

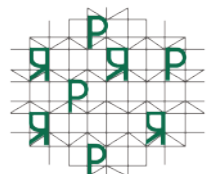


COMPENDIUM OF **BEST PRACTICES** DAY-NRLM



प्रदान
Pradan

PROFESSIONAL ASSISTANCE
FOR DEVELOPMENT ACTION



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सचिव

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Message

Deendayal Antyodaya Yojana – National Rural Livelihood Mission (DAY-NRLM) is a Government of India-sponsored program and the Central & State Governments jointly fund this initiative. The objective of the program is to reduce poverty by enabling poor households to access gainful self-employment and skilled wage employment opportunities, resulting in appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots institutions for the poor.

The implementation responsibility of the Mission is vested with State Rural Livelihood Missions (Special Purpose Vehicles). At the district level, a District Mission Management Unit (DMMU) is responsible for planning and implementation, under the overall control of the district administration. At the block level, a Block Mission Management Unit (BMMU) implements the Mission activities. The Mission is implemented in a phased but intensive manner, taking up a certain number of blocks each year. The Mission is expected to saturate with mobilization of all rural poor households by 2023-24. The Department of Rural Development in the Ministry of Rural Development, Government of India (GoI) has the overall responsibility of policy formulation, monitoring, and evaluation of the programme.

The beneficiaries under the scheme are rural poor, especially women; and instead of providing direct financial support, the scheme envisages that the poor women are organised into institutions, acquire sufficient knowledge and skills, access institutional credit, and pursue livelihoods based on their resources, skills, and preferences.

While we move ahead to achieve the objectives of the mission, it is important to pause, reflect on the work being done, identify best practices, document them, and disseminate them across the SRLM units in the country, so that these best practices can be emulated and more number of women can be benefited out of these best practices.

In this context, PRADAN as DAY-NRLM support Organisation (NSO) was given the responsibility to jointly work with the SRLMs to identify best practices, and document and publish them for knowledge sharing and wider replication. I am thankful to the PRADAN team and the SRLM staff for their sincere efforts to come up with this publication in a time-bound manner.

I am hopeful that the skills acquired by the SRLM staff during the best practice documentation exercise will help us to document our experiences regularly to create a knowledge repository for institutions and individuals working in the field of rural livelihoods.

(Nagendra Nath Sinha)

Charanjit Singh
Additional Secretary (RL)



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June 22, 2022

MESSAGE

Deendayal Antyodaya Yojana – National Rural Livelihood Mission (DAY-NRLM) is a poverty alleviation program being implemented by the Ministry of Rural Development, Government of India. This program is focused on organization of rural poor women and the promotion of Sustainable Livelihoods among them. To build, support, and sustain the livelihoods of the women, DAY NRLM harnesses their capabilities and complements them with information, knowledge, skills, tools, and finance. NRLM works on three pillars – enhancing & expanding existing livelihood options of the women; building skills for the job market outside; and nurturing self-employed and entrepreneurs.

The basic principles that guide DAY NRLM are: poor have a strong desire to come out of poverty, and they have innate capabilities; social mobilization and building strong institutions of the poor is critical for unleashing the innate capabilities of the poor. An external dedicated and sensitive support structure is required to induce the social mobilization, institution building and empowerment process; and facilitating knowledge dissemination, skill-building, access to credit, access to marketing, and access to other livelihoods services underpins this upward mobility. The core values which guide all the activities under NRLM are the inclusion of the poorest, and meaningful role to the poorest in all the processes; Transparency and accountability of all processes and institutions; ownership and the key role of the poor and their institutions in all stages – planning, implementation & monitoring; and community self-reliance and self-dependence.

Dedicated support structures provided by SRLMs build and strengthen the institutional platforms of the poor. These platforms, with the support of their built-up human and social capital, offer a variety of livelihood services to their members across the value-chains of key products and services of the poor. Through the consistent and rigorous efforts of the staff placed at block, district, State, and National levels, DAY-NRLM has become one of the largest community mobilization efforts in the world, organizing more than 83 million poor women into over 7.6 million self-help groups. A number of successful livelihood models have been developed by the SRLMs as DAY-NRLM provides a lot of flexibility in implementation.

PRADAN as DAY-NRLM support Organization (NSO) is engaged with the SRLMs to enhance the livelihood of SHG members. PRADAN in collaboration with SRLMs has pitched in with capacity building of the SRLM staff to identify best practices, document and publish them. This will be helpful in creating a knowledge resource which may be scaled up by SRLMs and other developmental agencies. I thank the SRLMs and PRADAN team for their diligent efforts to publish this best practice document in this innovative way.


(Charanjit Singh)



Message

India has witnessed rapid economic growth in the last two decades, but a large population in rural areas still lives in poverty. Women contributes 80% labour in the farm sector, yet they are not recognized as farmers due to lack of land ownership. It restricts them to access different extension services and production assets like seeds, water, credit, subsidy, etc. and acts as a barrier in accessing the benefits of relevant Government schemes. The Government of India (GoI) has been making numerous efforts to address this issue and has seen success on many fronts, still, there are a lot of scopes to improve upon. To address the issue of rural poverty, the Ministry of Rural Development (MoRD) launched National Rural Livelihood Mission (NRLM). The objective of the Mission is to facilitate rural poor to come out of poverty through sustainable livelihoods. To achieve this objective, women are organised into collectives, provided with capacity building and handholding support to access formal credit, diversify and strengthen livelihoods, and access entitlements and public services.

PRADAN has been working as NRLM Support Organisation (NSO) since 2013. In this endeavour, many joint efforts have been made at state and national level to strategize the rolling out of the livelihood interventions in the farm sector and in the integrated livestock rearing. Additionally, we are supporting the mission to pilot the Comprehensive Livelihoods approach in selected blocks of three states. Also, we are deeply engaged in the Integrated Farming Cluster (IFC) initiative and working as a nodal support agency in Jharkhand and Chhattisgarh. Along with providing strategic support in these livelihood initiatives, we have been helping the mission to periodically document best practices and publish them in a compendium form. Working with NRLM has been a very enriching experience for PRADAN as the engagement has generated many new knowledges that has informed our own functioning.

DAY-NRLM staff at the block, district, state, and national levels have been putting a lot of effort to actualize the objectives of the Mission. A lot of exemplary work going on in all parts of the country. There is a need to document all these exemplary works and disseminate them to all relevant actors in the rural development space so that the good practices can be replicated and the objectives of the Mission can be achieved in an accelerated manner.

Realizing this need, a joint exercise was conducted with the staff of DAY-NRLM to reflect upon the best practices that have emerged and document them for wider dissemination. I am thankful to DAY-NRLM and PRADAN NSO team to facilitate this exercise at multiple levels, and for mobilising all key people on board to bring this publication. Special thanks to State Rural Livelihood Missions (SRLMs) for the constant support and involvement during the exercise.

I am hopeful that this publication will help to learn more about the best practices followed in the sector and will be used as a ready reckoner by the professionals of DAY-NRLM and the wider rural development sector in India.

S.K. Mahapatra

Saroj Mahapatra
Executive Director, PRADAN

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INTRODUCTION



National Rural Livelihoods Mission (NRLM) was launched by the Ministry of Rural Development (MoRD), Government of India in June 2011. In November 2015, the program was renamed Deendayal Antayodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM).

The mission is "To reduce poverty by enabling the poor households to access gainful self-employment and skilled wage employment opportunities, resulting in appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots institutions of the poor."

The salient features of DAY-NRLM are:

Universal Social Mobilization: At least one-woman member from each identified rural poor household, is to be brought under the Self Help Group (SHG) network in a time bound manner.

Participatory Identification of Poor (PIP): The inclusion of the target group is determined by a well-defined, transparent and equitable process of participatory identification of poor, at the level of the community.

Community Funds as Resources in Perpetuity: The institutions are provided with Revolving Fund (RF) and Community Investment Fund (CIF) as resources in perpetuity, to strengthen their institutional and financial management capacity and build their track record to attract mainstream bank finance.

Financial Inclusion: Both demand and supply sides of financial inclusion are addressed. On the demand side, financial literacy is promoted among the poor and catalytic capital is provided to the SHGs and their federations. On the supply side, the Mission coordinates with the financial sector to avail loans and other financial services to the women.

Livelihoods: The focus is on stabilizing and promoting existing livelihood portfolio of the poor through its three pillars – 'vulnerability reduction' and 'livelihoods enhancement' through deepening/enhancing and expanding existing livelihoods options and tapping new opportunities in farm and non-farm sectors; 'employment' - building skills for the job market outside; and 'enterprises' - nurturing self-employed and entrepreneurs (for micro-enterprises).

Convergence: High emphasis is given on convergence with other programmes of the MoRD and other Central Ministries. Convergence is also sought with programmes of state governments for developing synergies directly or indirectly with institutions of the poor.

Partnerships with NGOs and other CSOs: Partnerships are pursued proactively with Non-Government Organizations (NGOs) and other Civil Society Organizations (CSOs), at two levels - strategic and implementation.

Through rigorous efforts of the staff of NRLM at different levels India's DAY-NRLM has become one of the largest community mobilization efforts in the world, organizing more than 80 million poor women into over 7.4 million self-help groups – building their savings, promoting sustainable livelihoods, and above all empowering them to create their identity.

Rationale and objective of the Compendium:

Under DAY-NRLM many models get demonstrated, which give very good income to the community, and many sustainable institutions are being promoted, which are doing exemplary work for the wellbeing of their members and their families. Unfortunately, this learning does not get documented properly. That is why no replication happens. All hard work and innovations get lost in the process. So, one of our major objectives of preparing the compendium is to identify the best models/practices on the ground which has potential for scale and could impact thousands/lakhs of families, document them, and disseminate them so that others can learn from them and emulate the same in their respective working areas by making contextual changes.

This will make the development process much faster which will help more and more women and their families to come out of the vicious cycle of poverty in a shorter period. Also, a lot of good work is being done under DAY-NRLM which is not known to the outer world. Through this documentation and dissemination, the stakeholders can be informed regarding the good work being done under the program.

Additionally, as the case studies have been developed by the DAY-NRLM staff at different level with support of NSO-PRADAN, it is expected that the skills acquired by the staff during the process will help them to document experiences regularly and also they can support other staff within DAY-NRLM to document experiences to create a knowledge repository for institutions and individuals working in the field of rural livelihoods.

The case studies cover best practices of five States – Odisha, Jharkhand, Bihar, Chhattisgarh, and Madhya Pradesh. Each case has been described in detail in terms of the key problems or issues that the poor women farmers face, the idea or the model to address the issue, the interventions, result areas, emerging best practices, and the possible way forward. In each case the emerging best practices have been identified in different types of rural livelihoods such as Livestock, Agriculture, Forest Based Livelihoods, Enterprises, economic collectives such as Farmer Producer Organizations (FPOs).

PRADAN has been supporting DAY-NRLM as an NSO, as a knowledge and capacity building partner in strengthening its livelihood theme. PRADAN has worked closely with DAY-NRLM staff at national, state and district level to prepare this compendium.

METHODOLOGY



Two major objectives of preparing the DAY-NRLM best practice compendium are:

First, to identify the best models/practices on the ground which has potential for scale and could impact thousands/lakhs of families, document them, and disseminate them so that others can learn from them and emulate the same in their respective working areas by making contextual changes.

Second, to create a resource pool within the NRLM system who can document case studies within DAY-NRLM in a systematic manner and build other staff to do the same.

The following processes were followed:

Finalization of Study Framework & Criteria

A framework was developed through a series of central-level consultations with the NMMU team, respective SRLM representatives, and NSO, PRADAN team members.

The framework captured the following dimensions:

- a. Economic empowerment of women
- b. Food and Nutrition Security
- c. Ecology friendly interventions
- d. Sustainable and replicable

Under the above broad dimensions following qualifiers were used as filters for shortlisting the best practices:

Sl.No.	Qualifiers
1	Whether the intervention is running for a sustained period, at-least three cycles
2	Role of institutions, if it is happening in an institution led manner
3	Partnership with other stakeholders and convergence
4	Whether the intervention could address multi-facet needs like nutrition, ecology, gender, inclusion and income

A three-day write shop event was organized in the month of January 2022, in which approximately 89 staff members from five SRLMs – Odisha, Jharkhand, Bihar, Chhattisgarh, and Madhya Pradesh registered. Approximately, 60 staff out of this pool participated in the event. During registration, each person was facilitated to choose one topic on which he or she was supposed to develop a case study.

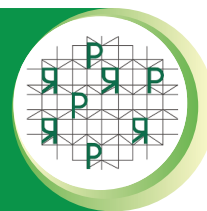
The Write shop aimed at facilitating the participants in identifying best practices starting from the basic understanding to the final editing of the best practice narratives. The participants went through various individual and group exercises wherein they were given assistance in thinking, discussing, and writing around the same. Special attention was given to 'sustainability' as an overarching theme that also happens to be the major criterion for defining best practices. A detailed orientation was given to the participants regarding the various factors that a best practice account must contain. These included the structure and format of the study, the introduction (as an opening section) and the conclusion (that reiterates the message) as two main sections in the study, the importance of real-life facts and evidence building, the tone that the study follows and the voices it may contain. Through various interactive sessions, participants were also introduced to the various mistakes that one can do while writing best practices and the importance of authenticity in writing best practices. The participants also got a chance to reflect on their own understanding of best practices and the writing process and how they would like to take it ahead. They made detailed plans on how they shall be approaching their fields and the data that they have already gathered to be able to come up with a best practice account.

Out of the 60 regular participants, 43 submitted the case study. 15 case stories out of these were shortlisted as the best practices. Feedbacks were provided to the authors of these 15 case studies for required changes and additional information. All the selected authors reworked on the case studies on the basis of the feedback received. NSO-PRADAN was closely engaged with these authors and final draft version was made ready after several iterations.

The draft case studies were presented to the NMMU team for their inputs. The case studies were further fine-tuned by incorporating the inputs from the NMMU team. One professional editor was engaged by NSO-PRADAN who worked closely with each of the authors for giving a final shape to the case studies.

The refined version was again presented to the NMMU team and with their due approval the best practice compendium has been published.

ACKNOWLEDGEMENT



Documentation of Best Practices is an important area in any development program. PRADAN, as the NSO for DAY-NRLM, has been given the responsibility to document these Best Practices in the selected five states, namely, Bihar, Jharkhand, Madhya Pradesh, Odisha, and Chhattisgarh.

It has been a collective exercise and a joint journey, in which PRADAN recognizes the valuable contributions from different stakeholders whose inputs helped to bring this compendium together.

In this spirit, we would like to thank the entire NMMU team, especially the honorable additional secretary, Mr. Charanjit Singh, and Mr. Raman Wadhwa, Deputy Director (Administration), NRLPS, for their continuous encouragement and mentoring. Sincere gratitude to Mr. Vivek Kunj, National Mission Manager, Farm Livelihoods, and Mr. Bajranga Pattnaik, Mission Manager, Farm Livelihoods for their invaluable support.

We are also thankful to the honorable mission directors of Odisha, Jharkhand, Bihar, Chattisgarh and Madhya Pradesh. Special thanks and recognition to Mr. Manoj Kumar, SPM Farm Livelihood, Jeevika, Mr. Manish Singh Pawar, SPM MPSRLM, Mr. Alice Lakra, SPM CGSRLM, Mr. Bibhu Santosh Behera, PM Agriculture, OLM, and Dr. Praveen Kumar Singh, SPM Livelihood, JSLPS for their timely support.

Appreciation also goes to Jyoti Singh, Sumita Kasana, Satish Patnaik, Souparno Chatterjee and Barsha Mishra for facilitating the writeshop and helping in accessing knowledge and experiences from different sources. We also wish to thank all the women, who have agreed to share their stories as a part of this compendium. We wish to thank the respective authors of the case-studies too, who have generously contributed their time and experience in shaping this document. We are also grateful to our editor Neha Garg, for her empathetic cooperation in the development of this compendium.

With help from all the members as mentioned above, and through our study team members' continued cooperation, this valuable document has been prepared. Special recognition and thanks to the core team members from PRADAN NSO team such as Monisha Mukherjee, Kuntal Mukherjee, Nrusingh Sutar, Sumendera Punia, Surjit Behera and Prabhat Jha, for generously sharing their knowledge and inputs throughout the report's production process and for their valuable time for coordination, framework development and successful completion of the report.

We also wish to thank our group of mentors for continuous support and guidance, especially Sahana Mishra, Sarbani Bose, Bala Devi Ningthoujam, Saroj Mohapatra, Madhu Khetan and Srihari Chity.

This compendium would not have been possible without the generous grant from Tata Trusts. We hope the compendium will be useful for development practitioners and professionals to emulate the best practices at scale.



COMPENDIUM OF BEST PRACTICES CASE STUDY

Quadrupling the Income through Backyard Poultry Rearing



By Ravindra Thakur, Block Programme Manager & Mohini Saha, Professional,
NSO PRADAN, Narharpur, Chhattisgarh

CONTEXT

Narharpur block constitutes more than 70% scheduled caste and scheduled tribe population. Most of the tribal households rear poultry ancestrally. Backyard rearing has many dimensions from a tribal perspective, from economic to cultural. However, due to the knowledge gap in shed-feed management and support systems for regular vaccination, the average herd size per family is limited to 10 birds. There has been a need to build systems to harness the optimum possible return from Backyard Poultry, not only in terms of cash but also in terms of nutrition intake for the families, as in Narharpur more than 60 per cent of the population is malnourished, especially women, adolescents, and children. Chicken meat and egg are some of the most nutritional foods in that respect.

INTERVENTION

Harnessing the opportunity, a joint effort by Bihan (SRLM), Animal Husbandry Department and NSO PRADAN was made to demonstrate two models, to establish and strengthen the backyard poultry system at the community level.

Model 1: Intensification of desi bird rearing by establishing a system of vaccination through pashu sakhis and ensuring proper feed and shed management at the household level.

Model 2: Diversifying the breeds for catering to diverse market demands and thus mitigating the risk.

The models encourage entrepreneurship by grooming the Pashu Sakhis as vaccinators, as well as ensure proper care for the birds via different ethno-vet practices. Various inter-department linkages were also made, where 45 chicks were distributed per household under a subsidized scheme. Random identification of the households for distributing the birds was replaced by planned identification, which led to efficiency and effectiveness. Also, linkages for training and technical know-how were made with the departments for promoting shed management, including proper ventilation, littering and lime application.

"2019 se ghar me maine Kadaknath palan shuru kiya, 2020 se gothan me humne murgi palan karna shuru kiya jisme hume pashu vibhaag se murgi mila or humne bhi 100 Kadaknath chuza kharida, PRADAN or Bihan se prashikshan mila, maine pehli bar 250-300 murgi ka palan kiya aur 70,000 rupay tak murgi becha, hum har hafte ghar me ab murgi or anda khate hai, or humne rajyaostva me bhi bhaag liya, Shishupal Shori (MLA) or anya logo ke aage pradarshi kar hume bahut khushi hua. Murgi palan ne hume alag pehchan diya. Aaj humne humhare ghar me bhi murgi shed banaya hai taki or murgi palan kar sake." (I started rearing Kadaknath at home in 2019; in 2020, we started rearing chickens in the cowshed, and we received chickens from the animal and husbandry department along with the 100 Kadaknath chicks we bought for ourselves. We received training from Pradan and Bihan, and this was my first time rearing 250-300 chickens, and I earned 70,000 rupees from the chickens I sold, now, we have eggs and chickens every week at home, and we have participated in the state-level competition as well, were competing with MLA Shishupal Shori, along with others, was a great source of joy for us. Rearing chickens allowed us to redefine our



identities. Today, we have chicken coops in our own house, so we can continue rearing more chickens), say Geeta Salam and Indira from Rajpur village.

“Main pichhle do saal se pashu sakhi ka kaam karti hu, mujhe Bihan or PRADAN ke didi bhaiya ne prashikshan diya, main tika kharid ke lati hu or aaspas ke gaon ke murgiyon me 2 rupay leke tika lagati hu. Sab mujhe ab tikakarmi ke roop se pehchante hai.” (I've been working as a pashu sakhi for the past two years, I've been trained by the professionals from BIHAN and PRADAN; I purchase the vaccine and then vaccinate poultry birds in the neighbouring villages at an affordable rate. Everyone knows me as a Vaccinator), says Godavari Mandavi, a pashu sakhi from Shriguhan.

Like Godavari, there are 80 pashu sakhis from 80 villages, conceptually and technically trained for supporting families in strengthening the backyard poultry rearing in the block. An ecosystem has been created wherein families are linked with pashu sakhis to avail services such as vaccinations, medications and training on different improved practices. Pashu sakhi links families with the animal husbandry department for accessing various schemes and markets for sale. Capacity building and knowledge building of community members and self-help groups are the most crucial approach, along with backward and forward linkages and availing services at the village level. Bihan and PRADAN, along with the department, support availing the vaccines and ensuring cold chain through freezer and vaccine boxes. In the entrepreneurship model, the Pashu Sakhi purchases vaccines and charges the families for their door-to-door services and none of the vaccines cost more than 10 rupees per bird. For record-keeping farmers' passbook has been introduced and the following table depicts the profit of a vaccinator for vaccinating 1000 birds:

Vaccine Name	Cost of vaccine (100 dosage)	Cost for 1000 birds	Vaccination charges per bird	Vaccination charges for 1000 birds	Profit (Single time)	Cycle in a year	Profit in a Year
Lasota (Thermostable)	65	650	2	2000	1350	4	5400
Fowl Pox	50	500	2	2000	1500	2	3000
R2B	85	850	2	2000	1150	2	2300
Dewormer	20	200	1	1000	800	6	4800
Total							15500

Assumption: Minimum of 1000 birds will be vaccinated by a vaccinator in a village in a period of 5 days per cycle. Profit will increase with scale and range of services like AI, medicines, feed etc.

The second model of intervention has an intensive process, wherein different varieties of birds are introduced for quick growth, high egg-laying capacity, and to cater to the market demands. Under this model, initially, market exploration around the chicks' availability is carried out at the team level, and then a kit is prepared at the current market rate. The kit includes 20 chicks, feed for a week, bulbs and antibiotics. Selection of rearers is done through SHG level planning and capacity building processes and community contribution is raised. Preparedness for rearing the birds is ensured at family level, and facilities such as drinker, feeder, jaggery water, feed, deep litter, temperature control and ventilation are ensured. Post that, collective procurement of chicks is done by CLF with support of PRADAN and Bihan and inputs are distributed to individual families through pashu sakhis. Post distribution, regular follow ups, monitoring, training, and service delivery is done through trained pashu sakhi/vaccinators. At the time of sale, more than 70 percent of the produce gets consumed in the local market, sold directly by farmers, and the remaining produce gets sold through joint effort of PRADAN, Bihan and Animal Husbandry Department by market explorations.

IMPACT

In the last two years, pashu sakhis have been able to reach 4800 families under this model. *Kadaknath* is a highly demanded desi breed, extraordinarily rich in nutrients, laying up to 150 eggs in a year. Different breeds have different qualities, and rearing different birds reduces market risk and ensures sales throughout the year as rolling improves. In association with KVK and the animal husbandry department, 480 families are engaged in *Kadaknath* rearing. Collective based planning is the process through which community investment is raised and a kit is designed which includes all the services such as chicks, vaccine — new castle, fowl pox, worm, mineral mixture, vitamin tonic, antibiotics, bulb, and feed. Collective procurement is done to purchase these chicks from either KVK, or private vendors and its best practices are ensured through the pashu Sakhi model.

While the 550 farmers who are engaged in the intervention had never earned more than ₹4000-5000 annually from the poultry rearing business earlier, they now earn an average of ₹20000-25000 very easily, annually. Also, the practice has meant improved status for the women of the village, as they now have cash in their hands. There is also recognition and appreciation of their efforts, from the department. Moreover, there have been practice-level changes, in caring for the birds, feeding, vaccinating, treating and overall rearing.



For the replicability and sustainability of the model, there is an understood need and foundational planning to make an institution like an FPO, which will ensure wide reach to up to 15000 families in the region. Additionally, if the CLF takes charge and monitors the Pashu Sakhi model, the initiative can be self-sustainable.

SPOTLIGHT

"Pehle to hum tabhi murgi pakate the jab mehman aate the, aur kabhi-kabhi zarurat ke samay 1-2 murgi bechte they – aaj main mahine me 2-3 bar khaati hoon aur saal bhar me 15,000-20,000 ka bechti hoon." (Earlier, we only used to eat chicken when we entertained guests, and sometimes even had to sell 1-2 chickens when we needed the money – today, I have chicken at least 2-3 times a month, and even earn 15,000-20,000 rupees from selling chickens every month.)

– Hemlata Kashyap, Rajpur, Masulpani

Hemlata is a single landless woman living with her mother in *Rajpur* village of *Narharpur* block, *Kanker* district. She has been associated with Bihan and PRADAN for the last 9 years and has contributed significantly to the empowerment of women and development of her village. She earns her livelihood from agriculture labour on a half-acre of land which her brother shares with her and backyard poultry. During the journey, she has received numerous training on poultry bird rearing and vaccination. Two years back, she was very keen to rear Kadaknath breed in her backyard, because of its egg-laying capacity and comparatively fair value in the market. In two years, she has reared 150 Kadaknath chicks along with desi birds. She ensured proper shed management and vaccination supported by groomed pashu sakhis. Though she lost some birds due to wild predators, she earned 15000 rupees from the sale of Kadaknath. In addition, the family consumed more than 500 Kadaknath eggs.

"Pichle saal main 20 Kadaknath ke chiya rakhe rahehu. Ola bech ke mai apna bar chandi ke kamarbandh kharide hu. Mola aas khush lagis kabar ki mai bahut saal baad apan bar ghena kharide hu." (Last year I reared 20 Kadaknath chicks and bought silver jewellery for myself from the return after the sale. I felt so happy as I bought some jewellery for myself after a long, long time.) says a 50-year old woman farmer, a part of the intervention, Kumari Bai Mandavi from Devgaon.



Chicks Hardening Center: Enhancing Rural Economy



By Rahul Maurya, Technical Support Officer, Khunti, Jharkhand

CONTEXT

The performance of livestock sector in Jharkhand has not been optimum, due to the lack of critical inputs and services, and poor linkages with the markets. The small size of land holding with low production potential, high forest coverage and low availability of pastures also limit the scope for growing green fodder on agricultural holdings. Hence, the animals depend on common property resources which are not systematically managed and the quality of feed and fodder from common lands is also inferior. The livestock sector contributes 27% of the value of output from agriculture and its allied activities.

In Jharkhand, poultry is a traditional occupation of farmers. Most of the farmers rear local breeds of poultry. However, due to the lack of management and good genetic quality of the birds, they do not get a good return.

The newly created Khunti district, earlier a subdivision of Ranchi district, has 6 blocks and is 40 Km south from the state capital, Ranchi. As per 2011 census, 91.54 % population of Khunti district lives in the rural areas of villages. The total population of Khunti is 486,903 of which males & females are 243,494 & 243,409 respectively. Majority of the population is tribal in the Khunti sub-division, and they are dependent on agriculture and forests for their livelihood. Lack of food security from the land has compelled many tribal families to migrate out of their villages. This is even though the existing landholdings can provide stable livelihoods to the tribal families. Lack of land development, irrigation, credit, know-how for improved agriculture, access to market etc. act as serious constraints leading to a large number of impoverished tribal families

Khunti District has a high demand for meat, but the production is low. Similarly, there is a good demand for eggs, but the production is negligible. Most of the birds and eggs for consumption are imported from neighbouring districts. To increase the meat and egg production in Jharkhand, the need is to introduce improved bird varieties that can provide superior quality and quantity of meat and eggs.

The farmers of the village could not easily get poultry chicks, and the available chicks had extremely high mortality rates. Additionally, the farmers did not even vaccinate their chicks, due to which they did not get many benefits in raising poultry. However, since the opening of the Hardening Center through the intervention of ASK, the chicks and ducklings are available to the farmers at appropriate costs. Vaccination facilities are also available in the hardening centre. The farmers are getting more profits with reduced rates of chicks mortality.

INTERVENTION

To cater to the need for sourcing good quality chicks and ducklings, JSLPS has established 3 brooding centres in the Khunti Sadar block. During the brooding period, major emphasis is given to maintaining the

chicks' temperature, feed quality, and water requirement. The care so provided reduces initial mortality in the chicks and boosts their growth in the control environment. The centres address the problem of unavailability of quality chicks, high mortality, and the problem of transportation of chicks. Earlier, while farmers used to rear chicks, the lack of proper caring measures meant the loss of profits for the farmers. However, the hardening centres now take care of the demand in the entire district. Here, the chicks are brought in at day-zero, and are kept till 15-21 days under a controlled environment with proper medical care and vaccinations, which ensures reduced mortality. Once the chicks weigh 200-250 grams, only then are they distributed among the farmers for rearing. The cost of the chicks from the hardening centres (₹75/chick) is also much less than those from the market (₹100/chick).

In most cases, Aajeevika Sansadhan Kendras are engaged in the running of hardening centres. Aajeevika Sansadhan Kendras are promoted under NRLM and are adopting this model as a business of their group.

One of the hardening centres was established by Ujjwal Aajeevika Sansadhan Kendra in village Gutjora, Block Khunti Sadar, District Khunti, the initial investment for which was ₹96,000, for purchasing chicks, feed, medicines, and other expenditure. The ASK purchased 2000 chicks of the Sonali breed that were reared in the hardening centre for 21 days. After completion of 3 vaccinations, viz., F1, IBD and Lasota, the ASK sold the chicks to 144 women farmers for further rearing. During the brooding, the ASK provides better feed and medication for faster growth of the chicks.

After placement of chicks with various women of SHGs, the ASK organizes a meeting of Aajeevika Pashu Sakhis (APS) in nearest villages. They discuss with them their requirements and request them to bring orders from women farmers. For collecting orders, the APS is paid a commission of 5 rupees per bird by the hardening centre. The APSs conduct meetings in different villages and collect the order for the brooding of chicks and supply the chicks to the farmers.

IMPACT

For the 21-day intervention cycle (April 2019 – May 2019), it was observed that the ASK had earned ₹1,18,650 as gross profit. After deduction of expenditure, the net profit came to ₹22,650.



In the hardening centres of the Sadar block from April 2019 to December 2021, almost 19,150 birds have been brooded and approximately 650 families have been involved in the process. The pashu sakhis played a significant role in expanding the business. This initiative is not just aimed at enhancing the income of the rural families but also increasing their nutritional intake.

While the mortality rate used to be 40-45% before the intervention, it came down drastically to 10-15% now with the coming up of hardening centres. Most of the farmers buy chicks in small quantities (100 birds), which translates to an average profit of ₹3000-3500.

Increasingly, the capacity of the hardening centres is being enhanced. The centres are also planning to keep the chicks longer than the 15-21 duration so that they can be reared for meat purposes, and to showcase the difference between the rearing by farmers and rearing by ASK.

The validation of the model's success also comes from the fact that while the first centre was started with a loan from the local SHG, funds have now been allocated by the administration at 1.5 lakhs per centre for its sustainability. Work on the hardening centres has been started in all the districts of the state, on the lines of the Khunti example.

SPOTLIGHT

Sakhi Mandals are becoming a bridge in catering to livelihood activities across the village and their respective clusters. Through skilling and capacity building, rural folks are being boosted towards self-sustainability. This is the story of one such Sakhi Mandal member who has eventually transformed herself through training and strategic implementation of learnings.

Neelu Praveen a member of Khushi Aajeevika Sakhi Mandal hails from Ondra village of Bhandra Panchayat, Khunti Sadar Block. A daily wage labourer was her identity, with daily earnings she used to nourish her children. She barely managed to have her bread and butter. Neelu, with the able support of the National Rural Livelihood Mission Program and Jharkhand State Livelihood Promotion Society, got associated with the Sakhi Mandal and transformed herself into Aajeevika Pashu Sakhi (APS) from a daily wage labourer. She was first oriented with the technicalities of keeping small ruminants (Chicks, Ducklings and Goat). Till date, Neelu Praveen has catered to 5 batches of ruminants through hardening centres. Hardening Centre is a place where ducklings and cheeks are nurtured from 0 days to 15 days to provide fresh and healthy lot ruminants to the marginalised farmers. This helps the farmer to increase their income and minimise their loss by low mortality rate. The brief data of her batch is as follows:

Serial No.	Date	Particulars/ Variety	Quantity	Income	Expense	Net Income
1	20/04/21	Ducklings (Indian Runner)	500	35,925	24,000	11,925
2	12/11/20	Ducklings (Indian Runner)	500	34,500	18,800	15,700
3	24/04/21	Ducklings (Indian Runner)	500	22,500	17,600	4,900
4	20/06/21	Chicks (Kroiler)	500	30,000	21,300	8,700
5	17/03/22	Chicks (Sonali)	2000	1,03,250	82,500	20,750
Total			4,000	2,50,425/-	1,64,200/-	61,975/-



In the past one and a half years, Neelu has been serving the villagers to avail doorstep facilities for small ruminants. Moreover, she has supplied more than 4000 healthy ruminants to marginalised farmers and earned a net income of ₹61,975 from the hardening centre and approximately ₹25,000 from the work of Aajeevika Pashu Sakhi. She has also benefitted herself from loans availed through SHG and VO channels.

Organic Farming through Micro-drip Irrigation

By Kuldeep Gupta, Technical Support Officer, Ranchi, Jharkhand

CONTEXT

A breakthrough in the history of Indian agriculture was witnessed in the mid-1960s, where high-yielding varieties programme (HYVP), popularly known as Green Revolution, was put into practice to overcome the chronic shortage of food grains in India. The HYV programme was a package where other than better quality of seeds, regular and adequate irrigation facilities, use of fertilizers, insecticides and pesticides was encouraged.

With the adoption of this programme, there was an increase in agriculture yield and India attained self-reliance in food production. With the enhancement of food production, many problems like loss in soil fertility, water table decline, marginal land or forests decline, health issues of animals and humans, and pollution in environment etc. have surfaced. To overcome these problems, farmers are going back to chemical free farming (organic farming). Organic farming is not a recent phenomenon in India. In ancient literature such as Rig Veda, the use of animal dung as manure was highly emphasized. Approximately two-thirds of a million of the farmer populations in India are cultivating organically, but this is a tiny portion of the farming community, as there are a few states that have not done much development in organic farming like Jharkhand. Approximately 0.08% of Jharkhand's cultivatable land is being promoted to be free from chemical fertilizers and pesticides. Out of the net cultivated area of 31 lakh hectare (ha), only 26,310 ha is the area where organic cultivation is promoted. When we compare it with states like Sikkim and Meghalaya, which are certified organic states, we get the real picture of farmers who are lagging. Lack of certification, lengthy procedure and low production initially are some of the reasons because of which farmers do not go for organic agriculture.



In Jharkhand, most of the farmers are marginal, with extremely low land area. Categorically, there are three types of organic farmers. The first one includes those who come from no/low input zones, where organic farming is a tradition owing to the absence of the resources needed for conventional high input in intensive agriculture. The second category includes farmers who have adopted organic farming in recent times due to adverse effects of conventional farming like depletion in soil health, contamination of food with different chemicals and poor level of production. In the third category are the farmers and firms who are producing the organic crops for commercial purposes in a planned manner. Their mere motive is to earn a profit by producing organically.

Most of the villages in Ranchi District were spending a lot of money to buy chemical fertilizers for their crops, but the output was not enough.

For the ultra-poor farmers, input required were difficult to procure, owing to their financial status. Seeing an opportunity for promoting organic means of agriculture, the farmers were encouraged to not use chemical input, but go for organic input instead.

INTERVENTION

In the state, Jharkhand State Livelihood Promotion Society/Jharkhand State Rural Livelihood Mission (JSLPS/JHSRLM) is working for promotion of organic farming by following the guidelines of National Rural Livelihood Mission (NRLM). JSLPS is also working on the certification of farming field on PGS portal all over the Jharkhand.

In Ranchi District there are total 18 blocks, in which JSLPS developed Livelihood CRP, these livelihood CRPs got training for organic farming. Besides these CRPs, every village has at least one Aajeevika Krishi Sakhi who gives training of organic farming to the farmers and starts the process for the organic certification. In Ranchi, total 150 Aajeevika Krishi Sakhi of 5 blocks namely, Nagri, Ormanjhi, Burmu, Bedo and Mandar got stepwise training through JSLPS on Community Managed Sustainable Agriculture (CMSA). These cadres trained the farmers for organic cultivation. In these training farmers were trained for the preparation of organic fertilizers like NADEP, Ghanjeevamrit, Dravjeevamrit, Organic Insecticides and pesticides like Neemastra, Bhramastra, Ahniastra, Fish tonic, Khatta mattha ghol etc. Also they were trained on pheromone trap, light trap. Neela and peela plate etc. CRPs has done registration of 97 farmers under organic cultivation in MDI plot. (Ormanjhi-27, Nagri-24, Bedo-19, Burmu-14, and Mandar-13). In these blocks NPM shop (selling organic fertilizers, organic insecticides, and pesticides) has been opened with the support of JSLPS. Farmers who are not able to make the organic inputs buy the fertilizers, insecticides, and pesticides from these NPM shops.

97 farmers of these five blocks are cultivating through adoption of organic agriculture practices by installing micro drip irrigation system on their plots having area of 24.25 acre, they are also using poly nursery house and vermicompost unit.

IMPACT

Now that the farmers have switched to organic farming with micro drip irrigation (MDI), they are not only saving a lot of money that earlier had to be spent on expensive chemical fertilizers, but have also been getting bumper harvests. Initially, people used to do flood irrigation, but now, with training a minimum interplant distance is maintained and the MDI system gets water to the roots of water. It ensures optimum production with optimum utilization of water. 70-75% water wastage in flood irrigation. Earlier these farmers grew only paddy during kharif season but now they are growing seasonal fruits and vegetables in all the three seasons. Farmers are getting exceptionally good yield in these MDI plots by producing the crops organically in the groups by forming Local Groups (LGs). There is an 1.5 times increase in yield.

While earlier, Garden pea was harvested 4 times during the season, it is now harvested 7-8 times, and if staking is used, the harvest goes up to 12-13 times. The farmers were earning around ₹30000 annually, they are now earning ₹45000 easily.

Nearby farmers have also been attracted and have started following this combine system of organic cultivation in MDI plots. The interest in organic farming in MDI plots is increasing among the farmers as the present conventional method of farming has degraded enough of the natural resources. The awareness among the producers and the consumer is increasing with fast rate. Another benefit which Jharkhand can reap is that as organic farming with MDI is labour intensive mechanism and in Jharkhand, where labour is abundant and cheap, we could exploit this opportunity for the betterment in organic farming. The system could generate good wage opportunities for the agricultural labour, as the male members of the fraternity would not have to migrate in search of job opportunities elsewhere. "Currently, most of the organic farmers in Jharkhand are still in the transition phase and hence their costs are still high. As these farmers continue with organic farming, the production costs are expected to reduce, making Jharkhand as one of the most important producers of organic food." Farmers can enjoy several other benefits by adopting organic farming. Organic farming does show a positive attitude towards the farming community as earlier a farmer's son would never want to be a farmer, but with the increase in the demand for organic products, they have opportunities and thus, reasons to not migrate and to stay in villages. Secondly, helping in food security not only quantity-wise, but also quality-wise, the food produced through organic agriculture practices with MDI are of ambitious standards. Conservation of natural resources being one of the principles of organic farming, it helps in maintaining the soil fertility, prevention of soil erosion and tackles other ecological problems. Any farmer who is cultivating this knows about the economic aspect of the production and if he/she will get the profit, economically as well as ecologically, then the farmer will continue to grow organically, which will not only increase livelihood opportunities but also get the farmers a better price for their products.

Some farmers are expanding this in convergence with PMKSY, using organic agriculture with the MDI system on 25 decimil land, they are taking land on lease to expand their operations.





SPOTLIGHT

Lila Devi, resident of Tikratoli village of Nagri block, Naro panchayat of Ranchi district is earning a good income by cultivating vegetables through drip irrigation under the J-HIMDI project. In June 2016, she learnt of the self-help group run by the women of the village and in October 2016 she joined the group as a member of the Shiv Shankar Mahila Mandal. On 22 March 2020 Lila Devi joined the J-HIMDI project and in June 2020 she installed the drip irrigation unit under this project and has now grown a crop four times more through drip irrigation and has earned a good income by cultivating vegetables through organic farming, becoming an example of an efficient and successful farmer for the people of the whole village. After joining the J-HIMDI project, not only did she pull her family out of adverse circumstances, but she also started supporting the family well through self-employment. Drip Irrigation Unit, Poly Nursery House and Vermicompost Unit have been installed for Lila Devi under the J-HIMDI project and she has been utilizing them efficiently. Lila Devi earned a total profit of ₹6400 by cultivating and selling tomatoes through these techniques. The total profit during the four seasons and all the crops was ₹65700/-, a sharp increase from her earlier earnings.

Details of the crops grown and sold by farmer Lila Devi by micro drip irrigation and organic method and her resulting income from the same: -

S. No.	Year	Season	Name of Crop	Varieties	Total Investment (₹)	Income (₹)	Net Income (₹)
1	2020	Kharif	Tomato	Rohiot 2	20000	26400	6400
2	2020	Rabi	Cabbage	Millenium 111 (Singenta)	5000	25300	20300
3	2021	Zaid	Kheera	Malini	3000	14400	11400
4	2021	Kharif	Lady finger	Kranti (VNR)	3200	17600	14400
5	2021	Rabi	Garden pea	GS 10	2800	16000	13200
6	2022	Zaid	Beans and Watermelon	Falguni and Kiran-2			
					34000	99700	65700

Women Farmers as the Leading Economic Actors: A Case-study on Chirayu FPC

By Manish Panwar, SPM, MPSRLM & Santa Nivedita, Professional, NSO Pradan, Betul, Madhya Pradesh

CONTEXT

The prevalent image of a farmer in our society is overwhelmingly male even though more than 70% of farming and allied operations are done by women. This male-tinted imagination of a farmer has a strong material base as well as deep cultural moorings. Lack of effective and formal ownership of resources and productive assets coupled with the gendered division of roles usually hold back women from claiming equal space in the realm of economic activities, accessing different institutions such as market and formal financial institutions and, eventually from realizing the full potential of their creative mind and labour. Additionally, small-holder farming in tribal communities of Central India, in this context, has its own challenges of low productivity and poor market connections.

Agriculture is the primary source of occupation for most rural households. There is low farm productivity due to undulating topography, poor agronomic practices, and poor irrigation systems. With an average landholding ranging from 2 to 4 hectares, the average annual household income from agriculture is ₹30000-40000.

Maize is the major rain-fed crop in this region. Even though there exists a huge scope for improving maize productivity, particularly for small farms to impact family income, the productivity of maize is marred by a set of inter-connected issues. Lack of control over-irrigation and improper crop management practices often led to low productivity of hybrid maize. Rain-fed crop bears a high risk from uncertain monsoon and





there is an acute lack of a suitable crop insurance program. Access of small farmers to regulated markets, and lack of marketing and storage infrastructures often lead to lower price realization particularly from November to January, when the market observes maximum arrival of produce. Hybrid maize being a heavy feeder tends to exhaust soil nutrients and at the same time, poor quality of soil (low organic carbon content) further escalates the issue of soil fertility.

INTERVENTION

Women governed Farmer Producer Companies (FPCs) are an institutional model of putting women first, in terms of formally owning an agri-enterprise, which provides exclusive rights to its owners for accessing the fair market, financial resources, knowledge, and larger ecosystem support. The foundation of the FPC was laid by the members of the NMS (Narmada Mahila Sangh), a federated body of marginalized women farmers in Betul district, Bhaura panchayat, whose focus was to work on the issues of livelihood and enforce an identity for women as farmers. SFAC and SRLM offers support such as working capital, marketing infrastructure support etc., engagement with the federation – capacity building, credit support from SRLM funds. The FPCs were formed with the belief that collectivization of small producers can tap larger markets and have better bargaining power to quality inputs and financial supports. Betul and Hoshangabad district predominantly consist of tribal population who are dependent upon rain fed based agriculture. The farmers are marginal and have fragmented lands who have shifted from cultivation of soybean to hybrid maize in the last decade owing to change in the weather pattern. Due to soil quality, lack of awareness around best farming practices and lack of money for investment on high quality seeds, the area has witnessed low productivity and farming is mostly done for subsistence purposes. Therefore, it was important to aggregate farmers into producer groups so that they can take advantage of their collective strength to access timely inputs, on-field technical support and market linkage to be able to take up commercial maize production.

The company consists of Member Farmers, some of whom are shareholders, Board of Directors (BODs), Representatives of Governing Board (RGBs), Ajeevika Mitras (AMs) and the Chief Executive Officer (CEO). The BODs are selected from within the RGBs of the FPC. Every RGB is representative of a village in which the company operates. The CEO is selected independently and is not a shareholder of the FPC. The BODs and RGBs' decisions are final and binding on the CEO. The AMs act as input and technical service providers in the villages and report to the CEO and the RGB. They, along with the CEO are the employees of the FPO. The members of the FPC are also the members of the SRLM supported SHGs. Mobilization of credit for maize procurement and marketing, procurement of agricultural commodities at MSP, and maize seed production are the activities undertaken in this endeavor.



IMPACT

With the help of banks and the State Rural Livelihood Mission (SRLM), credit has also been leveraged in the past. To support Chirayu in establishing its operations, a grant of 25 lakh rupees had been bestowed by SRLM for working capital and marketing infrastructure. Around 250 farmers have been supported the same and an amount of Rs 25,00,000 has been mobilized in the last season.

Around 1400 tons of wheat at 19.75 rupees/kg and 288.5 tons of gram at 51 rupees/kg were procured from the farmers. In 2020, Chirayu has been granted licenses to procure wheat and gram at MSPs. This has not only saved the farmers' time and transportation costs but also has enabled the FPCs to enter new avenues apart from input supply and maize procurement. Earlier number of aggregation centres used to be very less usually run by the government and farmers would have to travel far and spend at least two days of their time selling their produce. Due to reliable performance, Chirayu had been granted the license to procure paddy in November. 1100 tons of paddy have been procured so far.

SPOTLIGHT

Laxmi Bai: When Sky is the Limit

Laxmi Bai is a resident of Raipur village. Agriculture is the main source of her family's income. Maize, Paddy, and Wheat are the major crops. PRADAN started its engagement in Raipur in the year 2000 by forming SHG with the purpose of promoting saving and credits. Later her Santoshi SHG was registered under SRLM Shahpur. Immediately her SHG was given access to revolving fund (RF). As she helped mobilize more SHGs to register under SRLM, a village level organization was formed in Raipur. The immediate concerns were identified and addressed with the help of farmers as well as representatives of SRLM Shahpur. Since Laxmi Bai had been associated with Narmada Krishi Sangh before it formalized into Chirayu Farmer Producer Company, she was introduced to Package of Practices of maize and wheat by community resource persons. Various critical interventions such as application of basal dose, timely fertilizer input and pest management was ensured through handholding support.

As Laxmi Bai ensured them in her own field, she also encouraged other farmers in her village to link with Chirayu FPC for timely input support and assured market linkage. "Kam se kam 3 se 4 quintal ka fark

dikhta hai jab hum boni se pehle adhar khad daalte hain. Ab toh mein har saal potash ka prayog karti hoon. Ek baar boni se pehle aur dusra chavar aane ke samay.” (We can observe a difference of at least 3-4 quintals in yield when adhar manure is added to the field before beginning the process. Now, I use potash every year. Once before beginning the process and once when saplings start emerging.) As she linked more farmers to Chirayu, the company provided credit linkage where a standard package had been designed for everyone and potash was a crucial input of it.

Recently she has also taken up the role of Krishi Sakhi, a village level agricultural resource person chosen by the community for her immense contribution to bringing new opportunities for other women farmers especially improvement in farming techniques and enhancing digital literacy.

Sushila Bai: From a Defunct Village to a Potential Model Village

Dendupura village is in Shahpur block of Betul district. Due to a certain incident in the past, the family members of the earlier formed SHGs decided to not associate themselves with any developmental organization and thus disintegrated the collectives. Many a times, resource persons of the Narmada Mahila Sangh federation and development professionals had tried to approach the community but in vain. However, the women had expressed their interest in forming collectives at different points of time, but the male members were adamant in their decision. Simultaneously in other villages, many movements were being seen. A meeting was organized in the village where everyone was invited. A few women mentioned the old incident and quoted, “Jab purana baat bhulayenge nahi toh aage kaise badhenge. Ek haadse ke wajah se pura gaon piche choota hai.” (Unless we let go of our old, sour memories, how can we proceed further? A single unfortunate incident has caused the entire village to lag developmentally.) Subsequent meetings were conducted to mobilize all the women and gain an understanding of what they wanted. In the end, only one new collective was formed. Sushila Bai was one of them.

She was one of the first women to come forward when everyone else was showing resistance. Being highly optimistic and inquisitive, she had gone around her adjacent households mobilizing members for SHG formation. As the three collectives formed their own village organizations after being persuaded by Sushila Bai, Kharif season was around the corner. Sushila Bai happily volunteered to be the Krishi Sakhi, a village level agricultural resource person. Eventually many farmer’s fears were laid to rest as Sushila Bai’s plot helped them make a choice to sow AAA on their field. “Mehnat aur cheezon ko sahi karenge toh phal ka natija ka sochne ka darr bhi khatam ho jaata hai”. (Once we start working hard and getting things in order, we won’t even have to worry about the results of our endeavors.) This was her fearless attitude as she was always at the forefront of facing the new and unknown with a smile on her face. 25 farmers were mobilized by her for maize input linkage where she was responsible for providing maize seeds, fertilizers, and pesticides from Chirayu FPC. Due to her efforts, she has been recognized by her fellow SHG members as a trailblazing leader fighting for the rights of other bails and opening new avenues for them to walk on.

Making Heads Turn with their Processing Journey



By Rajkumar Jatav, District Manager – Agriculture, Jabalpur, Madhya Pradesh

CONTEXT

Jabalpur is a city in the state of Madhya Pradesh, with surrounding areas including Haveli, a highly fertile, wheat-growing area at the western end of the Narmada River valley. Rice, peas, gram, and oilseeds are other important crops in the surrounding areas. Under the national One District One Product scheme, the district has chosen pea as its produce. The scheme adopts the One District One Product (ODOP) approach to reap the benefit of scale in terms of procurement of inputs, availing common services and marketing of products. ODOP for the scheme will provide the framework for value chain development and alignment of support infrastructure. There may be more than one cluster of ODOP products in one district. There may be a cluster of ODOP products consisting of more than one adjacent district in a State.

The production area of green peas in Madhya Pradesh is 0.543 million hectares, and the production is 5430 tons. In Jabalpur, peas are grown on 1240 hectares. The mature seeds are separated into whole or lentils and used in different ways. Only about 5% of peas sold worldwide are fresh; the rest are sold either frozen or canned or dried. Frozen peas are convenient and easy to use without the peel, and can be stored as fresh, and at the same time, they are no more expensive than fresh peas.

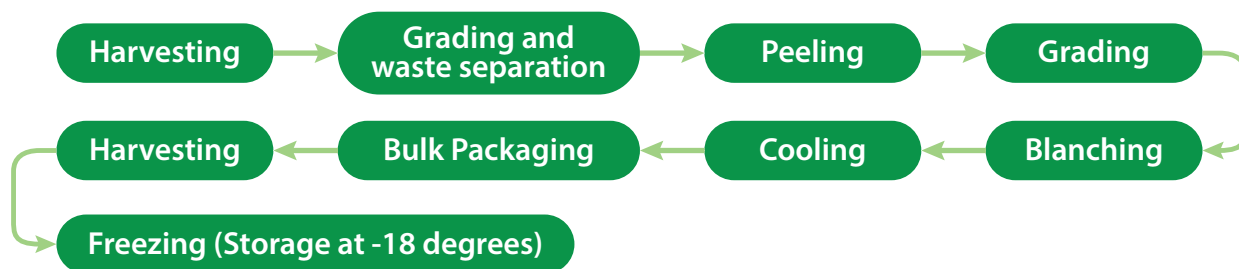
A great source of protein, vitamins, minerals, and soluble fibre, green peas are delicious and nutritious vegetables. They can be cooked and prepared in myriad ways, adding flavour to many dishes. They make an excellent flavoring for items like salads, stews, pies, pasta, and omelettes. Fresh peas are available only in the winter season but are generally needed in all seasons. Also, their harvest is limited to a few states. This gap between demand and supply can be managed by the frozen peas available in the Indian market.

Preparing women for a new activity by gathering on one platform, lack of technical knowledge, financial support, lack of experience in women, and continuous execution of activities at a sustainable level were some of the challenges to pea production.

INTERVENTION

Peas are produced in about 1240 hectares in different villages of Jabalpur district only in the Kharif season to be used as green peas. It is a perishable crop used throughout the year. 105 didis of the Patan development block of the district took the initiative to prepare frozen peas.

Process Followed:



Meetings were held at the block-level, with the SHG members, to adopt this program under the cluster-based activity. After discussions with the group members, 15 women from each group were added to the roster, with a total of 105 women from 7 producer groups who would work on the project. These women were trained with the help of Krishi Vigyan Kendra, Jabalpur. Fifteenth finance commission provided 20 freezers with convergence with the local leaders; CLF corpus fund helps in the procurement of raw material. The current location facility has been provided by the block administration to process and package the produce.

Market linkages have made it possible for the off-season produce to be sold at the best price of ₹100/kg. The best quality seeds for the production cycle were procured from UP. Today, frozen peas are being prepared and sold by women farmers in the local market under the brand name 'Jabalpur Frozen Peas', packaged usually in 0.25-1 kg or 2 kg volume for the local market, which can be preserved for up to a year. On the packaging label, data like weight, price, and expiry date are properly mentioned. For quality control, the product samples are sent to the KVK labs, and the FSSAI registration has also been completed.

This intervention has created a lasting change in the production and sale ecosystem for the pea farmers in Jabalpur, as traditionally the farmers used to sell the produce at differing rates throughout the season, ranging from ₹100/kg to as low as ₹5/kg. But with this intervention, approximately 30-40% of the total produce is coming for processing, and the farmers are getting fixed rates for their produce. Soon, the plan is to fix a margin-sharing scheme for the farmers too.





The task of convincing farmers to get associated with this initiative was not tough once the benefits were clearly explained to them. It was told to them that there will be no hindrances for them to sell the produce in the local markets, should they choose to do so. With the option to have their products sold across the year at attractive and competitive prices, the women farmers of Jabalpur got easily convinced to adopt this model.

IMPACT

About 35 Women Farmers are actively engaged in the activity, in the first cycle, which started in November 2021. The training was held through the month of December, post which the processed and frozen pea is being sold in the local markets. Today, each woman farmer is getting a benefit of 15,000-20,000 rupees, due to which an unprecedented change has begun in their lives. The plan is to take this initiative to more than 250 women farmers in Jabalpur by the second cycle, by which the initiative will also be self-sustainable.

SPOTLIGHT

Ms. Ramkumari Ahirwar - PG members and Udyog Sakhi Ramkumari Ahirwar from Matrbhoomi PG village Rampur stated that due to the formation of PGs farmers are now able to sell their produce at a fair price directly to Producer Groups. She shares that along with other didis they can now add more value to their crop of Green Gram (Moong), Pigeon Pea (Tuar) and ChickPea (Chana) by processing them. She claimed around 60 to 70 quintals of the processed pulse is available per month on each mill. Procurement by PGs itself saves them from intermediaries and agents. Processing work has not only equipped them more with understanding the dynamics of margins of the crop at various levels but also to negotiate directly with the market actors

Just Do It: An Entrepreneurship Story

By Anurag Mishra, DPM, Dhamtari, and Dipti Ranjan Bal, State Resource Person,
NSO PRADAN, Chhattisgarh

CONTEXT

In Hathbandh, there are approximately 310 households. Farming and livestock are the two major sources of livelihood in the village. The majority comprises of small and marginal farmers. Due to the small size of land per individual family, the villagers focus majorly on inorganic practices which include drastic application of chemical fertilizer and pesticides. Maximum farmers are dependent on rainfed agriculture. Major crop of Kharif is paddy. Due to geographical vicinity of Hathbandh to Raipur, chemical fertilizer and pesticides are easily available and accessible to the farmers. In contrast, due to the unavailability of organic manure, organic repellents and traditional seeds in readily available packets, business of inorganic products is booming.

Thanendra Sahu of Hathbandh is in his early 20s, and is endeavouring to establish organic farming in an entrepreneurship mode with his family. He has not only gained experience but has practically established the setup to earn and prove the sustainability of an NPM shop model.

Amaravti Bai Sahu, Thanendra's mother, had struggled with her husband, to fulfil the expectations of her own family. When she came to Hathbandh after her marriage, she realized her family's dependency on agriculture was the only source of livelihood. Within a few years she had 5 children, and to run a family of 7 was really a tough challenge that she had taken on. To fulfil their children's educational expectations and afford their needs, Amravati and her husband had to suppress their desires and wishes. They had 10 acres of land and they were pulling on the rope with all their might and main to save their existence.





INTERVENTION

In 2014, Amravati Bai joined Bihan, the state flagship program of NRLM. As part of a training program, local CRPs along with the CRPs from Andhra Pradesh facilitated farmers from Dhamteri in joining Bihan. The major objectives of these resource persons were to bring the excluded women members into the SHG-fold to strengthen their life and livelihoods. Initially, it was only an SMIB (Social Mobilisation and Institution Building) intervention, which gradually segued into livelihood enhancement by developing CRP (community resource person) at the cluster level. Amravati was an active member and her son Thanendra Sahu joined Bihan as an AKM and gradually started working as a CRP in Kurud district.

“Utpadan kuch had tak badta hai par rasainik khad aur jahar se jameen ka santulan bigad jata hai jise jaivik upay se thik kiya ja sakta hai.” (While chemical fertilisers do contribute towards increasing production to a certain extent, they negatively impact the soil’s natural pH and chemical balance, which may be rectified by adoption of regenerative agriculture.)



Thanendra has studied till intermediate level, and when asked why he did not pursue higher studies, his reply was that he wants to exhibit the knowledge he has gained over the years and wants to help society and himself prosper further. He added that from the very beginning of his career, he was in search of such unique techniques with which he can minimize input and improve his lifestyle and that of others.

He has gained core knowledge regarding different facets of organic farming from different pieces of trainings organised by Bihan. He shared in training facilitated by NSO PRADAN about his learning that while imbibing knowledge is important, it is more crucial to disseminate and facilitate this knowledge among women farmers to enhance productivity.

Currently, Thanendra and his family are also cultivating paddy in the 10-acre family-owned land, with organic manure and repellents. According to his analysis, the production is similar to that of chemical farming, while the expenditure on input is almost nil, as compared to ₹2 lakhs in chemical farming. The cost of preparing manure and repellents is negligible, as Thanendra prepares the same on a large-scale in his industrial unit.

Other than the 10-acre land under cultivation, the family also has a 1-acre homestead land, on which the family is cultivating vegetables like cole crops, eggplant, tomato, chilly, coriander, amaranthus etc. in 5 decimils. Round the year, they procure vegetables from this patch. He is also growing lemongrass and other medicinal herbs in a small patch.

For selling the input material produced in his industrial unit, Thanendra and his mother have been running an NPM shop. Thanendra's interest in the organic input production is a result of the benefits the family saw by using organic manure and repellents. Amravati Bai used her knowledge from the trainings facilitated by Bihan and NSO PRADAN, and learnt the effectiveness of neem in controlling pests. The journey for the family started from there, and has now reached a stage where they have to take help from the nearby farmer-families in acquiring raw materials for their unit. They are rearing 2 bullocks, 3 cows and 3 calves, but this is not sufficient to run an NPM shop. The family has provided 60-litre drums to 60 women farmers



in the village to collect cow dung and urine, which they purchase later to be used as raw materials for making organic manure and repellents like, Ghana jeevamrut, Drabya jeevamrut, Nadeb, Vermi compost, Neemastra, Brahmastra, Agniastra, Amrit pani and growth enhancers like Panchagavya etc.

Thanendra is a smart businessman with a strategic commercial plan. At first, he advertised his organic products by distributing them free-of-cost to the village farmers. After a cycle of cropping, when the results were evident, he started selling the organic inputs at his NPM shop, making lifelong customers out of those same farmers.

IMPACT

Current turnover from the NPM shop is ₹60,000 per annum and he assures that next year he would sell organic products worth ₹5 lakhs. The most important prerequisite for an entrepreneur is investment, which Thanendra has fulfilled from the very beginning. Running a business in the current era is monotonous and risky but what Thanendra exhibits is amazing. He is not only selling organic products but a bouquet of other products like, aromatic rice varieties viz. Ram jeera, black rice and Bishnu Bhog, and mushrooms. He has 10 varieties of traditional rice out of which four are aromatic. He sells the black rice for 100 rupees/kg. With the help of Bihan, he has a brand name for packaging the aromatic rice which is sold in Bihan outlets in a reputed mall in Raipur. He has an interest in developing his own business by getting FSSAI approval for the organic products and to learn how to work on packaging for a higher turnover.

"Is saal pachas hazar ka beche hain jaivik dawai par pura biswas hai agle saal do gaon main 5 lac ka dawai bechenge confidence se saath." (We've already sold fertilisers and medicines worth fifty thousand rupees this year, and I can claim with complete confidence that we will sell products worth five lakh rupees in the two neighbouring villages during the next year as well.)

A small family facing many struggles previously to strengthen their financial capability are at a stage where they have walked a long distance to achieve their objective. Thanendra and Amarvati are confident in their mission of establishing an NPM shop and the major credentials of organic farming across the region. Kurud is not much far away from Raipur, the state capital. It is very convenient to accept the inorganic way of farming at such a distance as the inputs are very easily available, but Thanendra has set an example by not only accepting the organic method in his own cultivable land but also by joining hands with his own mother to create a revolution in the farming sector and establishing an entrepreneurship mode for the financial stability of the entire region, which is now being replicated across the state.

Eco-friendly Leaf Plate Making: Source of Sustainable Livelihood for the Rural Poor



By Eamani Sivasurya Teja, Young Professional, Livelihood Farm & Dr Ramesh Prasad Dwivedi, Block Programme Manager, Saraikela Kharsawan, Jharkhand

CONTEXT

“Those who do not give up, win,” proved the rural women of Doro, a small village in the Aruwan panchayat of Kuchai block. They adopted an eco-friendly practice of leaf-plate making, promoting their livelihoods, and protecting the environment from the threat of plastic disposables, thereby boosting their self-confidence, and creating their image of self-respect in a male-dominated society.

“Today, nobody cuts the power supply of our hydraulic leaf plate making machine” proudly say the progressive women entrepreneurs with a glint of dignity in their eyes, after years of battling against the adversities of women's backwardness and dishonor in their village. Earlier, the scenario was entirely different when these women were not able to stand for their rights and were unable to even convince their male counterparts to permit them to earn their income. However, now these women are socially strengthened and are gradually achieving financial stability, even supporting their families with the rewarding income that they are independently generating through the small-scale cottage industry of leaf-plate making through the moral, financial, and technical support extended by the forest department of the state and State Rural Livelihood Mission - Jharkhand.

Doro is a remote village/hamlet surrounded by beautiful, lush green forests harboring abundant natural flora and fauna located in Aruwan panchayat, Kuchai block, 25 km north-west of the headquarters of Saraikela Kharsawan district in the state of Jharkhand. According to the 2011 census, the village houses 203 families with 824 members of the indigenous rural population. Due to the erratic rainfall and highly undulating terrain, agriculture in this region is of subsistence type and the production is limited to the quantity of food sufficiency for their own families, due to which the dense forest around has become the mainstay of income for the people of this village.

30-year-old Ranjita Mahato, one of the progressive women entrepreneurs, recalls her past saying, “Those days were tough, bhaiya when my family and I in the months of April-May used to wake up early in the mornings to wander across those dense jungles competing with other rural folks in the quest for Kendupatta (*Diospyros melanoxylon*), a plant with seasonal value for the tender leaves it produced which are used in wrapping bidis, that used to be the major source of our income. After those hot two months, we used to be left with no money and were unable to make ends meet.”

The same is the situation of more than 200 women of 15 self-help groups in the village, who in the months of April and May, collect more than 5000 leaves (Kendupatta) a day, dry and wrap them into bundles of 50 leaves each and sell at the cost of 300 rupees per Manak (one Manak = 100 such bundles), regarding it as

their primary occupation. For the rest of the months, they used to collect and sell firewood and other forest products such as honey and seeds of Mahua (*Madhuca longifolia*) and Arjun (*Terminalia arjuna*) in small quantities in the weekly haat (local market) nearby and earn their daily bread. In all of this, a consistent source of livelihood for these women was amiss, which the leaf-plate making unit has catered to.

INTERVENTION

On a day in August 2018, a team of officials from the forest department visited Doro village and interacted with the villagers to understand their lifestyle and the activities they do. The women there came forward and explained how they were struggling for livelihood. After listening to their problem, the team made them aware of the leaf plate making process and asked them if they are interested in adopting it. With faith in themselves, marching toward the change and development, the women readily took their first step.

Nearly 80 women filled the application for availing a semi-automatic electrical hydraulic leaf plate making machine along with leaf stitching machines through Van Samrakshan Samiti. After procedural formalities, they finally got one of the best quality Hydraulic Machines installed at Ranjita Mahato's house along with 10 plate stitching machines in the homes of Mina Mahato, Sunita Mahato, and other women beneficiaries amongst the 15 SHGs. The forest department has also provided them with all the necessary tools, inputs and raw materials like thread rolls, paper rolls, gums etc. According to the information received from the women, the entire package which they have availed of costs about 6-7 lakhs. Within a month, the department facilitated the training for all the women, who applied for this practice and a 3-member team of trainers from Chhattisgarh arrived at their home to train the women on the entire process for 5 days. The training was focused on machine operation demonstration, leaf selection and cutting, stitching the leaves, and shaping them into appropriate utensils. After the training, all trainees were tested on the skills acquired; and 10 amongst them were qualified by the trainers as best cutters, 12 of them qualified in leaf stitching and 4 of them qualified in machine operating. The trainees were then divided into small teams based on their performance. The other women were entrusted with the responsibilities of leaf collection, raw material arrangement, drying of the leaves, packaging, and marketing of the manufactured plates.

The business was running well, and every woman in the team was able to fetch more than ₹3000 per month. Some of the villagers started troubling them and raised an objection complaining to the electricity board stating the machine is being run on a domestic power supply against the rules. The officials from





the electric department guided the women to take a separate consumer meter for commercial power utility and temporarily disconnected the power supply to the machine. With their husbands, some women approached the forest range officer of Chakradharpur appealing to him about the problem they were facing. With the support extended by him, they applied for a new power supply connection and successfully got back the power supply to run their machine. And then things became even worse. After one day of installation of the new electronic meter, some of the villagers cut and stole the main wire at midnight. Expressing their grief, somehow the women managed to purchase a new wire and got their connection back to the machine.

With a renewed determination, the women started their past eco-friendly livelihood activity by taking a loan from Community Investment Fund (CIF) for the repair and maintenance of the machine and for purchasing the raw material required for plate making. Also, with the timely guidance from the block team, the woman got access to the better market facilities expanding their supply to other blocks of the district too. Our JSLPS block team is also planning to market their leaf plates under the Palash brand which is an exclusive brand for SHG products.

IMPACT

This entire story of the rural women of Doro has reflected the fact that merely providing technology at the doorstep or periodic training related to a handful of good practices itself neither can accomplish the objective of poverty eradication nor can enhance the sustainability of a livelihood practice. State Rural Livelihood Mission has vested the rural poor women with the power to pull themselves out of poverty by extending social courage, financial assurance, and the way to better livelihood practices along with necessary handholding support wherever necessary. This practice even has a great scope for replication across the nation due to its demand in terms of a huge market and due to the paradigm shift of the community toward the use of eco-friendly products to escape the hazards of plastic pollution.

In Doro, a total of 32 women are engaged in this enterprise, managing to earn an average of ₹2500-3000 per month per woman. Women have started going to the market themselves, they know where to sell. Moreover, they have turned enterprising and have started to sell their products to the local SHGs, where the members take care of the food arrangement during any pieces of training and events. The financial status of the local women has improved a lot, which has resulted in boosted morale and uplifted status in society. Moreover, with the realization that the increase in their income can be achieved with the increase in efforts, motivation comes naturally to the women to enhance their income generation.

Appreciating the practice of Local mein vocal, replication of this model has already started in the existing SHGs of the Gomiyadih Panchayat, Kuchai block.

SPOTLIGHT

Ranjita Mahato w/o Sheetal Mahato, is one of the leading entrepreneurs of leaf plate making group of Doro village. She got married at a young age and life was not at all comfortable for her. Her husband is a farmer and they have two children. The income that her husband used to earn alone from agriculture was not sufficient and they were unable to make two ends meet. The requirements of the growing children further increased the need for more revenue. Then, she decided to join her hand with her husband for pulling their family cart.

She observed some of the women from her village, visiting nearby forest to collect the tender leaves of Kendu plant (*Diospyros melanoxylon*) which are widely used in wrapping beedis. She joined with them and also started wandering in the forest for collecting those kendu leaves and started making a little amount of money, nearly ₹50-100/- a day, by selling them in the local market. However, these tender leaves are mostly available in the hotter months of April and May every year and in rest of the months she used to struggle for collecting and selling firewood and seeds of some forest plants to make money. The officials from forest department visited their village and they noticed the struggle faced by the women for livelihood. They explained them about the alternate source of income by making leaf plates using machines and earning better.

Ranjita got motivated by their idea and applied for installing the machine at her home. She also became successful in building her team by motivating other women too for joining the activity. Soon, a team of 3 women trainers from Chhattisgarh visited their village to train these women.

After facing several challenges and hurdles, with the support of SRLM Jharkhand, she decided to continue her work. The matter was discussed in VO among all the representatives of SHGs. This time many women got courage to raise their voice and they all stood with Ranjita Mahato and supported her in starting the leaf plate making business again. Ranjita, along with 32 women, took loan from her SHG and purchased the raw material required for making leaf plates. With the support of SRLM staff and Block administration, they got the power supply connected to her machinery back and started the business again. However, the business was slow in the initial phase due to lack of proper marketing facility. Soon, with the help of SRLM staff, she reached the local and distant markets for supplying her leaf plates and now every member in their group started earning approx. ₹3000/- per month, by marketing the best quality eco-friendly leaf plates. With her strong will and resilience, Ranjita stood as a role for many women, who were unable to raise their voice for their rights. Besides, block and District teams of SRLM Jharkhand are also planning to bring these leaf plates under the SHG's Palash brand to increase their market to state level.

Low-budget Integrated Farming: A Reason for Smiling More

By Jaya Kumari, Young Professional, Garhwa, Jharkhand

CONTEXT

Farmers from Jata, Tenar, Narayanur and Dumro villages are happily one with nature, having adopted the low-budget integrated farming scheme for cultivating food crops not just for themselves but for the people from nearby districts as well.

The scenario was not the same a few years ago. These farmers were also subsistence farmers, and yet, whatever they grew was not even sufficient to fill the plates of their own family members. Agriculture was not even considered a profitable or dignified profession. The potential of new techniques and efficient labour was unknown and unexplored.

INTERVENTION

Integrated farming is an intervention which encourages using one enterprise's residual as an input for another enterprise. The natural and low-cost nature of this intervention attracted the attention of farmers of the village, and they eventually started replicating it. They started using this intervention and never looked back. The production was so abundant that they are now selling their outputs to nearby districts.

Sushma Devi, a resident of Tenar village, is a member of the Satya Sai Samuh. She joined the SHG on 3rd Sept 2019 and is the epitome of 'nothing is impossible'. Before joining the SHG, she only worked in her field



and was barely able to save any money for her family and kids. Her husband worked in a factory in a nearby city as he had lost all hope in farming due to a chain of losses he had incurred. Sushma didi has 3-acres of land which she cultivated in indigenous way. It is said, "Every cloud has a silver lining." Once her husband came to the village and decided not to go back again, she was very worried about having the time to look for another opportunity. This was the time when she joined SHG, after which she took a loan of 8,000 rupees and started cultivating vegetables where she saved approximately 6,000 rupees as profit. She also entertained the scheme of BHGY where she planted mangoes in 1-acre.

Sushma Devi as a member of the SHG felt the need of a PG in her field. She is the AKM of her village and she initiated for PG establishment 'Tenar Aajeevika Mahila Utpadak Samuh' of which she is the secretary.

She then decided to start a chick hardening center and took a loan of 50,000 rupees where she first kept 1000 chicks which costed her 52,000 rupees considering the costs of all the feed, medicines, and chicks. She gained 22,000 rupees from that endeavor, and she has since then been running her hardening center continuously by placing 2500 chicks or more.

She then took a loan of 30,000 rupees to buy a tractor for her field. She took training through JAMTTC to ride the tractor. She sometimes even ploughed the field herself.

Now, here comes the spin of the story. Once while visiting her field, our team from livelihood JSLPS Garhwa wondered why the residuals of her farm were not used the way they were supposed to be used.

There we demonstrated the use of the residual plants, leaves etc. as a feed of chicks which not only made the process of rearing cost-effective but also helped as a natural digester, cleaner and dewormer. The leaves of papaya tree helped us in this process.

There we also suggested she use the fecal matters of poultry as a core ingredient in making manure. The abundance of this fecal matter produced high quality manure. Didi also used these fecal pellets in NADEP compost, and the output was outstanding.





IMPACT

A total of 84 women farmers are associated with the intervention, and the target is to increase the reach to up to 120 farmers. Apart from farming, they are also doing mushroom cultivation and vermicomposting, which is giving them additional returns of ₹2500-3000 per month. The integrated approach is now being replicated throughout the state, in all the districts. Convergences with multiple line departments have been forged, with the inclusion of various small businesses like vermicomposting, bird rearing, mushroom cultivation etc.

The intervention has been going on in the 3 villages in Kalyanpur panchayat, out of total of 14 villages. Expansion is planned in the other villages as soon as organic farming is encouraged in those villages, as organic farming forms the foundational basis for this intervention. The ultra-poor families are the main beneficiaries of this scheme, as the business set-up requires extremely low capital. The money which earlier would have been spent on pesticides and chemicals is now being saved and is being spent on setting up different allied businesses.

SPOTLIGHT

Rinki Devi is one of those farmers who are enhancing their economic as well as social status using the low budget integrated farming intervention. "It has never been easier, and the constant efforts of JSLPS have made it worthwhile," says Rinki didi. On asking her how the organization helped her she replies very proudly, "Didi, it is not only about imparting knowledge through the training and workshops, but also about the hope and aspiration we get because of it. No woman in our village was frank enough to introduce herself in front of strangers but now we negotiate with big vendors for our products confidently."

Another didi whose name is Rekha shared her experience too, "Humne bhagwan se aas lagana bhi chhod diya tha." (We'd even stopped praying for God to alleviate our condition.) She was the only bread earner in her house, her two young daughters stopped going to school to assist her. It was difficult for them to manage four meals a day. "But after using the intervention of low budget integrated farming we started making manure from the waste materials of poultry; though I did not have any, it was available near my house and the residuals used to be thrown out. This manure was so good that farmers started coming and demanding more. Earlier we were not selling it in a packet but eventually, we started packaging the manure and selling it. It improved our economic status, and we are now cultivating vegetables of our own." Low budget farming is a new hope to eradicate the problem of the unavailability of food for poor people.

Maa Kalapata PG: A Success-weaving Hub



By Bibhu Santosh Behera, SPM, Livelihood & Priyoranjan Sahoo, Young Professional, Cuttack, Odisha

CONTEXT

History has opined that ikat weaving is a part of the state's historical link with Indonesia. Weaving practices are the ancestral handloom practices in many parts of Odisha which attracted the attention of foreign visitors. One of the most popular weaves in Odisha is the Ikat or the bandha style. In the single ikat, either the warp or weft thread is dyed while in the double ikat, both the warp and weft are dyed before weaving. Eye-catching and stylish, each of the weaves is characteristic of the rich heritage and culture of the region of origin. The distinctive feature of the Ikat weave lies in its double-sided clarity. Its exquisite design can be reflected on both sides with equal clarity. The villages in Odisha such as Mankedia in Balasore district, Barpali, Remunda, Jhiliminda, Mahalakata, Singhapali, Sonapur, Patabhadi, Sagarpali, Tarabha, Biramaharajpur, Subalaya, Kendupali, Jaganathpali, and Kamalapur of Bargarh and Sonapur districts Badamba, Nuapatna, Maniabaddha, Narashinpur, Tigiria in Cuttack district, Gopalpur of Jajpur district, are engaged producing Tussar fabrics. In changing times, many evolutionary changes have taken place around this practice, like the changing world of fashion, consumer preferences, etc.

While weaving is a traditional activity, for the raw materials the weavers were dependent on the local money lenders. The women weavers were looking for a support system which could help them circumvent the exploitative system of moneylending. And when the opportunity for PG formation with the support of OLM arose in 2014, 51 women gladly embraced it. However, the PG also had to be dependent on the local moneylending system since it did not receive any capital support. In 2018, the group received an amount of ₹800000 through GPLF from OLM. Additionally, they received ₹204000/- as IBCB fund from ORMAS and working capital of ₹100000.

As a first step of the OLM procurement norms, a raw material bank was set up for which silk from Malda was procured. Followed by this, one outlet was opened at the DRDA office. Alongside, the weavers were trained on various aspects of fabric finishing, in phase-wise exposures, helping the weavers to produce market-appropriate products. Gradually, the PG started receiving orders for dresses, along with the fabric. Stalls in local events and exhibitions like Balijatra were also set up, boosting the marketing further.

In terms of the working of the PG, the individual weavers produce their own output, with the support of PG for working capital, raw materials and, collective marketing. Each member saves ₹10 per month at PG and this fund is saved in the bank account of the PG. Presently, they have ₹2,47,042/- in the PG's bank account (as of 1st April 2022). This practice of contribution by members enhances ownership of the members and creates a corpus for the PG.

During the start-up process, the PG members faced challenges from the contemporary markets because of a lack of modernization, proper marketing arrangements, timely credit support, handholding support,

proper infrastructure up-gradation, innovation etc. Also, after the successful progression of stitching activities, they lacked modern yarn designing practices according to consumer demand. That is why they are hiring designers from outside to cope with the market demand. Again, they are facing the marketing agent as intermediaries for the collection of raw materials from Malda district, West Bengal.

INTERVENTION

Maa Kalapata Producers Group consists of 51 SHG members from 32 SHGs. Total 3 villages are involved in this. The members belong to the traditional weaver community. But on being tagged with Odisha Livelihoods Mission, they started their renovated work in 2014. They mostly promote the bandha patterned Silk and Cotton sarees, dress materials, screening materials etc.

The stepwise activity involves preparing the yarn, tying the yarn, preparation for dyeing, dyeing and drying the yarn, designing and final fitting of bobbins, and folding and packaging for marketing.

Under this PG, Udyog Mitra Mrs. Suryakanti Singh is the frontline warrior who mobilized and supported the SHG members on stepwise activity. She attends monthly meetings to prepare documents, cash books and registers. Also, she collects the information on the procurement of raw materials, tagging with equipment agencies. She also plays a vital role in linking with the market and different line departments, collecting sarees from weavers and marketing in different counters and exhibitions.

Since this is a traditional weaving hub, the members may not require any basic weaving training skills as they are traditionally proficient at stitching, lacing, twisting, intertwining, fabrication and dyeing etc. However, training and re-training are critical inputs for handloom weavers/workers to adapt to produce diversified products with improved quality to meet changing market trends. The skill up-gradation training on Jacquard/Jalla and Dobby/Dyeing, product development, dyeing techniques, and design development is planned. The exposure visits of stakeholders to successful models or any progressive practitioners is the major requirement which was noticed during observation. Then training for CRPs on accounts, record keeping & stock management will also be arranged for the betterment of practices. Now planning for several types of thread marketing for the weavers' community in this Gram Panchayat as well as nearby Gram Panchayats.





This PG received 2,04,000 rupees from IB & CB (ORMAS), 1,00,000 rupees on Working Capital (ORMAS) and 30,40,000 rupees from a special project grant. In the primary stage, an amount of 10,19,761 rupees was disbursed based on an equipment purchase, raw materials procurement and contingencies house rent for the stitching hall. This support was totally dedicated to the empowerment of rural women and encouraged them to promote these traditional weaving patterns.

IMPACT

Traditionally designed Handloom products like sarees and dress materials are supplied to Maa Annapurna SHG outlet Cuttack, besides those mentioned above they were supplied products like different Pallishree Melas like baliyatra and sisir saras and marketed products to their doorsteps whenever official and visitor visits the spot. Apart from that, one raw materials bank was established. They supplied several types of threads like silk and cotton to the PG members.

Due to this intervention, the average monthly income of an individual weaver is approx. ₹5000, while the profit at the PG-level is approx. ₹15000-20,000 per month during festival time. The business has grown multifold, over a period. Earlier the profit used to be owned by the money lender (mohajan) and now the profit is with the PG and individual weavers have a share of the profit earned by the PG. Due to the lockdown, the growth was hampered a bit, but still, there have been positive experiences in terms of a less exploitative system, more income, and more ownership of individual weavers. The enterprise is financially sustainable; now the OLM needs to support in providing pieces of training on advanced technologies (for value addition).

Other than the members of the PG, there are approximately 300 such weavers in the geography and OLM plans to include them all in the intervention, phase-wise. The BPM says, "Though the business has not been fully established, we need to help such traditional activities with a process which may demand time and patience. It does not happen in a day or so. So, any practitioner needs to keep this fact into consideration. Also, we need to help women to overcome some of the social barriers."

SPOTLIGHT

Story of Santilata Dash, Muktadevi SHG

Before Santilata joined the SHG, she was in a distressful condition, managing her livelihood through the local low-wage practice of weaving. She used to regularly borrow money from the local moneylenders to run her family and livelihood. She was not even sending her children to school, due to her financial condition.

But once she joined the intervention, her situation transformed drastically. Not just herself, but her husband also started earning. Her children started studying and are now working in private corporations as textile engineers.

In her own words, “Ebe Mu bohut khushi re achi, mo pila mone chakari korle, mu bholo khaibaku pauchi, mu bohut khushi re achi. Mu ghara gote korichi, kintu auri bholo ghara gote karibaro sapno dekhuchi (I am very happy now. My children have got good education and are doing job. I have built a house and dream to build a better one in near future”. Also, she said, “Earlier, I was not treated well by my in-laws. But after I have done this for my family, all are looking at me with respect and I am living a better life”.

As a part of the PG, Santilata is engaged in the production of Bal Butty Saree, Deha bandha (Body print), Double boarder Kumbha saree, Side pata saree etc. She has prepared 12 pieces of sarees over just the last 4 months, earning ₹20,000. Due to her increased confidence and financial strength, she has managed to raise and strengthen the entire family's financial and social status, empowering not just herself, but the entire family.

Crisis Brought Innovation in the Mushroom Farming



By Padmabati Das, Young Professional, NSO PRADAN, Nayagarh, Odisha

CONTEXT

In the year 2020, the spread of coronavirus created a difficult situation in mushroom farming. Some women lost their families and employment. Their husbands' employment which is a major income source for their household, was lost due to the lockdown period. "Sometimes we faced confusion in the kitchen regarding what to cook that day," they would say. Because no one could go outside, and shops and markets would open only for a limited period with Covid protocols. For vegetables, most families depended upon their own kitchen gardens, where they had not stopped growing vegetables and mushrooms.

For mushrooms, they could not get superior quality spawn, and moreover, the price increased too, due to the lockdown period, making it unaffordable. Only one local mushroom PC prepared and stocked mushroom spawn during that period, where all the farmers procured spawn from. Due to the paucity of spawn, the farmers prepared fewer beds than before. In some places, farmers faced a scarcity of paddy straw too, due to a lack of transportation facilities. One of the farmers recalled, "we were harvesting a minimum of 3-tons mushroom per day at that time". The price of mushrooms also increased due to the high price of raw materials. Another constraint was that as the local people do not like to buy and consume flowered mushrooms, and only eat mushrooms in the budding phase, a lot of mushrooms were going unsold. Due to lack of mushroom selling, stored mushroom starts flowering at night, and after one day are flushed down the drain. In those 6-7 months, mushroom farmers faced losses of around ₹37-38 lakhs due to the piling stock.

Prior to 2019-20, there were only 13 women farmers involved in mushroom production. But under the convergence of Mission Shakti, Horticulture, OLM, KVK and ORMAS Department, Govt. of Odisha introduced a collective marketing approach by the formation of 12 Producer Groups in the district. With 450 women farmers, an initiative to promote the value addition of mushrooms was undertaken. To motivate farmers to add value to their mushroom produce, a processing unit at Rabeda GP, Odogaon is under construction with the convergence of RMC. Through value-chain development, product promotion will be done. For dealing with the day to day business 'Bijayani Farmer Producer Company' has been formed and under their certification and necessary business protocol marketing shall be arranged.

The farmers cultivate mostly 2 types of mushrooms — paddy straw and oyster. Paddy straw mushrooms require 30-38 degrees centigrade temperature and 70% humidity and are cultivated from March to October. During the rest of the months, oyster mushrooms are cultivated. Cultivation of mushrooms necessitates a well-ventilated space, paddy straw, mushroom spawn, gram flour and bamboo or wood rack as raw materials to set up infrastructure.

The farmers were facing multiple challenges in the cultivation, for example, paddy straw mushroom is a highly perishable product and it needs an immediate value addition plan and storage and marketing



facilities. While the demand for Paddy Straw Mushroom is high, and farmers are availing good margins of profit, the demand for Oyster Mushroom in Odisha is not so high and it needs value-added products like dry mushrooms and mushroom pickle. Apart from that, they were facing infrastructure and technical problems. However, due to the formation of Producer Groups and Cluster Development, most of these problems have been resolved.

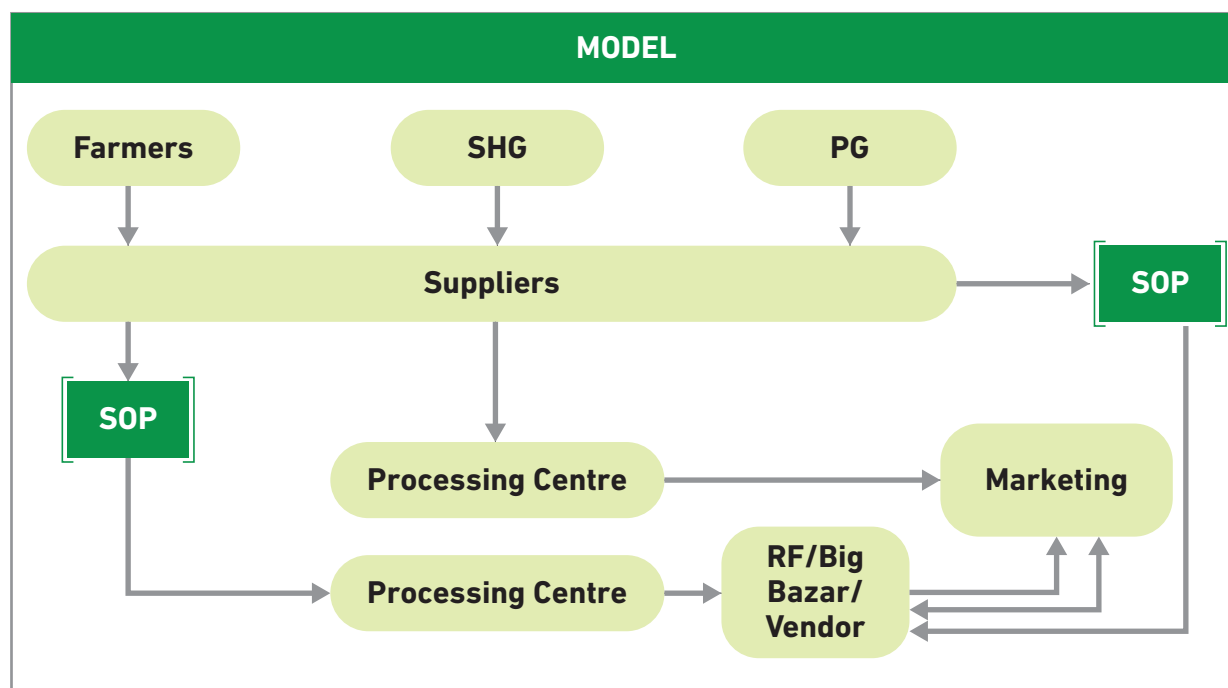
INTERVENTION

Prior to 2019, people of Nayagarh were cultivating mushrooms in their backyard. "In 2019, we together started mushroom farming with the support of CIF loan to the SHG members of ₹1,06,000 and a bank loan of ₹2,99,000," said Palli Dei, a successful mushroom farmer of Maa Budhibamana Mushroom producer group. Climatic conditions and humidity also suited the production of paddy-straw mushrooms and oyster mushrooms.

Due to the increasing demand, WSHG members of the nearest village were also inspired to cultivate mushrooms in their backyard. RSETI & Horticulture department supported the endeavour too, by giving technical guidance and organizing special training sessions. For the marketing of mushrooms, ORMAS amalgamated those women SHG members and formed a producer group-supported IB fund of ₹2,04,000 to each PG after proper assessment and scaleup plan.

Some women members started preparing mushroom pakoras at their homes on a trial basis, which the family members liked. One day all producer group members decided to sell mushroom pakoras as snacks near the mushroom shop at the marketplace, at ₹10 per plate and at the end of the day got ₹1000 as additional income. But they could not utilize 2-3 days of stock mushrooms for eating purposes. So, one member of PG learned to make mushroom pickle from YouTube and prepared it, which the SHG members tasted and liked. They used it for around 1 month like any other pickle in their own households, and later, started selling it in the village. The members prepared pickles in small quantities, for fear of spoilage. They were unaware of the usage of preservative products. In the meantime, they did not stop mushroom farming even after facing losses.

To prepare preserved and value-added products like mushroom pickle, mushroom cookies, mushroom papad, supplementary food for diabetes patients, and canning and drying mushrooms, the Government of Odisha initiated a step to establish the Mushroom Value-added Product Unit at Nayagarh district, Odagaon Block, which could be an advantageous opportunity for mushroom farmers of Nayagarh.



IMPACT

Due to the cluster development, the negotiation power of producers has increased. Due to strengthening of institution like Producer Groups and Producer Company, farmers are able to reach market and shorted out several production issues like procurement of machines and equipment, documentation, technical issues etc. By the help of Udyog Mitra and MBKs they are able to prepare business plan through which they are able to get financial, technical and marketing facilities. Through working capital, Bank Loan and CIF, farmers are availing timely financial assistance, and they have knowledge of schemes benefits through various trainings facilitated by the authorities. The farmers are motivated and able to add value through products like mushroom pickle, mushroom pakora, mushroom cookies, mushroom papad and mushroom ice cream, creating a new source of income for women mushroom farmers of Nayagarh district.



From one bed, mushrooms can be harvested 2-3 times, yielding 1.5-2kg per bed. On a commercial scale, one farmer can prepare 6 beds per day to get around ₹390-500 as profit, earning a monthly profit of approx. ₹11,700. Mushroom is a profitable extra income generating source with agriculture, which needs less labour, raw materials, space, and time. Mushroom Value-added Product Unit is going to be a hope for mushroom farmers as well as give a new direction to mushroom farming. This project can improve the life of SHG women who are working to cultivate mushrooms together – like the budding of mushrooms themselves.

SPOTLIGHT

Mamata Sahoo, one successful mushroom farmer, shares her happiest moment, “I am now self-reliable and support my family. Even when people from our village could not go to the market for vegetables, our plate was full of items made of mushrooms. We got opportunities to sell mushroom products at exhibitions & fairs which was beyond our imagination.”

She started the enterprise in the year 2016, after being trained by RSETI. After training, she managed credit from GPLF and subsequently started mushroom cultivation. Initially, she used to produce 4-5 kg of Mushrooms per day and earn a daily profit of ₹500. Before the intervention, Mamta was not involved in any income-generating activity, and struggled to meet the requirements of the family with the earnings of her husband, who also suffered from some health issues, making it difficult for him to work continuously.

With this background, Mamta approached the BMMU to join SHG and the enterprise. Initially, she started the mushroom cultivation in her backyard, which she slowly expanded to borrowed land of 3 decimals and is now cultivating in the total borrowed land of 5 decimal. In her journey, she acknowledges the constant financial support from the bank loan, subsidized loans from the horticulture department (individual loans to support enterprise) and loans from CLF. She availed of ₹100000 loan and has already repaid 50% of it.

Through this intervention, she could overcome her financial struggle and learn to interact with bank officials, and other government officials. In this time, she has also secured some fixed assets, like her repaired and reconstructed house and a motorcycle. Her children are going to school, and she proudly declares, “I dream of higher education for my children and also I want to buy land in my name”. Seeing her success, four other women from the village have started mushroom cultivation on a large scale and the other 6-7 women are doing it on a small scale.

This enterprise ensures business for her for 8 months in a year (average profit per day ₹400-500 throughout these 8 months); an average of 25 days in a month she can earn, making ₹10000-12000 monthly. She is hopeful about the future and says that a proper storage arrangement and timely availability of seeds will help her earn even more. In her own words, “Before I was struggling a lot, but now due to the addition of the enterprise, I am able to support my family and therefore, able to make a dignified living.”

Rebuilding Nutritional Status with the Kitchen Garden Initiative



By Manorama Kumari, District Livelihood Manager, Khagaria, Bihar

CONTEXT

According to the NFHS-3 data, Khagaria block was at the bottom at the national level in terms of the low nutritional status of women and a higher percentage of stunting in children. Both the issues are related to lack of balanced diet during pregnancy.

At one time, getting even one bowl of vegetable at every meal was difficult in Khagaria. Women were the key victims, due to social malpractices. People were unaware of the importance of a balanced diet during pregnancy & lactation.

Growing crops in monoculture and consuming that food was a prevalent practice. Therefore, getting diverse type of vegetable too was difficult. People were not aware of food diversification and its importance in nutrition and health. All this combined, gave enough reasons for Jeevika to intervene with the Kitchen Garden initiative in the block.

INTERVENTION

Monoculture agriculture was practiced in the region, with maize being the major crop. Vegetables (mainly potatoes) were grown, if at all, only for household consumption and not for commercial purposes. There were severe financial as well as nutritional crises. During the visits to the area, it was observed that the women were working in farms as well as their backyards with crops, plants, seeds, flowers, and trellis, which meant that they were familiar with the practices of farming. This was the foundation on which the intervention of Kitchen Gardens was based.

In the beginning 5-6 kyaris (rows) of vegetable and leafy herbs was practiced in field. Based on food groups, a well-designed model was adopted for the nutri kitchen garden. It helped in supplementing the vitamin, mineral, roughage, and protein needs of women, and the whole family in general, by diversifying their meals. Nutri kitchen garden ensures this diversification from their own field and not from the market.

The intervention supplements the multicolored and multi-type food in the plates of family members. As it remains available at the doorstep, women can get salad and vegetables even after feeding whole family for themselves. By saving on buying the vegetables for the family from the market, they can save ₹50-60 in a day, which means saving ₹1500 in a month and ₹18000 in a year. This is recognized and appreciated by the local women farmers as a novel way of earning, as they understand that the money saved is money earned.

This model requires very little land, from 200-400 sq. ft. and deploys 8-13 rows of vegetables cropping, which can be established in the backyard of a house.

In 2014-15, it was piloted as 'One Panchayat 1 Model Kitchen Garden'. Around 34-35 models were established with around the year concept at the level of Jeevika. Exposure of didis was conducted, and they became curious regarding the same. Training exposures, handholding in layout and cultivation made the intervention adaptable. It seeded the base of a nutritional revolution. Several active didis came forward to work as CRP to train the community regarding nutri kitchen gardens.

Later they knew that it saved their money on daily vegetable purchases by up to 2000 rupees a month (varying according to model and size of the kitchen garden). This concept of savings as earnings was added it in the training module which again attracted many other didis to adopt the intervention in their backyard.

Here is a list of Didis who are currently playing the role of CRP in community:

Name of the State		Bihar (Some Didis which are spreading Kitchen Garden in Khagaria)			
Sl. No.	Name of the women farmers	Village	Block	District	Practicing From
1	Rinku Devi	Fatehpur	Gogri	Khagaria	5 Yrs.
2	Anita Devi	Baltara	Gogri	Khagaria	3 Yrs.
3	Kranti Devi	Bahadurpur	Gogri	Khagaria	3 Yrs.
4	Sudha Devi	Baltara	Gogri	Khagaria	3 Yrs.
5	Rinki Devi	Maira	Gogri	Khagaria	4 Yrs.
6	Archana Devi	Baltara	Gogri	Khagaria	5 Yrs.
7	Laxmi Devi	Ratan	Gogri	Khagaria	3 Yrs.
8	Usha Rani	Malpa	Chautham	Khagaria	6 Yrs.
9	Meena Kumari	Nauranga	Chautham	Khagaria	5 Yrs.
10	Sabita Singh	Balha	Mansi	Khagaria	2 Yrs.
11	Sarita Kumari	Amni	Mansi	Khagaria	3 Yrs.
12	Dropti Devi	Dhusmuri Bisanpur	Khagaria Sadar	Khagaria	3 Yrs.
13	Nibha Devi	Malpa	Chautham	Khagaria	7 Yrs.



Jeevika introduced distribution of a subsidized kitchen garden kit in 2016, which led to faster replication of the model. Digital Green, our video partner, selected Nibha didi as the Intervention Key Person for video development of her Kitchen Garden where she described its benefits. It made didis relate the benefit of the model easily.

This way we got an audio-visual element to support our training through video dissemination team in Alauli, Chautham and Parbatta block. Jeevika Mahila Producers Company (producer company of didis) started producing Kitchen Garden kits too, which supported in easy availability of different seeds in one pack at a reasonable rate.

Major expansion took place in 2016-17 to 2018-19. It happened after training and exposures of didis at early grown Nutri Kitchen Gardens. It was implemented by video dissemination cadres and CRPs. More than 8000 didis adopted this model after understanding its ease of adoption. They knew the ease of replacement of vegetable crops. They understood that as per nature of plant they might replace the crop of a kyari (row) or two week by week in every season. For the restructuring of all rows every season, they may just sow new seeds and saplings by khurpi, without needing any special equipment or training. They could relate to it easily as it was their traditional practice which they had seen in their houses in a scattered manner.

In 2018-19 the Food Group factor and nonchemical application factors were added. The kyari limitation was liberalized as the implementation team got to know that even in 5 kyaris including their corners and bunds we may grow 8-10 types of vegetables, salads, and spices to supplement their food. They started it their way and several hybrid models were presented by them in the field.

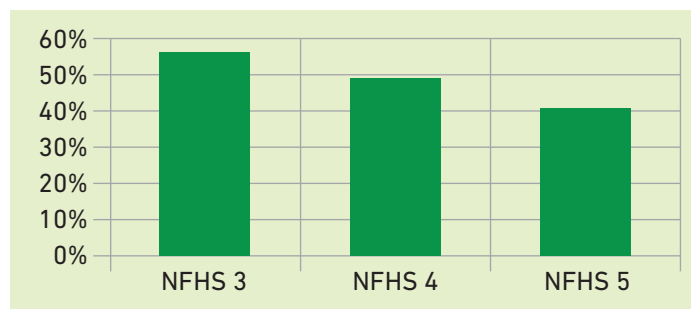
Availability of chemical free fresh vegetables became the next highlight area slowly. Didis were then able to understand the difference of its taste and its keeping quality. Longevity of plants in their chemical free kitchen gardens was the key factor which attracted didis to continue with it. Once planted, crop lasts for 5 to 6 months in non-chemical applied Kitchen Garden.

A sample of about 200 Kitchen Gardens is being transformed into permanent structure of Kitchen Garden. Those were added with Sanjeevak pit for natural manure supplement and Neemastra and Agneyastra for organic pesticidal purpose. But unfortunate rains and flood of last 2 years have hampered the progress. Still this Rabi season of 2021-22 we do have 12,172 (as per a report collected in DPCU Rabi Review of CRPs) Kitchen Gardens in various stages with different models.



IMPACT

We know that stunting comes from malnourishment of the mother during pregnancy and NHFS 3, 4 & 5 indicate that the stunting of children (55.6%, 48.35% and 41.1% respectively) in Khagaria is reducing continuously. Kitchen garden too is a contributing factor.



We are hopeful with the result, and Jeevika and the women of Khagaria are inspired to spread it to every household. After several difficulties due to covid and natural issues of droughts, floods and rains, Jeevika Khagaria has touched the level of more than 12,000 Nutri Kitchen Gardens. Didis have decided to reach 25,000 HH till 2025 and 1 lakh households by 2030. Various related livelihood opportunities have also started to spring up, starting from seeds distribution to Agri-entrepreneur models. Interested women farmers are provided with seeds at their doorstep at ₹100/ pack, which includes seeds of 8-13 vegetables.

Apart from the nutritional impact, the intervention has both indirect and direct impact on the families' income, with enhanced savings from reduced spend on vegetables and increased income from selling the extra produce.

SPOTLIGHT

Nibha Devi, an SHG member from Malpa, Dhutauli Panchayat, started her kitchen garden in 2014, and has since inspired several other women to adopt this practice. She was also an OB member of a PG called Jagriti, which was quite active in both primary and tertiary agricultural activities. The PG used to make kitchen garden kits, vermicompost, and used to train the PG members in laying out the gardens.

Since the beginning, Nibha Devi is also a part of Jeevika, and has been instrumental in the livelihood development initiative for the village. She is an Agri-entrepreneur (AE) today, and trains other women farmers on different livelihood interventions. She also provides agriculture input and works as a collection agent for farm produce. She has created a kitchen garden video, which is being used extensively in spreading the word about kitchen gardens, making her a role model for the Kitchen Garden initiative in Jeevika. She has added a compost pit, a machan, irrigation facility, and trees etc. in her kitchen garden which support growing vegetables better.

In her own words, "Kitchen Garden Laga ke hum logon ko ab saal ke 6-7 mahine ki sabziyan yahin se mil jati hain aur adhik sabzi upajne par padosiyon, rishtedaaron ko bhi dete hain. Mujhe saal me 15000-17000 tak ka bachat kitchen garden lagane se ho jata hai" (because of the kitchen garden, we get vegetables for our own consumption for about 6-7 months in a year, and when the yield is good, we also distribute the extra vegetables amongst our neighbours and relatives. I save about ₹15000-17000 annually, with this kitchen garden of mine.)

Pulse Procurement, Processing and Marketing: Cluster Development through Producer Groups

By Aditya Sharma, District Manager, Agriculture, Hoshangabad, Madhya Pradesh

CONTEXT

Pulses are the major source of dietary protein in a vegetarian diet. Besides being a rich source of protein, they maintain soil fertility through biological nitrogen fixation in the soil and play a vital role in furthering sustainable agriculture. Madhya Pradesh is a major pulse-producing state in the country; it caters to 32 per cent of the country's total production. Likewise, there are some pulses growing villages near Narmada River named Rampur, Kanhwar, Nayagaon, Khairi, Ajera, Senkakhedi, Punor, Khapadiya, Sankla, Bhanpur, Galcha, Madanpur, Motalsir, Gajnai and Khaparkheda in the block of Pipariya.

Hoshangabad district, officially named Narmadapuram district, lies in the Narmada River valley, with the Narmada forming the northern boundary of the district. Pipariya is a one of agriculture dominated blocks of the district and it consists of 124 villages.

The farmers of these villages are blessed with the water and sandy loam fertile soil for pulse-farming, from the Narmada river. Almost 500 farmers cultivate pulses like gram, toor, and moong, on approximately 800 hectares of land, for supplementing their dietary needs as well as an economic activity. Over the years, the production of pulses has been decreasing, because of the increased support for wheat and paddy production, cultivation of which is relatively less risky, considering the climate changes and erratic weather conditions.

However, pulse cultivation and thereby, pulse manufacturing is one of the traditional activities in the district, with many SHG members also engaged in the same. The SHG members individually and manually practised pulse processing by Hath Chakki (manual machinery) with lower quality and efficiency and earned ₹25,000-30,000 per member annually. The manual dal-making exercise takes lots of time, because of which the families growing pulses used to sell the bulk of their produce in local haats/markets, without fully knowing and understanding the margins they were missing via processing the pulses.

INTERVENTION

DAY-NRLM has been working with the poor and vulnerable women and organizing them into Self Help Groups (SHG) to improve their livelihoods and enhance their income. A sizable percentage of SHG members are dependent on agriculture, including livestock and NTFP, for their livelihoods. Self Help Groups (SHGs) are formed at the village level, which are then federated into Village Organizations (VOs) and further into Cluster Level Federations (CLF). Under various farm livelihoods interventions initiated under DAY-NRLM such as Mahila Kisan Sashaktikaran Pariyojana (MKSP) and the Livelihoods annual action plan of the states, small and marginal women farmers are organized into institutions to enable them to access timely technical support at their doorstep. At the village level or cluster level, Producers' Groups (PGs) have been formed with women farmers involved in similar activities like agriculture, livestock or NTFP.

Features of PGs:

1. PGs are un-registered entities and are usually organized as Common Interest Groups.
2. In many cases, PGs are provided working capital support and infrastructure support by the SRLM through the VO or CLF.
3. SRLMs support the PGs in making business plans.
4. More than 75% of the Producers' Groups are multi-commodity PGs.
5. On an average, one PG consists of 15-35 members

There were 85 female members of 12 SHGs aggregated as 5 producer groups in five villages Rampur, Kanhwar, Punor, Ajera and Senkakhedi of block Pipariya of Narmadapuram district with the objective to develop a cluster for procurement, processing, and marketing of pulses. Target beneficiaries are small and marginal SC farmers. The area chosen for a cluster set-up was based on the consideration of the intensity of pulse production in the block, the health of SHGs, and the capacity of the apex institution i.e. CLF to manage overall work. On the market linkages side, it was more to do with the potential for aggregation for continuous supply by the CLF.

More than 1000 farmers from 21 villages are engaged in the cultivation of moong, chana and toor, to ensure backward linkages, under the intervention. Three Udyog Sakhis are also covering the villages for ground-level training and implementation. Two CLFs viz., Tejaswini and Narmada, formed under MPSRLM, are partners in this initiative for financial and technical support, including the formation of PGs, exposure and training, financing, credit linkage, branding, packaging, sales, and marketing.

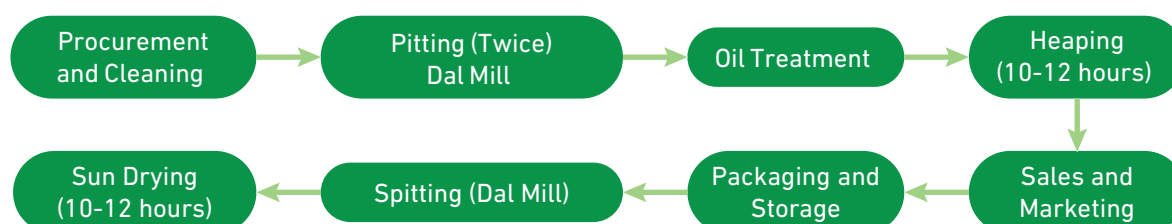
A nodal group comprising CLF members, Agri CRPs and Udyog Sakhis (Trade Friends) was constituted to anchor the work overall. As per the action plan initially step was to map the baseline data around aggregation potential, consent of farmers and mapping the support availability both financially and otherwise. Staff members from DMMU and BMMU were linked to provide the support on working out the business plan by the CLF, the CRP group was oriented on pitching the idea and mapping the consent among farmers and organizing them into the Producer Groups. The anchor group for the activity was oriented on Governance and Management functions required to do individually and collectively.



The total fund requirement for plant and machinery, raw material procurement and packaging was ₹3.5 lakhs, which was supported via CLFs and credit linkages.

It is planned that in 2 years' time-frame the aggregation and marketing work of Pulses would cover around 300 women farmers and in the next 5 years, it would reach 1000 farmers in the whole block. The placing of the unit and orientation so far is in sync with this visualized state. 5 more PGs are linked with the production work.

Dal Mill Operation Flowchart:



IMPACT

The enterprise and its success have generated excitement in the CLFs and other collectives, mainly because of the enhanced scope of work in production and marketing, and the resulting margins. The ongoing initiative is supported via many actors such as Krishi Vigyan Kendra (KVK), schemes such as Agri-Infrastructure Fund (AIF), Producer Group formation and Nurturing in NRETP, PM Formalization of Micro Food Processing Enterprises (PM FME) Scheme apart from the resources available at the CLF level for credit availability and training support. The learnings from the experience are recorded and utilized by the adjacent areas team for the formulation of value chain works and integration of other blocks under this set-up. CLF is working out the 5 years business plan for more clarity on the expansion plan with the guidance of SRLM and KVK team members. One of the leading members, who is also the beneficiary as a producer, mentions that this experience has helped her to specifically understand the margins involved in the marketing levels and see the share of the profit they were losing earlier, have a direct interface with buyers to negotiate the rates and understand the market dynamics in a better manner. She says that she has now more confidence to address the questions of her fellow farmers on the need and involvement steps as well as to improve the work they are doing currently. This practice could be replicable provided that backward linkage at the local level and proper sales and market are planned for.





SPOTLIGHT

PG members and Udyog Sakhi Ramkumari Ahirwar from Matrbhoomi PG village Rampur stated that due to the formation of PGs farmers are now able to sell their produce at a fair price directly to Producer Groups. Procurement by PGs itself saves them from intermediaries and agents. They can now add more value to their crop of Green Gram (Moong), Pigeon Pea (Tuar) and ChickPea (Chana) by processing them. She claimed that each mill makes around 60 to 70 quintals of the processed pulse available per month. One more Udyog Sakhi Deepshikha Ahirwar from Bajrang PG village of Senkakhedi narrated happily that she and other female PG members have become more confident, as they are handling and operating mini electric dal mills. She claimed that around 75 to 80 quintals toor, chana and moong pulse get produced per month on each mill.

Member of Kanak PG village Kanhwar told that they have started adding value to their crop of moong, toor and chana by processing pulses. The unit establishment has meant a source of sustainable livelihood with less drudgery, and enhancement in productivity and income. Pulse procurement, processing, and marketing clusters are developed successfully with 104 beneficiaries. They are getting a monthly income of ₹6500-7500 on average.

Trellis: A Green Hope for Farmers in the Red Corridor



By Sashikant, Young Professional, Bastanar, Bastar, Jharkhand

CONTEXT

A tribal-dominated block, Bastanar is one of the seven blocks in Bastar district (Chhattisgarh), populated by Gond, Muria, and Bharta tribes. Back in 2013, social mobilization and institution building processes were initiated by Bihan (CGSRLM) in the block, and in 2016 livelihood activities through MKSP were initiated. All 48 villages of the block are covered under the MKSP.

With undulating topography of the region, agriculture is primarily rain-fed and is marked by low yield and small landholdings. Paddy, millets, and mustard are the predominant crops, providing 6-7 months of food sufficiency at best. Increasingly, regional farmers have resorted to working as daily-wage laborers and seasonal migrants. Women who remain in the village work as agriculture laborers or under MGNREGA, whenever work is available.

Vegetable cultivation is a recent activity in the area. Initially, convincing women farmers to get engaged in agriculture was a challenge. The selection and training of women AKMs and ICRPs and regular discussions, training and handholding support in the field convinced the farmers that women can do the vegetables on their own through organic practices.

Preparation of organic repellents and organic manure on a large scale has been an important goal. The issue is also of the availability of raw materials and the interest of the farmers to prepare the formulations at the households. Promoting NPM shops at the village level has been a positive step.

INTERVENTION

With this context, CGSRLM initiated vegetable cultivation with the adoption of various agroecological practices on a small-scale (kitchen garden concept), to ensure nutritional security of households. During 2016-17, the programme evolved to focus on income generation. Vegetable cultivation, which started as nutritional security, deepened as well as expanded in the area under the support of MKSP, targeting 3000 farmers (1200 acres) in four clusters of Badekaklur, Badekilepal, Bastanar and Mutanpal in Bastanar block.

As an NSO to CGSRLM, PRADAN provided knowledge and capacity building support to the mission staff, to strengthen their livelihood initiatives.

In 2016, under the National flagship program of Mahila Kisan Sasaktikaran Pariyojna (MKSP), 15 villages were selected out of 50 villages in the command geography. The major criteria of this village selection were that the concerned beneficiary should have land for kitchen garden with minimum irrigation facility, and the beneficiary should have a need to cater the food sufficiency in terms of vegetable intake round the year from her own field but currently not ensuring due to adequate technology and systematic crop planning.

Since the demand of organic vegetable in the market was high and this was the major strategy to grow organic vegetables using local resource and scientific technology.

Community mobilization and formation of SHGs, VO, and CLF along with training programs were facilitated by NSO PRADAN to ICRPs, to internalize the technicalities of advanced techniques of crop production and identify and work on the root cause of less production of different crops affecting the food and nutrition sufficiency. Trainings were held on different topics, including basic agriculture and intervention, crop and disease management, crop cutting and yield estimation, experience consolidation, and monitoring and evaluation. Aajeevika Kisan Mitra (AKMs) selected at the VO-level provide training and handholding support to Mahila Kisans. Selected AKMs undergo training, facilitated by PRADAN, on diverse topics and in-field demonstration of different crop productivity enhancement models. AKMs with enhanced skills and knowledge and the motivation to reach out to new areas are upgraded as ICRPs. ICRPs are involved in knowledge and skill transfer to AKMs and farmers. The pool of AKMs, ICRPs, and NSOs follow a well-designed field implementation strategy:

- Area selection and crop planning with the VO and SHG. Accessing credit through SHG.
- Technical training and handholding support to women farmers on seed selection, seed treatment, soil fertility improvement, disease, and pest control, etc.
- Capacity building of women members to acknowledge women as farmers
- Development and dissemination of IEC materials like booklets, flex, audio-video aids, manuals, etc. among AKMs and farmers for awareness generation and technical knowhow.
- Organization of monthly convergence meetings, with participation of all block departments, to discuss the possibility of convergence, action plan, and work in progress.

Additional interventions, like raised nursery bed for vegetable crops, multitier vegetable cultivation through trellis (machan) with intercropping of creepers and leafy vegetables, sustainable agroecological practices for land treatment such as summer ploughing, soil health management using organic manures like NADEP compost, jeevamrit, and prevention of pest and disease attacks through prophylactic measure using organic products such as neemasthra, agneyastra, etc., promotion of NPM shop (non-pesticide management shop) for easy availability, and convergence with MGNREGA and CREDA for construction of dug wells and installation of solar pumps for irrigation, create supporting ecology for production enhancement for the poor farmers.



Trellis is a common plant support used in some vegetable cultivation, for which a farmer needs wooden sticks or bamboo poles as per availability, polymer wire, fishing net wire, and iron nails. As per the design, bamboo poles (about 272 poles in 10 decimals of land) are erected on the ground at 4 ft. Polymer wire and fishing net wire are interwoven with the bamboo poles, height is adjusted as per crop. Trellis for 10 decimals of land cost ₹2000 (material and labour cost). There is absolute flexibility to change materials, the distance for placing poles, and the

height of a trellis. The objective is to allow/keep the plants to climb and tucked above the ground.

Bastanar is one of the remotest blocks of Chhattisgarh where technology adoption is a major challenge. However, systematic training architecture, on-field demonstration, and regular monitoring have helped the farmers to adopt the practices. CGSRLM has also been mobilizing women through social mobilization and institution building. Many women collectives have been mobilized by the CGSRLM as SHGs, VO's, and CLFs. The selection of women AKMs and ICRPs has helped in ensuring the participation of women in replication of these activities.

An area where farmers are acquainted with vegetable cultivation but face challenges in optimum production, and availability of 10-20 decimal of homestead land are the pre-requisites for successful adoption of these scientific technologies for production enhancement. With increasing success, farmers have started to divert at least 10 decimals of land for vegetable cultivation through trellis methodology. After two years of intervention, trellis has emerged as an important livelihood activity in the area.



IMPACT

This practice is unique, as it caters to agroecological sustainability, low cost, and is women-friendly. Training and capacity building of women farmers, AKMs and ICRPs have helped build the confidence of women and helped them believe that they can independently do skilled agriculture at a commercial level. Accessibility of raw materials at the village level has ensured that the women have control over the resources. Understanding the basics of soil health, pest and disease control, crop planning, etc has also helped the women to pursue vegetable cultivation through kitchen garden and trellis. Every year more and more farmers are accepting this technology for production enhancement. Farmers are increasing the acreage of vegetable cultivation under Trellis technology. Apart from this APC (Agriculture production cluster) should be the next logical step to address the disposal of farm products and ensure maximum benefit.

In the block, out of 3641 registered women farmers, 3312 women farmers are growing vegetables in their kitchen garden (onion, amaranthus, coriander, spinach, fenugreek) and 200 farmers are cultivating vegetables (bitter gourd, cowpea, beans) through the adoption of trellis technology. Of these 200 trellis farmers, 60 could be categorized as progressive, both in the adoption of organic measures, the quantity of production and earnings. Their average return is ₹10,000-12,000 annually from 10 decimals of land. Since the demand of organic vegetables is more in the market so all beneficiaries sell their vegetables in the local weekly markets in their vicinity.

SPOTLIGHT

Kamlabati, belonging to the Gond tribe, has changed the condition of her family with sheer hard efforts. “Mere pariwar ka pure saal ka khana abhi humare khet se ho jata hai, abhi hum sabji bazaar se nahin kharidte hain. (All my family’s requirement is met through this land; we no more go to the market to buy vegetables.)” shares Kamlabati.

Kamlabati is a resident of Kodenar a village of Bastanar, one of the remotest and LWE affected block of Chhattisgarh. Both Kamlabati and her husband are functionally literate. Their family includes two sons and two daughters. Unlike their parents, they all are studying. The family has 7 acres of land, but maximum acreage is rainfed. Kamlabati now has 2 cows, 4 bullocks, and 4 goats. Three years earlier, even though the family had seven acres of land, the family could barely ensure food sufficiency for 12 months. The land is undulating, eroded and with no source of irrigation, the family could barely manage seven months of ration for their family. Kamlabati and her husband would indulge in daily wage labour to meet ends.

Three years ago, she came to know about Bihan – the national flagship program of NRLM in Chhattisgarh as an opportunity to overcome the challenge. She became a member of the SHG promoted by CGSRLM and subsequently became one of the beneficiaries of MKSP. She started attending the training programmes designed for the women farmers. In 2017, Kamlabati was provided exposure to vegetable cultivation through organic practices and trellis technology during the CRP round. (CRP round is a process wherein CRPs from different geography stay in a village for 15 days and train the women farmers about the basics of organic farming.) Kamlabati was motivated to see the women CRPs training at their village. During the CRP round, CRP from Bakawand block demonstrated vegetable cultivation using trellis technology.

Kamlabati started organic vegetable cultivation in 0.5 acres of homestead land using a trellis. Kamlabati prepares the organic formulations at her home. She is confident about the use of organic repellents at the fruiting stage. According to her, she had sold vegetables worth more than ₹10,000 in 2017, apart from household consumption. During the livelihood planning exercise, her SHG has planned for dug-well from MGNREGA. With the support of BMMU, a dug-well for irrigation facility was constructed and through convergence from CREDA they received a solar pump. With irrigation facilities available, Kamlabati shared that in 2018, including household consumption and sale of the vegetables in the market, they have produced vegetables worth more than ₹70,000. In 2019, out of the profit from vegetable selling her family has set up one bore-well costing ₹1.5 lakhs.

In her small vegetable garden, one can find vegetables of various varieties such as cowpea, bitter gourd, fenugreek, coriander, bottle gourd, okra, amaranthus, chilly, tomato, kundru, colocasia. She has also planted mango, banana, papaya, drumstick, apple, and lime in her farm. She goes to the local market to sell the vegetables weekly and her husband helps her in this business. Kamlabati is also a Mitabin (health worker), and she understands the importance of nutritional food in diet.

With her smiling face, she acknowledges the support she got from Bihan and PRADAN for assets and her skill-building. While she foresees a few challenges regarding labour involvement, she is excited to know about the possibilities of drip irrigation and other technological development to mitigate these challenges.

Vegetable Business: A Synonym for Livelihood and Faith in the Dire Times



By Satyaprakash Tiwari, District Mission Manager, Kanker, Chhattisgarh

CONTEXT

Lockdown was a dreadful situation, not only for the villages or the cities, but for the entire country. In this situation, people were yearning for green vegetables, among other essentials. The same demand came from about 30-40 villages during the village tour in Kanker. Shri Parameshwar Netam, resident of village Konkadi, Block Kanker, said, "I have food at home but am tired of eating the same food. The lack of green vegetables in the food makes the food look dull. There is no hope from the deserted markets and deserted vegetable markets." The information about the demand for vegetables by the villagers was received through the community cadres to the district office.

On the other hand, approximately 3 lakh kg of vegetables had been produced by about 995 families belonging to the district, whose market price was around 1 crore, which was going unsold because of the same lockdown. It became imperative for the state and district teams to intervene and create a workable solution for bridging this gap between demand and supply.

INTERVENTION

A joint meeting was held online with Bihan district team, development block team and community cadre, which was led by District Mission Management, Bihan Kanker. The main objective of this meeting was to supply vegetables along with providing employment opportunities to the women members of the SHGs. In the joint discussion, it came out that if the members of the group can deliver vegetables to the homes of the people, then there can be some income. It was a trying time for the district unit. The biggest difficulty was identifying the group of women who were growing vegetables. It was found that among the 700 women members of 70 groups in each block, vegetable production was being done by about 10 groups. But still, the problem was not over, because there was a curfew in the city and there was no vehicle available to transport the vegetables to different villages.

While apprising the then Chief Executive Officer Dr. Sanjay Kannauje in this regard by the District Office, it was told that in this emergency, as a form of employment for the group members, it is necessary to transport the vegetables from village to village and door to door. Taking this matter seriously, talks were held with Additional Collector, Kanker by Sanjay ji to prepare the identity cards of the selected 70 group members. A vehicle was necessary to carry vegetables from village to village and door to door, and this problem was resolved through mutual efforts, small elephants were hired in 4 development blocks of the district namely Bhanupratappur, Kanker, Narharpur and Charama and electric rickshaws were supplied to the group in 3 development blocks respectively Koilibeda, Antagarh and Durgukondal.

It was now the turn of the group's members to deliver vegetables to the village. For this, the total villages of each development block were allocated group-wise to avoid overlapping i.e. 2 vegetable vehicles of



separate groups do not reach the same village together. Tomato, potato, brinjal, spinach, bottle gourd and native green vegetables were packaged by the respective groups – each packet containing 1 kg of vegetables. Vegetable packets were prepared for easy and fast transactions. In addition to the pre-packaged vegetables, large quantities of loose vegetables were also kept, including bottle gourd, spinach, cucumber, bitter gourd, pumpkin etc.

There was no significant benefit from the sale of vegetables on the first day and each member of the group got only an average of 100 rupees. Apart from this, the rent of the hired vehicle was also not recovered, and the group had to bear the loss. Basis the first day's sale, the group members started feeling disheartened and asked not to continue this business any further. But a new effort was made by the district office, hooters were installed in vegetable vehicles and vegetable vehicles were sent daily at a fixed time, due to which, the people of the village started getting information. Despite installing hooters and sending vegetable carts to the villages on time, the sale did not take place as expected. Each day that followed was creating a constant sense of desperation among the group members. Now the need was felt for the cooperation of the administration. The matter was brought to the notice of the Collector by the Bihan District Unit. Taking serious note, all the departments were ordered by the Collector through a letter that the Head of the Department should ensure getting maximum publicity about the vegetable access service by the groups. It was also declared that the groups will supply vegetables to officials' houses. Along with this, the Horticulture Department also provided superior quality seeds to the group members during this time and started giving necessary suggestions and advice. Full cooperation was also given by the bank, and it was told by the State Bank, Durgukondal that a 2 lakhs loan was disbursed to two groups of Durgukondal for the goods vehicle. After about 7 days, the hard work of the groups paid off and on the seventh day, after deducting the vehicle fare, each woman of the group made a profit of about 200 rupees from the sale of vegetables. At each block level, 8 to 10 such places were selected where vegetable growers could sell vegetables from 5 to 7 am every morning. The SHG members were involved in selling vegetables and packaging. After the vegetables were collected at the designated selling centres, vegetable vehicles would reach the villages around 8 o'clock by filling them in fixed vehicles like e-rickshaw or small transport vehicles. And standing at the pre-determined place, the sale of vegetables was done by the SHG members.

IMPACT

Due to the service started by the group, enthusiasm was visible among the villagers, and everyone openly bought vegetables from the group's didis, because of which the income of the group's sisters started increasing day by day. A WhatsApp group was created, in which the daily vegetable sales being done by the group and their daily experiences and problems were shared. Apart from this, it was also learned from the daily income-expenditure register being updated by the group members that during the corona period of about 18 months, the sale of vegetables was worth ₹85 lakhs in about 430 villages under 7 development blocks of Kanker district. In Bhanupratappur block itself, the business of vegetables worth 45 lakhs was done by the groups, in which full cooperation of the team was received and this news was also published extensively in the daily newspapers, 12,143 rupees per month income was received by each sister of the group from the vegetable business.

While the lockdown period created a frightening situation, the strong steps taken for the vegetable business gave an identity to the group members, and they got respect in the village and city and people's confidence towards the Bihan scheme and created a trust. Calling it the need of the hour would not be wrong. There is no need to continue this practice anymore because the vegetables produced by the SHG members will be sold by the processing units being set up in Gothans. Apart from this, fresh vegetable shops are going to be operated in the C-Mart being set up under the district, in which vegetables of SHG members will be sold. Apart from this, there is a plan to purchase the products prepared by the group in C-Mart, in which various by-products made from fruits and vegetables will be prepared and sold through C-Mart – a business initiative by CGSRLM. In addition to all these sales schemes, home delivery of fresh vegetables will also be done, which will increase the income of the group members.



SPOTLIGHT

Lachhantin Patel is an inhabitant of village Kalgaon, Block Antagarh, District Kanker. Her family includes her husband, two sons and one daughter. She belongs to small and marginal category. They have a small patch of land which they are cultivating to address the daily need of their family. To meet other expenses of the family she worked with her husband as agricultural laborer, wages from which are the major source of income for their family.

In 2018, she came to know about the National flagship program National Rural Livelihoods Mission (NRLM). Facilitators from Bihan came to her village for group formation of women members and shared the financial and social benefits of being associated with an SHG. In the initial phase, it was difficult for her to rely on the agency but looking at fellow members of her village she joined Nari Shakti, an SHG in her village. As a part of the group, she started monthly savings as per the norms set by her SHG members. She now availed of the internal lending provision of the SHG, due to which her family's little wishes were also getting fulfilled steadily.

With constant field visits and inspiration from the Bihan district team, she started cultivating vegetables on the homestead. After fulfilling her family's needs, she managed to sell vegetables for ₹500-700 per month. Feeling good, she was ready to take further steps for the development of this initiative. She started producing more and selling more, and by keeping her prices relatively lower than that of the prevailing market rates, she was able to garner a steady stream of customers in no time, increasing her monthly earnings to approx. ₹2000.

However, all of this came to a halting stop during the lockdown period. There came a situation where the family had no income and no food to eat on some days. One day, Lachchantin came to know of the online program with grassroots cadres regarding the selection of women farmers who are involved in vegetable cultivation. She participated in that program, where a strategy to market local vegetables on a door-to-door approach was finalized, which came as a ray of hope to her. As a part of the program, she sold about 30-40 quintals of vegetables in Koilibeda, and Durgukondal block apart from her own block from which she earned an income of about Rs 12000 in two months.

Currently, she is cultivating vegetables and pulses on two acres of land. She took a loan of 1.5 lakhs from SHG and Bank. For increasing her vegetable business, she managed to dig a bore well in her own field. Apart from this, she has 4 Buffaloes, which she is using in farming and selling milk to mitigate domestic expenses. From this business, she was able to fulfil many wishes of her family members.

Fruits of Agro-Horticulture Practices for Small Farmers in Central India

By Monika Jaiswal, Young Professional, Agriculture, Barwani, Madhya Pradesh

CONTEXT

Nandgoan is a village in Rajpur CD block of the Barwani district in Madhya Pradesh. The village is about 10 kilometres far from the block headquarter. Most of the families from this village migrate to other places for employment for 3-4 months in a year as they find it exceedingly difficult to find livelihood opportunities in the village and nearby area during the lean season. Worst of all is that the families are increasingly losing interest in farm-based livelihood due to poor resource management and the increasing cost of cultivation. People of Nandgoan do not have awareness of alternative livelihood options or relevant government schemes which could bring back their confidence. This makes them either migrate to other places in search of alternative employment or gradually give up farming.

Smt. Sita Bai lives in Nandgoan village with her family. She is a marginalized woman farmer. Her family condition is extremely poor. While she has 4 acres of land, she was gradually losing interest in agriculture. Asking her, she would say this is because of the high input cost. The major crops she grows are maize, wheat, gram, and cotton.

In the same village, BAIF initiated a program called WADI but was facing difficulty in mobilizing families to implement the program. BIAF team members initiated discussions with the Self-Help Group members of Nandgoan village to understand the issues and challenges in continuing farming as a profitable livelihood option. The Rajpur BAIF team conducted many pieces of training and meetings on agriculture and allied activities and motivated the families to take up WADI program.



During this phase, Sita Didi gradually started understating the project and gained the confidence to participate in the WADI Programme. Afterwards, Sita started participating in all the project activities and finally started developing her WADI (The homestead land in central India is referred to as WADI) from April 2015 onwards.

Nandgoan village is a tribal-dominated village and the topography is undulating with degraded uplands. The primary crops grown here are cotton, maize, and wheat. The highest temperature reaches 48 degrees Celsius during the summer and the area gets an annual rainfall of 25 inches. More than 85% of the people in the Barwani district are marginal and small farmers.

INTERVENTION

Under WADI project the families are supported for developing one acre of the orchard where they plant a few fruit-bearing trees (horticulture plants) like guava, pomegranate, moringa, citrus etc. Horticulture plants take four-five years or more to give any return. During this, the farmers are assisted to take up intercropping with vegetables and other short-duration crops. This gives a substantial income to the farmers from the first year. Families were also supported for soil and water conservation through effective management of the natural resources, which makes the field more productive in long run by creating water bodies, checking soil erosion and by producing more biomass.

Apart from orchard development (fruit/plantation/herbal crops/forest plants) as the core component, soil and moisture conservation measures, water resources management (conservation and use), sustainable agriculture, human resource development (community development), women development through components such as drudgery reduction measures, promoting other on-farm and non-farm income-generating activities, formation of SHGs, working on community health issues, and processing and marketing of Agro and horticultural produce are other interventions done under the WADI project.

From 2015 to 2017, BAIF collaborated with MP SRLM looking at the strong mobilization and deep connection of the SRLM with the community to effectively implement the Wadi programme. Presently, under the DAY-NRLM program, MPSRLM Livelihood Mission runs the Integrated Wadi Development Program in Rajpur. MPSRLM also initiated the Samagra Livestock Development program in the same area which complements the WADI project. To date, 503 WADIs have been developed in 31 villages of the Rajpur development block and two Samagra Livestock Development Centres have been initiated.



IMPACT

Even after the WADI project was formally closed, SRLM has continued its effort in developing more WADIs and creating models on farm livelihoods. SRLM has provided 50 fruit plant saplings and introduced new agricultural practices like growing vegetables in vertical trellis, etc in each WADIs. In addition to that, spice growing has been encouraged in. Cultivation of ginger, turmeric, and other medicinal plants has been introduced and expanded in WADIs and in nearby areas.

Sitabai's WADI yielded many products in the years 2016-17 and 2017-18. She has learned new skills in agriculture and has taken loans from her SHGs to develop her WADI. Sitabai's WADI is one among many others which have inspired farmers of other villages to replicate the model. Families now are buying plants on their own and are gradually developing their own WADI.

Cluster Level Federation in the area is playing a very crucial role in motivating more women to replicate the model. CLF has started supplying saplings to the families and is collecting money from them. This model has helped families to get quality saplings at a fair price. CLF is also earning by keeping a small margin for the services they are providing. CLF has also worked on concept seeding and mapping of agriculture clusters, identifying interested farmers, and supporting the SHGs and VOs through timely credit from CIF (Community Investment fund-grant money to CLF for lending to SHG-VOs) funds required for procurement of saplings and seeds for intercropping. Such institutionalization of a model has helped to expand the best practices through a community-led process. Recently the government has also recognized the potential of such involvement of institutions like CLF and has developed policies to provide a mandate to CLF to become PIA for developing saplings and implement plantation work through MGNREGA.

SPOTLIGHT

Mrs. Sitabai Muleva had her whole home built as a pucca house after joining the BAIF Organization Development Program. She also acquired 4 acres of land for 8.5 lakhs and arranged for irrigation by pipeline for a cost of 85,000 rupees. She is also raising cows and goat which adds on to her income from her WADI. She has sent her daughter to Indore College for higher studies



SN	FY	Vegetables	Spices	Grains	Fruit	Total Income
1	16-17	Cucumber	Turmeric + Ginger	Dollar Chana		
	Income	20000	32000	20000		72000
2	17-18	Gilki, Chawlai, Karela	Turmeric + Ginger	Dollar Chana		
	Income	45500	50000	20000		115500
3	18-19	Gilki + Louki + Karela	Turmeric + Ginger + Ama Haldi	Dollar Chana, Wheat		
	Income	35400	65000	50000		150400
4	19-20	Gilki + Louki + Karela	Turmeric + Ginger + Ama Haldi	Maize	Lemon + Guava + Pomegranate	
	Income	36800	72000	20800	58580	188180
5	20-21	Chawlai, Bhindi, Karela, Kundru	Turmeric (Powder) + Ginger + Ama Haldi (Pickle)	Maize, Wheat	Lemon (Pickle) + Guava	
	Income	70380	142000	20730	35200	268310
6	21-22			Maize	Guava	
	Income			35000	25000	60000

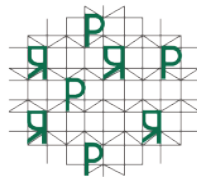
Today Sitabai's annual income is around ₹2.6 lakhs. This has improved the social, economic and educational condition of her family. She has been recognized as a model organic farmer of Rajpur block.

After getting good production of Kagzi Lemon, she has now moved on to processing lemon pickles under the brand Aajeevika. She is not only a farmer but also a great business person. The lessons one may learn from this case study are that hard work and proper guidance can make a person successful and that models like WADI are vastly useful for growing multiple crops in minimum land area and minimizing the risk of crop failure with a high return in a sustainable manner.

She expresses thanks to NRLM and the BAIF organization for bringing about a shift in her life that has made her extremely happy. Sita Devi has expanded her work over the years and this has led her to sharpen her skills. She shares her experience during exposure visits to other farmers in her WADI. Multiple sets of works such as composting units, Horti plantation, spices farming and intercropping can be looked at. She shares that slowly and steadily she has reached a level where she feels confident and empowered.

ACRONYM AND ABBREVIATION

Acronym	Full-form	Acronym	Full-form
AKM	Aajeevika Kisan Mitra	LG	Local Group
APC	Agriculture Production Cluster	LWE	Left Wing Extremism
APS	Aajeevika Pashu Sakhi	MDI	Micro Drip Irrigation
ASK	Aajeevika Sansadhan Kendra	MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
BAIF	Bharatiya Agro Industries Foundation	MKSP	Mahila Kisan Sashaktikaran Pariyojana
BHGY	Birsa Harit Gram Yojana	MLA	Member of the Legislative Assembly
BMMU	Block Mission Management Unit	MPSRLM	Madhya Pradesh State Rural Livelihood Mission
BYP	Backyard Poultry	MSP	Minimum Support Price
CGSRLM	Chhattisgarh State Rural Livelihoods Mission	NADEP	National Agribusiness Development Programme
CIF	Community Investment Fund	NFHS	National Family Health Survey
CLF	Cluster Level Federation	NGO	Non Governmental Organisation
CMSA	Community Managed Sustainable Agriculture	NMS	Narmada Mahila Sangha
CREDA	Chhattisgarh Renewable Energy Development Agency	NPM	Non-pesticide Management
CRP	Community Resource Person	NRLM	National Rural Livelihoods Mission
DAY-NRLM	Deendayal Antyodaya Yojana-National Rural Livelihoods Mission	NSO	NRLM Support Organization
FPC	Farmer Producer Group	NTFP	Non Timber Forest Produce
FSSAI	Food Safety and Standards Authority of India	ORMAS	Odisha Rural Development And Marketing Society
HH	Household	PC	Producer Company
HYVP	High Yielding Varieties Program	PG	Producer Group
IB&CB	Institution Building & Capacity Building	RF	Revolving Fund
ICRP	Internal Community Resource Person	RSETI	Rural Self Employment Training Institute
IEC	Information, Education & Communication	SC	Scheduled Caste
JAMTTC	Jharkhand Agriculture Machinery Testing & Training Center	SFAC	Small Farmers' Agri-Business Consortium
J-HIMDI	Jharkhand Horticulture Intensification by Micro Drip Irrigation	SHG	Self Help Groups
JSLPS	Jharkhand State Livelihoods Promotion Society	SMIB	Social Mobilisation and Institution Building
KVK	Krishi Vigyan Kendra	SRLM	State Rural Livelihood Mission
		USP	Unique Selling Proposition
		VO	Village Organization
		WSHG	Women Self Help Group
		PRADAN	Professional Assistance for Development Action



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