



Indian Council of Forestry
Research Education

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JUNE NEWS LETTER

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World Environment Day

- ICFRE (HQ), its institutes, and centers celebrated World Environment Day on 05th June 2026. As a part of celebration plantation activities were organized.



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World Day to Combat Desertification and Drought

- World Day to Combat Desertification and Drought celebrated on 17th June 2026.



Swachhata Pakhwada 2026

- ICFRE (HQ), its institutes, and centers celebrated Swachhata Pakhwada from 01st June to 15th June 2026.



International Day of Yoga 2026

- The Indian Council of Forestry Research and Education (ICFRE), along with its institutes and centres, celebrated the International Day of Yoga on 21st June 2026.



Significant Research Finding

ICFRE-Forest Research Institute, Dehradun

- Dried leaves of five bamboo species, namely *Bambusa balcooa*, *Bambusa tulda*, *Bambusa vulgaris*, *Melocanna baccifera* and *Dendrocalamus hamiltonii*, and dried skin and nodes of four bamboo species (*B. balcooa*, *B. tulda*, *B. vulgaris* and *M. baccifera*) were subjected to controlled ashing at 600°C for 3 hours. The ash yields (%) obtained from leaves, skin and nodes, respectively, were 19.28, 3.65 and 1.96 for *B. balcooa*; 15.15, 2.05 and 1.67 for *B. tulda*; 15.77, 1.44 and 3.52 for *B. vulgaris*; 11.91, 1.87 and 2.83 for *M. baccifera*; and 18.39 for leaves of *D. hamiltonii*. Comparison of ash yields revealed that bamboo leaves consistently produced substantially higher ash than the corresponding skin and node samples. Among the leaf samples, *B. balcooa* (19.28%), *D. hamiltonii* (18.39%), *B. vulgaris* (15.77%) and *B. tulda* (15.15%) exhibited the highest ash yields, indicating a comparatively greater accumulation of inorganic constituents. These findings identify bamboo leaves, particularly those of these four species, as the most promising biomass for subsequent characterization and evaluation for recovery of cosmetic-grade biogenic silica.
- Optimization of dye extraction from areca nut (*Areca catechu* L.) was carried out using Response Surface Methodology (RSM) based on a Box–Behnken design, considering pH (3–11), extraction time (10–50 min), and material-to-liquid ratio (1:5–1:30 g/mL) as independent variables. A statistically significant quadratic model ($p < 0.0001$) was developed using Design-Expert® software (Version 13.0.5), explaining 88.36% of the variation in dye yield ($R^2 = 0.8836$). The material-to-liquid ratio was identified as the most influential factor ($F = 138.00$), followed by pH ($F = 13.15$). The optimum extraction conditions were determined as pH 11, material-to-liquid ratio of 1:30 g/mL, and extraction time of 10 min, resulting in a predicted dye yield of 37.90%, which was validated experimentally with a yield of 38.35%.

ICFRE-Rain Forest Research Institute, Jorhat

- Documented a total of 297 macrofungal species from the Lower Subansiri district of Arunachal Pradesh, representing 134 genera, 54 families, and 17 orders. Among these, the order Agaricales accounted for the highest diversity with 130 species, followed by Polyporales (58 species),

Russulales (40 species), and Boletales (39 species). At the family level, Polyporaceae was the most species-rich with 38 species, while both Boletaceae and Russulaceae contributed 31 species each. The dominant genera in terms of species richness were *Russula* (21 species), *Mycena* (13 species), and *Amanita* (9 species).

ICFRE-Institute of Forest Productivity, Ranchi

- Genetic improvement and conservation studies was conducted for *Lophopetalum wightianum* Arn., a multipurpose forest tree species of North Bengal species is facing population decline due to poor natural regeneration and rapid loss of seed viability. The highest regeneration was observed in Banhia population, followed by Bichabhanga population, while population at Sursuti-5 exhibited poor regeneration. The Importance Value Index (IVI) indicated higher dominance of *Lophopetalum wightianum* in the Banhia population (23.05), followed by Buxajhora population (22.31) indicating their ecological prominence and adaptability. The Shannon-Weiner diversity index indicated highest diversity in Banhia population followed by Bichabhanga population. Seed viability studies demonstrated a rapid decline in seed viability from 82.81% (day 1) to 17.19% (day 19).
- In the study on the 'Forest litter dynamics under different forest stands in Northern Hill Zone of West Bengal' different tree species exhibit varying effects on litter and soil properties, thereby playing a significant role in biodiversity conservation and sustainable forest management. Initial litterfall ranged from 3.52 to 6.32 (Mgha-1 yr⁻¹, with *Tectona grandis* recording the highest and *Cryptomeria japonica* recording the lowest litter input. Litter decomposition exhibited a progressive increase over time, reaching 86.3-95.2% by 12 months, indicating rapid nutrient turnover, particularly in *grandis* and *Terminalia myriocarpa* forest stands. Soil organic carbon (SOC) showed relatively stable but species-specific variation across depths, ranging from 1.53% to 1.82%, with higher SOC values in surface layers (0-15 cm).

ICFRE- Institute of Wood Science & Technology, Bengaluru

- Cost effective Urea free resin technology employing soya in resin/adhesive formulation in the range of

25% - 75% was successfully demonstrated on industrial scale for the manufacturing of MR/BWR grade plywood. The panels made in the industry with 50% externally added soya to melamine formaldehyde resin and in the manufacturing of melamine soya formaldehyde resin 25% soya has conformed to the requirement of MR grade and BWR grade plywood as per IS:303.

- The study on “Screening of agroforestry grown species an alternate to traditional handicraft species” identified three alternative species namely, *Thespesia populnea*, *Maesopsis eminii*, and *Morus alba* as promising alternative raw materials for

handicraft production due to their favourable anatomical characteristics, dimensional stability, drying behavior, and machining performance.

- Fungal resistance tests were performed on wood samples impregnated with preservative formulations at concentrations of 7%, 6%, and 5% (w/v). The preservative formulation consisted of copper sulphate, borax, amine oxide (dodecyl dimethyl amine oxide), and propiconazole in the ratio of 10:5:4:1. The results revealed that the untreated control samples exhibited decay of up to 50%, whereas the treated samples showed strong resistance to fungal attack, with decay remains below 5%.

Workshops/Seminars/Meetings

Indian Council of Forestry Research Education

01	Workshop on “Transboundary Approaches to Sustainable Forest Management for enhancing Climate Resilience and Reducing Disaster Risk in the Himalayas (TRANSMIT)” PROJECT	19 th June 2026	55 participants including DDG's, ADG's officers and Scientists from ICIMOD, Nepal, UNU-EHS, Germany, Wild Life Institute of India, ICAR-IISWC, IGNFA, ICFRE, ICFRE-FRI, Forest Survey of India and Utrakhand Forest Department
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Workshop on “Transboundary Approaches to Sustainable Forest Management for enhancing Climate Resilience and Reducing Disaster Risk in the Himalayas (TRANSMIT)”

ICFRE-Himalayan Forest Research Institute, Shimla

02	Planting Stock Improvement Strategies for Important Plantation Species of Himachal Pradesh: in the Viksit Bharat Perspective	30 th June 2026	25 participants including Scientists, Research Scholars and Technical staff of ICFRE -HFRI, Shimla
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ICFRE- Institute of Biodiversity, Hyderabad

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| 03 | RRC on “Aligning Forestry & Forestry Research towards the Goal of Vikshit Bharat 2047” | 23 rd
June
2026 | 27 Stakeholders from West Bengal, Odisha, Bihar, Jharkhand, Telangana |
|----|--|----------------------------------|---|



**RRC on “Aligning Forestry & Forestry Research towards the Goal of Vikshit Bharat 2047”
by ICFRE-IFB, Hyderabad**

Trainings Programme

ICFRE-Himalayan Forest Research Institute, Shimla

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| 01 | Cultivation, conservation, and marketing of the Karu | 18 th
June
2026 | 55 participants including Common Interest Group Nigani, Progressive Farmer, Representative of Mahila Mandal, Front Line Staff of Forest department and JICA official of Kinnaur. |
| 02 | Seed, Nursery, and Plantation Techniques of Important Forestry Species | 23 rd to 24 th
June
2026 | 287 participants including Officers and Soldiers of the Echo Task Force of Jammu and Kashmir Light Infantry and Dogra Regiment |



Training on “Cultivation, Conservation and Marketing of the Karu” at Nigani, Nichar, Himachal Pradesh



Training on “Seed, Nursery and Plantation Techniques of Important Forestry Species” at ICFRE-HFRI, Shimla

ICFRE- Institute Forest Genetics and Tree Breeding, Coimbatore

03 Molecular Biology Techniques

15th to 19th
June 2026

08 Technical staff of ICFRE-IFGTB, Coimbatore



Training on “Molecular Biology Techniques” at ICFRE- IFGTB, Coimbatore

04 Teak Plantation management
(Four Trainings)

01st, 03rd,
17th and 23rd
June 2026

465 participants including teak growers, timber traders, SFD staff and farmers from Guwahati, Agartala, Jabalpur and Chhattisgarh

ICFRE- Tropical Forest Research Institute, Jabalpur

05 Teak Plantation Management

18th
June
2026

45 participants including Officers of Madhya Pradesh Forest Department and Front Row Forest Workers

06 Integrated Health Management in Forest Plantations

18th
June
2026

40 Employees of Social Forestry Branch, Jabalpur



Training on “Teak Plantation Management” at ICFRE-IFGTB, Coimbatore



Training on “Integrated Health Management in Forest Plantations” at ICFRE-IFGTB, Coimbatore

ICFRE- Institute of Wood Science & Technology, Bengaluru

07	Sandalwood cultivation and management	15 th to 19 th June 2026	31 participants including Entrepreneur's, land developers and farmers
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Awareness and Demonstration Programme

ICFRE-Forest Research Institute, Dehradun

- 52 State Forest Services officers visited DD Herbarium and Botanical Garden of ICFRE-FRI, Dehradun on 22nd June 2026.

ICFRE-Institute of Forest Productivity, Ranchi

- 17 students from Indian Institute of Agricultural Biotechnology, Ranchi visited ICFRE-IFP, Ranchi on 12th June 2026.

ICFRE- Institute of Forest Genetics and Tree Breeding, Coimbatore

- 35 SFS Officer trainees from CASFOS, Coimbatore visited ICFRE-IFGTB, Coimbatore on 18th June 2026. They were also briefed about various research activities of the institute.



SFS Officers from CASFOS, Coimbatore visited ICFRE-IFGTB, Coimbatore

ICFRE- Institute of Wood Science & Technology, Bengaluru

- Organized training cum demonstration programme on Palletization of *Lantana camara* biomass and its utilization from 17th to 19th June 2026 at Katni and Narmadapuram, Madhya Pradesh. 100 participants including Forest Department Officials, Rice & Dal Mill owners and Namkeen making industries participated in the programme.

- 142 Beat Forest Officer Trainees along with faculty from Telangana State Forest Academy, Dulapally, Hyderabad and Forest Training Centre, Kushalnagar visited TC lab, Nursery, Wood Anatomy lab, Advanced Wood Technology Centre and Wood museum of ICFRE-IWST, Bengaluru on 02nd, 11th and 24th June 2026.



Beat Forest Officers from Forest Training Centre, Kushalnagar visited ICFRE-IWST, Bengaluru

ICFRE- Tropical Forest Research Institute, Jabalpur

- Organized demonstration programme on "Exhibits of TFRI Technologies" at TFRI Museum on 19th June 2026. 41 Range Forest Officer, Kundal Development Administration and Management Academy Palasu, Maharashtra participated in the programme.



Demonstration programme on Exhibits of TFRI Technologies

Mission LiFE

ICFRE-Rain Forest Research Institute, Jorhat

- Organized an awareness programme on Mission LiFE on 5th June 2026. Around 500 students from three different schools of Jorhat participated in the programme.



**Awareness programme on Mission LiFE
by ICFRE-RFRI, Jorhat**

ICFRE-Institute of Forest Biodiversity, Hyderabad

- Organized an awareness programme on Healthy Lifestyles and Reduction of Single-Use Plastic on 17th June 2026 at Maisammaguda, Hyderabad. 21 participants from nearby area of Maisammaguda, Hyderabad participated in the programme.



**Awareness programme on “Healthy Lifestyle and
Reduction of Single-Use Plastic” at Maisammaguda,
Hyderabad**

- ICFRE-CEC, Visakhapatnam organized awareness programme on Reduction of Single-Use Plastic, Save Water and Save Energy on 16th June 2026 at RK Beach, Yoga Village, AU English Medium High School and Pandurangapuram, Visakhapatnam.



**Awareness programme on “Save Water and
Reduction of Single-Use Plastic” at RK Beach,
Visakhapatnam**

Prakriti Programme

ICFRE- Institute of Forest Genetics and Tree Breeding, Coimbatore

- 56 students along with teacher from VIBGYOR High School, Coimbatore visited ICFRE-IFGTB, Coimbatore on 19th June 2026. Lecture on Forests and Animals were also delivered to students during the visit.



**Students from VIBGYOR High School,
Coimbatore visited ICFRE-IFGTB, Coimbatore**

ICFRE- Institute of Wood Science & Technology, Bengaluru

- 110 students along with teachers from Mitra Academy, Arekere, Bannerghatta Road, Bangalore visited nursery, wood museum and technology demonstration centre of ICFRE-IWST, Bengaluru from 15th to 16th June 2026. They were also briefed about various research activities of the institute.



Students from Mitra Academy, Bengaluru visited ICFRE-IWST, Bengaluru

Activities under Van Vigyan Kendra

- ICFRE-IWST, Bengaluru organized training programme on Importance of tree-based cultivation practices on 24th June 2026. 25 farmers from nearby area of VVK, USA, Bengaluru participated in the programme.

Memorandum of Understanding

- ICFRE-RFRI, Jorhat signed a Memorandum of Understanding (MoU) with the North Eastern Regional Agricultural Marketing Corporation Limited (NERAMAC), Guwahati on 1st June 2026. Under this MoU, RFRI will serve as the Technical Agency for implementing the Agarwood Cluster Development Project in Golaghat, Assam, and Kadamtala, Tripura.



Signing of MoU by ICFRE-RFRI, Jorhat with The North Eastern Regional Agricultural Marketing Corporation Limited, Guwahati

- ICFRE-IWST, Bengaluru signed a MoU with Deepak Nitrite Limited on 01st June 2026 for the Consultancy Project "To evaluate the effectiveness of different concentration (1%, 2% and 3%) of wood preservatives of PROTECTO ECO F BX Formulation against fungus, borers and termite".
- ICFRE_IWST, Bengaluru signed a MoU with M/s. Balaji Action Buildwell private limited, Vizag on 02nd June 2026 for the EAP project "Design and optimization of soya-based adhesives for MDF".
- ICFRE_IWST, Bengaluru signed a MoU with Syngenta India Pvt Ltd on 22nd June 2026 for the EAP project "Field evaluation of Isocycloseram 200 SC applied as a wood coating against subterranean termites".

Radio Talk

- ICFRE-RFRI, Jorhat recorded a Radio Talk on "Wild edible and poisonous mushrooms found in Assam" and "Production of bamboo charcoal and its uses" on 22nd and 23rd June 2026 at All India Radio, Jorhat.



Radio Talk on "Wild Edible and Poisonous Mushrooms found in Assam" and "Production of Bamboo Charcoal and its use" at All India Radio, Jorhat by ICFRE-RFRI, Jorhat

Rajbhasha Activities

- The Rajbhasha inspection of ICFRE-HFRI, Shimla was conducted on 09th June 2026 by Third sub-committee of the Parliamentary Official Language Committee, MoEF&CC.



Rajbhasha inspection of ICFRE-HFRI, Shimla by Third sub-committee of the Parliamentary Official Language

- ICFRE(HQ) organized quarterly meeting of the Official Language Implementation Committee on 18th June 2026 under the chairpersonship of Smt. Kanchan Devi, Director General, ICFRE. The meeting was attended by the Deputy Director Generals, Directors, Assistant Director Generals, and senior officers of the ICFRE Headquarters and Official Language Officers/ Officials from all the institutes. The progress made in the implementation of the Official Language policy at the ICFRE Headquarters and all its institutes was reviewed. The Annual Hindi Magazine 'Taruchintan' 2026, was also released.



Quarterly meeting of the Official Language Implementation Committee at ICFRE(HQ) and release of Taruchintan 2026

- ICFRE-FRI, Dehradun organized a meeting of the Official Language Implementation Committee on 24th June 2026. About 15 participants, including all heads of divisions and offices of the institute, attended the meeting.
- ICFRE-IFP, Ranchi organized Workshop on "Official Language Progress Monitoring Register" on 25th June 2026. 25 Participants including Technical and Ministerial Staff of ICFRE-IFP, Ranchi participated in the workshop.



Workshop on Official Language Progress Monitoring Register at ICFRE-IFP, Ranchi

- ICFRE-IWST, Bengaluru organized workshop on "Use of official Language Hindi in office and our responsibilities" on 19th June 2026.
- Shri Nirmal Kumar Dube, Deputy Director (Implementation) and Shri Prakash, Research Officer from Regional Implementation office (South), Department of Official Language conducted Inspection of ICFRE-IWST, Bengaluru on 24th June 2026.
- ICFRE-RFRI, Jorhat organized quarterly meeting of the Institute's Official Language Implementation Committee on 25th June 2026. All officers from all divisions, sections, centers, and cells participated in the meeting.



Quarterly meeting of the Institutes's Official Language Implementation Committee at ICFRE-RFRI, Jorhat

Miscellaneous

- ICFRE (HQ), its institute and Centre has celebrated World Blood Donor Day on 12th June 2026.



HR NEWS

Retirement

Name of Officer	Date
Sh. S.R. Baloch, Scientist-E ICFRE-AFRI, Jodhpur	30.06.2026
Sh.P.R Nagora, CTO, ICFRE-AFRI, Jodhpur	30.06.2026

Appointment on Deputation

Name of Officer	Date
Smt. Monali Sen, IFS (RJ:2011) CF, ICFRE-FRI, Dehradun	29.06.2026

Repatriation

Name of Officer	Date
Dr. K. Ganesh Kumar, IFS (BR:2026) CF, ICFRE-IFGTB, Coimbatore	10.06.2026

Promotion

Name of Officer	Date
Smt. Rekha Dadhich, Section Officer, ICFRE-AFRI, Jodhpur	08.06.2026
Sh. Sudhir Sharma, Section Officer, ICFRE (HQ)	06.06.2026

Publication

- Bhoi T. K., Mahanta D. K., & Singh, S. (2026). Predicting future habitat suitability of the Khejri root borer, *Acanthophorus serraticornis* (Oliver) under CMIP6 climate projections. *Discover Geoscience*, 4(1), 209.
- Lata S., Paul S., Negi P.S. and Chauhan V. (2026). Floristic Composition of *Pinus gerardiana* Wall. ex D. Don. Forests in Himachal Pradesh and Jammu & Kashmir, North-Western Himalaya, India. *International Journal of Environment and Climate Change*, 16(6): 439-449.

- Thakur P.K., Verma R.K. and Pradhan B. (2026) Integrating CA–Markov–ANN for spatiotemporal prediction of land use dynamics in a fragile Himalayan watershed. *Remote Sensing Applications: Society and Environment*, 41.101856.
- Kumar R., Tembhurne B.V., Nayak V.H., Kisan B., Shivaprasad K.M., Nidagundi J.M., Lokesh G.Y. and Amaresh Y.S., (2026). Genetic dissection and mapping of novel quantitative trait loci (QTLs) associated with powdery mildew resistance in chilli (*Capsicum annuum* L.). *Physiological and Molecular Plant Pathology*, p.103335.
- Tiwari D. C., Rana A., Bhatt I. D., and Pandey R (2026). Declining regeneration and changing extgent of banj oak forest in the Western Himalaya. *Discover Plants* 3 (217)
- Anandalakshmi R., Lalitha S., Devamanikandan P., Vijayaraghavan A., Thangamani D., Fatima S., Nanita B., Manish K. V., Ravi N., Tresa H., Swapnendu P. (2026) Potential Ecological Distribution Mapping of *Terminalia anogeissiana* in India. *Indian Forester*, 152 (4) : 334-344.
- Durai M. V., Reddy G. S., and Nawaj B. (2026). Effect of planting density on growth performance and culm production in *Dendrocalamus asper* (Schult.) and *Dendrocalamus stocksii* (Munro). *Indian Forester*, 152(4), 345–357.
- Thangamani D., Meghana S R, Ali S., Narsingrao S. G., Qizi G. U. A., Pawar V. T. and Tiwari G (2026). Antidiabetic, Antioxidant, and Anti-Inflammatory Potential of Herbal Compounds: A Multi-Mechanistic Approach, *International Journal of Drug Delivery Technology IJDDT*, Vol.16 (27): 318-328.
- Tiwari, P., Deshmukh, P. P., Dobriyal, M. J., Soni, P. K., Behera, S., Abrol, G. S., and Srivastav, M. (2026). Climate-resilient horti–silvi–pasture systems enhance fodder productivity and nutritional quality in the semi-arid Bundelkhand region, *Scientific Reports*, 3:38:40 Z.
- Kenye, A., Sahoo, U. K., Musa, F. I., Behera, S., and Panda, T. (2026). Influence of biochar and vermicompost on labile and stable carbon pools in degraded jhum soils of Northeast India, *Discover Soil*, 3(1): 87.

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