PROJECT PROFILE

1.Title: Demonstration of agroforestry technologies for enhancement of livelihood opportunities in different agro-climatic zones of Tamil Nadu (IFGTB/RP-46/2007-2010).

2.Principal Investigator: Shri. S. Saravanan, Scientist-D.

3. **Project Associates**: 1. Dr. C. Buvaneswaran, Scientist-D, IFGTB.

2. Dr. A. Venkatesh, Sr. Scientist, NRCAF, Jhansi

3. Dr. A.K. Handa, Sr. Scientist, NRCAF, Jhansi

4. Dr. Radhakrishnan, Sr. Scientist,

5. Dr. M.P. Divya, Asso. Professor, TNAU.

4. Start and completion date: 2007-2010.

5. Objectives:

1. To establish promising agroforestry systems for demonstration purpose.

2. To assess the impact of agroforestry systems on the house hold and village level farm income and employment opportunities.

3. To build capacity among farmers for establishment and management of agroforestry systems.

4. To demonstrate the value addition and enable market linkage for sustainable adoption of the agroforestry systems.

6. Funding Agency: ICFRE

7. Total budget outlay: Rs. 8.00 lakhs.

8. Summary:

This project is the first of its kind in collaboration of ICFRE with the National Research Center for Agroforestry, Jhansi and Forest College & Research Institute (TNAU), Mettupalayam, to demonstrate/popularize the successful agroforestry systems in different agro-climatic zones of Tamil Nadu, as already identified by the above said research organizations. The project was taken up at the suggestion of the honorary members of the Board of Governers, ICFRE.

The agroforestry demonstration plots have been established with the tree species of *Tectona grandis, Casuarina junghuhniana, Melia dubia, Ailanthus excelsa* and horticultural species. Also, carried out

intercropping activities under the established agroforestry demonstration plots and the economics have been worked out for various systems in different agro-climatic zones of Tamil Nadu.

Among the various systems established in different agro-climatic zones of Tamil Nadu, the Teak + Sugarcane based system demonstrated in Northeastern zone, registered highest annual net income of ` 48, 991 (B:C ratio 2.36) followed by Casuarina + cotton based system established in Cauvery delta zone, registered ` 34, 968 (B:C ratio of 4.87). When compared to the annual net income and the B:C ratio, the income is highest in Teak based system and B:C ratio is high in Casuarina system. This is because of the reduction in the initial establishment and maintenance of the Casuarina based system compared to the Teak based system.

In the workshop on 'Tree cultivation under dry land farming (Farmers Mela)', held in February 2010, the information on successful agroforestry systems were transferred to the farming communities. The same has also been transferred at the time of various training programmes organized at IFGTB on 'Tree cultivation techniques under farmlands'.

Seeing the demonstration plots established, many farmers have approached for further demonstration trials in their farmlands. The contacted farmers were advised to contact the local forest department officials and the forestry extension wing for availing the benefits under the tree planting scheme **(Tree Cultivation under Private Lands – TCPL)** of the State forest department.

Based on the experience gained under this project and the interests showed by the farming communities in tree cultivation under this project, a new project has been proposed on 'Introduction and evaluation of fast growing tree species under different agro-climatic zones of Tamil Nadu' for five years to popularize the agroforestry systems with the fast growing tree species of *Melia dubia, Neolamarkia cadamba, Gmelina arborea* and *Sweitenia macrophylla*.