



Kerala Forest Research Institute (KFRI) was established in 1975 as an autonomous research organisation of the Kerala State Science and Technology Department, Government of Kerala, registered as a society under the Travancore-Cochin Literary, Scientific and Charitable Societies Act, 1955. In 2003, the Institute was brought under the Kerala State Council for Science, Technology and Environment (KSCSTE) along with five other R&D centres in the State. Over the years, the Institute could create a niche among the leading forest research organisations in the world by its contributions, both in fundamental and applied aspects of tropical forestry.

Mandate

The mandate of the Institute is to undertake research and development in different aspects of forestry to facilitate scientific management of the forest resources.

Vision

A centre of excellence in tropical forestry to provide scientific strength for effective conservation of the forest ecosystems and their biodiversity, and sustainable utilization of the natural resources to ensure their benefits to the society at large.

Objectives

- Provide technical support to facilitate scientific management and utilisation of forest resources for social benefits.
- Contribute to the understanding of the natural processes and patterns in the functioning of the forest ecosystem
 and their interrelationships with the quality of the environment.
- Provide information and advice to wood-based and other industries, and general public on forest related subjects.

Location

KFRI main campus is located in Peechi, in the midst of natural forests of central Kerala, about 20 km East of Thrissur town and railway station. Peechi is about 75 km from Kochi International Airport. The main campus of the Institute extends over 28 ha, which forms part of the picturesque reserve forest of the Peechi-Vazhani Wildlife Sanctuary. The Institute has one Subcentre at Nilambur in northern Kerala, stretching over an area of 43.36 ha, where the world's only Teak Museum is located. It has also a Field Research Centre at Velupadam in Palappilly Forest Range in Thrissur district, with an area of 47.43 ha of forest land, mainly used for nurseries, experimental plantations and the Bambusetum, having the largest collection of 64 species of bamboos.

Organisation

KFRI is one of the six R&D institutions of KSCSTF; and Chief Minister of Kerala State is the President of the Council. The present Executive Vice President of the Council is Dr. M. S. Valathan who is also the Chairman of its Executive Committee.

The control, administration and management of the Institute are vested with its Management Committee (MC), chaired by the Director. The Committee approves and monitors the R&D activities of the Institute, apart from administrative and financial matters.

The Research Council (RC) of the Institute, composed of eminent Scientists in forestry research, oversees and guides identification, formulation and implementation of various research programmes, monitors the quality and content of research undertaken and provides guidelines for improvements.

The Consultative Group on Forestry Research and Management (CGFRM), chaired by the Principal Chief Conservator of Forests, Kerala, facilitates research programmes of the Institute by providing field support and identifying problems which need immediate attention from the research point of view.

The Institute is organised into nine Programme Divisions encompassing different disciplines for the effective implementation of time-bound and multi-disciplinary research programmes in forestry and to disseminate the research findings to the stakeholders. They are Sustainable Natural and Plantation Forest Management, Forest Ecology and Biodiversity Conservation, Forest Protection, Forest Utilisation, Forestry and Human Dimension, Forest Information Management System, Extension and Training, Library and Information and Instrumentation.

Thrust areas of research

- Functional and management aspects of natural forests
- Biodiversity evaluation, rehabilitation and conservation
- Plantation forestry for productivity improvement and technology development
- Wildlife inventorisation, biology, management and conservation
- · Growing stock, utilization and chemistry of non-wood forest produces, including medicinal plants
- Environmental impact assessment and fundamental studies including biotechnology and tissue culture
- Wood science and technology, including timber processing and utilisation
- Assessment of demand and supply of timber and other forest products
- Socio-economic and agroforestry research encompassing human dimensions
- Generation and processing of forest management related information using remote sensing, GIS and statistical methods





Facilities

The Institute has well equipped laboratories to carry out modern research in tropical forestry to cater to the needs of various stakeholders. Some of the major facilities are:

Herbarium: Represented by more than 25,000 specimens of the flora of Kerala, recognised by International Association of Plant Taxonomists with the acronym KFRI.

Medicinal Plants Garden: Live reference collection of about 350 medicinal plant species of the forests of Kerala.

Orchidarium and Fern House: Live-collection of 52 wild orchids and 30 fern species of Kerala forests.

Butterfly Garden: Park attracting and sustaining over 70 varieties of colourful species .

Insect Collection: Reference collection of about 1000 insect species of the Western Ghats of India.

Wildlife Museum: Reference collection of more than 400 specimens of fresh water fishes, amphibians, reptiles and mammals of the Western Chats.

Wood Treatment Plant: Pilot-scale facility to assess treatability and treatment schedules of different timbers.

Mist Chamber and Glass House: Facility for macro-propagation, rooting and pot-culture experiments.

Biotechnology and Tissue Culture Facility: Sophisticated facility for molecular characterisation and micropropagation of forest plants.

Nursery and Field Trial Facilities: Attached to Subcentre, Nilambur and Field Research Centre, Velupadam, for laboratory experiments and nursery, species and plantation trials.

Teak Museum: The only one of its kind in the world with exhibits on history, research and development of Teak.

Bambsetum: Live-collection of over 65 native and exotic bamboos species of the world.

Cane Germplasm: Live-collection of 30 species of indigenous and exotic canes.

Xylarium: Collection of over 600 authentically identified wood samples from Kerala and different parts of the world

Library: Facility with over 30 journal subscriptions, 10000 back volumes, 3500 reprints, 15000 books, Bamboo Information Centre, 20 CD-ROMs and 9 bibliographical databases.

Forest Seed Centre: Facility to collect, clean, grade, certify, store and supply seeds of forest plants, established with the support of the Kerala Forest Department.

Extension and Training Centre: Facility for transfer of technology to various stakeholders and to conduct training programmes in various aspects of tropical forestry like biodiversity monitoring and evaluation, remote sensing and GIS, root-trainer technology, clonal propagation, tree improvement, statistical applications in forestry, etc.

Major contributions

- Inventories on biodiversity of different protected forest areas of the State and vegetation maps of different forest types and forest areas of Kerala.
- Taxonomic accounts on bamboos, rattans, NWFP plants, lichens and pteridophytes.
- Data on wildlife wealth of the State, endangered animals, man-wildlife interaction, conservation of wild flora and fauna and wildlife censuses.
- Impacts of selection felling and assessment of regeneration status in logged forest areas.
- Assessment of environmental impacts, establishment of green belts, afforestation and forest rehabilitation, estimation of soil erosion and standardisation of soil binding methods in steep terrains.
- Plantation technology for more than 15 indigenous timber tree species of Kerala forests and their experimental plantations.
- Improved silviculture techniques and clones for plantation species like teak and eucalypt, including root-trainer technology and compost media, and micro-propagation techniques for bamboos, canes, medicinal plants, etc.
- Assessment of nutrient deficiencies and fertilization trials in forest plantations of teak, eucalypts and miscellaneous plantation species.
- Biocontrol of teak defoliator and chemical control of weeds and pests and diseases in seed, nursery and plantation stages of both indigenous and exotic species.
- Software for developing tree volume and biomass equations, and for analysing sample survey data.
- Prediction models of growth and yield of forest plantations and trees, based on stump measurements.
- Economics of forest plantations in Kerala and participatory management strategies for sustainable extraction of non-timber forest produces.
- Socioeconomic studies on dependencies on protected areas, constraints in management and livelihood issues of forest dependent communities.
- Preservative treatments and value addition methods for canes, bamboos, rubber wood, etc. and prototypes of
 tools for easy and effective harvest of bamboos from forest areas.
- Transfer of technologies for wood preservation, termite control, preservation of bamboo poles and quality improvements of bamboos and canes.
- Rehabilitation techniques for wastelands, industrially polluted areas, etc.
- Supply of seedlings of teak, rattans, bamboos, medicinal plants, forest trees, etc. and consultancy services for identification of timbers, and plant, animal and insect specimens.
- Extension, training and consultancy services and dissemination of information on forestry related topics to various stakeholders, including State forest departments, industries, farmers and non-governmental agencies.
- Facilitating the Kerala Forest Department in the establishment of teak seed orchards, eucalypt and teak clone nurseries, conducting of wildlife census and preparation of forest management plans.



Collaborations

For research, extension and training activities of the Institute, financial and technical supports come from State, National and International agencies like Kerala Forest Department, Ministry of Environment and Forests, Ford Foundation, Departments of Biotechnology and Science and Technology, Natural Resources Institute (UK), CIFOR, ACIAR, AusAID, IDRC (Canada), INBAR (China), Mc Arthur Foundation, FAO, FORSPA, IPGRI. DFID. Winrock International, UNESCO, British Council, and so on. Also, the Institute has MoUs and other linkages with several State, National and International organisations involved in forestry research. The Institute has close links with the Kerala Forest Department for implementing various collaborative research programmes.

Publications

Over the years, the Institute has undertaken more than 400 research programmes of State, national and international relevance and brought out about 300 research reports, apart from more than 1000 research papers, published in both national and international journals. Information Bulletins, Newsletter called Evergreen, Handbooks, Extension and Consultancy Documents, Bibliographies, Proceedings of national and international conferences and monographs on Bamboos, Canes, Non-Wood Forest Produce Plants, Environment and Biodiversity of Shola Forests, etc., are few other publications brought out by the Institute, a part from CDs of 200 Research Reports and Bibliographies on bamboos and teak.





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