

IT & GIS in Uttarakhand Forest Department

The Forest Department, Uttarakhand has laid considerable stress on adoption of Information Technology (IT) to fasten decision making and for quick storage and retrieval of data. A brief overview of current status of IT in the Department and the future goals regarding IT is given below:

IT implementation:

IT usage in the department has taken off during the past couple of years ago. Broadly speaking, it consists of the following elements-

➤ **Acquisition of Hardware and Software**

About one thousand PCs along with Servers and Printers were acquired from the IT Department of Uttarakhand. These computers were deployed at all levels in the forest department (including Forest Range offices). These PCs are enabling the Department in faster and much more efficient collection and storage of information in the form of databases along the hierarchy of offices from range level upwards.

Hardware like small sized scanners etc. is also in regular use in the various offices of the Department.

Software required for day to day activities such as Microsoft Office and Adobe Acrobat (Reader/Writer) have been procured by the department and are in use at almost all levels of the Department where computer facility have been provided.

Advance application software's such as ERDAS IMAGINE (ver9.3), ArcGIS (ver.9.3) & Geomedia (ver 6.0) have also been procured and are being used extensively at the IT cell of the department.

➤ **Imparting training to forest of personnels:-**

Considerable emphasis is laid on training of forest personnel to ensure that IT usage becomes part of the Departmental work culture. Regular training is being organized to achieve this goal and some officers have also been trained in GIS usage.

➤ **Use in Word Processing and Spreadsheets**

Training to office staff primarily focused on MS Office 2003 as these are the most easily understood and highly useful in normal office work. But now MS Office 2007 & MS Office 2013 have also been procured. Manual typewriting machines have totally been replaced by PCs at each level.

➤ **Professional Management of IT Setup**

Some areas of IT usage like management of GIS, Database Systems, Management etc. need professional help. For this purpose, the Department has outsourced professionals having adequate experience in carrying out similar type of work.

➤ ***Creation and use of Geographic Information system (GIS)***

Divisional Mosaic up to compartment level for Uttarakhand is ready. GIS work for the following Divisions excluding Uttarakashi, Kedarnath and Almora Civil Soyam Forest Divisions of Forest Department Uttarakhand has been completed up to Division, Ranges, Beat, Realigned Beat, Block and Compartments. This GIS work done at 1:50,000 scale.

Besides this Geo referenced map for Land transfer case are being made in IT cell. These maps are provided to various department on demand for Forest land transfer.

Working plan mapping for various division of Uttarakhand is done in It cell of Uttarakhand forest department.

NOTE: - The digitized data for Corbett Tiger Reserve, Ramnagar Kalagarh Tiger Reserve, Nanda Devi National Park, Rajaji National Park, Govind Wild Life sanctuary has been prepared by the concerned divisions themselves.

➤ ***Creation of Fire Information System***

The Department has developed a Fire Information System (FIS) which gives information of fire location points in Uttarakhand using source data from NASA website EOSDIS.

These points are updated and uploaded twice (morning and evening) everyday in fire season on the Uttarakhand Forest Department website (www.forest.uk.gov.in) under “Forest Fire Info” module.

➤ ***Networking of office computers.***

Department has started networking the computers through routers & switches to enable digital storage of important document and also to enable office users to access database for data entry and data retrieval. Local Area Network (LAN) has also been created at the headquarters linking different buildings and offices in the premises.

➤ ***Communication through Internet.***

A 6 mbps leased line of BSNL service(Mini Exchange) has been established and installed in IT cell of Uttarakhand forest department for providing fast internet connectivity to officers for communication and downloading of information.

➤ ***Creation of website and its use***

Website of Uttarakhand Forest Department has been created and launched with the help of NIC. Its web address is www.forest.uk.gov.in. It has been designed primarily for two purposes- to inform the citizen about the Department and its activities and also to act as a knowledge portal where from officers of the Department and others could download information like tender, notices, public appeals, all departmental updates and news etc. The website contains various important information like:-

- 1- Land Transfer : - In this page budgets details are provided which are uploaded regularly.Land Transfer-This tab consist information regarding forest land transfer cases. It consist various pro forma used in procedure for forest land transfer. Various government orders & a MPR regarding land transfer cases are also uploaded in this tab.

- 2- Employee Corner: - This page consist of information about the gradation list of IFS officers, various pro forma, seniority list of employees of different cadre service rule of different cadres etc. Transfer & promotion lists are also uploaded as per information.
- 3- Budget: - In this tab budgets and all the information of provided by Planning & Finance Management office are uploaded regularly.
- 4- Forest rest houses- This page consists of information such as location, tariff and description of Forest rest houses in Uttarakhand.
- 5- Maps and Charts:-This page consists of Uttarakhand thematic maps such as forest cover, forest type, division, river, road, circle, district, rest houses, elephant ranges, protected area etc.
- 6- Download: - This module gives downloading facilities like various manuals, SOPs, reports etc. which are uploaded regularly and can be downloaded from the website.
- 7- Right to Information: - This link consists of RTI manual which gives detailed information about forest department.
- 8- Working Plans:- This module provide information regarding working plan which are being made by WPOs giving details of the plans to be carried out for the span of time.
- 9- Act & Office order:-Thispage consist of information such as Citizen charter, forest policies, manuals & hand book, standing office orders and other important information

Besides this the website contain detail information on various topics such as Wild life management, citizen charter, ecotourism, flora & fauna, recruitment, publication & notification, tender, programs & schemes, peoples participation, monitoring, evaluation & audit, training, Government orders, contact lists etc.

➤ **Future Goals:**

The Forest Department intends to further enhance the use of IT in the near future by working towards the following goals:

1. To implement e-governance in Uttarakhand forest department.
2. To make Compartment level information available online, via internet
3. To make GIS fully functional with data from Forest Compartment level upwards including Roads, River, Town, Cities, Villages etc. and continuously updating it according to Working Plans.
4. Establishing a departmental data hub and a data centre for facilitating data transfer.
5. Setting up Departments Dedicated Database and Web Server for Easy and unlimited access of web space.
6. Networking all the offices to ensure centralized storage of documents, data and Hardware/Software resources.
7. Setting up a wireless network for the department.
8. Creation of a Wide Area Network (WAN) covering the whole State for regular and automatic, updating databases. This will however depend on availability of suitable communication links.
9. Creation of dynamic Website of the Department to enhance its usefulness for citizens, officers and general masses as well as researchers who would often need forestry statistics.
10. Provisioning of GPS instruments/Smart phones up to forest guard's level and connecting all FG Chowkies and check posts with WAN/LAN.
11. Establishment of latest electronic surveillance technology for anti-poaching camps and squads.
12. Establishment of advance forest fire danger alarm system.
13. To use IT to bring various departmental information s to the people.
14. Make use of IT to enhance the performance & effectiveness of the UKFD.
15. Increase E-green watch portal activities.