

Annual Report: 2022-23

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Vigyan Ashram
Technologies Foundation
(VATF)

Introduction

Vigyan Ashram Technology Foundation (VATF) is formed to promote and scale up Dr. Kalbag's vision of 'Rural Development through Education System' (RDES). Scaling-up of innovation made by Vigyan Ashram in the areas of education, technology and rural development is one the important aspect of VATF work.

During 2022-23, VATF worked towards technology development (research and development), skill training (training and capacity building) and dissemination of technology (technology services).

We are thankful to our stakeholders including end-user beneficiaries, grassroots organizations, investors and donors for their encouragement and support for conducting various community services.

Following are highlighted activities / projects implemented by VATF during past 1 year.

A] Skill Training of Rural Youth

Diploma in Basic Rural Technology:

Diploma in Basic Rural Technology (DBRT) is a residential skill training program based on the philosophy of '**Learning while Doing**'. It is multi-disciplinary training course with emphasis on developing self-employment at local level. It is a yearlong program. VATF supports implementation of DBRT program with an aim of creating cadre of technology-based youth entrepreneurs in rural area. During 2022-23, VATF supported 54 DBRT students while providing food & hostel facility to these students. These students got training on workshop facility of VA-IIE but practical's and boarding expenses were provided by VATF. Practicals for agriculture were conducted on the farm land of VATF. VATF is also providing post-training hand-holding support to DBRT students through job-placement, internship or apprenticeship etc.

Instructor/ teachers training program:

Providing hand-on training support and on-site support to school (STEM or IBT schools) instructors & teachers is one of the important aspects of VATF work. During 2022-23, skill training support provided to 216 Introduction to Basics Technology (IBT) and STEM lab established in Tulapur and pirangut school. Instructors/teachers from

these schools are trained on IBT skills, 3D printing , blog making etc. Support includes technical consultancy in content development, food & hostel facility for training, on-field monitoring etc.

Entrepreneurship Development Trainings:

‘StartUp Sarathi: We are providing hand-holding & incubation support to budding enterprises in rural areas under this initiative. Technology awareness camps, webinars & field visits are organized on a regular basis. During 2022-23, a total 60 new enterprises were incubated through pre & post training support. Post training incubation support includes enterprise registrations/licenses, social media promotion, branding & marketing linkage, fundraising etc. Details of success stories can be found on <https://startupsarathi.vigyanashram.online/>

Snapshot of EDP initiative are given below:

EDP initiative	Performance indicator	Number of beneficiaries
Establish rural enterprises	Number of enterprises supported	60
Online/offline training Program	Number of training programs	17
Online training participants	Number of youths participated	326
On campus training participants	Number of youths participated	106
Hand-holding & incubation support beneficiaries	Number of enterprise /youths supported	130

List of the EDP training program during 2022-23:

Sr. No	Training program name/ topic	Date	Number of participants
A	Hands-on trainings		
1	Fish Farming	2-3 May 2022	8
2	Jirenum farming	18-19 Jun 2022	5
3	Sliding Window	29-30 Jun 2022	13
4	Advance Goat farming	17-18 Sep 2022	5
5	Milk Processing	15-16 Oct 2022	20
6	Poultry farming	18-19 Nov 2022	10
7	Wafers Namkeen	10-11 Dec 2022	10
8	Sliding window & door lamination	07-08-Jan 2023	11
9	Chikki Khakra	15-16 Feb 2023	2
10	Spices Training	09-10 March 2023	8
B	Online webinar / Field training		
1	Mango Sales Management	01 May 2022	25
2	Engg Hatching-Online	15 May 2022	23
3	Fish farming -Sankalp online	10 Jun 2022	61
4	Chaitanya Goat farming training	14 Aug 2022	42
5	Goat Farming training Raindrop	29 Aug 2022	38
6	Jegree Processing webinar	30 Dec 2022	79
7	Raintree Poultry training	3-4 Jan 2023	45

Poultry farming training: VATF has collaborated with 'Raintree Foundation' (Pune) for providing training and on-field technical consultancy support to back-yard poultry farmers of 9 villages in Sakhari region of Velhe block in Pune district. The Velhe block is known for its hilly terrain, higher rainfall, single cropping & lower per capita income. Backyard poultry farming aims to provide sustainable income to small farmers. During 2022-23, poultry farming training is conducted for 9 CRPs (community resource personals) at Pabal centre. A regular field visits and hand-holding support is provided to farmers beneficiaries & CRPs. So far 50 + farmers adopted poultry farming & successfully raised 1000+ desi poultry birds. We are providing on-field training & technical consultancy to these farmers.

Food processing training: VATF collaborated with 'Krushi Vikas Pratishthan Santha' for providing training to Women Self-Help Group (WSHG) & incubation support. A EDP training on 'Chikki & Khakara' manufacturing was provided to 10 WSHG beneficiaries from Sagamner (Ahmednagar) in the month of March.

We are thankful to Praj Foundation (Pune) and other grassroots organizations for providing financial support for skill training & EDP training programs.

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A. Technology Development and Field Testing:

During 2022-23, VATF worked on field-testing/ prototyping of technologies in the area food processing, waste management, engineering & digital fabrication-based solution etc. Field trials on fodder cultivation & feeding to cows/goats also conducted on farm. Following are some of the technology piloting activities –

LPG based Sanitary Pad Incinerator: After successful field-testing of 5 pad/batch capacity incinerator, 60 pad capacity incinerator is developed for hostels. The incinerator is installed at Shri Bhagwanrao Napate Institute of Healthcare Education (Paud, Pune) campus. Incinerator is under field-testing from past 8 months. We are doing modifications and perfecting the system as per the feedback of user. So far, it's working satisfactory with few modifications particularly in electronics control & LPG burners. We are making necessary changes as per feedback from field-testing.

Black Soldier Fly (BSF) farming & poultry feeding trial: BSF insects are very useful for bio-degradable waste management. BSF larvae feeds on kitchen waste and convert waste into protein & fat rich animal feed. BSF farming is one the most sustainable & economical waste management technology in waste management. VATF is working on developing complete package of practice (breeding, rearing, value addition etc) of BSF farming. During 2022-23, trials were conducted for standardization of BSF breeding, egg collection, rearing and value addition of BSF larvae. Field trials on kitchen waste recycling through BSF was started at specially-abled school (Pabal) campus and Darpan society, Rajgurunagar. VATF has collaborated with Rajgurunagar Nagar-Panchayat for implementing it in large scale. BSF larvae feeding trial on poultry birds & extraction of bio-diesel as value added product was done in association with Ltd.Gen. S.S.Hasabnis. We are engaging DIC fellow of VA-IIIE as their projects. VATF also won

'Swatch-Technology-2023' award given by Pimpri-Chinchwad Municipal Corporation for BSF farming waste-management concept.

Solar dryer for vegetables/fruits: We are working on developing efficient & cost effective solar drying technology for vegetables/fruit drying. During 2022-23, trials were conducted for increasing performance of flat-bed solar dryer. Its design is modified by replacing wooden side-walls by polycarbonate sheets. The new version has drying efficiency of 20.26% (1 % improvement with better durability). We are in process of designing solar dome dryer with 50 kg loading capacity. It's specially designed for drying spices without losing natural fragrance & colure of spices. It will be field-tested with WSHG based in Nasik regions. Similarly, we have supplied 2 units of flat dryer & 1 unit of dome dryer (5 kg loading capacity) to Durgadevi Mahila Sayamsahyata Mandal (WSHG of Shelu, Pune) against order.

B. Technology services to community:

During 2022-23, following technology service were offered to community by VATF as-

- Linseed & Moringa fortified chikki: xxx kg
- H₂S strip water testing bottles: xxx units
- Soil & water analysis service: xxx samples
- Compost culture for urban waste: 50 packets
- Fabrication of school furniture: 14 IBT schools

C. Infrastructure development, award & recognition:

Infrastructure development: As a part of infrastructure development work VATF started building of 'skill training hostel' facility for skill training beneficiary. This hostel will be of 2000 ft² build-up area. It will have 4 room with separate WC units and dormitory hall for stay arrangement of 20 students. During 2022-23, work of RCC & civil construction work has been completed.

D. Financial statements: attached separately

Acknowledge:

VATF is progressing towards its mission with support of well-wishers and dedicated team members.

We are thankful to our Company Secretary Mr. Prasad Jahagirdar and Chartered Accountant CA Meenal Kulkarni. We are also thankful to our donors and CSR partner especially M/S Praj foundation (Pune), Cummnis India Ltd. and other partner organisations, students for their continuous support.