

- 1. Project Title** : Developing a tissue culture protocol for identified superior genotypes of Teak available in Karnataka for the mass production requested by the Karnataka Forest Department (KaFD)
- 2. Name of the Principal Investigator** : Dr. Rekha R. Warriar, Scientist-G
- 3. Name of the funding agency** : Karnataka Forest Department
- 4. Date of start & end; Total duration** : **2024-2027: 3 years**
- 5. Total Budget** : Rs.18.02 in lakhs

## 6. Objectives

Develop a tissue culture protocol for superior genotypes of teak identified for Karnataka.

## 7. Outline of Research Programme (yearly plan of action):

Year	Activity
<b>First</b>	<ul style="list-style-type: none"> <li>Survey and identification of superior genotypes with the support of the Karnataka Forest Department</li> <li>Establishment of a clonal archive in the Mother Bed Chamber / Teak Germplasm bank of ICFRE-IFGTB</li> <li>Optimisation of sterilisation procedures for mature explants.</li> <li>Development of protocol to control browning of cultures.</li> <li>Optimization of basal nutrient medium and growth regulators.</li> <li>Impart hands on training on development of protocol to field staff.</li> </ul>
<b>Second</b>	<ul style="list-style-type: none"> <li>Establishment of cultures</li> <li>Maintenance of cultures</li> <li>In vitro / Ex vitro rooting and hardening of rooted plants.</li> <li>Impart hands on training on development of protocol to field staff.</li> </ul>
<b>Third</b>	<ul style="list-style-type: none"> <li>Maintenance of cultures</li> <li>Production of hardened plants</li> <li>Handing over of 50000 secondary hardened plants</li> <li>Impart hands on training on development of protocol to field staff.</li> </ul>

## 8. Overall progress since the implementation of the project:

- Epicormic shoots from four superior genotypes of teak identified by Karnataka Forest Department in Thithimathi, Karnataka were placed in polytunnels to produce buds for micro and macro propagation.
- Two genotypes HAL 10 and SHI 13 are in different stages of multiplication.