



KALASALINGAM

ACADEMY OF RESEARCH AND EDUCATION

(DEEMED TO BE UNIVERSITY)



Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A++" Grade

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PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

THE - Impact Rankings 2025

15.3.3 Local Biodiversity included in Planning and development

The Virudhunagar district is the second largest textile city of Tamil Nadu after Thiruppur district and it's also the second largest district of cotton crop cultivation. Being a drought prone district Minor Millets were predominantly cultivated in this region. The KARE campus is located at the foothills of "Western Ghats", it is one of world richest biodiversity hotspot. Apart from cotton, farmers in this region also cultivating Minor millets and Corn at a large a scale. The Government of India, Ministry of Micro, Small and Medium Enterprises has declared Banyard millets as a district crop under one district one product scheme. To maintain local biodiversity KARE has a crop cafeteria in the campus were 35 local annual and perennial field crops were maintained throughout the year for preserving the crop diversity. The crops includes cash crops, Cotton and Sugarcane, food crops like Maize, Pearl millet, Finger millet, Barnyard millet, Little millet, Kodo millet and proso millet, Black gram, Green Gram, Red gram, Lab-lab, Horse gram, Oil seed crops *Viz.*, Til, Ground nut and Sunflower, Green and Green leaf manure crops. Apart from this, being a drought prone area semi-dry brown rice Land races of Sivappu Chithiraikar, White Chithiraikar, Mattaikar, Norungan, Chandaikar, Nootripathu and Kattanur germplasm were collected locally and maintained in the farm. The medicinal Plants of the locality, namely lemon grass, periwinkle, *Ocimum*, *Aswagandha*, *Aloe vera*, *Gloriosa*, *Phyllanthus*, *Noni* and *Gymnema*, *Bacopa monnieri*, *Ocimum Sanctum*, *Withania somnifera* and *Coleus forskohlii* germplasm were

maintained by ex-situ conservation methods in small plots. The different jasmine species were collected and germplasm were maintained in the farm. The farm of KARE has divided in to wet land, Garden land and Dry land based on the ecological affinity of Crops. The wet land consist of clay soil in which Paddy is a dominant crop, followed by green manure crop of Danicha (*Sesbania sp.*), Black gram, green gram and Banana were cultivated on seasonal basis. In loamy soil of Garden land Cash crop like Cotton and Sugarcane, food crops like Maize, Pearl millet, Finger millet, Seed production Black gram, Oil seed crops *Viz.*, Til, Ground nut and Sunflower were cultivated in large scale. Garden land also covers vegetable crops like Brinjal, Chilli and Tomato and Flower crop of Celosia and Marigold in large area. The Livestock Forage crop like Hedge lucerne, Cumbu Napier hybrid grass, Fodder sorghum and Fodder maize were cultivated as semi-permanent basis. A Separate Orchard were established with different varieties of Mango, Sapota, Guava, Amala and Jackfruit. In Dry land Multi-purpose Agro-forestry model were established with the tree Species of Teak, Casuarina Eucalyptus, Maha Neem (*Melia dubia*) in which the annual crops of Banyard millet and Black gram were cultivated on seasonal basis. Horti-Siliviculture system includes the tree crops of Tamarind (*Tamarindus indica*) and Manila tamarind with annual inter crops. To maintain a sustainable and economical viable bio-diversity system a Agri - Horti - Silviculture system were established at KARE campus which includes the tree Species of, bamboo, Teak, Casuarina, Eucalyptus, Maha and Neem (*Melia dubia*) and Horticultural trees of Tamarind and Manila Tamarind. By viewing the slow growth of tree crops in early crop growth stages, In between two rows of tree crops the arable annual crops of Banyard millet, Green Gram and Black Gram were raised for the economic befits. The Orchard at the KARE campus has numerous Fruit tress and its different varieties. To make more sustainable and to maintain the local ecology and diversity location specific crop production technology were adopted for all crop fields.



Crops at crop cafeteria



Agri-Silviculture System



Agri-Silviculture System



Horti-Silviculture system