

Vigyan Ashram Status Report

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INDUSA CARE Lab

INDUSA CARE computer lab is now established @ Pabal and operational. It is equipped with all networked computers, wi-fi facility etc. The lab is equipped to develop content for www.learningwhiledoing.in beside developing and conducting courses in computer application for rural areas.



The lab started with courses in Tally with 4 students. It has taken assignment of entering accounts of IBT schools. We also got 3 PCs from village for repair. We are also exploring various application on tablet Pc useful for rural entrepreneur. We have deployed many of such apps at VA. The INDUSUSA CARE lab is also providing computer based maintenance services, Assembling, networking and is capable of handling AMCs from local establishments, schools, colleges etc.

Graduate Students Project

VA encourages graduate students to do projects useful for the community. Following are some of the important projects in progress.

- 1) Reducing water evaporation in farm tank by using waste plastic bottle. (Student – Emily (MIT))

Idea is to use waste plastic bottle to reduce water evaporation rate in the farm tank. Also find out impact of plastic water on water quality and its cost effectiveness. We have created a trial pit and doing comparative study of water evaporation. Initial trials show that water evaporation is reduced by average 4mm per day ! Prof.Alex found the problem challenging and assign the project to his student. Emily is working with DBRT students to conduct more systematic trials.



- 2) Developing business models for egg incubator (Students – Ambika Nanda & Ajay Emmanuel (S.P Jain Management Institute)
These students developed a software using Excel. By adding variable cost, we can get return on investment. This will be useful for selling the product and convincing customer about profitability of venture.
- 3) Studying impact of VA farmer club activity and training { Students – Somkanth Thakur, Debnath Roy chowdhary (S.P Jain Management Institute).
Students interviewed around 40 farmers from nearby villages. Impact analysis showed that 35 % farmers have adopted technologies through our training. It is also found that only 19 % problems are technology related, whereas 79 % problems are related to Govt policy , market issue etc.
- 4) Developing portfolio for DBRT students { Students – Himaghnya Bhattacharya, Mitrajit Bhattacharya (S.P Jain Management Institute)
Every year, we prepare portfolio of every DBRT students. It comprises of the projects carried out by him, community service records etc. This portfolio with photograph and description is given to each student along with DBRT certificate. S.P Jain students do it voluntarily every year for our students.
- 5) Trial on Fodder making machine { Student - Vrushali Nikam(Dapoli agri university) and trial on Aquaponic (Student -Dhanashtri Barve & Nayana Mehendale(Dapoli agri university).
Students will work with Ranjeet for one month internship.
- 6) Designing interface for www.learningwhiledoing.in (Sukanya – IDC-IIT, Powai). She will design structure of the website by studying user requirement.

Introduction to Basic Technology (IBT) – PLAN 100 update

(Supported by Asha for Education, Unicef, Govt of Chattisgarh, Lend-a-hand-India, Suzlon foundation, Hemendra Kothari Foundation)

1) IBT Instructors training

Instructors training program for instructors in Chattisgarh was held at Bijapur. 43 instructors from Bijapur and Dantewada district attended the training. These schools are in second year and we have



Manufacturing of solar cooker

decided to improve community service activities. District Collector of Bijapur visited training camp and interacted with trainees. He promised to streamline administrative difficulties in procuring raw materials etc and also purchasing tools for 5 new schools.

Ranjeet also went to Dantewada and had detailed discussion with CEO –Zilla Panchayat. District administration want to extend the program to all 11 porta cabin schools in Dantewada and wanted to have proposal from VA.

Dantewada district administration also decided to support Bachapan banao Fellow’s. For administrative reason they will directly pay

to the fellows. Training and support will be given by VA team.

2) IBT recognition

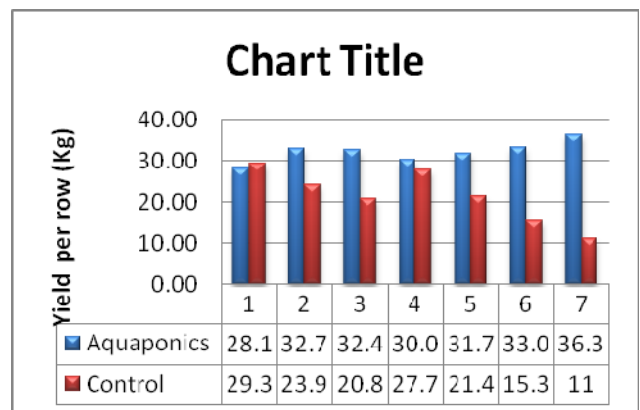
Omkar and Kailash visited Director of Vocational Education on 21st May and met Dy. Director (Voc). The office received copy of our letter with minister’s remark (1623 / dated 10/03/2013 ,) But with Govt order, the dept with newly made recognition criteria. As per dept. assessment only 2 proposals out of 32 submitted fulfill the required criteria.

- 3) We had a meeting with Aide-en-action at Bhopal to implement IBT program in partnership Madhya Pradesh.
- 4) Yogesh attended brainstorming meeting for starting community colleges organized by SNTD university on 22nd May. Yogesh also attended a meeting organized by Rajiv Gandhi S&T commission for evaluating proposals for starting science centers in Maharashtra on 17th May at Mumbai.

DST Core Support Projects:

1) Aquaponics Project-

Aquaponics trial on cucumber crop completed with total harvesting of 375 kg. Trial showed that average yield of aquaponics treatment is 28 % more than control. This is also observed that nutrient deficiency, plant mortality was high in control treatment over aquaponics. Even though fish mortality during overall trial period was very



high, weight gain was satisfactory (103 gm) and increase in length (23 cm in 4 months). High water & soil EC, higher temperature during cucumber growth, low water circulation rate and high fish mortality are the important problems observed during trial. We will try to solve above problem during new spinach trial.

2) Fodder making Machine –

Ranjeet and Anil visited *Vichurle village* near Phaltan in Satara district to study hydroponics fodder sprouting machine build by Mr. Anil Nimbalkar with support of Govind dairy. He has build this unit with simple bamboo frame and 50 % shed net cover. Timer is used for operating fogger system for maintaining required humidity/temp.

Card board box trial – We also tried fodder sprouting trial in simple card board box. Idea was to make it so simple that IBT schools can do it as their school project. Card board box trial showed four (3.92 times) weight gain , which is very less that minimum requirement of 5 times.



3) Dryer Projects –

We understand that Jaggery powder would have very good potential. Jaggery cannot be dried using heating method since its melting point is very low. So trial was conducted using ambient temperature dryer. Trial showed that water contains in jaggery can be reduced up to 2% by using this dryer. It took 40 hrs to dry 10kg of jiggery and ~45unit of electricity.

4) Praj supported Animal Husbandry Project -

Following task has been completed in this month.

- i) Side wall chain link fencing of poultry shed.
- ii) Plumbing of dairy shed – auto filling drinking water tubs.
- iii) Cow partition for individual cow.

5) Solar Egg Incubator work –

We have purchased solar water heater of 250 lit capacity & installed in solar park for 500 egg solar egg incubator. Water heater is attached with egg incubator with required modifications. Egg incubator trials will be conducted in June month.

6) MOU with Pharmacy college - We signed MOU with Modern college of Pharmacy (for Ladies), Moshi, Pune for conducting collaborative projects and laboratory testing.

For more information on DST core activities. Visit <http://vigyanashram.wordpress.com/>

D-I-Y Lab Progress : Following projects have been completed in the D-I-Y Lab-
 i) Clap switch, mosquito repellent ckt. ii) Umbrella solar cooker iii) LDR street light controller, Fire alarm iv) Vermi compost bed v) Biogas model, Pet bottle Garden, Paper holder.
 Polycom video conferencing unit and Modella machine is also installed in D-I-Y lab.

SOW project

- i) Mahesh and Swati visited Belha on 6th May and did baseline study of SHG women for SWO courses. This is a trial testing of questionnaire designed by VA.
- ii) Mahesh and Vishal visited Himmatgram on 7th and 8th May. They discussed SOW program with students and trustees. They also conducted training of students and form system of maintaining records.
- iii) Swati is working of STARS forum website with vendor in Pune.



DBRT update (Supported by Asha for Education & Tech Mahindra Foundation)

1) Team of inspectors from Directorate of Vocational Education & Training (DVET) visited VA on 22nd May for inspection. We have applied for recognition for 24 courses under Governments Modular Employable Scheme (MES). All compliances required by the committee was made and proposal is submitted. We are waiting for their decision.

2) DBRT students attended one day training for mesons organised by Ambuja cement. DBRT students also visited



Masonry training by Ambuja cement

Solar heater manufacturing plant in Khed Shivapur.

3) Agri students also visited onion & garlic research center, private flower nursery and poultry farms in Rajgurunagar.

4) Dairy summary

Cow wise profit/loss

Gauri : Rs.1089, Soni : Rs.159/-, Sharada : - 642/- (loss), Total Dairy : profit Rs.1248/-

5) Poultry : Expenses so far : Rs.5605/- , Sale (56 birds) : Rs.4480/- , Birds for sale : 6 nos

6) Goat insemination : 11 nos : Rs.550/-

7) DBRT students completed wiring of new hostel. Also installed ceiling fan in guest room

Other Tit-bits :

- i) Mrs.Usha Mamdani donated Rs.10,000/- to VA.
- ii) Replicated 200 CDs of Basic and advanced Electrical and Basic & advance fabrication course.
- iii) BSNL internet in Pabal is giving lots of problems. It is down for 70% of time (8hrs in a week). Internet cable from village to VA became old and it is cut at several places by JCB during road construction work and also due to cable theft. We have started logging complaints at higher authorities. They have assured to inspect the Telephone and DSL cables from Exchange till our campus.
- iv) Website Log : www.vigyanashram.com received 1281 visitors in May. www.dsttara.in received 108 visitors.
- v) Environment: a) Rainfall of the month: -- mm, Min Temp – 17 degree, Max temp – 32 degree, Humidity – 33 %, Water level in the well: __ meter
- b) Energy consumption: Electricity (MSEB): Three phase units: 768Kwh, Single phase units: Meter got burnt (N.A)
- c) Biogas consumption – cow dung used: 1303 kg, water used : 1303 lits, biogas produced: 39 m³, Biogas used: 18 m³
- d) Solar Scheffler use (INDUSA facility): 7.25 hrs & 393 chapattis.
- e) Two wheeler – 329 kms, Petrol consumption: 8.56 lits (Rs.600/-)

Data Report- All section wise data report are available on Google pages:

<https://docs.google.com/spreadsheets/ccc?key=0An-4RfsZ2K2OdEVGRHZtSVQzLWdNZU13cVNoLWRaOWc#gid=0>

Photo Gallery:



Solar water heater installation



DBRT students did welding of shed at Dhamari



Repairing flour mill

Installing ceiling fan in guest house



Making mango pickle



Visit to Avinash Chowdhary's Dairy



Learning brick bond



Extracting oil using Anupam Ghani

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