# ICFRE
# MPLS Topology

Cisco 1841

Cisco 1841

Cisco 1841

Van Vigyan, New Delhi
1 Mbps

HFRI, Shimla
1 Mbps

AFRI, Jodhpur
2 Mbps

Cisco 1841

Cisco 1841

NKN
1 Gbps

CFRHRD, Chhindwara
512 Kbps

IPGTB, Combitore
2 Mbps

Firewall

Cisco 1841

CSFER, Allahabad
512 Kbps

Cisco 2511

ICFRE HQ, Dehradun
4 Mbps

Internet
IDS/IPS

Edge Router
at BSNL NoC

Cisco 1841

Cisco 1841

FRC, Hyderabad
512 Kbps

IWST, Banglore
2 Mbps

Cisco 1841

Cisco 1841
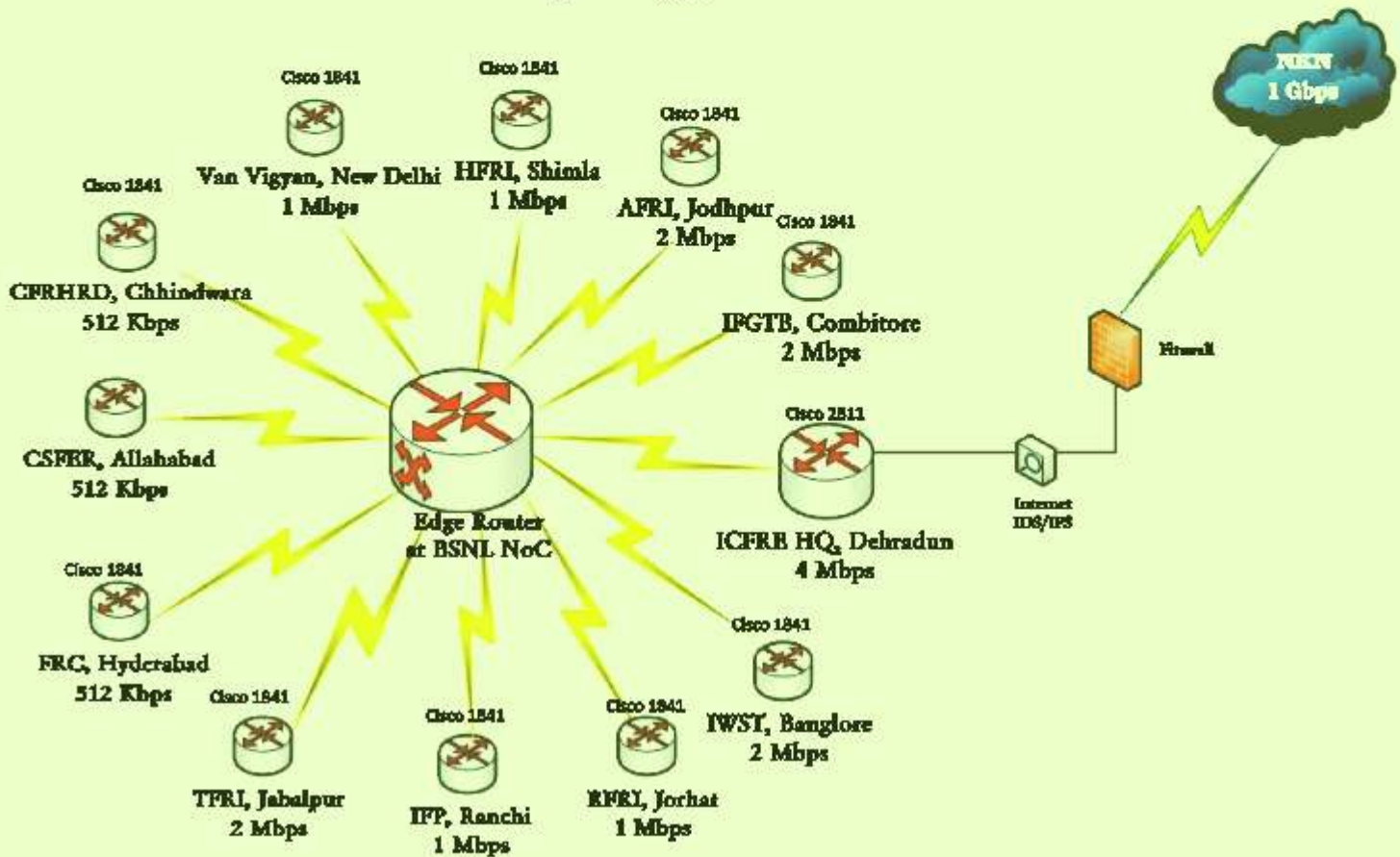
Cisco 1841

TFRI, Jabalpur
2 Mbps

IFP, Ranchi
1 Mbps

RFRI, Jorhat
1 Mbps

# ADMINISTRATION AND INFORMATION TECHNOLOGY

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## Introduction

The Directorate of Administration is responsible for creation and maintenance of the administrative infrastructure in the foreground of which the other functions of the ICFRE are conducted. The functions of the directorate include budgeting, accounts, drawal and disbursement of the monies, pension related matters, recruitment of scientists through Recruitment Board of ICFRE, provisioning other human resources on contract basis, various procurements and also information technology related services across all the institutes and centres of ICFRE.

## 5.1 Information Technology

Information Technology (IT) is a pervasive and essential presence in today's world. It is touching lives and work like never before. ICFRE too is using Information Technology to progressively enhance organizational efficiency and user satisfaction. The Information Technology Division under the Directorate of Administration in ICFRE caters to the IT needs of the ICFRE Head Quarters and the Institutes under it that are spread across the country. The changes and advances in the area of IT take place at an extremely fast pace and ICFRE also strives to keep abreast with those changes. Meeting the organizational objectives and keeping abreast with the latest technology were the drivers for IT during 2010-11 in ICFRE.
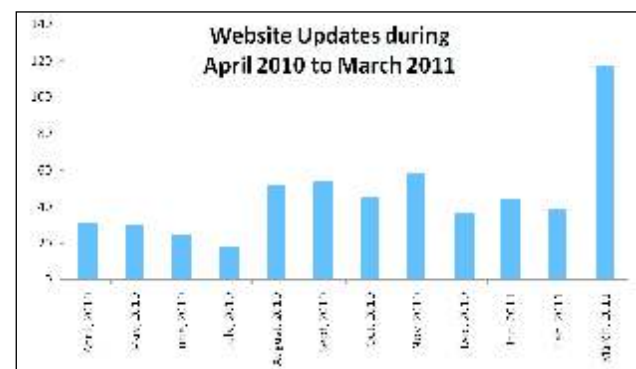
ICFRE implements the e-Governance programme envisaged by the Ministry of Environment & Forests, New Delhi in terms of IT infrastructure and capacity building. Some of the basic hardware and software infrastructure that has been provided from the level of LDC upwards to the functionaries of ICFRE is as follows:

a. PCs and printers along with application software like word processor, spread sheet and presentation software has been provided.

b. Access to the websites has been provided. The website is bilingual and ICFRE strives to provide the latest information to its employees and the general public too through the websites of ICFRE and its institutes.

c. Access to internet is available to ICFRE functionaries through Local Area Networks which are also linked together through a Wide Area Network across the country spanning the Institutes and centres of ICFRE.

d. Email services of the organization are accessible to the users of ICFRE in all the institutes and centres of ICFRE along with the functionaries in the ICFRE Head Quarters. In this connection it is pertinent to mention that around 14 lakh email transactions took place through ICFRE web-server. This is a good indicator of the degree of adoption of IT in the organization.

As stated above, ICFRE has its own website which is accessed by users of the organizations and others. To provide current information to users at any time, the website is regularly updated. The graph below demonstrates the priority accorded by IT Division of ICFRE to updating the information for the users.



Website Updates during April 2010 to March 2011

The basic infrastructure is mentioned above. Some of the important initiatives at ICFRE warrant greater details as shown below:

a. Development and usage of Indian Forestry Research & Information System (IFRIS).

b. Wide Area Network across the Institutes of ICFRE in the country.

c. Steps taken towards getting integrated with high bandwidth and scalable programme of the Government of India called National Knowledge Network (NKN)

d. Establishment and usage of ICFRE Server Farm (Data Centre).

**Development and Usage of IFRIS**

IFRIS was conceptualized with the aim to implement a comprehensive IT solution with the following objectives:

a. To convert some of the present working manual systems into automated systems.

b. To enhance access, efficiency, transparency and accountability in the context of work in the organization.

c. To enhance responsiveness of ICFRE through workflow automation and knowledge management.

d. To enhance ease of access to information and services by users and stakeholders in ICFRE.

The project was planned as a three stages activity viz. Conceptualization, Project Development and Software Development and Implementation. The work was assigned to M/s Sobha Renaissance Information Technology, Bangalore through competitive bidding. The project took off during the month of January 2008 and the system was partially functional in 2009-10. It is expected to be fully deployed in 2010-11.

IFRIS broadly comprises of two main parts viz. Indian Forestry Research Management Information System (IFRMIS) and Indian Forestry Research Administration Information System (IFRAIS). Some key components of IFRIS are as follows:

a. Research Projects Database including externally funded projects.

b. Grants and Research proposals.

c. Role based access to information/reports.

d. Downloadable summary of research reports.

e. Personnel Information, Pay Roll and Financial Accounting System Procurement and Inventory.

f. Real time availability of information on centralized data repository.

The approach in implementation of IFRIS has been to focus on those modules which touch the largest number of users in vital ways so that a transformation in institutional culture from working merely on hard copies to working in the digital sphere takes place. Pay Roll management system is one such example through which the pay rolls are generated by application software (IFRIS). Another example is putting in place the personnel information management module with particular emphasis on leave sub-module. Today, this allows us to deal with leave applications online, thus, saving a lot of time and paper. It also helps in making users more computer savvy and bringing about the transformation in institutional culture mentioned earlier.

**Development of In-house IT Expertise and Enhancing User Capacity**

Alongside bringing a cultural transformation, ICFRE has also created an in-house expertise in trouble shooting and modifying in a minor but fruitful way the existing software applications so that greater user satisfaction is achieved and greater facilities are available to them.

**Project Institutional Framework** has become an effective platform wherein Institute Apex Committees, Technical Committee and ICFRE Apex Committee regularly conduct meetings to

gather expectations and concerns of stakeholders and to review implementation progress.

**e-Champions**, the change agents, have been identified from all the Institutes for change management and adoption of application at the levels of organization. e-Champions have been trained through training-cum-workshops at ICFRE.
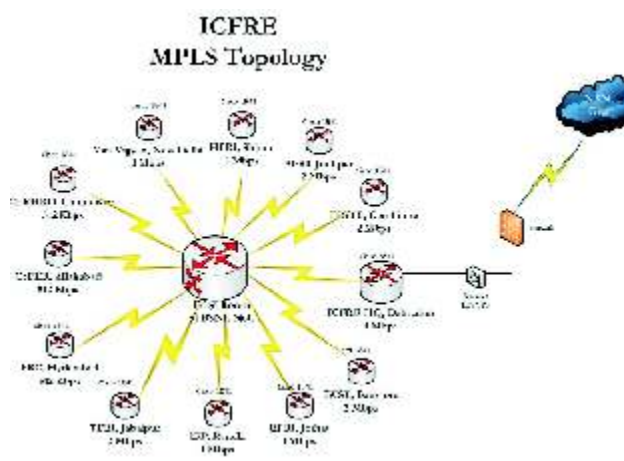
## Wide Area Network Across the Institutes of ICFRE in the Country

All the institutes of ICFRE are connected with each other through a Wide Area Network (WAN). This is implemented through Multiple Protocol Level Switching - Virtual Private Network (MPLS-VPN) provided by Bharat Sanchar Nigam Limited (BSNL). All the digital data communication of ICFRE - including a fast internet connectivity, video conferencing across the institutes, data entry and retrieval, website and email services – take place through the aforesaid WAN. This has ensured that the management of related software and hardware is centralized and more efficient and focussed than would be the case in the absence of a WAN.

The WAN has created an organizational culture in ICFRE of communicating and sending documents through Email, sharing of ideas singly or through group Emails, use of applications across the WAN and spreading and enhancing familiarity with the application interface, recognition of the power and advantages of IT usage amongst the officials of ICFRE and eagerness to acquire IT skills that makes working faster and easier. This is paradigm shift in work culture that bodes well for the future.

The WAN of ICFRE also allows the organization to conduct video conferences that save time of money substantially. During the year 2010-11, more than 200 video conferences were held.

The diagram below gives an idea of the WAN topology.



## National Knowledge Network

ICFRE moved towards getting integrated into the National Knowledge Network which is expected to provide high and scalable bandwidth with the possibility of connecting productively with other research and educational organizations in the country. Besides, NKN provides high bandwidth that would translate into better internet access and may also be a means to connect the various institutes of ICFRE through a higher bandwidth WAN that the one presently being used.

## ICFRE Server Farm (Data Centre)

The ICFRE Server Farm (Data Centre) is at the very core of IT services that ICFRE provides. It hosts the IFRIS application and other allied key services like:

a. Database and application services.

b. Email, Web services, Domain Name Services and Proxy services.

c. Antivirus and other security products like Firewalls, Intrusion detection and prevention system etc.

d. Content filtering services like Anti-SPAM, Anti-Spyware etc.

e. Suitable Data Backup and Network Monitoring tools.

Based on its architecture, the type of services hosted and the monitoring protocols put in place, the ICFRE data centre has been granted in ISO 27001-2005 certified data centre and Services status.

## 5.2. Sevottam

The Sevottam framework consists of three components viz. The Citizens' Charter, Pulic Grievance lodging and redressal mechanisms and service delivery capability. ICFRE interacts with citizens and its clients in a variety of ways. When it comes to IT, the interface is through the ICFRE websites and the email services-particularly its own email system that the organization has installed. The websites and email systems are managed on a 24x7 basis throughout the year and across various Institutes of ICFRE all over the country.

### 5.2.1 Action Taken to Formulate the Charter for the Department and its Subordinate Formation

Citizens' Charter is available on the website of the ICFRE (www.icfre.gov.in). For providing information to the public and clients, Directorate of Administration of ICFRE largely relies on the web-based tools, dissemination of information through a variety of means –including IT interface, Citizens' Charter, responses to citizens by way of the tools that come under the purview of Right To Information Act and through workshops and seminars conducted by the organization.

The subordinate formations of ICFRE consist of its regional Institutes and Centres across the country. The websites of these Institutes are integrated with the main website of ICFRE and are hosted in the same server. As the work of institutes of ICFRE merges into the overall work of ICFRE, the Citizens' Charter of ICFRE on the website mentioned above provides the requisite information that is applicable to the institutes also,

besides showing pertinent information about various institutes.

### 5.2.2 Action Taken to Implement the Charter

The Citizen's Charter is on the website of ICFRE. It provides the bird's-eye view of ICFRE including its vision, mission, objectives, functions, services and service standards. The Charter also provides the grievance redressal mechanism and contact information of persons who should be approached for registering, and receiving responses on, specific grievances.

### 5.2.3 Details of Training Programmes, Workshops, etc. held for Proper Implementation of Charter

Providing information about the organization to its clients is one of the main functions of the Citizens' Charter. To achieve this, a large number of training programmes and workshops etc. were held by ICFRE and its institutes for the clientele of ICFRE. Some of these, only indicative of the kind of trainings and programmes that are taken up by ICFRE, are listed below:

1. Workshop on Non Timber Forest Products Marketing: Issues and Strategies was organized in February 2011 by Tropical Forest Research Institute, Jabalpur. Target groups for the workshop were harvesters, collectors, cultivators, members of the Joint Forest Management Committees, traders and manufacturers of herbal products.

2. Training Workshop on Conservation and Management of Forest Genetic Resources was organized by the Institute of Forest Genetics and Tree Breeding (IFGTB), Coimbatore during $5^{th}$ to $9^{th}$ July 2010. Workshop was cosponsored by the ICFRE, Forest Research Institute, Malaysia (FRIM), APAFRI, Biodiversity International and

International Timber Trade Organization (ITTO).

3. IFGTB also organized a two days training on "PCR based Methods of Gene Isolation" on 29th and 30th July 2010 for students pursuing research in areas of Biotechnology, Biochemistry, Botany and allied sciences. The training was attended by eighteen researchers from various universities and colleges including Bharathiar University, Coimbatore, Forest College and Research Institute, TNAU, Coimbatore, Bharathidasan University, Tiruchirappalli, St. Josephs College, Tiruchirappalli, Kerala Forest Research Institute, Peechi and in house research fellows. The training encompassed both theory and practical sessions on methods of gene isolation and functional validation. Hands-on-training were provided on RNA isolation, PCR techniques, Competent cell preparation, cloning and Reverse Northern techniques.

a. An intensive hands on training programme on "Instrumentation Methods and Chemical Analysis" was imparted during 27th and 28th September 2010 at IFGTB. A training manual on "Metabolite Profiling: Current Techniques" was also released during the training programme. A total of 20 trainees from various colleges, institutions, organizations and Universities namely, Andhra University, Visakhapatnam; Shri Dharmasthala Manjunatheshwara College, Mangalore; Tamilnadu Agricultural University, Bharathiar University, Kongunadu Arts and Science College, PSG College of Arts and Science, Coimbatore participated in the training programme.

b. A Stakeholders' Consultation for "Setting up of Forestry Research Need Assessment: Institutionalizing the Process in the State of Himachal Pradesh" was organized at Himalayan Forestry Research Institute (HFRI), Shimla on 06th August 2010. The Principal Chief Conservator of Forests, Himachal Pradesh also participated in the consultation being a stakeholder.

c. Institute of Wood Science and Technology organizes 5 days and 3 days training courses on topics like field identification of important timbers, timber joinery, classification and grading of timbers, wood protection, modern seed and nursery technology, wood seasoning and preservation, extraction/purification techniques and instrument analysis, plant identification, field methods and herbarium techniques, integrated pest management, application of statistics in forestry and agroforestry system: concept and case studies. These trainings are being organized since year 2005-2006.

d. The Institute also conducts RAG meeting, Stakeholders interactive meet/liaison meetings, Indo-Italian seminar and compulsory training for IFS officers every year.

## 5.2.4 Details of Publicity Efforts Made and Awareness Campaigns Organized on Charter for the Citizen/Clients

The Charter itself has been given wide publicity by way of making it available on the World Wide Web. Besides, ICFRE made substantial and varied efforts regarding publicity and awareness generation programmes taken up to meet the objectives spelt out in the Citizens' Charter. An illustrative list, not exhaustive, of such efforts is given below.

a. The Institute of Wood Science and Technology (IWST) at Bangalore has the following publications/technical bulletins in English, Kannada and Telugu. They are made available to the public on payment basis.

|   | Brochures | Language |
|---|---|---|
| 1 | Sandal | Kannada |
| 2 | Tamarind | Kannada |
| 3 | Bamboo | Kannada |
| 4 | Casuarina | Kannada |
| 5 | Neem | Kannada |
| 6 | Eucalyptus | Kannada |
| 7 | Jatropha | Kannada |
| 8 | Gmelina (Shivani) | Kannada |
| 9 | Moringa (Nugge) | Kannada |
| 10 | Agarbathis | English |
| 11 | Catarmarans | English |
| 12 | Sandal | English |
| 13 | Biodeterioration of Wood and its Prevention in Indian Coastal Waters | English |
| 14 | Sandal | Telugu |
| 15 | Tamarind | Telugu |
| 16 | Bamboo | Telugu |
| 17 | Casuarina | Telugu |
| 18 | Neem | Telugu |
| 19 | Eucalyptus | Telugu |
| 20 | Red Sanders | Telugu |
| 21 | Catamarans | Telugu |
| 22 | Catamarans | Tamil |
|   | **Technical Bulletins/Information Series** |   |
| 1 | A Rapid and Non Destructive Technique for Estimating Growth Strain in Trees and Logs | English |
| 2 | Detection, Identity and Management of Insect Pests of Timber | English |
| 3 | Wood Seasoning & Preservation | English |
| 4 | A Guide to some Important Timbers in South Indian Markets | English |
| 5 | Sandalwood Tree (pests and diseases and their management) | English |
| 6 | Portable Distillation Unit to Extract Essential Oil | English |
| 7 | Ammonia Plasticization of Coconut Wood for Value Addition | English |
| 8 | SAP Displacement Techniques for Treating Small Girth timber on Bamboo | English/Kannada |
| 9 | Whitefly Pests in Forestry and their Management | English |
| 10 | Arbuscular Mycorrhizal (AM) Fungi as Biofertilizer in Forestry | English |
|   | **Books** |   |
| 1 | Santalam Album (Sandal) | English |
| 2 | Biodeterioration of Timber and its Prevention in Indian Coastal Waters - 3rd Progress Report 1982-2005 | English |
|   | **Proceedings** |   |
| 1 | Forestry, Forest Products and Coastal Population | English |
| 2 | Wood Preservation in India: Challenges, Opportunuties & Strategies | English |
| 3 | Intellectual Property Rights in Forestry Issues | English |
| 4 | Conservation, Restoration and Sustainable Management of Mangrove Forests in India | English |
| 5 | Conservation, Improvement, Cultivation and Management of Sandal | English |

b. IFGTB organized an interactive workshop with farmers on 5th June 2010 on World Environment Day which was attended by representatives from industries, farmers, and others. A total of 200 farmers participated in the workshop.

c. IFGTB conducted the stakeholders' workshop on Forestry Research and Extension on 31st May 2010 with the Department of Environment and Forests, Andaman and Nicobar Islands. The workshop was chaired by the PCCF, A&N Islands and attended by PCCF (WL), APCCF (Planning and Development), CCF (Research) and other senior forest officials besides a team of officers and scientists from IFGTB.

d. TFRI, Jabalpur organized "Stakeholders Meet" for Madhya Pradesh at Bhopal on 5th April 2010 and for Chhattisgarh at Raipur on 23rd April 2010. The institute also organized "Stakeholders' consultation meeting" at Nagpur (Maharashtra) on 13th May 2010 and at Bhubaneswar (Orissa) on 24th May 2010.

e. TFRI, Jabalpur imparted training to the Range Officer trainees (47 nos.) from Forest Rangers Training College, Balaghat (M.P.) on 13th May 2010.

f. TFRI, Jabalpur conducted a training on Vermicompost/Biofertilizers at Bhaisajhar Nursery, Bilaspur on 17th and 18th May 2010 to the trainees of Chhattisgarh Rajya Van Vikas Nigam (CRVVN) Ltd., Bilaspur.

g. TFRI, Jabalpur imparted training to the trainee Forest Guards (39 nos.) from Van Vidyalaya, Govindgarh, District Rewa (M.P.) on 18th May 2010.

h. TFRI, Jabalpur imparted training to the trainee Forest Guards (86 nos.) from Van Vidyalaya, Betul (M.P.) on 24th May 2010.

i. TFRI, Jabalpur organized a training for forest officials of Chhatisgarh on "Recent Advances in Nursery Techniques" from 27th to 29th May 2010.

j. RFRI, Jorhat organized stakeholders' meeting-2010 for the states of Assam, Meghalaya, Arunachal Pradesh and Sikkim at Forest School Jhalukbari, Guwahati on 31st May 2010. Stakeholders' meeting-2010 for the states of Mizoram and Tripura were held at PCCF Office, Aizawl, Mizoram on 3rd June 2010 and PWD conference hall, Agartala, Tripura on 7th June 2010 respectively. Stakeholders meeting 2010 for the states of Nagaland and Manipur were held at PCCF office, Kohima, Nagaland on 29th June 2010.

k. AFRI Jodhpur organized one day interactive meeting on "Climate Change Concerns: Needs, Opportunities and Gaps" on 14th June 2010 to discuss the research needs, and the financial, technological and capacity needs and constraints to address climate change concerns vis- a-vis forest products in the arid zone of India. Representatives from Botanical Survey of India, Zoological Survey of India, Desert Medicine Research Centre, Central Arid Zone Research Institute, Defence Research and Development Organization, Jai Narayan Vyas University, State Forest Department, Agriculture Research Station, NGOs and other departments participated in the meeting along with officers and scientists from AFRI. Dr. A. S. Faroda, Retired Director, CAZRI, Jodhpur chaired the session.

l. IFP, Ranchi organized a Stakeholders' Meet in the State of Jharkhand on 25th May 2010 at the institute. The meeting was attended by 32 persons including various stakeholders in the state.

m. IFP, Ranchi organized a stakeholders' Meet in Patna, Bihar on 15th June 2010. The meeting was attended by 29 persons including various stakeholders in the state.

n. At IFP Ranchi, the team of UNDP cell conducted a field visit in the project sites of Khunti district of Jharkhand on 6th July 2010 for providing field

demonstration-cum- training to the farmers of Janumpiri, Bari and Kotna villages.

o. IFP Ranchi conducted a two days training programme on "Lac Cultivation Through Scientific Method" in Ranka Block, Garhwa District of Jharkhand on 16th and 17th June 2010 in which 185 numbers of farmers and cultivators participated.

p. FRI, Dehradun organized a four-days' training on "Afforestation Techniques" for the officers, JCO's and NCO's of Eco Task Force of the Territorial Army from 20th to 23rd April 2010. A total of 39 personnel from Eco Task Force of Territorial Army attended the training programme.

q. FRI, Dehradun conducted five days' training programme on "Handmade Paper from *Lantana camara*" from 7th to 11th June 2010. The programme was sponsored by Department of Science and Technology under the project "Utilization of Economic Potential of *Lantana camara*". Twelve participants from different parts of India attended the training programme. During the training course, the participants were given hands on training for handmade paper manufacturing using *Lantana camara* and its value addition to fetch high income.

r. FRI, Dehradun organized a training programme on "Collection, Storage and Plantation of seeds" from 28th to 30th June 2010 at VVK, Hoshiyarpur for foresters and farmers.

## 5.2.3 Details of Internal and External Evaluation of Implementation of Charter in the Organization and Assessment of the Level of satisfaction among Citizen/ Clients:

Charter is in the process of being evaluated and edited internally to bring it in greater conformity with the mandated delivery standards.

## 5.3 Welfare Measures for the SC / ST/ Backward / Minority Communities

Welfare of the SC/ST/backward/minority communities is a major management concern in the ICFRE. Some of the details are given below which illustrate this by way of actions taken in different Institutes of the Council.

a. The Grievance redressal cell for SC/ST/ OBC employees of ICFRE(HQ) was formed vide Secretary, ICFRE, order no 63-37/2010-ICFRE dated 23rd February 2011. The Deputy Director General (Education) functions as the chief liaison officer for SC/ST/ OBC. A Scientist functions as the liaison officer for SC. One Deputy Conservator of Forests functions as the liaison officer for OBC. Controller of Accounts functions as the liaison officer for ST. All these functionaries are identified, in the orders concerned, by name. The service of Dr. Anil Negi, Scientist-C, Directorate of Education has been taken by the GRC for the functioning of the cell.

b. Four interactive meetings of grievances redressal cell for SC/ST/OBC employees at ICFRE, Dehradun were organized during the year 2010-11. Various decisions were taken by the cell in its meetings for the welfare of SC/ST/ OBC employees of ICFRE.

c. Election of office bearers of SC/ST/OBC employees welfare association of ICFRE (HQ) and FRI was conducted on 5th April 2010.

d. Category wise list of SC/ST/OBC employees at ICFRE and its Institutes was prepared.

e. Two days training programme was organized on 30th & 31st August, 2010 for the officers/ officials of ICFRE(Hqr) and its Institutes dealing with the matters "Maintaining the Roster, Grievance Settlement Procedures, duties of Liaison Officer and Follow up of

Orders/ Instructions of Govt. of India relating to reservation and other Related Issues" at ICFRE, Dehradun.

f.  SC/ST/backward/minority community welfare committees have been formed in the Institutes of ICFRE and liaison officers have been designated.

IFGTB, Coimbatore conducted sensitization meeting by sexual harassment and complaints committee on sexual harassment of women at workplace on 19th November 2010.

Sensitization lecture on RTI act was given by the public information officer.