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1. Background

The *Mahila Kisan Ruchi Samuh* (MKRS) Project was initiated by the Satpura Integrated Rural Development Institution (SIRDI) and the Institute of Regional Analysis (IRA) in 2021. This is being implemented in the Betul and Amravati districts of Madhya Pradesh and Maharashtra respectively. Both of these have sizable tribal populations; scheduled tribes account for 42.3% of the total population in Betul district, and 14% of the total population of Amravati District.¹ The MKRS project has been initiated in the context of acute poverty and malnutrition, with low levels of education and literacy among women as well as a lack of access to essential services such as education, drinking water and toilets. Table 1 highlights multiple vulnerabilities faced by women in rural Betul and Amravati.

Table 1: Key demographic indicators

Indicators	<i>Betul</i> (%)	<i>Amravati</i> (%)
Percentage of population who are multidimensionally poor	21.8	8.22
Women (aged 15-49) who are literate	76.1	87.8
Women (aged 15-49) with 10 or more years of schooling	38.7	55
Percentage of women who are anaemic	56.2	53.4
Percentage of women with low BMI	24.7	20.5
Population living in households with an improved drinking-water source	87.1	95.8
Percentage of rural households with access to toilets	66.7	78.7

Sources: NFHS- 5 2019-2020, Niti Aayog- 2019-2020

¹ Census, 2011

The MKRS Project, implemented by IRA and its sister organization SIRD, operates across two states, Madhya Pradesh and Maharashtra. Under IRA's Project *Saksham*, it covers 18 Gram Panchayats (40 villages) in Athner block, 16 Gram Panchayats (54 villages) in Bhainsdehi block, and 13 Gram Panchayats (22 villages) in Prabhat-pattan block. SIRD's *Sudha Sangini* Project oversees 22 Gram Panchayats (53 villages) in Athner, 10 Gram Panchayats (24 villages) in Bhainsdehi, and 24 Gram Panchayats (33 villages) in Chandur Bazar. In total, the MKRS Project operates in 103 Gram Panchayats, impacting 226 villages across the two states². A total of 1,556 FIGs³ have been created, involving 7,786 women farmers from tribal communities who practise sustainable farming.

This project aims to re-popularise organic and traditional farming among women farmers with small landholdings, and develop a cluster of women's farmer interest groups (FIGs) practising sustainable agricultural practices. More specifically, it focuses on chemical-free or '*zeher mukt*' farming techniques, reducing the input cost, and attaining self-sufficiency in nutritional intake at the community level. This is through the promotion of biodynamic methods of compost and pesticide production and the preservation and promotion of traditional seeds. Activities under the project have focussed on creating awareness among the women farmers, providing training to create compost beds, Cow Pat Pits (CPP) and *taral khaad*/plant tonics.

The MKRS project builds on decade-long mobilisation efforts by SIRD and IRA to reintroduce organic practices in the community. Other interventions and activities taken up by the organisation are listed in the Appendix. A comprehensive information-gathering process was conducted in the project areas to understand changing farming practices over the past fifty years and women's roles in these practices. Women's Farmer Interest Groups (FIGs) were then formed in each ward. Each FIG consists of at least five women whose homes and fields are located close to each other to facilitate regular meetings and training. After almost two years of implementation, the SIRD-IRA seeks to form a collective structure of these women's FIGs. This needs assessment was thus done to assess the current status of the implementation, identify gaps and challenges, and explore opportunities for forming possible collective structures.

2. Objectives

- To conduct a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of the cluster development program.
- To assess the needs, demands, challenges, and learning among the women farmers' groups for possible market opportunities.
- To assess the willingness and readiness of the women farmers to collectively work as members of a collective structure.
- To identify the possible structures for the collective registration of women farmers' groups into an entity.

3. Methods

The needs assessment study conducted by the SEWA Cooperative Federation, Gujarat, employed qualitative research techniques, i.e., Focused Group Discussions (FGDs) across 19

² As per the Project details, SIRD – IRA (2024).

³ As per the FIG details, SIRD – IRA (2024).

villages, covering a distance of 872 kilometres, including villages from both Madhya Pradesh and Maharashtra. Two trained researchers from the Federation and the Resource Persons of the SIRDI-IRA travelled through these villages to gather required information. To elicit information, structured questionnaires were employed. Secondary literature was referred to for triangulating and strengthening findings.

3.1 Sample and sampling criteria

Total 23 FGDs were conducted at the FIG level, which comprises women farmers, to understand the overall program structure, and 5 in-depth interviews were conducted (with the director of the SIRDI - IRA, Project Resource Persons (PRP)/Karyakartas, Project Coordinator, and Block Coordinator). For the purpose of sampling, the SIRDI-IRA team selected a combination of exclusively tribal villages, mixed villages, newer FIGs (less than two years old), and FIGs that are two or more years old for the need assessment study. Villages were selected from four blocks—three in Madhya Pradesh (*Aathaner, Bhaisdehi and Prabhat Pattan*) and one in Maharashtra (*Chandur Bazar*)—based on the sampling criteria. In bigger villages where more than two FIGs are formed, at least two FIGs per ward were selected for the Focused Group Discussion.

3.2 Analysis

The narratives of the in-depth interviews and the focused group discussions were transcribed, and a detailed content analysis was done. A SWOT framework was analysed by members of the SEWA Cooperative Federation's programme team with expertise in working with collectives to suggest possible structures for the FIGs.

3.3 Limitations of Study

The locations being remote and population sparse, the team had to travel extensively in between villages. Respondents were available only after their work which involved collection of minor forest produce (MFP) like *Mahua flower, haridra and chaar* etc. As mentioned in the sample, some villages were located as far as 100 kilometres from the organisation which resulted in spending more time travelling. Having more time to interact with FIG respondents could have strengthened the findings.

The researchers acknowledge the limitations and any unintentional errors arising from gaps in understanding the micro - sociocultural issues of the study villages and the local dialects. However, utmost attention, precautions and assistance of the local Project Resource Persons (PRPs) were taken to report the most accurate meanings of the agricultural practices and socio-cultural traditions of the region while transcribing and analysing the data.

4. Findings:

Major findings addressing objectives of the study are discussed in this section.

4.1 Strengths, Weaknesses, Opportunities and Threats of the MKRS Programme

Within this context, the qualitative findings have been organised using a SWOT Analysis.

Table 2: Summary of SWOT Analysis

Strengths	Weakness	Opportunity	Threat
<ul style="list-style-type: none"> • Extensive Organic Farming Coverage 	<ul style="list-style-type: none"> • Challenges in Switching Fully to Organic Inputs 	<ul style="list-style-type: none"> • Agro Produce Business Plan 	<ul style="list-style-type: none"> • Climate Change & Environmental Degradation
<ul style="list-style-type: none"> • Indigenous Knowledge 	<ul style="list-style-type: none"> • High Input Costs 	<ul style="list-style-type: none"> • Alternative Livelihoods 	<ul style="list-style-type: none"> • Man-Animal Conflict & Decline in Traditional Farming
<ul style="list-style-type: none"> • Connections to Government Welfare 	<ul style="list-style-type: none"> • High Agricultural Labor Costs 	<ul style="list-style-type: none"> • Men's Inclusion at Community Level 	<ul style="list-style-type: none"> • Debt Trap
<ul style="list-style-type: none"> • Group Solidarity in Organic and Traditional Farming 	<ul style="list-style-type: none"> • Terrain Difficulties 	<ul style="list-style-type: none"> • Training Videos Shared via WhatsApp 	<ul style="list-style-type: none"> • Falling Cash Crop Prices
<ul style="list-style-type: none"> • Decades of Grassroots Mobilization and Trust 	<ul style="list-style-type: none"> • Limited Work Opportunities 	<ul style="list-style-type: none"> • Member Friendly Naming of FIGs 	<ul style="list-style-type: none"> • Migration to Maharashtra for Livelihood
<ul style="list-style-type: none"> • Strong Organisational Presence and Rural Development Integration 	<ul style="list-style-type: none"> • Balancing Village Aspirations with Organizational Goals 		<ul style="list-style-type: none"> • Decline in Livestock & Village Commons
<ul style="list-style-type: none"> • Passionate PRP Network 	<ul style="list-style-type: none"> • Care and Fieldwork Hindering Mobilization 		
<ul style="list-style-type: none"> • Women's Initial Empowerment has been done 	<ul style="list-style-type: none"> • Lack of water for drinking & irrigation 		
<ul style="list-style-type: none"> • Free Traditional Seeds via SIRDI-IRA 			
<ul style="list-style-type: none"> • Women's Ownership towards Organic Farming Efforts 			
<ul style="list-style-type: none"> • Incorporation of Technology 			

- **Strengths**

- **Significant Coverage of Organic Farming:** The MKRS program has successfully reintroduced traditional and organic farming, with many women farmers planting at least one traditional crop. The approach emphasises gradual self-sufficiency in organic farming, starting with small plots and expanding over time.
- **Indigenous Technical Knowledge:** The program benefits from the traditional agricultural techniques of tribal farmers, who have long practised multi-crop farming with indigenous methods. This knowledge helps the SIRDI-IRA team learn and promote sustainable farming practices.
- **Linkages to Government Welfare Schemes:** SIRDI-IRA effectively connects farmers to government schemes like crop insurance, public distribution systems, health insurance, and employment programs. Their grassroots workers play a crucial role in disseminating information and assisting villagers in accessing these benefits.
- **Existing Group Solidarity and Uptake of Organic and Traditional Farming:** Women farmers have formed strong groups and are experimenting with traditional farming methods, supported by village-level workers. Group solidarity and shared goals have fostered collective action toward organic farming.
- **Strong Organisational Presence and Stakeholder Linkages:** SIRDI-IRA has a long-standing presence in the region, working with various stakeholders, including government bodies and grassroots workers. Their integrated approach and strong networks have enabled them to reach even the most remote villages.
- **Strong and Passionate Network of PRPs:** Project Resource Persons (PRPs) are selected for their commitment to organic farming and grassroots work. Despite challenges, they feel empowered and motivated to contribute to their communities, playing a key role in the program's success.
- **Strong Mobilization and Systematic Follow-Ups:** The SIRDI-IRA team has built trust and familiarity through decades of grassroots work, encouraging women to adopt organic and traditional farming. Their targeted approach to mobilising and monitoring small groups has led to growing participation.
- **Initial Empowerment of Women:** The program has enabled women to participate in farming and decision-making, fostering peer learning and confidence. While more progress is needed, women are increasingly vocal about their concerns and are supported by their families and the community.
- **Free Traditional Seeds and Seed Banks:** SIRDI-IRA provides free traditional seeds and encourages women to store seeds for future use, introducing seed banks in some villages. This initiative eases seed procurement and promotes self-reliance among farmers.
- **Creating Ownership Among Women Farmers:** The program emphasises organic farming techniques like Cow Pat Pit (CPP) and composting, which reduce input costs and foster a sense of ownership among women farmers. This sense of ownership is crucial for sustaining collective efforts in the long term.
- **Inclusion of Technology:** FIGs have access to soil testing technologies and receive information on farming practices, market rates, and government schemes via WhatsApp and group meetings. The creation of FIG-specific WhatsApp groups enhances communication and knowledge sharing.

- **Willingness to collectivise:** Farmers are already collectivised into FIGs, whereas their understanding of the bigger picture of collectivisation on a larger scale is yet to be crystalised.

- **Weaknesses**

- **Partial Use of Organic Insecticides and Compost:** Farmers struggle to fully adopt organic methods due to the severity of pests, especially in crops like maize and soybean. While many use organic compost, they often resort to chemical insecticides, as they cannot afford to wait for organic alternatives to take effect. The insects are difficult to control by the *taral khaad* (organic pesticide/medicine) they are preparing and sprinkling.
- **High Labour Costs:** Farmers face higher labour costs, especially during peak seasons like sowing and harvesting, due to the remote locations of their fields. This, combined with other input costs, can reach up to INR 60,000 for small plots, adding financial stress, particularly when crop yields are low.
- **Terrain Challenges:** Rocky and elevated terrains in some villages make farming difficult, with issues like poor water seepage, landslides, and soil erosion during heavy rains. These conditions often result in crop and topsoil loss.
- **High Input Costs:** The need for conventional fertilisers, pesticides, and other agricultural inputs can lead to high costs, ranging from INR 50,000 to INR 1 lakh for small farms. Soil infertility and market demand for cash crops drive farmers to rely on these expensive inputs for better yields.
- **Limited Work Opportunities in Villages:** Villagers have few job opportunities outside government schemes like MGNREGA, which offer low and delayed payments. This lack of alternatives forces many to migrate, threatening the future of farming in these areas.
- **Balancing Village Aspirations with Organisational Goals:** The SIRDII-IRA team faces challenges in aligning farmers' immediate needs, like water scarcity, with long-term agricultural goals. While the organisation emphasises sustainable practices, farmers often feel discouraged by persistent issues. *"Initially... the farmers complained about the lack of enough water... It is a reality, the harsh truth... but how much water do we require to build the Cow Pat Pit (CPP Kund) and Compost bed? Not much, we require approximately 500 litres of water... this water requirement is only for once."* Despite these difficulties, the organisation continues to motivate farmers, helping them see the benefits of their efforts over time.
- **Care Work and Fieldwork Hindrances:** Women's responsibilities for both care work and fieldwork limit their availability for meetings and mobilisation efforts, posing significant challenges to consistent participation and engagement.
- **Cultural barriers:** The womenfolk are not accustomed to visit markets to sell their produce. In a few villages, in the presence of men during the FGDs, the women were sitting with veils and were hesitant to express their perspectives. Though their choice of crops is taken into consideration, the final decisions about the crops, techniques and selling etc. are taken up by the head of the family- usually a man.

- **Opportunities**

- **Possibilities of market-linkages for Agro-Produce:** Beyond crops landless farmers who own livestock can engage in the preparation of compost beds, CPP kunds, and *taral khaad*, selling biofertilizers locally to achieve livelihood sustainability. This opportunity, supported by collaboration with the animal husbandry department and local officials, could enhance organic farming practices and improve soil fertility and water availability in the region.
- **Alternative livelihood options:** Exploring alternative livelihood options like transport services (private small vehicles etc) for taking agro-produce to markets could help reduce youth migration. While these ideas have potential, more in-depth village-level data is needed to assess their viability.
- **Inclusion of Men in Community-led Programs:** Men, who traditionally hold decision-making power in farming and marketing, could be included in organic farming initiatives. While the primary focus remains on women's FIGs, men's inclusion could ensure broader support and successful marketing linkages, particularly since men often handle market interactions.
- **Technology-enabled methods for Easier Recall:** To aid farmers in following organic farming practices, training sessions could be video-recorded and shared via WhatsApp. This approach would help members recall procedures more easily and reduce the mobilisation team's effort, promoting self-reliance among FIG members.
- **Leveraging benefits of the years-long relationship:** The organisation has been working in these villages for the last few decades in uplifting the socio-economic lives through community development programs, establishing schools and other social welfare activities etc. The lives of these remotely located villagers are touched and benefitted by the organisation which is acknowledged by the villagers. Some of the members of the FIGs are also associated with the Self Help Groups initiated by the organisation. There is an established relationship with the “*Sanstha*” and “*Badi Didi*”; as Upamaben is addressed in the region. This ‘social capital and network’ can be taken forward for the ‘larger good’ of the organic farmers.

- **Threats**

- **Climate Change and Environmental Degradation:** Farmers can only cultivate during the rainy season due to limited water availability, leading to migration in search of livelihoods. In hilly areas, excessive rainfall causes soil erosion, making agriculture difficult and further exacerbating food insecurity. Unseasonal deluges also lead to crop loss and land degradation.
- **Man-Animal Conflict:** Proximity to forests results in frequent crop damage by wild animals like pigs, boars, and birds, especially targeting traditional crops. The lack of effective deterrents and inadequate compensation for crop damage under existing laws forces farmers to bear significant financial losses, leading to resentment and a decline in traditional farming practices. Man-animal conflict has more possibility of occurring in villages where individual farmers are growing traditional crops which are preferred by animals. If many farmers grow traditional crops together, losses would reduce at the individual level.
- **Debt Trap:** Limited agricultural yield and lack of alternative income sources push farmers into debt, relying on loans from banks or relatives. The financial

burden is compounded by low returns from agriculture, making it difficult for farmers to escape the cycle of debt.

- **Stagnation and Reduction of Market Price for Cash Crops:** Continuous cultivation of cash crops like soybeans has degraded soil quality, reducing fertility and moisture retention. Coupled with water scarcity, this leads to lower yields. Stagnant market prices have further diminished farmers' income and sustainability.
- **Migration:** Due to insufficient local work and poor agricultural returns, farmers migrate to Maharashtra for seasonal work, leaving villages deserted. Migration is driven by factors like high agricultural costs, man-animal conflicts, low yields, and inadequate crop insurance, leading to debt traps and economic instability.
- **Decline in Livestock and Animal Husbandry:** Seasonal migration, lack of animal shelters, increased price of fodder and reduced grazing land have led to a decline in livestock rearing, which is essential for organic farming. The cost and difficulty of maintaining livestock discourage animal husbandry, hindering the success of organic farming initiatives. Integrating livestock rearing with organic farming is crucial for long-term sustainability.

5. Needs and challenges

The farmers in this tribal region have an intrinsic understanding of traditional farming, which supports food security and diverse crop cultivation. However, the transition to modern agriculture, with heavy reliance on chemical fertilisers, has caused soil degradation, reduced crop diversity, and eroded traditional practices.

● Primary Needs

- Reviving traditional organic farming techniques to improve soil fertility and yield.
- Access to seed banks for traditional crops such as *Kodo*, *Kutki*, and *Kulthi* and climate-resilient varieties.
- Organic vegetable seeds which can grow with minimum water usage such as drought-resistant vegetables.
- Training and support in organic farming techniques, pest management, and composting.
- Infrastructure for storage to prevent post-harvest losses, enabling them to wait for better market conditions.
- Market access and information, including awareness of Minimum Support Prices (MSP) and connections to larger markets like APMC and organic product markets.
- Collectivization to enable larger-scale production and effective participation in the market.

● Challenges

Farmers face multiple challenges in moving towards a collective structure and fully embracing organic farming.

- **Geographical Isolation and Disparities:** The villages are scattered and located in challenging terrains, making it difficult to bring farmers together and unify them under one structure.

- **Market Access:** Many farmers rely on middlemen to sell their produce because they lack sufficient quantities to sell directly at APMC markets or are unaware of MSP.
 - **Low Yields and Pest Resistance:** While many farmers understand the benefits of organic farming, they face low yields and pest issues that make it difficult to fully transition.
 - **Lack of Storage:** Without proper storage, farmers are forced to sell their crops quickly, often at lower prices, or face losses due to pests and weather conditions.
 - **Marketing is male-dominated:** Women are not involved in transporting harvest and selling in local markets.
 - **Difficulties in forming FPO and Cooperative Structures:** Past efforts at forming a handloom cooperative or FPOs in the region have not been successful, largely due to regulatory compliance issues and lack of trust among members.
- **Learnings - Group Solidarity**
 - Farmers' Interest Groups (FIGs) have successfully mobilised women, leveraging their proximity and shared identity.
 - **Positive Response to Meetings:** Even with 'daily struggles for work and livelihood' and care responsibilities, these women farmers expressed their willingness and engagement in participating in the meetings.
 - **Shared interest in Organic Farming:** Women are motivated by the potential long-term benefits of organic farming, including improved soil health, lower input costs, and better health outcomes for their families.
 - **Seed Bank Initiative:** Some villages have already started seed banks, showing a willingness to take ownership of traditional farming practices.
 - While farmers are facing significant environmental, logistical, and market-related challenges, they are motivated and willing to embrace collective farming and organic methods, especially if provided with the necessary support, infrastructure, and training.

6. Recommendations

6.1 Possible structures for collectivization

1. **Federation of organic farmers:** The current total membership of all the FIGs is 14,000. A federation of organic farmers can consolidate their needs and demands to create a profitable market for these farmers. In the initial phase, the federation of organic women's farmers can function as informal structures. In the later phase, it can be registered as a 'Federation of Farmers' Cooperatives'.
 - a. The federation of farmers can be formed based on the farmers collectives growing exotic crops i.e. *Kodo, Kutki, Kulthi, Jagni and Ra Ra*.
 - b. For products of medicinal value the Lok Swasthya Mandali (LSM), the SEWA Cooperative Federation's health cooperative, can provide necessary technical and logistic support.
2. **Forming FPO/FPCs:** This possibility is feasible only after the creation of a business plan and a concrete timeline of the collectivisation process. Though, one of the requirements of this type of farmer organisation is land ownership in the name of women farmers.

3. A ‘**Network of certified organic farmers**’: This type of Farmer Field School was proposed by the “National Mission on Natural Farming”, 2010.
4. **The Primary Agricultural Credit Society (PACs)**: as initiated by the Ministry of Cooperation offers benefits for organic and natural farming. Organising farmer’s needs and requirements as per the guidelines of PACs can help the local farmers.

Of the abovementioned structures, the we recommend cooperatives or associations as the most suitable structures for collectivisation.

During the interactions with the Director of the organisation, it was shared that in the State of Madhya Pradesh, the cooperative laws are not very conducive to forming cooperatives. They had a prior ‘not-so-good experience’ of setting up a handloom cooperative named ‘Tana Bana’ managed by women – mainly from the tribal community. The members of this weaver’s community could not manage the cooperative because of difficulties in adhering to compliances (mandatory quality control and audit mechanisms). Within a few years of self-management, the cooperative was closed down. Hence, the head of the organisation expressed her unwillingness towards the cooperative structures. *However, with changing simplified cooperative laws and different schemes for producer groups, organic farming-related cooperatives and associations emerge as one of the best possible structures.*

The types of crops grown in this study region hold immense potential to receive the ‘Geographical Identification (GI)’ mark and qualify for special schemes i.e. Millet Mission and ‘Small Farmers Agri-business Consortium’, launched by the Department of Agriculture and Farmers Welfare, Government of India. *The Ministry of Cooperative, Government of India also provides input support, micro-credit and storage facilities to small and marginal farmers. The women farmers producing locally grown exotic crops can be collectivised into these structures.*

Table 3: Collective Structures and compliance requirements

Parameters	Cooperatives	Associations
No. Members required	Minimum 20	Minimum 5 members
Acts	Madhya Pradesh Cooperative Societies Act, 1960: https://cooperatives.mp.gov.in/en/node/350	Indian Trusts Act 1880 https://www.indiacode.nic.in/handle/123456789/2327
Compliance	https://cooperatives.mp.gov.in/en/societies	
Share Capital	Member-based	Member-friendly
Audit	Mandatory Annual Audit	Flexible
Taxation Process	Section - 80P, Income Tax Act, 1961	Sections 11-13 or the Income Tax Act 1961
By-laws	As per cooperative laws	Memorandum of Association (MoA)

Remarks	Members can avail of government-sponsored schemes as notified at the Ministry of Cooperation and other departments working on small and marginal farmers.	The association of farmers is farmer-friendly. The basic units of the farmers' association i.e. FIG is already in place.
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Sources: Ministry of Cooperation & Ministry of Agriculture and Farmers' Welfare, Government of India, as on 20 September 2024.

6.2 Recommendations to strengthen MKRS implementation

- 1. Popularising “Poshan Vatika and Shehat Baag” at the household level:** The concepts of ‘*Poshan Vatika*’ and ‘*Shehat Baag*’ have been introduced at the village level. The organisation should build on these positive changes and work towards strengthening these practices and institutions. The continuity of these practices is crucial for achieving the program’s main objectives.
- 2. Mandatory “Seed Bank” at the village level:** The concept of a ‘Seed Bank’ has been introduced in a few villages and needs to be further strengthened at the community level. It should function as an institution for re-popularizing indigenous and local seed varieties. Small write-ups in the local language, possibly in pictorial format, could explain the procedures for growing these crops for easy reference and adoption.
- 3. Distribution of region-specific seeds at the FIG level:** Villagers in *Aastha*, Madhya Pradesh, have expressed the need for seeds that are easy to grow and not easily eaten by animals. Developing a seed list appropriate to each village or landscape can help farmers significantly.
- 4. Mainstreaming indigenous crops in the region:** The traditional multi-cropping system practised in the region should be reintegrated into the agricultural system. Farmers are currently growing cash crops such as soybeans, peanuts (*mungfali*), chickpeas (*chana*), and pigeon peas (*tuvar dal*). Traditional crops like *jagni* and *kutki* are pest-resistant, and their husks serve as fodder. A strong advocacy effort to revive these crops can benefit farmers and restore the region’s natural biodiversity. Promoting the production of *jagni*, a traditional oilseed, will be particularly beneficial to the villagers of Seridana, Madhya Pradesh.
- 5. Safeguarding crops from wild animals:** Crops are often attacked by deer, wild boar, nilgai, and wild cows (especially corn). Farmers are hesitant to trap these animals due to the risk of legal action from the forest department. They must guard their fields day and night. A community forest guard system could be a solution. The organisation can advocate for protecting farmers from these ongoing human-wildlife conflicts, as reported in *Kasai and Dhanora* villages in Madhya Pradesh.
- 6. Technological intervention to maximise program effectiveness:** In *Dhanora* village, where organic farming is gaining traction, PRPs use technology like WhatsApp to communicate with farmers about bio-compost preparation. However, farmers struggle to remember the exact quantities needed for organic farming. Technology-assisted methods, such as reminders via WhatsApp or other platforms, could help. Tools like soil moisture testing, weather forecasting, and support from KVKs and Supa-biotech could also enhance handholding efforts. Technology can be integrated into meetings to raise awareness. Collaborating with institutions like Aajeevika Mission and the agriculture department for information and inputs can accelerate the program’s success.

7. **Creating alternative livelihood plans alongside organic farming:** Profits from organic farming are typically minimal, often leading to a break-even situation. However, it provides self-sufficient nutrition. Therefore, a hybrid, crop-specific action plan for the next five years could benefit farmers.
8. **Business plans for organic fertilisers:** Some farmers who do not own livestock have successfully engaged in organic farming by purchasing compost from others. Even without land or livestock, farmers can employ organic farming techniques. There is a market for organic manure, and a business model can be developed around this. In *Dhanora* village, some farmers sell compost to neighbours and relatives, even in Maharashtra. Desi cow rearing for milk and compost production could serve as an alternative livelihood.
9. **Inter-departmental coordination committees:** Financial assistance and subsidies for purchasing desi cows would help farmers implement organic farming techniques effectively, as desi cows are essential to the organisation's broader goals. Addressing challenges like water scarcity, irrigation, and shrinking grazing lands is crucial. An action plan for watershed management and rainwater harvesting would support farmers in agriculture and domestic use. Livestock ownership is declining due to shrinking grazing lands and a lack of manpower. Community development plans should integrate the management of common property resources to promote livestock management. The development of agriculture and livestock management should go hand in hand, with women playing a significant role. Women are also willing to collectively sell their produce at the mandi, but high transportation costs are a barrier. Proper storage units and transport facilities could improve their financial outcomes. Collaborating with Primary Agricultural Credit Societies (PACs) and reducing seasonal labour migration through alternative livelihood sources would further benefit the farmers.
10. **Village-level intervention and action plan:** Villages near the hills face challenges in accessing their agricultural lands due to damaged roads from extreme heat and rainfall. Safeguarding crops during harvest is particularly challenging. Addressing these infrastructure issues would help farmers. In the *Kukuru* region, farmers gather minor forest products to sell in the nearby market and save for the rainy season. Many farmers from this region migrate for work. Developing a region-specific action plan, including alternative livelihoods like livestock management and climate-appropriate crops, would help these farmers. Additionally, during monsoons in *Kasai* village, groups of villagers travel together to avoid bear attacks. The region experiences heavy rainfall, landslides, and soil erosion, which take a toll on agriculture. Addressing the environmental degradation and climate change impacts in this region is crucial.
11. **Land ownership for women:** Land literacy, and promoting land ownership in women's names should be part of monthly meetings and community discussions. Doing so will allow families to access subsidies and government assistance for infrastructure, and it will be a progressive step toward organic farming and women's land ownership rights. Documenting and sharing success stories via various platforms (social media, whatsapp etc.) could be an effective strategy to reach women who are unable to attend FIG meetings
12. **Awards and recognition for successful farmers at the village level:** Recognizing successful organic farmers at the community, village, and block levels could inspire and encourage other farmers. Strategic planning and continuous engagement around these activities must become part of daily life and be reflected in agricultural practices.
13. **Reinforcing the benefits of traditional seed preservation methods:** The crop cycles of the 26 listed varieties prepared by the Sanstha (IRA - SIRDI) could be illustrated in

wall art, and via local tribal art forms to depict the benefits of cultivating these crops as well as in monthly meetings and similar forums.

6.3 Strategies to enhance market linkages for collectives particularly in rural, tribal areas

1. **Form collective structures:** Farmers who pool their resources and produce together can negotiate better deals, access larger markets, and benefit from economies of scale. By collectively selling larger quantities, they can access APMC markets, supermarkets, or larger buyers who typically avoid small, individual sellers.
2. **Set up local farmers' markets:** These allow direct sales to consumers, eliminating middlemen. It also promotes organic and traditional varieties that might fetch premium prices.
3. **Social Media and WhatsApp groups:** Farmers can create or join networks to promote their products, take orders, and sell directly within local or regional communities.
4. **Partner with NGOs or Government Programs:** Many NGOs, state or central government schemes, and agribusinesses offer programs that connect farmers to stable markets. For example, India's National Agriculture Market (e-NAM) facilitates online trading in agricultural produce.
5. **Contract Farming:** Partnering with companies, especially organic brands or local food processors, ensures farmers have a guaranteed buyer, which reduces market risks and price fluctuations.
6. **Processing and Packaging:** Adding value through basic processing (such as cleaning, packaging, or drying produce) can significantly increase marketability. For instance, millet flour, organic pickles, or processed herbs may fetch higher prices than raw produce.
7. **Focus on Export Markets:** Certain traditional crops (like spices, millet, and medicinal plants) have demand in international markets. Exporting through certified channels can be more profitable than selling in local markets.
8. **Tie-up with food processors:** Many local processors are looking for consistent, high-quality supplies of specific crops. Farmers can supply these units for products like millet-based snacks, processed spices, or oils.
9. **Community-owned processing units:** cooperatives or FPOs can set up small-scale processing units to clean, package, or process crops locally, making them more attractive to larger buyers.

By adopting these strategies, farmers can enhance their market access, reduce dependence on middlemen, and ensure fair prices for their produce, leading to better income and long-term sustainability.

7. Appendix

Focus areas of IRA-SIRDI's work beyond MKRS implementation are as follows:

1. The women and tribal community development programs of the organisation are designed as per these 14 key areas. These are as follows:
2. The organisation focuses on the election processes of women representatives in the Panchayati Raj. Women's participation in the Gram Sabha.
3. To prepare women as leaders of the future who can be elected into local governance institutions.
4. Linkages between women and relevant government schemes.
5. Working with the *Aajeevika Mission*- The Ministry of Rural Development (MoRD), Government of India, launched the *Aajeevika - Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM)* in June 2011. This programme focuses on creating efficient and effective institutional platforms for the rural poor. It aims to enhance household income through sustainable livelihood improvements and better access to financial services.
6. Connecting women to the MGNREGA scheme. In *Betul* district more than 80% of women are involved in the welfare activities like MGNREGA. Most of the women labourers are engaged and avail work from this mechanism. Hence, the focus of the organisation is on the women labourers availing livelihood options in this scheme.
7. Targeting women farmers- manual farming being very common in the tribal areas, with almost 70 percent of women involved in agriculture related activities.
8. Jal Jeevan Mission; "*Har Ghar Jal* " is a scheme launched in 2019 by the Ministry of Jal Shakti under the *Jal Jeevan Mission*. Its goal is to provide 55 litres of tap water per capita per day to every rural household on a long-term basis by 2024.
9. Focus on frontline workers such as Anganwadi workers, *ASHA* workers and mobilisers for *MGNREGA*. The focus is to bring all women frontline workers under one platform.
10. Work for empowerment of adolescent girls and focus on women's health and food.
11. Working with traditional health systems and women associated with *Daais* (midwives) and other traditional healers and how to mobilise and empower them into one platform.
12. Working with women engaged in animal husbandry.
13. Mobilising women to bring them under collective structures. Since the organisation's inception, they have focused on the Panchayati Raj institution and strengthening women-centric structures and institutions.

Source: Excerpts of the in-depth interview, Director, SIRDI-IRA dated 30 April 2024.