Annual Report

2019-20

Satvik: Promoting Ecological Farming

A 59, Changleshwar Society
Mundra Relocation Site
Bhuj – Kachchh (370001)
Phone : +91 2832 231772
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SATVIK
Promoting Ecological Farming


for Micronutrient
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Chart - 3

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ABOUT SATVIK...

Satvik: Promoting Ecological Farming (Satvik) has been promoted by group of motivated organic farmers who came together share their excitement and their practice at the turn of the century later formalized in 2007.

The relatively low and erratic rainfall of arid regions, like Kachchh have challenged the indigenous populations to develop some of the finest crop and animal bio diversities - which have not only reduced risks to adequately feed their human and animals populations, but will in the future, prove to be critical in providing genetic material to face the challenges of climate change. Complex web of loops has been established that feed into one another wherein byproduct becoming primary inputs and the value chain takes place within the eco region. This has created efficiencies, economies and dependencies that promote strong and sustainable communities.

Satvik is reinvesting efforts in scientifically documenting their benefits; promoting their further development; reinstate a confidence and dignity amongst its farmer practitioners - towards self-contained societies and economies that are self-dependent for their food security and only export their surplus.

OBJECTIVE

To Promote, conceptualize, encourage, aid, organize, assist, support, facilitate, undertake various aspects of ecological farming techniques including distribution, promotion, marketing and trade of such produce, in its all forms, for strengthening of livelihood of marginal farming community and improvement in the health of the people irrespective of caste, class, gender, race and religion.

GOVERNING BOARD

Sr. No.	Name	Designation
1	Mr. Sukhpal Singh	President
2	Mr. Shailesh Vyas	Secretary
3	Mr. Yogendrasinh Jadeja	Member
4	Ms. Sushma Iyengar	Member
5	Mr. Sandeep Virmani	Member
6	Mr. Magan Bararіya	Member
7	Mr. Mrugesh Trivedi	Member
8	Mr. Sabyasachi Das	Member

REGISTRATION

Society Registration Act, 1860
Bombay Public Trusts Act, 1950
Section 12 AA of Income Tax Act, 1961
Section 80G of Income Tax Act, 1961
Foreign Contribution Regulation Act, 1976
NGO Darpan Registration, 2016

STAFF PROFILE

Sr. No.	Name of the Staff	Designation	Education Qualification	Relevant Work Experience
1	Mr. Shailesh Vyas	Secretary and Trustee	B. Sc. (Agri.), PGD Ecology & Environment, MA (Economics)	26 Years
2	Mr. Ramesh Makavana	Project Director	B. Sc. (Agriculture)	14 Years
3	Mr. Suleman Khoja	Field Assistant	S. S. C.	12 Years
4	Mr. Valimamad Theba	Field Assistant	8 th Pass	12 Years
5	Ms. Tanvi Baxi	Accountant	B. Com.	11 Years
6	Mr. Valji Ahir	Field Assistant	B. A.	02 Years
7	Mr. Ramesh Zapadiya	Field Assistant	12th Pass	02 Years

CONTENTS

1. Conservation of Traditional Seeds: Anmol

1.1Development of Clusters

This year Satvik had identified 3 more clusters for implementation of Anmol project; outside Kachchh district. The detail is given bellow in table no. 1.1.

Table No. 1.1: Clusters

Sr. No.	Name of Clusters
1	Adesar Cluster, Taluka: Rapar
2	Bhimasar Cluster, Taluka:Anjar
3	Kothara Cluster, Taluka: Abdasa
4	Lodai Cluster, Taluka: Bhuj
5	Vang Cluster, Taluka: Nakhatrana
6	Lakhpat Cluste, Taluka: Lakhpat
7	Khambhaliya Cluster, Dist: Jamnagar & Devbhumi Dwarka
8	Radhanpur Cluster, Dist: Patan
9	Jasdan Cluster, Dist: Rajkot

1.2 Traditional Seed Production

1.2.1 Summer – 2019

Kharif 2018 was drought year in Kachchh so that, targeted seed was not produced. To fulfill need of Kharif 2019, seed production in Summer 2019 was planned in irrigated condition. 7 farmers and their 25-acre land were identified for Cluster Bean, Sesame and Green Gram seed production. Seed Approval committee had verified plots and approved for procurement.

1.2.2 Kharif – 2019

This season no specific farmers were appointed for seed production, but plots were selected based on crop health, uniformity of plants and farmer's interest among seed grower farmers. Seed grower farmers were those who had opted traditional seed from program's seed distribution center.

Kharif 2019 was good year in entire Kachchh and seed production was very good. But due to excessive rainfall in late kharif season; deteriorated seed quality majority of crops. Farmers who have sown our traditional seeds, their plots were monitored regularly by field staff. Many plots were rejected by seed approval and validation committee during committee visit because of poor quality seeds.

Table No. 1.2: Detail of Seed Procurement in 2019

Crop	Procurement in 2019	
	Qyt (Kg)	Farmers (No.)
Cluster Bean	13665	10
Sorghum	9072	15
Green Gram	705	07
Pearl Millet	230	04
Moth Bean	30	01
Blackgram	200	01
Kalthi	200	01
Sesame	11	01
Castor	150	01
Total	**24263**	**41**

Procured seeds were cleaned and packed in Sukhpar processing plant. The detail is given in table no. 1.2.

1.2.3 Summer – 2020

Sesame crop was failed to produce seed and Pearl Millet crop was worse affected due to heavy rain in Kharif 2019. Seed production of both crops has been planned in Summer 2020 at Jasdan cluster in irrigated condition. 3 farmers for sesame and 3 farmers for Pearl Millet have sown seeds. Sowing has been completed, crop health is very good.

1.3 Seed promotional and Farmers Awareness Activities

1.3.1 Framers Exposure Visit

Farmer exposure visit was organized at Cluster Bean seed production plots at Sukhpar Village. In this event more than 200 farmers from different villages of Kachchh had participated. The main objective was to show performance of traditional seed and aware farmers about conservation of traditional seeds. Farmers had informed about importance of traditional seeds, seed quality and seed system. All farmers were actively participated and field visit was organized.

Farmers of Khambhaliya Cluster, Jasdan Cluster and Radhanpur cluster were invited for exposure visit to seed production plots in Kharif 2019. This exposure visit was organized at Adesar cluster area where seed production of Green Gram, Cluster Bean, Pearl Millet and Sesame crops were planned. More than 150 male farmers and 50 female farmers were participated in this event. Farmers had visited 4 seed production plots of different crops at various locations. They had interacted with seed producer farmers regarding techniques and issues. Training on organic seed production as well as quality seed production was imparted to these farmers. Full event covered by video documentation.

1.3.2 Seed Campaign

For a mass awareness and convey a message to farmers; seed campaign activity was carried out at village level. Vehicles were decorated by Anmol program banners and sound system was used to attract farmers. Vehicle was spending half a day in every villages and program personnel was providing information about program and traditional seeds. Informative leaflets were distributed. Farmers were asking curiously about traditional seeds and its availability, price, quality etc. More than 50 villages were covered within 15 days under this campaign and massage was reached to thousands of farmers.

1.3.3 Farmers Meetings and Trainings

Farmer meetings at village level were organized for promotion if traditional seeds. More than 70 villages were covered across the project area. Discussion points were performance of traditional seeds, issues related to seed and its access and seed system. Leaflets, brochures and calendars were distributed to farmers and TV shows were organized in some clusters.

Farmer trainings on organic seed production and seed production technologies were organized in all clusters. 50 farmers were trained for organic seed production and more than 150 farmers were trained for seed production technology. General trainings on organic farming were organized at 2 locations, where 300 farmers had participated.

1.4 Traditional Seed Distribution

1.4.1 Cleaning, Packing and Storage

Procured traditional seeds were cleaned at dedicated cleaning unit near Bhuj. Cloth bag made from Traditional Kala Cotton lint and stitched by women groups of Kachchh were used for

packing of seed. 8 kg carrying capacity cloth bag for Cluster Bean and 4 Kg for Green gram was made. Information about program and crop wise important characters of seed was printed on cloth bags. Cloth bags were not seal packed but tied with "Sutali" (Traditional Tying Thread) because of due respect to seed act and other food regulations. Seeds were stored in cold storage to protect from pests and viability issues.

1.4.2 Seed Distribution

Seed distribution centers were decorated with banners and posters. Packed seed bags were delivered at all centers before season. All centers were advised to maintain proper seed registers. Main objective was to reach out more number of farmers and pass benefit to the farmers. Toal 7,112 kg seeds were distributed to more than 700 numbers of farmers. The details are given below in table no. 1.4.

Table No. 1.4: Seed Distribution in Kharif 2019

Crop	Distribution in Kharif 2019	
	Qyt (Kg)	Farmers (No.)
Cluster Bean	3100	388
Sorghum	3550	178
Green Gram	280	70
Pearl Millet	122	40
Moth Bean	20	10
Black gram	20	10
Sesame	20	20
Total	7112	716

1.5 Seed Research and Demonstration

1.5.1 DNA Fingerprinting

Traditional seed are morphologically more or less similar to each other. It was very important to know that there is significant genetic variation between all seed types or not. For that purpose, 9 traditional seed samples were sent for DNA fingerprinting to Department of Biotechnology, Junagadh Agricultural University. Among them 4 samples of traditional Pearl Millet and 1 sample of Sorghum, 2 samples of Sesame, 1 of Castor as well as 1 of Black Gram. Test report is awaited.

1.5.2 Seed Experiment Trial plot

Experiment trial plots of selected traditional seed types of Sorghum, Cluster Bean, Green Gram and Sesame were planned at Mandavi in Kharif 2019. 4 seed types of Cluster bean, 3 seed types of Green Gram, 3 seed types of Sesame and 5 seed types of sorghum were taking under experiment. 1 released variety of Cluster Bean (Pujabi Guar), Green Gram (Guj Green Gram 4) and Sesame as well as 2 varieties of Sorghum were sown with as check variety.

Table No. 1.5: Detail of Experiment Trial Plot

Sr. No.	Crop	Variety	Code No.	Spacing	Replication
1	Cluster Bean	Jesa Petha Chhanga	CB 101	10 R X 10 Mtr	03
2	Cluster Bean	Jentibhai Patel	CB 103	10 R X 10 Mtr	03
3	Cluster Bean	Punjabi	CB 106	10 R X 10 Mtr	03

4	Green Gram	Bhachu Dharamsi Gami	GG 101	10 R X 10 Mtr	03
5	Green Gram	Pachan Hari Chaudhari	GG 104	10 R X 10 Mtr	03
6	Green Gram	Khimjibhai Menat	GG 105	10 R X 10 Mtr	03
7	Green Gram	Gujarat Mag 4 - Check	GG 106	10 R X 10 Mtr	03
8	Sorghum	Kutch - Gundari	SG 101	10 R X 10 Mtr	03
9	Sorghum	GJ 43	SG 102	10 R X 10 Mtr	03
10	Sorghum	GFS 5	SG 103	10 R X 10 Mtr	03
11	Sorghum	Mahuva - Gundari	SG 104	10 R X 10 Mtr	03
12	Sorghum	Ghed - Gundari	SG 105	10 R X 10 Mtr	03
13	Sesame	Karman Dana - Chhakkad	SS 101	10 R X 10 Mtr	03
14	Sesame	Pravin Jesa Dangar - Bhuksa	SS 102	10 R X 10 Mtr	03
15	Sesame	Gujarat Tal 3	SS 103	10 R X 10 Mtr	03

Seed germination problem was observed in Cluster bean due to water logging and soil condition. This trial plot was fully under organic farming practices. Observation sheet was maintained regularly. Recorded data was analyzed based on production. Traditional Green Gram 101 seed type found superior over GG 4 in Replication 1 and 2, where GG 4 produced more in Replication 3. Traditional Cluster Bean 101 seed type performed better in all Replications. In case of Sesame, GT 3 variety performed good in Replication 1 and 2, where Sesame Chhakkad ranks first in Replication 3. Sorghum analyses were carried out based on dry fodder production. Traditional Sorghum Gundari from coastal Saurashtra had found better than all other seed types. Analyses result shows that traditional seeds of Green Gram, Cluster Bean and Sorghum are more suitable in rain fed condition except Sesame crop. The details are given in table no. 1.6, 1.7, 1.8 and 1.9 as below:

Table No. 1.6: Production Data of Green Gram

Code	R 1 (10 Mtr X 8 lines)			R 2 (10 Mtr X 8 lines)			R 3 (10 Mtr X 8 lines)		
	No. of Plants	Grain Production (Kg)	Grain Production 1000 Plants (Kg)	No. of Plants	Grain Production (Kg)	Grain Production 1000 Plants (Kg)	No. of Plants	Grain Production (Kg)	Grain Production 1000 Plants (Kg)
104	785	5.10	6.50	615	6.62	10.76	654.	5.25	8.02
105	712	4.36	6.12	663	5.30	7.99	764	4.02	5.26
106	719	4.02	5.59	643	5.23	8.13	685	8.04	11.74

Table No. 1.7: Production Data of Cluster Bean

Code	R 1 (10 Mtr X 8 lines)			R 2 (10 Mtr X 8 lines)			R 3 (10 Mtr X 8 lines)		
	No. of Plants	Grain Production (Kg)	Grain Production 1000 Plants (Kg)	No. of Plants	Grain Production (Kg)	Grain Production 1000 Plants (Kg)	No. of Plants	Grain Production (Kg)	Grain Production 1000 Plants (Kg)
101	885	3.138	3.55	792	4.173	5.27	746	4.103	5.50
103	0	0	0.00	618	2.76	4.47	0	0	0.00
105	0	0	0.00	535	1.828	3.42	882	4.053	4.60
106	522	1.343	2.57	0	0.00	0.00	0	0.00	0.00

Table No. 1.8: Production Data of Sesame

Code	R 1 (10 Mtr X 7 lines)			R 2 (10 Mtr X 7 lines)			R 3 (10 Mtr X 7 lines)		
	No. of Plants	Grain Production (Kg)	Grain Production 1000 Plants (Kg)	No. of Plants	Grain Production (Kg)	Grain Production 1000 Plants (Kg)	No. of Plants	Grain Production (Kg)	Grain Production 1000 Plants (Kg)
101	535	0.199	0.37	685	0.202	0.29	523	0.412	0.79
102	575	0.08	0.14	513	0.063	0.12	666	0.187	0.28
103	415	0.277	0.67	545	0.356	0.65	713	0.331	0.46

Table No. 1.9: Production Data of Sorghum

Code	R 1 (10 Mtr X 87lines)			R 2 (10 Mtr X 7 lines)			R 3 (10 Mtr X 7 lines)		
	No. of Plants	Dry Fodder Production (Kg)	Dry Fodder Production 1000 Plants (Kg)	No. of Plants	Dry Fodder Production (Kg)	Dry Fodder Production 1000 Plants (Kg)	No. of Plants	Dry Fodder Production (Kg)	Dry Fodder Production 1000 Plants (Kg)
101	598	16.9	28.26	828	13	15.70	752	17.13	22.78
102	372	8.4	22.58	324	5.5	16.98	638	19.6	30.72
103	(28)	(2.12)	(75.71)	145	5.1	35.17	345	8.1	23.48
104	429	10.8	25.17	526	13.2	25.10	413	16.1	38.98
105	614	15	24.43	668	17.16	25.69	578	23.97	41.47

1.6 Geographical Expansion of Anmol Project

Satvik had successfully completed seed situation analyses study in North Saurashtra and North Gujarat Agro-climatic zones in last year. This study was completed in two phases wise; i) Racee visit of different stake holders, ii) Random Farmer survey. Based on this study, Satvik had decided to expand their Anmol project activities in selected clusters of both agro-climatic zones.

In North Gujarat; Radhanpur, Santalpur and Shankheshwar blocks of Patan district have been selected. And in North Saurashtra; Lalpur of Jamanagar district as well as Khmabhaliya and Kalyanpur blocks of Devbhumi Dwarka district have been selected. Jasdan and Vinchhiya blocks of Rajkot selected also. Initially total 80 villages of 8 blocks have been identified to initiate project activities. Traditional seed's demonstrations, formation of groups, farmer meetings, and farmer exposure visits etc activities have been initiated.

1.7 Anmol Desi Beej Sanvardhan Khedut Sangathan

Annual general meeting of the Sangathan was organized in Bhuj. In this meeting 14 member were remain present. In this meeting; progress under Anmol project, status of variety registration, national workshop on seed and incorporation of the Sangathan etc agendas were discussed. Final decision on registration of the Sangathan will be decided in the next general meeting, said the President.

1.8 Film on Anmol

Short documentary film on traditional seeds has been created for promotion of traditional seeds as well as conveys massage to people. In this film, Satvik's experience working with traditional seeds, farmer's opinion regarding performance of traditional seeds, agricultural scientists' view on traditional seeds and process of working on traditional seeds are covered. This film is directed and shot by professional movie maker agency Drishti.

Multi-lingual brochures and calendar were printed for mass awareness among farming community, NGOs, FPOs, civil society organization etc.

2. Strengthening Sustainable Agriculture

2.1 Capacity Building

2.1.1 Trainings

Satvik and Shree Ram Krishna Trust jointly organizing short training module on organic farming for the farmers who want to get introduced to organic farming before its adoption, 3 days' trainings were organized for such farmers at Chintan Farm. In this training use of audio visual was emphasized. Archive was surfed and relevant video clips and presentation was shortlisted. The detail is given bellow in table no. 2.1.

Table No. 2.1: Training detail

No. of Trainings	Days of Training	Participants
02	01	138
12	03	468
14	**04**	**606**

Satvik is a service provider to the Department of Agriculture for implementation of organic farming policy 2015 and Paramparagat Krishi Vikas Yojana (PKVY) in Kachchh district. Satvik is imparting training to the farmers and offices on organic farming under this scheme. Training detail is as below in table no. 2.2:

Table No. 2.2: Trainings for farmers and officers

No. of Trainings	Category	Days of Training	Participants
08	Farmers	01	560
04	Officers	01	120
12		**02**	**680**

2.2 Demonstrations

2.2.1 Kharif 2019

Gujarat government is implementing organic farming policy 2015 in Gujarat state. Sourcing and supply of organic seeds to farmers is one of the agenda. For linking traditional seeds with this policy; Satvik had started engaging with 50 farmers for organic seed production in kharif 2019. Orgnic inputs kits were supplied to those farmers.

Satvik has undertaken trail of application of organic inputs on rain fed crops in Kharif 2019 in Kachchh district. Following organic inputs were applied in 57 crop plots out of which 10 were under Bajara, 27 were under Green gram, 3 were under Mothbean, 5 were under Clusterbean and 12 were under Sesame. (Table no. 2.3)

Table No. 2.3: Application of organic inputs on rain fed crops in Kharif 2019

Sr. No.	Nature of Product	Technical Name	Method of Application	Doze
1	N Fixing Bacteria	Azotobacterchroococcum	Soil Application along with Sowing	1 Acre recommended doze was applied in 2 Acre
2		Acetobacterdiazotrophicus		
3		Azospirilliumspps		
4		Rhizobium spps		
5	Phosphate Solubilizer Bacteria	Pseudomonas fluorescens		
6	Potash Mobilize Bacteria	Fraturiaaurantia		
7	Water and Nutrient Uptake Fungi	ArbuscularMycorrhizal Fungi		
8	Soil Borne Fungal Disease Control	Trichodermaharzianum		
9	Termite and Root Grubs Control	Metarhiziumanisopliae		
10	Organic Foliar Nutrition	Amino Acids	Growth Promotion cum Preventive Foliar Spray for Decease	Recommended doze was applied
11	Fungal and Bacterial Disease Prevention	Bacillus subtilis		
12	Insect Prevention	Verticilliumlecanii	Preventive Foliar Spray for Insects	Recommended doze was applied
13		Beauveriabassiana		
14	Thrips and Larva Control	Neem Oil	Curative Foliar Spray for Thrips and Larva	Recommended doze was applied as per need
15	Larva Control	Bacillus thuringiensis sub-species israelensis	Curative Foliar Spray for Larva	Recommended doze was applied as per need
16		Bacillus thuringiensissub-species kurstaki		

These trial plots were located in 18 villages in 6 clusters across Kachchh district and sowing of these plots were carried out during 26th June 2019 to 21st August 2019.

Impact of Organic Inputs

Impact of above mentioned organic inputs on different crops are as below:

Impact of Organic Inputs on Bajara

- There were 10 plots of organic inputs under trial in Bajara.
- At all the locations, material designed for Soil Application along with Sowing was applied.
- At none of the location problems related to termite or soil borne pest or wilting was reported.
- At 9 locations, Growth Promotion cum Preventive Foliar Sprayfor Disease was applied and at these locations no disease or pest was reported.
- At 1 location, where Growth Promotion cum Preventive Foliar Sprayfor Disease was not applied, Ergot disease was reported.

- Beneficial impact of biofertilizers and amino acid spray on Bajara crop growth was observed at 8 (80%) locations.
- Beneficial impact includes increase in size of leaf blade, increase in plant height, increase in stem girth and fully developed and filled ear heads.
- This would have definitively translated into increase in production.
- At one location plat height was more than 15 feet.
- It is worth noticing that at one location where the soil was saline, the Bajara plants have grown well without getting any adverse impact of soil salinity. Later on inquiring with the farmer it has revealed that plot has yielded well too.

Broad Bajara Leaf at Khengarpar (Bhuj)

Bajara Plant Stem Node Filled with Food at Taga (Rapar)

Bajara Plant which has Grown Really Tall at Taga (Rapar)

Harvested Bajara at Vang (Nakhtrana)

Harvested Bajara at Khengarpar (Bhuj)

Impact of Organic Inputs on Green Gram

- There were 27 plots of organic inputs under trial in Green Gram.
- At all the locations, material designed for Soil Application along with Sowing was applied.
- At none of the location problems related to termite or soil borne pest or wilting was reported.
- At 22 locations, Growth Promotion cum Preventive Foliar Spray for Disease was applied. Out of these at 17 (77%) locations good plant growth has observed. Compare to those, 5 locations where Growth Promotion cum Preventive Foliar Spray for Disease was applied, good growth was observed only at 3 (60%) locations.

- At 18 locations Preventive Foliar Spray for Insects was applied. Out of these at 8 (44%) locations significant insects infestation was not reported. Compare to those, 9 locations where Preventive Foliar Spray for Insects was not applied, significant insect infestation was reported at 5 (56%) locations.
- At 8 locations Neem Oil was sprayed as curative spray to control Thrips and Larva infestation, however by doing this significant control was not achieved.
- At 4 locations BT bacteria were sprayed as curative spray to control Larva infestation, by doing this significant control was observed.
- Overall beneficial impact of bio fertilizers and amino acid spray on Green Gram crop growth was observed at 20 (74%) locations.
- Beneficial impact includes increase in size of leaves, increase in plant height, at some locations Green Gram plant has climbed very high on Bajara plants and plant remain green and live for longer duration.
- This would have definitively translated into increase in production. However due to continuous flower drop which has resultant into poor pod formation have significantly reduced the actual production. On verified whether it was fond that this not much related with pest infestation. Farmers, based on the previous experience, have explained that this is due to wind blowing from East direction which is causing flower drop.
- It is worth noticing that at one location where the soil was saline, the Green Gram plants have grown well without getting any adverse impact of soil salinity.

Green Gram Plant Climbed Very High on Bajara Plant at Taga (Rapar)

Green Gram Plant Climbed Very High on Bajara Plant at Vang (Nakhtrana)

Green Gram Plant Climbed Very High on Bajara Plant and Full of Pods at Taga (Rapar)

Comparing Root Nodules in Green Gram at Kalatalav (Abdasa)

Green Gram Plant After Flower Drop at Naranpar (Abdasa)

Green Gram Crop Treated at Tera (Abdasa)

Green Gram Crop Control at Tera (Abdasa)

Green Gram Leaf Treated (Left) and Control (Right)

Impact of Organic Inputs on Moth Bean

- There were 3 plots of organic inputs under trial in Moth Bean.
- At all the locations, only material designed for Soil Application along with Sowing was applied.
- At none of the location problems related to termite or soil borne pest or wilting or pest infestation was reported.
- Overall beneficial impact of bio fertilizers and amino acid spray on Moth Bean crop growth was observed at 2 (67%) locations.
- Beneficial includes increase in spread are and hence increase in pod setting.
- This would have definitively translated into increase in production.

Impact of Organic Inputs on Cluster Bean

- There were 5 plots of organic inputs under trial in Cluster Bean.
- At all the locations, only material designed for Soil Application along with Sowing was applied.
- At none of the location problems related to termite or soil borne pest or wilting or pest infestation was reported.
- Overall beneficial impact of bio fertilizers and amino acid spray on Cluster Bean crop growth was observed at 4 (80%) locations.
- Beneficial impact includes increase in leaves size, increase in plant height and number of pods per plant is almost double then untreated plants.
- This would have definitively translated into increase in production.

Growth of Cluster Bean at Rava (Abdasa)

Cluster Bean Pods Filled with Bold Seeds at Taga (Rapar)

Pod Bearing from the Bottom at Ner (Bhachau)

Left Treated and Right Control at Amarsar (Bhachau)

Left Treated and Right Control at Amarsar (Bhachau)

Cluster Bean Leaf Treated (Left) and Control (Right)

Impact of Organic Inputs on Sesame

- There were 12 plots of organic inputs under trial in Sesame.
- At all the locations, material designed for Soil Application along with Sowing was applied.
- At none of the location problems related to termite or soil borne pest or wilting was reported.
- At 10 locations, Growth Promotion cum Preventive Foliar Spray for Disease was applied. Out of these at 7 (70%) locations good plant growth has observed. Compare to those, 2

locations where Growth Promotion cum Preventive Foliar Spray for Disease was applied, at none of the location good growth was observed.

- At 10 locations Preventive Foliar Spray for Insects was applied. Out of these at 7 (70%) locations significant insect's infestation was not reported.
- At 3 locations Neem Oil was sprayed as curative spray to control Thrips and Larva infestation, however by doing this significant control was not achieved.
- At 1 location BT bacteria were sprayed as curative spray to control Larva infestation, by doing this significant control was observed. This has also helped in control of Sesame Gall Midge at that location.
- Overall beneficial impact of bio fertilizers and amino acid spray on Sesame crop growth was observed at 8 (67%) locations.
- Beneficial impact includes increase in leaves size, increase in plant height and number of pods per plant.
- This would have definitively translated into increase in production.
- It is worth noticing that at one location, in 2 acre land farmer has applied 7 trolley of FYM and in adjoining 2 acre land farmer has applied bio fertilizers and amino acid, crops in both the sub-plot were almost at par. At another location, in 2 acre land farmer has applied chemical fertilizers and pesticides and in adjoining 2 acre land farmer has applied bio fertilizers, amino acid and bio pesticides, again crops in both the sub-plot were almost at par.
- At one location farmer has grown Sesame crop in 4 acre of land, in which 2 acre was treated with organic inputs. During crop growing season due to long dry spell, the 2 acre in which treatment was not done has dried and required re-sowing. Whereas the 2 acre land in which treatment was done has not only survived the dry spell but has also yielded well.

Sesame Plant has Grown Very Tall at Taga (Rapar)

Sesame Plant has Grown Very Tall at Taga (Rapar)

Sesame Plant Affected by Gall Midege at Kotaya (Abdasa)

Capsule Bearing from the Bottom at Kunathiya (Abdasa)

Capsule Bearing from the Bottom at Kotay (Abdasa)

Harvested Sesame at Taga (Rapar)

Sesame Leaf Treated (Left) and Control (Right)

2.2.2 Rabi 2019

Satvik had conducted demonstration plot treated with different types of organic inputs at Maganbhai's organic farm on Wheat crop. 120 types of small plots were there to show effects of organic inputs in different combination as well as doses. Detail report will be prepared on result analyses. This will build confident among farmers to grow crops organically.

3. Networking and Support

3.1 Working with Kutch Navnirman Abhiyan

Satvik is a member of Kutch Navnirman Abhiyan. As a member Sh. Shailesh Vyas has participated in AGM and Governing Board Meetings during the year.

3.2 Registration of Farmer's Variety under PPV & FR Act

11 traditional seed types of 7 rainfed crops were applied for farmer varieties registration under Protection of Plant Variety and Farmer's Right Act, 2001 (PPV&FRA) last year. These all applications were scrutinized by SAU and forwarded to authority for DUS characterization. SAU is waiting for disbursement of grant form authority to conduct DUS characterization of these varieties.

3.3 Participation in Workshops/Seminars/Convention

Satvik had planned 1-day National Level workshop on "Seed System for Climate Resilient Rainfed Agriculture in India" at AMA, Ahmedabad on March 16, 2020. Revitalizing Rainfed Agriculture Network (RRAN) was co-organizer and Gujarat Organic Agricultural University was technical partner of this workshop. Officials from State Agriculture Department, State Agricultural Universities, and Civil Society Organizations across county as well as farmers, policy makers and media were going to participate in this workshop. Hotels, food and tickets were already booked for participants. This workshop was postponed 2 days before the event date due to COVID-19 pandemic situation.

Revitalizing Rainfed Agriculture Network (RRAN) in association with National Rainfed Area Authority had organized 1-day consultation on Land Degradation UNCCD COP 14 at NRAA campus, Pusa-New Delhi. Mr. Ramesh Makavana of Satvik had participated in this event.

Sahaja Samrudhha and seed saver group of Karnataka had organized 3 days' event called "Beejostav" in Mysore to promote traditional seeds. Mr. Ramesh Makavana from Sativk, Mr Aditya Min, Mr. Ranjeet Singh from FPO had participated in this event. The main purpose was to understand about event objectives and response of people for this type of event. That was excellent event to learn about how to promote traditional seeds on market side. Satvik had decided to organize in Gujarat.

"Satvik Food Festival" a most popular annual traditional food event was organized in Ahmedabad by SRISTI. Satvik team had visited this event. Buyers of organic products and traditional seed had contacted for market linkages.

"Visarati Vangi" a traditional food festival was organized in Bhuj. Satvik team had participated with stall in this event. Stall was decorated by cloth banners. Satvik had displayed traditional seed samples and sold too. Sativk had promoted and supported Jasdan farmers group to participate in this event to promote traditional seeds of Jasdan cluster.

Revitalizing Rainfed Agriculture Network had organized 2 days "National Consultation on Rainfed Agriculture" at Hyderabad. Mr. Ramesh Makavana had participated and shred Sativk's experience on working with traditional seeds with group members to prepare next action plan.

4. Financial Reports

4.1 Balance Sheet

Name of the Public Trust : Satvik: Promoting Ecological Farming

Trust No. F-1541/Kachchh Date of Registration : 10th January 2008

Address of the Trust's office : A-59 Changleshwer Society, Mundra Relocation Site, Bhuj - Kachchh -370001

Balance Sheet as on 31st March 2020

Bank Account No. of Trust for transaction of Foreign Contribution: 350602010805226 Union Bank of India - Bhuj

F.C.R.A. No. 042050078 Dated: 10th August 2016 (Renewal till 31st October 2021)

Particular	Annexure	As on 31-03-2020 - FC
Funds & Liabilities		
Other Funds	A	1,376,586
Unutilized Grant	B	3,066,406
Total		**4,442,992**
Assets & Properties		
Investments	F	948,601
Net Current Assets	C	3,494,391
Total		**4,442,992**

For Satvik: Promoting Ecological Farming
(Shailesh Vyas)
Secretary
Place : Bhuj
Dated : 07 SEP 2020

For H.Rustom & Co.
Chartered Accountants
Firm Reg. No. : 108908W
(HRD Dalal)
Proprietor
Membership No. 31368
UDIN: 20031368AAAAAW6536
Place : Ahmedabad
Dated : 09 SEP 2020

For A S Shaikh & Co.
Chartered Accountants
Firm Reg. No. : 139775W
(Aslam Shaikh)
Proprietor
Membership No.162345
UDIN: 20162345AAAABD6435
Place : Ahmedabad
Dated : 09 SEP 2020

4.2 Income and Expenditure

Name of the Public Trust : Satvik: Promoting Ecological Farming

Trust No. F-1541/Kachchh Date of Registration : 10th January 2008

Address of the Trust's office : A-59 Changleshwer Society, Mundra Relocation Site, Bhuj - Kachchh -370001

Income & Expenditure Account as on 31st March 2020

Bank Account No. of Trust for transaction of Foreign Contribution: 350602010805226 Union Bank of India - Bhuj

F.C.R.A. No. 042050078 Dated: 10th August 2016 (Renewal till 31st October 2021)

Particular	Annexure	As on 31-03-2020 - FC
Income		
Grants & Donations	D	6,814,773
Interest Income	E	490,352
Total		**7,305,125**
Expenditure		
Expenditure on objects of the trust	G	5,455,072
Contribution to Charity Commissioner	H	9,294
Establishment Cost	I	929,613
Statutory Audit Fees	J	63,500
Remuneration to Trustee	K	360,000
Excess of Income over Expenditure		487,646
Total		**7,305,125**

For Satvik: Promoting Ecological Farming
(Shailesh Vyas)
Secretary
Place : Bhuj
Dated : 07 SEP 2020

For H.Rustom & Co.
Chartered Accountants
Firm Reg. No. : 108908W
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Annual Report

2019-20

SATVIK
Promoting Ecological Farming

Satvik: Promoting Ecological Farming

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