

## Activities of Rural Technology Action Groups (RuTAGs) as on June, 2007

### RuTAG, IIT Madras, Tamil Nadu

#### Initial Efforts

To begin with, the Gandhigram Trust, Dindigul was identified as one of the NGOs who would be associated with the project. To proactively identify the rural needs, seminars were organised involving NGOs and visits to the rural areas were undertaken by the RuTAG team. Specific technology upgradation works have been taken up with the participation of R&D institutions like CLRI, NIOT etc., A visit of artisans from Bastar to Swamimalai was arranged in 2004 for an exposure to the metallic work of artisans in Swamimalai. A training was arranged in Auroville for masons/civil engineers in mud blocks manufacture and construction of earthquake resistant houses. Renovation and protection of some of the Ooranis to provide safe drinking water to the rural population has been started in association with the Department of Rural Development, Government of Tamil Nadu.

Preparation of a database and a web site on rural technologies has been initiated to bridge information gap on technologies. The RuTAG cell will disseminate information on all available rural technologies to the interested rural institutions.

#### Projects

The following technology upgradation projects have been initiated under the RuTAG cell, Tamil Nadu.

#### Completed projects

S.N	Title of the proposal	NGO	Participating Institutions
1	Sanitary Napkins	Gandhigram Trust ,Dindigul District	Kumaraguru College of Technology
2	Natural Dyes – Phase I	Gandhigram Trust Dindigul District	IIT Madras
3	Physico-bio-chemical Standardization of selected Ayurvedic Preparations – Phase I	Gandhigram Trust, Dindigul District	IIT Madras
4	Coir Spinning Ratt – Phase I	Small Industries Service Institute	IIT Madras
5	Mud Blocks for Low cost Housing – Phase I	Pothu Vivasayeegal	IIT Madras

		Sangam	
6	Bridge across small canal	Pothu Vivasayeegal Sangam	IIT Madras
7	Rain Gun	RIN	IIT Madras

### **Ongoing projects**

<b>S.N</b>	<b>Title of the proposal</b>	<b>NGO</b>	<b>Participating Institutions</b>
1.	Lamps with bright white LEDs	Tribal Health Initiative	National Institute Of Ocean Technology (NIOT)
2.	Low Bed tractor trailer	Pothu Vivasayeegal Sangam	IIT Madras
3.	Physico-bio-chemical Standardization of selected Ayurvedic Preparations–Phase II	Gandhigram Trust, Dindigul District	IIT Madras
4.	Banana Fibre Extraction Machine	Industree crafts foundation	PSG College of Technology, Coimbatore
5.	Solar Energy Operated Tricycle for Rural Physically Challenged	The Spastic Society of Tamil Nadu	Anna University
6.	Improvement of the crack resistance of Athangudi tiles	M.R.M.R.M. Cultural Foundation	IIT Madras
7.	Solar Powered Fans	Kuthambakkam Village Panchayat	IIT Madras
8.	Biogas from non-edible oil cakes	Vivekananda Kendra	IIT Madras
9.	Mud Blocks for Low cost Housing – Phase II	Pothu Vivasayeegal Sangam	IIT Madras
10.	Coir Spinning Ratt – Phase II	Small Industries Service Institute	IIT Madras
11.	Natural Dyes – Phase II	Gandhigram Trust Dindigul District	IIT Madras
12.	Cono weeder	Pondichery Science Forum	IIT Madras

13.	Weevil Detector	Mitraniketan	NIOT / IIT Madras
14.	Artificial Foot	Gandhigram Trust, Dindigul District	Central Leather Research Institute and IIT M
15.	Optimization and modernization of Soap making process	Gandhigram Trust	IIT Madras
16.	Energy efficient street lights	Tribal Health Initiative, Sittilingi Dharmapuri Dist	IIT Madras

## **RuTAG – North East**

### **Activities**

#### **Mini Projects**

- 1. Improved cycle for Carriage of Banana & other Food Products to the Darrangiri Banana Market, Goalpara, Assam:** Darrangiri Banana Market is one of Asia's big banana markets. Previously average 8 bunches of banana per bicycle were carried to the market. Now banana growers can carry 14 bunches of banana by the improvised bicycle developed by RuTAG-NE. further improvisation of the bicycle is being carried out.
- 2. Spinning Technology of Eri at Tamulpur Anchalik Gramdan Sangh (TAGS), Kumarikata, Baksa, Assam:** The task is to develop a suitable system of semi-mechanized machineries which will enhance the spinning productivity rate of eri (a variety of silk) such that the income of spinners and weavers increases. A model of new lap-cutting machine has been developed. Present status of production technology, end products, quality and standardization has been studied. KGPS, Ahmedabad, Assam Textile Institute, Guwahati, Central Silk Board and few NGOs besides TAGS are collaborating for the task.

#### **Workshop**

- Cultivation of Mushroom, Preservation of Indigenous Medicinal Plants & Food Processing held on 15-16 March, 2007 at Shanti Sadhana Ashram, Guwahati
- Production of Eri held on 20 April, 2007 at the IE(I), ASC, Guwahati
- Renewable Energy held on 18-19 May, 2007 at Assam Engineering College, Guwahati.

#### **Training**

- Five women participants from Shanti Sadhana Ashram, Guwahati (an NGO dedicated for upliftment of rural people) sponsored by RuTAG-NE joined a training programme on cost effective Sanitary Napkins at Gandhigram Trust, Gandhigram, Tamilnadu organized by RuTAG-Tamilnadu from January 29, 2007 to February 3, 2007.

- A Training-cum-Production Unit of Cost Effective Sanitary Napkins will be set up at Shanti Sadhana Ashram, Guwahati. The aim of the project is to start production of sanitary napkins in scientific way so that it can generate employment as well as improve the hygiene in the region.

### **Field study**

Dr (Ms) R Chaturvedi, Asstt. Professor, Biotechnology Deptt., IIT Guwahati & a Ph D scholar visited Darrangiri and adjoining areas including some areas of East Garo Hills, Meghalaya for field study of Banana plantation

### **Exhibition of Rural Technology**

RuTAG-NE in collaboration with GIAN-NE joined at prayukti@prag, the Exhibition Programme of the Indian Engineering Congress held at Guwahati from 21<sup>st</sup> December-24<sup>th</sup> December, 2006 to showcase some of the exhibits of rural technology innovated by the people of North-East. Innovators from Assam, Nagaland and Manipur joined the exhibition and demonstrated the exhibits. Few important exhibits were:

- 1. Egg Incubator**
- 2. Wood Carving Machine**
- 3. Dual Security Alarm Clock**
- 4. Bamboo Lathe Machine**
- 5. Arecanut Peeling Machine**
- 6. Jatropa Deseeder**

### **RuTAG, Uttarakhand**

#### **Activities- Projects**

- 1. Development of Gravitational Ropeways system:** The ropeway between Dhari – kalogi and Ludogi villages in Naugaon Block of district Uttarkashi (Length: 1200m, Difference in height 600m) has been installed successfully on 11/04/07 in presence of Dr. S. K. Sikka , Scientific Secretary.
- 2. Zero Energy Cool Chamber:** Zero energy cool chambers to retain the freshness of the fruits and vegetables for a short period for small farmers were constructed at HARC Centre, Naugaon, Uttarkashi under the supervision of Dr. R.K. Pal Scientist, Indian Agriculture Research Institute, New Delhi.
- 3. Technology for Extraction of Pulp from Dry Pine Needles (DPN):** The technology for making pulp out of dry pine needles (DPN) for making high absorbency paper and paper products has been developed at Paper Technology Division, IIT, Roorkee, Saharanpur Campus, U.P.
- 4. Development of Hand Made Paper Making Technology:** Identification of alternative raw materials with their extent of availability in Uttarakhand is being done by the Uttaranchal Bamboo and Fiber Development Board (UBFDB).
- 5. Pilot Scale Micro – enterprises:** Under the scheme “Uttaranchal Gramya Vikas Samiti” of “Livelihood Improvement Project for the Himalayas” (Aajeevika) is setting up a micro – enterprises in (i) solar Food processed products such as – Fruits, Vegetables, Green leafy vegetables, Spices, non – wood forest produce,

medicinal and herbal products and (ii) Glass fiber polymer based handicraft manufacturing units in 17 blocks of 5 districts of Uttarakhand.

6. **Low Cost Sanitary Napkins for Rural Women of Uttarakhand:** Women from different rural areas of the State were trained in making low cost sanitary napkins at SHG level. Suitable sites have been selected for setting such units in Uttarakhand.
7. **Decortication of Wild Walnut and extraction of toxicity Free Apricot Oil:** OTRI, (J.N.T.U) is developing technology for decortication of wild walnut and extraction of toxicity free apricot oil for edible purposes.
8. **Solar Dryer:** Large quantities of wild apricot go waste because these are not fit for table purposes. Processing of wild apricots is being done with solar dryer designed and developed by BARC. After initial trials, some more refinements are being done to improve the quality of the finished product.