



## Farmer Producer Organisations

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*Women members of APPCL, an FPO, add value to amla by deseeding them*  
(Photo: Jestin Pauls, APPCL)

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The editors have taken every care to ensure that the contents of this magazine are as accurate as possible. The authors have ultimate responsibility, however, for the content of individual articles.

The editors encourage readers to photocopy and circulate magazine articles.

# Dear Readers

We owe our continuity to all those who have been contributing excellent grass root experiences, to those who read and get inspired to try out alternatives and to those philanthropic minds willing to support our movement through their donations.

Those toiling hard at grassroots find it difficult to spare time to share their story. In spite of it, many of you contribute theme based stories and we are extremely grateful to all of you. We know that you recognize LEISA India as a credible space to share practical ecological experiences of smallholders. We do involve in iterative process to make your case stronger in conveying your good work. It must be remembered that your learnings could motivate several others beyond boundaries of space and time, once shared in public domain.

When we announce a relevant theme, we look forward to a spirited response. However, in spite of diverse strategies being used, the call for papers may not reach all those engaged in grassroots work on the theme. Please voluntarily share it with your networks and friends. Together, we can harness more examples from unknown regions and stakeholders, strengthening our own movement.

Please continue your support with voluntary contributions to the initiative as well as suggest to others to do so which will be duly acknowledged. We have robust online mechanisms too in place, besides accreditation by National agencies recognizing our relevant and purposeful contribution towards promoting ecological agriculture, through knowledge exchange.

**The Editors**

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**AME Foundation** promotes sustainable livelihoods through combining indigenous knowledge and innovative technologies for Low-External-Input natural resource management. Towards this objective, AME Foundation works with small and marginal farmers in the Deccan Plateau region by generating farming alternatives, enriching the knowledge base, training, linking development agencies and sharing experience.

**AMEF** is working closely with interested groups of farmers in clusters of villages, to enable them to generate and adopt alternative farming practices. These locations with enhanced visibility are utilised as learning situations for practitioners and promoters of eco-farming systems, which includes NGOs and NGO networks. [www.amefound.org](http://www.amefound.org)

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Diversification is a way forward for smallholder farm livelihoods caught in fragile eco systems. Dairy husbandry is one of them. Dairy farmers in Vidarbha have come together to form Shri Kamdhenu Dairy Farmer Limited, an FPO, which is being managed successfully, offering a variety of services for enhanced milk production.

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# Farmer Producer Organisations

**S**mall holders face three major challenges – climate, markets and lack of suitable extension system to deal with their needs. While climate challenges are addressed through resilient alternatives, extension support to a limited extent is being provided by well intentioned Civil societies and few mission specific programmes handled by diverse development agencies. To address market challenges, through significant efforts, Government of India created an alternative institutional framework – Farmer Producer Organisations. FPOs were conceived to enable small holders gain economies of scale through principles of aggregation and self governance. Through amendment of Companies Act in 2003, Farmer Producer Organizations (FPOs) emerged as a new form of aggregation model in India. and are viewed as an advantageous alternative to cooperatives.

FPO movement has been further pushed ahead through policy announcements and identifying nodal agencies like Small Farmer Agribusiness Consortium (SFAC) and NABARD. Thanks to a strong push from the central government, thousands of FPOs have been registered in the last decade. The thrust by Central and few State policies further strengthened the efforts of FPO movement. States like Maharashtra, Bihar, Odisha, Tamil Nadu, West Bengal, and Uttar Pradesh have reported the highest increase in the number of FPOs registered in the last three years. Though the growth is tremendous, ‘they continue to be born weak’. There have been different set of recommendations owing to which spearheading agency they are coming from. Ninety percent of the FPOs, operate in sub 10 lakh turnover level.

Studies based on database of FPOs maintained by different agencies reveal their performance too. The model is designed to be farmer centric with enough self governance structures. However, the financial and

managerial requirements to run these new enterprises seem to be undermined which this excellent model offers. How they cope with their diverse needs with limited capital and investments is challenging. There should be more efforts in diagnosing and applying remedial measures through examining diverse cases of success, inertia and failure.

### Role of civil societies

FPOs need to be incubated for a while before they can take off. The role of civil society organizations and national and international funding organizations cannot be underestimated, especially in incubating them and guiding them through formative years. Many first generation FPOs like Aharam, Chetna organic, and those supported by Civil Society Organisations like Timbaktu, Pradhan, Vritti, WOTR (Utkarsh Ghate, p. 19) are good examples. NGOs have built tremendous rapport with the communities over several decades of co-working as well as building their community’s capacities in handling shared ownership. What is grossly underestimated is the business acumen and strategic planning skills required for running such profitable enterprises, on a day to day basis. It is necessary to invest in building managerial talent to prepare and manage businesses, deal with financial capital, investments and returns, as well as create new market models and lastly to handle smoothly the shareholder expectations. Dependence on a promoting institution without ability to hire high quality managerial talent can be a limiting factor. This requires high quality support as well as investments.

### Success factors

We can see that the factors driving the success are varied. For instance, it could be an organisation closely working with communities playing a critical role in availing the

window of opportunity provided by policy; it could be aspirational similarities of the type of communities working with; the type of produce, its easy aggregation and marketability; may be, the produce is conducive for easy processing and value addition with members themselves being entrepreneurial. Ultimately, it depends on the producer's own efforts to create a positive shift in willing to succeed. If and when these factors are there, the institutional framework aids, becoming an enabler. Let us look at some examples covered in this issue.

Spectacularly functioning FPO like Sahayadri (one with a turnover of 100 crore), boasting of 18000 members has started in 2010 dealing with 9 crops. It has been successful because of product choices, upmarket target (export), and professional management. It has attracted a record Rs. 310 crores European investment in 2022. (Utkarsh Ghate, p.19).

Indigenous communities in the Nilgiri Biosphere Reserve area have organised themselves into a Farmer Producer Company to secure their livelihoods. The company's significant growth in terms of membership and the business turnover reflects the success of the model in providing sustainable and fair livelihood options for the indigenous communities. Systematic documentation for PGS and quality perseverance helped them to grow and be recognised with a Equator Prize in 2021 from UNDP. (Jestin Pauls, p.10).

Clear commodity focus of enhanced milk production along with value addition has helped Vidarbha farmers succeed as Shri Kamdhenu Dairy Farmer Limited. For farming communities, seeing and experiencing is believing. Promoting agronomic practices which ensure higher returns for farmers through alternative practices in Redgram and improved incomes from intercropping helped them to move towards successfully managing an FPO supported by Vritti (p.14).

It need not always be farm produce alone. Dealing creatively, momentum was created in processing farm wastes into a product has given rise to a successful FPO. This FPO deals with eco-friendly way of dealing with crop residues by converting them as Biochar to improve soil fertility. It has created an enterprise for the benefit of all. (Ganesh Bidare, p.6). Yet another inspiring example is of women in Sri Lanka. Vikalpini, a women's network through continuous engagement with communities expanding organically to include more and

more producers and buyers. Together, they took control of every aspect of production, marketing and value chain to maximize benefits. (Chathu Sewwandi, p.23).

### Strengthening FPO movement

Not just formation, but FPOs sustainability is a critical factor in strengthening this precious movement. Besides successfully pushing their formation, it is also important to support these FPOs financially and in empowering them, so that they sustain over a longer period. New opportunities are being constantly created – like launching of Bharat Organic Brand, bringing together several institutions to work together for a common goal of marketing certified organic produce building integrating direct benefit transfers to producers. Also, the intent for promoting Natural Farming and FPOs is much more stronger than ever before. (Utkarsh Ghate, p. 19). The scale at which some of the State Governments (AP Natural Farming programme and Odisha Millets Mission) have succeeded in popularising alternatives is worth examining in terms of enabling conditions being fulfilled and innovative strategies adopted like offering subsidies, a missionary zeal, a visionary behind the programme etc.

Studies reveal that much more can be done. For example, need for multistakeholder dialogues for a new FPO ecosystem; Recognising Diversity and complexity; creating different models for rain fed farmers like State mission programs (Odisha, AP); Rethinking investments with linking to banks and NBFCs, CSR funding etc. Also, considered important is the need for capacity building and regional training manuals as attempted by some development agencies and civil society organisations. Ultimately, the objective of FPO is to enable small holders to negotiate collectively for getting fair price for their produce, be able to handle processing and value addition so as to gain better profits.

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# Biochar production enterprise

## *Managing crop residues and improving soils*

Ganesh Bedare, Raosaheb Kote, Sagar Jadhav and Sachin Chetule

Highlights eco-friendly way of dealing with crop residues by converting them as Biochar to improve soil fertility. Describes how an FPO has made this process a business enterprise for the benefit of all.

**B**urning of unused crop residue is a common practice among farmers in India. It is not an eco-friendly method. It contributes to increasing the atmospheric carbon dioxide by polluting the air. Also, farmers have reduced use of organic fertilizers. They have started using chemical fertilizers resulting in the depletion of soil carbon content. It has also resulted in

*Biochar production unit*



reduced water holding capacity, infiltration rate, drainage capacity, microbial population, and enzymatic activity of soils. This is a serious environmental problem in the Yavatmal district of Maharashtra, where 405,000 ha of cotton and 106,000 ha of pigeon pea are grown annually.

To address these twin issues of increased air pollution as well as depleting soil fertility, BAIF Development Research Foundation, Pune based NGO working in rural development introduced the Biochar production and its application for soil improvement as a production enterprise. The enterprise uses the crop residues as raw materials and the farmers can use Biochar, the end product, to improve their soils and crop yields. Besides the use of Biochar, BAIF promoted soil testing-based application of fertilizers, use of organic pesticides, improved agronomic practices, soil and water conservation practices and use of vermicompost for sustainable soil health management.

Farmers, however, had constraints in taking up the Biochar enterprise owing to lack of knowledge on Biochar production technology; inability of farmers to purchase the Kiln and other production equipment and difficulty in managing labour requirements which individual farmers could not afford.

To address these issues, BAIF with the support of GIZ formed a Farmers Producer Organization (FPO), namely, TULJA Farmer Producer Company at Yavatmal district of Maharashtra in 2019. The number of members is 220 with a share value of INR 1000 by each member. As the area under Cotton in Yavatmal and Amravati district is high, the crop residue burning is a common but hazardous practice practiced by farmers once they harvest the crop. Taking this as a potential opportunity, FPO organized several meetings to sensitize farming communities on the hazards of burning the residues. Similarly, one of the topics was use of Biochar for improving soil productivity. These events were organized at farmers field, at demonstration plots and during farmers schools.

Biochar, a rich source of carbon increases the carbon content in the soil, increases the water and nutrient holding capacity of soil. Application of biochar increases the microbial population, enzymatic activity and soil fertility. Biochar application also increases the disease and drought resistance of the crop.

FPO started purchasing the cotton crop residue from January 2021. It started with a prefixed price at Rs. 2.5-3.0 per kilogram, which attracted farmers to sell their residue to the FPO. Otherwise, they were burning crop residues in the open. The collected residue was processed in the form of Biochar through **pyrolysis process** using Kilns. The Kilns used for the pyrolysis process (size - 200 Kg) costed around Rs. 60000. Further, the Biochar is converted into fine powder form and is packed in gunny bags. The Biochar is sold to the farmer members at a

*Applying biochar to fields*





*Crop residues as raw material for biochar production*



discounted rate (around Rs.2-3/kg less than the market rate).

In the year 2021-22, FPO successfully converted 100 tons of crop residues into 25 tonnes of Biochar.

### Results

The biochar making unit run by FPO resulted in creating new opportunities and economic flows between diverse stakeholders - *Farmers* could sell cotton crop residues; *Labour* was required for cotton residue collection and biochar production; the *Transporter* was required to carry the residue to the processing centre; finally, *farmers served as buyers* of biochar for use in their crops.

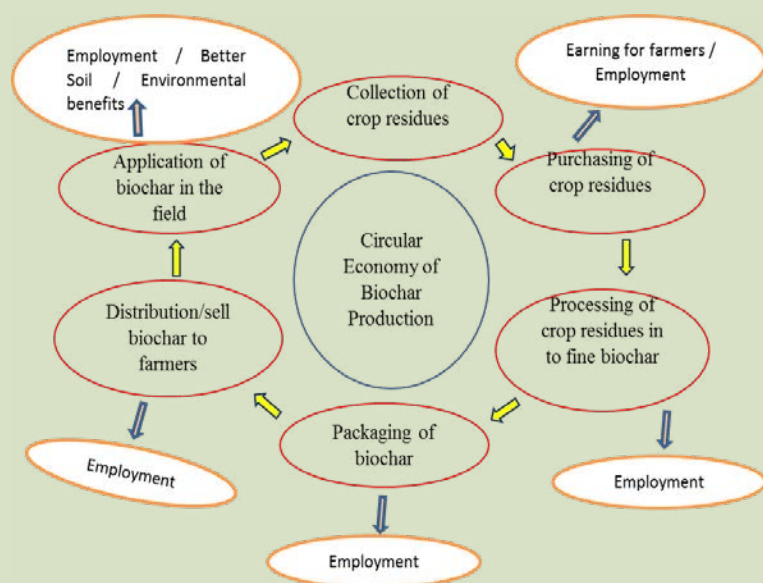
Farmers started earning from selling farm wastes rather than spending money on land cleaning operations. The enterprise created new employment opportunities for skilled and unskilled labour. There were two types of unskilled labour required - at farmers field - to collect crop residue and transport, and at FPO - for loading as well as helping in the production. The skilled or semi-skilled workforce got involved in the biochar production operation to exercise caution while handling crushing and packaging operations. FPO too gets some income by selling the packaged Biochar to its local members.

*Biochar enterprise created new employment opportunities*





Figure 1. Biochar production cycle



An interactive session with farmers



As farmers started using the biochar for improving crop yields, the demand for Biochar increased.

Gradually, FPO expanded its operations. From November 2022, the FPO, besides producing Biochar under ProSoil Project, set up Dal Processing unit. All these operations contributed to the circular economy of the region as depicted in Figure 1. Farmers, thus got benefitted directly as well as indirectly by working collectively.

Farmers have started using the Biochar on their own. As some of the benefits of the biochar application can be realised in the long term, the cost of application is broken down on the years and it is considered as an investment instead of the cost. The farmers compensate the cost of Biochar application with the reduced rate of fertilizer

application. Biochar manages nutrient release optimally for the crop during various stages of growth. Some of the farmers found it expensive to apply the Biochar as the land holding is high. However, they are ready to use, if support is provided.

The farmers have reported application of 2.5 tonnes/ha. in crops such as Soyabean, Cotton, Tur and others. The Biochar has been applied at the time of the land preparation. Crop yields observed at farmers field research trials at different seasons is as follows: *Rabi 2020* -12.59% in wheat (12 Plots);13.44% in gram (08 Plots); *Kharif 2021*:12.16% in Cotton (20 Plots);7.04 in Soyabean (6 Plots); *Rabi 2021*:13.68 % in wheat (12 Plots); 13.07% in gram (8 Plots). Farmers have also indicated improvement in yields on

their farms. Farmers from neighbouring villages have visited the application site and witnessed the results as the demonstration plots were established with the control plots in the same field.

### Way forward

Farmers need to be provided with support for some time to make them realise the benefits of the Biochar use. There is need for support for marketing of the Biochar produced by FPO by further enhancing the demand to institutions involved. Also, the Biochar production mechanisms needs to be standardised to reduce the cost of production. Additional financial support is needed for expansion of FPO's services with addition of multi processing units.

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# Coming together for sustainable growth

Jestin Pauls

Indigenous communities in the Nilgiri Biosphere Reserve area have organised themselves into a Farmer Producer Company to secure their livelihoods. The company's significant growth in terms of membership and the business turnover reflects the success of the model in providing sustainable and fair livelihood options for the indigenous communities.

*Soap making by women members of FPO*



The indigenous communities of the Nilgiris Biosphere Reserve (NBR) cultivate coffee, pepper, silk cotton, millets, pulses, cereals, spices and fruits. They are also traditionally involved in collecting honey, amla, shikakai, soap nuts and berries, phoenix leaves, seasonally from the adjacent forest. The indigenous communities were struggling with issues of unfair pricing, market fluctuations, and exploitation by middlemen in the sale of their NTFP produce. Aadhimalai Pazhanagudiyinar Producer Company Limited (APPCL) emerged as a response to this, aiming to establish a system that ensures fair prices for their products, providing market stability and reducing vulnerability to price fluctuations.



*Fruit processing in Hasanur*

### The beginning

Keystone Foundation, the driving force behind Aadhimalai, initiated the process by setting up resource centers to add value to the products collected by the communities at the village level. In 2004-05 Area Resource Centres were set up across the Nilgiri Biosphere Reserve. This was based in a central village, with many satellite hamlets being serviced by it.

Over time, an important activity that these resource centres performed was related to production and value addition of NTFPs and farm produce. Activities promoted through livelihood interventions of Keystone, yielded organic and sustainably harvested products. Instead of selling it in the open market, intervention was made to value add and sell it locally. One of the important aspects that was stressed upon was to have community membership in these centres. This enabled produce from many families to be aggregated. A select number of people, mainly women, were trained for value addition.

Over time, the centres' role got diversified and they started acting primarily as a production centre. They also served as

- a resource base for information and knowledge on forests, land, wildlife and water
- a place to acquire more skills and appropriate technologies

- a place for environment education and programmes for children
- a centre for health education for women and children
- a knowledge base on current laws and rights related to adivasis and forests

By 2013, all these units were federated and registered independently as a Producer Company. The production centres were registered under Aadhimalai Pazhangudiyinar Producer Company Limited.

Aadhimalai Pazhanagudiyinar Producer Company Limited (APPCL) is a company wholly owned by the indigenous communities, spread over 147 villages, one of the first of its kind at a national level. The producer collective was registered as Aadhimalai Pazhanagudiyinar Producer Company Limited on 3rd April 2013 under the Indian Companies Act of 1956. APPCL was incubated by Keystone Foundation ([www.keystone-foundation.org](http://www.keystone-foundation.org)) and initiated in 2013 to anchor livelihoods of indigenous communities by encouraging traditional organic food farming, handicrafts, livestock rearing, sustainable harvest of forest produce, conservation of natural resources, value addition etc., thereby securing the well-being of the communities and the landscape.

A core aspect of Aadhimalai's vision was to bridge the gap between business management practices and the unique needs of marginalized indigenous communities.

The enterprise focuses on quality, eco-friendliness, and fair pricing, aiming to eliminate exploitative trade practices by intermediaries. Aadhimalai currently has 1809 shareholders all of whom are members of the indigenous communities in the Nilgiri Biosphere Reserve. The table below shows the distribution of the shareholders across different regions.

The formation of the FPO involved active participation from the indigenous community members. The democratic governance structure, with the Board of Directors elected by the community members, ensured that the FPO's activities align with the interests and needs of the community, promoting a sense of ownership and inclusivity.

### Key benefits

Aadhimalai contributes significantly to the social and economic well-being of local communities through various initiatives. The key benefits include:

Aadhimalai procures key forest produce such as honey, beeswax, shikakai, amla, soapnuts, jamun, figs, and haritaki, as well as agricultural produce like coffee, kapok silk cotton, millets, and pepper. The organization ensures that community members receive higher prices for their produce compared to local traders. For instance, Aadhimalai pays Rs. 190 per kg for coffee, surpassing the Rs. 100–Rs. 110 range offered by local traders.

Aadhimalai employs electronic weighing machines to ensure accurate measurements and eliminate discrepancies. This practice helps community members become familiar with modern systems when dealing with traders.

It provides a market for NTFP products such as *shikakai*, *beeswax*, *figs*, *haritaki*, *soapnuts*, etc., which may not find

buyers in local markets. Notably, Aadhimalai pays nearly double the market rate for certain products like honey. Recognizing the risks involved in honey gathering, Aadhimalai provides accident insurance coverage of Rs. 1 Lakh to honey gatherers. This coverage offers support to the members and their families.

Aadhimalai collaborates with the Keystone Foundation to provide training to community members on sustainable harvesting techniques for forest produce. This initiative is critical for maintaining and developing the local ecosystem.

Aadhimalai actively encourages farmers to adopt organic agriculture practices. The organization supports farmers in forming groups as part of the Participatory Guarantee System (PGS), fostering sustainable and organic farming practices.

### Challenges and triumphs

Aadhimalai faced numerous challenges in its initial stages. Establishing a viable market, managing a substantial supply of perishable items, dealing with pricing volatility, and building a strong brand identity were formidable hurdles. Limited accessibility to the villages poses a significant challenge, given the current inadequate connectivity infrastructure.

A crucial aspect of Aadhimalai's operations is its procurement strategy, focusing on Particularly Vulnerable Tribal Group (PVTG) producers. The direct and fair relationship with these communities, reflected in premium pricing exceeding local market values, emphasizes Aadhimalai's commitment to social equity and quality.

Aadhimalai's emphasis on sustainability and organic practices is evident in its certification under the Participatory Guarantee System (PGS). The organization meticulously documents every stage of production, from planting to harvesting, aligning with its core values of organic integrity and sustainable harvesting.

Stringent quality checks are integral to Aadhimalai's operations, conducted during procurement, production, and packing stages. This commitment to rigorous quality control ensures that every product leaving the facility meets the highest standards, safeguarding consumers and maintaining the integrity of Aadhimalai's mission.

**Table 1: Distribution of shareholders**

Area	Total Members	Men	Women
Konavakkarai	223	108	115
Arakode	471	242	229
Coonoor	282	141	141
Pillur	182	79	103
Sigur	2	1	1
Hasanur	649	363	286
<b>Total</b>	<b>1809</b>	<b>875</b>	<b>934</b>



*A group of women involved in broom making*

## Impact

Aadhimalai's impact has grown significantly over time, starting with 15 members and expanding to 1809 shareholders. This growth reflects the success of the model in providing sustainable and fair livelihood options for the indigenous communities of the Nilgiris Biosphere.

Aadhimalai has successfully marketed its products to retailers and wholesalers across the country, showcasing substantial growth. The shareholder count has surged from 1609 to 1809 in 2023, reflecting exponential expansion. Notably, the company achieved a remarkable turnover of Rs. 1.2 Crore in the last fiscal year. Every year, the profit made by the company is being distributed back to the indigenous producers.

In the fiscal year 2022-23, Aadhimalai generated 5,115 productive working days for women and reached over 2,200 indigenous families across approximately 135 villages. In the same year, it distributed a bonus of Rs. 2.25 lakhs to community members who supplied their produce.

The organization's commitment to community upliftment is further exemplified by its recognition with the prestigious Equator Prize in 2021 from UNDP.

The future of Aadhimalai is intricately linked to the sustenance of local communities. The organization is committed to forging partnerships with like-minded organizations dedicated to community upliftment. Emphasis will be placed on adopting organic and sustainable harvesting practices, and the company aims to bolster community capacities while fostering a spirit of autonomy.

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# Developing climate resilience in Karnataka

**G**ulbarga district in northern Karnataka has the unique distinction of being known as the ‘tur bowl’ of the state. But even though 330,000 hectares of land is put under tur, or red gram, cultivation and production every year, the yield from this crop is abysmally low. A primary reason for this is the traditional method in which it is cultivated, which exposes the crop to drought, erratic rainfall and pest attacks. It is because of this that the tur farmers don’t get returns that are commensurate with their investments in the crop.

The traditional method of growing red gram involves a process called “dibbling”, in which the seeds are sown in a straight line while ploughing the land. Unfortunately, not much attention is given to the spacing between the seeds sown, and fertilizers are also indiscriminately sprayed. Because of these, any delay in rains directly affects the yield of the crop, while simultaneously increasing the risk of a pest attack.

Taking cognizance of these problems, a new technology was developed with the aim to significantly improve the yield of the crop. Under this new method, farmers first set up a separate nursery and grow red gram saplings, which are then transferred onto the field — in a scientifically measured fashion. For instance, while planting the saplings the farmers would need to ensure a 5 feet distance between each row of the saplings, and a minimum of 2 feet distance between the saplings themselves. This spacing allows them to sow an intercrop of maize or marigold.

Vrutti Livelihood Resource Centre — with support from the Krishi Vigyan Kendra (KVK) and the Agricultural Department, Karnataka and financial backing from the Small Farmers Agri-Business Consortium (SFAC) — demonstrated this new red gram transplanting method to the farmers of Gulbarga. This new technology has immensely benefited the farmers, and its introduction

has helped reduce input cost, increase crop yield and mitigate the potential risk of crop loss due to late rainfalls.

A case in point is that of Malikarjun Patil — a progressive farmer from Gulbarga — who is a beneficiary of this new technology. The farmer from Kinnisultan village, Aland taluk, was approached by the Vrutti field staff, who introduced him to the sapling method. Initially, he tried this technique of red gram cultivation on 1 of the 10 acres of land that he owns. Commenting on the return-on-investment factor of this experiment, Patil says, “in the traditional method, I would spend Rs. 10,420 per acre on the inputs in one season, on which I would get a yield of 4 quintals. After selling this at Rs. 4,000 per quintal, I would earn a total of Rs. 16,000 from the product. In addition, I also grew green gram as (an) intercrop and this earned me Rs. 3,000 (more). My net profit from 1 acre of land was, thus, Rs. 8,760”. Though there is an additional cost of setting up of the nurseries (to grow the saplings) in the new method, but that is entirely offset by the increase in yield, and lowered costs of seeds and chemical sprays used. To illustrate this point, another farmer, like Patil, talks about his successful experience with the new technology. He says, “The input cost in transplantation method was Rs. 10,260 per acre — not different from the traditional methods we used.

However, the big difference was in the yield. I was able to produce 7 quintals of red gram with the new method, for which I earned Rs. 28,000. And with an additional Rs. 4000 income from maize intercrop, I was able to make a net profit of Rs. 21,240 per acre, which is more than double the income from the traditional method.”

The viability of this new method is reflected in the success stories of Mallikarjun and many other farmers — members of Farmers Interest Groups and Farmer Producer Organization — who have adopted these

practices. They say that even with little rainfall during the early stages of the growth of the crop, the plants are able to withstand dry conditions because they begin sprouting in the nurturing environment of nurseries. Because of this, farmers can now wait out the rain-less months without any fear of loss. Moreover, they are also able to get more branches and flowers compared to the traditional method. Such is the impact of this new technology that they are planning to double the area of production by next year.

This initiative is also replicable in other red gram-growing areas, which are vulnerable to drought and erratic rainfall. A scale-up of this initiative in the Gulbarga district has been facilitated by demonstrating the systematic training of the farmers in this process, and the results because of it.

Location/Address of FPO: Krishikabandhu Farmer Producer Company Ltd, Village: Kinnisultan, Taluka Aland, District: Gulbarga, Karnataka. Phone: Baburao Patil- 09740621115.

Contact Details of RI: Vrutti Livelihood Resource Centre, No. 19, 1st Main, 1st Cross, RMV 2nd Stage, Ashwathnagar, Bengaluru, Karnataka - 560094. Phone: 080-23419616, 23517241.

Email: [bala@vrutti.org](mailto:bala@vrutti.org)

Website: [www.vrutti.org](http://www.vrutti.org).

Source: This article was originally published in “Krishi Sutra 2 Success stories of FARMER PRODUCER ORGANISATIONS”.



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# Sran vermicompost farm

## *An inspiring initiative*

**S**hri. Harpreet Singh is a resident of Dugri village in Tarn Taran, a border district of Indian Punjab. Harpreet Singh owns five acres of land and mainly cultivates rice-wheat. He also grows oilseeds and organic vegetables sufficient for household consumption. Harpreet is 35-year old and is differently abled person. However, he didn't allow his physical disability to come in the way of his success journey. He has been trained on various skill development trainings by Krishi Vigyan Kendra (KVK), Tarn Taran. He also actively participates in various programmes organized by KVK as well as by line departments.

In the year 2020, Harpreet Singh came in contact with KVK experts. He started learning vermicompost production on a commercial scale. He started a vermicompost unit with two beds in 2020. The KVK experts helped in installing low cost vermicompost unit. He collects raw material (FYM/cow dung) from localized commercial dairy farm for vermicompost production.

In a span of three years, Harpreet gradually increased the vermi-beds and expanded the business consistently. Presently, in the year 2023, he has over 125 beds [30 (L) x 3 (B) feet] with production potential of about 100 tons per annum. He has categorized vermicompost into 3 categories based on its quality and grading. He sells vermicompost locally to local vegetable & flower nursery and fruit growers in Punjab. Local farmers also purchase vermicompost from him as per their requirement. By selling vermicompost as well as earthworms, he is earning around Rs. 4-5 lakhs per annum.

Harpreet Singh is also interested in training the youth on vermicompost production. He helps fellow farmers in establishing

vermicompost unit at domestic as well as commercial level. Owing to his interest and willingness to help others, KVK Tarn Taran has established a Farmers' Field School on Vermicompost on Harpreet Singh's farm. With financial support from ATMA, Tarn Taran, Harpreet Singh is training youth on vermicomposting in Farmer Field School.

Recognising his efforts, Harpreet Singh is honoured by the KVK - Tarn Taran, in the auspicious presence of Hon'ble Animal Husbandry Minister, Govt. of Punjab and Vice-Chancellor, Veterinary Varsity, Ludhiana. The KVK officials regularly visit his farm for guidance. He has also created his facebook and instagram accounts (Sran Vermicompost) for wider advertisement of his product.

*The story has been developed by Anil Kumar and Puneet Malhotra. They can be contacted at Krishi Vigyan Kendra, Guru Angad Dev Veterinary & Animal Sciences University, Tarn Taran – Punjab; Email: anilkumarhpkv@gmail.com*

*Training youth on vermicomposting*





### ‘Hello Naariyal’ call centre launched

The Coconut Development Board (CDB) has launched ‘Hello Naariyal’ Friends of Coconut Trees (FoCT) call centre facility to help farmers with coconut harvesting and plant management operations. C.F. Joseph, Advisor, Horticulture, launched ‘Hello Naariyal’ in the presence of Priya Ranjan, Joint Secretary (Mission for Integrated Development of Horticulture), Ministry of Agriculture and Farmers Welfare, and Prabhat Kumar, Horticulture Commissioner and Chief Executive Officer of CDB.

The ‘Hello Naariyal’ call centre in Kerala functions from the headquarters of the Board in Kochi, says a press release. The initiative will benefit coconut growers and extend its services to traditional coconut-growing States

of Tamil Nadu, Andhra Pradesh and Karnataka through the respective unit offices of the Board.

There are 1,924 registered FoCTs for the call centre. The services will be available at block and grama panchayat levels in respective districts for carrying out activities related to coconut cultivation, including coconut tree climbing, plant protection, harvesting, seed nut procurement, and nursery management.

For details, contact 0484-2377266 (Extn: 137). Interested climbers may also register at the call centre.

Source: <https://www.thehindu.com/news/cities/Kochi/hello-naariyal-call-centre-launched/article67528627.ece>

### Programme launched to train ‘Krishi Sakhis’ for promoting natural farming

The Ministry of Rural Development and the Ministry of Agriculture and Farmers’ Welfare on Friday jointly launched a training programme for ‘Krishi Sakhis’ to promote natural farming.

The programme was launched under the Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM).

The rural development ministry said in a statement that the initiative is aimed at training 50,000 ‘Krishi Sakhis’ to give them certification in a phased manner by the National Centre for Organic and Natural Farming (NCONF), a subordinate office of the agriculture ministry, which will be the nodal institution for this.

Training modules have been prepared by the NCONF and sent to the National Institute of Agricultural Extension Management (MANAGE) for the final review.

Speaking at the event, Additional Secretary, Rural Livelihoods, Charanjit Singh highlighted the role of Community Resource Persons in bringing the transformation in the rural areas through social and economic mobilisation.

He said the role of natural farming initiative is of paramount importance for both the ministries to transform the villages as “samrudhhi villages” and to create “lakhpathi” SHG members.

Joint Secretary, Rural Livelihoods, Smriti Sharan stated that the transfer of technology from labs to land is critical and Community Resource Persons (CRPs) play a vital role in this. She added that the CRPs can handhold small and marginal farmers in enhancing their productivity through natural farming.

To improve the financial status of the SHGs, the Ministry of Agriculture & Farmers’ Welfare (MoA&FW) and the Ministry of Rural Development (MoRD) have decided to converge their various schemes. To this effect, an MoU was signed between MoA&FW and DAY-NRLM, MoRD on August 30, 2023 to certify ‘Krishi Sakhis’ as Para-Extension Workers by MANAGE, MoA&FW.

Source: <https://theprint.in/india/programme-launched-to-train-krishi-sakhis-for-promoting-natural-farming/1858070/>

## Blind school students feel the joy of harvesting

For most students, the gardening project at schools is fun and they enjoy running around and feeling the saplings and watering the plants.

For the residential students of the school for the blind, Aluva, Gardening is a different experience and it makes their Onam days special. They have started harvesting vegetables from their own garden. They have started harvesting vegetables from their own garden. They have grown tomatoes, long beans, lady's finger, bitter gourds etc. on the one-acre plot and the school's kitchen garden.

However, there's more learning that goes beyond gardening and planting. They learn to walk through narrow spaces, feel the unexpected bumps, highs and lows of the field.

The school management and teachers started off with safe food in mind for the 52 student residents. They have planted 10 varieties of vegetables and the harvest of some of the crop has already begun. "we bought the students to plant the saplings and water them. They come in to pick the grass and do it in such a meticulous

and clean way. They learn and concentrate on the sense of smell, says Head Mistress Jigi Varghese.

Student agriculture minister of the school Mohammed V A lead leads the kids to the farm. He is part of the full cabinet led student chief minister Adnan Muhanned. Vegetables are cultivated on the one-acre plot of the neighbouring vocational training school for the blind. The students are brought to the farm area in a bus and slowly hand-held and led to the saplings where they clear the grass based on the instructions of the teachers. "our kitchen garden has long beans and tomatoes which are used in the canteen. We try to ensure that all that is cultivated here is consumed by the childrens," said school administrator Fr John Jacob, who initiated the project with the help of CMFRI's Krishi Vigyan Kendra horticulture Scientist ' Shoji Edison.

Source: <https://timesofindia.indiatimes.com/city/kochi/blind-school-students-feel-the-joy-of-harvesting/articleshow/103003177.cms>

## Flipkart India introduces 'Samarth Krishi' program to empower farmers

Flipkart India Private Limited launched the 'Flipkart Samarth Krishi' programme with the goal of providing national market access and more bargaining power to India's farming communities and Farmer Producer Organizations (FPOs) via its platform.

The 'Flipkart Samarth Krishi' programme aims to provide farmers with market access and build their capacity, in line with the government's commitment to empowering Indian farmers and boosting the agricultural sector.

Furthermore, it will assist them in growing sustainably, becoming market-ready, and becoming a part of the mainstream economy through relevant partnerships. Farmers and FPOs will be trained and upskilled on technologies and best practices for improving produce quality as part of the programme.

For onboarding FPOs onto its e-commerce platform, Flipkart India has active partnerships and collaborations with several industry and government bodies, including the respective Departments of Agriculture for the states of Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Telangana, and West Bengal. Flipkart India has been able to source pulses, millets, and whole spices directly from farmers and FPOs, benefiting local agri-economies and the livelihoods of thousands of farmers across India.

Source: <https://krishijagran.com/news/flipkart-india-introduces-samarth-krishi-program-to-empower-farmers/>

# FPOs for success of natural farming mission

Utkarsh Ghate

As a response to the inefficiencies in the present marketing system and to enable farmers, especially the small and marginal farmers to receive a fair price to their produce, resulting from economies of scale, FPOs are being promoted. Besides the push for forming FPOs, it is also important to support these FPOs financially and in empowering them, so that they sustain over a longer period.

*Organic cotton textiles - Aharam weavers, Madurai*



**D**ecades of Low External Input Sustainable Agriculture (LEISA) campaign struggle was recognized when the Government of India launched National Mission on Natural Farming (NMNF), by the end of 2022, probably due to 3 pushes- a) National/ global talk about Zero Budget Natural Farming (ZBNF, <https://zbnf.org.in>) promoted by an off-beat farmer leader Shri Subhash Palekar ji of Amaravati district, Maharashtra state, who emphasized on non-purchased, only farm-made organic inputs. He argued that purchased organic inputs such as vermi-compost are costly and unsuitable for majority (80%) of Indian farmers who are small and marginal. b) Spread of ZBNF technique to over 6 million farmers and 8 million hectares by 2022 under the able leadership of ex Additional Chief Secretary (Agriculture) Shri T. Vijay Kumar (IAS, ret.), under the programme, Andhra Pradesh Community Natural Farming (<https://apcnf.in>) leading to the launch of Indo German Global Academy for Agroecology, Research and Learning (IGGAARL) in the YSR Kadapa district, Andhra Pradesh (Fuchs, 2022). c) Rising cancer incidence in cities, rising farmers' suicides and national debate on viability of agro-chemicals and hi-input farming, increasing demand for organic or pesticide-free crop produce for export, that to make farming viable given the ever-growing farm surplus.

The organic production area in India is about 5 million hectares of farmland by 2023 despite its start about 20 years ago. The speedy growth of natural farming in Andhra Pradesh is amazing. This could be owing to cost reduction and small farmer appeal, besides incentives such as subsidy of Rs. 10,000/ ha to widow women farmers to help promote ecological/ regenerative agriculture.

### Natural certification and testing

While cost reduction is point of attraction for small farmers to move towards natural farming, its viability or sustainability is a tightrope walk without price premium, due to the increased labour cost/ effort. Making botanical extracts, humus cropping, livestock rearing are laborious and some farmers are discouraged by it today while hiring labour is expensive. Organic products get 20-40% premium price especially in the export segment or amidst shining mall in the metros India wide. Natural farming will get boost if such price premium is available to it also, through PGS certification. Some buyers voluntarily offer

10% premium to APCNF crops viz. Tirupati Tirumala Devasthanam (TTD) Trust. But its wider replication country wide, will require strengthening of the PGS, nationally, as done in APCNF.

Secondly, the evaluation studies of APCNF done by Centre for Economic and Social Studies, Hyderabad and University of Reading, U. K. have concluded that improved farm ecosystem can be achieved but not increased yield, as it is not the goal of the effort. And the big challenge is that quality improvement of the produce such as lower pesticides residues is not measured or rewarded by better price. Actually, pesticide or heavy metal residue tests cost Rs. 1,000-1,500/- conducted by NABL accredited laboratories such as Anacon laboratories, Nagpur. Even KVKs (Krishi Vigyan Kendras) in all districts can be equipped to conduct these tests to endorse the low chemical input claim.

### FPOS for marketing success

Marketing is the touchstone of farming. Farmer cannot sustain without fair returns to his crop produce. Small, poor, less educated farmers find it hard to handle the market inequality and exploitation. In response to this, the Government has promoted Farmer Producer Organisation (FPO) or Company (FPC) since 2002. FPO can ideally help natural farming community by aggregating their produce and sell it in local or metro or inter-state or export market and provide fair share of about 60 to 70% to the farmer. Many first generation FPOs have done this and have a turnover ranging from Rs. 1 to 10 crore and benefitting 1,000 to 10,000 (one to ten thousand) farmers. These include Aahram Traditional Crop Producer Co., Madurai, Chetana Organic, Hyderabad, Sahaja Organic, Bangalore and Sahaja Seeds, Mysore, Timbaktu Collective, Anantpur etc. Those promoted by incubators such as ASA, Access Livelihood Services, BASIX, BAIF, Centre for Collective Development, IMMA, IRMA, PRADAN, Srijan, WOTR and Vrutti, are among others who have been fairly successful.

FPO is autonomous unlike the cooperatives that dominated the 20<sup>th</sup> century. FPOs are promoted by the government to promote farmer's livelihood improvement by better marketing and organisation. NABARD has launched massive target of 10,000 (ten thousand) FPOs in 2018, countrywide. However, as per the strategy paper

**Table 1. Differences in Organic & Natural farming**

Organic farming popular practices	Natural Farming principles
1) Vermicompost sheds & culture	1) Wafsa (humus)*
2) Plastic mulching is not discouraged	2) Leaf Mulching
3) Microbial inputs- Azotobactor, Rhizobium, Trichoderma etc.	3) Jeevamrut, Bramhasra etc.as growth promoters/ protectors#
4) Third party costly certification	4) PGS- participatory guarantee system** low cost certification
5) Often practiced by rich, irrigated farmers	5) Small, dryland farmers adopt it,
6) Tractor is commonly used	6) Bullocks are preferred to plough

\* Soil organic matter (carbon, besides moisture) is improved through pre monsoon dry seeding (PMDS) of fast growing legume crops such as cowpea, Sesban (Dhaincha) or Roselle (Ghingura) etc., to mix with soil in 1 month just before soil.

\*\* its farmers' per group review based system.

# Jeevamrut- cow dung, cow urine, jiggery, pulses flour & virgin soil (microbial inoculum).

Bramhasra- Cow urine, leaves of Neem, Custard apple, Guava, Papaya, Pomegranate, Datura, Lantana etc.

prepared for this ambitious scheme, of the about 5,000 FPOs existing then in the country, vide information collated from NABARD (2,086), SFAC (902), other Govt. agencies (641) & others (1,371), only 30% were found viable. About 20% were struggling to survive and 50% were just beginning- mobilizing farmers, gathering funds etc. There is just one FPO crossing Rs. 100 crore/year turnover as highlighted in Box 1. The outreach of all the FPOs together is about 22 lakh i.e. 2.2 million. This is only 1.7% of the FPO upscaling required to cover 12 crore farmer families in the country.

### Way ahead

FPOs need support from the Government either directly or through “public procurement” provision like it buys meals/ food grocery etc., from women self help group (SHG). In a bid to support FPOs, recently, the

### Box 1: Sahyadri FPO

After 20 years of making law to this effect, there is perhaps just one FPO to cross Rs. 100 crore/ year turnover viz. Sahyadri Farmer Producer Company Ltd., (<https://www.sahyadrifpc.com>), Nashik, Maharashtra State. It was started in the year 2010 and is presently having 18,000 members. It conducts business in 9 crops, topped by Grapes. It began by exporting Grapes and is marketing its 18 varieties today. Other crops include tomato, pomegranate, banana, sweet corn, mango, citrus (orange and sweet lime), and cashew. Its success mantras can be shortlisted as (a) Solid products, (b) upmarket target (export), (c) commercial management (efficiency/ rigour as against charity/ soft approach). It attracted a record Rs. 310 crore (\$40 million) European investment in 2022.

### Mango processing



Government of India announced “Bharat Organic” brand at the National Symposium on Promotion of Organic Produce organised by the National Cooperative Organics Limited (NCOL) at New Delhi on 8<sup>th</sup> November 2023. NCOL, established under the Multi State Cooperative Societies Act, 2002 facilitate production, distribution and marketing of certified organic products and prove to be a milestone in the cooperative and agricultural sectors, benefitting future generations. The five promoters of NCOL include reputable institutions such as NDDDB, GCMMF, NAFED, NCDC and NCCF. Six organic products are launched under the ‘Bharat Organics’ brand. 20 organic products will be launched soon. While prices of organic products are higher, Bharat Organics will market them at a lower price than existing organic products. NCOL will deposit 50% of the excess realisation in the bank accounts of farmers directly, which will benefit farmers by increasing their income.

Government can also invoke FPO mentors such as Samunnati. Recent introduction of ITC to FPO strategy by SFAC etc., can also be of help. Also there is a need for FPO support from Corporate Social Responsibility (CSR) - financially, providing commercial guidance and through market assistance.

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# Rural women as entrepreneurs

## *Restoring food systems and creating markets*

Chathu Sewwandi

Vikalpini, a women's network in Sri Lanka, through a continuous community engaging process, empowered women, socially and economically, thus reducing their vulnerabilities. The collective experiences and individual cases highlight that women farmers can collectively handle and take control of every aspect of production, marketing and value chain to maximize benefits.

Monaragala is situated about 170 kilometers east of the capital city of Colombo in Uva province in Sri Lanka. Monaragala is a multi-ethnic region with high poverty levels. The main occupation of the community in Monaragala is agriculture, following the traditional slash and burn system since generations.

Most of the farmlands are rainfed with supportive irrigation from small local non-perennial streams. In the dry season, most of the streams get dried up and farmers have to depend on the irrigation water distributed through

*Damayanthi of Niyedalla women's group in Monaragala, selling her organic harvest at the farmers' market*



small ponds. Most of the farmers often face difficulties in farming due the lack of rain and long droughts.

Further, Monaragala is also known as one of the areas where foreign private companies, like Booker and Dole Lanka, started massive contractual farming projects, marginalising the local people. In 1986, an American company called, Booker came in to an agreement with Sri Lankan government and started a massive sugar cane plantation project in some of the areas in Monaragala Districts (Pelwatta, Sewanagala). Farmers lands were grabbed despite the people's resistance and farmers had to become labourers in their own lands. Farmers were not allowed to cultivate any other crop other than sugar cane. They were allocated 4 acres of lands to cultivate sugar cane and ½ acres of lands to settle.

Livelihoods and lifestyle associated with traditional cultivation practices changed with the introduction of sugarcane. Exposed to high levels of pesticides and other agrochemicals in the sugarcane farmlands, farmers started facing numerous health issues. Owing to high costs of production, farmers are in debt. Also, the income from monocropping farming has gradually reduced, making farmers economically vulnerable. Their vulnerability has further increased due to the recent economic crisis, as well. The economic crisis has exaggerated the poverty issue. The self-sufficient food system at household has gradually collapsed due to high prevalence of commercial farming and monocropping. Farmers, especially women, became labourers on these commercial farms. With the collapse of self sufficient food systems, today, many children are facing nutritional deficiencies.

#### Box 1

Historically speaking... The people in Monaragala district were colonized for agricultural purpose in 1948 under the agricultural colonization program which was led by former agriculture minister D.S. Senanayake. Under this project, landless people were invited to move to Moaragala district and they were distributed 5 acres of upland and 3 acres of mud land for cultivation. The lands were cleared by the government and distributed with a house to settle. Many unemployed youths came to the area and settled with agriculture as their main occupation. The purpose of this agricultural colonization program was to enhance the effective use of forest land for food production and involve the unemployment communities particularly youth in agriculture.

Resisting massive commercialisation of farming, Vikalpani, a women's federation, started promoting agroecology since the 1990's. It worked with the women in Monaragala districts by facilitating diverse training programs on agroecology. All these women meet once a month in their village level group meetings. They discuss the work done and plan future action. They started their own savings and credit system, to meet their financial needs and save themselves from falling into microfinance debt traps, led by private companies. Also, these women are politically aware and active, leading political discussions as well as campaigns.

By 2016, 50 women farmers under 5 sub-groups got trained on agroecology on aspects like pest management, land preparation, organic input preparation, crop management and post harvest management. Today, Vikalpani has around 100 women members who are organised into 11 sub groups. Some of women have emerged as Trainers in the communities, promoting agroecology with others.

#### PLDP process – the beginnings

Vikalpani became part of the RLEP program in 2018. They even hosted one of the PLD workshops in Sri Lanka in 2018. The leaders of the Vikalpani participated in this workshop and were exposed to the PLD process. With the interest in PLD being ignited, the staff members and community leaders participated actively in the workshops conducted in Indonesia, Nepal and Philippines. After Vikalpani become a partner of APEX platform, they learnt more about the PLD process while knowing each other's experiences. Those who directly participated in these workshops shared their knowledge at ground level with women farmers in their group meetings.

Believing that PLD is a sustainable approach in finding solutions for diverse ground level community issues, it took it up with further vigour for collective decision making. The process involved mapping issues, looking at origin of issues, analyzing available resources, and potential collective solutions. Earlier, while the community engagement practices were primarily joint discussions and collective decisions, PLD's Participatory Action Research (PAR) involving Action-Reflection-Action helped in addressing issues at ground level. The process was further strengthened through exchange visits,





*Meeting of Sama Mawatha group*

rigorous discussions on contentious issues, inspecting and observing each other's farmlands, learning from each other's experiences through extensive sharing.

### Exploring markets using PAR

In 2020, Vikalpani conducted a PAR with its members for finding the solutions for their market needs. They were prepared to venture into an area like markets, and challenge the patriarchal market ownership, led by men, traditionally.

The women of Vikalpani have been generally small scale producers, producing mainly for home consumption and may be small surplus for selling. Once the small scale producers found production levels getting bigger, owing to aggregation, they wanted to find markets for selling their products and opportunities for value addition. They wanted to explore collectively. They were interested in improving economically as well as to fulfill their family and children's needs better.

Women farmers attempted to identify possible markets and supply chains involving value addition. Initially, they analyzed the prevailing situation. They conducted community mapping exercises analyzing the crop choices and land use, histories of the settlements, each

other's roles in agriculture. They used crop calendar to analyse the potential harvesting months. Further in the PAR, they analyzed the potential markets around them, their main suppliers, and possible products that they can produce for marketing. They analyzed each other's capacities for supplying products. They delved deeply into issues through problem tree analysis. They identified the bottlenecks existing in reaching the market avenues.

They identified following major issues which needed to be addressed - Less knowledge on food processing and value addition; difficulties in getting standard certificates; involvement of intermediaries in marketing; limited information flows of state and other mechanisms; less transportation; and price inflation of raw materials; role of MNCs; less markets for organic products; less finances and equipment; ability in assessing market demand. Then they categorized the issues as those they can find solutions by themselves through collective mechanisms as well as those which they need support from Vikalpani or other institutions. They listed the activities that they can initiate and developed collective market proposals.

They further categorized the issues – as those they can find solutions by themselves through collective mechanisms, as well as those which they need support

from other institutions or Vikalpani. Historically, women's role in agriculture has always been identified as a supportive role for men and not as a leading role. They are excluded in accessing markets owing to various factors. They examined how the initiatives could address the patriarchal market ownership, led by men.

As a result, women farmers initiated Farmers' market, Vikalpani Sales store, Mobile market, Saving groups, Value added food products, 'seed breeding' enterprise and organic input production enterprises.

### Women's collective initiatives

**a) The Farmers' Market:** The farmers' market was one of the successful initiatives of Vikalpani women farmers. They conduct open market, every Friday, in an open space near the public school in Ulugalla grama niladari secretariat. The women farmers of 102 groups initiated the open market with the participation of 25 vendors. Some of the women act as *collectors* and collect the produce (eg. vegetables) from the other members and sell in the open market. After selling the collected harvest in the open market, the suppliers are given their share of income. There is a management team in place, which monitors and observes the supply chain and ensures that the only non-chemical produce is brought into the market. At the end of each open market event, the leaders team come together and discuss about how the day went as well as collect new ideas for promoting the open market.

The market was expanded to include other villagers to sell their products. As a result, many women started selling their handicrafts, processed food and other items in the market. The members shared that the incomes went up during those times when villages could not reach out to nearby towns, for example during times of Covid pandemic and the economic crisis.

**b) Vikalpani sales store:** Vikalpani has a small daily sales store in 102 junctions, operating on a daily basis. The members of the Vikalpani bring their products to this store and sell them to the villagers. **Kusum Disanayeka** who is the founding member of Vikalpani who took leadership in the PLD discussions on market development, is presently

leading the Vikalpani Sales store. She gains around 3000 rupees of income per day.

- c) Value addition:** In the market development discussions, one of the aspects was value-added production process. This was started by women entrepreneurs who took leadership and the raw materials supply was ensured by Vikalpani members.
- d) Seed production:** Post PLD discussions, one of the groups developed a proposal on seed breeding enterprise and ventured into seed production. The government agricultural officers trained women in seed breeding. A collective seed breeding enterprise was started recently, involving 23 woman farmers. Currently, they are in the stage of planting the seeds.

### Inspiring cases

**a) Sama Kumari,** 42 years, is a small-scale producer and a member of Sama Mawatha sub group. Earlier, she used to practice chemical intensive conventional agriculture. She has an upland of 3 acres where she cultivates vegetables such as brinjal, banana, long beans, bitter guard, maize, and chilly. She also has one acre of paddy land. She also cultivates Kawupew, Mun and maize as commercial crops. In 2016, she participated in training programs on agroecology. After gaining knowledge, she transformed her farmland into agroecological farm while successfully influencing her husband too. She

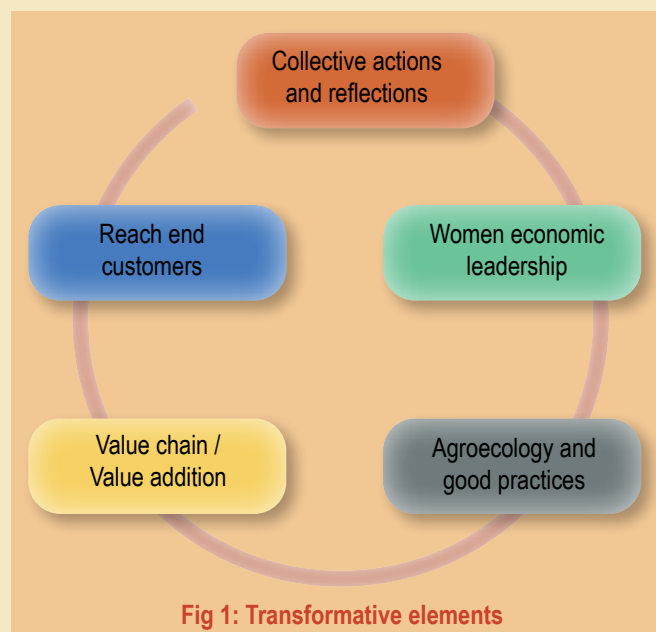


Fig 1: Transformative elements

participated to Vikalpani open market development, discussions as well and decided to bring her products weekly and sell in the open market. She collects the harvest of others as well and walks around 1.5 km from her home to reach the open market. She usually earns Rs 2,000 /- a day. She says, *“Turning to engage in agriculture without using chemical fertilizer and pesticide is one of the important decisions that I took in my life. Afterward, I started to supply my extra harvest to the village market and it helped me to manage my household level expenses.”*

- b) **Sujeewa Rathanayake**, 43 years, is a member of Dilena Tharu group. She has been engaging in Mushroom production successfully, after participating in PLD discussions. She started the mushroom production at her household. Apart from that, she has a group of 30 women who engage in mushroom production under her supervision. She provides mushroom pots to those women and they also engage in the enterprise collectively. She says, *“The knowledge and the awareness that I got from participating in the programs helped to restart my own enterprise. I share the knowledge with other women in my area on mushroom production.”*
- c) **Nishanthika**, 38 years, is a member of Badalkumbura group. Continuously engaged with Vikalpani from her childhood, Nishanthika, is now a community leader. Based on discussions, she started her own business of processed food production. She gained the knowledge on food processing from the Vidatha Resource Center in Monaragala. Besides, she connected with many government and non-governmental organizations to gain knowledge and resources for adding value to her products. She collects the raw materials for her production from women farmers of Vikalpani, directly. Initially, she collected banana, woodapple, papaya and pineapple from the villagers, prepared Jam and sold it in Monaragala town. Gradually, she ventured into dried food production. Now, she produces banana chips, milk toffee and Casava chips. Apart from that she collects Kithul trickle, ragi and other products from the women farmers and sells in the town. She usually earns 200,000 to 300,000 rupees per month. She has her own production unit and there are around 7 women working with her. Presently,

she is a consultant for other women in business development.

## Conclusion

Vikalpani recognizes that PLD is a sustainable process empowering communities to find their own solutions, collectively. It identifies certain critical elements which have brought about a transformation in their processes (Fig 1). They include Action-Reflection; Building economic leadership; Putting agroecology into practice; Value addition to produce; Reaching the end customer directly. The collective experiences and individual cases highlight that women farmers can collectively handle and take control of every aspect of production, marketing and value chain to maximize benefits.

As an organisation, Vikalpani has experienced a positive change in the way they work. From mere discussions, they have moved on to using facilitation and participatory tools in bringing about the necessary changes. The facilitation skills required for the process have percolated down. Today the women leaders of the sub groups conduct their own PARs to identify solutions and initiate action. The women farmers recognize this approach as a supportive and integral tool for their work at ground level.

Vikalpani strongly believes that PLD is a continuous community engaging process. The Action – Reflection - Action process is a useful tool to address any new realities, even in the future too. Currently, Vikalpani is seeking new opportunities to expand the market initiatives to enhance economic leadership of women farmers in their own contexts.

*Source: This article is originally published in “Experiences in People Led Development: Promoting Food Sovereignty and Agroecology in Asia”, September 2023, published by Pesticide Action Network – Asia Pacific (PANAP), Malaysia.*

## Chathu Sewwandi

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## How to Create a Sustainable Food Industry : A Practical Guide to Perfect Food

*Melissa Barrett, Massimo Marino, Francesca Brkic, Carlo Alberto Pratesi, 2023, Taylor & Francis, 230 p., paperback £ 26.77, ISBN 9781000995428*

This book presents a practical guide to help businesses navigate the complex topics of sustainability in the food industry.

The book takes you on a journey along the food value chain, from farm to fork, exploring key opportunities to increase positive impacts and circularity at each step of the journey. Written by a team of authors with decades of experience in the food industry and academia, it provides guidance on how to analyse sustainability across the value chain and life cycle of a food product and how to design, implement and communicate strategies to customers. Furthermore, the book shows that there are not always straightforward solutions, but rather choices and trade-offs that require an understanding of what is best suited to the product, customers and business in question. It demystifies a variety of topics, such as local sourcing, regenerative agriculture, plant-based protein and the environmental impact of meat production, and draws on a wide range of case studies from across the globe, to provide concrete, real-world examples. While a perfect food system may not exist, informed decisions can go a long way to reshape and transform the food industry as we know it.

This book will be of great interest to professionals working in the food and agriculture industries, as well as students and scholars of sustainable food systems and sustainable business.

## Organic Farming - Global Perspectives and Methods

*D K Meena, Sabu Thomas, Sarath Chandran, Unni M.R., 2023, Elsevier Science, 625 p., paperback, £ 200.30, ISBN 9780323991452*

Organic Farming: Global Perspectives and Methods, Second Edition provides the core definition and concepts of organic farming, also addressing current challenges and goals. The book provides a comprehensive resource, from sustainability to influences on the ecosystem, including the significance of seed, soil, water and weed management, and other important aspects. In addition, it presents advancements in the field and insights on the future. This fully revised and updated edition expands coverage to include important economic considerations, understanding the influence of nanotechnology on organic farming, vertical farming, organic farming and livestock management, as well as the future of organic farming.

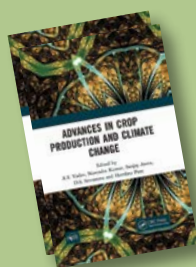
Written by a team of global experts to provide current concepts of organic farming, this resource is valuable for researchers, graduate students, and post-doctoral fellows from academia and research institutions.

Presents the latest insights, from basic principles to emerging practices and future prospects. Includes new chapters on emerging organic farming practices and opportunities to address animal agriculture and vertical and indoor farming. Includes coverage of standards, certification and accreditation, and presents insights on economics and marketing.

## Advances in Crop Production and Climate Change

*A.S. Yadav, D.S. Srivastava, Hemlata Pant, Narendra Kumar, Sanjay Arora, 2023, Taylor & Francis, 506 p., hard cover £ 192.54, ISBN 9781000572544*

This book has comprehensive coverage and advances in agriculture for sustainable development and is expected to provide valuable sources for scholars and researchers, as well as serve as a guide book to the farmer's community and development agencies. The book is organized into 18 chapters, which include advances in production technologies of crops e.g. rice, wheat, barley, maize, pearl millet, pulses and oilseeds; sugarcane; medicinal and aromatic plants; vegetable crops; fodder crops; resource conservation technologies; management of degraded and sodic lands; soil biodiversity; farm mechanization, etc. The text is illustrated with tables, figures and photographs to bring out the significant findings. The book provides cutting-edge scientific knowledge as well as solid background information that are accessible for those who have a strong interest in agricultural research and development and want to learn more on the challenges facing the global agricultural production systems.





## Status and Performance of Farmer Producer Organizations in India

Manaswi B.H., Dr Pramod Kumar, Dr Amit Kar, Dr P. Prakash, Dr V. Lenin, Dr DUM Rao, Dr R. Roy Burman, Dr P. Anbukkani, 2021, Walnut Publication, 189 p., paperback £ 2.83, ISBN 9789390785803

The farming sector is often stated to be characterized by low level of technology adoption and lack of market access due to fragmented land holding and approach to marketing. The country has tried many approaches to collectivize the farmers like cooperatives, self help groups (SHGs), farmers interest groups (FIGs), farmer producer groups (FPOs), Farmers club, Joint liability groups (JLGs), etc. Among all these approaches the farmer producers organization holds a great promise in terms of provisioning access to technology and markets. A lot of effort has been made towards formation and growth of FPOs. Therefore the book entitled “Status and Performance of Farmer Producer Organizations in India: An Economic Perspective” is an attempt to understand the functioning of FPOs and the impact it has made in improving the access to technology, markets and enhancing the income of the farmers. The book is based on guided academic research investigation from primary data compiled from 120 farmers of two districts of Telangana. The study also used secondary data on number of FPOs formed across states over a period of time. The various econometrics tools like compound annual growth rate, garrette ranking, farm business analysis, cobb-douglas production function, discriminant function analysis, data envelopment analysis, etc. had been employed in drawing conclusions.

## Farming Futures : Reimagining Producer Organisations in India

Ajit Kanitkar, C. Shambu Prasad, Deborah Dutta, 2023, Taylor & Francis, 334 p., paperback £ 97.50, ISBN 9781000890587



This book studies the management challenges and possibilities in sustaining farmer producer organisations (FPOs). It goes beyond the conventional metrics of cost-benefit analysis by drawing on 15 case studies of diverse FPOs spread across India to fill a significant knowledge-practice gap in the domain of producer collectives. The book explores issues of ownership and governance, studies the empirical basis for policy decisions on FPOs, and provides actionable insights and knowledge, keeping in mind the complexity of the institutional design of an FPO. It also discusses the envisioned role of civil society organisations in supporting FPOs and looks at the kind of institutional innovations that are needed to create a cohesive ecosystem for FPOs.

A unique collaborative project jointly authored by academics and development practitioners, the book will be of use to students and researchers of agricultural economics, environment and business, agricultural development, environmental economics, rural studies, entrepreneurship, and South Asian studies. It will also be of interest to development professionals, civil society organisations, and policymakers.

## Forest and farm producer organizations building resilience

Simola, N. and Vuori, K, 2021, Food & Agriculture Org. 64 p., e book, ISBN 9789251346013



Forest and farm producers' livelihoods are threatened by a complex risk context, where environmental change is accelerating (climate change, degradation of natural resources) and chronic and episodic stressors and disturbances (poverty, pests, economic shocks) are occurring outside of the range of past experience. Forest and farm producers' livelihood systems are characterized by small-scale farms and woodlots, direct dependence on natural resources, and smallholder value chains extending over larger landscapes. Building the resilience of these systems and their functions requires i) improving the short- and long-term viability of livelihoods through sustainability, efficiency, and profitability in production and along the value chain; ii) increasing preparedness and the capacity to act in the face of climate change and other stressors and shocks; and iii) stewarding farm ecosystems and aiming for ecological co-benefits in all actions. In addition, participatory and inclusive service landscapes and management processes are considered preconditions for all the above-mentioned domains of resilience, largely defining the long-term impact and overall success of resilience actions.

# Towards safe food production

## *A journey of a collective*

**N. Keshavamurthy**

I, N. Keshavamurthy, have originally come from a farming family. I was running a factory for 30 years, earning good income, but owing to labor problem, work stress and health issues, I got more inclined towards agriculture. I was very impressed by the “ನೋಡಿ ತಿಳಿ ಮಾಡಿ ಕಲಿ” (“See and Know - Do and Learn”), a training organised by Agricultural Science Center (KVK) Magadi. I realized that the reason for the deterioration of health is the method of growing food using fertilizers. I got interested in organic farming.

I started my farming life in three acres of land inherited from my father along with four acres of land which I bought. The farm had a barbed fencing, with a few trees of Silver Oak, Teak, Mahogany and two borewells. Realizing that a mix of short term, medium term, and long term crops can help in doubling the production, I adopted the “Forest Based Integrated Organic Farming” system.

Initially, a mix of grains was broadcasted on the field. To improve soil health, several practices like mulching and ploughing the biomass into soil etc., were followed. Initially I started getting income from the *short-term crops* such as beans, brinjal, pea, redgram, bhendi, tomato, green chillies, curcubits crops and gourds. I also included *medium term crops* like Lemon (100), Guava (50), Sapota (40), Amla (40), 30 plants each of Jackfruit, custard apple, green apple, Jamun, and 50 plants each of curry leaf, Black pepper, Cardamom, Drumstick, were grown on my farm. *Long term crops*

included Silver oak (280), Teak (120), Mahogany (160), Mango (100), Coconut (180), Banyan tree, Neem tree, Tamarind tree, Alangium tree sps, Ficus tree species, Bamboo tree and Sandalwood trees etc.

Livestock has been a major component on my farm. The Livestock diversity includes: Hallikar Cows - 5, and Malenadu Gidda Cows - 5, Sheep and Goats - 9, Poultry - 60 (Turkey - 10, Chickens - 6, Fighter Chickens - 4, Khadak Nath Chickens - 10), Ducks - 9, Garden Guard Dogs - 4, and Cats -4 etc.

I have been following eco-friendly cultivation practices on my farm. Drip irrigation is used to conserve the limited water resources, compost and vermicompost are produced using the livestock and plant residues, which are further recycled onto the farm. Cattle dung is used to produce biogas, using biodigesters. Have also included bee keeping on my farm.

*Bee keeping on the farm enhances biodiversity*



## Moving towards a collective

With more farmer friends joining me in practising healthy and sustainable farming methods, we formed a 30 member group called “Sattva Organics”. We produced safe food and explored various markets like Farmers markets, selling in schools etc.

Moving forward, we formed a Farmer Producer Company - “Savandurga Raitha Uthpadaka Company Limited” with the support of Horticulture Department under a central government scheme on FPOs. Organisations like Small Farmers’ Business Federation, Paramparagata Krishi Vikasa Yojana (PKVY) in Ramanagara District Magadi Taluk, Sri Sri Rural Development Program Trust, Bangalore, also supported the initiative.

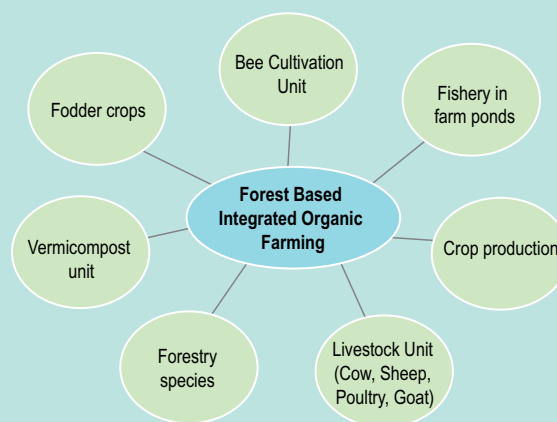
The main objectives of Raitha Uthpadaka Company was to enhance farmers incomes by imparting technical agricultural training and information to the farmers of coconut, mango and vegetable crops, by providing timely planting of seeds, use of fertilizers, organic biological medicines, access to market, encouraging value addition.

With awareness and trainings, farmers are now growing safe food, improved the soil fertility, reduced their crop production costs and enhanced the biodiversity.

*Livestock is an integral part of farming*



*Members of FPO campaigning for safe food production*



We are also encouraging interested farmers to grow 10 crops that earn 10,000 per month. Intercropping in coconut tree has been done with the row like lemon, drumstick, curry leaf and cardamom. Income from sheep and goat rearing, cow calves, honey, fishing, earthworm composting, mango and value added products have helped in earning at least 60 thousand rupees.

The FPO is helping farmers through direct marketing system. Many marketing channels are being explored. For example, farmers produce is being marketed every Saturday at Poorna Pramati school premises in Girinagar and Purnapragya layout of Bangalore. Fruits and vegetables are sold directly to organic stores.

FPO is also helping farmers in producing value added products and selling them. Value-added products under the brand name “samagra siri” are being marketed. This includes malt made from cereals, pickles, honey, A2 milk, butter, ghee and organic chicken eggs.

Together with the forest campaign program, we are conducting a sapling planting program. Accordingly, every year 365 new plants, one plant per day is being added to our garden.

Overall, the initiative has helped in providing customers with fresh and non – toxic organic vegetables delivery at reasonable prices. By offering vegetables, value added products, we are providing “poison free food” to the society.

**N. Keshavamurthy**

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# A journey of FPC in promoting milk production

Amar Raipure

Diversification is a way forward for smallholder farm livelihoods caught in fragile eco systems. Dairy husbandry is one of them. Dairy farmers in Vidarbha have come together to form Shri Kamdhenu Dairy Farmer Limited, an FPO, which is being managed successfully, offering a variety of services for enhanced milk production.

*Mahila Pashu Palak trained in dairy enterprise*





Vidarbha area of Maharashtra is well recognised for droughts and crop failures. Majority of the farmers depend on agriculture for livelihoods. A combination of adverse factors like fragile rain fed ecosystem, degraded soils, high input costs, problems of pests and diseases, crop choices and extreme dependencies, limited credit availability, market challenges make farming risky and less profitable, especially for cotton farmers. Recurring losses and seemingly hopeless situations have driven farmers into distress, sometimes leading to extreme steps like suicides.

Diversification is a way forward to tackle the challenge. Dairy husbandry is one of the them. Livestock development offers additional avenue for families. This article deals with efforts made to improve genetic potential of the local cattle and buffaloes for better milk production through artificial insemination and a wide range of supporting activities.

### The Initiative

The BAIF's Cattle Breeding Centre was started in the year 2016. A bunch of services were rendered to produce quality breeds of animals. BAIF started doorstep artificial insemination services and as a result, 940 female calves have been born in this area in five years. (see Table 1). In the beginning, it was a struggle to promote artificial insemination as farmers were lacking this knowledge. It was a big challenge to change mind sets of farmers. Gradually, through awareness programs, farmers became aware of the business of dairy husbandry.

### Milk production growth

With increasing animal population, milk production too increased. The milk production statistics of the area indicate steep increases. In 2016, only 150-liters

**Table 1: Year wise figures of increased milking cattle's, milk production and farmers involvement**

Year	Milking Cattle (Nos.)	Milk Production (In Litres)	Farmers Involved (Nos.)
2016	91	261	43
2017	113	430	53
2018	223	750	67
2019	249	983	79
2020	263	1250	89
2021	443	2500	151

of daily milk production was recorded from 6 villages (e.g., Parsodi, Ladgaon, Kedarpur, Kukadi Panjara, Pardi (Go), Borgondi). In 2020, in the same villages, milk production has gone up to 1250 litres per day. After looking at the potential of business, more than 150 farmers from 17 villages have participated in the dairy business in the year 2021 and the milk production increased to more than 2500 litres per day. (See Table 1)

Farmers started facing the challenge of selling the milk produced. The challenges farmers faced are presented below.

- Milk production increased but the market was not available for the farmers to sell their produce.
- There were some buyers but the rates they got for their produce was not good enough.
- They had to go to far off blocks for selling their milk as there are no dairy and chilling plants nearby, for storage.
- Farmers sold their produce to the retailers who made value-added milk products.
- Farmers explored direct selling to consumers through door to door approach in Block which was very stressful and time consuming.

### Formation of FPO

Considering the importance of the prevailing situation, a strategic decision was taken to promote a Farmer Producer Organization to tackle the challenge at the grassroots level. As a result, FPO was established with the aim of providing one window solution/services for all the portfolios of animal husbandry. NABARD came forward to support a dairy-based Farmer Producer Company in that area. In 2020, under the NABARDs Producer Organization Development Fund, one FPO was established named Shri Kamdhenu Dairy Farmer Producer Company Limited. NABARD provided financial support for 3 years from 2020 to 2022.

Shri Kamdhenu Dairy Farmer Producer Company Limited was registered as a limited company with the Registrar of Companies in Nagpur in 2020. The FPO comprises 362 milk producers from 17 villages, of which 224 (61.87%) farmer shareholders are small and marginal farmers having their landholding less than 2 hectares. It was established on 11th September 2020 with ten young dynamic Board of Directors with experience of practising Dairy and Milk collection centres. The elected



*Women supplying dairy milk to FPO Processing Unit*

Board of Directors include four women members and six male members. The FPC has an Authorised Capital of Rs. 10 lakhs and Paid-Up Capital of Rs. 5 lakhs.

The emphasis was on capacity building of Directors, CEO and shareholder members on Governance and Management of FPO. Focus was on business plan development and forward linkages, processing and value addition of milk and awareness building programmes on dairy processing through FPO. CEO was trained on value addition and milk processing, calculating profits and losses, and governance aspects of FPO. Further, the guidance was on setting up the processing unit, establishing market linkages and obtaining basic licences required for the same.

The following services have been taken up by Shri Kamdhenu Dairy Farmer Limited pertaining to input supply, value addition and marketing.

### **Input supply**

- Doorstep Artificial Insemination (differential rates to shareholders and irregular farmers)
- Supplies good quality of mineral mixture to address mineral deficiencies in cattle.
- Provides improved fodder varieties for feed management of cattle

- Supplies good quality cattle feed at marginal rates as compared to the market.
- Encourages farmers to make silage and produce the silage and to be sold by the FPO

### **Value addition**

- Processing milk into Khawa, Paneer, Curd, Buttermilk, Ghee, Sweets, Shri Khand etc.
- Aggregating the agricultural wastes of Cotton, Soyabean and Tur crops and supply to the processor.

### **Output marketing – forward linkages**

- Creating single window outlets for all dairy products at the block level.
- Doorstep supply of good quality milk to consumers, offered at marginal rates in comparison to other dairies/ big brands.
- Providing organic fertilizer to the farmers (vermicompost with earth worms).
- Working on meeting the needs of the farmers in any sector and fulfilling them.

In the beginning, one group (involved in production of various milk products on a small scale) was producing the Khawa in that village. After the establishment of the FPO, it was decided that the unit would be merged

**Box 1: The ten management practices followed by women for better management of dairy business.**

- Promoting artificial insemination and improved breeds of cattle for enhanced milk production at household level
- Carrying out deworming and vaccination schedule for maintaining cattle health
- Primary treatment (by ethnic veterinarians) for cattle.
- Fodder production - Women are aware about fodder crops; cultivation times; value addition to silage; methods of feeding the cattle.
- Feed mineral mixtures regularly to the cattle, based on their knowledge on mineral deficiencies in cattle.
- Assessing the feed requirements of the cattle as per animal's body weight
- Using regularly cattle manger for cattle feed and avoiding fodder wastage
- Maintaining Clean Cattle Shade and Climate Smart Cattle Shade.
- Improved practices of hygienic milking practices
- Management of cowdung for use as Biogas for fuel and converting waste into vermicompost and efficient decomposition.

into the FPO. Beginning with selling milk, it expanded to value added products like Paneer, Shri Khand, Curd, Buttermilk, Butter etc. Initially when the journey started, it was on a small scale, but gradually evolved into a business activity.

**Women Centric Approach**

One of the key strategies and learnings was making the initiative a women centric one. Women’s participation is the key factor in the process and success of the dairy business as they are most active in the management of cattle rearing, from milking to overall management of cattle. Therefore, the emphasis was on improving livestock management practices handled by women. More than 100 women livestock keepers promote clean milking to provide healthy and hygienic products.

Ten cattle management practices were given extra emphasis to enhance incomes while rearing cattle effectively. (see Box 1).

In the beginning, in 2016, only 40 women farmers were involved. At the end of 2020, more than 100 women have adopted proper management practices learnt through skills acquired from the BAIF’s cattle breeding programme.

**Table 2: Milk products sold by FPC**

S.No	Particular	Production (in Kg)	Rates	Amount
1	Khowa Making	2464.89	291.59	7,18,729.90
2	Panner	5338	267.91	14,30,100.26
3	Pedha	1328.7	272.80	3,62,473.76
4	Loni	37.7	441.91	16,660.00
5	Basundi	133	167.59	22,289.81
6	Tup	109.33	441.63	48,283.14
7	Curd	64.79	25.00	1,619.75
8	Creem	815.83	160.61	1,31,029.11
9	Rabadi	87	250.00	21,750.00
10	Sold to Dairy	6352	42.64	2,70,849.28
11	Home to Home	32203	44.77	14,41,623.52
<b>Total</b>				<b>44,65,408.53</b>
<b>Total Expense</b>				<b>43,39,377.53</b>
<b>Profit</b>				<b>1,26,031.00</b>

Around 100 women have been trained as “Mahila Pashu Palak” in best practices in animal husbandry. Women are practicing vermicomposting, biogas use, primary treatment (Ethnos veterinary), clean milking, cattle feed management, value addition of fodder, climate smart cattle houses, cattle breeding services. More than 80% of households have saved costs on cattle rearing.

Three self-help groups as well as individual women are practicing vermicomposting resulting in improved livelihoods.

**Impact on farmer livelihoods**

FPO has positively touched lives of many farmers in different scenarios. In three years, the following data reveals how farmers have availed the services and benefitted.

- 55 farmers have supplied milk to the FPC and they increased their income by 15% in two years.
- More than 137 farmers saved costs on feed.
- 12 individual farmers and 4 SHGs enhanced their income by 20% in two years.
- 179 farmers were the consumers.
- Suppliers increased their income by at least 10%.
- 194 farmers have benefited through Artificial Insemination program; 15% costs have been saved on management of cattle.



Members sell value added products through a stall set up by FPO

- FPO has supplied cotton residue to the briquette manufacturer- by which more than 50 farmers have benefitted with 5-7% enhanced income.
- FPO has supplied milk to more than 20 shareholders of block, thereby each household saving 10% every day on purchasing milk from others.

### Marketing

SKDFPCL, has established its own brand - **SHRI KAMDHENU**. It was necessary to attract consumers. Therefore, it was very essential to establish their brand along with quality products and packaging. Now, SKDFPCL has expanded its outreach in the Katol city. It plans to spread around the district in upcoming years. The response from consumers has been positive. SKDFPCL is selling many value added products. (see Table 2, p.35)

### Challenges and way forward

There are challenges too. The major challenge Shri Kamdhenu Dairy Farmer Producer Company Limited facing is expansion, owing to financial and marketing

limitations. However, it is continuously making efforts by participating in various exhibitions and workshops.

The greatest satisfaction is that the farmers are fully aware of the potential of the dairy business. They actively participate and are involved in taking decisions.

The FPO looks forward to expand. The expansion strategy includes expanding the business of the FPO to nearby districts of Vidarbha; providing extension services to farmers; opening of self-outlets in capital cities as soon as possible; availing opportunities offered by Government schemes, such as, PMFME, SMART, PoCRA and others.

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