

Forest Research Centre Hyderabad

The Forest Research Centre (FRC), Hyderabad has been functioning under the administrative control of the Institute of Wood Science and Technology (IWST), Bangalore, since July 1997. The Centre was established to cater to research needs of the states of Andhra Pradesh, Karnataka and Goa in the field of forestry.

PROJECTS COMPLETED DURING THE YEAR 2006-2007

Project 1: Assessment of the impact of forest fire on regeneration of forests in Andhra Pradesh [FRC-X01/EB-01/2002-2007]

Findings: Phyto-sociological studies were conducted in Mancherial and Jannaram Forest Divisions of Andhra Pradesh representing southern dry deciduous forest types to study the effect of fire on natural regeneration of forest vegetation. Soil samples were analyzed to study the effect of fire on physical and chemical properties of soil.

PROJECTS CONTINUED DURING THE YEAR 2006-2007

Project 1: Performance of different agro-forestry systems in Semi-Arid Tropics of Andhra Pradesh [FRC-X02/AF-01/2002-2007]

Findings: On station trials of Teak + Sandal, Rosewood + Sandal, Eucalyptus + Sandal and Teak + Sandal + Rose wood have been established and castor as a rain fed crop was raised. The castor growth performance was monitored across different tree combinations. The allelopathic interactions for green gram, pigeon pea, jowar and castor were studied in combination with all tree species. All agricultural crops performed well in combination with Rosewood. Pigeon pea performed so well that the growth of sandal was negatively affected.

Project 2: Estimation of variability in *Pterocarpus marsupium* and germplasm collection [FRC-X03/TI-04/2003-2008]

Status: A number of population and trees in populations were marked in various parts of AP and Karnataka. The process of germplasm collection has been initiated by vegetative means.

Project 3: Screening of natural populations of *Lagerstroemia* spp. for domestication [FRC-04/TI-X04/2003-2008]

Status: The populations of two species of *Lagerstroemia* prevalent in AP and Karnataka were surveyed and several populations were identified. The processes of germplasm collection (seed) and multiplication (vegetatively) have been initiated.

Project 4: Reclamation of iron ore, limestone mine spoils in Andhra Pradesh and Karnatakaka [FRC-X05/EB-02/2003-2008]

Status: Nursery experiment was conducted for selection of suitable tree species for soil amendment of the iron ore mine spoil.



Project 5: Dynamics of insect populations in cotton based agroforestry systems of Andhra Pradesh [FRC-X06/EB-04/2003-2008]

Status: Data on incidence of insect populations on cotton in combination with bamboo (*Dendrocalamus strictus*), *Eucalyptus*, neem, custard apple, and aonla were recorded.

Project 6: Studies on phenotypic variation in *Pterocarpus santalinus* and collection of germplasm [FRC-X07/TI-01/2003-2008]

Status: Surveyed Kurnool, Cuddapah and Chittoor districts of AP and identified certain trees for collection of germ plasm.



Eucalyptus + Cotton Agroforestry system



Rooted stem cuttings of *Pterocarpus santalinus* under polyglobule conditions in winter season

Project 7: Natural variation studies in Rosewood (*Dalbergia latifolia* Roxb.) for tree improvement [FRC -X08/TI-02/2003-2008]

Status: Plus trees were marked in various parts of Andhra Pradesh and Karnataka. The process of germplasm collection has been initiated.

PROJECTS COMPLETED DURING THE YEAR 2006-2007

(Externally Aided)

Project 1: Impact of the clonal *Eucalyptus* plantations on soil, physical, chemical properties in farmers land in Andhra Pradesh

Findings: The project has been completed and report submitted to ITC Bhadrachalam, the sponsorer.

PROJECTS CONTINUED DURING THE YEAR 2006-2007

(Externally Aided)

Project 1: Biomass estimation and carbon sequestration in urban forests, Funded by HUDA [2005-2006]

Status: Above and below ground biomass estimation has been done for the plantation created by urban forestry at 0.1 per cent sampling intensity. Data on pollution levels from different parts of the city were collected and biomass corresponding to them was recorded. The levels of biomass required to mitigate pollution levels were predicted.

Project 2: Estimation of Forest Carbon Pool in Western Ghats, Karnataka Development of biomass expansion factors for major forest types. Funded by NRSA [2004-2007]

Status: Above and below ground biomasses were estimated in respect of the moist deciduous forests in 1 ha plot. The expansion factors were developed based on this data. Estimation of shrub biomass, litter fall and floor quantification were also carried out.



Estimation of underground biomass in carbon pool project in NRSA collaborative project

NEW PROJECTS INITIATED DURING THE YEAR 2006-2007

(Externally Aided)

Project 1: Development of multi-tier cropping models for medicinal plants in A.P. Funded by NMPB [2006-2007]

Status: The project comprises establishment of 6 ha of plantation with species like Neem, Senna, Chandan, Amla, Tulsi, Kalihari, Satawar, *Momordica dioica* etc. *Asparagus* germplasm was collected from different parts of Andhra Pradesh and Karnataka. Similarly, *Ocimum sanctum* and *Withania somnifera* were collected for large scale cultivation.

Project 2: Bio-ecology and integrated management of insect pests of Aonla (*Emblica officinalis* Gaertn.) Funded by NMPB [2006-2007]



Status: Data on incidence of insect pests are being recorded at Hyderabad, Rajamundhry and Nandyal of Andhra Pradesh Experiments on yield loss studies have been initiated.

Abstract : No. of Projects

	No. of projects Completed in 2006-2007	No. of ongoing projects in 2006-2007	No. of projects initiated in 2006-2007
Plan Projects	1	7	-
External Projects	1	2	2
Total	2	9	2

CONSULTANCIES

1. Monitoring and evaluation work sponsored by the Ministry of Environment and Forests under National Afforestation Programme (NAP) for FDAs in Warangal, Nizamabad and Medak Districts of Andhra Pradesh were carried out by the Centre.
2. Impact assessment on Nagarjunasagar Srisailem Tiger Reserve (NSTR) and on wildlife due to diversion of forest area under Mahatma Gandhi (Kalwakurthy) Lift Irrigation Project (MGLIP) in Achampet wildlife division, Mahaboobnagar dist.
3. Study of existing flora and fauna and assessment of impact on flora and fauna due to diversion of forest land under Koyagudem opencast project by Singareni Collieries Company limited, Andhra Pradesh.
4. Mid term evaluation of FDAs in Guntur, Giddalur, Bellampally, Kagaz Nager, Paloncha, Markapur, Tirupathi and Rajampet of Andhra Pradesh approved by NAEB, New Delhi.

CONFERENCES/MEETINGS/WORKSHOPS/SEMINARS/SYMPOSIA/EXHIBITIONS

Dr. G.R.S. Reddy participated in interactive Technical Session conducted by State Silviculturist at AP Forest Academy on 23 March, and delivered a talk on "Tree improvement and Silvicultural aspects of Pongamia pinnata" at AP Forest Academy, Dullapally, Hyderabad.