

**Rural Women Technology Park Project (RWTP) of University of Petroleum & Energy Studies,
Dehradun (SEED/WTP/038/2014). (2015-2018)**

**[Dr. Neelu J. Ahuja, Principal Investigator, Dr. Bhawna Y. Lamba, Co-Investigator, Dr.
Kanchan D. Bahukhandi, Co-Investigator, Dr. Sapna Jain, Co-Investigator]**

The work is being done under three technology components –

- (a). Recycling of waste paper
- (b). Identification & Cultivation of Medicinal and Aromatic Plant (MAP) Species
- (c). Information and Communication Technology (ICT) assisted Art & Craft Design.

Under Recycling of waste paper component of Women Technology Park project at UPES, we aim to bring economic independence among rural women and awareness about the environmental sustainability. Project started with recruitment of field assistant to work on the various aspects of the project. The construction of site has been done in 1500 sqft. to house the pencil making machine. The set of pencil making machines have been procured from Gujarat. The machines have been installed and commenced, successfully. We have also conducted survey for development of Self Help Group (SHG) in the various nearby villages Sahaspur block, Bidholi, Bishanpur, upper kandoli, paundha, Doonga, Masraspatti, Bakarna. The responses are encouraging as the rural women are willing to get trained and work on the machine. We have trained rural women of SHG for production of pencils. After successful training of production of pencils from waste newspaper, they have been trained, for development of other value added products from left over newspaper and other waste papers. Till date we have successfully completed and delivered 5000 pencils for special train "Science Express Climate Action Special". The amount generated was distributed among the beneficiaries, who were actively involved in the production of pencils. In addition we also successfully completed and delivered an order of 3000 pencils for Hon'ble Members of Parliament at Science Exhibition event held at New Delhi (28th – 29th March, 2017).

Under Identification and cultivation of MAP component, in first year of this project we had selected 10 villages to conduct socio- economic survey and finally identified villages, Misras Patti, Than and Doonga for Chamomile cultivation. An awareness generation camp about the promotion and cultivation of Medicinal and Aromatic plants was carried in all selected villages. Workshops and awareness training programs have been organized for villagers for cultivation of MAPS. Total Training Programs: 8, Participants: 250. Poly-house and nurseries have been developed, at UPES to produce the seedlings of medicinal and aromatic plants i.e. Stevia, Chamomile (tea), Tulsi, Ashwagandha, Sarpagandha, Lemon Grass, Aloe Vera and Kaliyari. Collaboration and linkage for technical support and marketing has been carried out with Aushadhi Garbha Himalaya Pvt. Ltd, who is well known for Cultivation of MAPs and linkage with international market. The growing season of Chamomile was September so we have formed 15 nursery beds for chamomile in three villages- Doonga, Than & Bharapur. Cultivation of Chamomile has been done in around 40 Bigha or 160 Naali covering around 20 farmers in Maesraj Patti, Doonga and Than Gaon village. Total 225 kg of Chamomile has been purchased and given to farmers. Land levelling and preparation of land has

been conducted. Now we have 13 aloe vera cultivators as well as area of Chamomile has been increased by 2 bigha. The development of MAP lab at UPES, is in initial phase, we have established an extraction unit, so that, we can take out the essential oil for experimental purposes from different crop MAP species grown by our farmers. Oil yield is different for different MAP species. More or less it depends on the post harvesting techniques used by the farmers. By this extraction work our main aim is to develop best post harvesting techniques for the farmers so that they can take a best yield and quality of MAP. In addition, at field, we have made a SHG of women in Birsaini village of Sahaspur in which we have 11 women farmers and this group is working on aloe vera cultivation. We have provided them 500 plantlets of aloe vera for nursery preparation and seeds of tulsi for coming season (July-September 2017).

Under ICT assisted Art & Craft design component, focus is bringing creativity and innovation in craft work of rural women, through ICT, leading to enhanced livelihood, self-sustainability and empowerment. We have established at UPES campus, computer (ICT) laboratory and art and craft studio-cum-workshop, for training and innovative design/blueprint creation. 90 beneficiaries (rural women having minimum education, from villages-Bharapur, Masras Patti, Doonga, Than Gaon, Bidholi, Radapur, Chharba, Sahaspur Block, Rampur, Rampur Khurd, Chota Rampur, Dhaki, Fetehpur, Dhakrani, Herbertpur), have been identified, given, ICT training, of computer basics, MsOffice/internet/email skills, design education, entrepreneurial and managerial skills. Then craft training was provided through master artisans, where utility and decorative articles - dustbins, pen/pencil-holders, flower-pots, chapatti-casseroles, flower-picking-baskets, designer jute bags were made, using bamboo/ringaal/jute, as raw material, abundantly available at Uttarakhand. ICT intervention facilitates beneficiaries, to identify consumer requirement, apply creativity, innovate, and produce designer and appealing apparels. With 04 ICT trainings, 04 craft workshops, conducted, 90 working beneficiaries achieved, sources of eco-friendly craft raw material identified, we are aggressively working towards market connect, to assist them, earn befitting labour. We have collaborated with Uttarakhand Bamboo and Fiber Development Board (UBFDB) for additional trainings and support. To provide sustainability of work and quality maintenance of products, beneficiaries need to connect together and associate with expert craft designers. For connecting all beneficiaries together we have registered them as a cooperative society (Registration No: टी0 वी0 - 13; Name: मेरा कौशल मेरा विकास). To facilitate the group with upgraded machinery, equipment and work environment, collaboration has been made with Yuvayana Tech and Craft, This is a voluntary organization that works for poor people in need for employment. We have successfully delivered order (of products as gift hampers, conference gifts for delegates), for in-house activities and outside clients. Some of them are, conference kits for delegates of international conferences, CIGN-2016, THDC-IHET, at Tehri (23-25 Dec, 2016) and NEW-2017 at UPES, Dehradun (Feb, 2017), Gift hampers for hon'ble Members of Parliament at Annual Science Exhibition (28th-29th Mar, 2017), at New Delhi, UPES-Career carnival event (Apr, 2017).

1. Activities that were carried out for skill development under Women technological park (WTP)

S.No	Name of the activity	Category	Date of occurrence of event/activity	Name & details of the resource person
1	Women health & hygiene awareness (for rural women beneficiaries of DST)	Gender Awareness	8th - 9th Mar, 2017	Ms. Anuroop Kaur (Community Health Expert, Doon Institute of Medical Science,

	funded WTP Project and for housekeeping staff of UPES).			Dehradun)
2	ICT Skills to Rural Women beneficiaries of DST funded WTP Project	Skill Development	2nd - 4th Feb, 2016	In-house Research Scholar
3	Art & Craft with bamboo	Skill Development	13-15 Jan, 2016	Bamboo Artisans - Mr. Ram Kumar, Mr. Girish & Ms. Renu
4	ICT Skills to Rural Women beneficiaries of DST funded WTP Project	Skill Development	15-16 June, 2016	In-house Research Scholar
5	Art & Craft with bamboo	Skill Development	25-31 May, 2016	Bamboo Artisans - Mr. Ram Kumar, Mr. Girish & Ms. Renu
6	ICT Skills to Rural Women beneficiaries of DST funded WTP Project	Skill Development	29-30 Aug, 2016	In-house Research Scholar
7	Art & Craft with bamboo	Skill Development	5-10 Sep, 2016	Bamboo Artisans - Mr. Ram Kumar, Mr. Girish & Ms. Renu
8	ICT Skills to Rural Women beneficiaries of DST funded WTP Project	Skill Development	19-20 Jan, 2017	In-house Research Scholar
9	Art & Craft with bamboo	Skill Development	11-20 Dec 2016	Bamboo Artisans - Mr. Ram Kumar, Mr. Girish & Ms. Renu
10	Art & Craft with bamboo	Skill Development	9-13 Jan, 2017	In-house Research Scholar
11	Art & Craft with bamboo	Skill Development	21-26 Aug 2017	Mr. Pradeep Kumar, Pipalkoti, Chamoli
12	Opportunities with Co-operative societies and SHG formation	Environmental Sustainability	6th Apr, 2016	Mr. Rajesh Chauhan, District Additional Registrar,
13	Opportunities on Bamboo and Natural Fiber in Uttarakhand	Environmental Sustainability	4th Feb, 2016	Mr. Dinesh Joshi, Program Manager (UBFDB)
14	ICT Skills to Rural Women beneficiaries of DST funded WTP Project	Skill Development	13-14 Sep 2017	In-house Research Scholar





