

## PROJECT PROFILE

- Title of the Project:** **Biotechnology of Trees**
- Principle Investigator:** Dr. R. Yasodha, Scientist E
- Project Associate:** Dr. N.V. Mathish, Scientist D  
Dr. Modhumita Dasgupta, Scientist D  
Ms. R. Sumathi, RA I
- Duration of Project:** 1995-2001
- Objective:** 1. To establish a nucleus of Scientists and develop laboratory facilities for non-conventional tree improvement programme.
- Funding agency:** World Bank FREEP

### Summary:

- ❖ The basic facilities and technical skills on tissue culture, genetic transformation and DNA markers have been developed to undertake biotechnological research in forestry
- ❖ Developed strategy for commercial multiplication of bamboos and teak.
- ❖ Micropropagation protocols were developed for important bamboo species and eucalypts hybrid *E. torelliana* X *E.citriodora*.
- ❖ Genetic enhancement of teak using micropropagation technique was developed
- ❖ Standardized transformation system for eucalypts and regeneration procedures (organogenesis) in Casuarina
- ❖ Optimized RAPD, ISSR and AFLP methods for casuarina and eucalyptus and obtained RAPD profiles for 12 clones of casuarina.
- ❖ Identified a 20 kDa antifungal protein against *T. vesiculosum*. The antifungal protein identified can be used for isolating genes encoding such proteins, which can further be used in transformation for disease resistance.