

***CLIMATE RESILIENT AGRICULTURE THROUGH WOMEN
FARMERS, THROUGH A CHANCE FOR GIRLS PROJECT
VILLAGES***



SUBMITTED TO:

ROTARY CLUB OF LIPPETAL AND BECKER-CORDES STIFTUNG

SUBMITTED BY:

WATERSHED ORGANISATION TRUST (WOTR)

Contents

Project Area:	4
Background	4
Trainings	4
Mahila Pravartaks Selection	5
Mahila Pravartak monthly meeting cum training:.....	5
Farmers and demo plots selection	5
Online Training Farmer Field School.....	6
Soil Testing.....	6
Seed Treatment	7
Integrated Pest Management (IPM)	7
Promotion of Vermi Compost Beds.....	8
Efficient Water Management:.....	9
Livestock Immunization Camp:.....	9
Promotion of Silage Bags:	10
Promotion of Calcium bottle for Cattle:.....	11
Nutrition for Lactating animals:.....	11
Promotion of Kitchen Gardens:	11
Promotion of Multilayer Farming:	12
Child Care & Growth Monitoring:.....	14
AWARENESS ON COVID-19	15

ANNUAL REPORT

Project Name : Climate Resilient Agriculture through Women Farmers,
Through a Chance for Girls Project Villages

Project Period : January 2020 – December 2020

Implementing Partner : Watershed Organisation Trust (WOTR)

Funding Support : Rotary Club of Lippetal & Becker-Cordes Stiftung

Reporting Period : January 2020 – December 2020

Project Area:

Villages: 2 (Malunja Budruk & Ambelohal)

Block: Gangapur

District: Aurangabad

Background

The issue of climate change is becoming more serious day-by-day, both locally and globally. And since this change is inevitable, we need to plan farming according to the changing climate. This planning involves identifying potential future risks, mitigating risks, minimizing profits and losses, building the capacity of farmers and creating a positive mindset about adapting to the changing climate. Therefore, we are implementing Climate Resilient Agriculture through Women Farmers, Through a Chance for Girls Project Villages.

Trainings

The trainings were organized to make people aware of the concept of climate change adaptation and to adapt to the changing conditions in agriculture. It has helped in exploring the climate, the imbalances in the climate over the last few years and the consequent changes in rainfall pattern and the causes and consequences of these changes.

This was followed by a group discussion on:

- ✓ How to adapt to the inevitable climate change?
- ✓ What to adopt when farming?

And then flexible farming to adapt to climate change from a scientific point of view was discussed.



Mahila Pravartaks Selection

The selection of the project villages was followed by the process of selecting 2 women as the representatives from each project villages. These women representatives are known as the Mahila Pravartaks (women promoters). They were selected following interviews with them, which was conducted by the WOTR staff. The minimum qualifications to become a Mahila Pravartak was that she should be at least 7th class passed. Thus, considering all the criteria and based on women's willingness and interest the Mahila Pravartaks were selected. From all 2 villages there were 4 Mahila Pravartak selected.

Mahila Pravartak monthly meeting cum training:

During the reporting period regular Mahila Pravartaks monthly meeting cum training program have been conducted. During the Covid-19 pandemic meetings were conducted through online platforms. In the monthly meetings review of the previous month is taken and progress of the activity is noted and planning of the next activities is done. The roles and responsibilities of the Mahila Pravartaks are explained. The importance and benefits of the project activities is explained and the same information is passed on by the Mahila Pravartaks in their respective villages. Mahila Pravartaks have helped in reaching out to maximum farmers in our project area.

Farmers and demo plots selection

From 2 villages, 26 farmers each were selected overall 52 farmers were selected at the primary level. From each project village 1 farmer each was selected as "Demo Farmers" and 20 gunthas of land area was selected for demo plot in this farmer's field.

And some activities were implemented on this demo plots such as pre-cultivation advice, crop rotation, intercrop, trap crops were included in this. This demo plot proved as an example for other farmers in the village.



Online Training Farmer Field School

Farmer Field School online trainings were organized for farmers. Initially selected demo plots and demo plots farmers were selected. They were taught the intercropping pattern and trap crop pattern. Various crops for example cotton crop was discussed, its growing pattern, the diseases that affect the crops and the remedial measures one must take was discussed. The process of integrated pest management was discussed online and the same was told to apply in the field. Also, it was promoted across all the farmers in the villages.

In all **88** participants participated in the training program.

Soil Testing

Soil is the upper layer of the earth in which plants occur. Organic residues with the mixture of decomposed rocks and secondary nutrients such as nitrogen, phosphorus, potassium (NPK), sulphur, zinc, boron, iron, manganese, copper. For good agricultural production all these nutrients must be in the right proportions. However, due to regular agricultural production and floods, droughts etc., these soil nutrients are depleted. Soil testing is necessary and examining soil proves decisive. This ensures the right amount of nutrients required for agriculture and helps in maintaining soil texture and nutrients.

We have collected soil samples from a total of 52 farmer's i.e. 26 farmers each from both the villages and these soil samples have been inspected at the Agricultural Science Center in Aurangabad. The soil testing reports/ health card have been distributed to the farmers along with its detailed explanation.



Seed Treatment

When the seeds are sown in the fields the seeds are either eaten up by the insects or gets affected by the insects. In order to stop the seeds from affecting the process of seed treatment was introduced to the farmers.

Seed treatment refers to the application of fungicide, insecticide, or a combination of both, to seeds so as to disinfect and disinfect them from seed-borne or soil-borne pathogenic organisms and storage insects.

For this, we demonstrated to the farmers about the seed process, its need and benefits. Accordingly, 52 selected farmers were given medicines for seed treatment such as Trichoderma, Rhizobium, Beveria, and PSB. This seed treatment was used for seeds of main crop, intercrop as well as trap crops.



Integrated Pest Management (IPM)

Integrated pest management is becoming a necessity. Insect infestation on crops is not new, however, the growing immunity of insects is becoming a serious issue. Therefore, integrated pest management is effective and possible with the participation of the entire village.

For this 'Bulb Trap' were installed and devised measures to reduce the incidence of 'White grub'. After this, to reduce the incidence of aphids and thrips on the crops 'yellow sticky traps' were put up. This traps were put in the zig-zag manner in around 52 acres of land. This made it easier for the farmers to understand the prevalence of these insects on the crop. And thus, organic insecticides like Nimastra, Dashaparni etc. were prepared and used for the crops.



IPM activity Beneficiaries:

Sr. No	Type of IPM activity	No. of beneficiaries
1	Use of Yellow sticky traps	52
2	Use of Pheromone traps	52

Promotion of Vermi Compost Beds

Organic fertilizers are cheaper and more economical than chemical fertilizers. Organic fertilizers play an important role in improving soil texture. For this, we have made available the best option for farmers in this, farmers have made low cost vermi compost beds.

In this, farmers made low cost and readymade vermi compost beds by using mulching paper. It requires dry leaves, rotten cow dung etc. all this mixture is being made into vermi compost. As per the current situation, there is a shortage of fertilizers at the Agricultural Service Center. In this case, vermi compost is becoming a cheap and reliable option for farmers.

57 vermi compost beds have been formed in 2 villages, during the reporting period.



Promotion of Low cost Vermi compost beds



Efficient Water Management:

Changing climate and declining rainfall are hampering agriculture. Due to water scarcity, a lot of fertile land is left uncultivated, it is important to manage water for this from both the villages for water management, 5 farmers each from both the villages in all 10 farmers were selected.

They were given irrigation materials and rain pipes were installed in their fields these rain pipes make it possible to irrigate more area in less water. At the same time, as water falls like rainfall on the crops, thus, the incidence of pests like aphids and thirps is automatically reduced.

A total of **12** farmers have been benefited by efficient water management set up.

Installation of rain pipes



Livestock Immunization Camp:

Livestock is the traditional wealth of farmers. Livestock helps farmers in field work and also creates side business. Therefore, it is important to take care of this livestock. For this we have given HSBQ vaccination for livestock like cows, ox and calves and ETB vaccination to goats by the Government Veterinary Doctor. This has helped in preventing the spread of animal diseases such as fungal diseases and the goats to get rid of mouth sores which is caused by eating fresh grass.

Sr. No	Livestock	No. of animals Vaccinated	Type of vaccination
1	Cow	128	HSBQ Vaccination
2	Ox	109	
3	Goats	91	ETB Vaccination
TOTAL		328	

Cattle vaccination camp

Guidance by veterinary doctor on Livestock care:

Along with livestock immunization camp the farmers have been guided by veterinary doctors on taking care of the cattle. Dr. Khatal has guided farmers on livestock health



care and Dr. Choudhary has guided on skin disease and skin care.

Promotion of Silage Bags:

Silage is fodder crop that has been 'pickled'. It is a method used to preserve the pasture for cows and sheep to eat later when natural pasture isn't good, like in the dry season. The fodder crop are cut and then fermented to keep as much of the nutrients (such as sugars and proteins) as possible.

As our project villages are from dry area there is a need of promoting silage bags, this will also be helpful in providing fodder to the cattle during dry season. It will prove beneficial for increase in milk production.

In all 24 farmers have received the silage bags and they are using the same for their



cattle.

Promotion of Silage Bags

Promotion of Calcium bottle for Cattle:

Nutrition for Lactating animals:

In our project area due to drought or dry climate many of the farmers are feeding maximum dry fodder to livestock. During the digestion of dry feed Calcium is reduced from there body. This leads to lack of milk production and decrease in fat percentage. One of the major problem seen in maximum cattle is reduction in reproductive capacity. Also, it causes rickets, reduce growth of animals and inefficiency of feed conversion, decreased appetite.

Poor nervous system and red blood cells results into improper health conditions. It results into anemia due to Iron and B12 deficiency.

Therefore, Calcium bottle is promoted and provided as a supplements to the lactating livestock of the farmers.



Promotion of Kitchen Gardens:

The kitchen garden is a great option for supplementing a healthy diet in rural areas. There are no vegetable market available in the village except for weekly markets. For this, we have encouraged everyone to grow kitchen garden in their yard and grow fresh and organic vegetables in the kitchen garden. The vegetables in the market are sprayed with chemical pesticides, which have a bad effect on our health. Also, the vegetables in the backyard are easily available and free of cost and do not have to depend on the weekly markets for vegetables.

Especially during the lockdown in Covid-19 crisis, the weekly market was completely closed and the question of cooking food was easily solved because of the kitchen gardens.

In this span we have distributed kitchen garden seeds to **800** participants.



Promotion of Multilayer Farming:

The training was given to the women on the organic farming practice of multilayer farming. Multilayer kitchen garden is sowing of the seeds or crops according to the height of the plants. The plants in these gardens are planted or sown in such a way that they act as companion crops of each other, the plants help each other during the process of their growth. These plants can be grown and harvested for home consumption as well as can be sold in the market. The crops are ready within the span of 40 days for use. The advantage of this activity is that less area is required and in that available area more amount of crops can be grown organically. Different types of vegetables rich in vitamins, minerals and nutrients are available throughout the year.

The women actively participated in the training program, showed great interest and worked hard. In all women participated in the training program. They are provided with the posters and booklet comprising detailed information on the multilayer kitchen gardens.

In all **20** households are involved in this activity.



Promotion of Organic Farming Practices:

The Mahila Pravartak's were given training on the importance, use and need of Dashaparni Ark, Amrutpani and Jeevamrut. These organic ark's acts as an organic pesticides, it is prepared by naturally available products. The demonstration of preparing the arks was conducted. They were explained in details the dose of application of the same along with its advantages .The MP's of the respective villages have passed on the same information to the other people in their villages. The main advantage of the organic ark is that it can be stored in the plastic container for long time and can be used as and when required.

In all from **2** villages total **291** participants are benefited (Amrutpani, Dashaparni Ark and Jeevamrut), during the reporting period. Farmers are spraying these organic pesticides on their crops.



Waste Decomposer:

Waste decomposer works as Bio fertilizer, Bio control and as well as soil health reviver. It contains beneficial microorganisms from Cow Dung for soil health reviver. It helps in controlling all types of soil borne, foliar diseases, insects and pests as plant protection agent.

In all **150** farmers have been benefited during the reporting period.



Child Care & Growth Monitoring:

This activity is conducted in all project villages each month, to trace the health trajectory of children in the age group of 0-5 years. Their growth assessment (weight and height of target group) and monthly documentation on charts are displayed in *Anganwadi* centres of the villages for the parents and villagers to visually observe their child's growth. This data is also recorded in registers and fed into WOTR's Growth Monitoring assessment system for monitoring purpose and future reference.

This activity is in collaboration with the *Anganwadi*. As on December 2020, a total of **138** children from the **2** villages participated.

In April 2020 the Child growth monitoring activity could not take place due to the COVID-19 pandemic. The gram panchayat did not allow to conduct the child growth monitoring because of the Corona crises and it's wide out spread.



Online meeting-CBO Migrant Workshop

An online CBO meeting on the topic, how to take care in Covid-19 crises was organized through the zoom app. An online meeting of Gram Panchayat members, Asha worker, Mahila Pravartaks was conducted through WOTR to guide them on what to do to prevent the spread of Covid-19 virus.

They were made aware regarding the do's and don'ts during the crises in the lockdown and the spread of Corona Virus. The gram panchayat were told to maintain all the records of the migrants. Our Mahila Pravartaks have actively helped the gram panchayat in maintaining the COVID-19 records. Weekly data of the Covid-19 is collected by the Mahila Pravartaks and given to WOTR for maintaining its records.

AWARENESS ON COVID-19

The COVID-19 or Corona Virus Pandemic has spread across the length and breadth of the country. Both urban and rural areas are under total lockdown. This has caused hardships to many as most of us were unprepared. Poor and marginalised are particularly most severely affected but, because of lack of awareness and myths floating around the disease, the level of awareness proved one important bottleneck to adhere to preventive measures such as social distancing, ensuring food security to vulnerable households and for providing all possible assistance to the village communities.

FOOD GRAIN/ GROCERY DISTRIBUTION & AWARENESS ON COVID- 19

All the Mahila Pravartaks took the initiative and has done the awareness program on COVID- 19 in our project villages and helped actively in the food grain and grocery distribution.

GROCERY DISTRIBUTION TO 36 FAMILIES:

WOTR had conducted a rapid investigation about impacts of Covid-19 in villages and especially on weaker sessions which include widows, disabled, single old, and very poor families etc. There such **36** families were identified from the **2** villages. It was observed that there is a great need of relief work for these families during this stress period.

IMPLEMENTATION PROCESS:

- ✓ As the Mahila Pravartaks are closely associated with the village and villagers, they were selected as the key person to identify and list out the needy.
- ✓ The Mahila Pravartaks played an important role in identify the poor and needy.
- ✓ **36** such families were identified.
- ✓ After the identification of the **36** needy families the kits of essential grocery items were distributed to them. This has helped in fulfilling their needs for some days.
- ✓ The credits of the work right from helping in identifying the needy to grocery distribution goes to our Mahila Pravartaks and the cluster level promoters.
- ✓ Mahila Pravartaks are playing the role of local leaders.
- ✓ This positive changes and the improved leadership qualities of the Mahila Pravartaks is because of the regular trainings sessions held by WOTR.

The following activities have been carried out by our Mahila Pravartaks along with grocery distribution:

- ✓ Social survey on phone calls
- ✓ Awareness and training on Hand wash use and its proper steps
- ✓ Awareness on use of mask & Social distancing
- ✓ Sanitizer distribution
- ✓ Sanitising of villages by gram panchayat
- ✓ Meeting with adolescent girls
- ✓ Conducting various types of surveys in villages (maintaining the records of ill people and migrants, if any)
- ✓ Information on health and diet to:
 - 0-5 years children's parents
 - Lactating mothers
 - Pregnant women

In this way the awareness activities on COVID-19 are carried out and all the rules of social distancing are followed and care is taken such as wearing masks, using hand wash/ sanitizers etc.

GROCERY DISTRIBUTION-PROJECT VILLAGES AND BENEFICIARIES:

Sr. No.	Name of Block	Name of Villages	No. of Households
1	Gangapur	Malunja Budruk	13
2	Gangapur	Ambelohal	23
		Total Households	36

*On behalf of the entire team of **Watershed Organisation Trust** we would like to thank team **Rotary Club of Lippetal & Becker-Cordes Stiftung** for your continuous support and contribution.*



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