

Report on

Rural Technology Action Group - RuTAG

Indian Institute of Technology Delhi

Regional Workshop

At

Akhil Bhartiya Vanvasi Kalyaan Ashram (ABVKA)

Jashpur Nagar, Chattisgarh

(June 03-04, 2014)



By

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**Rural Technology Action Group (RuTAG), IIT Delhi Regional
Workshop at Akhil Bhartiya Vanvasi Kalyan Ashram (ABVKA)
Jashpur Nagar, Chhattisgarh
June 03-04, 2014**

RuTAG-IIT Delhi conducted a regional workshop during June 03-04, 2014 at Jashpur Nagar in Chhattisgarh with the help of Akhil Bhartiya Vanvasi Kalyan Ashram (ABVKA). The program is attended by about 55 people from about 22 NGOs (copy of attendance sheet attached)

As per the attached schedule (Annexure-1), the program started with the welcome address by Mr. Kripa Prasad Singh, Vice-President of ABVKA (Fig. 1). He mentioned the long association he had with Prof. Rajendra Prasad (Ex-Coordinator of RuTAG-IIT Delhi) and the Center for Rural Development and Technology (CRDT) at IIT Delhi. He then briefly mentioned about the activities of the Vanavasi Kalyan Ashram at different states of India. The program continued with the round of introductions of the participants.



Figure 1

The RuTAG-IIT Delhi was introduced by Prof. S. K. Saha, Coordinator of RuTAG-IIT Delhi.(Fig. 2)



Figure 2

Major S. Chatterjee, who represented the central RuTAG from the office of the PSA (Fig. 3), has then briefed the objectives and mandates of the RuTAG activities. He then explained different technologies developed at different RuTAG units. He briefly explain about sanitary napkins made at Gandhi Gram in Madurai, Tamil Nadu, Coconut rope making machine developed at IIT Madras, Jute rope making machine developed at IIT Kharagpur, Motorised machine for winding cotton yarn, Amber charkha, Potter wheel developed at IIT Kharagpur, Muri making machine developed at IIT Kharagpur, Saibai grass rope making machine, Foldable bridge over irrigation canals, Bhugeshwari charkha developed by IIT Roorkee, Multi nutrient compressed feed block making machine for yak developed by IIT Guwahati, Bamboo activated charcoal and Tricycle for physically challenged developed by IIT Guwahati.



Figure 3

The inaugural session was concluded by Prof. Rajendra Prasad who shared his experiences of RuTAG- IIT Delhi and the projects conducted under the banner of RuTAG, e.g., Animal Driven Gear Box, Treadle Pump, Micro-hydel, Tulsi-mala making machine, etc. (Fig. 4).



Figure 4

In Technical Session 1, Prof. P.M.V. Subbarao presented his work on Ultra Micro Hydel Power Package for Rural Applications, and mentioned the test-cum-training facility that is getting ready at IIT Delhi (Fig. 5). He explained about cow dung, Pico Hydel, karanja seed, and already set micro hydel project at places like Motto Village. The technology has attracted many participants who wanted to know how to get the design and how to set-up the technology in their villages.



Figure 5

In the same session, Prof. S. K. Saha has presented several completed and on-going projects at RuTAG IIT Delhi (Fig. 6). He categorized the projects under Energy, Agriculture, Food Processing, Empowerment, and Human Resource Development. He explained about animal driven gear box, bullock driven tractor old and new, treadle pump, solar pump, minor millets, garlic processing machines like graders, bulb breaker, flaker, dry garlic peel remover, fru wash technology developed by Prof. H. M. Chawala, Tulsi Mala making machine, improvisations going on in Bangles making devices such as furnace, tools, seating arrangement etc. Participants showed interest in the projects on Treadle Pump, and Garlic processing machine and similar food-processing technologies. They also gave few requirements, e.g., processing of Jack Fruit, Chilli, and drumstick, etc. There were also requirement for devices for weeding, etc. Prof. Saha mentioned that IIT Delhi can conduct management training programme to the officers of various NGOs in running their activities in a more effective manner.



Figure 6

Technical Session 2 was conducted by Major Chatterjee. He first asked the participants for their comments on the presentations made by the IIT Delhi team. Participants gave many suggestions and mentioned the requirements of the technologies developed at IIT Delhi and elsewhere in other RuTAGs. To mention few:

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1. M. P. Vigyan Sabha feels that Fru-wash, Treadle pump, and the Bullock-driven tractor can be implemented in designated locations.
(Mr. Santosh Khare-09826161329)

IITD Remarks:

IIT Delhi will contact for further action.

Mr. Santosh Khare was contacted by Mr. Raj Kumar Gupta on Sept. 01, 2014, he told that he will come to IIT Delhi for live demonstration of Treadle Pump and BDT).

2. Manav Sansadhan Samskriti Vikas Parishad (MSSVP) has a requirement of drinking water. (Mr. Manoj Bharti - 08435070000)

IITD Remarks:

Major Chatterjee informed about the technology developed at RRL (Regional Research Laboratory) Bhubaneswar (Dr. Kuntic) and IIT Kharagpur by Prof. Bhadoria.

3. Vanvasi Kalyan Kendra at Lohardaga has enquired if there are devices for rice-dehusking and rope making.

IITD Remarks:

They were informed about the “Mechanized Dheki” (for rice-dehusking) under development at IIT Kharagpur and rope making machine is also available at IIT Kharagpur.

4. Mr. C. S. Aggarwal wanted to know about different design of Bio Gas Plants

IITD Remarks:

Prof. V. K. Viajay from CRDT, IIT Delhi must be contacted for further course of action.

5. Mr. Mishra engineer at PHT wanted the solution for removing hardness in water using low cost machines.

IITD Remarks:

Prof. Bhadoria from IIT Kharagpur had already worked upon drinking water solution and must be contacted for further course of action.

6. Shonbhadra District NGO wanted a solution for Mahuwa processing

IITD Remarks:

Major S. Chatterjee suggested technology developed by Bio-ved Research Institute, Allahabad. Dr. Dewadi must be contacted for further course of action.

7. Mr. Raghav Rana wanted technology of treadle pump and bullock driven tractor.

IITD Remarks:

Prof. S. K. Saha suggested that both the technologies are available at RuTAG –IIT Delhi and must be contacted for further course of action.

8. NGO from Lohardugga wanted technology for lac processing.

IITD Remarks:

Major S. Chatterjee suggested that Lac processing technology is available with Lac Research Institute, Ranchi and Bio-wed Research Institute, Ranchi and must be contacted for further course of action.

9. NGO from Sonbadhara wanted solution for children education

IITD Remarks:

Major S. Chatterjee suggested that 10th pass student must join the workshop regarding skill development at Vigyan Ashram Babal Pune. Dr. Yogesh Kulkarni must be contacted for further course of action.

Further Prof. S. K. Saha added that study material is easily available at youtube for free download and he may arrange students in summer time to teach rural children.

10. Mr. Anil Kumar wanted solutions for bakery devices

IITD Remarks:

Major S. Chatterjee suggested that RuTAG IIT Delhi will bear all the expenditure for the training of bakery making devices at

11. NGO wanted solutions for food processing of Mango, Nimbu, Kaju, and Tomato.

IITD Remarks:

Major S. Chatterjee suggested that machine is available at low cost of about Rs.15.00 lakhs at Sahaspur, Dehradun.

12. NGO wanted solution for paddy harvesting and green grass harvesting machine for small field farmers at affordable rates.

IITD Remarks:

Major S. Chatterjee suggested that IIT Kanpur is developing above said machinery and must be contacted for further course of action.

13. NGO from Lohardagga wanted solution on lows cost solar lantern and marketing strategies.

IITD Remarks:

14. NGO form Lohardagga wanted solution for check dam de siltation.

IITD Remarks:

Prof. P. M.V. Subbarao, Mech. Engg. Deptt., IIT Delhi explained about the check dam and de-siltation and must be contacted for for further course of action.

15. Solution for mango plucking from mango tree without damaging the mango and protecting the same from elephants.

IITD Remarks:

Major S. Chatterjee suggested that Mr. Anil Gupta of National Innovation Centre, Ahmadabad has developed number of fruit harvesting techniques and must be contacted for further course of action.

16. Solution for mushroom marketing.

IITD Remarks

Prof. Satyawati Sharma of CRDT, IIT Delhi must be contacted for further course of action.

Besides there were discussions on how to carry forward the activities for rural developments, namely, is it possible to adopt a village and implement some of the technologies developed under RuTAG project at different IITs.

Then day ended with an open discussion on various issues of developments during the last session. It was planned if some positive action plan can be drawn which can be followed.

The second day started with the repeated presentation of first day by Major Chatterjee on various technologies developed under RuTAG projects at IITs (Fig. 7).



Figure 7

Prof. Rajendra Prasad presented on Cook stove technologies on which he has been working for more than a decade (Fig. 8).



Figure 8

For the concluding session, the collector of Jashpur Nagar, Mr. H. S. Gupta was the Chief Guest (Fig. 9). Shri Kripa Prasad ji welcomed him by presenting Himachali cap and flowers. Collector – Mr. Him Shikhar Gupta interacted with the NGO attending the workshop and attended to their problems.



Figure 9