

CHAPTER-XIII

CENTRE FOR FORESTRY RESEARCH & HUMAN RESOURCE DEVELOPMENT, CHHINDWARA

Centre for Forestry Research & Human Resource Development, Chhindwara, presently working under TFRI, Jabalpur, came into existence on 30th March 1995. From 3rd January 1996 it has been declared as a Satellite Centre of TFRI with the idea of developing human resource especially of tribal, population for forestry and related activities.

PROJECT COMPLETED DURING 1999-2000

Nil.

OLD PROJECT CONTINUED DURING 1999-2000

Sl No.: 01

Project identification No: CFHRD 1

Name of the principal investigator: Dr. S.K. Baneerjee

Title of the project: Junior/Senior certificate course in Nursery and Plantation Technology.

Year of start of the project: 1995

Target year of completion: Continues.

Cost of the project: Rs.0.68 lakhs

Objectives: To develop human resource for rural self employment by training in forestry and related activities.

Scientific importance of investigations: The trainees selected from below the poverty line strata and will be given theoretical, practical input on Nursery and Plantation Technology for afforestation in waste land/homestead land to reduce pressure on natural forests.

Results/Achievements: Fifth Junior Certificate Course on "Nursery and Plantation Technology" has been started and will be continued on 6th Aug. 2000. Ten trainees will be trained under this course.

Sl.No.: 02

Project identification No : CFHRD 2

Name of the principal investigator: Dr. A.K. Pandey

Title of the project: "Physiochemical examination for utilization of bark, leaves, fruits and roots of some native forest species".

Year of start of the project: 1997.

Target year of completion: 2001.

Cost of the project: Rs. 1.98 lakhs

Objectives: (a) To identify the plants yielding natural aromatic products. (b) To isolate and identify the by-products on fractionation. (c) To explore the possibility of utilization of leaves, fruits and roots of some native forest species.

Scientific importance of investigations: The demand of forest based industries utilizing the forest products is rapidly increasing world wide and thus there is a need to identify additional natural sources of aromatic substances and to prescribe scientific extraction practices for maximization of economic production or growth.

Results/Achievements: Exploratory tours were conducted in the forest areas of Chhindwara District for the collection of plant materials. About 46 plant species were collected and oils were extracted from the seeds of *Madhuca*, *Jatropha* and *Pongamia*. The oils were characterised for their chemical constituents. Essential oils were extracted from *Ocimum*, *Cymbopogon* and *Mentha*. GC - MS analysis of the essential oils were worked out. Anti-microbial activity of these materials was also carried out.

SI No: 03

Project identification No.: CFHRD 3

Name of the principal investigator: Dr. P.B. Meshram

Title of the project: Identification of the key pests of *Embllica*, *Gmelina*, and *Terminalia* in nurseries, plantations, natural forests and investigate their control measures.

Year of start of the project: April 1997

Target year of completion: March 2001.

Cost of the project : Rs 1.90 lakhs

Objectives: (a) To identify the key pests of target species. (b) To assess damage/losses by insect attack. (c) To investigate their control measures.

Scientific importance of investigations: *Embllica officinalis*, *Gmelina arborea* and *Terminalia* spp. are important tree species, severely attacked or damaged by large number of insect pests adversely affecting the growth and productivity. Developing effective control measures is need of the hour.

Results/Achievements: The insect pests damaging the plants of *Embllica officinalis*, *Terminalia arjuna*, *T. bellarica*, *T. chebula*, *T. tomentosa* and *Gmelina arborea* were collected, preserved and their identification is in progress. The assessment of losses by the key pests was also made. Field trials were conducted to find out the effect of some systemic insecticides against bahera seed borer/weevil, *Mecobaris terminalae* and twig gall forming black caterpillar, *Betousa stylophora*. Seasonal history of *B. stylophora* on *E. officinalis* is in progress. Resistance against *B. stylophora* was examined in five varieties of *E. officinalis*. Pest problem of *G. arborea* in Thane Dhahanu Project Divisions, FDCM Ltd. M.S. was studied.

SI.No.: 04

Project identification No.: ICFRE: 18

Name of the principal investigator: Dr. P.K. Pandey

Title of the project: Structure and function of the tropical dry deciduous forest as per degradation status with especial emphasis on forest management and regeneration.

Year of start of the project: 1999.

Target year of completion: 2002.

Cost of the project: Rs 1.85 lakhs

Objectives: (a) To assess the anthropogenic and biotic impact on the degraded forests. (b) To study the biodiversity and physio-sociological status. (c) To assess the regeneration behaviour of important tree species. (d) To estimate the biomass productivity and nutrient cycling.

Scientific importance of investigations: The increasing demand of timber and other forest products, grazing and other biotic and abiotic components are disturbing the natural forest vigorously. Consequently, it affects the whole ecosystem in terms of their structure and function. Very few studies have been undertaken on the productivity and nutrient cycling on tropical dry deciduous forests. The present study would help to understand the degraded forest, impact assessment on the biodiversity status, structure and functioning of these degraded forests ecosystems.

Results/Achievements: Papers on litter fall and nutrient concentration varieties and return to the forest floor were prepared. Statistical analysis of tree, shrubs and herb biomass and regression models on different components with diameters, height have been developed. Nutrient analysis (NPK, Ca & Mg.) for litter and plant samples is under progress.

Sl.No.: 05

Project identification No.: CFHRD 4

Name of the principal investigator: Jagdish Singh

Title of the project: "Standardization of vegetative propagation methods of *Buchmania lanzan*."

Year of start of the project: 1998.

Target year of completion: 2001.

Cost of the project: Rs. 1.80 lakhs

Objectives: (a) To standardize the nursery techniques. (b) To standardize and develop suitable propagation methods. (c) Mass multiplication of the species/clone. (d) To establish clonal or vegetative seed orchards/seedling seed orchards.

Scientific importance of investigations: The demand of the edible fruits/kernels of this economically important tree species is rapidly increasing. Keeping in view of its low germination potential and regeneration, the project will be helpful in faster propagation of this species.

Results/Achievements: Nursery has been established in an area of 0.2 ha. at Poama, Chhindwara. Locally fabricated low-cost non mist chamber has been established. Experiments were conducted to study the propagation through root suckers. Seeds have been collected from various sources and experiments were laid out to standardize the Nursery Techniques.

Sl.No.: 06

Project identification No.: NOVOD (Sponsored project)

Name of the principal investigator: Dr. S.K. Banerjee

Title of the project: National network on "Integrated Development of Neem" in various agro-ecological regions of India (M.P. and Orissa).

Year of start of the project: 1999

Target year of completion: 2001

Cost of the project : Rs. 33.00 lakhs

Objectives: (a) To develop the seed seedlings orchards. (b) To study the phenological aspects and the insect pests/diseases. (c) To study the chemical analysis.

Scientific importance of investigations: Valuable information will be available that can be used for development of better quality neem plants. Better planting stock will be available.

Results/Achievements: Plus trees were selected in various agroclimatic zone of Madhya Pradesh and seeds were collected from the selected plus trees. Seeds were analysed for their morphological character. Chemical analysis was also done. A neem nursery was developed at Poama and 30000 seedlings were raised for further plantation activities. Phenological studies were conducted at selected sites viz. Satpura Plateau, Vindhya area and Vainganga belt. Preliminary screening of Fifteen provenances of neem was also done against the pests and diseases. Foliar spraying of Nuvacron (0.036%) and Carbendazin (0.1%) was also done against the pests and diseases.

NEW PROJECTS TAKEN UP DURING 1999-2000

NIL

EXTENSION

Transfer of Technology. :

Training :

- 5th Junior Certificate Training Course has been started for improvement technical skills among grass root level workers.
- Two training programmes on seed, nursery plantation technology and agroforestry models for user groups (e.g. farmers, women village youth and foresters) were organised under UNDP-ICFRE Project.
- Neem Training Programme was organised for farmers and State Forest Departments.

Seminars, Workshops, etc. :

- Workshop on "Integrated Development of Neem", was organised on 28-29 December 1999.
- Two workshops on "Training/Demonstration Activity, under UNDP-ICFRE Project were organised on 7-11th March 2000 and 27-31st March 2000.

Brochures with title and authors if any :

- One booklet on the information about seeds under UNDP-ICFRE Training Programme. By - A.K. Pandey *et.al.*
- Two technical bulletins on cultivation of medicinal plants - Satavar and Ashwgandha. By A.K. Pandey *et.al.*

Folders, pamphlets with titles:

One pamphlet on Neem activity.

FINANCIAL STATEMENT DURING 1999-2000

I. PLAN			
Sl. No.		SUB-HEAD	Expenditure (Rs. in lakh)
I.	A.	REVENUE EXPENDITURE (a) Research (b) Administrative Support (c) Others specify	19.59 12.56 -
		Total for Revenue Expenditure 'A'	32.15
	B.	LOAN AND ADVANCES (a) Loan Advances (Conveyance) (b) House Building Advance	02.24 00.75
		Total for 'B'	02.99
	C.	CAPITAL EXPENDITURE (a) Building & Roads (b) Equipments, Library Books (c) Vehicles (d) Other specify	NIL
		Total for 'C'	NIL
		Grand Total for A+B+C (PLAN)	35.14
II. NON-PLAN			
I.	A	REVENUE EXPENDITURE (a) Research (b) Administrative Support (Salary)	NIL
		Total for PLAN + NON-PLAN	35.14
III. FUNDED PROJECT			
		A. World Bank Project	04.61
		B. UNDP Project	00.80
		C. NABARD Project	-
		D. FORTIP	-
		E. Others specify	-
		Grand Total for (A+B+C+D+E) FUNDED PROJECT	05.41