# Forestry Extension for Taking Research to People





The Council endeavors to transfer simple implementable technologies to the intended target groups, especially State Forest Departments and farmers. It also engages in development and dissemination of forestry extension programmes. It coordinates various extension activities of **ICFRE** Institutes and Centres. It also provides consultancy/technical services in the field of forestry, environment and allied sciences as well as environment impact assessment, environment management plan and other related areas. The Council is committed to disseminate its research outputs to the stakeholders through various schemes such as, Van Vigyan Kendras, Demo Villages, Networking of VVKs with KVKs, through organizing and participating in various extension activities and by means of quality publications.



#### 7.1 Collection, Compilation and Publication of Forestry Reports/ Journals

#### 7.1.1 Research Publications

Publications are a major part of extension activities of the Council. There are books, booklets, brochures, pamphlets, research papers and periodicals published every year. Following are the brief account of publications during the period under Report:

- Annual Reports of ICFRE for the year 2014-15
- Bi- annuals ICFRE Newsletter and Vaniki Samachar
- Detailed Project Report (DPR) on Forestry Interventions for Ganga, Volume I & II.
- Book on Advances in Mycorrhiza & Useful Microbes in Forestry, ICFRE State of Knowledge Series-II
- Book on Climate change mitigation and adaptation in forestry sector in India.
- · Book on Bamboos in India

- Book on Ecological Sustainability for Nontimber Forest Products: Dynamics and case Studies of Harvesting.
- Monograph on Butterflies of Garhwal, Uttarakhand, Western Himalaya, India
- Book on Forest Genetic Resource Management
- Book on Advances in Tree Seed Science and Silviculture
- · Book on Pictorial Guide on Shola Trees
- Draft report on Measures for Conservation, Utilization, Research and Education (CURE) for Red Sanders protection and sustainable use
- Booklet on Cultivation prospects of edible bamboo shoots.
- Book on Statistics in Forestry: Methods and Applications

A total of 412 research articles were published by ICFRE in scientific journals of national and international repute and in the books during the year as per the following details:

SI.No.	Name of the Institute	Number of research articles published in scientific journals and books/ proceedings		
		National Journal	Foreign Journal	Chapter in Books / proceedings
1	ICFRE, Dehradun	1	4	4
2	FRI, Dehradun	69	56	19
3	IFGTB, Coimbatore	24	22	25
4	IWST, Bengaluru	13	21	18
5	TFRI, Jabalpur	12	7	15
6	AFRI, Jodhpur	21	8	12
7	RFRI, Jorhat	16	8	7
8	HFRI, Shimla	14	6	2
9	IFP, Ranchi	4	0	0
10	IFB, Hyderabad	0	1	3
	Total	174	133	105



A total of 32 research articles were presented in seminars/conferences/workshops and 55 abstracts and 33 popular articles were also published by ICFRE Institutes during the year as per the following details:

SI.No.	Name of the Institute	Number of articles presented in seminar/conferences/workshops and abstracts and popular articles published		
		Article presented Abstract published		Popular articles
1.	FRI, Dehradun	0	18	3
2.	IFGTB, Coimbatore	0	2	1
3.	IWST, Bengaluru	26	0	2
4.	TFRI, Jabalpur	0	18	7
5.	AFRI, Jodhpur	0	14	19
6.	HFRI, Shimla	6	3	1
	Total	32 55		33

A total of 8 books and 23 booklets, brochures/pamphlets were published by the ICFRE during the year as per the following details:

SI.No.	Name of the Institute	Number of books and booklet, brochures/pamphlets published		
		Books	Booklets/Brochures/Bulletins/Pamphlets	
1	ICFRE, Dehradun	1	0	
2	FRI, Dehradun	3	2	
3	IFGTB, Coimbatore	3	11	
4	IWST, Bengaluru	0	1	
5	TFRI, Jabalpur	1	7	
6	HFRI, Shimla	0	2	
	Total	8	23	

#### 7.1.2 National Forest Library and Information Centre (NFLIC)

- The National Forest Library and Information Centre (NFLIC) is the richest in document collection on forestry and allied sciences in South and South-east Asia. During the year, 25,215 books were loaned to the users for outside reading. Besides, 52,590 documents were consulted inside the library.
- · 656 books and other documents were added
- to the NFLIC during the year. The NFLIC subscribed 26 Indian periodical titles and one International journal for the year. It also received 491 issues of the periodicals as gratis.
- During the year, 241 books were sold to the State Forest Departments, universities, etc.



#### 7.1.3 Environmental Information System (ENVIS)

## 7.1.3.1 ENVIS Centre on Forestry, FRI, Dehradun

- It was established about twenty years ago.
   The ENVIS Centre on Forestry published books entitled Bamboos in India, Environment and Forests News Digest and Poplar in India.
- 7.1.3.2 ENVIS Centre on Forest Genetic Resources and Tree Improvement, IFGTB, Coimbatore
- Posters were released by ENVIS centre on Forest Genetic Resources and Tree Improvement, IFGTB, Coimbatore to create awareness amongst stakeholders on following occasions:
- International Day for Biological Diversity on 22 May 2015.
- International Day for the preservation of the Ozone Layer on 16 September 2015.
- International Mountain Day on 11 December 2015.

- International Day of Forests on 21 March 2016
- During the two days exhibition of the Science Express Climate Action Special (SECAS), information boards were displayed at the platform with highlighted general activity of ENVIS and importance of Forest Genetic Resources and Tree Improvement on 22 and 23 March 2016 at Palakkad Railway Station in Olavakkode, Kerala.



Exhibition of the Science Express Climate Action Special (SECAS)

#### 7.2 Dissemination of Developed Technologies

## 7.2.1 Van Vigyan Kendras (VVKs) and Demo Villages (DVs) 7.2.1.1 Van Vigyan Kendras (VVKs)

Various technologies developed by the Council and its Institutes and State Forest Departments (SFDs) are disseminated to the user groups including farmers and forest based industries under Van Vigyan Kendras (VVKs) scheme that was initiated during 2007-08. Summary of capacity building and other activities are as follows:

SI. No.	Name of Institute	No. of trainings	Days and place	Other activities
1.	TFRI, Jabalpur	4	5 days at Koraput, Odisha	-
2.	RFRI, Jorhat	4	5 days at Arunachal Pradesh	-
		1	5 days at Mizoram	-
		1	2 days at Nagaland	-
		1	3 days at Tripura	-
3.	HFRI, Shimla	-	-	Provided literature
4.	IFP, Ranchi	-	-	MoU signed for two VVKs





#### 7.2.1.2 Demo Villages (DVs)

Dissemination of various technologies developed by the Council and its institutes to the user groups including farmers through demonstration are done through an extension programme i.e. Demo Village (DV) which is in operation since 2007-08. Summary of capacity building and other activities are as follows:

SI.No.	Name of Institute	No. of demonstrations /trainings	Other extension activities
1.	TFRI, Jabalpur	2	Observed International Day for Biological Diversity
2.	RFRI, Jorhat	1	Plantation programme at Meleng grant
3.	HFRI, Shimla	-	Maintenance work





#### 7.2.2 Direct to Consumer Scheme

Direct to Consumer scheme (DTC) was launched in July, 2011 as a novel extension strategy to bring the technological

advancements made through research breakthroughs in ICFRE at the doorstep of enduser without loss of time. The following activities were conducted under DTC:





Bamboo Handicraft Training under DTC at RFRI, Jorhat

13.	-		A
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	4	1	1
	1	12	

SI.No.	Name of Institute	Activities	
1.	FRI, Dehradun	Established Centre for Bamboo Processing and Training Lectures were organized on various aspects of forestry	
2.	RFRI, Jorhat	Three training-cum-workshops of 38 days duration on Bamboo Handicrafts for a total of 70 participants from various parts of Assam, Arunachal Pradesh, Manipur and Meghalaya	

#### 7.2.3 Technologies Transferred

FRI, Dehradun disseminated following technologies:

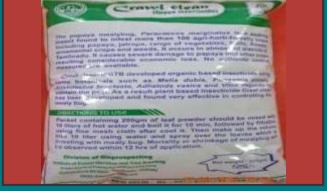
- Rendered various technical services to Indian Pulp and Paper Industries and research organization.
- One-day training programme on value added mushroom products (pickle, soup and nuggets (bari) was conducted with the help of Baghban Gramodyog Samiti, Dehradun on 25 April 2015 that was attended by 32 people at Shyampur, Dehardun, an adopted village of FRI.

IFGTB, Coimbatore disseminated following technologies:

· High yielding clones of Casuarina (1.0 lakh

- plants), eucalypts (0.5 lakh plants) and teak (0.1 lakh plants) were mass multiplied vegetatively and supplied to farmers at affordable price.
- Improved planting stock of teak was mass multiplied through micro-propagation. Four demonstration trials of teak have been laid out in the research stations of IFGTB namely Panampally, Chennai, Neyveli and Tirunelveli. Planting material has been supplied to farmers.
- New bio-pesticide product "Crawl clean" (Green insecticide) against mealy bug, P. marginatus was introduced by Shri Ashok Lavasa, IAS Secretary, MoEF&CC on 15 June 2015.





"Crawl clean" bio-pesticide product released by Shri Ashok Lavasa, IAS Secretary, MoEF&CC

- The new product Vermico-IPM Growth Enricher (Instant Potting medium) was released by Shri Prakash Javadakar, Hon'ble Minister of State(IC), Environment, Forest & Climate Change, Govt. of India on 2 February 2016.
- CFHRD, Chhindwara, a Centre under TFRI, Jabalpur disseminated information on mahua flowers collection method, low cost technology for raising of seedlings of Buchanania lanzan (chironji), preparation

of Jivamrut (biofertilizer) and also a plant based bio-pesticide.

RFRI, Jorhat disseminated following technologies:

Broom grass based agroforestry model:
 Broom grass cultivation on jhum fallows
 intercropping with Cajanus cajan and
 Ananas comosus was recommended to the
 jhumias of Kanchanpur, Tripura by CFLE
 through Mars Socio-welfare society.







Vermico-IPM Growth Enricher released by Hon'ble Minister of state (IC), Shri Prakash Javadekar, MoEF&CC

- Bamboo propagation techniques: Forty farmers in Tripura were motivated to raise bamboo nurseries in their homesteads.
- Techniques to local communities: A
  Technology Demonstration Session on
  Bamboo was organized at Bamboo
  Treatment Centre which is operational under
  Mars socio welfare Society for the local
  Communities of Kanchanpur.
- Low-cost Vermi-composting Techniques: Vermi-composting units made up of treated bamboo and painted with tar were introduced. Market linkages were developed for livelihood promotion through sale of vermi-compost produced by the beneficiaries in West Tripura and North Tripura.









Low cost Vermi-composting Techniques disseminated by CFLE, Agartala



## 7.3 Evolving and Coordinating Comprehensive Extension Strategies In Forestry Research

#### 7.3.1 Seminars/Symposia/Workshops Organized

- Training Workshop on National Bamboo Database Web portal / software usage,
- Consultation Meetings for and National Workshop on DPR Preparation of Forestry Intervention for Ganga,
- Extraction of Genomic DNA from challenging dicot plants,
- Review & Revision of National Forest Policy,
- Bamboo Reserve Management and Advances in Utilization Options,
- Plant Biodiversity and Phyto-luxuriance as a way and means for eternal green globe,
- · Agro-forestry & its management,
- · Bamboo Working Manual,
- REDD+ Himalayas: Developing and using Experience in Implementing REDD+ in the Himalayas,
- · National Database Web Portal,
- Propagation, Nursery Management, Commercial Cultivation and Value Addition of Bamboo.
- Bamboo based Livelihood generation and other Tree species,

- Flemingia based Lac Cultivation,
- Mandatory requirements for designing of plant tissue culture laboratory and Standard Operating Procedures for tissue culture production facility,
- Documentation of Medicinal Plants Ingredients in curing 10 most Common Diseases.
- Seed Grading and On-farm Trials for Productivity Enhancement in Jhum Crops,
- Management of Herbal Gardens and Documentation of Traditional Healing practices,
- Technology extension through Field demonstration of Forest-based livelihood options,
- Cultivation of Atish (Aconitum heterophyllum) and Bankakri (Podophyllum hexandrum),
- Planting activities around natural water resources,
- Agro-forestry vs Productivity, Climate Change Mitigation and Adaptation,

## Summary of Seminars/Symposia/Workshops organized at various ICFRE Institutes/Hg, are as follows:

SI.No.	Institutes/Hqt.	No. of Seminars/Symposia/ Workshops/ meetings organized	Days
1.	ICFRE, Dehradun	10	15
2.	FRI, Dehradun	8	15
3.	IFGTB, Coimbatore	1	1
4.	IWST, Bengaluru	3	7
5.	TFRI, Jabalpur	2	6
6.	RFRI, Jorhat	10	21
7.	HFRI, Shimla	2	2
8.	IFB, Hyderabad	1	1



## 7.3.3 Special Activities (Such as Van Mahotsava, Forestry Day and Other occasions)

#### 45th Earth Day

HFRI, Shimla organised the 45th Earth Day on 22 April 2015 at its upcoming Western Himalayan Temperate Arboretum at Potter Hill, Shimla. Over 100 students and local people participated in the programme. An exhibition of Hill Bamboo products was also displayed.

#### **National Technology Day**

• FRI, Dehradun celebrated the Day on 11 May 2015.

#### International Biodiversity Day (IBD)

 IBD was celebrated on 22 May 2015 by CFRHRD, Chhindwara under TFRI, Jabalpur, AFRI, Jodhpur and HFRI, Shimla. Several programmes were organized on this day such as awareness programme for villagers/public through public rally, extempore speech, slogan/quiz competition, science exhibition etc.



Shri N.K. Vasu, Director, AFRI interacting with the audience on the occasion of the IBD



Celebration of IBD at AFRI, Jodhpur

#### World Environment Day

 FRI, Dehradun observed WED along with FRI Day on 5 June 2015. CFHRD, Chhindwara under TFRI, Jabalpur; AFRI,



Exhibition inaugurated by Director, FRI and student visit during celebration on WED

Jodhpur; RFRI, Jorhat and HFRI, Shimla also observed WED. Various events such as Cleaning campaign, Awareness-cum-Training Programme, Extempore speech, instant slogan writing and Quiz competition for the students, villagers including women



Celebration of IBD at HFRI, Shimla



Celebration of WED at RFRI, Jorhat





Celebration of IBD at HFRI, Shimla

and children were organized. A farmers' meet and consultation workshop on promotion of Forest- based Livelihoods for Environmental Security was also conducted on the occasion.

#### **World Day to Combat Desertification**

 AFRI, Jodhpur and HFRI, Shimla celebrated World Day to Combat Desertification on 17 June 2015. Lectures were delivered and a discussion was also organized. A plantation campaign was also organized at AFRI campus.



Dr. V.P. Tewari, Director, HFRI interacting with the audience on the occasion of the WDCD



Van Mahotsava

- CFRHRD, Chhindwara under TFRI, Jabalpur celebrated on 07 July 2015 by conducting plantation at CFRHRD campus and seedlings were also distributed to the CFRHRD residents.
- FRI, Dehradun celebrated the Van Mahotsava on 17 July 2015.
- AFRI, Jodhpur organized Van Mahotsava on 7 August 2015 in the Arboratum of the institute. Plantation of Different species was done in the Arboratum on this occasion.



Celebration of Van Mahotsav at AFRI, Jodhpur

- IFP, Ranchi celebrated 'Van Mahotsava' on 07 August 2015. On the occasion, Dr. S. A. Ansari, Director, IFP alongwith all Scientists under different divisions of IFP and all officials took participation in plantation of different species.
- HFRI, Shimla celebrated 66th Van Mahotsava on 14 August 2015 by the officers and officials of this institute at its campus by planting plants of various species.



Celebration of Van Mahotsav at HFRI, Shimla



#### **Himalayan Day**

FRI, Dehradun celebrated the Day on 9
September 2015. The theme was "Sabka
Himalaya" aimed at creating awareness
amongst the general public including
visitors. An exhibition was organized at FRI,
Dehradun on this occasion.



Inauguration of exhibition at FRI on Himalayan Day

#### Swatchh Bharat Abhiyan

 Swatchh Bharat Abhiyan was celebrated on 146th birth anniversary of Mahatma Gandhi on 2 October 2015. The cleanliness campaign was conducted across the ICFRE Institutes and centres on this Day.



Swatchh Bharat Abhiyan at FRI, Dehradun

#### Wildlife Conservation Week

 CFRHRD, Chhindwara under TFRI, Jabalpur conducted Bird Watching Campaign and Nature Awareness programmes for school students of various schools of Chhindwara District from 2 to 4 October 2015 under the Wildlife Conservation Week programme organized by State Forest Department, Chhindwara.

#### Vigilance Awareness Week

 Vigilance Awareness Week was observed from 27 to 31 October 2015 across the ICFRE Institutes. Activities like essay competition, slogan writing and poster preparation competition was also organized to mark the occasion.

#### **World Forestry Day**

- FRI, Dehradun celebrated the Day on 21 March 2016. An Exhibition was organized at the Institute which included posters and models depicting the achievements of the Institute.
- IWST, Bengaluru observed the Day on 21
  March 2016. The theme of this year was
  "Forests and Climate Change". On this
  occasion, a lecture on "Climate change with
  relevance to Karnataka and Goa and its
  suggested amelioration" was organized
  along with a planting programme.

#### **National Forest Martyrs Day**

 To commemorate the sacrifices made by forest officials who laid down their lives to protect forests and wildlife, National Forest Martyrs Day was observed at Brandis Road, FRI on 11 September 2015. In an address by DG, ICFRE on National Forest Martyrs Day, he pointed out that a total of around 1400 forest officials have so far laid their life while safeguarding the country's forest wealth and wildlife. It was attended by a large number of employees from ICFRE, FRI, IGNFA and other institutes. Two minutes of silence were observed in memory of the Martyrs.



FRI, Dehradun observed National Forest Martyrs Day



#### Kisan Mela/Exhibition/Trade fair etc.

 IWST, Bengaluru & Sandalwood Society of India jointly organized Sandalwood Growers Meeting on 7 November 2015 at IWST, Bengaluru. About 250 farmers participated in the mela. The Mela was inaugurated by Shri. G.M. Siddeshwara, Hon'ble Minister, Heavy Industries and Public Enterprises, Government of India.



Sandalwood Growers Meeting organized jointly by IWST, Bengaluru & Sandalwood Society of India

• RFRI, Jorhat organized a 'Farmers' Meet' on 16 November 2015. More than 300 farmers, tree growers, bamboo artisans, craftsmen, agar traders, JFMC members and government officials attended the Meet. An exhibition showcasing research & development activities of the Institute was also organized on the occasion. Minister of State (Independent Charge) for Environment, Forest & Climate Change, Government of India, Shri Prakash Javadekar and Member of Parliament, Jorhat, Shri Kamakhya Prasad Tasa apart from various high level Officials from Ministry participated in the Meet.



ICFRE stall in Indian Science Congress
Exhibition at Mysore University

- ICFRE participated in Indian Science Congress Exhibition held at Mysore University, Mysuru from 3 to 7 January 2016. The ICFRE activities were showcased by IWST, Bengaluru.
- AFRI, Jodhpur participated in the Paschimi Rajasthan Udhyog Hastshilp Utsav 2016 organized in Jodhpur under the aegis of District Industries Center, Jodhpur and Industries Association from 7 to 17 January 2016 by putting a stall in the utsav.
- AFRI participated in the Arogyam 2016 Mela organized by Ayurveda Department, Jodhpur, at Jodhpur from 28 to 31 January 2016.
- RFRI, Jorhat represented ICFRE under Ministry of Environment, Forest & Climate Change, Government of India in the Exhibition at "Destination North East, 2016" organized by Ministry of DoNER in collaboration with Ministry of Culture, Government of India from 12 to 14 February 2016 at Pragati Maidan, New Delhi.
- · CFLE, Agartala under RFRI, Jorhat



Hon'ble Minister, MoEF&CC addressing the gathering during Farmers' Meet



RFRI exhibition stall at "Destination North East, 2016 at Pragati Maidan, New Delhi



organized Livelihood Forestry Mela on 26 March 2016.

#### Radio Talks

- ◆ Representatives of IFGTB, Coimbatore delivered 4 talks which were broadcasted from All India Radio, Coimbatore as follows:
  - Seed production and seed handling procedure (in Tamil) on 23-8-2015.
  - Biofertilizers and bio control methods for management of diseases in tree crops (in Tamil) on 22-9-2015.
  - Wind breaking trees on 2-11-2015.
  - Teak cultivation practices (in Tamil ) on 9-11-2015.
- ◆ Representatives of HFRI, Shimla delivered 1 chat which was telecasted live on Doordarshan Kendra, Shimla and 2 talks which were broadcasted from All India Radio (FM), Bhadrwah, District Doda as follows:
  - Medicinal plants of North- West Himalayas on 30-10-2015.
  - Scope of medicinal plants in Chenab valley, J&K and Intercropping of medicinal plants in temperate orchards on 4-2-2016.
- ◆ Representative of RFRI, Jorhat delivered

Radio Talk in an Interactive Programme with farmers on 'vermi-composting', 'small-scale bamboo industry' (agar stick making and other handicraft) and 'Cropping of King chilly' in Demo Village in December 2015.

- ◆ Representatives of FRI, Dehradun delivered 1 talk which broadcasted from All India Radio, Delhi (MW&FM- Rainbow) and 2 talks which were telecasted from Doordarshan Kisan as follows:
  - Dissemination of technologies through VVKs and other extension activities on 16-2-2016.
  - Value addition and utilization of forest weeds with special reference to Lantana camara and Cultivation and utilization of medicinal plants with special reference to Lemon Grass (Cymbopogon fleseosus) on 22-1-2016.
- Representatives of TFRI, Jabalpur delivered 2 talks which were broadcasted from All India Radio (Bhopal, Indore, Jabalpur) from 18 to 23 March 2016 on the following topics:
  - Utilization of spider-silk through biotechnology.
  - Prospects of spiders as bio-control agent of pest insects in organic farming.

#### 7.4 Consultancy Services

## ICFRE, Dehradun submitted reports of the following projects:

- Draft final report of -
  - Cumulative Impact of Hydro-power Projects on River Yamuna and Tons and its tributaries, Uttarakhand,
  - Cumulative Environmental Impact Assessment Studies (CEIAS) of Hydroelectric Projects on Sutlej River Basin in Himachal Pradesh,
  - Environmental Impact Assessment and Environmental Management Plan for Tosh-Parvati (Nakthan) 460 MW HEP Project, Himachal Pradesh.
- Final Report of Carrying Capacity study of Saranda region in West Singhbhum District, Jharkhand.
- Provisional Reclamation and Rehabilitation Plan (R&R Plan) of 15 mines of category 'C' of

Bellary, Chitradurga and Tumkur prepared as per directives of Central Empowered Committee (CEC) of Hon'ble Supreme Court.

#### FRI, Dehradun

- Consultancy services provided to Bharat Coking Coal Limited, Dhanbad for Ecological restoration of coal mined areas.
- Paper samples received from Govt. organizations and private industries were tested for physical and optical properties as per BIS specifications.
- Uttarakhand State Forest Department for guiding Trap Tree Operations for the management of the sal heartwood borer, Hoplocerambyx spinicornis in the state.
- Phyto-sanitary certificatication was given for *Moringa oleifera* seed lots being exported to Mexico.
- Technical inputs were given to Deputy



Director (PP), for Plant Protection Advisor to the Gol, Directorate of Plant Protection, Quarantine & Storage, NH IV, Faridabad -121 001 (Haryana) on Import of *Eepisyrphus balteatus* and Import of Queen bee into India from Argentina.

#### IFGTB, Coimbatore

 Licensing of Casuarina clones with stakeholders

Licensing of Casuarina Clones to International Papers - APPM Limited, Rajahmundry and progressive farmers of Karnataka and Andhra Pradesh: The Institute has been supplying high-yielding seeds from its intensively managed seed orchards to tree growers like farmers, industries and forest departments. In order to introduce new fast growing clones in their farm

forestry programme, APPM Ltd. has entered into a License Agreement with IFGTB to commercially propagate five clones of Casuarina (CJ 7, CJ 9, CJ 10, CH 1 and CH 2) developed by the institute and supply to farmers. The Company has paid a one-time license fee for the non-exclusive license to propagate these clones for a period of ten years.

#### TFRI, Jabalpur

- Avenue plantation at PDP-IIITDM campus in tandem with ecological integrity of the area funded by IIITDM, Jabalpur.
- Preparation of Wildlife Conservation Plan for four different mines and two railway projects were carried out during the year.

#### 7.5 Activities of Rajbhasha

- ICFRE celebrated Hindi Week from 7 to 14
  September 2015. Five competitions were
  organized during the Week and more than
  100 officers, scientists and employees
  were present during the closing ceremony
  that was held on 14 September 2015.
- ICFRE, Dehradun organized Hindi training workshop on 15 October 2015. More than 30 employees attended the training.
- ICFRE published Hindi Magazine 'Taruchintan'.
- RFRI, Jorhat conducted following activities:
  - Hindi workshops on 23 June 2015, 14 December 2015 and 28 March 2016.

- Hindi Week from 8 to 15 September 2015.
- Released six- monthly Hindi & Assamese e- magazine "Varsharanyam".
- IFGTB, Coimbatore conducted following activities:
  - Hindi Workshops on 26 May 2015 on "Importance of Hindi in Central Government Office and working in Hindi on I.T.Tools" and on 15 December 2015 on "Noting and Drafting in Bilingual".

**IWST, Bengaluru** conducted the following Rajbhasha activities:



"Varsharanyam" Hindi & Assamese six monthly E-magazine



- Hindi Fortnight was observed from 14 to 28 September 2015.
- Official language Orientation programme for officers of the Institute on 29 September 2015.

**AFRI, Jodhpur** conducted following activities:

- Training on Saransh Software for newly appointed clerks.
- Hindi Fortnight from 14 to 28 September 2015.

## IFP, Ranchi conducted following activities:

- Hindi Fortnight from 1 to 15 September 2015.
- Aworkshop on 'scientific writing in Hindi'.

**TFRI, Jabalpur & HFRI, Shimla** organized Hindi Day and Hindi fortnight during the month of September 2015.

#### 7.6 Awards and Honours

- Dr. Vishavjit Kumar and Alok Yadav was awarded with prestigious Brandis Prize on 02.12.2015 for contribution, research paper entitled 'Vegetative propagation through air layering of *Guadua angustifolia* Kunth- A commercially important Bamboo' in Indian Forester, December, 2013 issue, in the field of forestry for year 2013.
- Dr. Hukum Singh, Research Officer, FRI, Dehradun received Young Scientist Awards for the year of 2015 from Venus International Foundation, Chennai Tamil Nadu, India. He also received Young Scientist Awards in Forestry and Environmental Science from Uttarakhand Council of Science and Technology (UCOST) Dehradun.
- Poster presentation entitled "GC-MS Analysis of Fruit Fatty oil of Ficus auriculata for Profiling of Bioactive Chemical Composition" Nishat Anjum and Y.C. Tripathi of FRI, Dehradun in the 14th Symposium on Phytochemistry and Ayurveda: Potential and Prospects, held on 19 December 2015 at Tasmia Academy, Dehradun (Uttarakhand) bagged 1st Prize for Best Presentation.
- Poster presentation entitled "Antimicrobial Natural Dyes from Melia dubia for Protective, Functional and Value Added Textile Products" by Anita Pal, Rakesh Kumar and Y.C. Tripathi of FRI, Dehradun in the 14th Symposium on Phytochemistry and Ayurveda: Potential and Prospects held on 19 December 2015 at Tasmia Academy, Dehradun (Uttarakhand) won 3rd Prize for Best Presentation.

- Paper entitled 'Phytochemical approaches towards efficient utilization of *Pinus* roxburghii needles' by Pallavi Dubey, Pradeep Sharma and Vineet Kumar of FRI, Dehradun was awarded for the 'Young Scientist Award' in the 10th Uttarakhand State Science and Technology Congress held at Vigyan Dham, Dehradun from 10 to 12 February 2016.
- Sh. Arvind Kumar, Scientist-D, FRI, Dehradun was awarded Scientist of the year, 2015 (Entomology) by the Society for Upliftment of Rural Economy, Varanasi.
- Dr. Manisha Thapliyal, Scientist E, FRI, Dehradun was awarded IUFRO-SPDC (Special Programme for Development of Capacities) fellowship by IUFRO (Vienna) for attending a training workshop on 'Systematic Review in Forest Science' at Forest Research Institute Malaysia at Selangor, Malaysia from 17 to 19 November 2015.
- Dr. Mathish Nambiar-Veetil, Scientist E, IFGTB, Coimbatore was awarded DAAD fellowship for pursuing a study at the University of Osnabruck, Germany.
- Dr. Mathish Nambiar-Veetil, Scientist E, IFGTB, Coimbatore was selected for Fulbright-Nehru Academic and Professional Excellence fellowship programme of the USIEF, to pursue a study in 2016-17 at the University of Wisconsin, Madision, USA.
- Dr. A. Shanthi, Scientist-C, IFGTB, Coimbatore received best paper presentation award (2nd) for the paper entitled "Identification of Isozyme markers



for species discrimination in *Swietenia* macrophylla and *Swietenia* mahagoni" in the National Conference held at Bharathidasan University, Trichirappalli on 10 and 11 March 2016.

- The 7th DNA and Stars of Industry Group conferred Education Leadership Award to IWST. The award is in recognition of Leadership, Development, Innovation and Industry Interface carried out at the Institute
- Dr Tarun Kant, Scientist- F, AFRI, Jodhpur received the "B.P. Pal Memorial Gold Medal" by the Honorable Prime Minister Shri Narendra Modi during the 103rd Annual Session of the Indian Science Congress at Mysore University on 3 January 2016.
- Dr. Vipin Parkash, Scientist D, RFRI, Jorhat has been selected for Young Scientist of the Year - 2015 Award instituted by the International Foundation for Environment and Ecology, Kolkata and Confederation of Indian Universities, New Delhi in recognition to his outstanding contribution to the society especially in the field of Farming/Agriculture/ Forestry directly or indirectly.

#### **Distinguished Visitors**

 Sushri Uma Bharti, Hon'ble Minister for Water Resources, River Development & Ganga Rejuvenation; Shri Prakash Javadekar, Hon'ble Minister of Environment, Forest and Climate Change; Shri Shripad Yesso Naik, Hon'ble Minister, AYUSH, Shri Sarbanand Sonowal, Hon'ble Minister, Youth Affairs & Sports; Shri Harish Rawat, Hon'ble Chief Minister of Uttarakhand and Shri Dinesh Aggarwal, Hon'ble Forest Minister of Uttarakhand visited FRI, Dehradun on 02 July 2015.



Sushri Uma Bharti, Hon'ble Minister for Water Resources, River Development & Ganga Rejuvenation visited FRI, Dehradun

- Shri Prakash Javadekar, Hon'ble Minister for MoEF&CC visited IWST, Bengaluru and reviewed the progress of the research activities on 19 October 2015.
- Shri Kamakhya Prasad Tasa, Hon'ble Member of Parliament, Jorhat, Assam visited RFRI, Jorhat on 13 November 2015 and took part in the Valedictory Session of Training on Bamboo Handicrafts.
- Shri Prakash Javadekar, Hon'ble Minister of State (Independent Charge) for MoEF&CC, Government of India visited RFRI, Jorhat (Assam) on 16 November 2015 and participated in a 'Farmers' Meet' organized by the Institute.
- Shri Bali Bhagat, Hon'ble Forest Minister, Govt. of J&K and Shri A.K. Singh, PCCF, Govt. of J&K visited IWST, Bengaluru on 22 December 2015.
- Shri Prakash Javadekar, Hon'ble Minister of State (Independent Charge) for MoEF&CC, Government of India accompanied by Dr. Anil Kumar, IFS, Addl. DG from the Ministry visited the ARCBR, Bethlehem Vengthlang, Aizawl, Mizoram on 9 January 2016.



Visit of Shri Prakash Javadekar, Hon'ble Minister of State (Independent Charge), MoEF&CC



Inauguration of Exhibition by Hon'ble Minister of State (Independent Charge), MoEF&CC