

**Project Title:** *Ensuring food security, income and empowerment among marginalized communities through crop productivity enhancement, availability of inputs, establishing market linkage and access to entitlements in Bankura, West Medinipur, and Jhargram districts of West Bengal.*

## 1. Context and Problem Statement:

West Bengal, India's fourth most populous state, is a largely agrarian state with 65% of the population dependent on agriculture or allied activities. Over the years agriculture has become an increasingly unviable occupation in the state with rapid land fragmentation, plateauing of agricultural output and productivity, inadequate returns, and growing indebtedness of farmers. The agricultural districts of Bankura, Jhargram, and West Medinipur are thickly forested with the population pre-dominance of tribal groups like Santhal, Munda, Lodha, Kora, and Bhumi along with Scheduled Caste groups like Bagdi, Dom, Kaibatra, and Mal. Other prominent groups are OBCs like Kudmi, Mahato, Tanti, and Kumbhar. The majority of the rural population here are poor and live in isolated hamlets with limited natural resources, poor agricultural productivity, and are characterized by weak institutions, including poorly developed markets. The identified issues in the above districts are:

- Paddy accounts for almost 60% (about 75 percent of Kharif) of crop coverage even though less than 10% of the net sown area is irrigated
- Productivity of all the crops is in the range of half the national average and often much lower than the potential
- Due to high variability of monsoon rains, low moisture-holding capacity of soils, absence of developed aquifers due to the hard rock substrate and high run-off due to the undulating terrain, agriculture is fraught with high risks
- Low farming skills combined with a poorly developed resource base result in low productivity
- Vulnerable families mostly have food security (when they are sure that they will get at least two meals a day) for 6-9 months in a year
- For the rest of the year, they depend on subsidies, look for wage employment or migrate
- The rural areas of Bankura, Jhargram and West Medinipur is a witness to significant distress migration during the post Khariff period
- The main causes for this rural migration are poverty, unemployment and landlessness
- In rural areas of these districts, poverty rates are more than 50% among marginalized groups
- The status of women is even worse with very little ownership over land and little access to resources, skills, and opportunities
- Weak institutions and lack of knowledge also prevents communities to access different schemes that can potentially augment their livelihoods and well-being.

There is a lack of diversity and existing livelihoods resources are underutilized. Linkage to mainstream markets is inadequate resulting in poor returns for farm produce. There is an opportunity to intervene through improved farming practices, value addition to farm produce and better animal husbandry practices to improve the economic and social well-being of marginalized communities.

## 2. Organizational Brief:

Shamayita Math has been created with a mission 'to serve the marginalized with an aim to create a holistic development opportunity to help them a self-empowered life with dignity.' The organization envisions an empowered society with a focus on the welfare of the underprivileged, particularly women and children. Founded in the year 1996, the organization is driven by the philosophy of ultimate empowerment of people through self-knowledge and self-awareness.

The basic objective of empowerment is to create an enabling environment for people to work hard, have adequate returns, and lead a long, healthy, and peaceful life. The Math carries out social welfare activities in the areas of Education, Healthcare, and Rural Development. The organization has deep experience in rural development having worked intensely and closely with the poorest of the poor to help achieve sustainable livelihood, in over 100 villages in the last 15 years.

Since 2006, the Math has been extensively engaged in improved agriculture, the introduction of certified seeds, SRI, line transplanting, using residual moisture to grow crops, machan and nutrition garden. To further this work, the organization began work on Integrated Natural Resources Management (INRM) to strengthen sustainable livelihoods. In the last few years, the focus has also been on livestock management as this diversifies the livelihoods portfolio of the community and helps them earn additional income.

Self Help Groups (SHGs) promoted by Shamayita Math (SM) provide an effective space to build on this foundation so far to work for the empowerment of marginalized communities. Through this project, SM will work with more than 6,000 women from poor and marginalized households belonging to historically marginalized groups in the district of Bankura, Jhargram, and West Medinipur.

SM's work in this area has helped build a thorough understanding of the poverty context and necessary equitable solutions for the empowerment of communities. Based on this understanding of ground realities, through this project, women farmers would be capacitated to improve productivity from their farms by introducing organic agriculture (gradual transition) and through farm allied activities and to collectively engage with the market for better returns for their produce. Marginalized communities will be engaged in accessing different entitlements by mobilizing, motivating and training them on relevant schemes.

## 3. Project Sites and Implementation:

SM will implement the project in four administrative blocks covering 120 villages in the districts of Bankura (Gangajalghati block), Jhargram ( Jhargram and Jamboni blocks) and West Medinipur (Salboni block). The project will work with 6,000 women from 600 SHGs impacting the lives of 30,000

people<sup>1</sup>. Four SM field-based professional teams will be engaged in the implementation of the project. SM has been working in the proposed block for four years now on mobilizing the community around SHGs and initiating some pilot livelihoods intervention. This work has enabled the organization to build significant social capital in the villages.

The major focus so far on these SHGs has been on awareness building and concept seeding on the importance of groups, along with fundamental training on the concept of saving and credit and mutual help. Training the group accountant and opening up of bank accounts has been initiated. Women from SHGs have started inter-loaning in their own groups and they are also being linked to mainstream financial institutions like banks. This has significantly reduced the dependency on loan sharks in the community.

Livelihood prototypes have also been tried and tested in these villages and possible models of intensive engagements have emerged. These groups now provide an ideal platform to engage on the issues of livelihoods by scaling on the emerging prototypes to facilitate poor families out of poverty. They also provide an excellent platform for engagement on issues of rights and entitlements.

#### 4. Goals and objectives

The goal of the project is to address entrenched issues of marginalization in the Jungle Mahal area of West Bengal to facilitate marginalized families out of poverty.

The objective of the project is to engage with communities to establish a model of livelihoods intervention which will support them to become self-sustainable ensuring substantial return from their farms. The project will scale on existing prototypes of livelihoods intervention to evolve a sustainable model with marginalized communities wherein women from remote villages are engaged in improved organic agricultural practices, diversified into other agro-allied activities like goat rearing and backyard poultry and establish mainstream market linkages for both inputs and surplus sale. It will also engage with the community on entitlements of different schemes and leverage resources from mainstream government to further investment in the livelihoods of communities. Through the project, the organization will also invest in different processes to strengthen internal systems and staff capacity building for long-term sustainability.

#### 5. Approach:

The approach of this project will hinge on five pillars:

- Building the technical capabilities of women from marginalized groups for enhanced livelihoods with a focus on organic agriculture
- Campaigning on entitlements/schemes and nutrition-based agriculture at the grassroots
- Facilitating the emergence of vibrant community institutions (Producers Groups and Farmers Service Centre) for the sustainability of the five-year project timeline

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<sup>1</sup> Typically one family has six members

- Linkages to different institutions and stakeholders for credit access and investment in land and water infrastructure work
- Investment in capacity building of organizational staff

Capacitating women farmers through livelihoods training, handholding support, farm mechanization, and new organic agriculture technology transfer will result in significant productivity increase while promoting community institutions (Farm Service Centre) will support drudgery reduction, input linkage, and value addition through processing; thereby improving incomes.

In each village, Producer Groups (PGs) will be promoted and will be the platform for engaging with women from marginalized groups on livelihoods, training them on different entitlements and facilitating credit linkage for SHGs. PGs will cater to the local demand and supply situations. They will take advantage of deficits in the local markets and collectively engage in crop or commodity production based on economies of aggregation aiming at reducing individual transaction costs involved.

Family-Base Livelihoods Planning (FBLP) will be initiated with women farmers from all PGs. The FBLP process helps in mapping existing land resources and/or others as well as skills in the households and plans for intensification and diversification along with the potential of interventions to enhance productivity. Based on FBLP, interventions on soil enhancement, improved paddy, organic paddy, pulses and oilseeds, nutrition garden, and diversification in livelihoods through goat rearing and backyard poultry will be initiated. Farmers are supported to adopt these practices through on-field demonstration, handholding support, and rigorous field-level training. These include work on improved seeds, nutrition of the soil, and pest management. In agriculture, similar high-value crops will be selected for promotion to ensure the emergence of agriculture clusters with bulk production. This will help bulk production of commodity for aggregation and value addition.

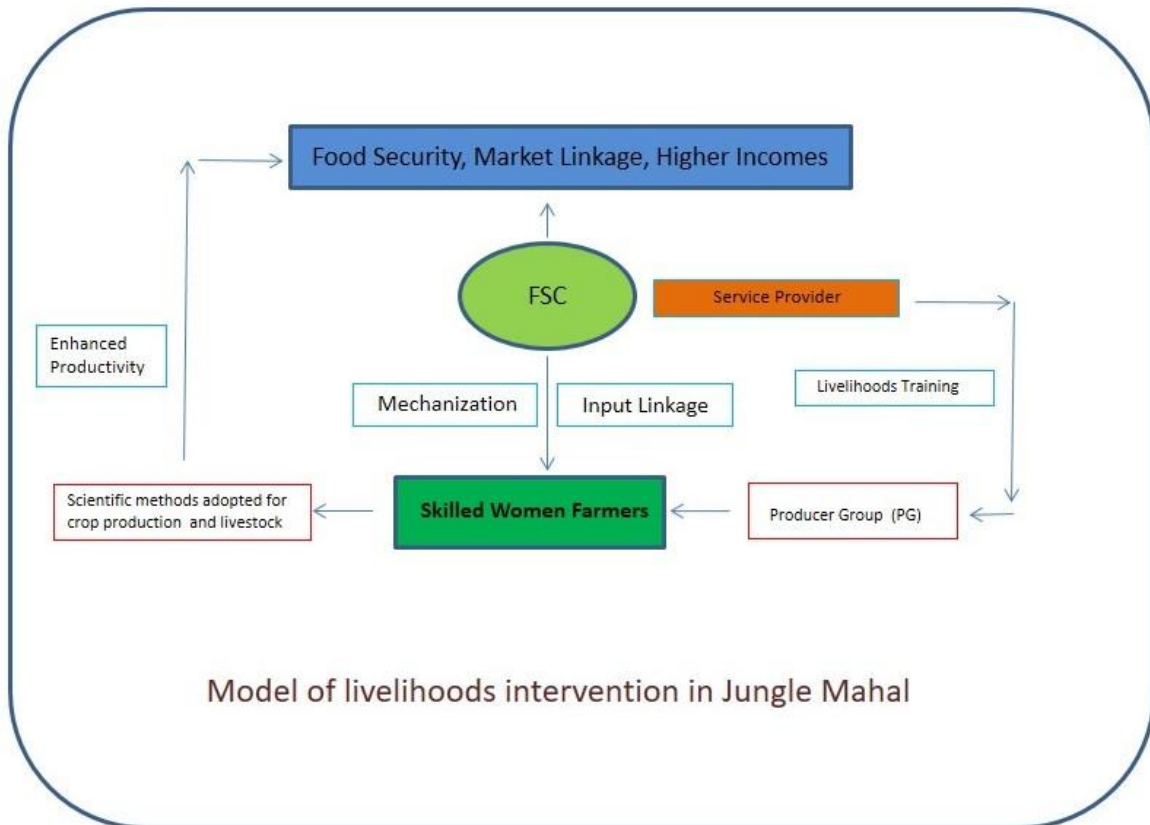
Community Resources Persons or CRPs are enterprising women leaders who will be trained to support women farmers to adopt new agricultural practices and animal husbandry.

Women farmers in PGs will be federated into Farmer Service Centre (FSC). For this project, there would be 6 FSC. Each FSC will have sufficient infrastructure to support more than 1000 farmers on agriculture mechanization to enhance productivity as well as value addition to the agricultural produce through aggregation, processing, and collective marketing. The FSC will be conveniently located for farmers to access agriculture inputs and equipment in their villages during the farming season and bulk collection of the products to the FSC from their villages to the FSC after harvest. Each FSC will cater to 20 PGs. One PG will have 40-60 members.

From each PG, one representatives will be present in the FSC. One person would be selected by the FSC Committee as Agriculture Service Provider (ASP) to run the unit. At the end of this project, this unit would become self-sustaining. The FSC unit will charge a nominal amount for the machinery or the facilities used by the farmers leading to a community-based income model. The

charge on equipment usage (rotavator for tillage, weeder, power sprayer for pest management, mixer and grinder for processing, etc.) will ensure an income-driven model for the FSC.

Linking to the market has been one of the major challenges of engaging with groups that have very little leeway in front of market forces. Their lack of sufficient surplus, inability to add value to their produce, relatively high cost of both farm mechanization and processing equipment, and finally lack of transparent information about price fluctuation leads to below-par returns from the farm. FSC (model depicted below) enables communities to collectivize and better engage with the markets.



## 6. Process of Implementation:

Each family will be supported through at least three sets of livelihoods activities under this project. The process of implementation will involve:

- **Village Identification:** The selected villages for intensive engagement under this project are remote and economically deprived with a large percentage of the population belonging to the ST and SC community. The village selection will be based on the ground experience of the organization, community interaction, and consultation with the Block Development officer, PRI members, Agriculture and Veterinary department. 5000 families under the project will be from ST, SC, OBC and minority groups. Other families will be from similar disadvantaged categories. About 400 families will belong to the ultra-poor category that will need special focus.

- **Grooming of Community Institutions:** The proposed project will strengthen community institutions like Producers Groups (PGs) which have been promoted by SM. In each intervening village, PGs will be promoted. Community Resources Persons (CRPs) will be embedded in PGs. For every 100 families, one CRP will be promoted.
- **Capacity Building of Groups:** Training on various aspects of farmers' collectivization, planning and implementation, organic agriculture, and livestock technical training will be imparted to PGs. SHGs will also be the platform to train women on different entitlements.
- **Family Based Livelihoods Planning (FBLP):** FBLP would be carried out to map the existing resources with the community and the potential of interventions around these resources to enhance productivity. Similar high value crop for bulk production and value addition will be promoted.
- **Investment and Asset Creation:** Based on FBLP, women farmers will be supported through investment in their farms, goat sheds and chicken sheds.
- **Promoting NPN shops:** Per two intervening villages, NPN shop will be promoted to help communities move from chemical based agriculture to organic sustainable agriculture. The NPN shop would also be a hub to promote and conserve different indigenous seeds of the area.
- **Farmer Field School (FFS):** Per two intervening village, one FFS will be promoted where different kinds of training with the community on organic agriculture will be promoted. These field schools will also serve as demonstration plot and will be integrated with the NPN shops.
- **Leveraging resources:** Asset creation like farm ponds through government leverages will be done and SHGs will be linked to mainstream banks for access to credit to support them further invest and diversify their livelihoods.
- **Market Linkages:** This initiative will work to strengthen input linkages like quality manure, feed, medicines, and drudgery reducing equipment through FSC. The FSCs will tap into existing opportunities in the market for better returns through bulk sales.

## 7. Outreach:

The following will be the outreach for the project:

S.No.	Intervention	Number of Households/Units
1	Training women on different schemes, nutrition garden and other livelihoods	6,000
2	Nutrition Garden	5,600
3	Goat Rearing through a raised platform	3,500
4	Scientific Backyard Poultry practices	3,000
5	Organic Paddy Promotion	2,000
6	Promotion of organic vegetables	1,500
7	Promotion of pulses and oilseeds	1,000
8	Promoting ginger and turmeric	1,500
9	Supporting ultra-poor families	400

10	Community Resources Persons	100
11	NPM shop and demonstration plots	60
12	Farm Service Centre	6
13	Goat Breeding Centre	1
14	Villages	120
15	Blocks	4
16	District	3

## 8. Livelihoods Intervention Basket and Outreach:

Livelihoods Basket (three each family)	Number of Families
Nutrition Garden, Goat Rearing, Organic Paddy	2000
Nutrition Garden, Goat Rearing, Organic Vegetables	1500
Nutrition Garden, Backyard Poultry, Ginger and Turmeric	1500
Nutrition Garden, Backyard Poultry, Pulses and Oil Seeds	1000
<b>Total for intensive engagement</b>	<b>6000</b>

## 9. Detailing of activities

### A. Capacity Building of SHG members:

SHGs will be used to train women on different schemes like PMSBY-Pradhan Mantri Suraksha Bima Yojana, MGNREGA-Mahatma Gandhi National Rural Employment Guarantee Scheme, UJJWALA-Pradhan Mantri Ujjwala Yojana, PMMVY-Pradhan Mantri Matru Vandana Yojana, Atal Amrit Yojna, PMJJY-Pradhan Mantri Jeevan Jyoti Bima Yojana, PMAY-G- Pradhan Mantri Gramin Awaas Yojana Grameen, PM-JAY- Ayushman Bharat Pradhan Mantri Jan Arogya Yojana, SBM-Swachh Bharat Mission and NFSA-National Food Security Act. Training booklets will be designed and used in SHG meetings to inform and engage with the community about the schemes.

The PGs will also play a vital role in training the community on nutrition-sensitive agriculture in a structured module. Both professionals from Shamayita Math and CRPs will be engaged throughout the project duration in these training.

### B. Promotion of nutrition gardens:

The nutrition garden is primarily intended for a continuous supply of fresh vegetables for family use. This intervention will take place in the backyard of the household to promote tuber crops, fruits, leafy vegetables and other vegetables in at least 2 decimal land. SM will train the farmers, support the layout and crop selection based on the nature of the land. This intervention will ensure the supply of highly nutritious fresh organic vegetables for both self-consumption and sale of surplus. This will take place with 6,000 families (out of these 400 will be from ultra-poor category).

The different activities will be:

- Concept seeding meeting on vegetable-based nutrition garden at SHG/PG level
- Handholding training on nutrition garden to families
- Follow-up training for adoption beyond the first intervention

**Details of cost per family for setting up nutrition garden is below:**

Particulars	Amount (in Rs)	Project support (in Rs)	Own Contribution (in Rs)
Land preparation	600	0	600
Support for seeds, organic pesticide, culture etc.	1000	800	200
Total	1600	800	800

### **C. Organic Paddy:**

Farmers will be trained on improved paddy cultivation by adopting organic packages of practices in paddy for productivity enhancement and food security. This intervention in 0.33 acres will result in increased productivity by more than 30% from the current level. This will ensure year-round food security and help families earn additional incomes. The interventions under this activity are:

✓ **Training on organic paddy cultivation**

Training will be provided to the 2000 participating families on

- Seed sorting and treatment
- Nursery raising
- Transplantation
- Inter-culture operations

✓ **Training on Integrated Disease and Pest Management (IDPM)**

Training on IDPM will be conducted with 2000 farmers. The training will incorporate all the organic and natural practices involved.

- Natural practices like summer ploughing, Sticky trap, trap crop, crop rotation etc.
- Organic practices will incorporate organic control over disease and pests like application *KolohiAushad* (HandiDawa), *Brahmastra*, *Neemastra*, *Trichoderma application* etc.

**Details of cost per family for setting up organic paddy cultivation system is below:**

Particulars	Amount (in Rs)	Project support (in Rs)	Own Contribution (in Rs)
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Support for Seeds (Aromatic paddy seed & Dhaincha)	400	400	
Support for Organic bulk and liquid manure, organic pesticide, culture etc.	3600	1600	2000
Total	4000	2000	2000

Organic scented paddy will be produced from the perspective of market sale and about 6 quintals of the 8 quintals produced will be sold by the farmers ( per quintal rate is INR 3,000). This will result in an additional profit of INR 15,000 for 2000 farmers.

#### **D. Organic vegetables**

Organic vegetables will be promoted with 1500 families in about 10 decimal (0.1 acre) land. SM will train the farmers, support the layout and crop selection based on the nature of the land. This activity will ensure not just vegetables for self-consumption but also improve incomes as families will sell their vegetables in the market. Details of cost per family is below:

Particulars	Amount (in Rs)	Project support (in Rs)	Own Contribution (in Rs)
Support for Seeds	500	500	0
Support for fertilizers and pest management	2000	0	2000
Total	2500	500	2000

Each family will earn an additional income of INR 15,000 from this activity.

#### **E. Promotion of improved pulses and oilseeds:**

SM field teams will support 1000 women farmers to adopt organic System of Root Intensification (SRI) practices in pulses and oilseeds to increase their productivity by more than 50%. The FSC will streamline the collection, sorting, and grading of produce. The team will support farmers through quality seed adoption, integrated pest management and facilitate the adoption of drudgery reduction equipment.

Details of cost per family is below:

Particulars	Amount (in Rs)	Project support (in Rs)	Own Contribution (in Rs)
Support for Seeds	500	500	0
Support for fertilizers and pest management	2000	0	2000
Total	2500	500	2000

Each family will earn an additional income of INR 10,000 from this activity.

#### F. Promoting ginger and turmeric:

Cultivation of ginger and turmeric can be highly remunerative under rain-fed conditions.

Major interventions under ginger and turmeric would be:

- Seed Selection and Rhizome Treatment
- Soil preparation and fertilizer management
- Disease Pest Management
- Preservation of seed

Details of cost per family for turmeric/ginger cultivation system is below:

Particulars	Amount (in INR)	Project support (in INR)	Own Contribution (in INR)
Support for Seeds (For 0.20 Acre)	1500	1500	0
Soil Preparation	2500	0	2500
Support for fertilizers and pest management	2000	0	2000
Total	6000	1500	4500

This intervention will take place with 1500 families and increase their annual income by INR 20,000.

#### G. Goat Rearing through a raised platform

Many families in the project area have goat but goats suffer from high mortality. Due to the susceptibility of goats-to parasitism, the most practical goat houses are those which are raised above the ground level, are well ventilated, and have long eaves to prevent heavy rain showers to splash in from the sides. Low-cost housing will be constructed on a raised platform (about 1-meter height from ground level) by using bamboo/wooden poles or a 'pakka' building by establishing concrete pillars. Floor and side walls will be made of wooden material. The roof will be thatched with coconut leaves, grass, or asbestos sheets. The average floor space per kid is 0.75 to 1 sq. meter. The floor should have at least 1 cm space between bamboos/wooden planks to allow passage of dung and urine down to the ground. The support per family will be to strengthen the shed and veterinary care under this intervention is as below:

Particulars	Amount (in Rs)	Project support (in Rs)	Own Contribution (in Rs)
Night shelter for Buck, Doe and followers Adults (Buck-20 sq ft; Doe-10 sq ft) (Rs. 80/ sq.ft)	7000	1000	6000

Vet Care	1000	1000	0
Total	8000	2000	6000

This will improve the family income by INR 15,000 annually from the sale of goats for 3,500 families (out of these 200 will be from ultra-poor category).

#### H. Scientific Backyard Poultry:

To maximize income through BYP, the introduction of improved breeds is an important component of interventions that performs excellently in terms of eggs and meat production giving a high return with low investment. Considering the above factors, improved breeds which will be introduced to the rear as BYP and annual egg production can go up to 220-230 and matured body weight becomes 2.5 to 3.5 kg. In each household, 40 chicks will be introduced. The first egg is laid between 200 to 230 days depending upon feed, nutrition, and other management parameters.

The introduction of improved breeds with vet care, systematic management practices and feeding can make this activity viable in terms of sustainable means of livelihood and income. 1500 families would be supported under this activity. The cost details per family to support the setting of BYP is as below:

Particulars	Amount (in Rs)	Project support (in Rs)	Own Contribution (in Rs)
<b>Shed Construction</b>	1500	500	1000
Bird cost	1500	1000	500
Vet care	1000	500	500
<b>Total</b>	4000	2000	2000

In a year's time, two batches of chicken will be ready to be sold. Assuming a mortality rate of 10%, in each batch, the families can sell up to 20 chickens and keep the rest to increase the flock again.

Return per batch of chicken sold				
	Unit Sold	Selling Price in rupees	Amount in rupees	
Chick	20	450	9000	Considering 10% mortality

Overall sale return per family per year will be Rs 18,000 from the sale of meat while Rs 5,000 would come from the sale of eggs. Apart from that, there would be improved nutritional outcomes from the consumption of meat and eggs by the 3,000 families involved (out of these 200 will be from ultra-poor category).

## I. Goat Breeding Farm:

In recent years, the Black Bengal goat has been subject to crossbreeding with other breeds of goat and inbreeding because of the paucity of suitable Black Bengal bucks. These practices have led to several complications in the offspring, such as reduced disease resistance, high morbidity rates, and low growth rates. Conservation of high-quality and native pure Black Bengal goat germplasm is crucial to overcoming these problems. Goat owners should be informed about the utility of this important breed and advised to breed goats within the same breed, which will help maintain the world-famous, high-quality meat and skin. This intervention aims to introduce good animal breeding practices, like selecting high-quality animals for breeding and developing careful crossbreeding programs by establishing the goat breeding farm which will be managed by livestock entrepreneurs. These entrepreneurs will be selected from the CRPs (Pashu Sakhis) essentially involved in livestock farming to provide linkages for input and output services to goat production cluster.

The goat breeding farm will be setup to produce healthy kids of high potentiality in the most economical manner and this will ensure steady supply in the area. This will be a centrally operated setup that will support 40 nanny and 2 buck goats. This will be a sustainable model and from the second year onwards, it will be run by the community entrepreneurs.

The cost details are below:

Item	Unit	Unit Cost in INR	Total Units	Total cost in INR
Shed Cost for 1000 Sq ft X 9 ft height	Rs./ Sq Ft	500	1000	500000
Water Development Cost (Submersible)	Lump Sum	40000	1	40000
Electricity Development Cost	Lump Sum	15000	1	15000
Motor Chopper	Rs./ Unit	10000	1	10000
Nanny Goat 1 to 2 years	Rs./ Unit	5000	40	200000
Buck Goat 2 to 2.5 years	Rs./ Unit	7000	2	14000
Other Instruments/ Equipment + 1 Weighing	Rs./ Unit	20000	1	20000
Recurring Cost				
Lease for Farm & Fodder cultivation	Rs./ Acre	15000	1	15000
Electric cost	Rs./ Year	12000	1	12000
Fodder cultivation (only production)	Lump Sum	5000	1	5000
Labour for Management of Goat at Shed	Rs./ Month	6000	12	72000
Feed Concentrate added with mineral mixture (200 Gm per day per Nanny for 6 month/ year, 200 Gm per day per Buck for 12 month/ year and 100 Gm per Kid per day for 5 months/ year)	Rs/Kg	30	4600	138000
Medicine and vaccination cost for 40 nanny & 2 buck	Rs./ Goat	100	42	4200
Medicine and vaccination cost for 100 kids	Rs./ Goat	60	100	6000
Doctor Visit - 4 visit/ Month	Rs./ Visit	500	48	24000

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#### J. Farmer Service Centre (FSC):

Small and marginal farmers are hardly able to afford or access mechanization and which is one of the primary reasons for the slow uptake of farm mechanization and hence non-intensification of farm productivity. There is a direct correlation between having access to farm implements and the impact on efficiency, and timeliness of the farm operations which, in turn, impacts outputs.

The objectives of forming FSC are following:

- To enable small farmers to hire services of FSC for farm operations
- To make available various farm machinery in one place-single window
- To create a model demonstration for multiplication by Producer Groups

For this project, there would be 6 agriculture production clusters or FSC dealing with agricultural production. Each FSC will have sufficient infrastructure to support more than 1000 farmers on village agriculture mechanization to enhance productivity as well as value addition to the agricultural produce through aggregation, processing, and packaging. In the four blocks, six FSCs will be promoted based on the need and cropping pattern of the area. In Jhargram and Jamboni blocks, oil expeller and rice mill be integral to the FSC (low pulse production area), in Salboni block daal mill and rice mill (low oil seed production area), and in Gangajalghati block oil mill and daal mill will be promoted (area where community is intensively engaged on oil seeds and pulse production). The equipment details of FSC are as below:

Sl. No.	Machine details	Unit Price (Rs)	Number	Total Cost (Rs)	Remarks
1	Diesel Power Tiller with Reaper 9 HP 4 stroke	110560	6	663360	For 6 FSC
2	Heavy Duty 7HP Petrol Power Weeder Gear Drive with PTO Shaft	39990	6	239940	For 6 FSC
3	Heavy Duty Manual Cono Weeder For Agricultural Purpose	1990	180	358200	For 6 FSC
4	AV-8A Power Thresher with 0.5HP Heavy Duty Motor	27650	6	165900	For 6 FSC
5	Heavy Duty Seed Drill Attachment for Power Tiller	22990	3	68970	For 3 FSC
6	Mini Dal Mill with 3 HP motor	80000	1	80000	For 1FSC
7	Commercial 5Kg Wooden Cold Press Oil Machine with 2HP Motor	110500	3	331500	For 1 FSC

8	Combined Rice Mill and Flour Mill with 3HP Single Phase Motor	55560	3	166680	For 3 FSC
9	Miscellaneous cost of initial setup and support	50000	6	300000	For 6 FSC
	<b>Total cost</b>			<b>2374550</b>	For 6 FSC

#### **K. Leveraging resources from mainstream financial institutions and government:**

Work on land and water development will be initiated through support from MGNREGS and other relevant government programs. SM will engage at different tiers of the administration including the Panchayat planning process for leverage.

The project will work to facilitate credit linkage for 600 SHGs that will enable members to further invest on strengthening their livelihoods. INR 150,000 will be mobilized from mainstream financial institutions for each of the SHGs.

#### **L. Setting up of Non Pesticide Management (NPM) shops:**

For every two intervening villages, NPN shop will be promoted to help communities move from chemical based agriculture to organic sustainable agriculture. In these shops, micro-entrepreneurs will not only make different organic concoctions on their own but also store ingredients like neem oil and vermicomposting. The NPN shop would also be a hub to promote and conserve different indigenous seeds of the area. Micro-entrepreneurs will also

Each micro-entrepreneur will be supported with an initial investment of INR 10,000 for this activity.

#### **M. Supporting ultra-poor families:**

About 400 families will belong to the ultra-poor category that will need special focus. These families will be supported through a basket of two activities from the first year itself. For 200 of these families, the intervention will be through nutrition gardens and goat rearing while for the other 200, it will be nutrition gardens and backyard poultry. With 100 families, organic paddy will also be taken up in the third year.

If ultra-poor families are in the same hamlet or adjacent villages, PGs will be formed for them for intensive engagement from the first year itself.

## **10. Expected results**

The project will lead to increased knowledge, awareness, mobility, self-confidence and economic empowerment of women farmers from poor and marginalized social groups. The expected outputs, outcomes and impact of the project are:

**Activity:**

- 6,000 women from as many poor families organized into 120 vibrant VOs
- Supporting 6,000 farmers on nutrition garden
- Diversion of livelihoods with 6,000 women farmers by promoting organic paddy and vegetables, oilseeds and pulses, ginger and turmeric, and livestock (goat rearing and BYP)
- Promotion of organic agriculture practices in 120 project villages
- Leveraging of credit of INR 150,000 from mainstream financial institutions for each of the SHGs
- Setting up six revenue-driven model FSC for drudgery reduction, farm mechanization, collectivization, sorting, simple tools and processing of agriculture products to support 6,000 farmers
- 60 CRPs at the village level who extend technical support to women farmers
- 40 CRPs at the village level who extend technical support to women farmers on animal husbandry

The incremental income in the fourth and fifth year of the project will be as below:

Activity	Number of farmers	Incremental Income in INR
Nutrition garden	6000	Self-Consumption
Organic paddy	2000	15000
Organic vegetables	1500	15000
Pulses and Oilseeds	1000	10000
Ginger and turmeric	1500	20000
Goat Rearing	3500	15000
BYP	3000	23000

**Output:**

- 80% VOs report regular meeting with set norms and processes
- 90% of women farmers are adept in new organic agriculture practices
- 80% of women linked to the revenue-based model of FSC
- 70% of families report increased productivity by 50% in paddy, pulses, and oilseeds
- 60% of families under intensive intervention report an increase in income in the range of INR 30,000 to INR 50,000
- 50% of families report a greater per week intake of vegetables and pulses in their food plates for families under intensive engagement

Activity Basket	Number of Families	Increased Income in INR
Nutrition Garden, Goat Rearing, Organic Paddy	2000	30000
Nutrition Garden, Goat Rearing, Organic Vegetables	1500	30000

Nutrition Garden, Backyard Poultry, Ginger and Turmeric	1500	43000
Nutrition Garden, Backyard Poultry, Pulses and Oil Seeds	1000	33000

**Outcomes:**

- Formation of robust and vibrant community institutions across project blocks, which creates an effective and efficient eco-system for the marginalized farmers
- Higher levels of agricultural commercial crop development and adopting sustainable agriculture practices lead to higher productivity and doubling of agricultural incomes from current levels
- Greater intake of vegetables and pulses in the households under the project due to increased production with an increased weekly intake of vegetables and pulses compared to baseline
- Emergence of strong women leadership working on all nodes of the supply chain right from production to sale

**Impacts:**

- Emergence of agriculture development clusters to facilitate families out of poverty
- Streamlining of agriculture supply chains that connect rural producers to customers directly
- Greater nutritious food availability in households for children and all family members

## 11. Sustainability

The project will work to build sustainable community institutions like PGs and FSCs and capacitate rural and poor women on different livelihoods skills. Through investment in various livelihoods technology during the project, women from marginalized groups will be skilled in new practices and adopt them. CRPs at the village level will support women farmers. As the project matures at the end of the fifth year of the project, the systems evolved due to this would continue to function through the community institutions led by women as they will be involved in the planning and execution process from the very initial stage of the project initiation. Linkages will also be established for the collectives with different line departments and knowledge partners.