

## New Initiated ICFRE Funded Project 2010-11 –TFRI

Project S. No.	Name of Project	PI	Thrust Area	Current Status
1	Biological control of insect pests of medicinal plants- <i>Abelmoschus moschatus</i> , <i>Glorisa superba</i> and <i>Withania somnifera</i> . (March, 2010,2010-2014)	Dr. P. B. Meshram	Forest Protection (Insects pests, diseases and control )	Survey was conducted in different localities of M.P., C.G. , M.S. and Orissa. The insects damaging the medicinal plants of target species were collected and reared in laboratory for further study. Identification of insects, seasonal history of key insect pests and sampling of natural enemies are in progress.
2	Counterbalancing the detrimental effect of Sponge Iron Factory-emitted Particulate Matters (SIFPM) with the protective effect of Vesicular Arbuscular Mycorrhiza (VAM) on the growth of seedlings of important tree species. (March, 2010,2010-2012)	Dr. R. Sett	Forest Protection (Mycorrhizae, rhizobia and other useful microbes)	The project started by June 2010 and work is progressing satisfactorily.
3	Damage assessment of gall making insect species of eucalyptus and its management by pesticides. (March, 2010,2010-2012)	Dr. N. Roy Choudhury	Forest Protection (Insects pests, diseases and control )	Procured seeds of eucalypts and their sowing carried out in insectary. Conducted periodical survey in forest nurseries/ Plantations for collection and observation on damage impact of gall insect and its natural enemies.
4	Development of certification criteria and production of microbial inoculants for application in forest nurseries and plantations. (March, 2010,2010-2014)	Dr. R. K. Verma	Forest Protection (Mycorrhizae, rhizobia and other useful microbes)	This project has been started from April 2010. Identification number and the budget allotted in May 2010. Preliminary literature survey and preparation of nursery beds has been started. Collection of samples for isolation of microbes.
5	Development of food Products from <i>Madhuca indica</i> flowers for the upliftment of the tribal/Rural Communities of Central India (March, 2010,2010-2012)	Dr. Vishakha Kumbhare	Non-wood Forest Products (NWFPs) (Chemistry of NWFPs, Value Addition and Utilization)	Collected raw material (flowers) of <i>Madhuca indica</i> from available source. Further work is under progress.
6	Development of lac based agroforestry (silvi-Agri-Lac) system (March, 2010,2010-2015)	Dr. N. Berry	Forest Productivity (Social Forestry, Agro-forestry /Farm Forestry)	Identified and selected study sites as an OSR and OFR for the study and prepared sites for establishing Lac based agroforestry system by planting lac host shrub viz. <i>Flemingia</i> species intercropped with agriculture crop <i>Cajanus cajan</i> for the agroforestry system. 2. Procured <i>Flemingia</i> plants from Indian Institute of Resin and Gums, Nakum, Ranchi (Jharkhand) and planted at 3mx2 m and 4mx2m intercropped with Arhar plants in Factorial Randomised Block Design. 3. Soil samples were collected from both the sites for estimation of nutrient status of land before the initiation of system.
7	Development of multitier cropping (Silvi-Agri-Spice) system. (March, 2010,2010-2015)	Dr. N. Berry	Forest Productivity (Social Forestry, Agro-forestry)	1. Identified and selected study sites as an OSR and OFR for the study and prepared sites for establishing multitier system by using Aonla, Arhar and adrak crops for the agroforestry system.

			/Farm Forestry)	2. Procured and raised plants of aonla(two cv. NA7& NA10) at 10mx8 m and 10mx6m intercropped with Arhar plants in Factorial Randomised Block Design. 3. Soil samples were collected from both the sites for estimation of nutrient status of land before the initiation of system. 4.Appointed Shri Dashrath Singh as JRF under the project.
8	Documentation and distribution of Forest Invasive Species (FIS) of Jabalpur, Katni, Mandla and Seoni districts of Madhya Pradesh. (March, 2010,2010-2013)	Dr. V. Nath	Forest Protection (Weeds and Invasive species)	Selection of site has been completed in four districts of MP. Experimental plots have been selected in Jabalpur ,Seoni, Mandla and Katni districts. Quadrates have been laid out in above districts for visitation study and to document the FIS. Some invasive species observe in the study area have been identified. The work is in progress.
9	Germination eco-physiology of two important tropical forest tree species: <i>Schleichera oleosa</i> and <i>Pterocarpus marsupium</i> . (March, 2010,2010-2013)	Dr. M. Kundu	Forest Productivity (Silviculture )	The Project has been started on June, 2010. <i>Schleichera oleosa</i> fruits had been collected from Madhya Pradesh and Chattisgarh and seeds had been extracted from fruits.
10	Influence of forest canopy cover on ground flora and micro-climate in western ghats (Maharashtra) (March, 2010,2010-2012)	Dr. Avinash Jain	Ecosystem Conservation and Management (Ecology and Environment)	Selected sites of varying canopy density in Western ghats. Conducted vegetation studies. Collected soil samples and analyzed in laboratory.
11	Integrated management of vascular wilt disease of <i>Azadirachta indica</i> (Neem), <i>Embllica officianalis</i> (Aonla), and <i>Gmelina arborea</i> (Khamer) in forest nurseries. (March, 2010,2010-2013)	Dr. K.K. Soni	Forest Protection (Insects pests, diseases and control )	Three sites of M.P. viz Caraboh nursery, Poama Nursery (Chhindwara) and Neempani (Betul) have been visited for disease surveying and for collecting diseased plants. Isolation of wilt causing pathogen is under process.
12	Integrated nutrient management for improved growth of trees on over burden dumps. (March, 2010,2010-2014)	Dr. A.C. Suryaprabha	Forest Productivity (Forest Soils and Land Reclamation)	The project has been initiated from June, 2010. Field visits were conducted at Kanhan region of Western Coal Fields Limited, Junnardeo and Pench area of Western Coal Fields Limited, Shivpuri area for selection of coal mine overburden site for laying out experiment. Shivpuri open cast mine-1 has been selected for taking up the experiment. Seeds of <i>Albizia lebbbeck</i> , <i>Acacia mangium</i> , <i>Acacia auriculiformis</i> , <i>Alstonia scholaris</i> , <i>Cassia siamea</i> , <i>Delonix regia</i> , <i>Embllica officianalis</i> , <i>Moringa oleifera</i> and <i>Gmelina arborea</i> , were sown in poly-bags for raising seedlings
13	Studies on larval parasitoids, <i>Apanteles</i> spp. (Hymenoptera : Braconidae) of major defoliators of teak and sal forests of Orissa. (March, 2010, 2010-2013)	Dr. Mohd. Yousuf	Forest Protection (Insects pests, diseases and control )	1. Visited Sambalpur, Angul, Kalahandi, Nawa para and Koraput for the collection of larvae of major defoliators of sal and teak forests. 2. As a whole 30 samples of teak defoliator <i>H. puera</i> larvae, 19 samples of teak skeletonizer <i>E. machaeralis</i> larvae and 9 samples of sal defoliator, <i>L. mathura</i> larvae and 13 samples of <i>P. subapicalis</i> larvae were collected for their laboratory rearing and emergence of <i>Apanteles</i> spp. 3.Four specimens of <i>Apanteles</i> were emerged from larvae of <i>Hyblaea puera</i> ,

				<p><i>Eutectona machaeralis</i> and <i>Lymantria mathura</i>.</p> <p>4. Eight slides of <i>Apanteles</i> spp. were prepared for their morphological study and identification.</p>
14	<p>Studies on root rot and stem decay diseases in <i>Acacia catechu</i> and their control. <b>(March, 2010, 2010-2013)</b></p>	<p>Dr. R.K. Verma</p>	<p>Forest Protection (Insects pests, diseases and control )</p>	<p>This project has been started from April 2010. Identification number and the budget allotted in May 2010. Preliminary literature survey and preparation of nursery beds has been started. Disease survey and collection of samples started.</p>
15	<p>Studies on variations with respect to in vitro azadirachtin production in selected high yielding populations of <i>Azadirachta indica</i> A. Juss. <b>(March, 2010,2010-2013)</b></p>	<p>Dr. Fatima Shirin</p>	<p>Non-wood Forest Products (Chemistry of NWFPs, Addition and Utilization)</p>	<p>Seeds and cuttings were collected from 4 different populations of M.P. (Chhattarpur, Katni, Sehore and Khandawa) from 20 different trees in each population. In vitro aseptic cultures using nodal segments and seeds have been established.</p>