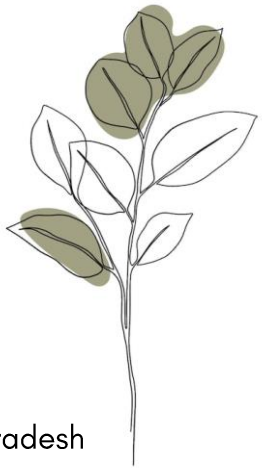
SCALING SUCCESS THROUGH FARMER-TO-FARMER EXTENSION

Learnings from Saigohan Watershed of JIVA programme, Madhya Pradesh

EXPERIENCE OF NAMAN SEVA SAMITI IN EXPANDING NATURAL FARMING

Authors: Yuvraj Borban, Aniket P. Likhar, and Malyaj Srivastava

January 2026



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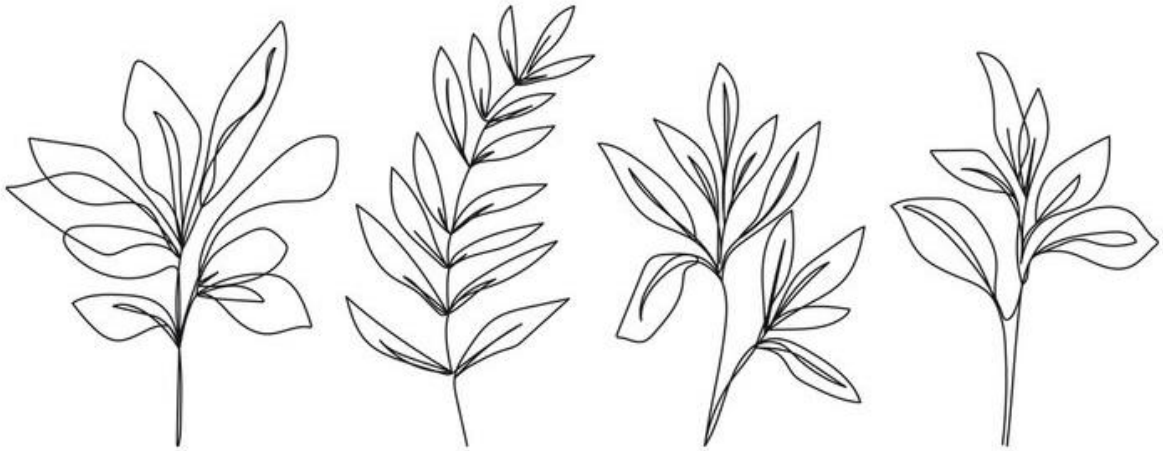

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FOR MORE INFORMATION, PLEASE WRITE TO

Watershed Support Services and Activities Network (WASSAN)

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CONTEXT

In the world of farming, sharing knowledge and technology is just as important as growing crops; especially today, when uncertainty due to climate change is accelerating and markets are changing fast. It is more important than ever that farmers have access to the right knowledge and practice at the right time.

Agricultural extension services in India evolved with the Green Revolution. Meant to extend technologies developed in the research institutions to farmers. Technology is mostly embedded into some material - new seeds, a machine, a pesticide or a fertiliser. Field Demonstrations and input subsidy are the dominant tools of Extension. Several extension methods such as FLDs, T&V systems were developed for extension of research stations generated technologies.

Natural Farming is a way of farming without chemicals, where livestock and crops are integrated. Based on traditional Indian wisdom, it encourages farmers to use what is available on their own farms and villages —preparing inputs like *Beejamrut*, *Jeevamrut*, *Neemastra*, and *Dashparni*—instead of buying expensive external inputs. Practices like multi-cropping, mulching with organic matter, pre monsoon dry sowing, growing local seeds, and planting trees around the farm not only reduce costs but also improve soil health, conserve water, and boost biodiversity. Natural Farming brings back the balance between soil, water, plants, animals, and people. Spread of Natural Farming is highly location specific and knowledge intensive. Much of these practices have evolved in the farmers' field by farmers' innovation.

How are such knowledge intensive systems and practices that are location specific and evolved by farmers in their locations spread across widely? This is where *practicing farmer to farmer* extension models evolved by practitioners of natural farming as against *scientist-extension agent-farmer* models used conventionally.

Farmer-farmer extension makes agricultural extension more inclusive, grounded in local realities, and focused on sustainable and knowledge intensive practices like Natural Farming. When farmers are empowered with the right knowledge and skill in practices, they not only improve their own lives—but also help heal the land for future generations.

The case study is on the *farmer-farmer extension system* for promotion of Natural Farming by Naman Seva Samiti in Madhya Pradesh under the JIVA-Agroecology program of NABARD. The case study exemplifies the farmer led extension methods in a landscape.

JIVA – Agroecology Programme

JIVA isn't just about techniques - it's about people / farmers and their knowledge systems. The programme puts a strong focus on changing behaviours at the farmer and community level. Instead of relying only on outside experts to give advice, JIVA attempts to build a local cadre of farmer resource persons for extension. These farmers, trained in natural farming, help others in their village learn and adopt new practices spreading natural farming widely.

A powerful example of this can be seen in the *Saigohan Watershed* area in Betul district of Madhya Pradesh, where the programme is being implemented by Naman Seva Samiti, a local NGO. Here, local farmers have taken charge of spreading the knowledge of natural farming among their own communities. This farmer-led extension approach has proved to be more effective, especially in tribal areas where language, access, and other constraints often pose severe challenges.

Through JIVA, NABARD has shown how a shift from expert-led to farmer-led learning can create a meaningful transformation - making agroecology not just a concept, but a lived practice in the hands of farmers themselves.

The JIVA Programme, supported by NABARD, is all about bringing life back to farms through natural farming. The name "JIVA" comes from Sanskrit meaning "living soul embodied within a physical body"—a reminder that farming is not just about crop yields, but about nurturing life in all forms. JIVA builds upon NABARD's earlier work under the Watershed Development Fund (WDF) and Tribal Development Fund (TDF) and takes it further by promoting farming systems that are diverse, climate-resilient, and rooted in local ecosystems. It encourages farmers to grow crops alongside trees and livestock, following the principles of agroecology.

Farmers from Saigohan village worked during the watershed project in 2019

Initiation and Farmer Identification

The journey of the JIVA project in Saigohan began when NABARD's District Development Manager (DDM) selected the watershed. The watershed development project, which was completed in 2020 with NABARD's support through the Watershed Development Fund.

Watershed development work had already helped improve soil and water resources and built strong community institutions—laying a good foundation for the next step: transitioning to agroecology through the JIVA programme.

Design of the *Farmer-to-Farmer* Extension System in JIVA

JIVA envisages a landscape level agroecological transformation. It builds upon the social and natural capital developed in the earlier watershed development project.

As many of the projects are first timers in natural farming, it is important to seed the concept. For this purpose, NABARD has tied up with AP Community Natural Farming Program with GIZ support to invite farmer resource persons experienced in natural farming; these are termed External Farmer Resource Persons (external to the watershed). The processes were designed by the Resource Support Agency, WASSAN. The mandate of these EFRPs is to stay in the villages, motivate farmers, evolve local natural farming methods with the farmers and teach them the skills of preparing various bio-inputs. Over one or two seasons, the EFRPs are also mandated to develop capacities of the local Farmer Resource Persons who will take forward the extension system within the watershed.

For this purpose, the watershed is divided into different clusters and interested farmers were motivated by each cluster to practice, learn and evolve natural farming methods. Some of these farmers will become Farmer Resource Persons.

The case study of Saigohan watershed brings out the processes and early impacts of this extension approach.

Initiation of JIVA Project in Saigohan

NABARD started discussions with *Naman Seva Samiti* (NSS), the implementing NGO, and the *Village Watershed Committee* (VWC), active since the earlier project. Together, they organized a series of village meetings in *Saigohan, Naktidhana,* and *Jhirnadana villages.* Around 12 to 13 meetings were held across the three villages. These meetings created a space for dialogue, where farmers were introduced to the idea of natural farming. As a result, about 50 farmers came forward showing interest and willingness to be part of this new journey.

This was followed by personal interaction of the DDM with these farmers, sharing the vision and objectives of the JIVA programme. NABARD's regional officers also joined in, conducting field visits and holding in-depth discussions with a core group of 10 selected farmers.

A *Learning Phase Detailed Project Report was prepared by NSS through participatory exercises and* consultations with the community capturing the local context, farmer interest, and project plans. After approval of the DPR, the *learning phase* of the JIVA programme started in the Saigohan watershed.

Village Level Meetings

FARMER RESOURCE PERSONS (FPRs)

In the JIVA programme the natural farming principles seeded by an external Farmer Resource Person from APCNF program supported by GIZ. As the local farmers learn and practice experience is generated within the watershed. Such experienced with skills in NF graduate into *Farmer Resource Persons*, or FRPs who take the role of extending their learnings and practices to other farmers.

Interest in motivating, sharing and supporting other farmers, skills, willingness to give time for the purpose, basic education- able to read and write, basic knowledge in using mobile phones, being able to understand maps after training, and, more importantly, trusted by their community are important features in the selection of FRPs. What makes them stand out is not just their farming skills, but their willingness to bring change and to mobilise fellow farmers.

In short, FRPs are farmers who lead by example, connect well with others, and help spread the message of natural farming—farmer to farmer, field to field.

Cluster Formation

As an initial process, the watershed is divided into multiple *clusters - contiguous areas having similar agro-ecological features.* This exercise is done along with the community members on a Google Earth Map and with the ePRA exercise. About 40 farmers came forward from the clusters to take up natural farming. The farmer selection process helped make sure that the practicing farmers are spread across the area in all the clusters to seed the natural farming concept across the watershed.

Farmers with better earlier experience were designated as the Lead Farmers who have responsibility of communicating and talking along with the other farmers in the cluster.

What is e-PRA?

A participatory mapping tool to enable communities to map their resources on a physical print of Google Earth map (a satellite image) instead of the conventional Participatory Rural Appraisal (PRA). As the map is to scale, the features marked by the participants can be digitised to get vector maps using open source QGIS or Google Earth itself. The method helps in constructing real-time LULC maps, building upon the villagers' local knowledge using satellite images. This allows all the information to be saved, updated, and reused at any point—whether for planning, implementation, or monitoring. It helps make community voices a central part of project decisions, using technology to strengthen grassroots knowledge. The tool was developed by WASSAN, supporting JIVA projects as a Resource Support Organisation.

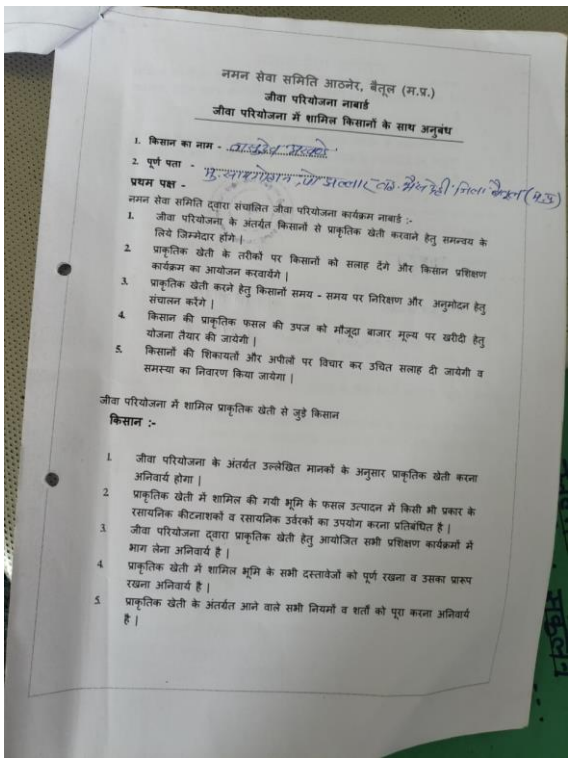
Baseline Survey

Once the clusters of watersheds are demarcated and interested farmers identified, a *baseline survey* was carried out to understand each farmer's current practices and how ready they were to shift to natural farming.

Taking Commitment to the Farmers

To build a sense of shared commitment, each selected farmer signed an *agreement* with the Naman Seva Samiti *(NSS)*. This agreement clearly laid out the roles and responsibilities of each party and ensured everyone was on the same page moving forward.

Formal Agreement signed by farmers with the Naman Seva Samiti



नमन सेवा समिति आठनेर, बैतूल (म.प्र.)
जीवा परियोजना नाबार्ड
जीवा परियोजना में शामिल किसानों के साथ अनुबंध

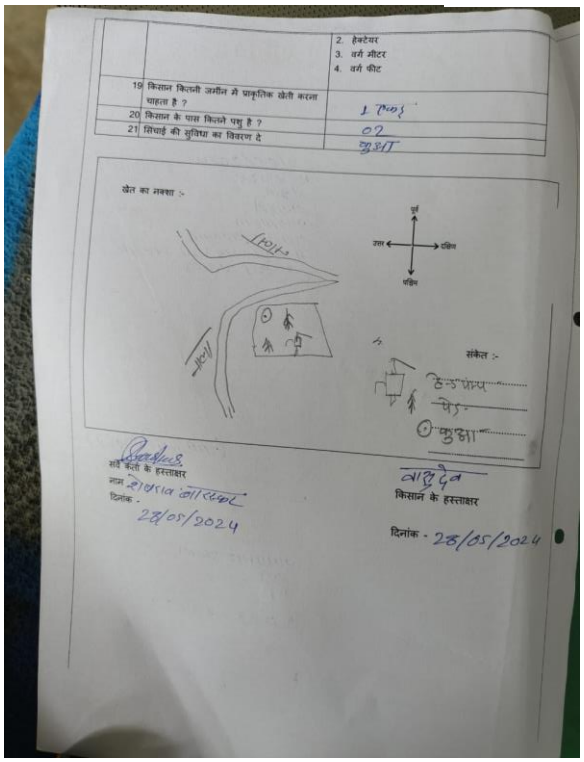
1. किसान का नाम -
2. पूर्ण पता -

प्रथम पक्ष -
नमन सेवा समिति द्वारा संचालित जीवा परियोजना कार्यक्रम नाबार्ड :-

1. जीवा परियोजना के अंतर्गत किसानों से प्राकृतिक खेती करवाने हेतु समन्वय के लिये जिम्मेदार होंगे।
2. प्राकृतिक खेती के तरीकों पर किसानों को सलाह देंगे और किसान प्रशिक्षण कार्यक्रम का आयोजन करवायेंगे।
3. प्राकृतिक खेती करने हेतु किसानों समय - समय पर निरिक्षण और अनुमोदन हेतु संचालन करेंगे।
4. किसान की प्राकृतिक फसल की उपज को मौजूदा बाजार मूल्य पर खरीदी हेतु योजना तैयार की जायेगी।
5. किसानों की शिकायतों और अपीलों पर विचार कर उचित सलाह दी जायेगी व समस्या का निवारण किया जायेगा।

जीवा परियोजना में शामिल प्राकृतिक खेती से जुड़े किसान
किसान :-

1. जीवा परियोजना के अंतर्गत उल्लेखित मानकों के अनुसार प्राकृतिक खेती करना अनिवार्य होगा।
2. प्राकृतिक खेती में शामिल की गयी भूमि के फसल उत्पादन में किसी भी प्रकार के रासायनिक कीटनाशकों व रासायनिक उर्वरकों का उपयोग करना प्रतिबंधित है।
3. जीवा परियोजना द्वारा प्राकृतिक खेती हेतु आयोजित सभी प्रशिक्षण कार्यक्रमों में भाग लेना अनिवार्य है।
4. प्राकृतिक खेती में शामिल भूमि के सभी दस्तावेजों को पूर्ण रखना व उसका प्रारूप रखना अनिवार्य है।
5. प्राकृतिक खेती के अंतर्गत आने वाले सभी नियमों व शर्तों को पूरा करना अनिवार्य है।



2. हेक्टेयर 3. वर्ग मीटर 4. वर्ग फीट	
19 किसान कितनी जमीन में प्राकृतिक खेती करना चाहता है ?	1 एकड़
20 किसान के पास कितने पशु है ?	02
21 सिंचाई की सुविधा का विवरण दे	बोर

खेत का नक्शा :-

संकेत :-

किसान के हस्ताक्षर
दिनांक - 28/05/2024

Knowledge extension and capacity building

The selected farmers attended sessions to learn the principles and techniques of natural farming. These were followed by *exposure visits* to demonstration plots, where they could see successful natural farming practices in action. A key part of this process was the involvement of *Lead Farmers*—those who had earlier been trained during the watershed project. Their presence brought a sense of continuity and trust, as they could guide others through their own lived experience.

Cluster formation meetings

Arrival and Role of the External Farmer Resource Person (EFRP)

In the JIVA programme, these experienced guides are known as *External Farmer Resource Persons* (EFRPs). They are practicing natural farming farmers from Andhra Pradesh who have been trained under the *Andhra Pradesh Community Natural Farming (APCNF)* programme for several years. These EFRPs are not just trainers—they are fellow farmers who understand both the challenges and the possibilities of natural farming. Under the JIVA project, they are deployed by RySS and spend around *120 days a year* in project villages—divided into blocks of 40 days across different seasons—to closely support farmers on the ground.

In *September 2023*, *Mr. Sudarshan*, joined the project in Saigohan as the External Resource Person (EFRP) deployed by RySS for 120 days in a year. His first step was to meet the five *Lead Farmers* identified earlier in the programme. In these early meetings, he explained the basics of *crop model planning*, the importance of *bio-inputs*, and how to prepare them. Together, they worked out detailed action plans for each Lead Farmer based on their land and crops.

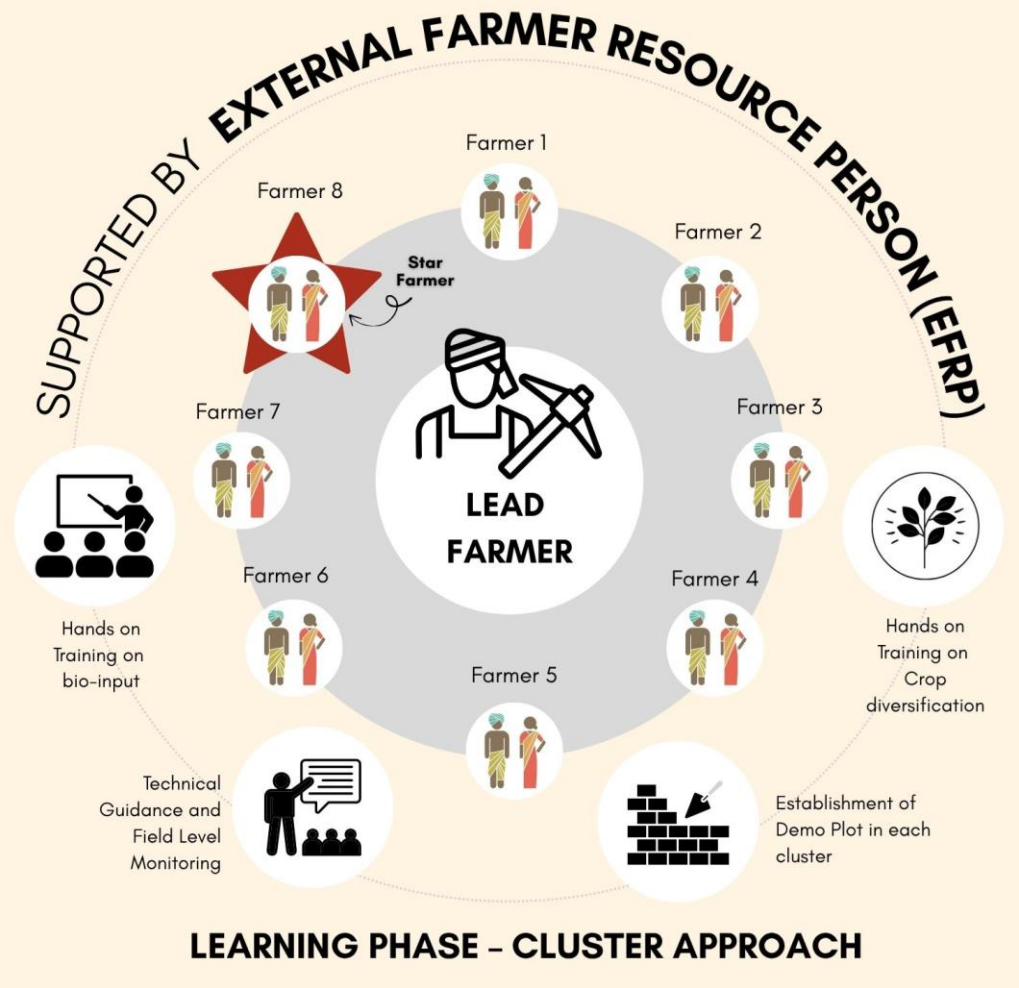
The EFRP visited each Lead Farmer's field and organised hands-on training sessions on the preparation of bio-inputs like *Drava Jeevamrutam, Ghana Jeevamrutam, Agniastra, Nimastra, Bramhastra, Dashparni Ark, Saptadhanyakur Ark*, and more. He also taught models in multi-crop vegetables round the year called - '*ATM Model*', *A1 Model*, and *Pre Monsoon Dry Sowing;* making sure the farmers understood both the science and the practice.

This close guidance of EFRP helped kickstart a *farmer-led extension model* in the village. EFRP mentored *five Lead Farmers*, also known as *Internal Farmer Resource Persons (IFRPs)*. Each of these Lead Farmers, in turn, guided eight *Fellow Farmers*—forming a learning group of *40 farmers*. Since the Lead Farmers had already been trained during the earlier watershed project, they were confident and well-prepared to support their peers.

EFRP Mr. E. Sudarshan explaining about the nursery bed preparation at the farm.

An interesting development soon followed: every Lead Farmer noticed one highly enthusiastic and committed farmer in their group - someone who went the extra mile to learn, experiment, and support others. These were named *Star Farmers*. They began to stand out as future leaders in their own right, showing that this model wasn't just working - it was growing.

And so, with EFRPs like Mr. Sudarshan guiding the way, and local leaders like the Lead and Star Farmers stepping up, the village of Saigohan began to move steadily toward a stronger, farmer-led, and natural farming future.



Internal Exposure Visits and Peer Learning

During the kharif and Rabi season, the NSS project team and the Village Watershed Committee (VWC), with support from the EFRP, organized visits to the farms of Lead Farmers. Fellow Farmers from the same villages, along with other curious community members, joined these visits.

On these farms, they got a chance to see natural farming in action — how different crops were grown together and how bio-inputs were prepared and used. Watching these practices closely helped them understand the methods better. It also gave them the confidence to try out natural farming in their own fields.

During the internal exposure visits, the EFRP Mr. E. Sudharshan interacted with the farmers and explained how crops grow in a Natural Farming field. Standing amidst the crops, he shared practical insights about the growth stages, benefits of natural practices and how the plants respond without the use of chemicals.

Peer-to-Peer Learning in Saigohan Watershed

In the Kharif season of 2024, a unique peer learning process began. Five lead farmers each selected 40 fellow farmers from around the pilot areas (F1, F2, F3…F7), bringing together a group of 200 farmers. From this group, 30 promising farmers were shortlisted for focused support, and 20 were specially selected to observe and learn Natural Farming practices closely. These 20 farmers assumed the formal role of 'Internal Resource Persons' taking responsibility of training other farmers in the cluster in the kharif and rabi season.

To support them, lead and fellow farmers were provided with essential resources through a one-time grant — including drums for preparing *Dravajivamrutam*, seeds for sowing, night shelters for desi poultry, and other materials. Since all selected farmers have livestock, they found it easier to prepare the required bio-inputs on their own.

During field visits, it was noticed that the lead farmers had started giving responsibilities to the emerging "star farmers," encouraging them to take leadership roles in guiding others — a clear step forward in building a farmer-led extension system. These lead farmers were supported with an honorarium of ₹5,000 per month for 15 working days, based on seasonal tasks. The payment is released only after the president of the Village Watershed Committee (VWC) verifies their action plan and work report.

However, when the DDM team assessed women's participation, they found it to be quite low. Taking this feedback seriously, the project team identified and encouraged one enthusiastic woman farmer to take on the role of a Women Farmer Resource Person (wFRP). She has now become a mentor for other women, helping them prepare bio-inputs and set up kitchen gardens.

This entire process reflects the strength of the farmer-led extension model being practiced in the Saigohan Watershed - where trained farmers guide and inspire their peers through hands-on demonstrations and shared experiences.

Below Figures explain the year wise farmer led extension activities.

Sr. No.	Year	Total farmers	Male farmer	Women farmer
1	2023-24	41	36	5
2	2024-25	118	96	22
3	2025-26	132	96	36
TOTAL		**291**	**228**	**63**

Case Study

In the tribal belt of Madhya Pradesh, farming has long been a struggle for smallholders, and the story of 58-year-old Madan Evane from Nakti Dhana village in Betul district is a perfect example of farmer-led extension which reflects both hardship and transformation. With 8 acres of land, Madan Evane recalls years when agriculture provided only subsistence; migration to Maharashtra was routine and irrigation was absent until he dug an open well in 1993.

Surrounded by forests but limited by lateritic, stony soils and chronic water scarcity, his family, like others in the village, lived in poverty—purchasing new clothes was a luxury, loans were frequent, and survival often meant seasonal wage labour. The arrival of soybean in the early 2000s reduced the area under millets and pulses, promising short-term cash but depleting soil fertility, increasing dependence on chemicals, and driving up costs. A turning point came in 2010 when Naman Seva Samiti (NSS) initiated the development works in the village, later with NABARD's support, initiated watershed development in the village, constructing soil and water conservation structures that improved groundwater recharge, irrigation, and local employment, thereby curbing migration.

Madan ji shared that, *"Watershed se teen mahatwapurn cheezein hui—mitti ruki, jal sanrakshan hua, aur gaon mein rojgar mila. Palayan ruk gaya."* This ecological foundation paved the way for further change when the JIVA programme, facilitated by NSS, introduced natural farming practices.

Beginning with a 0.5-acre experiment in 2023, Madan Evane adopted bio-inputs like jeevamrut, intercropping, and marigold-based pest management, guided by farmer resource person E. Sudarshan from Andhra Pradesh. Exposure visits and training sessions deepened his understanding, and his farm soon became a demonstration site for neighbouring farmers and visiting officials. Today, his farm integrates diverse crops—soybean, groundnut, wheat, red gram, vegetables, and fruits such as papaya, banana, guava, and mango—with livestock including one buffalo, two oxen, seven goats, and 15-20 poultry birds. Livestock is central to his system, providing milk, draught power, and manure for bio-inputs, while goats generate an annual income and poultry ensures household nutrition. As Madan Evane emphasizes, "Without livestock, there is no farming."

The impacts of this transition are visible across economic, ecological, and social dimensions: his annual farm income, once below ₹50,000, has increased alongside a drastic reduction in input expenses; family health has improved through consumption of chemical-free food, reducing medical costs; soils, once hardened by chemicals, have regained a soft texture; and biodiversity has increased with more birds and trees. In the community, Madan is known as "Jaivik Kisan Bhai", respected for his knowledge and willingness to guide others. Having also served as a Gram Panchayat member for 25 years and as a village priest, he combines traditional wisdom with modern ecological approaches, inspiring others to try natural farming on small patches of land. His journey demonstrates that investments in watershed development, farmer training, and integrated natural farming systems can transform fragile rainfed livelihoods into resilient, self-reliant models. Reflecting on his life,

Madan Evane concludes, *"Yeh zameen hamari dharti maata hai. Usko swasth rakhna hamari zimmedari hai."*

Planning and Monitoring Protocols

- A weekly action plan is prepared by the EFRP in collaboration with the NSS project team.
- Separate meetings are organized for women farmers to address their specific needs and concerns.
- In these weekly meetings, discussions are held on Natural Farming principles, as well as emerging challenges. If a challenge remains unresolved by the lead farmer, other lead farmers provide support to help resolve the issue.
- A monthly action plan is developed during monthly meetings, which include the VWC, NSS project team, EFRP, IFRP, and Lead Farmers.
- Weekly meetings are conducted with the VWC, NSS project team, EFRP, IFRP, and Lead Farmers to review progress and discuss ongoing activities.
- Monthly field visits are carried out by the DDM NABARD to monitor on-ground implementation.
- Quarterly review meetings focusing on both physical and financial targets are organized by the DDM NABARD.

What Made the Farmer-Led Extension Model Successful in JIVA

The farmer-led extension approach worked well in the JIVA programme because it was based on trust, practical learning, and local leadership. Here are the main reasons why it was successful:

1. **Trusted Local Farmers Became Trainers:** Some farmers who had already shown good work in earlier projects (like watershed work) were selected as "lead farmers" or "star farmers." These farmers were respected in their villages and others trusted them. Because of this, people were more open to learning from them.

2. **Learning from Each Other:** The lead farmers showed new farming methods on their own land and then taught others in small group sessions or field visits. Since the learning happened between farmers, in their own language and setting, it was easy to understand and apply.

3. **Support from Local Committees:** The Village Watershed Committees (VWCs) that were formed earlier helped in planning and supporting the extension work. They organized meetings, helped with training logistics, and made sure farmers got the support they needed.

4. **Community Participation and Ownership:** Farmers had already taken part in earlier activities under the watershed programme. This built a habit of working together. They felt ownership of the JIVA programme and were eager to participate and learn from each other.

5. **Visible Benefits Encouraged Others:** Farmers saw clear benefits from the new practices—such as better soil, lower input costs, more variety in crops, and better income. This encouraged more farmers to follow the lead farmers and adopt the practices.

6. **Less Migration, More Involvement:** As farming and related activities started providing better income locally, many farmers stopped migrating for work. This gave them more time to attend training, apply new methods, and support each other.

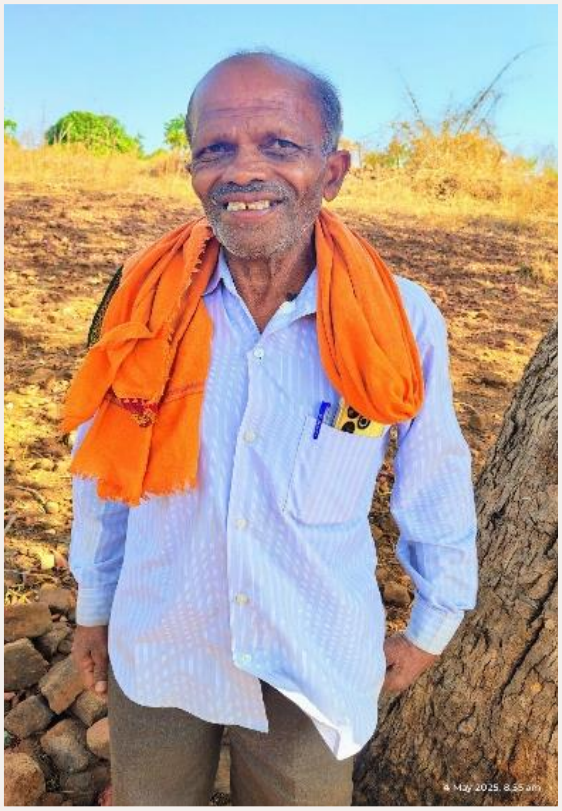
In short, the success of the farmer-led model came from building existing trust, using simple and practical learning methods, and getting strong support from local institutions. Farmers felt confident learning from each other and were motivated by the visible improvements in their farms and lives.

"Farming should not be limited to crops alone. It must also include other components such as trees, cows, bullocks, and poultry, as each of these elements contributes to agriculture in its own unique way. This integrated and holistic approach is what truly defines 'farming' which we are trying to achieve through this NABARD sanctioned JIVA Project."

~ Mr. Namu Dhurve, IFRP

"The interventions carried out under the Watershed Programme have significantly improved our ability to cultivate our land effectively. The creation of soil and water conservation structures has brought prosperity to our village and under the JIVA project we wish to work towards sustainability of the NRM with more employment opportunities at local level"

~ Mr. Amarchand Pardhe, IFRP



While pointing towards the field bunds constructed under the Watershed Programme, Project Coordinator Mr. Yuvraj Borban explained that earlier, soil erosion was a major issue. However, with the construction of these bunds, the problem has been significantly reduced. In the JIVA Project, we are building upon this soil, adding more biomass to it which will further enhance the crop productivity.

~ Project Coordinator Mr. Yuvraj Borban

"The Watershed Project has truly revitalized our livelihoods and transformed the rural landscape. It has brought positive changes to our lives, particularly in the area of livelihood enhancement. The project has given us opportunities to work more effectively and collectively. It has taught us the true strength of unity. Through the JIVA Project we are going towards rejuvenating the farmland and our crops which will increase the agrobiodiversity in the region. "

~ Mr. Mugilal Kasdekar, President of the Village Watershed Committee:

SCALING SUCCESS THROUGH FARMER-TO-FARMER EXTENSION

Learnings from Saigohan Watershed of JIVA programme, Madhya Pradesh