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Deptt. Of Forests & Wildlife Preservation
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**INVITATION FOR PARTICIPATION IN THE “OPEN DAY” FOR IMPLEMENTATION
OF e-GOVERNANCE IN THE PUNJAB FOREST DEPARTMENT.**

The Department of Forests and Wildlife Preservation, Punjab intends to introduce automation and e-Governance by leveraging ICT to achieve higher levels of efficiency in management, improve transparency and accountability, and delivery of better citizen services.

In this context, Department is planning to have Open Days on January 06 and January 07, 2011 to discuss various technology solutions for e-Governance in the Department.

Department solicits the participation of all interested parties including the Original Equipment Manufacturers, System Implementation and Integration vendors and Forestry Solution Providers to make a presentation on appropriate technology solutions in their respective area of interest.

The interested parties may fix their time slots to make the presentation on Open Day by sending an e-mail to ccffcpb@gmail.com with brief details of their organization, technology solution offered and contact persons. The brief write up on the department's e-Governance plan can be downloaded from www.pbforests.gov.in or obtained from ccffcpb@gmail.com.

For any clarification or additional information, interested parties may contact Dr. Kuldip Kumar Lomis (CCF-FC & IT) on 0172- 2702919 or Mr. R.K.Mishra (CF-Soil & e-Governance) on 0172-2232906.

E-GOVERNANCE INITIATIVE OF DEPARTMENT OF FORESTS AND WILDLIFE PRESERVATION, PUNJAB

The DFWP has embarked on an ambitious GIS enabled E-Governance initiative with the following key objectives:

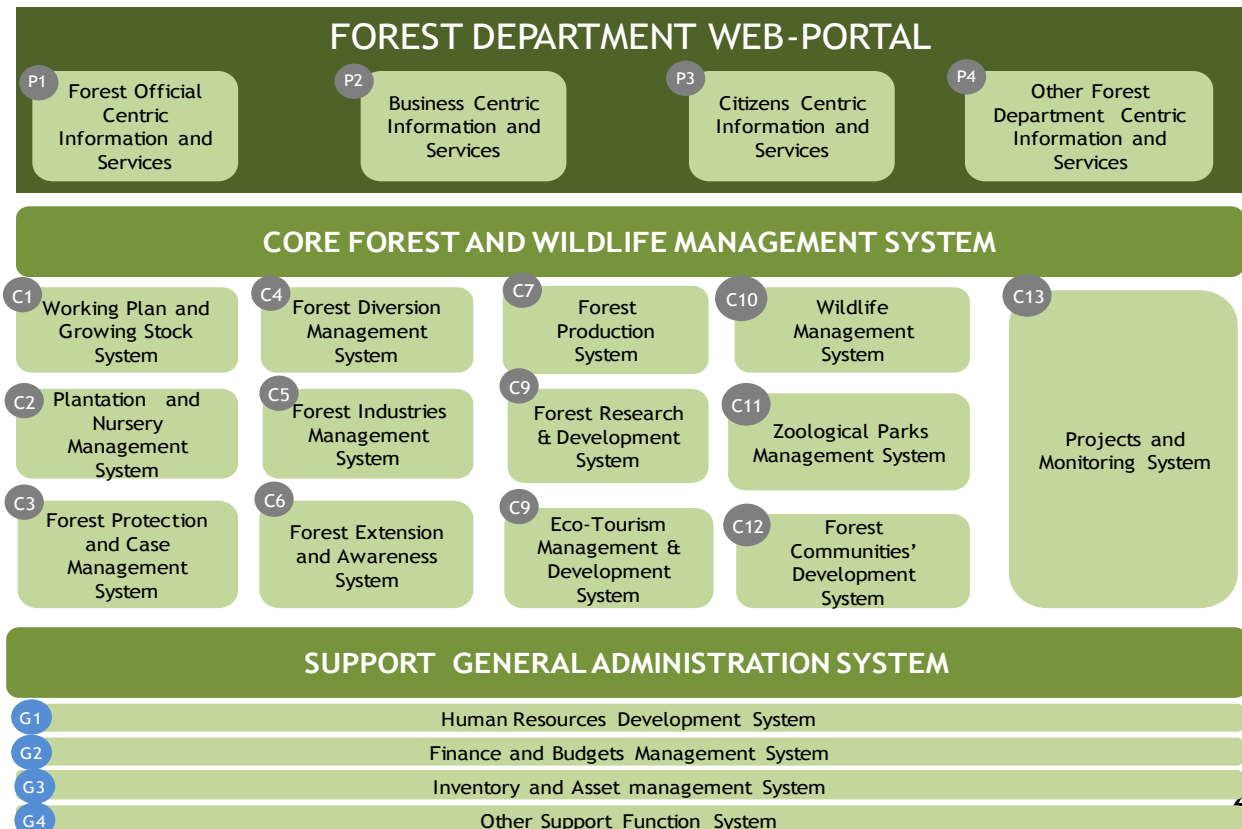
- Bringing about better levels of internal efficiencies and effectiveness in the working of the department, including the ability to take decisions in a multi-dimensional environment,
- Extending better citizen centric services to the customer,
- Making appropriate and effective use of ICT to take well-informed decisions aimed at sustainable Forest Management, improvement of Wildlife habitats and other natural resources.
- Use the modern-day channels of communication to bring about better levels of awareness, in particular, and sensitization to conservation issues in general.

The department has undertaken a comprehensive exercise to prepare the E-Governance Action Plan for the department. As part of this exercise, the functions and processes of the department were studied in detail and various ICT interventions have been identified to achieve better levels of efficiency in internal processes and effectiveness in service delivery by the department.

Broadly, department plans to implement a web-enabled Forest Management and Information System (FMIS) with GIS integration which will cater to the information and services requirements of internal stakeholders of department as well as the citizens, businesses and other external stakeholders.

FUNCTIONAL ARCHITECTURE OF FMIS

The overall functional architecture of the proposed Forest Management and Information System is captured in the following figure. The system would be web-enabled which can be accessed anywhere, anytime by the internal and external users of the department.



The brief description of modules of envisioned FMIS system is captured in the table below:

MODULE CODE	MODULE NAME	BRIEF DESCRIPTION OF MODULE
P1	Forest Official Centric Information and Services	This component of the DFWP portal would cover all the information and service requirements of the Forest Department officials.
P2	Business Centric Information and Services	This component of the DFWP portal would cover all the information and service requirements of the business community interacting with the department.
P3	Citizens Centric Information and Services	This component of the DFWP portal would cover all the information and service requirements of the citizens/community interacting with the department.
P4	Other Forest Department Centric Information and Services	This component of the DFWP portal would cover all the information and service requirements of other government departments and agencies interacting with the department.
C1	Working Plan and Growing Stock System	This module would cover processes for preparation of Working Plan for management of forest resources in the state including estimation of growing stocks in the state.
C2	Nursery and Plantation Management System	This module would cover all processes associated with the management of forest nurseries and plantations in the state.
C3	Forest Protection and Case Management System	This module would cover all processes and activities related to protection of forests in the system. Typical functionality would include management of forest fire, encroachments, illegal felling as well as filing and tracking judicial and administrative forest cases.
C4	Forest Diversion Management System	This module would cover all processes and activities related to diversion of forest land for non-forestry purpose as per guidelines of Forest Conservation Act, 1980.
C5	Forest Industries Management System	This module would cover all processes and activities related to issuance and renewal of licenses to forest based industries in the state.
C6	Forest Extension and Awareness System	This module would cover all processes and activities related to creating education and awareness of forest conservation among citizens of the state.
C7	Forest Production System	This module covers all processes and activities related to management of forest produces in the state including timber, resin and fruit etc.
C8	Forest Research & Development System	This module covers all forest research and development related activities in the system including setting up and managing research plots and coordination with external research institutions.
C9	Eco-Tourism Management & Development System	This module would cover complete set of processes and activities related to development and management of eco-tourism in the state.
C10	Wildlife Management System	This module covers all processes and activities related to wildlife conservation and management in Parks and Protected Areas in the state.
C11	Zoological Parks	This module would cover all processes and activities related to

MODULE CODE	MODULE NAME	BRIEF DESCRIPTION OF MODULE
	Management System	management of zoological parks in the state.
C12	Forest Communities' Development System	This module covers all the activities and processes that constitute the management of forest and its resources in participation with resident in and around the forests.
C13	Projects and Monitoring System	This module covers all processes and activities related to management of Projects and Schemes in the department including project formulation, funding, execution of work etc. This module also covers subsequent Monitoring & Evaluation activities.
G1	Human Resources Development System	This module covers all activities and processes related to the recruitment, training, and deployment of staff in the department.
G2	Finance and Budget Management System	This module covers all activities and processes related to preparation, distribution and management of annual budget as well as financial management activities such as cash book management, payroll, audit etc.
G3	Inventory and Asset management System	This module includes all processes and activities related to the procurement, management, and maintenance of assets and inventory items in the department.
G4	Other Support Functions System	This module includes miscellaneous activities and processes such as RTI cases, Labour Cases etc.

ESTABLISHMENT OF GIS DATABASE

Department plans to build a comprehensive GIS database for planning, management and monitoring of Forests and Wildlife resources in the State. Some of the thematic layers which department plans to build as part of GIS database are as below:

- Forest cover and density
- Forest types (RF/PF etc.)
- Forest boundaries
- Wildlife sanctuaries
- DFWP Establishments
- Communication Network (Road, trains etc.)
- Hydrography (River, canal, other water features)
- Villages and forest communities
- Eco-tourism spots
- Topo features
- Important Landmarks (Mobile towers, police stations, post office, temple, mosque, and other landmarks etc.
- Site quality- aspect, elevation, geology, prescription, slope,
- Plantation
- Soil type
- Wildlife species and habitation
- Fire Points
- Encroachment areas

- Nurseries and Research plots
- Department Boundaries (administrative boundaries like zones, circles, divisions, ranges, blocks, beats)
- Management areas and working circles
- Compartments
- Stock polygons

These layers will be created using the multi-resolution data from multiple sources such as topography sheets from Survey of India (Sol), Forest Survey of India (FSI) maps, satellite data, soil maps, GPS mapping etc.

INTEGRATION OF FMIS WITH GEOGRAPHICAL INFORMATION SYSTEM (GIS)

GIS would be an integral part of the envisaged system for Punjab Forest Department and will interface seamlessly with FMIS modules. The following modules of FMIS are envisaged to have interface with GIS:

- Working Plan and Growing Stock System
- Nursery and Plantation Management System
- Forest Protection and Case Management System
- Forest Diversion Management System
- Forest Production System
- Eco-Tourism Management & Development System
- Wildlife Management System
- Forest Communities' Development System
- Projects and Monitoring System

DFWP WEB-PORTAL

Department plans to establish a full-fledged real-time online web-portal which would serve as the single window for all the stakeholders of the department to avail various information and services online. In the backend, it would integrate with various applications (FMIS, GIS etc.) with facilities for real-time updations and provide required information and services to the users/stakeholders.

OTHER SYSTEMS

To maximize the benefits from e-Governance solutions and investments made there under, the department is also considering implementation of following solutions to enhance quality of services to various stakeholders and active participation of department's staff in rendering best possible citizen services in the State.

- Payment Gateway
- Mail Management System and Messaging Solutions
- Workflow and Document Management System
- Video-Conferencing Solutions between Head Office and Field offices.

NETWORK AND INFRASTRUCTURE

As part of the e-Governance implementation, the Department will setup the requisite IT infrastructure (including desktops, servers and other IT equipments) and requisite software in its offices and provide them with the required networking connectivity (LAN and WAN) to access the proposed applications. Initially, the Department is considering offices upto the level of Range Office for e-Governance implementation.

DATA CENTER AND DISASTER RECOVERY SITE

Department plans to go for application of latest technologies and knowledge for a centralized solution in establishing a Data Center where the centralized applications and related software will be hosted. Department is considering various technologies/options for setting up the data center including hosting at State Data Centre , NIC or 3rd party service provider. The idea is to minimize maintenance and support costs in the long run. In addition, department plans to have a Disaster Recovery (DR) site at an appropriate location.

CHANGE MANAGEMENT AND TRAINING

As a critical aspect of e-Governance implementation, department will take necessary change management initiatives including ICT training and institutional capacity building.

EXPECTATION FROM THE VENDORS FOR OPEN DAY

The interested parties including the Original Equipment Manufacturers, System Implementation and Integration vendors active in providing solutions in Forestry sector/Government Organisations. Solution Providers are expected to make presentations and give their valuable inputs on latest IT technologies and solutions which can be considered by the Department for implementation.

The vendors should share their experiences and provide specific inputs on technologies and solutions that would help the department in optimizing the cost of IT implementation, better monitoring and control, minimizing the maintenance cost, enhancing system security and increasing the usability of proposed IT solutions.

Some of the areas, in which department would like to have inputs from the vendors are as below:

- Software solution/applications in forests and wildlife sector including RDBMS.
- GIS related solutions applicable to the forestry sector
- Mobile based technologies applicable to forestry sector
- IT Security solutions
- Networking and IT infrastructure
- Mail Management Solution
- Data center and Disaster Recovery hosting solutions
- Capacity Building of the Department through proper training programmes tailored to Departmental needs.

The interested parties may send their intent to make the presentation on Open Day by sending an e-mail to ccffcpb@gmail.com with following information:

- Name of the organization
- Brief write-up on proposed technology solution on which presentation is proposed to be made
- Contact details

Selected Organizations/ Vendors may be given upto 30-45 minutes slot on January 06 or January 07, 2011 as per time schedule fixed for making a presentation on their specific discipline/component relevant to the Project and giving their suggestions for improving the project functionality.

For further clarification or any query, interested parties may contact Dr. Kuldip Kumar Lomis (CCF-FC & IT) on Phone: 0172- 2702919 or Mr. R.K.Mishra (CF-e-Gov.) on Phone: 0172-2232906