

Annual Report
2012-13



Vigyan Ashram

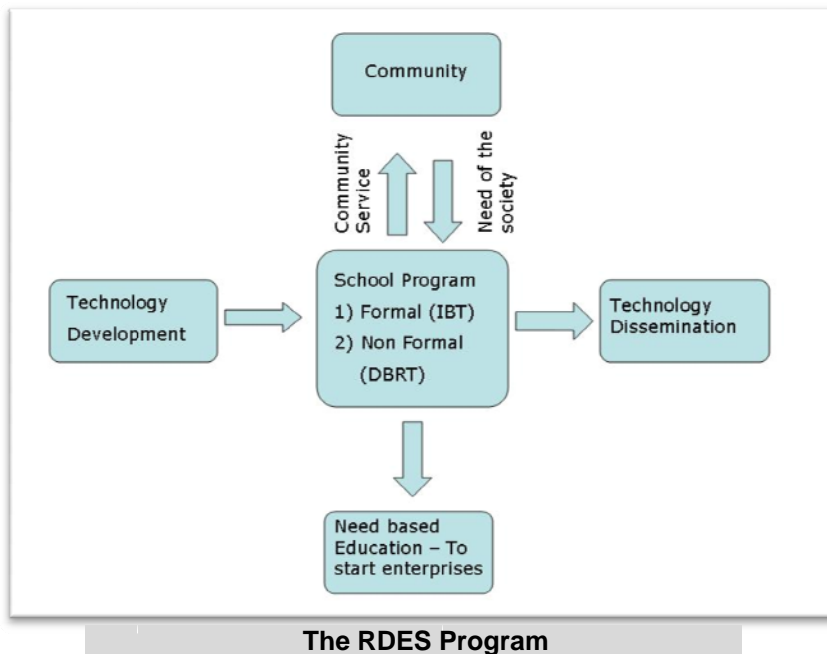
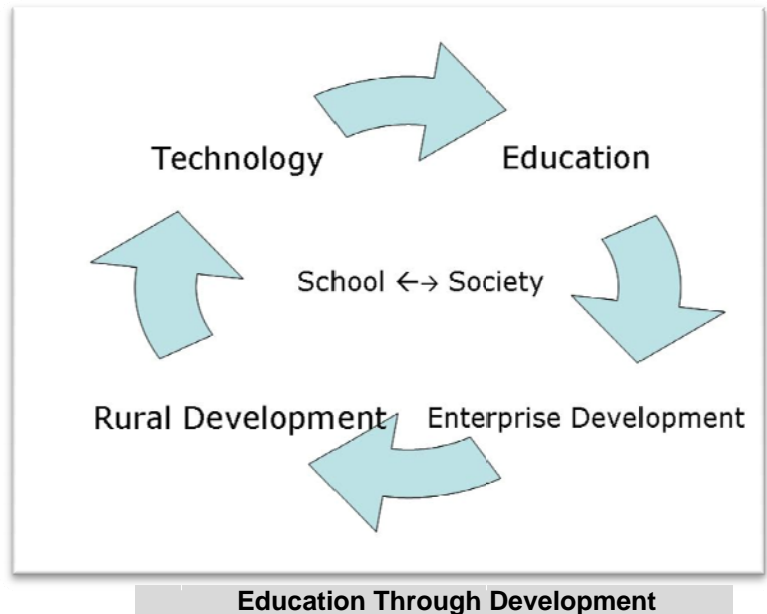
(A center of Indian Institute of Education)

www.vigyanashram.com

RDES Philosophy:

'Development through Education and Education through development' is a motto of Vigyan Ashram (fig.1). VA believes intelligence is developed and not inherited. Activity based thinking is the source of intelligence. Good education has to be based on diverse experiences and for this, real life is the best educator. VA believes it is necessary to use technology to increase pace of our rural development. Therefore VA has developed an educational system that integrates education and development, one that is close to the real everyday life.

Vigyan Ashram is working on the above philosophy named as 'Rural Development through Education System (RDES)' spelled out by its founder Dr.S.S Kalbag. Various appropriate Technologies developed are disseminated through education program. Students learn by 'Learning while doing' methodology and while doing so they provide services to community at modest cost. This gives students experience and confidence to start their own enterprises. Appropriate technologies are disseminated through these rural enterprises. Education based on 'Learning while doing' philosophy gives meaningful education to students and helps to develop scientific temper and work culture in them.



VA tried to integrate technology in the concept of 'work centered education'. VA is also demonstrating new areas and ways of providing community services. VA believes, for education for 21st century, we need to change our education system from 'Book centric' to 'Work centric' education. Therefore VA set its self vision of 'To become a national resource centre for research, development and training for transformation towards work based education system and related social policies'.

Summary:

Vigyan Ashram team is proud to present the report of the work done in the year 2012-13. VA is engaged in various programs and projects to achieve RDES philosophy. This year's highlight includes starting IBT program in Chattisgarh, conducting training in riot affected areas of Assam, working on many innovative projects & continuous improvement in DBRT batch performance. We also created physical infrastructure like staff quarters, renovation of animal husbandry shed. We helped farmers from our farmers group to form primary producers company and technically supported many entrepreneurs. We are also engaged in development of new appropriate technologies in the areas of agro processing, electronic gadgets. We also launched website www.dsttara.in for promotion of appropriate technologies. VA is in the process of developing online open educational resources on www.learningwhiledoing.in. VA team has contributed on various discussions on Rural Development, Technology and Education. VA program was also presented in conference at USA, France and Newzeland.

The work done so far is not possible without dedicated effort of Vigyan Ashram team. We are also thankful to our partners, who are keeping continuous faith in us. Our special thanks to Board of trustees of IIE, villagers of Pabal village for their continuous support. We look forward for your support & guidance in accomplishing vision spelled out by our founder.

Partners : Following table shows our funding partners and program undertaken by Vigyan Ashram in 2012-13

Vigyan Ashram's Program	Supported By
Technology Development	Dept of science and Technology, INDUSA Endowments, SGS Wealth creators, Rajiv Gandhi S & T commission (Govt. of Maharashtra)
Non formal Education (DBRT & short term courses Program at Pabal)	Asha for Education, E-Boss, Tech Mahindra foundation, {Individual donors – Mrs. Leena Mehendale, Mr. Nandkishor R. Pophale, Mr. Sharad A. Athalye, Mr. Sudhir Panse, Mr. Madhav Rajwade.
Replication Program (Introduction to Basic Technology (IBT)) Program	Asha for education, Lend-a-hand-India, Suzlon foundation, Hemendra Kothari foundation, Govt. of Chattisgarh & Unicef
Infrastructural Development at Pabal	M/S Praj foundation, Govt. of Maharashtra, E-BOSS (Mr.Meghaji, Mrs. Rosmarie Meghaji), Mr. Mahesh Wahaval, Suzlon foundation,
Corpus Donation (IAP fund)	Vaishnomal Malhotra Public Trust, Avinash Kulkarni, Soham Ganesh kusum Samuha, Amit Dahanukar

Diploma in Basic Rural Technology (DBRT) Course (Supported by ASHA for education – Seattle chapter, Tech Mahindra, Mr. Dai Meghaji,)

- 1) DBRT (one year residential program) is a flagship program of VA. DBRT batch 2011-12 with 44 students (37 boys & 7 girls) completed their training on 25th June. 37 students got apprenticeship placement.
- 2) DBRT 12-13 batch started their training on 10th July with 51 students. Throughout the year, they were busy with morning exercise, project work, community services, site visits, cultural events, picnic, bicycle trek, meditation and lot of other things.
- 3) Various short term courses were conducted on campus. Total 107 students completed their training. Course wise breakup as follows :->

(Poultry- 22, Electric appliances- 3, Welding and Fabrication- 9, Welder cum fabricator – 16, Food processing – 13, Azola Cultivation – 27, Computer(Basic & Networking)- 5, Nursery Technique -12). Beside this 120 children participated various kid camps (for 1-2 days) was conducted at Pabal.

Introduction to Basic Technology (IBT)

VA's educational philosophy of 'Rural Development through Education System' is implemented in formal school (8th -10th class) through 'Introduction to Basic technology' (IBT) Program. Attempts are made to disseminate various appropriate technologies to villagers through IBT Program. The Program is implemented in 122 schools with 12000+ students are involved.

Funding period for many of Plan100 school was over. Beside this Suzlon foundation stopped funding support to IBT schools due to their financial problem. Considering this we have made change in implementation strategy of IBT program. Now, VA is concentrating on providing training, content & technical support to schools. Administrative & financial responsibility is handled by the partner agency or by school. VA charges fees for the training. Type of engagement with different partners is as follows :

Partner Agency	Number of schools	Support provided by VA
Hemendra Kothari foundation	5	Implementation of IBT, Training, Monitoring & onsite support of the program
Lend-a-hand-India	50	Training of instructor, Technical support
Suzlon Foundation	19	Training of instructor
Govt of Chattisgarh & Unicef	8	Training of instructors, Onsite technical support
Self funded schools	40	Training against fees, content at cost
TOTAL	122	

IBT Training:

Training of IBT instructor is very important for success of the program. Instructors are entrepreneurs in the community with demonstrable skills. Many of them do not have formal qualification. Hence continuous training of instructors in technical and entrepreneurial skills is important. To keep the program dynamic, VA team tries to introduce new technologies and community service areas through training.

Training Program	Number of Trainees
Introduction to basic skills (15 th April – 15 th May) for youth from Chattisgarh	22
Senior Instructor Training (3 days – 6 days) April – June 2013; carpentry & wood craft activities, advance fabrication, ICT application, food processing, nursery technique, fiber glass, electrical appliances repair, advanced electronics, Animal husbandry practices	73 **
IBT Instructors training (5 th -10 th June), (13 th – 18 th June), (23 rd – 27 th June)	89
IBT co-coordinator training , (5 th – 7 th July) and (15 th - 17 th Sept)	21
IBT instructors refreshers program @ Dantewada (9 th – 11 th Jan)	39
TOTAL	244

(** We have taken feedback after 5 months of training. 44% trainee used skilled learned, 21% are in process of implementing, 18% instructors could not be contacted, 4% instructors left the job and 12% informed that they were not benefited by the training.)

Important highlights of IBT program

- i) Sugyan computer center has been started in Nagaj and Rajale village with the support of Suzlon foundation.
- ii) SSC board prepared IBT teachers handbook for 9th and 10th std. Omkar Banait authored the book with other IBT instructors.
- iii) VA is following with Govt vocational Dept. to revise norms for IBT program. Recently changed norms of Rs.5 lacs bank balance & 3 phase connections made it impossible for schools to get recognition.
- iv) Suzlon employees conducted session using powerpoint presentation in 11 schools. Topics selected were manufacturing process, wind & solar energy, Right to information, plastic money, refrigeration etc.

Out of 51 students SSC passed out from Shivkar school, 39 opted for technical and science courses and 12 opted for arts & commerce courses.

Sample list of community Services done by IBT Schools:

- Nijampur students installed 10 fans for State bank of India, Branch.
- Walval students are providing service of sharpening of agri tool such as weeding sickle, axes for farmers.
- Innovation: Bargaon pimpri students developed machine for making marking on ground using white dust.
- Amkhel students made 22 tree guards for village.
- Rehematpur students took merigold crop on one acres.
- Kumbhavade students fabricated 15 wooden benches for kitchen (Value : Rs.25,000).

INDUSAPTI

- i) INDUSA Practical Training Institute (INDUSAPTI) is online platform of various educational resources. VA developed various Power point, video, manuals on rural technologies and made it available on www.learningwhiledoing.in
- ii) VA team participated in developing Open Educational Resources (OERs) on rural technology

in collaboration with National Institute of Open Schooling. School IBT co-ordinator from 16 schools & core team of VA participated in development of OERs.

iii) To create infrastructure at Pabal for production of e-content, a INDUSA CARE lab (INDUSA computer application for rural education) is established at Pabal. We hope it will help in increasing pace of content development & new ICT applications for rural areas.

Dr.Kishan and Dr.Kiran Bhatia provided financial support for the project. Dr.Kishan Bhatia is closely mentoring the project and working with VA team on regular basis. VA acknowledges with thanks their contribution to Vigyan Ashram program.

Technology Development:

Following is the brief of various R&D carried out by core staff supported by DST in the Year 2012-2013.

A	New technologies developed	Utility / Impact of technology
1	Domestic solar egg incubator	Egg incubator is developed with 100 – 1000 eggs capacity. Temperature in the incubator maintained using solar water heater, LPG or electricity. Business model developed for SHGs and village youth. Model exhibited in various state level exhibitions with its business model. So far 2 units of 100 & 1000 egg incubator are sold and running successfully.
2	Food processing recipes like – Ready to use pooran poli mix, wood-apple jelly etc.	New food processing recipes like Pooran-poli mix, Woodapple jelly, are developed with their business model. More than 100 rural students & SHG members were trained. 2 SHG group from Pabal village started their own enterprise on food processing.
3	Leaf wetness duration sensory system	Leaf wetness duration sensor system (LWDSS) is being developed as low cost standalone handy device for farmers which will help them to predict disease / pest attack. Prototype was tested and we are working on further modifications & improvement.
4	Aquaponics system	From lab scale experimental setup, we have shifted trials to real life condition in farm tank and polyhouse.
5	Oleoresin extraction unit	First pilot plant with one reactor is made and same is modified with four reactors and harvesting vessel. It is tested for ginger and marking nut oil extraction. There are some technical difficulties which need to overcome. Work is in progress.
6	www.dsttara.in	This website is developed to promote various appropriate technologies developed by DST core supported organizations.
B	Technologies adopted	
1	Ambient Temperature dryer	It is under testing at Pabal. It is useful for drying of heat sensitive products like green chili, leafy vegetables etc.
2	Azolla cultivation	Adopted from Veterinary college. We conducted trials on poultry / goat / dairy feeding. Training is provided to more than 50 farmers & rural youth.

D-I-Y Lab : Vigyan Ashram is working on developing D-I-Y (Do it yourself) Lab. A proposal for the same was made and Rajiv Gandhi S&T commission (Govt of Maharashtra) accepted the proposal in Feb 2013. We expect the D-I-Y lab to begin its operation from J.P Naik Center in Pune from June 2013.

Advocacy and Networking

1. STARS forum conference

Vigyan ashram is hosting STARS (Skill Training for Advancement of Rural Societies) forum for the year 2012-13. STARS forum serve as a collaborative body for mutual support of those engaged in vocational skills training facilitate advance in this field and promote innovative approaches to reach larger needy populations. VA is also doing researching for developing effective, affordable model for providing skills training for marginalized community. The project is called as Skills on Wheel (SOW) project. VA is presently developing protocol and piloting the ideas in few tribal villages.

2. Some of the important publication and presentation are as follows.

Name of conference / Organiser	Staff member	Topic of training
Fab 8 Conference organised by MIT, USA @ Wellington, New-Zeland Aug 2012)	Amitraj Deshmukh	Fab conference, Digital fabrication, Technology exchange.
Learning through research conference organized by Centre for research and Interdisciplinary at Paris Descartes University (July 2012)	Dr.Yogesh Kulkarni	Invited talk on 'Learning through research- Vigyan ashram experience.'
IEEE- Global Humanitarian conference, Seattle (USA)	Dr.Yogesh Kulkarni	Presented paper on 'Technology transfer to village through school – The Vigyan ashram experience.'
Daily news paper <i>Loksatta</i> on date 3, 10 , 17 th Dec 2012.	Dr.Yogesh Kulkarni	Articles on work centered education.

Staff Training

Name of the Staff	Training Topic	Institute
Ranjeet Shanbag	Fishery farming	i) Shramajivi Vikas Mandal, Mahad ii) College of fishery science, Ratnagiri
Anand Gosavi	NGO management, Fund raising, Human resource management.	SP Jain Institute of management study ,Mumbai
Sachin Chavan	NGO Management program (Societies & Trust act, FCRA, IT Act and best practices)	Center for advancement of philanthropy , Mumbai
Ranjeet Shanbag	Recognition of prior learning	Open Polytech, Newzeland and NIOS
Ranjeet Shanbag and Sachin Chavan	Pursuing PGDBA (18 months) in NGO Management	S.P Jain Institute of Management, Mumbai

Speeches:

Dr.Yogesh Kulkarni gave invited talks on various forums.

Some of the important are:

- i) 'Challenges before primary & secondary education, Govt scheme & possible intervention; CASP, Yashada, 2nd April
- ii) Pre-convocation talk to management students of 'Sadhana center for management and leadership development' at Le-Meridian on 22nd April
- iii) 'स्कूलों में जरूरत है 'कार्य केंद्र शिक्षा की! ' Bhartiya Jain Sanghatana, Balewadi on 6th May
- iv) Panelist on 'Getting started: A startup guide for Social enterprise' organized by Net Impact, Pune on 28th July
- v) 'Engineering opportunities in rural areas' at COEP on 5th Sept
- vi) 'Towards work centric Education' at Homi bhabha center for science, education & research , Mumbai on 11th Oct
- vii) Inauguration talk of Students council at Women law college, Aurangabad on 6th Nov
- viii) 'Work centered Education' National conference on education organized by Jnan Prabodhini, Pune on 7th Dec

Authors of book 'Our Career Diaries' {Continental Publication) edited by Manoj Joshi and 'MBA is not about Money, Blazer, Arrogance' written by Krishna Kranthi, pledged royalty of their book to Vigyan Ashram program. We are thankful for their gesture.

Infrastructure Development

- a) New Hostel Building work is nearing completion. The work is carried out by PWD dept from local MLA funds.
- b) Construction of staff quarter building is completed and it is in use now. Long time supporter of VA, Mr.Daimond Meghaji and Mr.Mahesh Wahaval provided financial support for construction of the quarters.
- c) Upgradation of animal husbandry dept especially cow shed and goat farm is completed this year with the support of Praj Foundation.

Staff News

Mr.Pakaj Shirke, Mr.Devidas , Mr.Milind , Mr.Mahesh Lade joined VA team and Mr.Vasudo Gautre, Mr.Narayan Bagawale, Mr.Rajkumar Kurane resigned from VA. Present strength of Vigyan Ashram staff is 22.

Management Committee

Management committee of Vigyan Ashram is looking into strategic, administrative & financial matters of VA program. This committee comprises of Mrs. Mira Kalbag, Mr.Ashok Kalbag, Mr.Vijay Kumar, Mr.Sunil Kulkarni, Mr.Pravin Mahajan, Dr.Aruna Giri and Dr. Yogesh Kulkarni. Meeting of MC were held on 5th May, 18th Sept, 3rd Nov, 27th Feb at Pabal. Vigyan Ashram is thankful to Management committee members and Board of trustees of Indian Institute Of Education for their support and guidance.

Vigyan Ashram also acknowledges support of volunteers, students, alumni, staff members, villagers in Pabal for their continuous support.
