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## Brainstorming Workshop Strengthening of Forestry Extension System in India



**Date: 22 June 2023**

**Venue: ICFRE, Dehradun, Uttarakhand**

**Indian Council of Forestry Research and Education**  
(Ministry of Environment, Forest and Climate Change, Government of India)  
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## Strengthening of Forestry Extension System in India

### Background

In India, about 300 million population is directly or indirectly dependent on forests, most of whom are rural poor, with little land and limited livelihood options. With such high degree of dependence on the forest, the per capita availability of forest land in India is one of the lowest. Forests in India are a significant source of sustenance for tribal and vulnerable populations living inside and on the fringes of the forests. Forests also play a critical role in supporting biodiversity which constitutes a good part of income generation for the forest fringe communities. As a result of anthropogenic pressure on natural resources, the scale and impact of forest degradation are severe in the country. Degraded landscapes are more prone to invasion by invasive alien species, which compete with native species and lead to further land degradation, productivity reduction and biodiversity loss. Managing land that is undergoing degradation and desertification, is therefore a significant priority in the context of achieving India's national targets, international commitments related to Nationally Determined Contribution, Land Degradation Neutrality, and Sustainable Development Goals towards restoration of degraded forest lands, biodiversity conservation and climate change mitigation & adaptation.

The Indian Council of Forestry Research and Education (ICFRE) with its nine research institutes and six Centres has the mission "to generate, advance and disseminate scientific knowledge and technologies for ecological security, improved productivity, livelihood enhancement and sustainable use of forest resources through forestry research and education". In this endeavour, ICFRE for the past more than three decades have been working for long-term ecological stability, sustainable development and economic security through conservation and scientific management of forest ecosystems by undertaking studies in different aspects of forestry. This has resulted in production of high yielding improved varieties of some of the fast-growing species have developed agroforestry models of different species for different agroclimatic zones of the country, have produced quality products to boost the growth of seedlings in the nursery, developed harvesting techniques of bamboos, suggested ways and means for sustainable harvesting of non-timber forest produces, developed restoration models for mined out areas etc. All these efforts of ICFRE and its institutes are making contribution to meet the national targets of bringing one third area of the country under forest besides conforming to targets of Sustainable Development Goals and Land Degradation Neutrality and Nationally Determined Contribution.

Unlike agricultural crops, the economic returns from tree crops are generally realised late. Also, the absence of regularised market, assured price of the produce, transit rules and regulations make it difficult to convince the farmers to venture into tree planting as an entrepreneur. Consequently, the utility of improved clones or varieties of commercially important trees fail to scale up despite the high economic return they are expected to make. Agriculture crops find their way straight to the farmers at the remotest place of the country

with vibrant extension service delivered through the network of Krishi Vigyan Kendras for dissemination of knowhow, quality seeds or planting materials and onsite demonstration tests besides programmes aired on All India Radio and national TV Channels like Krishi Darshan with far reaching impacts. ICFRE with its main stakeholder- the State Forest Department in majority of the states have signed memorandum of understanding of leveraging their complimentary competences and sharing of resources, has been making consistent efforts to disseminate its research findings to the farmers. ICFRE has also signed a memorandum of understanding with Indian Council of Agricultural Research (ICAR) and collaborating with Krishi Vigyan Kendras (KVKs) to effectively involve rural communities not only in afforestation activities but also making them understand livelihood support that forestry sector can generate. ICFRE has also established 34 Van Vigyan Kendras (VVKs) through its nine research institutes for dissemination of its research findings with active support of the State Forest Departments and KVKs to the end users by organising training and demonstration programmes and exposure visits. ICFRE has also established Demo villages for extending the technologies from lab to land. Performance and usefulness of these villages need to be discussed so that further action to strengthen this program could be taken.

However, due to long gestation period of tree crops, lack of assured buy-back and lack of vibrant extension activity calendar with continuity of the programme to convince the target groups the success has not been as per the expectations. An appraisal of the functioning of the existing VVKs in ICFRE has highlighted some of the gaps which require brainstorming to strategize the extension activities for the technologies, clones/varieties, products/models developed by ICFRE for their dissemination and use by the end users/ stakeholders.

The World Bank is supporting Ecosystem Services Improvement Project (ESIP) in selected landscapes in Madhya Pradesh and Chhattisgarh with an overall objective to improve forest quality, sustainable land management and NTFPs benefits for forest dependent communities. ESIP supports the goals of Green India Mission by demonstrating models for adaptation-based mitigation through sustainable land and ecosystem management and livelihood benefits. Strengthening of the Van Vigyan Kendra is one of the activities under the Ecosystem Services Improvement Project. Accordingly, a study was conducted to evaluate working and effectiveness of VVKs established in different states in fulfilling the objectives of forestry extension services to enable technologies from lab to land and make practicable suggestions to improve upon the working and effectiveness of VVKs in future.

ICFRE has organised a national workshop on Agroforestry and Farm Forestry for Sustainable Land and Ecosystem Management in the month of January 2023 under ESIP. One of the recommendations of the workshop related to forestry extension was to develop a mechanism for knowledge sharing and its dissemination for extension of agroforestry related research findings, best practices, success stories from lab to land, and to strengthen the VVKs.

The brainstorming workshop on Strengthening of Forestry Extension System in India will be organised under the World Bank funded Ecosystem Services Improvement Project with a

motive to share forestry extension experiences of ICFRE, ICAR, State Forest Departments and to get the views and ideas of experts for developing suitable strategies and action plan for strengthening of forestry extension system in India. Outcome of the brain storming workshop will be further deliberated and finalized in a second roundtable discussion at New Delhi. The final outcome of the workshop will be useful in providing research backstopping to the different stakeholders for meeting national targets and international commitments related to forest sector of the country.

### Objective

The objective of the brainstorming workshop is to develop suitable strategies and action plan for strengthening of forestry extension system in India.

### Methodology

About 80 participants from MoEFCC, the World Bank, ICFRE, ICAR, state forest departments, S&T organisations, academic & training institutions, Krishi Vigyan Kendras, NGOs, forest-based enterprises/ cooperatives, wood-based industries, mining companies, tree growers, farmers etc. are expected to participate in the brainstorming workshop. Following four working groups targeting the stakeholders' specific forestry extension need will be formed for group discussion and group exercises in the brainstorming workshop:

- **Working Group 1:** Forestry extension for SFDs
- **Working Group 2:** Forestry extension for farmers and tree growers etc.
- **Working Group 3:** Forestry extension for forest-based enterprises, wood-based industries and mining companies
- **Working Group 4:** Forestry extension/ knowledge sharing for academic and training institutions, key ministries/ departments, S&T organisations

The Working Group 2 and 3 need to discuss issues behind reluctance of farmers to take up tree plantation unlike agriculture – lack of assured buy-back, long gestation unlike agricultural crops, etc. and come up with recommendations. Issues to be discussed will include a forum to bring all the stakeholders together such as a consortium of farmers, industries providing assured buy-back, financial institutions providing credit based on bankable proposals (particularly, for block plantations since subsidy has been withdrawn post-merger of agroforestry with Rashtriya Krishi Vikas Yojana (RKVY)) and a facilitating institution such as state agricultural university which could also prepare bankable proposals as done by Tamil Nadu Agricultural University. Since insurance for trees is a pre-requisite for availing institutional credit, the insurance burden (which is not much) has to be borne by industries providing buy-back and possibly the state govt. Industries have taken the lead to set up nurseries to produce quality planting materials. It may be noted that, under the revised RKVY guidelines on agroforestry, support to innovative agroforestry models is available. Since land

(about 20 hectares) is available with KVKS, VVKS could coordinate with KVKS and state agricultural universities to undertake demos of innovative agroforestry models.

The Working Group 3 need to deliberate on how to establish synergies with Van Dhan Yojana focused on value addition to NTFPs, as well as involvement of the private sector in infrastructure creation (for storages/cold storages, processing facilities such as distillation for medicinal/aromatic plants, transport and market linkages) based on state specific assessment of potential and gaps in infrastructure. Investment in infrastructure could also be made through externally aided such as Transformational Restoration for Ecological and Economic Development (TREE-D) as well as by attracting CSR funds. Since value addition would enable additional income to MFP gatherers/agroforestry farmers, it would not only promote rapid uptake of agroforestry but also reduce dependence of MFP gatherers on NTFPs and contribute to sustainable management of NTFP yielding species.

New varieties released by ICFRE (69, region specific) cover 15 tree species and include prominent agroforestry species such as Eucalyptus, Casuarina, Poplar, *Melia dubia*, etc. For extension, ICFRE distributes seedlings of new varieties from its nurseries to farmers and also licenses new varieties to industries and State Forest Departments. Capacity constraints faced by ICFRE nurseries need to be discussed in Working Group 4. ICFRE had proposed to the Ministry of Agriculture and Farmer Welfare, govt. of India to amend Seed Rules and incorporate tree crops. To enable this, ICFRE was developing a seed manual. Once the Seed Rules are amended, new releases could be gazetted. This would give new releases greater authentication and protection. New variety releases are based on field trials and performance assessment thereof. Getting the Seed Rules amended as above could, therefore, have a major positive impact on extension as gazetted new releases would get a much greater level of acceptance. Hence, the status in this regard needs to be discussed in Working Group 2.

Each working group will consist of about 10-15 participants representing the different stakeholders. Each working group will conduct the group exercises and discussion related to issues and challenges, gaps and needs of forestry extension with respect to the targeted stakeholders. The Working Groups will develop suitable strategies and action plan for strengthening the forestry extension in India. Each working group will be supported by one Facilitator for fruitful outcomes of the group discussion and exercises. Facilitator of the Working Groups will initiate the group exercise with a brief presentation of about 5-6 minutes highlighting the existing forestry extension system and expectation from the Working Group. Display boards, working table, meta cards, flip charts, marker pens etc. will be provided for group exercise to each working group for the Working Group Exercise and Discussion Session of the workshop. After completion of the group exercises and discussion, representative of each group will make a presentation before the participants on the findings of the group exercise/ discussion for further deliberation and finalization in the Plenary Session of the Workshop.

## Agenda of the Workshop

09:00-10:45 Hrs	Opening Session
	<p><b>Introduction of the workshop by:</b></p> <ul style="list-style-type: none"> <li>▪ Dr. Sudhir Kumar, DDG (Extension), ICFRE</li> </ul> <p><b>Welcome Remarks by:</b></p> <ul style="list-style-type: none"> <li>▪ Sh. A. S. Rawat, Director General, ICFRE</li> <li>▪ Dr. Anupam Joshi, Senior Environmental Specialist, the World Bank</li> <li>▪ Representative of MoEFCC</li> </ul> <p><b>Presentation on ICFRE's Extension Strategies by:</b></p> <ul style="list-style-type: none"> <li>▪ Dr. Geeta Joshi, ADG (Media &amp; Extension), ICFRE</li> </ul> <p><b>Presentation on ICAR's Extension Strategies by:</b></p> <ul style="list-style-type: none"> <li>▪ Representative of ICAR</li> </ul> <p><b>Presentation on SFD's Extension Strategies by:</b></p> <ul style="list-style-type: none"> <li>▪ Haryana Forest Department</li> <li>▪ Madhya Pradesh Forest Department</li> </ul> <p><b>Introduction of participants</b></p> <p><b>Presentation on Formation of Working Groups and Expectation from the Group Exercises and Discussion</b></p>
10:45-11:00 Hrs	Group Photo & Tea/ Coffee
11:00-15:30 Hrs.	Working Group Exercise and Discussion Session
11:00 -13:00 Hrs.	<p><b>Group Exercise and discussion on "Identification of issues &amp; challenges, gaps and needs of forestry extension" by:</b></p> <ul style="list-style-type: none"> <li>▪ Working Group 1: Forestry extension for SFDs (<i>Facilitator: Head, Extension Division, ICFRE-FRI</i>)</li> <li>▪ Working Group 2: Forestry extension for Farmers and Tree Growers etc. (<i>Facilitator: Head, Extension Division, ICFRE-IFGTB</i>)</li> <li>▪ Working Group 3: Forestry extension for forest-based enterprises/ cooperatives, wood-based industries and mining companies (<i>Facilitator: Head, Extension Division, ICFRE- IWST</i>)</li> <li>▪ Working Group 4: Forestry extension/ knowledge sharing for academic and training institutions, key ministries/ departments, S&amp;T organisations (<i>Facilitator: Head, Extension Division, ICFRE-TFRI</i>)</li> </ul>
13:00-14:00 Hrs.	Lunch Break
14:00-15:30 Hrs.	<p><b>Group Exercise and discussion on "Development of suitable strategies and action plan for strengthening of forestry extension system" by:</b></p> <ul style="list-style-type: none"> <li>▪ Working Group 1: Forestry extension for SFDs (<i>Facilitator: Head, Extension Division, ICFRE-FRI</i>)</li> <li>▪ Working Group 2: Forestry extension for Farmers and Tree Growers etc. (<i>Facilitator: Head, Extension Division, ICFRE-IFGTB</i>)</li> <li>▪ Working Group 3: Forestry extension for forest-based enterprises/ cooperatives, wood-based industries and mining companies (<i>Facilitator: Head, Extension Division, ICFRE- IWST</i>)</li> <li>▪ Working Group 4: Forestry extension/ knowledge sharing for academic and training institutions, key ministries/ departments, S&amp;T organisations (<i>Facilitator: Head, Extension Division, ICFRE-TFRI</i>)</li> </ul>
15:30-15:45 Hrs.	Tea/ Coffee Break
15:45-17:30 Hrs.	Plenary Session: Synthesis and finalization of outcomes of the workshop
	<p><b>Panellists:</b></p> <p>Sh. A.S. Rawat, DG, ICFRE</p> <p>Dr. Anupam Joshi, Senior Environmental Specialist, the World Bank</p>

	<p><b>Presentation on outcomes (highlighting the issues &amp; challenges, gaps and needs, suitable strategies and action plan for strengthening of forestry extension) of the group exercise and discussion by:</b></p> <ul style="list-style-type: none"> <li>▪ Working Group 1: Forestry extension for SFDs</li> <li>▪ Working Group 2: Forestry extension for Farmers and Tree Growers etc.</li> <li>▪ Working Group 3: Forestry extension for forest-based enterprises/ cooperatives, wood-based industries and mining companies</li> <li>▪ Working Group 4: Forestry extension/ knowledge sharing for academic and training institutions, key ministries/ departments, S&amp;T organisations</li> </ul>
17:15-17:30 Hrs.	<p><b>Concluding Remarks by Panellists</b>  <b>Vote of Thanks by:</b> Dr. R. S. Rawat, Project Manager, ESIP</p>

### **Organising Committee of the Workshop**

Sh. A.S. Rawat, Director General, ICFRE - Chairperson

Sh. R. K. Dogra, Dy. Director General (Admin), ICFRE - Member

Ms. Kanchan Devi, Dy. Director General (Education) & Director (IC), ICFRE – Member

Dr. Sudhir Kumar, Dy. Director General (Extension), ICFRE - Member

Dr. Rajesh Sharma, ADG (BCC), ICFRE – Member

Dr. Geeta Joshi, ADG (Media and Extension), ICFRE – Member

Dr. Shilpa Gautam, Project Coordinator, ESIP - Member

Dr. R.S. Rawat, Project Manager, ESIP – Member Secretary

### **Contact, for further information:**

#### **Workshop Secretariat**

Dr. R. S. Rawat, Project Manager, ESIP and

Dr. Shilpa Gautam, Project Coordinator, ESIP

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