

# Vigyan Ashram Status Report

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### **Inauguration of D-I-Y Lab**

Do-It-Yourself Lab inaugurated on 10<sup>th</sup> Dec at the hands of Senior nuclear Scientist and Chairman of Rajiv Gandhi S&T commission Dr.Anil Kakodkar. We have organized small exhibition of the facilities and the projects done by students using D-I-Y Lab facilities. Grass-root innovator Mr.Jahangiri Painter (2 wheeler of 3 idiot fame) was the chief guest on the occasion. Chairman of IIE DR.Behar, Dr.Aruna Giri, Trustees of IIE, PMC corporators from Kothrud area, representatives of foundations were present on the occasion. This event helps us to create awareness among people about the lab.



### **STARs forum conference**

Skill training for advancement of rural societies (STARs forum) conference was held at Pune on 28<sup>th</sup> and 29<sup>th</sup> Dec. Total 112 attendees representing 90 organizations from 6 states participated in the conference. Topics like new areas for livelihood generation, rural marketing opportunities, content for skilled training, work based education etc were discussed in the conference. A STARs forum executive committee meeting was held on 28<sup>th</sup> evening to decide strategy to take the STARs forum initiative ahead. Proceedings of the conference is available on <http://www.starsforum.org/>



## Introduction to basic technology (IBT)

### IBT school updates –

1) Committee for revision of IBT syllabus

IBT review Committee formed by DVET submitted its syllabus on 4<sup>th</sup> Dec. Yogesh attended meeting organized by RMSA at LAHI office on 13<sup>th</sup> Dec. It is decided to submit the curriculum in the format suggested by PSSCIVE, Bhopal. A meeting to review the syllabus was held at JPNC on 20<sup>th</sup> and revised curriculum is submitted to DVET for further submission.

2) IBT school principals of 6 schools visited VA on 8<sup>th</sup> Dec at Pune to discuss IBT implementation related issues. It is decided to call all School Principals meeting on 4<sup>th</sup> Jan at JPNC.

3) 130 students of IBT -Tandulwadi school visited Ashram on 17<sup>th</sup> and 18<sup>th</sup> Dec on their study tour.

4) IBT news : i) Walsang school made 4 bench ~ Rs.4000 ii) Tandulawadi IBT



**Mangaon IBT students**

students fabricated chair to gift it to their

retired Principal. Iii) Instructor Eligibility test was conducted for schools in Pench region on 18<sup>th</sup> Dec. It is found that Out of 16 instructors, 6 are poorly trained, 4 are very well qualified. Iv) Pathrai school made grill for windows and shoe rack v) Gurukul ashramshala IBT made a model of PSLV c25 satellite for science exhibition.

5) Kailash and Ganesh attended IBT review meeting at LAHI office on 6<sup>th</sup> Dec.

6) Dantewada District administration released Rs.25000 per school for 17 porta cabin school to purchase tools and raw material. Material was purchased from Jagadapur.

### INDUSAPTI

1) We have received 200 'Aakash' Tablets from IIT, Powai on 9<sup>th</sup> Dec. We are planning to distribute these tablets to IBT students in Pabal high school. We have two students from Dapoli Agri University. They will be working on the project as part of their internship.

2) We have downloaded & tested different application for tablets. 42 small applications found to be useful for the students.

3) All PPT and Video made by us are converted to format supported on Android. Section wise folders of contents are made. We intent to give training and handover the tablets to class VIII std student.



**Learning using OER- Khiroda**

#### 4) Open Education Resources (OER) testing :

OER on making khichadi was tested in Bhivadi school (5<sup>th</sup> Dec) and in Mangaon (12<sup>th</sup> Dec). Students were asked to cook khichadi using different fuel and then draw conclusion about efficiency of fuel and cooking stove.

OERs are available on website [www.learningwhiledoing.in](http://www.learningwhiledoing.in)

### DST Core support project

#### 1. Mango (Fruit) pulp candy roll / Dryer modification –

Following important modifications done in December month –

- i) Drying chamber half closed by making patrician, door rubber packaging changed for better insulation. Cooling chamber (condenser section) sealed for removing air leakages by using silicon based sealant gel. Air flow in cooling chamber modified by diverting it on condenser.
- ii) 3 new fans are fixed in drying chamber for improving air flow.
- iii) Timer switch fixed to air circulation fan for increasing drying efficiency.
- iv) New sensor fixed to compressor for better temperature settings.
- v) New temp and humidity fixed sensors in drying chamber.
- vi) Compressor relay changed and new condenser fixed for regular on-off of compressor unit.
- vii) Heating coil fixed in drying chamber.

| Date of trial | Material   | Initial Weight | Final Weight               | Total time required | Electrical unit used               |
|---------------|------------|----------------|----------------------------|---------------------|------------------------------------|
| 22/12/2013    | Mango Pulp | 9 Kg           | 2.859 Kg                   | 54 Hr               | 54 Units                           |
| 25/12/2014    | Mango Pulp | 12 Kg          | 4.268* Kg                  | 72 Hr               | 70 Units                           |
| 26/12/2014    | Guava Pulp | 8.626 Kg       | 0.770 Kg<br>**<br>(Approx) | NA                  | 0 (both trials ran simultaneously) |



Putting Mango pulp in tray



Out put from dryer



Packaging of mango roll

#### 2) Rice huller

We are working on making a rice huller. Chaitanya organization working with SHGs gave us the requirement of making a machine to clean raw rice (हातसडी चा तांदूळ) cleaned by manual process. By traditionally pounding method is used to make the rice. We are working on the project. Prototype is ready from scrap and now we working on some modification.

### 3) D-I-Y Lab

#### a) Scrap revolution :

We have conducted a workshop to develop new project ideas from the scrap received at JPNC. From 29<sup>th</sup> Nov – 2<sup>nd</sup> Dec, 27 students took part in the workshop and made several new things.

b) A science project competition on 9<sup>th</sup> Dec and students from six school participated in the project making competition.

c) X'mas Camp : 26<sup>th</sup> Dec. to 29<sup>th</sup> Dec. A camp was organized for Jigyasa learning center. Students made origami articles, electronic projects and learn to use workshop tools.



### 4) Aquaponics Project -Tomato trail –

Tomato aquaponics trial is in progress. Vegetative growth is satisfactory with no signs of nutrient deficiency in either aquaponics or control treatment. We are collecting plant height, number of shoot; number of flowers data for selected 48 plants for every 10 days interval. So far result showed that aquaponics treatment is having 6 % more vegetative growth, 3.6 % more shoots and 3.2 %flower set Vs control treatment. As fruit harvesting is not yet started there is not much difference in 2 treatments, but as plants starts removing nutrients through soil (through fruits) we are expecting less yield and growth in control treatment. We are hoping to start fruit harvesting by 15<sup>th</sup> of January onwards.

**5) NUS (National Institute of Singapore) survey** - A survey of 32 farmers for NUS Mpest icon design project was conducted. NUS team has designed icons based on the inputs given by the farmers for agricultural categories viz. irrigation, labor availability, market etc. Survey was aimed to get the feedback about icon designed.

**6) Farmers Group** : On 25th of December, we conducted a meeting with selected progressive Khairnager farmers for contract farming. Mr.Dadasaheb Khaire (Sarpanch Khairnager) is planning to start contract farming of Okra (Bhendi) with Mumbai based company. About 30 farmers are ready to join him under this activity. As this company will purchase only residue fresh okra, these farmers wants IPM (Integrated Pest Management) inputs from Vigyan Ashram.

### 7) Praj foundation supported Animal Husbandry project –

i) Plot for Lucerne grass cultivation – A new plot of 4500 ft<sup>2</sup> is prepared by doing land leveling / excavation work in front of staff quarter. This new plot will be utilized for cultivation of Lucerne grass with micro sprinkler irrigation system. For installation of micro-sprinkler system necessary changes are made in present pipeline system of campus.

iii) We have purchased 4-5 month old cross breed Osmanabadi buck from local farmer of Dhamari village. It will be used as breeding buck for providing service to local farmers.

### DBRT (Supported by Asha for Education)

- 1) DBRT students completed workshop shed construction for D-I-Y lab in Pune. They also had done the board for D-I-Y Lab.
- 2) Old biogas tank is shifted to new plantation area. We are collecting leakage water from Gram panchayat water supply pipeline and using it for watering the plants.
- 3) DBRT students visited Kisan Exhibition held at Moshi on 15<sup>th</sup> & 16<sup>th</sup> Dec. New agricultural technologies like Drip automation systems, new PVC pipes and their adhesives, agricultural equipments like new hand operated seed drill made-up of plastic etc were studied in exhibition. As we are planning to purchase new micro-sprinkle and rain gun their supplier's contact details were collected in exhibition.
- 4) Food Lab : Mrs Mandakini Jagtap joined food production center. She will be looking after production of food products. Sale of this month : Rs.14125/-.  
Following products are made this month : Pooran mix : 13kg, Amla candy : 5 kg, Chikki – 8kg, Lemon pickle : 3 kg , Nankatai : 6 kg, Tamarind sauce : 4 kg
- 5) Food Lab Training : 1 women from Narayangaon took training on sauce & chikki
- 6) Agriculture : DBRT students are working on project of Poultry Management, Goat Farm Management, Beet root & Spinach Production, Azola Farming etc. /we are trying different technologies on crops. Presently brinjal, spinach, chilli, kothimbir, elephant grass, methi are under cultivation.
- 7) Students visited Ghodekar Farm, Savindane to study their goat farm.
- 8) Gauri and sharada are in dry period of their milking till next calving. Therefore Dairy is in operational loss. Per cow profit as follows → Gauri : Rs.-4071 , Soni = Rs.71/-, Sonam = Rs.735.8/- . Total loss : Rs.6015/-
- 9) Net weight gain in Goats in the month = 72 kg and expenses Rs.3551/-
- 10) Electrical section students visited cold storage and Karla caves on 21<sup>st</sup> Dec.



### Other tit-bit –

1. Visitors : School Trip : 7 schools, Team of 6 people from Reliance visited on 23<sup>rd</sup> Dec.
2. Weather record – rainfall of the month -0 mm ,Max temp- 34.45° C, Min Temp –20.29° C , Humidity – 50.54 % , Water height in well – 5.91 Meter.
3. Energy consumption record- Electricity unit – III Phase -627, I Phase -1299.
4. Diesel consumption for generator- 5.11 Lit (Rs.300.00)
5. Biogas consumption – Dung used- 1209 Kg, Gas produced- 900 Ft<sup>3</sup> . ,
6. Two wheeler – NA Km, petrol consumption – 5.11 Lit(Rs.300.00)
7. Total visitors to [www.vigyanashram.com](http://www.vigyanashram.com) – 1861 , [www.dsttara.in](http://www.dsttara.in) : Total Visitors: - 186

Data Report :

<https://docs.google.com/file/d/0B5g18a0lbI4MMWZFeGdDNkNadTg/edit>

(Work of VA is Supported by Asha for Education, Unicef, Govt of Chattisgarh, Lend-a-hand-India, Suzlon foundation, Wildlife conservation Trust, Dept of S&T, RGSTC, Praj foundation and many individuals and foundations )

### Photo Gallery :



Shifting of water tank near plantation





Study tour (?) Energy section



Permaculture at JPNC



Scrap Revolution @ D-I-Y



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