

8. Administration and Information Technology

8.1 Information Technology

Award to ICFRE for “Info System for Decision Making in Forestry”:

ICFRE had the honour of being conferred by the Karnataka Forest Department, the award for achieving excellence in development and deployment of “Info System for Decision Making in Forestry” on May 10, 2013 at Bangalore during the workshop held from May 10-12, 2013.



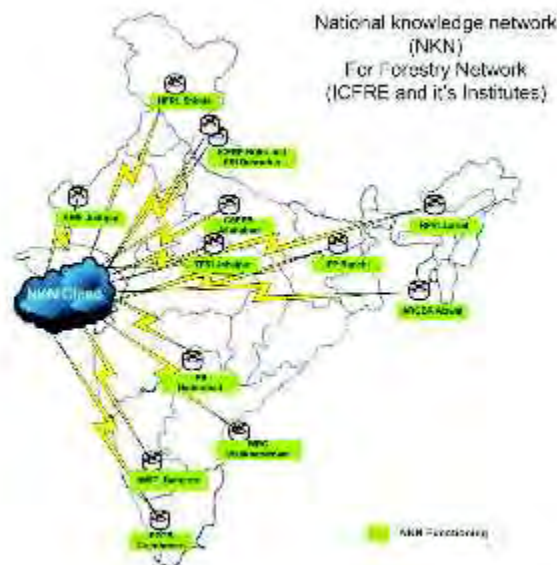
ICFRE, Dehradun

Information Technology is a key driver in carrying out research, administrative and other support activity. IT Division ICFRE is using Information Communication Technology, progressively providing the users 24X7 services to their satisfaction. IT Division caters to the Information Communication Technology needs of all institutes under ICFRE and ICFRE HQ. IT Division is keeping pace with the technological advancement of ICT within the allocated budget to the best possible extent.

Transition of ICFRE from BSNL- MPLS VPN to NKN VPN

The major achievement of the year 2013-14 is the transition from Bharat Sanchar Network Limited(BSNL)- Multiple Protocol Label Switching (MPLS), Virtual Private Network (VPN) to National Knowledge Network (NKN) Virtual Private Network (VPN) for ICFRE and its 12 Institutes/Centre. The advantage of migrating to NKN VPN network is the speed, reliability and

scalability. The backbone of network connectivity has increased many folds from 2MB, 1MB and 512 KBPS to 100 MBPS scalable network connectivity across all the Institutes and Centres. It also saves around Rs.75 lakhs annually for ICFRE. The different node of NKN VPN for ICFRE started commissioning from 10th January 2013 at ICFRE, Dehra Dun and at the remotest centre at ARCBR, Aizwal by 30th July 2013. The L3 Switch was used to create the VPN on the connected nodes to NKN of ICFRE Institutes/Centre. Finally, with one month of overlap period of these VPN, ICFRE switched to ICFRE NKN VPN on 10th September 2014 with the following architecture:



ICFRE Data Centre:

The ICFRE Server Farm was established in the year 2009-10 and has been functional since then. It provides 24x7x365 services to all the employees of ICFRE and its Institutes. Apart from hosting enterprise wide application, catering to various research and administration needs which are known as Indian Forestry Research Information System (IFRIS), it also caters to services like Messaging Service, Web Service, Database Service, Proxy Service, DNS Service, DHCP Service, FTP Service, Backup Service, Internet Service, MPLS-VPN service,

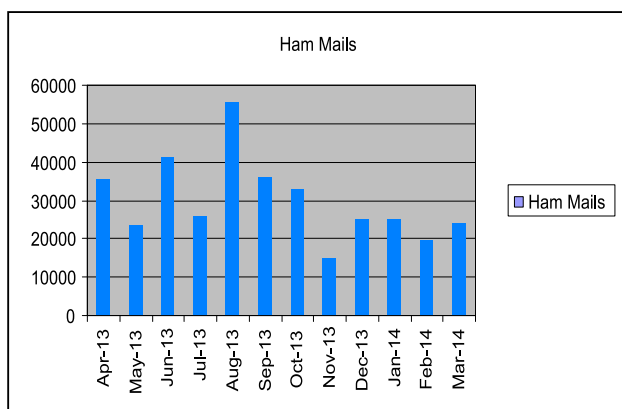
Videoconferencing, Antivirus Service, Helpdesk Service, CAEMS ISS. Around 28 websites on the different aspects of ICFRE and its Institutes have been hosted on ICFRE Web Server. ICFRE Data Centre Building Management System (BMS) is implemented & configured for effective management, monitoring and Integration of various Non-IT equipments like Fire Alarm System, Very Early Smoke Detection Appliance (VESDA) System, Rodent Controller, Water Leakage Detector, Access System, Surveillance System, Public Address (PA) System and Cooling System.

The achievement of the ICFRE Server Farm in terms of availability for 2013-14 was 100 %. The Server Farm was able to sustain 63202 security attacks from 1065 sources and all attacks were failed at the gateway level only during this period due to its robust security infrastructure.

Email IDs created, disabled and deleted data for ICFRE in the year 2013-14 are as below:

New Mail ID created	Disabled Mail IDs	Deleted Mail Ids
91	43	9

Email Transaction data for ICFRE for the year 2013-14 are as given below:



Indian Forestry Research & Information System (IFRIS): IFRIS was conceptualized with the aim to translate some of the present working manual systems into automatic systems; increase/improve access, efficiency, transparency and accountability of services; enhance the

responsiveness of ICFRE through workflow automation and knowledge management; enhance the ease of convenience of the users, stakeholders in accessing the information and services provided by the ICFRE. PIMS (Personal Information Management System), PMS (Payroll Management System), FAS (Financial Accounting System), RIMS (Research Information System), EDMS (Electronic Documentation System) etc. are some of modules widely used across institutes since July 2010. PIMS is having 2125 employees' data. 15986 leave transactions took place between 1st April 2013 to 31st March 2014 through PIMS. PMS is being used from more than three years across all institutes. Pay slips and other reports related to salary are being generated through PMS. A total number of 20350 vouchers were generated in FAS between 1st April, 2013 and 31st March 2014. RIMS is having the data of more than 350 projects. EDMS contains more than 7000 documents.

Website Updates:

The ICFRE website is being updated regularly and frequency of updating done from 1st April 2013 to 31st March 2014 is shown below:

Sl.No.	Name of Institute	No. of updating in the ICFRE website
1.	ICFRE, Dehra Dun	366
2.	FRI, Dehra Dun	366
3.	IFGTB, Coimbatore	89
4.	IWST, Ban galore	79
5.	IFP, Ranchi	22
6.	RFRI, Jorhat	46
7.	HFRI, Shimla	69
8.	TFRI, Jabalpur	54
9.	AFRI, Jodhpur	20

Design and Development of Website by ICFRE Institutes: websites of ICFRE and its institutes are being updated and maintained by respective institutes. Apart from this, following new websites were developed and hosted at ICFRE Data Centre.

S. No	Institute	Design and Development of Website
1	ICFRE, Dehradun	<ul style="list-style-type: none"> • Asia Pacific Workshop Website: Developed and maintaining the website of Asia Pacific Workshop i. e. http://apw2013.icfre.org. • Seminar on Hill Agroforestry System Website: Developed and maintaining the website of Seminar on Hill Agroforestry System i.e. http://shas2014.icfre.org.
2	IWST, Bangalore	<ul style="list-style-type: none"> • Designed and developed website for International Sandalwood Seminar on “Sandalwood: Current Trends and Future Prospects” held during February 26-28, 2014 at Bangalore, Visit: http://sandalwood2014.iwst.icfre.gov.in

Databases: Many databases are available and maintained at ICFRE and its institutes like Indian Wood Insects Database, Anatomical Database of Indian Hardwoods, National Forest Insect Collection (NFIC), Forest Soil Information System for India, database of FRI Herbarium, Database on Biodiversity, database of IWST Xylarium, Expert system for Indian woods, NWFP Information System, Research Projects Database etc. These are being updated time to time. A brief summary of databases available at ICFRE and its institutes is as given below:

S. No	Database	Institute	Detail
1	Wood Anatomy Information System(WAIS)	FRI, Dehradun	A specialized software entitled 'WOOD ANATOMY INFORMATION SYSTEM (WAIS) has been developed and all scattered published data stored on it.
2	National Forest Insect Collection (NFIC)	FRI, Dehradun	Information of 17, 000 species belonging to 48,000 localities were entered into the database.
3	Database in Tree Improvement on Mandatory Species	IFGTB, Coimbatore	Tree Improvement information collected from Tamilnadu State Forest Department, Kerala State Forest Department, Annual Reports of Forest departments, ICFRE Statistical Report, DANIDA Plus tree records, Scientists and other sources and entered in Database.
4	Database on Biodiversity	IFGTB, Coimbatore	It is database of 70 threatened plant species with different retrieval, addition, deletion and modification options by using information on botanical name, Family, description, distribution, phenology, uses etc.
5	Database of IWST Xylarium	IWST, Bangalore	Contains the information of IWST Xylarium.
6	Expert system for Indian woods - their microstructure, identification, properties and uses.	FRI, Dehradun	Database of microstructure, identification, physical properties and uses of Indian commercial woods has been generated for commercial woods of India and incorporated on electronic media (CD) for easy retrieval. The same was incorporated in 'WAIS', an expert system developed for storage and retrieval of wood database.
7	NWFP information system	TFRI, Jabalpur	An interactive database package for keeping records of NWFP species.
8	Indian Wood Insect Database	IWST, Bangalore	Contains the information of Wood and Insects.
9	ICFRE Research Projects since 1990	ICFRE, Dehradun	This database contains all projects of ICFRE since 1990. Lot of search options for the user are available to find the exact information related to projects. It contains detail of 1104 projects.
10	In silico Gene Bank for Adaptation to Abiotic Stresses (IGBAAS)	IFGTB	IGBAAS has a thematically integrated sequence information pertaining to abiotic stress tolerance from different organisms. Presently, the database consists of more than 2500 gene sequences. Furthermore, the database has direct connectivity to BLAST, primer designing software of NCBI and alignment tool (ClustalW), thereby making it a one point resource for bioinformatics analysis for plant researchers working on candidate gene based molecular markers and functional genomics.



Video Conferencing Facilities: Video conferencing services at ICFRE have been started from May 2008 and till date, more than 1000 video conferencing sessions have been successfully completed. Video conferencing services among ICFRE Institutes started through NKN VPN tunnel from 2013. During 2013-14 the process of upgradation of VC equipment and extension to the other centres have been started. The process has been stopped due to the budget constraints. The monitoring and evaluation of the research projects during 2013-14 was carried over by VC only.

IFGTB strengthened the Geomatics lab of the institute with procurement of additional desktops, Laptops, Software—viz ArcGIS Editor, ERDAS Imagine 2014 etc. A new Geographical Information System (GIS) Lab has also been established by HFRI for geo-referencing of forestry related records of Institute on the topographical sheets.

Training /Workshop: Dr. Swapnendu Pattanaik, Scientist- E, Forest Biotechnology, IFB, Hyderabad, Sh Jatender Singh, Scientist D, IT Division, ICFRE Mr. V. Soundara Rajan, Scientist C, IT Cell, IWST, Bangalore and Mr. Nishar Alam, RA-I, IT Cell, RFRI, Jorhat attended the 2nd National Knowledge Network (NKN) Workshop from 17.10.2013 to 19.10.2013 at ISC, Bangalore. The workshop had a technical discussion on "Domain Name Service, Bandwidth Monitoring Service," steps for implementing security.

Development of Web Portal for Forestry Research Extension

The development of the bilingual web application of 160 important plants species of arid and semi arid region database has been completed. The bilingual web pages containing the information about the project, how to use the web application, project team page, contact use page, description of the main parameters like; different type of soils, soil textures, tree shapes, leaf shapes, leaf margins, inflorescence, flower shapes etc. have been organized on the web

application. All the searches provided in the web application were also tested thoroughly for their correctness and speed. All the searches were working perfectly. The description for how to use the five type of searches has been provided in the web application. The datasheet of a particular plant species produced by the web application has been designed in a systematic way. The photographs of the plant species can also be enlarged in the datasheet for finer details. The data for 160 plant species of arid and semi arid region including the important tree species, shrubs, herbs, grasses and medicinal plants have been entered in the database through the web application after validation. The relevant photographs of all the species have also been entered in the database. The web application has been hosted on the web server and can be accessed through the internet through the URL



Home page of the web application



Web page describing the leaf shapes



Datasheet for *Commiphora wightii*



List of species through the basic search

Snapshots of the web application for plants database

<http://www.seracharidplants.in>. Some of the latest snapshots of the web application were as follows:

In addition to the web application, the bilingual dynamic website of the institute developed under this project was updated through-out the year. The status and information of all the new, ongoing and completed projects were updated on the site. The research publications made by the scientists of the institute during the year were updated on their profile on the website. All the other features like institutes directory, bulletin board, image gallery etc. were updated regularly on the website.


8.2 Sevottam: Activities relating to the Citizens/Clients Charter

The ICFRE focuses on forestry research and extension through its research institutes situated in different parts of India catering to the research needs of all the regions of the country with its clientele including the Forest and other Departments, the various government organisations as well as non governmental organisations, wood and forest products based industries, farmers, scientists and all those involved in forestry. Its commitment to excel in services it provides, necessitates for the organization to has a standard service delivery system based on transparency, accountability, trust, responsiveness and empathy that meets the expectations of all. The services provided by the Institutes encompass *inter alia* the activities related with identification and analysis of properties of timber/ trees, its conservation, preservation and protection, genetic improvement of important species including improved nursery practices, bio-informatics, market trends, socio-economic studies, NTFP management, plantation and plantation on problematic soils, biodiversity conservation and many others.

It is this zeal to serve conscientiously with a purpose that embodies 'Sevottam' symbolising the Government's intent to move from 'administration' to 'provision of services' in public interest. 'Sevottam' is a standardized Services Delivery Excellence Model whose main features are to identify the services provided by the organization, to set norms for each service, to ensure delivery as per norms, to assess quality of delivery on a continuous basis and to proactively redress public grievances.

8.2.1 Action taken to formulate the Charter

In the modern times, it is the responsibility of every organization to implement a quality management system for public services. This is a part of the Central Government's initiative to improve the quality of public services. Citizen's/Client's Charter is a document, which



represents a systematic effort to focus on the commitment of the organization towards its citizens/ clients in respect of standard of services, information, choice and consultation, non-discrimination and accessibility, grievances redressal, courtesy and value for money. This also includes expectations of the organization from the citizens/ clients for fulfilling the commitment of the organization.

Citizen's Charter is drafted and implemented by all the Institutes of ICFRE with a provision for annual review of the Charter Services provided. The charter has been prepared based on the seven steps mentioned in 'Sevottam'. As ICFRE has already mandated its mission "to generate, preserve, disseminate advanced knowledge, technologies and solutions for addressing issues related to forests and promote linkages arising out of interactions between people, forests and environment on a sustained basis through research, education and extension". The Public Grievance Officer monitors the timely redressal of public grievances. Subsequently, necessary steps if any, for quick disposal of complaints are undertaken. Services are regularly monitored by the Head of the Division/Group Co-coordinator (Research)/Director and also by the officials of ICFRE as per norms. The instruments are standardized with set procedures. Also identified standards are analysed first and under same conditions samples are analysed and compared. Efforts are made to get an unbiased feedback from the clients who have taken our services.

8.2.2 Action taken to implement the Charter

With the aim of implementing the Charter, the ICFRE institutes implement their research endeavors after duly recognizing the users' needs. For instance, AFRI, Jodhpur identifies the research problems of the arid region and then develops the projects based on the problems and disseminates the research results to the users. In order to identify the research problems, stakeholders meetings are organized in the two states viz. Rajasthan and Gujarat falling under the jurisdiction area of the institute. This procedure is followed in all other ICFRE institutes for their

respective regions. Officials from SFD's, progressive farmers, scientists and NGO's participate in the stakeholders meeting and express the problems on which the research is required. Based on the research problems given by the stakeholders, in-house discussions are made amongst the scientists of the institute and the research projects are formulated by the scientists after a thorough review of scientific literature.

The projects so developed are sent to the external experts for evaluation and are presented before the Research Advisory Group (RAG) meeting and subsequently presented in the Research Policy Committee (RPC) meeting for approval and funding. The ongoing projects are monitored regularly.

The technologies developed through the projects are extended/demonstrated to the end users with the help of demonstration trails, extension trainings, Van Vigyan Kendras, Demo village, printed material, radio talk, workshops, conferences and publications upload to the website of the institute. Keeping in view the Vision, Mission and Thrust Areas set for the Institute by the *Indian Council of Forestry Research & Education* in consultation with the Institute, the Institute fixes its targets through Annual Action Plan. Annual Action Plan includes the details of research projects to be implemented during the year, information regarding trainings, exposure visits, workshops, seminars and awareness programme to the school children. The information on all above aspects is also included in the Client Charter, which is being implemented in its true spirit

8.2.3 Trainings, workshops, etc. held for proper implementation of Charter

Trainings and workshops for awareness generation and extension activities form an integral part of the endeavors undertaken by the Council being regularly organised in the institutes. The institutes also conducted RAG meetings, stakeholders/ end users' interactive meets, 'melas' and diverse trainings every year.

The training component is covered in detail under Chapter 6 and details about the workshops organised are given under Chapter 7 of the report.

8.2.4 Publicity efforts made on Charter for the Citizen/Clients;

The Citizens' Charter is placed on the website of ICFRE for access by all. Print media is extensively used, besides other media tools, in all the institutes of the Council for propagation of information to the stakeholders. In IWST, Bangalore, publicity material, including pamphlets in Telegu, Kannada, English, Konkani have been distributed in Krishi Melas, during trainings and demonstration programme, VVK etc. Also, technical bulletins/ publications in English, Kannada and Telugu are available to the public on payment basis. At TFRI, Jabalpur, publicity and awareness campaigns on charter for the citizen/clients were made by holding slogans on notice boards and other areas to motivate citizens. General lectures on the awareness were also organized at the institute. At HFRI, Shimla, the staff is being encouraged to implement the Client Charter in its true spirit for the benefit of the stakeholders. All other institutes under ICFRE, too are actively engaged in publicity campaign for awareness generation.

8.2.5 Evaluation of implementation of Charter

Evaluation of the implementation of the Charter is an important process to gauge its effectiveness and is being done at all the institutes. At IWST, Bangalore, the internal evaluation of the implementation of Charter is being done by GCR/Director and ADGs/DDGs/DG. In due course of time, mechanism for external evaluation of implementation of Charter in the organization will be developed. Similarly, at AFRI, Jodhpur, all the new projects and progress of the ongoing research projects were presented to the internal and external experts of the RAG. At HFRI, Shimla the Client Charter is being monitored at the end of financial year appraising the stakeholders about the extension activities proposed in the Client Charter and

encouraging them to attend these trainings for the ultimate benefit of the forests and environment.


8.3 Welfare measures for the SC / ST/ backward / minority communities

At IFGTB, Coimbatore, Dr. Baba Saheb Ambedkar Birth anniversary was celebrated at IFGTB on 28.04.2014. Chief Guest Prof. D.J. Jayaharan, Centre for Social Analysis, Madurai delivered a lecture on 'Democratization of Indian Society'.



Dr. Baba Saheb Ambedkar Birth anniversary, 2013

IWST, Bangalore has a Grievance and Redressal Cell to attend to all the grievances of IWST employees. The cell is also looking after several welfare measures of SC/ST/OBC employees of the Institute. In this regard, an association of SC/ST employees has been formed which is looking after the overall development



and welfare of the employees. At AFRI, Jodhpur, AFRI SC/ST/OBC Employees Welfare Association was formed on 20th September, 2012 to promote the general interest of SC/ST/OBC employees and to work for their collective betterment, development and upliftment by formulating the BYLAWS and electing the Executive Committee of twelve members. For promotion/recruitment process, roaster has been maintained in AFRI, Jodhpur as per guidelines of the GOI. The roaster is usually checked by the Liaison Officer at the time of considering promotion/recruitment for SC/ST/OBC. The roaster has been signed by the concerned liaison officers. Welfare Association of AFRI organized a

programme of Dr. Ambedkar Jayanti on 14th April 2013 to commemorate the birth anniversary of Dr. Babasaheb Bheemrao Ambedkar.

At HFRI, Shimla, the welfare of the communities SC/ ST/ Backward/ Minority Communities is being taken care of on various fronts. Appropriate steps are being taken to accommodate these communities in various training/ extension programmes organized by the Institute from time to time. The directions as conveyed by the Government from time to time in this front are also being followed.