Women farmers lead the way: pathways for climate resilient farming

Report on Agroecology Programme in Yavatmal district, 2024

Background of the study

Over the past three years, our agroecology program has continued to empower women farmers across the drought-prone and farmer suicide-affected regions of Marathwada and Vidarbha, specifically in the Akola, Beed, Hingoli, Parbhani, Nagpur, and Yavatmal districts of Maharashtra. Building on the foundations laid over the previous years, this year has been a period of deepening engagement, practical learning, and community-driven innovation. The program remains focused on supporting women farmers in transitioning to self-reliance.

Recognising the importance of continuous learning, we have facilitated field visits through exchange programs, allowing champions to share experiences, address challenges, and refine their farming practices.

Another key observation has been the positive impact of agroecological farming on household food and nutrition diversity. Some women farmers have successfully diversified their diets and generated additional income by selling surplus produce.

Looking ahead, we are exploring the concept of bio-service centres, which would serve as local hubs for organic inputs, training, and community support, managed by women from marginalised households.

As we move forward, the program aims to deepen its reach and impact, leveraging the knowledge and leadership of our champions, fostering collaboration, and scaling agroecological practices.

Learnings

Pest management

Any agro bio-diverse system, by its composition itself, naturally balances any pest or disease attack on the crop. Nature has its own food cycle and food webs, which ideally take care of any aberration if it happens. However, climate change has introduced new challenges, including the emergence of new pests that need to be managed without disturbing these natural processes.

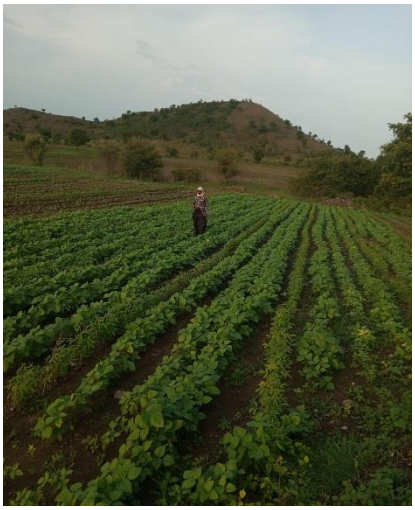
Over the past three years, in some of the villages where our agroecology experiments have been implemented, continuous rains have led to an increase in fungal diseases. To address this issue, we guided women farmers to apply Trichoderma powder during the sowing process, as it helps prevent fungal infections. To support this practice, we provided Trichoderma powder, enabling them to take proactive steps to protect their crops.

Fencing

The crop raiding by animals has significantly increased everywhere. While women have made efforts at various levels to address this issue, these initiatives have not been sufficient to stop these animal

attacks. Although live fencing could be a long-term solution, but it is currently not feasible. Therefore, to protect crops and mitigate the impact of wildlife, solar fencing is the most viable option available at this time. This year, we introduced solar wire fences on a pilot basis to some women farmers, and the initiative has already shown results. One example is the case of Usha Kute, whose farm benefited from the solar fencing.

Last year, Usha Kute's green gram crop grew well, and she was hopeful for a good harvest. To protect the crop, her son set up a fence using sarees and sticks. However, when the pods came, wild boar entered the field and destroyed the entire green gram crop. They even ate the sesame and turmeric plants with the green gram. Because of this incident, Usha Tai's son was frustrated, he dismantled the improvised fence, throwing the sticks and sarees into the river, and declared that they would not attempt to grow green gram again the following year. However, this year, with the installation of the solar fence, Usha Tai's farm was protected from wild animal attacks. As a result, her green gram crop was saved, and she was able to harvest 12 kg of mung beans. This example highlights the effectiveness of solar fencing in preventing crop damage and protecting the farmers' efforts and produce



This year photo

Last year's photo- wild boar destroyed the green gram crop

Monitoring formats

Revisiting formats and designing new ones - The diary is an essential monitoring tool for documenting progress and insights into our agroecology activities. Initially, we created daily diaries for women to record their farm activities. However, we found it challenging for them to fill out the diaries each day, especially since not all women can write. Also, it becomes difficult for them to ask someone at home to write every day. Collecting all these diaries from all the women on time and typing the information was a very time-consuming task. Because of that, we shifted to a monthly diary format, enabling women to record information on the days they visit their farms. We now collect these monthly diaries from selected women farmers to facilitate more effective data collection and reflection. The data from these monthly diaries is entered into an app by the field coordinator each month. This adaptive approach

enhances our understanding of the program's challenges and successes, leading to more informed decision-making.

Achievements

Awareness of organic farming rally

The women farmers of Zadgaon organized a rally in the village to make other farmers of the village aware of organic farming and to increase their inclination towards organic farming. In order to convey to other farmers that we are experimenting with eco-friendly self-sustainable farming, a poster of information about organic farming was prepared, some sayings were written on it and a round was taken in the village with the poster in hand.

The women farmers of Zhadgaon took a significant step in promoting sustainable agriculture by organizing an awareness rally in their village. This initiative aimed to inspire other farmers to shift towards agroecological farming practices. As part of the rally, they prepared informative posters with key messages and slogans about the benefits of agroecology farming. Carrying these posters, the women walked through the village. This collective effort not only spread knowledge but also showcased their leadership in promoting sustainable agricultural practices within the community.

Sanghatan

One of the most important achievements is the strong collectivisation among women farmers. In Yavatmal, all of them together visited the agriculture department, gave them information about the agroecology programme and asked them for support through schemes.
Collectivising has not only given confidence to women but has also helped in taking things forward in terms of access to schemes of the government and also earning them respect in the village. Now they have formed their Sanghatan ‘Paryavaransnehi Swavlambi Shetkari Mahila Sanghatan’. (Ecologically sound self-reliant women farmer’s collective)

Activities so far

Block level Meetings

Block-level meeting was conducted during the summer, these meetings focus on planning for the monsoon season, covering essential topics such as sowing techniques, seed selection, and a review of the previous year's progress. The block-level meetings are aimed at preparing plans for the upcoming season based on the lessons learned from the previous season. Following the monsoon season, additional meetings are held where women farmers share insights on how they sowed their AE farm, the changes they made, their experiences, the challenges they faced, and the yields they obtained from their fields during the monsoon season, and innovative practices they have adopted.

Training

This year, we conducted two training programmes. The first was the 'Fresher' training, aimed at women who were part of the agroecology programme but had not yet received formal training. The second was a revision training for Champion Women farmers, reinforcing their skills and knowledge to enhance their farming practices further.

Fresher's training

A three-day training was conducted in April 2024 at Chetana Vikas in Wardha. The training covered the topics of soil, roots, soil and water management, soil and crop management, mixed cropping techniques, the importance of pulse crops in the field, fertilizers, seeds, and pest management. Eight women from the Yavatmal district, along with the coordinators, participated in the training.

Revision training of champion women farmers

A two-day revision training of the champion women was conducted in April 2024 at Chetana Vikas in Wardha. Since many participating women already had two training rounds last two years, this year, the training content was modified considering their needs. Organised revision training for champion women farmers in agroecology to enhance their skills and knowledge. The objective of the training is to refresh their understanding of agroecological principles and practices. Along with this, as a champion woman, there was a discussion and arrangement about how to take this experiment to other farmer women in the village. If this experiment is to reach other women, what should be done, what are you doing? Arrange on what difficulties you are facing. Also, Discussions were held about their experiences of the past two years and what they feel are the areas that need to be explored further. Seven women from the Yavatmal district, along with the coordinators, participated in the training.

Direct support

As part of our support activities, direct support was provided to women farmers in the form of manure and seed kits. These kits included a variety of crops, such as cash crops (non-BT cotton and soybean), food crops, vegetables, and plants, to promote crop diversity and enhance food security. Additionally, this year in 2024 solar fences were provided to help protect crops from wild animals.

Monitoring

This year, we introduced a monthly diary system to track the progress and outcomes, focusing on selected farms. Data was collected through coordinators using an app, ensuring accuracy and consistency. This approach allowed for detailed and reliable observation of the experiment, helping us gather valuable insights and data for further analysis.

Exchange Visit of Champion Women

This year, we organised an exchange visit of champion women of our agro-ecology programme. In this exchange visit, champion women visited the farms of other champion women in their district. The aim was to assess how much their understanding of the experiment had grown and how effectively they had grasped the training. During the visit, champion women observed the farms selected for monitoring in their respective districts. This exchange visit allowed them to share experiences, learn from one another, and gain insights into different farming practices.

The importance of this exchange visit lies in fostering collaboration and knowledge sharing among women farmers. By observing different farming techniques and discussing challenges and solutions, champion women were able to enhance their understanding of effective agroecological practices. The visit also provided an opportunity for coordinators to participate, promoting a collective learning experience that can drive the success of the initiative.

Scaling Up Through Kitchen Garden Seed Kits

As part of our efforts to expand the impact of our program and introduce agroecology principles to women, we distributed kitchen garden seed kits in the districts where the agroecology initiative is being implemented. This included providing kits to 940 women across Akola, Beed, Hingoli, Parbhani, and Yavatmal districts. The seed kit included a diverse selection of vegetable seeds. The purpose of the activity is to encourage participants to grow vegetables for their families, thus promoting nutrition and food security. Kitchen gardens have played a crucial role in supporting the transition to agroecological farming by enhancing biodiversity, reducing dependence on external inputs, and allowing women to experiment with sustainable practices on a smaller scale before applying them to larger farms.

An online training session was also organized for the women on this topic. The training covered important aspects such as the significance of kitchen gardens, how to set them up if space is limited, pest management, organic fertilizer. After the training, the women planted all the seeds provided, and they were delighted to receive different types and varieties of seeds.

Documentation of women farmers

We have successfully documented the inspiring journeys of women farmers involved in our program. This comprehensive documentation will be published as a book, showcasing their experiences, challenges, and achievements in agroecology farming. The entire process, from gathering stories to writing and editing, has been completed, and the book is currently in the design stage. It is set to be released shortly, providing valuable insights and encouraging more women to embrace sustainable agricultural practices.

Next phase

Training for New Women Farmers

Recognizing the need to build capacity among participants, we will organize training for women who are already part of the program but have not yet attended formal training. This training will cover the fundamentals of agroecological practices, including soil management, mixed cropping, pest management, and sustainable use of inputs. By equipping these women farmers with the necessary skills and knowledge, we aim to strengthen their confidence and encourage them to adopt and sustain agroecology farming practices.

Direct Support to Women Farmers

Direct support will continue to be provided to selected women farmers, focusing on maintaining soil health, promoting crop diversity, and improving yields. This support will include seeds, Farm Yard Manure (FYM), and other necessary inputs. As well as women would be encouraged to invest in manure or develop in situ composting methods with other biomass. The direct support will also aim at encouraging women farmers to continue with sustainable practices, even in the face of challenges such as erratic weather patterns and limited resources.

Exposure Visits for Champion Women Farmers

Building on the success of this year's exchange visits, which were organized within the same district, we now plan to expand and organize exposure visits to other districts that are part of the agroecology program. These visits will allow them to learn advanced practices, innovative techniques, and effective farm management strategies. The goal is to empower these women to bring back new insights and share them with their local communities, fostering a culture of peer learning and continuous improvement.

The exposure visits will not only enhance their knowledge but also foster collaboration and strengthen networks among women farmers across various districts/regions. This cross-district interaction is crucial as it allows the women to share experiences and address challenges collectively. The exchange of ideas will empower them to adapt successful practices to their farms and encourage a culture of learning and innovation.

Evaluation of the Program

Set Up an Independent Evaluation Team of agroecology experts, including external evaluators, to assess the program's effectiveness, impact, and areas of improvement. The evaluation will cover different aspects such as soil health, crop productivity, women's empowerment, and the socio-economic benefits achieved through the program.

The insights from the evaluation will help refine the program's strategies, making it more responsive to the needs of women farmers.