Title	:	Preparation of Volume and Yield Table for Indigenous Tree Species in Tamil Nadu.
Principal Investigator	:	Dr. C. Buvaneswaran
Co-Investigator	:	Shri. S. Senthilkumar, IFS, CCF, Head, SFM Division
Duration	:	3 Years (2018 to 2021)
Objectives	:	1. To assess the productivity of fast growing tree species in different age and site conditions under different agroclimatic zones of Tamil Nadu. 2. To assess the productivity of fast growing tree species under different management regimes. 3. To develop volume and yield table for fast growing tree species in Tamil Nadu 4. To develop a mobile based app tool for the farmers for yield estimation
Funding Agency		ICFRE
Summary/Achievements		Tree planting in private lands is being promoted on a large scale under the Tamil Nadu Afforestation Programme (TAP), Tree Planting in Patta Lands (TCPL) and Tamil Nadu Biodiversity Conservation and Greening Programme (TBGP) by TNFD. Many of such plantations are now at harvest stage. However, farmers' are facing a practical problem of volume and yield estimation while felling of trees especially fast growing tree species. This project aimed at preparation of volume and yield table for fast growing tree species like *Melia dubia, Gmelina arborea* and *Ailanthus excelsa*. in different agroclimatic zones of Tamil Nadu with reference to age, management regimes, soil types, etc. In turn, an easy tool will be provided to the farmers in estimation of volume and yield prior to felling. ***Melia dubia*** In total, biomass sampling done in 41 plantations of *Melia dubia* and a total of 122 trees were felled and fresh weight of various biomass components of sample trees measured. Dry weight estimation of samples completed for all the sample trees. Data are compiled and Regression analysis carried out. Developed best-fit model for volume and biomass prediction in *Melia dubia*. The new approach in this project was that the best-fit model was used and developed a Farmer's friendly **Mobile App for yield estimation** in plantations of *Melia dubia*. ***Gmelina arborea*** Growth assessment has been completed in 49 plantations of *Gmelina arborea* and growth measured for a total of 282 sample trees.

		Regression model is being developed to predict the yield in standing plantations of *Gmelina arborea*. ***Ailanthus excelsa*** Growth assessment has been completed in 28 plantations of *Ailanthus excelsa* and growth measured for a total of 171 sample trees. Regression model is being developed to predict the yield in standing plantations of *Ailanthus excels.* In plantations of Gmelina and Ailanthus, growth assessment was done using Leica Laser Distance meter – which was purchased under this project.