



01	Name	Dr Kannan C.S. Warriar
02	Educational Qualifications	BSc (Forestry) with First Rank , Kerala Agric. Univ. MSc (Forestry) with First Rank , Kerala Agric. Univ. PhD (Forest Genetics) FRI Deemed Univ., Dehra Dun
03	Designation	Scientist F
04	Core Specialization	Forest Genetics and Tree Improvement
05	Research Interests	Tree Improvement of Native and Exotic Tree Species, Clonal Forestry, Biodiversity Conservation.
06	Research Projects (As Principal Investigator)	<ol style="list-style-type: none">1. Selection and Evaluation of <i>Haldina cordifolia</i> Roxb. Ridsdale for Higher Wood Productivity (ICFRE Network Project, 2018-2023).2. Genetic Improvement of <i>Thespesia populnea</i> (ICFRE, 2017-2021).3. Screening of International Germplasm of <i>Casuarina equisetifolia</i> for Enhancing Productivity and Improving Rural Livelihood in Tamil Nadu (State Development Policy Council, Tamil Nadu, formerly TNSPC, 2016-2020).4. Rapid Improvement of Casuarina and Leucaena to Enhance Pulpwood Production from Farm Forestry Plantations (Indian Paper Manufacturer's Association, IPMA, 2012-2018).5. Selection and Screening of Germplasm of <i>Thespesia populnea</i> for Improving Productivity (ICFRE, 2011-2016).6. Evaluation and Characterization of Clones of Casuarina with reference to Yield, Tree Form, Biomass, Pulping Characteristics and Key Nursery Pests (ICFRE, 2007-2012).7. Developing Cloning Techniques for Raising High Yielding Clonal Plantations of <i>Casuarina equisetifolia</i> L (ICFRE, 2008-2011).



8. Status and Floristic Diversity of Sacred Groves – The Only Remnants of Natural Forests in Alappuzha District, Kerala (ICFRE, 2005-2008).
9. Variability Studies with Special Emphasis on Physiology, Biometry and Biochemistry in Selected Tree Species for Tree Improvement (ICFRE, 2000-2005).

07 **Research Projects**
(As Co- Investigator)

1. Diversity Assessment of *Saraca asoca* for Selection of Superior Chemotypes and Mass Propagation” (National Medicinal Plant Board, NMPB, 2017-2021).
2. Isolation and Characterization of Cinnomoyl CoA Reductase Gene in *Casuarina equisetifolia* (ICFRE, 2016-2019).
3. Evaluation of Genetic Resources of *Melia dubia* in Tamil Nadu and Kerala for Productivity Enhancement in Tree Farming (ICFRE – All India Coordinated Project, 2012-2019).
4. Development of Descriptor and DUS Testing Guidelines for Indigenous Forestry Species (*Tectona grandis* and *Melia dubia*) and establishment of field gene bank (Protection of Plant Varieties and Farmer’s Rights Authority, PPV&FRA, 2014-2018).
5. Establishment of a South Zonal Germplasm Bank of *Melia dubia* (Karnataka Forest Department, 2014-2017).
6. Selection and Vegetative Propagation of *Neolamarckia cadamba* (Roxb.) Miq – An alternative species for Pencil, Match Wood and Ply Wood Industries (ICFRE, 2010-2014).
7. Germplasm Assemblage of *Melia dubia* in India (Andhra Pradesh Forest Department, 2012-2014).
8. Collection of Quantitative Field Data through Rapid Assessment of Population, Growing Stock and Natural Regeneration Status of *Pterocarpus santalinus* L. (MoEFCC, 2011-2013).
9. Production and Testing of Control Pollinated Eucalypt Hybrids with Improved Biomass and Pulp Yield to Support Industrial Forestry in Tamil Nadu (Tamil Nadu Newsprint and Papers Limited, 2010-2013).



10. Development of Yield Assessment Methods for *Eucalyptus* spp and *Anacardium occidentale* Using Image Analyser (Tamil Nadu Forest Development Corporation, 2006-2007).
11. Genetic Transformation of *Eucalyptus* and *Casuarina* to Enhance Salinity Tolerance (ICFRE, 2000-2005).
12. Assessing Growth and Physiological Variations like Photosynthesis in Fast Growing Tree Species for Improving Yield (ICFRE, 1997-2001).
13. Production of High Yielding Propagules of Casuarina and Eucalypts (ICFRE, 1997-1998).

08	Publications	246
	Books / Manuals	16
	Chapters in Books	38
	National	64
	International	28
	Reports	20
	Popular Articles	27
	Brochures	11
	Posters	42

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(Please press control key while clicking links to open in a new window)

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|----|--------------------------|--|
| 09 | Patent | Obtained a patent for Tree Mean Diameter Estimation from Terrestrial Images Using Digital Camera (Patent No. 290429) along with Dr V Sivakumar, Dr C Buvaneshwaran and Dr K Ravichandran. |
| 10 | Release of Clones | Released three productive clones of <i>Casuarina equisetifolia</i> suitable for salt affected (sodic) soils. |



- 11 **Mobile App** As the Coordinator of ENVIS, released **two Mobile Apps**, Tree Pests of India and Forest Tree Diseases (Available in Google Play Store).
- 12 **Awards / Fellowships**
- ❖ **National Award of Excellence for Outstanding Research in Forestry** constituted by the Indian Council of Forestry Research and Education.
 - ❖ **Rolla S Rao Award** constituted by the Indian Association of Angiosperm Taxonomy for the best research work in the field of biodiversity conservation in India. **Research on endangering sacred groves** of a non-forested region in Kerala won this award.
 - ❖ **Kala Prathibha Award** of the Kerala Agricultural University for **FIVE** years for the most talented male artist.
 - ❖ ICAR (Indian Council of Agriculture Research) Fellowship for two years during the Master's Degree Programme.
 - ❖ Kerala Agricultural University Merit Scholarship for four years during the Bachelor's Degree Programme.
- 13 **Consultancies / Technical Guidance Rendered**
- ❖ Consultant member to the Andhra Pradesh Forest Development Corporation on Eucalypts Clonal Technology (1998).
 - ❖ Consultant member to the Kerala Forest Development Corporation on Development, Training and Establishment of Root Trainer and Clonal Nursery (2000).
 - ❖ Evaluation of Captive Plantations of Tamil Nadu Papers and Newsprints Ltd. established from 2004 to 2010.
 - ❖ Provided technical guidance to the Andhra Pradesh Forest Department in the management of Casuarina trials at Regional Forest Research Centre (RFRC), Rajahmundry (2011).



14 **Journals Reviewed**

- ❖ Evaluation of the National Afforestation Programme (NAP) implemented by Thiruvananthapuram, Chalakkudi, Palakkad, Nilambur, Ranni, Kothamangalam and South Wayanad, Forest Development Agencies (FDAs) in Kerala (2013).
- ❖ Journal of Tropical Forest Science
- ❖ Silvae Genetica
- ❖ Current Science
- ❖ Tropical Ecology
- ❖ Biodiversity and Conservation
- ❖ Journal of Threatened Taxa
- ❖ European Journal of Medicinal Plants
- ❖ International Journal of Agriculture Sciences
- ❖ Journal of Tropical Agriculture
- ❖ International Journal of Advance Agricultural Research
- ❖ African Journal of Agriculture Research
- ❖ Acta Scientific Agriculture
- ❖ Indian Forester
- ❖ Journal of Human Ecology
- ❖ Current Agriculture Research Journal
- ❖ International Journal of Tropical Disease and Health
- ❖ Asian Journal of Research in Botany
- ❖ Asian Plant Research Journal
- ❖ International Journal of Plant and Soil Science
- ❖ Journal of Applied Life Sciences International

Please visit [Publons](#) for verified review records.

15 **Trainings**

- ❖ Trainer's Training Workshop on IDAMS (Internationally Developed Data Analysis and Management Software) by UNESCO at New Delhi (1996).
- ❖ Training in Research Methodology with Special Emphasis on Statistics at Bangalore (1999).



- ❖ Training on Use of Computer Software Packages Genstat and Dataplus for the Analysis of Tree Improvement Trials at Coimbatore (1999).
- ❖ Course on Quantitative Microscopy at Indira Gandhi Centre for Atomic Research at Kalpakkam (1999).
- ❖ Course on Participatory Planning and Management of Natural Resources for Sustainable Livelihoods at National Institute of Rural Development, Hyderabad (2004).
- ❖ Training on Decision Support Tools and Techniques at the Administrative Staff College of India, Hyderabad (2007).
- ❖ Training on General Management Programme for Scientists at the Administrative Staff College of India, Hyderabad (2018).
- ❖ ISO/IEC 17065:2012 Capacity Building Programme on Voluntary Certification Scheme for Medicinal Plants Produce at Quality Council of India, New Delhi (2020).
- ❖ As the Nodal Officer, organized a Karshaka Mela (Farmer's Meet) in collaboration with the Kerala Forests and Wildlife Department and Kerala Forest Research Institute (KFRI) at KFRI, Peechi (2009).
- ❖ As the Nodal Officer, organized a Karshaka Mela (Farmer's Meet) in collaboration with the Kerala Forests and Wildlife Department at Ernakulam in Kerala (2011).
- ❖ As the Course Coordinator, conducted a Specialized Training Programme on "Planting Stock Improvement, Clonal Trials / Testing" for two weeks for scientists and research officers of ICFRE Institutes at IFGTB, as per the HRD Plan of ICFRE (2011).
- ❖ As the Course Coordinator, conducted a training programme on "Designing and Analysis of Plantations" to the officials of the Karnataka Forest Department at IFGTB (2012).
- ❖ Functioned as a member of the Organizing Committee of the Third Indian Biodiversity Congress at Chennai (2014).
- ❖ As the Organizing Secretary, organized the "Evaluation Workshop of the Southern Regional ENVIS Centres" at IFGTB as per the instructions of the Ministry of Environment, Forest and Climate Change (2015).



- ❖ As the Organizing Secretary, organized training programmes on “Tree Pests and Disease Management and Tree Bio-boosters and Biofertilizers” in collaboration with the Van Vigyan Kendra, and Krishi Vigyan Kendra, Thrissur for farmers of Kerala under the extension component of IFGTB (2017).
- ❖ As the Nodal Officer, implemented the Green Skill Development Programme on “Quality Planting Material Producer” for ENVIS India, MoEFCC for 30 days (2018).
- ❖ As the Nodal Officer of Van Vigyan Kendra and Krishi Vigyan Kendra, Kerala, organized a training programme on Agro-forestry for the farmers and tree growers of Kerala under the extension component of IFGTB (2019).
- ❖ As the Nodal Officer, implemented the Green Skill Development Programme on “Forest Entomology and Pest Control” for ENVIS India, MoEFCC for 27 days (2019).
- ❖ As the Nodal Officer, implemented the Green Skill Development Programme on “Plant Tissue Culture and its Applications” for ENVIS India, MoEFCC for 40 days (2019).

16 Awareness Lectures

Delivered **206 Awareness Lectures** for Students, Faculty of Various Universities, Senior Officials of State Forest Departments and Forest Development Corporations, Frontline Staff of State Forest Departments, Farmers and Tree Growers on various topics viz.,

- ❖ Sacred Groves and their Incomparable Values.
- ❖ Principles of Forest Genetics.
- ❖ Tree Improvement.
- ❖ Clonal Forestry.
- ❖ Issues in Tree Tissue Culture.
- ❖ Sustainable Approach to Clonal Plantations.
- ❖ Designing of Seed Orchards.
- ❖ Quality Planting Stock Production.
- ❖ Management of Soil Health in Forest Plantations.



- ❖ Modern Plantation Technologies.
- ❖ Propagation, Cultivation and Management of Economically Important Tree Species.
- ❖ Basic Principles of Wood Science.
- ❖ Role of Mountains in Conservation of Forest Genetic Resources.
- ❖ Concerns with Environmental Protection.
- ❖ Rejuvenation of Rivers through Forestry Interventions.
- ❖ Ozone for Life.
- ❖ Implications of Wildlife Conservation.
- ❖ Keep Soil Alive and Protect Soil Biodiversity.

17 International Collaborations

- ❖ Participated in the joint evaluation of the **FAO coordinated global *ex situ* forest genetic resources conservation programme** involving Indian Council of Forestry Research and Education, the DANIDA Forest Seed Centre (Denmark) and FAO.
- ❖ Participated in an **International Programme on Tree Crop Improvement with the US Forest Service** under the Sustainable Landscapes and Adaptation Programme of the United States Agency for International Development (USAID and the Ministry of Environment Forest and Climate Change from 02-12 September 2014 at the United States of America.
- ❖ Collaborated with the **Commonwealth Scientific and Industrial Research Organization (CSIRO) Australia** for infusing germplasm of *Casuarina equisetifolia* for broadening the genetic base of the species in India.

18 Other Responsibilities

- ❖ Coordinator of **ENVIS (Environmental Information System)** Resource Partner on Forest Genetic Resources and Tree Improvement with the Ministry of Environment Forest and Climate Change, Government of India.
- ❖ Nodal Officer of the Green Skill Development Programme (GSDP) of ENVIS India, Ministry of Environment Forest and Climate Change, Government of India.
- ❖ Nodal Officer of Krishi Vigyan Kendra and Van Vigyan Kendra in Kerala for Extension Programmes.



19 Extra-Curricular

- ❖ Coordinator of Non-Detrimental Studies of *Boswellia serrata*.
- ❖ Liaison Officer of IFGTB.
- ❖ Editorial Member of IFGTB News & Van Vigyan.
- ❖ Acted as the Coordinator of Kerala Part in the Preparation of the Detailed Project Report for the Rejuvenation of the River Cauvery through Forestry Interventions.
- ❖ Composed music for the [Theme Song of the Kerala Forests and Wildlife Department](#). 'Kadarivu' (A song on forests) sung by the renowned playback singer, P. Jayachandran was released by the Honourable Forest Minister during Vanamaholsavam 2020.
- ❖ Composed, sung and released [Prakruthi Vandanam](#), an invocation on nature in Sanskrit based on **Yajur Veda** for ENVIS with the Ministry of Environment Forest and Climate Change.
- ❖ Released a **Carnatic Music Album, Lalitham**
- ❖ Released a Music Album *Dashapushpam* (Music and Rendition).
- ❖ Worked as a compere in **All India Radio**, Thrissur, Kerala for Yuvavani.
- ❖ Presented music programmes in AIR and Doordarshan.
- ❖ Participated in the prestigious **Republic Day Camp** at New Delhi representing the Kerala Contingent during 1988.
- ❖ Presented many Music Concerts in Tamil Nadu and Kerala.
- ❖ Plays Mrudangam, Guitar, Harmonium, Harmonica & Idakka.
- ❖ Functioned as a Judge in the Kerala State Youth Festivals, the largest cultural event in Asia for 10 years.
- ❖ 'C' Certificate holder of NCC and undergone equitation training with the Remount & Veterinary Squadron, Thrissur.

(Please visit my [Personal Web Site](#) or [YouTube](#) Chanel for uploaded music (vocal and instrumental).

[Link to Media Coverage on Research / Environmental Awareness / Music](#)



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	<u>Facebook</u>	https://bit.ly/3hWIWJo
	<u>Telegram</u>	https://t.me/kcswarriar