



**FOREST HEADQUARTERS, ODISHA, OFFICE OF THE
PRINCIPAL CHIEF CONSERVATOR OF FORESTS, ARANYA BHAWAN,
CHANDRASEKHARPUR, BHUBANESWAR-23**

REQUEST FOR PROPOSAL

FOR

**ESTABLISHMENT OF AN ENTERPRISE GIS AND GIS
APPLICATIONS**

IN

FOREST DEPARTMENT, GOVERNMENT OF ODISHA,

RFP Notice No: 953

Dtd. 2nd September 2014

INVITATION OF BID

The Conservator of Forests (GIS), (the Authorized Officer) invites Request for Proposal (RFP) on behalf of the Principal Chief Conservator of Forests (PCCF), Odisha, (the Purchaser) from the Eligible OEMs and Authorized System Integrators cum Vendors of the OEMs to provide an Enterprise GIS Solutions for Forest Department of Odisha. The RFP Document may be downloaded from the tender section of www.odisha.gov.in or collected in soft copies from Conservator of Forests (GIS), in the O/o PCCF Odisha. While submitting the bid, the bidder has to submit a nonrefundable amount Rs.1000/- in shape of bank draft drawn in favour of Principal Chief Conservator of Forests, Odisha, Bhubaneswar; along with the bid document towards the cost of RFP document.

SCHEDULE OF EVENTS IN BIDDING FOR ENTERPRISE GIS:

S. No	Information	Details
1.	Hosting of the document on the Notice Board/ Website	2 nd September 2014
2	Address for Submission of Bid	Conservator of Forests (GIS) o/o PCCF, Odisha, Aranya Bhawan, CS Pur, Bhubaneswar
3	Cost of RFP (Nonrefundable)	Rs. 1000/- in form of DD from any nationalized Bank in favour of PCCF, Odisha, Bhubaneswar.
4	Earnest Money Deposit	Bank Guarantee for Rs. 50,000/- from a local branch of any nationalized Bank in favour of Conservator of Forests (GIS), o/o PCCF, Odisha, Bhubaneswar valid for 180 days from the date of opening of the technical bid.
5	Last date of receipt of Pre-Bid Queries	5 PM of 17 th September 2014
6	Date of Pre-Bid Meeting	11 AM of 26 th September 2014
7	Last date of Receipt of Bids	5 PM of 20 th October 2014
8	Opening of General Bids	11 AM of 21 st October 2014
9	Opening Technical Bids	
10	Date of Presentations	11 AM of 22 nd October 2014
11	Opening of Commercial Bids	11 AM of 24 th October 2014

AMENDMENT TO INVITATION BID:

At any time prior to the deadline for submission of bids, Authorized Officer reserves the right to add / modify / delete any portion of this document by issuance of an addendum, which would be published on the web site and will also be made available to the all the bidders who have indicated their intention to bid. The addendum shall be binding on all bidders.

Scope of the Work/ Solution (General)

1. Introduction

Geo-spatial Technology that combines remote sensing technology, GIS technology, GPS technology, mobile technology and information technology has taken the center stage as a tool World over to bring a new perception to all spatial based activities relating to their planning, implementation and monitoring on a near-real time basis. Textual data in juxtaposition with spatial data provide much deeper understanding and appreciation to any land based activity. In process what unfolds is the appropriateness of land/location based activity, transparency in planning & implementation and enhancement in the effectiveness of the intervention. Appropriateness of any activity is derivative of analytical examination on several parameters made possible through application of geo-spatial technologies. Development of this technologies has brought about a paradigm shift in the capability of the application wherein data collection, upload, analysis, output generation and viewing etc. have not only become much faster but also almost on near-real time basis. Thus the technology endows a strong tool to monitor both financial and physical progress of implementation of land based activities on near-real time basis, to analyze and deploy resources for timely intervention and to place it in public domain for better transparency. In addition, it provides a decision support system for the decision makers as well as planners to ultimately achieve an objective and appropriate decision or plan.

Forestry sector encompasses a host of activities that are land/location based. The very forest resource is spatial in nature. There is a strong need for the application of geo-spatial technology in the sector to monitor the resource base both in its content and spatial extent, to plan, implement and monitor site specific afforestation/plantation programme, to plan and monitor patrolling system, to plan and monitor landscape enrichment programme, to monitor and tracking of wildlife, etc.

Odisha Forest Department has a large field formation and in the state it is custodian of about 58,000 sq. km of land area, almost one third of the geographical area. Application of geo-spatial technology will not succeed unless the entire field formations as well as supervisory levels up to and including head quarter units are networked in to an OGC Compliant Web GIS Enterprise platform. Accordingly the application for establishment of a Geomatics unit has to be developed taking in to consideration all such functionalities in the Forest Department.

2. Activities of the Odisha Forest is to be Geo-enabled:

As part of the programme to main stream the GIS technology in OFD for effective planning and decision support for various activities, it is envisaged to GIS enable Forest Management activities to support forest department officers and personnel with focused applications across Desktop, Web and Mobile interfaces. These intended applications have been listed below. These applications have to be developed in hybrid environment involving GIS Technology in Desktop, Web and Mobile interfaces and should be a scalable application, which should support SMS based Rapid information acquisition using mobile devices.

2.1 Forest Management and Planning Applications

These applications should primarily address the Planning activities and also generation of management reports required for effective management.

- A. Forest Working Plans
- B. Reports Module – for generation of Forest Division wise and Site wise Monitoring & Evaluation Reports
- C. Integration with MIS data such as Land Management, Working plan, Forest Produce, Establishment, Peoples participation, Eco-tourism, Research & Training
- D. Navigation, Mapping and Forest Tour Planning for field and supervising officers

2.2 Forest Monitoring and Mapping Applications

These applications should enable space and time based monitoring of various parameters through temporal satellite images and corresponding vector data mapping, where required.

- A. Forest Cover status in a beat/section/range/compartment/block
- B. Encroachment or illegal forest clearance.
- C. Progress of plantation, nursery activities and other physical activities
- D. VSS areas and activities
- E. Wildlife Corridors and their Changes
- F. Wetlands inside Forest Areas
- G. Wildlife movement particularly elephant
- H. Forest offence/wildlife offences.
- I. Compliances to FC stipulations particularly in the context of forest land diverted.
- J. Coups of Bamboo & Timber.
- K. Alerts on large change in Land Use patterns

L. Distribution of Endangered Species (RED Listed) of flora and fauna

2.3 GIS Based Decision Support Applications

- A. Afforestation Site Suitability using DEM, Vegetation Status, Soil Profile, Rainfall, Temperature and Species Suitability Database.
- B. Forestry Activities site Suitability
- C. Land Information System on GIS Platform pertaining to FC Act, FRA. Mapping and georeferencing all Forest areas as per FC Act and allied SC Rulings.
- D. Forest Fire detection and management

Mobile GIS Applications

- 1. Patrolling in Forest Area through PDA/Mobile device
- 2. Forest Asset, Incidences, species Mapping and Monitoring with capability to record location coordinates, photos, and fill in minimum details

In addition, OFD intends to develop a SMS based Rapid information acquisition on the classification of land parcels using mobile devices. The details of this will be discussed during the Need Assessment.

These core activities enlisted cover a large part of the Administrative and management requirements as well as addressing the challenges facing Forest/ Species Conservation and Habitat Management activities. These will also empower the forest officials at various levels with tools and functionalities for efficient decision support.

Stages for Geo-enabling the various Forest Planning and Management processes:

The concept of geo-enabling the various Forest Planning and Management processes enlisted above is planned to be undertaken through following three major stages

- a. Development of a Centralized GIS – MIS Database**
- b. GIS Application Development and MIS Integration**
 - 1. Web MIS & GIS Application**
 - 2. Mobile MIS & GIS Application**
- c. Training and Capacity Building**

d. Central GIS and MIS Database

- This should form the basis for collation and systematic compilation of the GIS data pertaining to Forest, Administrative Boundaries, Infrastructure and Natural Resources required and relevant for forest management.
- The central database should also support and dissemination of the high-resolution satellite imageries.
- It should also provide the necessary spatial data input required for the application and the decision support systems.
- Current OFD is custodian of a large repository of GIS data mostly in Esri's ArcGIS Format and Shapefiles.
- Many Data Pertaining to Odisha Forestry in ORSAC and other Organisation like Watershed Mission are mostly in Esri's ArcGIS format and Shape Files.
- The requirement is to convert these into an OGC Compliant Central Geospatial Database along with linkages to MIS data to create a Central GIS – MIS Database that will form the base for all GIS data and Application requirements.
- The Bidder shall have valid Licenses and Certification of the OGC Compliant Enterprise GIS Software Platform for producing the GIS data base and APIs in all leading OGC Compliant Geospatial RDBMS Products in the Market.
- The Bidder's Product must be RDBMS Agnostic, GIS Platform Agnostic and OS Agnostic. It means the Geospatial Data produced on the platform and the Geospatial Applications developed on the platform should run on any OS, OGC Certified Enterprise GIS Platform and RDBMS. This must be Certified & Demonstrated in technical presentation.

GIS Application or API Development

- OFD envisages to have a mix of GIS Server , Desktop, Web and Mobile based applications to empower its personnel with required tools and functionalities
- It is envisaged to augment the Central GIS laboratory equipped with basic server, enterprise server, GIS software with add on module for 3D-analysis, spatial analysis and network management networked with all field units and other headquarters offices through OSWAN or broadband connectivity.
- It is proposed to have a Web GIS application developed and deployed on the central infrastructure at OFD Data Center. The Web GIS applications will support host of forestry activities like Working / Management Plans , Forest Monitoring activities like Afforestation Programmes , Forest Nurseries, Encroachments, Land use Changes , Vegetation Status , Forest Fires Management , Forest Road

Connectivity , Industrial & Infrastructural Developments involving Forest Lands under FC Acts , Forest Land Under Forest Right Act, etc.

- Through Mobile GIS application, one should enable to view spatial data in the field (inside forest area) and also feed field collected data and Photos to the server for instantaneous upload and viewing at various levels.
- It is also envisaged to equip field cadre staff with PDA and or smart phone capable of transmitting voice, data and geo-coordinates. These personal devices should be networked with the central server located at Forest HQ. The field cadre staff when patrolling encounter any even inside forest area such as encroachment, fire, poaching or even sighting of wildlife the event should be directly fed to the central server through the personal device in shape of map generated through recording geo-coordinated of the site, textual data or even voice data.
- Once uploaded to the server the event should available in web GIS for viewing and for necessary direction by the supervisory officers.

4. Basic Spatial Data Inputs for the Geo Enabled Applications: (Quantification Needed)

1. Basic GIS layers administrative boundaries, soil, drainage, transport, land use etc. should be developed using high resolution satellite data and associated forest maps or the base map as available from ORSAC with associated forest maps in Esri's ArcGIS Platform & Shapefiles.
2. Digitization and Geo-referenced layers of forest blocks, management units, forest roads, etc. in Esri's Shape files or OGC Compliant Geospatial Files to be developed in future by FD using the Proposed Enterprise GIS.
3. Ortho/Geo-rectification of high resolution satellite images to be procured by OFD

5. Salient features of the Scope of Work

OFD envisages the following Salient Features of the scope of work for the GIS Consultants.

a) Detailed User Requirement Study (URS)

OFD expects that the Vendor carryout a detailed User Requirement (URS) Study to capture the exact requirements of OFD. If necessary Vendors may participate in a three /four day requirements gathering workshop to be organized by OFD HQ. The GIS consultant will meet and interact with the Forest Officials and draw-up Requirements for the envisaged applications.

b) Establishment of the Central GIS – MIS Database

The Central database being core to all the data requirements, should be modeled to cater to the multiple application and user requirements addressing the multiple forest management processes, while addressing the data access and data securing requirement. Though the data-model process, it should address the various functional requirements, the data model as per the draft Forest Management Plan, 2014, can form an ideal starting point and also should ensure standards based approach.

Under this Project of Enterprise GIA, OFD will create all the current and future GIS data on an OGC Compliant Enterprise GIS Platform which must be interoperable across all other OGC Compliant GIS Software. The GIS Consultant will convert these into and establish a central Database on an OGC Compliant & Industry Standard RDBMS on the OGC Compliant Enterprise GIS platform.

c) Application Development

Application development should involve establishing requirements based applications that address specific business processes to empower the planners, forest personnel and decision makers through web and mobile interfaces.

Application development, Deployment and implementation should follow a phased approach, which would enable both refinement and standardization. The phasing should be incremental in both scope and extent. This should enable adding additional applications, extending the geographical reach and also systematic and focused skill and capacity building up to the grass-root level officers for efficient uptake and effective utilization and management of the established systems.

Though the actual functional requirements of each of the applications will be finalized during the Requirements study, OFD requires the following functionalities to be implemented for Web GIS Application. Implementation of search and query functionalities through creation of Configuration files is preferred as it would enable OFD to add/modify the queries as required.

a) Basic Mapping System:

The Web GIS Platform, Interface & Applications should have following IT, Mapping and Decision Support functionalities (Suggestive not Exhaustive)

- IPv-6 , IPv-4 and VPN Compliant
- Client Authentication Protocol through MAC ID Filtering , Username , Password and Hardware Keys
- Agnostic to Device , Operating System (OS) and Browser
- Should be independent of any Proprietary GIS & DB Desktop Applications on the Client's Local Machine. It means clients are not bound at all to install any Desktop / Mobile GIS & DB Applications except free applications like Google Earth / Map, Adobe Reader, and Open Office etc. to utilize the Web GIS Service.
- Should be light, flexible and fast. It should Operate Smoothly using Broadband on Standard DSL Modem or 3G Data Connection available in Odisha / India.
- Compatible & Upgradable to all upgrades on OS and Browsers, these upgrades shall be ensured by the Vendor within the Contract and Maintenance Period.
- Zoom In, Zoom Out, Panning, Full Extent, Previous Extent
- Go to Location
- Layer On / Off
- Enabling Different Projection
- Defining AOI From Spreadsheets of Geocoordinates
- Defining AOI using Mouse & Cursor
- Geotagging different class of Documents & File formats
- Opening Geospatial Files stored in the local machine and invoked from central server.
- Creation of KML files from AOI.
- Projecting AOI in Google Earth.
- Queries-Response & Geospatial Analytics / Decision Support on AOIs pertaining to Forestry Issues transacted on a Natural English Language Environment.
- Identify Tool
- Length , Area and Volume Calculation
- Print Map (Scale based)
- Set to Scale
- A Look and Feel like Google Earth Interface
- 15-20 Standard APIs on Menu related to Forestry Issues
- Provision of adding APIs to menu and invoking APIs to run in the background
- Online Chat , Mail & File Transfers between Clients
- Help , User Guides and On line Training & Test of Different Modules

- Useful Downloads related Documentation, User guides, Training Materials, Mock Test Modules etc.
 - All other feature to be decided in future.
- b) Adding Online Maps / OGC Web Map Services -The application should have facility to add OGC Compliant WMS & WFS Services.
 - c) Search - A simple search facility should be available in application so that user can search location, assets.
 - d) Attribute Query - The application should have facility to query the map based on the attribute available with digital map
 - e) Spatial Query - The application should have facility to run query on multiple layers with spatial operators.
 - f) Attribute + Spatial Query - The application should have facility to run combination of attribute & spatial query.
 - g) Export Data - The queried data can be exported as PDF/ XLS/ SHP/KML file format.
 - h) Spatial Analysis - The application should have basic spatial analysis functionality like Buffer and Density. For example user should be able to select/highlight all assets like fire lines or watch towers, with in defined distances based on the fire incidents.
 - i) Thematic Mapping - System should generate various thematic maps based on the attribute information available in databases.
 - j) Change Visualization – the application System should facilitate users to overlay satellite images of multiple periods to visually interpret/identify the changes in the Land Use, Deforestation, encroachments. The application should also support satellite images served as WMS-T services.

Mobile GIS Application

It is envisaged to provide the Field officers with Mobile interface for Field information gathering and monitoring. At the minimum, the Mobile application should enable authorized users to find a

location/locate an incident, enter field details, capture photos and upload it to the central servers. The actual Mobile GIS requirements will be finalized during the requirements stage.

d) Supply of GIS Server and Desktop Software:

Above mentioned application should be developed on top of Commercial Off-The-Shelf (COTS) OGC Compliant GIS Products, should be supplied from one OEMs, Commercially available from companies of repute and must be in operation for last ten years in Government Departments involved in Forestry Activities and Land Management Sector.

The requirements of various modules are as follows. Vendors should provide the compliance for the stated requirements as per the table below.

GIS server Specifications

Sl. No.	Specification
	Software Should have the below mentioned functionalities:
1	Server based GIS should be OGC Compliant and must Support any client and device including mobile, smart clients, web browsers (Internet Explorer, Google Chrome and Firefox), geexplorer applications and desktop applications.
2	Server Software should run as a native 64-bit application and should support Windows 64-bit and / or Linux/UNIX operating systems 64-bit.
3	It should be possible to deploy in all virtualized environment and support vSphere and vCenter.
4	Support service-oriented architectures (GIS on the enterprise service bus).
5	Support portal standards like JSR-168, UDDI, CSW from OGC, web portal frameworks, and APIs [.NET, Java]).
6	It should be possible to create and manage a central spatial information repository using all and any type OGC Compliant and Industry Standard Relational Database Management Systems (RDBMs) like IBM® DB2®, IBM Informix® Dynamic Server, Microsoft® SQL Server®, Microsoft® SQL Server® Express, Microsoft® SQL Azure®, Oracle®, PostgreSQL and Netezza etc. The Enterprise GIS System should be must be Independent of and Agnostic to all Industry Standard & OGC Compliant RDBMs.
7	The Server software should support Replication across Multiple and Diverse OGC Compliant RDBMS in Connected and Disconnected environments.
8	Should support unlimited number of spatial data editing and viewing by desktop, web browser and mobile clients.
9	Should support Web server / application server like IIS, Tomcat, Glassfish, Web Sphere and Oracle Weblogic.

10	Should support Web Services including Map, KML, WMS, WCS, WFS and WFS-T. REST and SOAP. Must Support all OGC Compliant; Proprietary and Open source Map Servers and Web Map Servers.
11	The software should support various out of the box web services that are used to share resources over a local network or the Internet viz Geodatabase Replication, Feature Services, Geometry, Dynamic Map Services, Cached Map Services, Image Services, Feature Services, Geoprocessing, Geocoding, 3D mapping, Production Quality Printing, Enterprise Search, Schematics, Network, Windows Mobile. It must be Compatible to all types of OGC Compliant Web Servers.
12	Should be capable of maintaining historical / legacy data version management and conflict detection / resolution.
13	Should have out-of-the-box, end user applications and services for spatial data management, visualization, and spatial analysis.
14	It should have variety of ready to use web mapping applications /APIs like Viewer for Flex, Viewer for Silverlight, Maps for SharePoint, Maps MS Office. The software should also provide APIs for developers to build custom web mapping applications like API for JavaScript, API for Flex and API for Silverlight.
15	Should have option to create geographic database, manage geographic database, and load spatial data into spatial database.
16	Should be possible to publish and share geographic data (2D & 3D), maps, analyses, models.
17	Should have out of the box Web Application Functionalities like pan, zoom, identifying features on a map, feature based hyperlink, measure distance, maptips, interactive north arrow, magnification window, overview window, find place, query attribute, search attribute, editing, geo-processing tasks etc.
18	Should support server-based analysis and geo-processing, including vector, raster, 3D, and network analysis as well as models, scripts, and tools
19	Should have Web Editing Application Functionalities like simultaneous Feature class editing, isolated editing in separate versions, Undo/Redo operations, snapping by layer, snapping to new geometry, settable snapping, modify, merge, split features, specify an Exact X,Y location, modify and create attribute values, maintain attribute values through defined rules (Domain), any custom component based Tool for editing.
20	Should have geo-processing framework, geo-processing tools, core analysis functionalities, spatial statistics analysis functionalities.
21	Should have Centrally managed data, models, tools, maps, and applications.
22	It should provide network analysis tools for desktop, mobile, and web applications without requiring the end user to install additional GIS software.
23	It should be possible to automatically generate, visualize, and manipulate diagrams from network data or data that has attributes for connectivity.

24	It must be possible to integrate GIS Server services with enterprise applications.
25	The software should support a variety of mobile applications on many platforms Smartphone and Tablet Applications like iOS, Android, Windows Tablet, Windows Phone and Windows Mobile. It also should provide software development kits (SDKs) for Application developers to build custom mobile applications such as Runtime SDK for iOS, Runtime SDK for Android, Runtime SDK for Windows Phone, and Runtime SDK for Windows Mobile.
26	The application should provide an out-of-the-box, configurable unlimited mobile clients that allows dynamic query and update server data remotely. The mobile application should be able to integrate with GPS devices on Windows, Linux, iOS, & Android Platform.
27	Support language standards like Internationalization (I18N) and Localization (L10N) such as UNICODE- (UTF-8) and numerous tools for adding language support.

GIS Desktop Specifications

Sl. No	Specifications
1.	Should be able to store spatial Data in industry standard RDBMS Format and Should allow user to define a spatial query against SQL spatial types in a spatial database to create a layer (query layer) that can be viewed and queried in GIS Software.
2.	Create/manage/use spatial bookmarks, Use map templates to standardize maps, Interactively set transparency for all data
3.	Create layers or shortcuts to geographic data that store symbology for Displaying features.
4.	Thematic classifications like: Single symbol, Unique value, Match to predefined style, Graduated colours or symbols, Proportional symbols, Dot density mapping, Chart mapping including pie and bar chart, Bivariate and multivariate data rendering.
5.	Should support rule based symbology and cartographic representations of map entities.
6.	Should support 2D animations with time series data support and historical play back of event data.
7.	Should support Image classification like thematic classes, Individual band settings, Colour maps, Contrast, Brightness.
8.	Should have Image rectification tools for easily georeferencing existing scanned images.
9.	On-the-fly automatic labelling, multi-labelling, interactive labelling, rotation of labels from an attribute field, interactive label placement, predefined label styles & finally save labels as a data layer
10.	Software should provide Raster handling tools like contrast, brightness, transparency, gamma stretch, dynamic range adjustment, ignore background value, nadir top-up, contrast stretch, display resampling method, zoom to raster resolution, swipe layer, and flicker layer
11.	Export graphics to: Enhanced Metafile (EMF), Windows bit map (BMP), Encapsulated PostScript (EPS), Tagged image file format (TIFF), Layered Portable document format (PDF), Joint Photographic Experts Group (JPEG), Computer graphics metafile (CGM), Adobe Illustrator (AI), etc.
12.	All toolbars should be dock-able according to user convenience.

13.	Create layers from all supported data sources including coverage feature classes; shapefiles; CAD, TIN, raster, and geodatabase feature classes; or tables /spreadsheets containing x,y coordinates.
14.	The software should have inbuilt Reports Generation facility without requiring any additional software. It should be capable of generating statistical reports, geological reports, etc.
15.	Facility to display Aerial, Projection and Surface distances.
16.	Edit multiple layers simultaneously with Unlimited undo/redo operations
17.	Should have inbuilt Geo-spatial data management software along with inherent RDBMS so that multiple users can access the same object oriented Geo-spatial data
18.	Should be able to control & create rule based topology for the spatial database.
19.	Feature construction tools including: Point-and-click feature location with mouse, Streaming locations with mouse, x, y coordinate input with keyboard coordinate input with keyboard.
20.	Feature edits tools including: Move, rotate, delete, copy, and paste, Reshape, Split and trim, Divide into N-parts or into specified intervals, Vertex editing (add, delete, and move), etc.
21.	Spatial adjustment tools including: Rubber sheeting, Transformation, Edge matching, Attribute transfer.
22.	Snap to vertex, endpoint, midpoint, or along the edge of features & layer wise snapping
23.	On-the-fly dynamic joins between different databases
24.	Should be able to plot data on the map directly from the tables.
25.	UNICODE support for Multilanguage attributes
26.	Direct Read of Vector Data like Shapefiles, Coverages, Geodatabase, VPF, etc.
27.	Should be able to operate on Windows 2003, Windows XP, Windows Vista, and Windows 7.
28.	Should have the capability to web enable the GUI based workflows and models without any customization
29.	Should support publishing and encryption of GIS maps for the purpose of Viewing and Querying GIS data by multiple royalty free GIS data readers
30.	Perform interactive perspective viewing, including pan and zoom, rotate, tilt, and fly-through simulations with speed controls, for presentation, analysis, or export for display on the Web.
31.	Software should have the facility of time slider user interface controls to visualize temporal data
32.	Software should be capable of authoring the layers with time information
33.	Software should have report generation tool for creating and managing reports.
34.	Should have the capability to web enable the 3D models without any customization.
35.	Perform interactive perspective viewing, including pan and zoom, rotate, tilt, and fly-through simulations with speed controls, for presentation on the Web

d) Training and Capacity Building

Training and Internal Capacity Building is very essential for the effective implementation, uptake and long term sustainability of High Tech. Projects like Enterprise GIS. It is expected that the GIS Consultant will work with selected group of Forest Officers and train a core set of Master Trainers. The training should be both on-the job as well as dedicated hands-on training. In addition, Five days Training to OFD personnel will be provided to two batches of 10/15 OFD officers each on the final application. OFD will organize the trainings at its HQ. Necessary User Manuals, Guides are to be developed for the staffs to use the service effectively with comfort.

It should be ensured by the vendor that the GIS Product and its training should be intuitive, immersive and enjoyable to all foresters across the rank and file. It should create a sense of empowerment in Odisha Forest Department. Vendor must undertake Certified Course Programme for the adopted GIS Technology for at least 100 staffs in the Contract Period. We aim to be the leading Forest Department in our country in using GIS Technology on a sustainable Basis.

Proposed Project Timeline

OFD proposes to complete the initial implementation within 24 **months** duration with 3 years warranty from the date of successful commissioning, as per the below schedule.

Sl. No	Activity	Time-line
1.	Issue of PO and Contract Signing	T 0
2.	User Requirement Analysis	Month 1
3.	Application Design Documentation	Month 2
4.	Procurement of GIS Software and Hardware	Month 3
5.	GIS Data migration and Establishment of Central Database	Month 5
6.	‘Train the Trainer’ to core personnel on Simulator Platform	Month 4-7
7.	Training to Client Users across field units	Month 5-18
8.	Rolling out of Initial Application feeds / Beta Feeds to clients over web	Month 7
9.	Full Application Development , Deployment and Crash Testing	By Month 22
10	User Acceptance Testing	Month 23
11	Final Application Deployment and Go- full live	Month 24
12	Comprehensive Warranty	Month 25 onwards

OFD plans to develop and deploy the application in a phased manner with a basic application modules and layers deployed first on a GIS Server Platform with 70-100 clients spread over the state in the first phase within Six Months, and adding additional modules and applications in every six month to all clients.

It is proposed to deploy the following applications as part of the initial GIS Application implementation. The rest of the applications will be deployed in a mutually agreed timeline

1. Forest Monitoring and Mapping Applications on Desktop & Mobile Device.
2. Afforestation Monitoring & Mapping on Desktop & Mobile Device.
3. Reports Module – for generation of Forest Division wise and Site wise Monitoring & Evaluation Reports
4. Integration with MIS data such as Land Management, Working plan, Forest Produce, Establishment, Peoples participation (JFM Area Mapping & Management), Nursery Database , Eco-tourism, Research & Training.

Project Milestones and Tentative Payment Terms*

Sl. No	Project Milestone	Payment (%)
1	Issue of Purchase Order	Nil
2	Submission of Software & Application Requirement Survey or (SARS) / User Requirement Survey (URS) Document	Nil
3	Procurement, installation and commissioning of Proprietary Platform Software (PSW) on the provided HW and Network infrastructure.	70% of the Proprietary Platform Software (PSW) cost
4	Database Development and delivery	20% of the total Application Software development cost.
5	Initial Application Development and deployment	20% of the total Application Software development cost.
6	Deployment of full range of Applications on Production/ GIS Server and; Go full live Performance.	60% of the total Application software development cost plus 30% of the balance Platform Software (PSW) Cost.

7	Warranty and Maintenance for 5 years(This includes training for the upgraded version during the warranty period)	To be quoted on Annual basis, and payment will be made on monthly/quarterly basis
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***The above payment terms are subject to change as per the discretion of PCCF, Odisha and the party at the time of signing the contract / agreement.**

Eligibility Criteria of the GIS Consultant Firm (To be submitted in the Technical Bid):

Sl. No	Condition Type	Condition	Supporting requirement	Remarks
1	Eligibility	Bidder should be a Company registered in India under Companies Registration Act -1956 having more than 5 years of experience in GIS domain as on the last date of submission of the bid.	Certificate of incorporation and client and service delivery certification for last 5 years in GIS domain.	Non fulfillment leads to rejection
2	Eligibility	Bidder should be a Reputed & Established OEM of GIS Products or an Authorized Integrator cum Distributer of GIS Products of a Reputed & Established OEM.	Copy of certificate/ authorization letter	Non fulfillment leads to rejection
3	Eligibility	Proposed Enterprise GIS Platform/Product should be OGC certified.	Certificate Copies	Non fulfillment leads to rejection
4	Eligibility	The Enterprise GIS Platform must be agnostic to all Industry Standard and OGC Compliant Proprietary and Open Source RDBMS.	Certificate Copies	Non fulfillment leads to rejection
5	Eligibility	Proposed GIS Platform must be Compliant and Agnostic to all OGC Compliant Proprietary and Open Source Map Servers and Web Map Servers.	Certificate Copies	Non fulfillment leads to rejection
6	Eligibility	Proposed GIS Platform should be operating successfully in Enterprise GIS Mode for Last 5 years in Indian Govt. Or Corporate sector.	Certificate Copies	Non fulfillment leads to rejection
7	Eligibility	Bidder should have minimum average annual turnover of Rs. 15 crore each in last 3 financial years ending 31 st March 2014	Auditor certificate and copies of balance sheet	Non fulfillment leads to rejection
8	Eligibility	Bidder should have collaborative arrangement with a Proven, Reputed & Competent local GIS Company for smooth implementation of the Proposed Enterprise GIS Solution in Odisha Forestry in consonance with the Odisha ICT Policy 2014.	Consortium agreement with local GIS company for this project is to be notarized under Notary Public	Non fulfillment leads to rejection
9	Eligibility	Bidder should have the at least 5 certified GIS professionals on the proposed Technology and 3 PMP certified Project	Copies of certificates to be furnished certified by the	Non fulfillment leads to rejection

		managers	authorized signatory.	
10	Eligibility	Bidder should have submitted up to date IT returns as on last date of submission of bid.	Copy of PAN card and IT returns of last 3 years	Non fulfillment leads to rejection
11	Eligibility	Bidder should have submitted up to date service tax returns as on last date of submission of bid.	Copy of Service Tax registration and last return	Non fulfillment leads to rejection
12	Eligibility	Bidder should have submitted up to date VAT returns as on last date of submission of bid.	Copy of VAT registration and VAT clearance certificate	Non fulfillment leads to rejection
13	Eligibility	Bidder should have submitted up to date PF returns as on last date of submission of bid.	Copy of PF return and last return	Non fulfillment leads to rejection
14	Eligibility	Bidder must not be blacklisted by any government department / PSUs	Undertaking and Self declaration	Non fulfillment leads to rejection
15	Eligibility	Bidder should be ISO 9001:2008 and ISO 27001-2005 certified for Quality and Information Security	Copies of valid ISO certificates as on last date of submission of bid.	Non fulfillment leads to rejection
16	Eligibility	EMD of Rs. 1, 50,000/-	Bank Guarantee from a nationalized bank.	Non fulfillment leads to rejection
17	Eligibility	Tender Document Cost- Rs. 1,000/-	In shape of Bank Draft from a nationalized bank	Non fulfillment leads to rejection

INSTRUCTION TO BIDDERS

1. EVENTS AND COST OF BIDDING

- a. All the events of this RFP shall be as per the Schedule of the Events only, as defined at the beginning of this RFP Document
- b. The Vendor shall bear all costs associated with the preparation and submission of its bid and PCCF shall in no event or circumstance be held responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
- c. The RFP Document is not transferable.

2. PROPOSAL VALIDITY AND SECURITY

- a. Technical and Commercial Proposals shall remain valid for a period of six months from the date of Technical Bid opening specified. The Authorized Officer shall reject the Proposal as being non-responsive if it is valid for a shorter period.
- b. In exceptional circumstances, prior to expiry of the original proposal validity period, the Authorized Officer can request the bidders to extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing to or by facsimile to the listed contact information of the bidders. In such an event, the Bidders shall not be permitted to modify the Proposal, but shall be required to extend the validity of the Proposal for the extension period.
- c. The Bidder shall furnish, as part of its Proposal, a Bid Security (EMD) of **Rs 1, 50, 000/-** in the form of Bank Guarantee (as per Annexure-8) in favour of 'Conservator of Forests (GIS), O/o PCCF, Odisha, Bhubaneswar'.
- d. The EMD shall remain valid for a period of 180 days from the date of opening of the Technical Bid.

3. PRE BID MEETING

- a. The vendor's designated representatives are invited to attend the Pre-Bid Meeting at their own cost, which will take place on the date and time stipulated in the Schedule of Events.
- b. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- c. The bidders are requested to submit any queries in writing / E-Mail to reach the Authorized Officer on or before the time as stipulated in the Schedule of Events of this Document; it may not be practically possible at the Pre-Bid meeting to answer all the queries instantly.
- d. Any modification of the Proposal documents which may become necessary as a result of the Pre-Bid Conference shall be made by the Authorized Officer exclusively through the issue of an Addendum which should be collected by bidder from the Conservator of Forests (GIS) under acknowledgement.

4. BID OPENING

- a. The RFP Evaluation Committee(s) shall evaluate the Technical Bids, Presentation and commercial bids. The Evaluation Committee(s) may choose to conduct negotiation or discussion with any or all the Bidders.
- b. The decisions of the Evaluation Committee(s) in the evaluation of the Commercial bids shall be final. No correspondence will be entertained outside the process of negotiation / discussion with the Committee(s).
- c. At the date, time and location of the bid opening as specified in the RFP, the Evaluation Committee(s) shall open the Proposals, in the presence of Bidders' designated representatives who choose to attend.
- d. The Bidders qualified as per the eligibility criteria would only be called for Technical Presentation.
- e. After evaluation of technical bids, the commercial bids of only those Bidders who secure the **70 Marks out of total 100 Marks** in technical evaluation, as specified in this RFP, will be opened. The date and time of opening of the commercial bids will be announced at a later date, and the bids will be opened in the presence of the Bidder's representatives who choose to be present.

5. SOURCE CODE AND IPR

The ownership of source code of all applications developed/customized, Data & Metadata Generated, Server Configuration Programmes etc. should be transferred to the Authorized Officer. In the event of termination of contract, during the contractual period, vendor shall submit source code of all applications with its complete documentations.

6. GENERAL INFORMATION

- a. The Bid must be accompanied with an EMD in shape of bank guarantee only in favour of Conservator of Forests (GIS), o/o PCCF, Odisha, Bhubaneswar for Rs.1,50, 000/- (Rupees One lakh Fifty Thousand Only) issued by a local branch of any nationalized bank. No EMD shall be accepted in form of DD/BD/Cheque/Cash or in any other form. RFPs without EMD shall be treated as non-responsive and will not be accepted.

- b. The Authorized Officer shall not entertain any request for escalation in cost/price on account of any reason during the period of validity of bid.
- c. The Authorized Officer reserves the right to accept or reject any or all responses without assigning any reason.
- d. No Consortium Bidding will be allowed for the execution of the project.
- e. The RFP document is not transferable.
- f. The EMD is refundable to unsuccessful Bidders within 1 (One) month after awarding the Contract to the successful bidder, thereafter to be known as Vendor.
- g. The Authorized Officer may decide to undertake the Security Audit at a later stage. The charges for the same shall be borne/paid by purchaser separately. However, it will be the responsibility of the vendor to rectify all the points raised by the security auditor and make the software audit compliant.
- h. Necessary infrastructure will be provided by this office for hosting of the software.
- i. Vendor has to provide free of cost one year warranty and AMC for the software from the date of successful hosting of the software.
- j. The Vendor shall provide resource deployment for implementation and training to 100 users for a period of 3 months from the date of commissioning.
- k. After the 3 months initial period, additional support may be required by this office as per the category of resources mentioned in the RFP document.

7. DOCUMENTS TO BE SUBMITTED WITH GENERAL BID

- A. The documents as per the pre-qualification criteria along with all the supporting documents from Clause No. 3.1 of Section-III.
- B. Bidder's Profile (Annexure-1)
- C. Self-Declaration (Annexure-4)
- D. Representative Authorization Letter (Annexure-5)
- E. Acceptance of Terms & Conditions contained in the RFP documents (Annexure-6)
- F. Any other documents as per the requirement described in this RFP document.

8. DOCUMENTS TO BE SUBMITTED WITH TECHNICAL BID

- A. Details of projects undertaken in the last 3(three) years as per the format Project Profile (completed) (Annexure - 2.A & 2.B)
- B. Details of relevant projects undertaken in the last 3(three) years as per the format Project Profile (In Roll-Out) (Annexure-3)
- C. Proposed Methodology & Time Line, software environment and hardware requirement to host the proposed solution. (Annexure-7)

D. Copies of work orders and successful completion certificates from clients

E. Any other documents as per the requirement described in this RFP Document.

9. DOCUMENT TO BE SUBMITTED WITH COMMERCIAL BID

The Commercial Bid as per the format given in Annexure-9

10. DISQUALIFICATION OR REJECTION OF BID

The bid shall be rejected at any stage on account of the following.

- a. If the bid or its submission is not in conformity with the instruction mentioned herein (RFP).
- b. If it is received after the expiry of due date and time as per the stipulated Schedule of Events of this RFP.
- c. If it is incomplete and required documents are not furnished.
- d. If misleading or false statements/ representations are made as part of pre-qualification requirements.
- e. If found to have a record of poor performance such as having abandoned work, having been black-listed, having inordinately delayed completion and having faced Commercial failures etc.
- f. Canvassing in connection with RFPs is illegal and strictly prohibited and the RFPs submitted by the Bidders, who resort to canvassing will be rejected.

11. TAXES AND DUTIES:

Taxes and duties payable will be indicated separately.

12. CLARIFICATION OF BID:

To assist the examination, evaluation and comparison of bids the Authorized Officer may at its discretion, ask the vendor for clarification of its bid. The request for clarification and the response shall be in writing and no change in price and substance of the bid shall be sought, offered or permitted.

13. FORFEITURE OF EMD (BID SECURITY)

EMD submitted by the Vendor may be forfeited under the following conditions:

- a. If the Vendor withdraws the RFP before the expiry of the validity period.
- b. In the case of a successful Vendor if it fails to accept award of work.

14. NOTICES

For the purpose of all notices, the following shall be address of the purchaser;

To

The Conservator of Forests (GIS)
O/o The Principal Chief Conservator of Forests, Odisha,
Govt. of Odisha, Aranya Bhawan,
Chandrashekharapur,
Bhubaneswar-751016

Terms & Conditions of Bidding

1. The Bidder is expected to examine the RFP Document carefully. Failure to furnish all information required as per the RFP Document may result in the rejection of the Bid. All the events of bidding is as per the stipulations in the Schedule of Events of this RFPF only. For any Confusion, the master bid document in the custody of the Authorized Officer is to be referred.

2. AMENDMENT OF BIDS

Bids once submitted cannot be amended. However, in case of some administrative Exigencies, the client may decide to take fresh bids from all the Bidders before actually opening of the Technical and Commercial Bids.

3. LANGUAGE OF BID & CORRESPONDENCE

The Bid will be prepared by the Bidder in English language only. All the documents relating to the Bid (including brochures) supplied by the Bidder should also be in English, and the correspondence between the Bidder & Client will be in English language only.

4. BID CURRENCIES

Prices shall be quoted in **INDIAN RUPEES**, exclusive taxes, levies etc. Taxes, levies etc, if any, chargeable should be shown separately as percentage of the basic price or taxes as the case may be.

5. FORMAT AND SIGNING OF BID

- A. The Bidder shall prepare the Bid as per the proforma appended to this document neatly typed and shall be signed by an authorized signatory/ies on behalf of the Bidder.
- B. All pages of the Bid, except for un-amended printed literature, shall be initialed by the person or persons signing the Bid.
- C. The Bid shall contain no interlineations, erasures or overwriting, in order to correct error made by the Bidder. All corrections shall be done & initialed by the authorized signatory after striking out the original words / figures completely.

6. SEALING AND MARKING OF BIDS

1. The Bidder shall seal & mark various parts of the Bid as follows:

- A. General Bid/Eligibility shall be sealed in a covering envelope (Envelope-1) super-scribed with words “General Bids for Appointment of GIS Solution Provider for PCCF, Odisha”

- B. Technical Bid shall be sealed in a covering envelope (Envelope-2) super-scribed with words "Technical Bid for Appointment of GIS Solution Provider for PCCF, Odisha"
- C. Commercial Bid shall be sealed in a covering envelope (Envelope-3) super-scribed with words "Commercial Bid for Appointment of GIS Solution Provider for PCCF, Odisha".

2. Every envelope and forwarding letter of various parts of the Bid shall be addressed to:

To

The Conservator of Forests (GIS)
O/o The Principal Chief Conservator of Forests, Odisha,
Govt. of Odisha, Aranya Bhawan,
Chandrashekharpur, Bhubaneswar-751016

- 3. If the envelopes are not sealed and marked as required above, Client will assume no responsibility for the Bid's misplacement or premature opening.
- 4. Bids sent through Telex / Telegrams / Fax / Email shall not be acceptable.
- 5 The envelope shall be sealed by signing across all joints & pasting good quality transparent adhesive tape on top of such joints & signatures.
- 6. A Bidder who packs its Bid in a manner other than what has been described in para 6.5 above, may face rejection of the Bid.

7. DEADLINE FOR SUBMISSION OF BIDS

- 1. Bids will be received by the Conservator of Forests (GIS) at the specified address not later than time and date specified in the Schedule of Events of this RFP Document.
- 2. The Authorized Officer may, at its discretion, extend this deadline.
- 3. Bids must be received at the Office of The Principal Chief Conservator of Forests, Odisha, Govt. of Odisha, Aranya Bhawan, Chandrasekharpur, Bhubaneswar -751016 not later than the time and date specified in the Schedule of Event. In the event of the specified date for the submission of Bids being declared a holiday for the Purchaser, the Bids will be received up to the appointed time on the next working day. If the Bids are sent by Speed Post or Registered post or Courier or Person it should reach the purchaser on or before the scheduled last Date and Time fixed for receipt of Bids. The purchaser shall not be responsible for any delay in transit when Bids are sent through Post/ Courier/Person.

8. LATE BIDS

Any bid received by after the deadline for submission of bids prescribed, as per schedule of Events in the RFP will be rejected.

9. MODE OF SUBMISSION OF BIDS

The Bids could be sent by Speed Post/Registered Post /Courier or can be submitted through persons. In any circumstances the bid must reach to the office on or before last date of submission of Bid. Bids sent by Telex or Fax or E-mail mode will be rejected.

10. MODIFICATION & WITHDRAWAL OF BIDS

Bids cannot be withdrawn during the interval between its submission and expiry of Bid's validity period, as specified.

11. RIGHT TO ACCEPT/REJECT THE BID

PCCF reserves the right to either accept or reject any or all bids without assigning any reason for such action.

12. SIGNING AN MOU & PERFORMANCE BANK GUARANTEE

The successful bidder, thereafter to be known as 'Vendor', shall execute an agreement incorporating the terms and conditions of the RFP for execution of the work. The format of the agreement will be supplied later on. The successful bidder shall have to deposit a Performance Bank Guarantee representing 25% of the contract amount valid for three years issued by a local branch of any nationalized bank. The date of signing the agreement will be reckoned as date of commencement of contract.

13. LIQUIDATED DAMAGES

In the event of delay attributable to the Vendor (except in case of force majeure) in execution of work, specified in this Contract / furnishing of deliverables, the Vendor will be liable to a penalty @2% of the value of work order in respective phases, for every week of delay up to a maximum of 10%, after which the Purchaser will be at liberty to cancel the award. For the purpose of this clause, part of a week shall be considered to be a full week.

Bid Opening & Evaluation

1. Bid Opening

- a. The Bids shall be opened on the Date and Time as Stipulated in the Schedule of Events of this RFP or (then next working day at same time, if this date is declared holiday for the Purchaser) in Mini Conference Hall, Aranya Bhawan, Bhubaneswar, in the presence of representatives of the Bidders who may choose to attend the proceedings. The representatives of Bidders will sign a register in evidence of their presence.
- b. In order to assist in the examination, evaluation and comparison of Bids, the Purchaser may at its discretion ask the Bidder for a clarification regarding its Bid. The clarification shall be given in writing, but no change in the price or substance of the Bid shall be sought, offered or permitted.
- c. In the first instance, envelopes super scribed with the words 'General Bid' only will be opened, and eligibility of each Bidder will be ascertained after ensuring that the EMD is submitted. In doubtful cases (where further documents or clarification are required to establish eligibility), the Purchaser at its discretion, may decide to open Technical Bid. However, such Bids shall be rejected subsequently, if it is found that the Bidder has claimed eligibility on false grounds.

- d. The envelopes containing Technical Bids of Bidders qualifying through ‘General Bid’ will be opened and the contents will be announced in the presence of all Bidders or their representatives. A Bidder may also be allowed to inspect the Technical Bids and supporting documents given by other Bidders. An open discussion regarding various elements contained in the Technical Bids may also take place, if required. Marks for quality shall be assigned in accordance with the criteria provided.
- e. Opening of Commercial Bids: The Commercial Bids of only those Bidders will be opened who secure at least 70 % marks in the Technical Bid. The date of opening of Commercial Bid will be announced later on.

EVALUATION & SELECTION CRITERIA (Incorporating Local Participation)

The Proposal Evaluation Committee constituted by PCCF/ Forest & Environment Department, Government of Odisha will do the Technical Evaluation of the RFP. The Technical Bids will be evaluated in accordance with the scheme explained in the table below. The marking scheme presented here is an indication of the relative importance of the evaluation criteria. Bidders securing a minimum of **70 marks out of total 100 marks** in the technical evaluation will only be considered for further commercial bid evaluation. Bids not securing the minimum specified technical score will be treated as technically non-responsive and hence debarred from being considered for commercial evaluation. The evaluation of the bid shall be based on the following criteria:

Technical Score Evaluation Matrix:

Sl. No	Condition	Supporting requirement	Max Score	Scoring Criteria
1	Number of Enterprise GIS / Web GIS Projects Executed and completed in any Government Organization / PSU / Large Corporates in India excluding Forestry Sector. (To be reflected in Annexure-2.A of RFP)	Copies of Work Order / Completion certificates	20	1-2 : 5 Marks 2-5 : 10 marks More than 5 : 20 Marks
2	Number of Forestry Sector GIS projects in India. (To be reflected in Annexure-2.A of RFP)	Copies of work order / Completion certificates	20	1-2 : 5 Marks 2-5 : 10 marks More than 5 : 20 Marks
3	Number of GIS Professionals on its payroll. (To be reflected in Annexure-1 of RFP)	List of GIS professionals as per names indicated in last Provident Fund filing.	20	0-20 : 0 Marks 20-50: 10 Marks More than 50: 20 Marks
4	Experience in compliance to cyber security audits	Copies of the Cyber Security Audit Certificates	10	Less than 3 projects: 0 3 to 5 projects: 5 More than 5 projects: 10
5	Number of Forestry / Land Use / Land Management GIS Projects equals to or above Rs. 25.00 Lakhs for each project; Executed by the Local Partner in Odisha, for Government Sector. (To be reflected in Annexure-2.B of RFP)	Copies of work order / Completion certificates	10	@ 2 Marks / Project. Maximum Limited to 10 Marks.
6	Technical Presentation covering the understanding of present scope of work,	PowerPoint Presentations and relevant documentations.	20*	To be Awarded by the Proposal

	its proposed solution with implementation plan and Demonstration of already developed solutions of Enterprise GIS in elsewhere.			Evaluation Committee.
		Total	100	

* Mark will be awarded by the Tender Evaluation committee.

The minimum qualifying Technical Score shall be 70 marks.

Commercial bids of technically qualified bidders will only be opened. All other Commercial bids will be ignored. **Final selection will be based upon least quoted cost criteria (L1 criteria).**

-Sd-

Conservator of Forest, GIS
Forest Hqrs. Bhubaneswar, Odisha

Tel: +91-674-2300187

Mob: +919437075627

E-Mail: gis.pccfodisha@gmail.com

Miscellaneous

1. SINGLE RFP

In case only one bid is found to be eligible on evaluation of technical bid, PCCF reserves the right to consider the bid.

2. RESOLUTION OF DISPUTES AND ARBITRATION

The matter regarding any disputes, differences, claims and demands shall be referred to the sole arbitrator. The award of the sole arbitrator shall be final and binding on both the parties. The Principal Secretary, Forest & Environment Department, Government of Odisha shall be the sole Arbitrator.

3. LEGAL JURISDICTION

All legal disputes are subject to the jurisdiction of Bhubaneswar Courts Only.

4. BINDING CLAUSE

All decisions taken by PCCF regarding the processing of this RFP and award of contract shall be final and binding on all concerned Bidders. Conditional RFPs shall be summarily rejected.

5. CONFIDENTIALITY

Any information pertaining this office that comes to the knowledge of the vendor in connection with this contract, will be deemed to be confidential and the Vendor will be fully responsible, for the same being kept confidential and held in trust, as also for all consequences of its concerned personnel failing to observe the same. The vendor shall ensure due secrecy of information and data not intended for public distribution. The affidavit to this effect should be submitted along with security deposit.

6. FORCE MAJEURE

This clause shall mean and be limited to the following in the execution of the contract;

- War / hostilities
- Riot or civil commotion
- Earth Quake, Flood, Tempest, Lightning or other natural physical disaster
- Restrictions imposed by the Government or other statutory bodies, which is beyond the control of the Vendor, which prevent or delay the execution of the order by the consultant

5. INNOVATIONS

The successful vendor needs to be proactive while rendering services and innovative while doing the developments & consulting. The successful vendor shall suggest various enhancements to the existing scope which would be useful for PCCF and Citizens in terms of development & integration. In case of enhancement beyond the existing scope, unit rates would be referred from the rate contract submitted by the selected vendor in the Commercial bid of this RFP.

Necessary Clarifications to this tender is at Annexure- 10 and these are to be logically referred and adhered to. We expect Rational and Complete Biddings from all eligible Vendors.

2nd September , 2014
Bhubaneswar , Odisha , India

-Sd-
Conservator of Forest, GIS
O/o the PCCF, Odisha
Bhubaneswar- 751023

E- Mail : gis.pccfodisha@gmail.com
Tel: +91 0674 2300187
Mob : +91 9437075627

PROFORMA & ANNEXURES

GENERAL BID,**Annexure-1****OFFICE OF PCCF (ODISHA)**
RFP for Enterprise GIS Solutions**BRIEF BIDDER'S PROFILE**

01	Name of the Firm/Company		
02	Year Established		
03	Address of Registered Office		
04	Telephone No.		
05	Fax No.		
06	E-mail Address		
07	Website		
08	Name of the Proprietor/Director		
09	PAN number		
10	TIN number		
11	No. of full time personnel currently under employment		
12	No. of years of Proven experience of providing similar Services.		
13	Annual turnover Audited Annual Turnover in last three years	Annual turnover of the company in Rs.	
		FY	Turn Over (Rs.)
			ATO
		2010-11	
		2011-12	
	2012-13		
15	Total no. of professional staff (in software development) as on 31-03-2013:		
16	Details of Local Firms (as per Sl no 1-15 of this Annexure, in separate sheets) involved in Collaborative arrangements under eligibility criteria as per Odisha ICT Policy 2014.		

Signature of the Bidder

Date:

Place:

GENERAL BID AND TECHNICAL BID

Annexure-2.A

OFFICE OF PCCF (ODISHA)
RFP for Enterprise GIS Solutions

PROJECT PROFILE of BIDDER (COMPLETED)

Sl. No.	Client Name and address	Project Name	Project Description	Year of Completion (Attach completion Certificates)	Project Cost (INR) (Attach WO)

Signature of the Bidder
Date:
Place:

GENERAL BID

Annexure-2.B

OFFICE OF PCCF (ODISHA)
RFP for Enterprise GIS Solutions

A. Self-Declaration of the Bidder on Local Collaborative Arrangements with GIS Firms:

B. PROJECT PROFILE OF THE BIDDER'S LOCAL COLLABORATOR (COMPLETED)

Sl. No.	Client Name and address	Project Name	Project Description	Year of Completion (Attach Completion Certificate)	Project Cost (INR) (Attach WO)

C. PROJECT PROFILE OF THE BIDDER'S LOCAL COLLABORATOR (in PROGRESS)

Sl. No.	Client Name and address	Project Name	Project Description	Year of Starting	Project Cost (INR) (Attach WO & Interim Payments Details)

D. Copy of the Agreement of Collaborative Arrangement with the Local GIS Firms as per Odisha IT Policy 2014. (to be Enclosed)

Signature of the Bidder
Date:
Place:

TECHNICAL BID

Annexure-3

OFFICE OF PCCF (ODISHA)
RFP FOR Enterprise GIS Solutions

PROJECT PROFILE (IN ROLL-OUT/ UNDER PROGRESS)

Sl. No.	Client Name and address	Project Name	Project Description	No. of professionals deployed	Remarks

Signature of the Bidder

Date:

Place:

GENERAL BID

Annexure-4

OFFICE OF PCCF (ODISHA)
RFP for Enterprise GIS Solutions

SELF DECLARATION

Date: _____

Ref: _____

To

The Conservator of Forests (GIS)
O/o PCCF, Odisha,
Govt. of Odisha,
Aranya Bhawan,
Chandrasekharpur,
Bhubaneswar-751016

In response to the invitation No. _____ dated. _____ 2014, I, Ms. /Mr. _____, as a
_____, I / We hereby declare that our company
_____ is having unblemished past record and was not declared ineligible for
corrupt & fraudulent practices either indefinitely or for a particular period of time.

Signature of the Bidder

Date:

Place:

GENERAL BID

Annexure-5

OFFICE OF PCCF (ODISHA)
RFP for Enterprise GIS Solutions

REPRESENTATIVE AUTHORIZATION LETTER

Date: _____

Ref: _____

To,

The Conservator of Forests (GIS)
O/o PCCF, Odisha,
Govt. of Odisha,
Aranya Bhawan,
Chandrasekharapur,
Bhubaneswar-751016

Ms. /Mr. _____ is hereby authorized to sign relevant documents on behalf of the company in dealing with invitation reference No. _____ Dtd. _____ 2014. She/ He is also authorized to attend meetings & submit technical & commercial information as may be required by you in the course of processing above said application.

Thanking you,
Authorized Signatory

Representative's Signature

Signature attested

OFFICE OF PCCF (ODISHA)
RFP for Enterprise GIS Solutions

ACCEPTANCE OF TERMS & CONDITIONS CONTAINED IN THE RFP DOCUMENTS

To,

The Conservator of Forests (GIS)
O/o PCCF, Odisha,
Govt. of Odisha,
Aranya Bhawan,
Chandrasekharpur,
Bhubaneswar-751016

Sir,

I have carefully gone through the Terms & Conditions contained in the RFP Document [No. _____ Dated _____ 2014] regarding Development, implementation and maintenance of Enterprise GIS Solutions.

I declare that all the provisions of this RFP Document are acceptable to my company. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Signature of the Bidder

Date:

Place:

OFFICE OF PCCF (ODISHA)
RFP for Enterprise GIS Solutions
TECHNICAL BID

1. PROPOSED METHODOLOGY & TIME LINE



2. SOFTWARE ENVIRONMENT FOR PROPOSED SOLUTION

3. HARDWARE REQUIREMENTS FOR THE PURCHASER

- Attach extra sheet(s), if required.

Signature of the Bidder

Date:

Place:

TECHNICAL BID

Annexure-8

OFFICE OF PCCF (ODISHA)
RFP for Enterprise GIS Solutions

FORMAT FOR BANK GUARANTEE (EMD)

EARNEST MONEY DEPOSIT GUARANTEE

Whereas the Conservator of Forests (GIS), o/o PCCF, Odisha, Aranya Bhawan, Chandrasekharpur, Bhubaneswar-751016, herein after referred to as 'Purchaser', has floated a 'Request For Proposal' for Enterprise GIS Solutions in the office of the PCCF, Odisha vide reference no. _____ dated. _____ 2014.

And Whereas the Purchaser has stipulated in the notice that any respondent bidder has to deposit earnest money of Rs.50000/- (Rupees fifty thousand only) in shape of bank guarantee issued by a local branch of any nationalized bank, with validity for 6 months from the date of opening of Technical Bid (i.e. dd-mm-yyyy) pledged to the Purchaser (Conservator of Forests (GIS), o/o PCCF, Odisha, Aranya Bhawan, CS Pur, Bhubaneswar-751016).

And Whereas M/s -----, herein after referred to as 'Respondent Bidder' is desirous of participating in the RFP and thus requires a bank guarantee for Rs.50000/- as aforesaid to be eligible of becoming a responsive bidder.

We, -----Bank, ---- Branch ----- having our registered corporate office at ----- in consideration of our healthy business relation with the 'Respondent Bidder' and its creditworthiness do hereby agree unequivocally and unconditionally to pay within 48 hours of being noticed by the Purchaser in writing for invocation of Bank Guarantee, without it being necessary for the Purchaser to adduce any proof in support of the claim and without any demur the amount of Rs.50000- (Rupees fifty thousand only) on behalf of the 'Respondent Bidder' in shape of demand draft drawn in favour of the Principal Chief Conservator of Forests, Odisha, payable at Bhubaneswar.

And We ---- bank, hereby agree not to revoke this guarantee during its currency except with the previous consent of the Purchaser in writing and agree that any change in the constitution of the said 'Respondent Bidder' or the Guarantor shall not discharge the Guarantor from its liability hereunder.

And We ---- bank, hereby agree that our liability hereunder shall not be discharged by virtue of any arrangement between the Purchaser and the Respondent Bidder whether with or without the knowledge or consent or by any reason of the Purchaser showing any indulgence or forbearance to the Respondent Bidder, whether as to payment, time performance or any other matter whatsoever which but for this provision would amount to discharge of the surety under any law.

The Guarantee herein contained shall remain in full force and effect up to ----- from the date of its execution.

Unless a claim under the Guarantee is lodged with us (bank) up to -----, all rights of the Purchaser under the Guarantee shall be forfeited and we (bank) shall be relieved and discharged from all liabilities hereunder.

Notwithstanding anything contained herein above,

4. Our liability under this Guarantee shall not exceed Rs.50000/- (Rupees fifty thousand only).
5. The Bank Guarantee shall remain valid up to dd-mm-yyyy
6. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if you serve upon us written claim or demand on or before dd-mm-yyyy.

Seal & Signature of the Bank
With Date

OFFICE OF PCCF (ODISHA), RFP for Enterprise GIS Solutions

We M/s _____ offer the following price:

RFP Ref No _____ of PCCF Odisha, Dtd: _____ 2014

(Vendor must submit the commercial bid in the following format in the Office Letter Head and duly signed, failing which the Bid will be cancelled)

Schedule-1

Sl. No.	Components of Enterprise GIS Solutions	Cost (in INR)	Taxes applicable (in INR)	Total Amount (in INR)
1	Cost of the Proprietary Enterprise GIS Platform Software (COTS) including warranty, maintenance and all future updates of the Software up to 5th Year.			
2	Recommended Server OS in the Server Machine for the Enterprise GIS Server : Windows Server Enterprise Edition (Latest), under MS Windows Enterprise Environment. Or Linux Server Enterprise Edition (Latest), under Linux Enterprise Environment.			
2	Specification Details and Cost of all other necessary COTS Software as per the Enterprise GIS OEM's Recommendations; which must include all warranty and future updates to operationalize the Enterprise GIS Solutions / Services as per the RFQ. Vendor shall quote in the Commercial Bid the cost of all software necessary to run and sustain the Enterprise GIS Solution to its fullest limit and capabilities as indicatively listed under* .			
	A. Recommended Web Server (Please mention here).....			
	B. Recommended Map Server (Please mention here).....			

	C. Recommended RDBMS Server (Please mention here).....			
	D. Recommended Virtualization Server (Please mention here).....			
	E. Recommended SMS, Chat, Mail Gateways & Servers. (Please mention here).....			
	F. Recommended RADIUS Server (Please mention here).....			
	G. VPN Server (Please mention here).....			
	H. Enterprise Grade Cyber Security UTM Sever. (Please mention here).....			
	I. Minimum Numbers of Recommended Windows Server 2012 Enterprise Edition (Latest) Licenses; required to host all the above Service Components in the Server Machines i.e. from A to J; under Windows Environment. Or Minimum Numbers of Recommended Linux Server Enterprise Edition (Latest) Licenses; required to host the above Service Components in the Server Machines i.e. from A to J; under Linux Environment. (Please mention here).....			
	J. Any other Software necessary to roll out and sustain the intended Enterprise GIS Solution to its fullest limit and capability as per the RFP. (Please mention here).....			
3	**Recommended Minimum Numbers of Desktop GIS Software Licenses Required (Specification is to be Provided) in Central Data Centre and Strategic Locations to Strengthen and Backup the Enterprise GIS Solution for the Entire State. (Please mention here).....			

4	Cost of the Applications Development, with Data incorporation; under a full warranty and Maintenance for 5 Years , for Applications as described in the RFP, Pg. No 5-11 keeping futuristic requirement of a Forestry Sector GIS.			
5	Central Data Centre Operation, Management, Administration, and Maintenance for Three Years during which the vendor shall train and enable the technically competent forest department staff or the authorized professionals to handle all aspects of Enterprise GIS Central Data Centre Operations independently.			
6	Cost of Training at Server level and Client Levels for 300-400 Persons as envisioned in the RFP.			
7	Total Cost in words and figures			

** No other additional software will be procured at additional cost by PCCF Odisha / FD than the software supplied by the vendor through this RFP for this intended Enterprise GIS Solution; and no other unauthorized or unlicensed or open source software will be utilized in this project. The vendor shall certify this in unambiguous term.*

***Numbers of proprietary desktop GIS Software must be barest minimum. Proprietary Desktop GIS Software in local client machines are discouraged in the envisaged Enterprise GIS Environment. All Geospatial Analysis and Processing and all other analysis as per RFQ will be executed on Server GIS software; at client machines level without any glitches and any additional proprietary software installations.*

Signature of the Bidder

Date:

Place:

Seal:

Note:

- A. The bid should be submitted for Windows and Linux Environment Separately, i.e. one for Windows Enterprise Server Environment and other for Linux Enterprise Server Environment.**
- B. It is binding and mandatory for the vendors to submit for both Windows and Linux Environment.**

1. The mentioned application should be developed on top of Commercial Off-The-Shelf (COTS) OGC Compliant GIS Products, should be supplied from OEMs, commercially available from companies of repute and must be in operation **for at least last Five Years** in Government Departments involved in Forestry Activities and Land Management Sector. The requirements of various modules are to be developed as per the RFP and future requirement of OFD only.
2. If a GIS Vendor has an equivalent technology solution for “*any technical specification term in the RFP*”; the solution / solutions of equivalence should be validated by the vendor with necessary certificates and documentation. The vendors may submit a technical / technology equivalence matrix with their technical bid to support their technology with sufficient and proven validation. It is the complete and absolute discretion of the technical committee to accept or reject the proposed equivalent technology of the vendor / bidder. There must not be more than 10-12 technology equivalence in the bid. Equivalence relaxation doesn’t cover OS and RDBMS specifications and functionality as defined in the RFP. In the specifications the conjunction “**and**” shall not be construed as “**or**” as an equivalence. The prescribed technology equivalence matrix is as under:

Sl No	Item No & Name	Page Number in RFP	Technology specified in the RFP	Equivalent Technology Proposed by the Vendor.	Details of Validation & its documentations of the Equivalent Technology.
1					
2					
3					

2. At present there is no computerized system of forest fire detection and management. The Proposed Application should be enabled to get feed from the MODIS satellite and disseminate information to the field units. The field personnel should also be able to send the details of forest fire like location, photos and action taken. The Application must

operate in full duplex mode i.e. there must be bi-directional data flow on forest fire from and to head office.

3. Central GIS and MIS Database development will be on an integrated RDBMS platform only.
4. Present GIS Data volume with the FD Odisha is estimated to be 10% of the Size of the intended GIS-MIS database to be developed under enterprise GIS Implementation and Operation.
5. Present GIS Data is mostly in Esri's Shapefiles, Raster and Vector Images, hence the vendor will be responsible for data integration, projection and migration to new E GIS Platform Format.
6. Data checking and validation will be done by Forest Department in collaboration with the vendor. As when necessary ground verifications will be undertaken by the vendor in collaboration with the field staff.
7. Appropriate Mobile PDAs to the FD Personnel will be provided by the Forest Department. The vendor will work in close coordination with the PDA Vendor for Server side Integration of the PDAs and its associated Onboard Applications.
8. Mobile SMS integration system for alerts will be discussed during need assessment stage. Field and client locator application has to be developed in the system.
9. GIS applications and data will keep on growing with time. In this regard the vendor will be responsible for integration of GIS & MIS Data in a Modular System.
10. Clients who will be using the application on Desktops & GPS PDAs will be around 5000 with $\pm 25\%$ Buffer. There will be around 100 simultaneous hits at the peak time of any day on the system. The database should be developed for the whole state, but at any point of time clients on Desktops and PDAs will work on a limited Area of Interest.
11. The application should be available at the client level at all types of Mobile Operating Systems.
12. The application should operate in a low data speed environment as prevailing in the most part of the state. The application should be developed in such a mode that only a plug-in has to be downloaded from the Enterprise GIS Solution Portal and installed in the device to be used. The client can work in offline mode and can send/upload the data when he or she is online.

13. OFD will create all the current and future GIS data using the expertise and resources of the GIS Vendor on an OGC Compliant Enterprise GIS Platform which must be interoperable across all other OGC Compliant GIS Software. The legacy data is mostly in the form of shapefiles and images. Data processing, Image Analysis, Geo rectification and all other ancillary GIS work necessary will be done by the vendor.
14. GIS vendor will interact with the field staffs in the field and at State headquarters.
15. The solution must be compatible with all geospatial data formats. Responsibility of third party integration is the responsibility of the vendor.
16. The Enterprise GIS Solution should be have the capability to get hosted in Windows Enterprise Server and Linux Enterprise Server Environment. The bid should be submitted for Windows & Linux Environment Separately, i.e. one for Widows Enterprise Server Environment and other for Linux Enterprise Server Environment.
17. It is binding and mandatory for the vendor to submit bids for both Windows and Linux Environment.
18. It should be possible to deploy in all virtualized environment and should support vSphere, vCenter or preferably all other appropriate enterprise grade and time proven virtualization technology. Virtualization should be possible at all level i.e. from server to client level.
19. OGC compliance Certificate is mandatory. All products proposed have to be backed up by OGC Compliant Certificates. The RDBMS should be affordable and must not be constrained by the Enterprise GIS Solution or any server / desktop software used with the solution. The applications should run on any RDBMS. Absolute RDBMS agnosticism of the GIS Server and other associated servers is to be ensured.
20. At client level viewing will be unlimited and editing will be limited. The number of people editing the database would be less than 100 with different user privilege.
21. All Geospatial Schematics, Analysis and Modelling will be developed by the vendor as per user requirement analysis.
22. Network analysis is necessary for Forest Department in the matters of planning, construction and maintenance of Forest roads, Patrolling paths, and also conservation of Stream, Rivulets and Wild life Corridors. All these involves network analysis.
23. GIS desktop Requirements:
It should be barest minimum as explained in the meeting and it is incorporated in the Revised Financial Bid Format Annexed herewith in Annexure-I.

24. Vendor will provide for all training including training infrastructure
25. Warranty and AMC- will be for five years. In AMC vendor has to provide maintenance on Core Functionalities
26. Project Milestone: Software will be incorporated within 3 months of purchase of hardware by the Forest Department
27. Collaboration with any local GIS firm having good credentials is a must as per IT policy of Govt. of Odisha. This will be the sole responsibility of the bidder. The local collaborator will be evaluated as per a revised evaluation criteria Annexed herewith in Annexure-II.
28. No other additional software will be procured by PCCF Odisha / FD than the software supplied by the vendor through this RFP for this intended Enterprise GIS Solution and no unauthorized or unlicensed software will be utilized in this project. The vendor will certify to this effect in unambiguous term.
29. The revised format of the Commercial Bid is annexed herewith incorporating the cost of all other Server Software which are part of the complete ecosystem of Enterprise GIS as explained to the participating vendors in the PBQ.
30. Numbers of proprietary desktop GIS Software must be barest minimum. Proprietary Desktop GIS Software in local client machines are discouraged in the envisaged Enterprise GIS Environment. All Geospatial Analysis and Processing and all other analysis as per RFQ will be executed on Server GIS software; at client machines level without any glitches and any additional proprietary software installations.

-Sd-

Conservator of Forest, GIS
Forest Hqrs. Bhubaneswar, Odisha
Tel: +91-674-2300187

Mob: +919437075627
E-Mail: gis.pccfodisha@gmail.com