



04

Extension Panorama



EXTENSION PANORAMA

The Council endeavors to transfer and disseminate the technologies developed to the intended target groups including farmers, SFDs, Industries, rural poor and unemployed youth. ICFRE institutes and centres conduct following activities for extension:

- Publication of targeted literature,
- Organizing workshops, interactive meetings, symposia seminars, trainings, awareness programmes,
- Creating awareness through radio and tv talks
- Running extension programmes through Van Vigyan Kendras, Demo Villages, Networking of VVKs with KVKs of ICAR and Tree Growers Mela. A brief account of extension activities is summarized below:

4.1 Seminars/ symposia/workshops organized

Creating awareness for revival, recharging, sanitation and hygiene of natural water resources

Interaction meetings were held for prioritization of natural water sources for their rejuvenation in Himachal Pradesh. Two natural water sources were repaired and farmers were involved in planting activities around natural water sources.

Arachnarium at TFRI, Jabalpur

This Arachnarium is first of its kind in India. The spider display unit- cum- interpretation centre has been provided with 50 numbers of colour blowups (2 x 3 ft) of spiders showing their diversity in central India. The spider garden was landscaped with terrestrial and aquatic microhabitats where live spiders

are establishing their populations. Identified 125 species of spiders in MP/CG, out of which five species are recorded for first time in state and one in India.

Ethno-botanical study on indigenous medicinal and aromatic plants used by local people

Ethno-botanical information on medicinal and aromatic plants was collected from Chopal Forest Division by HFRI, Shimla. Of the 102 medicinal plants used by the farmers, 55 were herbs, 24 shrubs, 17 trees, 5 climbers and one fungi. Training on importance of ethnobotany in traditional health care, intercropping with horticulture plantations, sustainable harvesting and marketing of medicinal plants was given to the farmers.



Training on creating awareness for revival, recharging, sanitation and hygiene of natural water resources



Arachnarium under establishment at TFRI, Jabalpur

Awareness training for conservation of *Pinus gerardiana* (Chilgoza)

The NABARD funded project initiated during the year to create awareness amongst the local people of Kinnaur district of Himachal Pradesh to take up scientific harvesting of chilgoza cones with the help of multi-angular long reach pruners to avoid unnecessary damage to the branches of the trees in traditional harvesting techniques thereby help conserve the species.

A brief summary of seminars/ symposia/workshops organized are as follows:

Name of institute	No.	Days
ICFRE	4	4
FRI	3	3
IFGTB	3	7
IWST	3	6
TFRI	1	1
RFRI	23	59
AFRI	1	2
HFRI	4	6
IFB	2	5

4.2 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 Southeast Asia. The NFLIC has been providing all types of library and information services, viz, reference referral, lending, reprography, current awareness, inter-library loan, retrieval of information from machine readable database, etc. to its users.

The document collection of the NFLIC was enriched by the addition of 898 books and other documents. The NFLIC subscribed to 43 Indian periodical titles and 13 International journal for the coming year. It also received 439 issues of the periodicals as gratis.

4.3 Environment Information System (ENVIS) Centers

The Centre at the NFLIC, FRI, Dehradun involves in activities like preparing databases on Indian Forestry Abstracts, Participatory Forest Management, *Prosopis juliflora*, Poplars and Environment and Forests in Press

which are accessible through the website of the Centre at URL: www.frienvis.nic.in.

The ENVIS Centre on Forestry published six issues of *Environment and Forests News Digest*.



4.4 Report on activities of Van Vigyan Kendras (VVKs)

IFGTB-VVK-KVK Meet: IFGTB convened a meeting with the Krishivigyan Kendra (KVK), Van Vigyan Kendra (VVK) and College of Forestry (COF) at KVK Thrissur, Kerala on 16th December, 2016. A team of 7 Scientists led by the Director IFGTB deliberated during the proceedings.

IWST, Bengaluru conducted six different training programmes for Over 200 farmers and other stakeholders on various subjects including Sandalwood cultivation and other forestry related aspects.

AFRI, Jodhpur raised 3000 quality seedlings in Hi-Tech nursery at Bichhwal, Bikaner for distribution to farmers and to promote agroforestry under VVK. Two trainings were organized under VVK in Rajasthan for over 50 farmers and other stakeholders. A total of 5000 seedlings were raised to promote agroforestry among the farmers at VVK, Chhipardi Beedi, Rajkot (Gujarat). A three days training programme on "New Techniques in Forestry and Agroforestry" was organized at Bhuj Gujarat under VVK, Rajkot for 76 farmers.

4.5 Technologies transferred

Dissemination of developed technologies

- Solar seasoning kiln of 250 cft capacity has been installed at Waghai, Gujarat for Gujarat Forest Department by FRI, Dehradun.
- Cultivation of *Ganoderma lucidum* and edible mushrooms: Technical support was given with the Baghban Gramodyog Samiti at Shyampur, Dehradun, an adopted village of FRI, for extension of technology for edible and medicinal mushroom cultivation to local NGOs and Women Self-Help Groups in edible and medicinal mushroom cultivation.

IFGTB, Coimbatore

A free mobile app on "Tree Pests of India" has been released: ENVIS IFGTB has developed a free mobile APP on Tree pests of India. The App provides information on insect pests, their description, damage caused and symptoms and managements strategies of 25 important tree species of India.

- Five superior clones of *Casuarina junghuhniana* were developed for windbreak agroforestry systems and Variety Release Committee (VRC) of ICFRE approved during March, 2014 for the release based on the recommendation of Regional Variety Testing Committee (RVTC) of IFGTB. These released clones were mass multiplied and used to establish demonstration plots of Windbreak agroforestry system as well as being supplied to several needy farmers. So far, 25000 ramets (planting stocks) of these five windbreak clones have been supplied to the farmers/stakeholders. Around 50 ha of area have been covered under windbreak clones of IFGTB.

TFRI, Jabalpur

- Two types of solar dryers designed and developed by the institute were transferred to processing centers of State Forest Department of Madhya Pradesh for processing of medicinal plants.
- Processing Techniques of medicinal plants using solar dryers was demonstrated to Forest Officials of Madhya Pradesh Minor Forest Produce Federation, Bhopal.
- Developed value added products from Mahua (*Madhuca indica*) and Bamboo. The Govt. of Bihar evinced interest in the non-alcoholic value added products of Mahua post prohibition and the technology was extended to the forest department through invited lecture/demonstration.

RFRI, Jorhat

- Artificial induction of agar-wood technology was transferred to various farmers and entrepreneurs from Telengana and Assam.

Cultivation of wild mushrooms technology was transferred to some entrepreneurs of Nagaland through training programme. The training programme was sponsored by North-East Centre for Technology Application and Reach (NECTAR).

AFRI, Jodhpur

Macropropagation and micropropagation technologies developed for multiplication of Neem trees was transferred to State Forest Research Laboratory, Gandhinagar. In bamboo, tissue culture technique so developed, were used and cultures were initiated which involves axillary bud break, *in vitro* shoot multiplication and *in vitro* rooting of shoots. This Tissue- Culture technique as well as cultures were transferred and demonstrated to State Forest Research Laboratory, Gandhinagar.



4.6 Research Publications

During the year 273 research papers were published in the journals of repute. Besides research papers, 10 books and a number of other publications were brought out. Some of the important publications include Annual Reports of ICFRE

for the year 2015-16, biannuals – ICFRE Newsletter and Vaniki Samachar, A manual for Dryland Afforestation and Management, Sacred Groves of Rajasthan etc. The summary of the publications is as follows:

Name of institute	Publications						
	National journal	Foreign journal	Chapters in Books/ Proceedings	Popular articles	Abstract published	Brochure etc	books
ICFRE	-	1	6	-	-	5	-
FRI	65	12	21	5	35	-	-
IFGTB	16	26	34	2	9	30	2
IWST	18	17	15	2	38	5	4
TFRI	38	4	8	14	11	39	-
RFRI	6	17	4	1	12	-	-
AFRI	21	2	4	6	18	24	4
HFRI	15	9	6	16	25	7	-
IFB	4	1	9	-	4	-	-
IFP	1	-	-	-	-	-	-
Total	184	89	107	46	152	110	10

4.7 Consultancies and Technical Services

ICFRE, Dehradun

- The Environment Management Division, Directorate of Extension, ICFRE, Dehradun completed 11 individual Reclamation and Rehabilitation (R&R) Plans for the mines in Bellary, Chitradurga and Tumkur Districts as per the directions of the Hon'ble Supreme Court in line with Central Empowered Committee (CEC) guidelines and submitted to Department of Mines and Geology, Government of Karnataka.
- Further four (04 nos.) Environmental audit reports of coal mines of Coal India Limited (CIL) subsidiaries were completed and submitted to CIL, Kolkatta.
- The Report on EIA Study on Rabindra Rangshala entrusted by MoEF&CC, GoI, New Delhi was completed and submitted to MoEF&CC as per the directions of the Hon'ble Supreme Court.

IWST, Bengaluru

- Consultancy Services to M/s Volvo Eicher Commercial Vehicles (VECV) India Ltd on Tree Transplantation services

TFRI, Jabalpur

- Use of ash pond decant water for agriculture purpose around NTPC Ramagundam Super Thermal Power Station (Funding agency – NTPC Ramagundam, Talangana; Cost – Rs. 40 lakh).

RFRI, Jorhat executed one Consultancy Project entitled "Preparation of Biodiversity Management Plan, Regional Wildlife Plan and Carrying Capacity Study for the Makum Coal Fields in Assam", funded by Northeastern Coalfields Ltd. (NEC), Margherita, Assam.

HFRI, Shimla completed a consultancy - "Monitoring and Evaluation of Plantations Raised by Himachal Forest Department during the year 2010-11 to 2013-14 under H.P. State CAMPA". The institute is implementing the consultancy - "Monitoring & Evaluation of Plantations Raised during the Year 2014-15 & 2015-17 under H.P. State CAMPA".

IFB, Hyderabad is implementing a consultancy titled "Enumeration, geotagging and inventorization of tree-biodiversity at Ramagundam power plant operated by NTPC.



4.8 Activities of Rajbhasha

ICFRE celebrated Hindi Week from 7 to 14 September 2016. Six competitions were organized during the week.



Guests on dais at closing ceremony of Hindi Week at ICFRE, Dehradun

4.9 Awards and Honours

- 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.
- Prestigious Brandis Prize for the year 2014 was awarded to Dr. Vaneet Jishtu, Scientist-C of HFRI for best research paper entitled "*Juniperus polycarpus* C. Koch forests and its Conservation Status in Cold Deserts of Himachal Pradesh, North West Himalayas", which was published in April, 2014 issue of Indian Forester.

4.10 Special Activities (Such a Van Mahotsava, Forestry Day and Other occasions)

Demonstration of Fire Safety Drill:

- Forest Research Institute and CISF team working with ONGC organized a joint Fire Safety Drill at the convocation hall of FRI on 3 May 2016.

Swachh Bharat Abhiyan

- Swachh Bharat Abhiyan on the occasion of 147th birth anniversary of Mahatma Gandhi was observed across the ICFRE, Institutes on 2 October 2016.



International Day for Biological Diversity

IFGTB, Coimbatore, IWST, Bengaluru, TFRI, Jabalpur, AFRI, Jodhpur, RFRI, Jorhat, HFRI, Shimla aCFLE, Agartala observed

International Day for Biological Diversity (IDB) 2016 on 22 May 2016 in a befitting manner. The theme of IDB-2016 was 'Mainstreaming Biodiversity; Sustaining People and their Livelihoods'.



International Day for Biological Diversity at HFRI, Shimla

Radio/TV talks

Representatives of the **FRI, Dehradun** delivered the followings talks on AIR/ Doordarshan:

- TV Talk and presentation on Krishi Darshan Programme on Tissue culture on Neem and Improvement of Baans at FRI
- A TV Talk of Dr. Shashi Kumar, Director General, ICFRE, Dehradun was recorded by Doordharshan Kendra, Dehradun on 13 February 2017.
- Two Radio Talks were recorded and broadcasted by AIR (All India Radio), Nazibabad on "Poplar Production in Agroforestry" by Dr. Dinesh Kumar of FRI on 16 February 2017 & "Estimate of Soil status in use of different types of land" by Dr. Parul Bhatt of FRI on 23 February 2017

Representatives of **RFRI, Jorhat/ CFLE Agartala** delivered the followings talks:

- TV Talk on "Role of low-cost vermicomposting in livelihood development" on 16 June 2016 at HEADLINES TRIPURA – (A TV Channel of repute), Agartala.

- Radio Talk on "Selection of species for Social Forestry" in Prasar Bharati, Jorhat Centre and broadcasted on 16 September 2016.
- An interview of Dr. V.P. Tewari, Director, HFRI, Shimla was telecasted by ETV, HH (Himachal-Haryana), in weekly programme, "Shaksiyat" on 26 February 2017.
- A documentary on **IWST** museum was made by Suddhi TV, a Kannada News Channel on 22 November 2016. Group Coordinator (Research) and Extension Officer gave the interview to the channel. The programme was telecasted on 29 November 2016.
- Representative of **CFRHRD, Chhindwara** delivered a Radio Talk on "*Jaivik Kheti*" on All India Radio, Chhindwara during the month.