	e (existing or	intended)				
Criterion	Requirements	Single Entity	All Parties Combined	Each Member	One Member	Submission Requirements			
	combined ² total value of INR 50 million (iii) Valid ISO 9001:2015 and ISO 27001: 2022 certifications needed								
4.2 After Sales Service	Availability at the bid submission date in the Purchaser's Country of spare parts and after sales services facilities in operation for at least 3 years for the Goods offered in the Bid.	Must meet requirement	Must meet requirement	N/A	N/A	Self-Declaration by theBidder / Lead Bidder (in case of JV)			

- 1. For contracts under which the Bidder participated as a joint venture member, only the Bidder's share, by value, and role and responsibilities shall be considered to meet this requirement.
- 2. Subject to a maximum of 3 separate contracts, the monetary value of the individual contracts substantially completed by JV members individuallycan be combined to achieve the minimum combined value of INR 50 million.
- 3. Substantially completed means the contracts whose Supply, Installation and Commissioning has been successfully completed and the Operation and Maintenance is going on.