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Abstract

Nowadays, there is the digital world. Every person is using Information Communication Technology (ICT). So, in order to replace the manual and time-consuming method, we can use the computer-based management system for updating the information in the Forest Department. Nowadays, the forest department has developed Database Management Information System. As we can see in past, the database had been recorded or maintained manually. In the late nineties, during the World Bank Forestry Project, the computer was more extensive and intensive. But the use of computer was limited in managing the information either by using Excel and Access for very few jobs. Later on, initiatives of ICT in Forestry are so planned, but it ensures smooth integration of multiple technologies like GPS, GSM, GPRS, Remote Sensing and Mobile Computing, etc. to the best advantages of the forestry. The main role of ICT in forest management is systematic organizing, planning, implementing and monitoring of forestry and other process like Management Information System (MIS) and Geo-Spatial Data through a computer-based communication network. All these things can be executed or run on the web due to which there is transparency of work in the department. Each and every person is in touch of each and every activity and happened in the department. This working methodology will not only bring transparency and responsibility in the working performance, but it will also bring the efficiency in working of forestry management.

Some of monitoring applications using Information and Communication Technologies are:

- 1. Human resource management system.
- 2. Physical and financial management system
- 3. Development of GIS-based resources inventory query and forest land management system
- 4. Forest offence management system and fire alert messaging system
- 5. Forest, forest produce, protection area and research information management system

Keywords: GPS, GIS, Remote Sensing, ICT, Forest Management, Forest Department Technique, Digitization of Map.

INTRODUCTION

Forests are one of the important and oldest natural resources utilized by man for various sources. Forests have both productive and protective function. But in the name of development, 23 hectares of forest is being cut in every minute. The rate of deforestation is alarming. In India, annual loss of forest is 0.27 million hectares in 1995-97. Deforestation has become a matter of serious concern throughout the developing countries of the world, which have large population to support. For present investigation, Solapur district is selected. The total geographical area of Solapur district is 14895 sq. km and among them 319 sq. km area is under forest.