



Business Plan
On
Income Generation Activity
– **Vermicompost**

For
Self Help Group –Sai Ram



Size of Pit: 3.6 m X 1.2 m X 0.75 m

| | |
|--------------|-----------------------|
| SHG/CIG name | Sai Ram |
| VFDS name | Gayatri Mata(Thandol) |
| Range | Daroh |
| Division | Palampur |

Prepared Under-

**Project for Improvement of Himachal Pradesh Forest Ecosystems
Management & Livelihoods (JICA Assisted)**

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1. Introduction-

Vermicomposting tanks made of ordinary bricks in a semi-commercial unit. The model for vermicomposting consists of three chambers enclosed by a wall and size of one chamber (1.5 m width, 5 m length and 0.75 m height) with three chambers in a pit. The walls are made up of different materials such as normal bricks, hollow bricks. This model contains partition walls with small holes to facilitate easy movement of earthworms from one chamber to another. Providing an outlet at one corner of each chamber with a light slope facilitates collection of excess water, which is reused later or used as earthworm leachate on crop. The three components of a tank are filled with plant residues one after another. The first chamber is filled layer by layer along with cow dung and then earthworms are released. Then the second chamber is filled layer by layer. Once the contents in the first chamber are processed the earthworms move to chamber 2, which is already filled and ready for earthworms. This facilitates harvesting of decomposed material from the first chamber and also saves labor for harvesting and introducing earthworms. This technology reduces labour cost and saves water as well as time.

A group of 8 women of different age group came together to form a SHG under JICA project and decided to craft a business plan which can help them to take this IGA in collective manner and raise their additional income.

After discussing about the market potential and different aspects very carefully before getting into this IGA (Income Generation Activity) and moreover an MoU will be signed between the Range Forest Officer of the Forest Department and SHG, for the procurement of good quality vermicompost produced by the SHG to utilize in the nurseries. Sai Ram SHG was formed in the year 2023 and has also been included under Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods (JICA Assisted), which fall under VFDS Gayatri Mata (Thandol). This SHG consists of 8 females. These females with the help of this project funding, training and assistance they will develop this skill and become

professional. They will be able to sell vermi-compost in large scale and will become self dependent and generate income. The detailed business plan of this SHG have been crafted according to its investment capacity, marketing & promotional strategy and the detailed action plan will be discussed here in under:

2. Description of SHG/CIG

| | | |
|-----|-----------------------------|-----------------------------------|
| 1. | SHG/CIG Name | Sai Ram SHG) |
| 2. | VFDS | Gayatri Mata (Thandol) |
| 3. | Range | Daroh |
| 4. | Division | Palampur |
| 5. | Village | Thandol |
| 6. | Block | Bhawarna |
| 7. | District | Kangra |
| 8. | Total no. of members in SHG | 8 |
| 9. | Date of formation | 22-August,2023 |
| 10. | Bank a/c No. | 42267187822 |
| 11. | Bank details | SBI (Khaira) & IFSC: SBIN0002388 |
| 12. | SHG/CIG monthly savings | Rs 50/Month |
| 13. | Total saving | 400 |
| 14. | Total inter loaning | - |
| 15. | Cash Credit Limit | - |
| 16. | Repayment status | - |

3. Beneficiaries Detail

| S.No. | Name | M/F | Father/ Husband name | Category | Designation | Contact no. |
|-------|---------------|-----|----------------------------|----------|-------------|-------------|
| 1 | Kirna | F | Sanjay Kumar | General | President | 98050-54346 |
| 2 | Chanchla Devi | F | Sanjay Kumar Mehta | General | Secretary | 88940-60576 |
| 3 | Anuradha | F | Gurdeep Singh | SC | Member | 88944-39494 |
| 4 | Rajni | F | Parveen Kumar | General | Member | 88946-63925 |
| 5 | Pratima | F | Rajesh Kumar | General | Member | 86289-95471 |
| 6 | Sudesh Kumari | F | Naresh Kumar | General | Member | 98166-21635 |
| 7 | Fula Devi | F | Prakam Mehta | General | Member | 98056-84884 |
| 8 | Reshan Devi | F | Jagdish Prasad | General | Member | 8894685004 |

4. Geographical details of the Village

| | | |
|---|--|--|
| 1 | Distance from the District HQ | 46 Km |
| 2 | Distance from Main Road | 200 m |
| 3 | Name of local market & distance | Pahara(3Km), Khaira(3 Km) Duhki Nry. Daroh 10 km. |
| 4 | Name of main market & distance | Bhawarna-8 Km |
| 5 | Name of main cities & distance | Palampur 18 Km |
| 6 | Name of main cities where product will be sold/ marketed | Dukhi & Shiv Nagar Nursery and also in open market. |

5. Market Potential-

Vermi-compost has been emerging as an important source in supplementing and substituting chemical fertilizers in agriculture. Vermicompost, also known as 'farmers' friend' is used for general crops and plantation crops. It is a valuable input for sustainable agriculture and wasteland development. It is a growth promoter and helpful in providing hormones required for plant growth. There is a lot of demand for vermicompost among farmers as its use increases quality of agricultural products and its price is also cheaper. It is also used widely in pot culture and in home gardens. In addition, many government departments including agriculture, forest and horticulture buy it in bulk. Government agencies and NGOs are popularizing organic agriculture using vermicompost by organizing awareness campaigns and film show in rural and urban areas. After learning the skill of producing good quality vermicompost, Gayatri SHG will target the Forest Department Nurseries and the private nurseries. There is a huge market potential with the increased awareness regarding the benefits of using organic compost in place of chemical fertilizers and promoting organic farming.

| | | |
|---|-------------------------------------|---|
| 1 | Potential market places/locations | Dukhi & Shiv Nagar Nursery and also in open market. |
| 2 | Vermicompost demand | Throughout the year. |
| 3 | Process of identification of market | Group members will contact nearby villagers/households/institutions/ Forest Deptt.. |
| 4 | Marketing Strategy | SHG members will directly take orders (individual levels/ group level) from nearby villagers/households/ Govt. Deptt. |

6. Executive Summary-

Vermicomposting (Income Generation Activity) has been selected by this Self Help Groups. The IGA will be carried out by all ladies of this SHG by constructing individual pits. The division of labour between members have been planned carefully as they are working individually so that each tributes towards strengthening the IGA and resulting the additional money.

7. **Description of product related to Income Generating Activity-**

| | | |
|---|---------------------------------------|-----------------------------------|
| 1 | Name of the Product | Vermi compost |
| 2 | Method of product identification | Has been decided by group members |
| 3 | Consent of SHG/ CIG / cluster members | Yes |

8. Description of Production Processes-

- **Vermicomposting materials:** Decomposable organic wastes such as animal excreta, kitchen waste, farm residues and forest litter are commonly used as composting materials. In general, animal dung mostly cow dung and dried chopped crop residues are the key raw materials. Mixture of leguminous and non-leguminous crop residues enriches the quality of vermicompost. Red earthworm (*Eisenia foetida*) is preferred species of earthworms because of its high multiplication rate and thereby converts the organic matter into vermicompost within 45-50 days. Since it is a surface feeder it converts organic materials into vermicompost from top.

- **Process of vermicompost preparation:** Vermicomposting is done by either bed or pit method. In bed method composting is done on the pucca / kachcha floor by making bed of organic mixture while in pit method it is done in the cemented pits.
 - Vermicomposting unit should be in a cool, moist and shady site
 - Cow dung and chopped dried leafy materials are mixed in the proportion of 3: 1 and are kept for partial decomposition for 15 – 20 days. • A layer of 15-20cm of chopped dried leaves/grasses should be kept as bedding material at the bottom of the bed.
 - Beds of partially decomposed material of size 5x5x2.5 feet should be made.
 - Each bed should contain 3-4.0qtl. of raw material and the number of beds can be increased as per raw material availability and requirement.
 - Red earthworm (1500-2000) should be released on the upper layer of bed. • Water should be sprinkled with can immediately after the release of worms
 - Beds should be kept moist by sprinkling of water (daily) and by covering with gunny bags/polythene.

- Bed should be turned once after 30 days for maintaining aeration and for proper decomposition.
- Compost gets ready in 45-50 days. The finished product is 3/4th of the raw materials used.

➤ **Harvesting:** When raw material is completely decomposed it appears black and granular. Watering should be stopped as compost gets ready. The compost should be kept over a heap of partially decomposed cow dung so that earthworms could migrate to cow dung from compost. After two days compost can be separated and sieved for use.

| | | |
|---|-------------------------------|---|
| 1 | Time taken | It is assumed that there will be around 3-4 cycles of production in the first year and 5 – 6 cycles in the subsequent years with a duration of each cycle at around 65-70 days. |
| 2 | Number of ladies involved | All ladies |
| 3 | Source of raw material | Animal excreta, kitchen waste, farm residues and forest litter . |
| 4 | Source of other resources | Animal excreta, kitchen waste, farm residues and forest litter . |
| 5 | Expected production per cycle | 80 quintal per cycle from 8 numbers of pits (10 quintal from each pit.) |
| 6 | Expected production per year | 240 quintal per year. |

9.SWOT Analysis-

❖ Strength □

- Raw material easily available at their farms. □
- Manufacturing process is simple □
- Proper packing and easy to transport □
- Other family members will also cooperate with beneficiaries
- Product self- life is long.
- Infertility and soil erosion are the main problems in front of Indian farmers, the use of vermi compost improves soil structure, texture, aeration, water holding capacity and prevent soil erosion.
- It is an easily adoptable low cost technology.
- Cheap price as compare to chemical fertilizers.
- Crops harvested by using this manure has high demand in international market. This crop fetches premium selling price.

- Media is creating awareness about importance of vermi-compost at national and international level

❖ Weakness

- Lack of technical know-how.
- Effect of temperature, humidity, moisture on manufacturing process/product.
- At initial level its use increases the cost of production.
- Less awareness among the people.
- Because of the natural way of production, we cannot reduce the production time.

❖ Opportunity

- Increasing demand of vermi compost on account of awareness among farmers about organic and natural farming.
- Potential for marketing tie ups with HP forest.
- Best utilization of organic waste including household left outs of kitchens.
- People are more concerned about their health so they want to consume organic food.
- Hundreds of tones biodegradable organic waste is being thrown in cities creating disposal problems in the country. This waste can be converted into valuable compost by utilizing as raw material.
- Legitimate support by the government to the farmers to start this unit.
- Absence of competitors in the market can be a big opportunity for producers.
- Wide scope at national and international level.

❖ Threats & Risks

- Competitive market
- Level of commitment among beneficiaries towards participation in training/capacity building and skill up-gradation.
- Possibility of break of production cycle due to extreme weather conditions.
- Some small players have distorted its image in its nascent stage.
- 90% farmers are using chemical fertilizers. Farmer does not take initiative to convert his farm into organic.

10. Description of Management among members

- **Production** – It will be taken care of by individual members including procurement of raw materials ☐
- **Quality assurance** – Collectively ☐
- **Cleaning & packaging** – Collectively ☐
- **Marketing** – Collectively ☐
- **Monitoring of the unit** – Collectively

11. Description of Economics -

| A. Capital cost | | | | |
|------------------------|--|-----------------|-------------------|---------------|
| Sr. No. | Particulars of item | Quantity | Unit Price | Amount |
| | Land and Building | | | |
| 1 | Cost of Vermicompost pit as per estimate. Vermicompost beds (3.60 m*1.20 m*8 nos = 35 m ² + 5 m ² pathways/utility = 40 m ²) | 8 | 22400 | 179200 |
| | Sub total | | | 179200 |
| | Implements and machinery | | | |
| 1 | Shovels, spades, buckets, bamboo baskets, trowel, | 8 | 1200 | 9600 |
| 4 | Sieving hand operated with 3 wire mesh sieves- 0.6 m x 0.9 m size . | 8 | 1000 | 8000 |
| 5 | Digital Weighing machine | 1 | 4000 | 4000 |
| 7 | Bag sealing machine | 1 | 6000 | 6000 |
| 8 | Culture trays (plastic) (35 cm x 45 cm) - 1 Nos | 1 | 800 | 800 |
| | Sub total | | | 28400 |
| | Water provision - Watering Can | 8 | 500 | 4000 |
| | Earthworms (@1 Kg per m³ and @`100/Kg, total utilized bed volume = 40m³) | 40 | 150 | 6000 |
| | TOTAL CAPITAL COST | | | 217600 |

| B. Recurring Cost | | | | |
|-----------------------------|---|-----------------|-------------------|---------------|
| Sr. No. | Particulars of item | Quantity | Unit Price | Amount |
| 1 | Agricultural wastes (cost, collection and transportation) @ 320 kg per m ³ and Rs.200/MT $3.6*1.2*0.75*8*4*320*200/1000$ | 66.35 | 200 | 13270 |
| 2 | Cow dung (cost, collection and transportation) @ 80 kg/m ³ and Rs.250/MT $(3.6*1.2*0.75*8*4*80*250/1000)$ | 20.73 | 250 | 5182.5 |
| 3 | Labour wages on day to day basis in formation of vermibed with agro-waste, cow dung and worms, watering, stirring, harvesting, sieving, packing, etc., including cost of bags (250 bags[@ Rs.200/mt) | 4 | 4000 | 4000 |
| 4 | Repair and maintenance | 8 | 500 | 4000 |
| 5 | Cost of bags and packaging | 1078 | 25 | 26950 |
| Total Recurring Cost | | | | 53402 |

Note – The group members will do the work themselves and therefore labour cost has not been included and the members will manage between them the working schedule to be followed.

$$\begin{aligned} \text{Net Recurring Cost} &= \text{Total Recurring Cost} - \text{Labour wages} \\ &= 53402 - 4000 \\ &= 49402.00 \end{aligned}$$

| C. Cost of production (Monthly) | | |
|---|---|---------------|
| S. No. | Particulars | Amount |
| 1 | Total recurring cost | 53402 |
| 2 | 10% depreciation annually on capital cost | 21760 |
| Total = 75162.00- | | |

| D. Selling price calculation | | | |
|-------------------------------------|---------------------------|-------------|--------------|
| S. No. | Particulars | Unit | Price |
| 1 | Selling price per quintal | 1 Quintal | 800-1000 |

Cost Benefit Analysis (Cycle)

| Cost benefit analysis (cycle) | | |
|--------------------------------|--|---|
| S. No. | Particulars | Amount |
| 1 | 10% depreciation annually on capital cost | 21760 |
| 2 | Net Recurring Cost | 49402 |
| 3 | Total bags (50 Kg) per year | 1078 |
| 4 | Selling Price of 1 bag after deducting all expenses. | Approx Rs 450 |
| 5 | Income generation | 485100 |
| 6 | Net profit (Income generation - Net Recurring cost) | 435698 |
| 7 | Distribution of net profit | <ul style="list-style-type: none"> ✓ Profit will be distributed equally among members monthly/yearly basis. ✓ Profit will be used for further investment in IGA |

12.Fund flow arrangement in SHG -

| S. No. | Particulars | Total Amount (Rs) | Project Contribution | SHG contribution |
|--------------|--|-------------------|----------------------|------------------|
| 1 | Total capital cost | 217600 | 163200 | 54400 |
| 2 | Total Recurring Cost | 53402 | 0 | 53402 |
| 3 | Training/capacity building/skill up-gradation. | 50,000 | 50,000 | 0 |
| Total | | 321002 | 213200 | 107802 |

Note:

- i) Capital cost- 75% capital cost will be borne by the project as the group is of female and they are poor and 25% by the SHG.
- ii) Recurring cost- to be borne by the SHG.
- iii) Training and capacity building/ skill up gradation to be borne by the project.

13. Sources of Fund -

| | | |
|------------------|---|--|
| Project support | <ul style="list-style-type: none">✧ 75% of capital cost will be provided by project if members belong to other than general category. If the members belong to general then 50% capital cost is will be borne by project.✧ Up to Rs 1 lakhs will be parked in the SHG bank account.✧ Training/capacity building/ skill up- gradation cost.✧ The subsidy of 5% interest rate will be deposited directly to the Bank/Financial Institution by DMU and this facility will be only for three years. SHG have to pay the installments of the Principal amount on regular basis. | Procurement of machines/equipment will be done by respective DMU/FCCU after following all codal formalities. |
| SHG Contribution | <ul style="list-style-type: none">✧ 50% or 25% of capital cost to be borne by SHG for general category and other categories respectively.✧ All the members are females and belongs to low income group and they can contribute 25% and project has to bear remaining 75%.✧ Recurring cost to be borne by SHG. | |

14. Training/capacity building/skill up-gradation -

Training/capacity building/ skill up-gradation cost will be borne by project.

Following are some training/capacity building/ skill up-gradation proposed/needed:

- ✧ Cost effective procurement of raw material
- ✧ Quality control
- ✧ Packaging and Marketing
- ✧ Financial Management

15. Computation of break-even point -

= Capital Expenditure/(selling price (per bag)-cost of production (per bag))

=217600/ (450-250)

=1088

In this process break-even will be achieved after production of 1088 bags.

16. Bank Loan Repayment-

If the loan is availed from bank it will be in the form of cash credit limit and for CCL there is not repayment schedule; however, the monthly saving and repayment receipt from members should be routed through CCL.

- ❖ In CCL, the principal loan outstanding of the SHG must be fully paid to the banks once a year. The interest amount should be paid on a monthly basis.
- ❖ In term loans, the repayment must be made as per the repayment schedule in the banks.
- ❖ Project support - The subsidy of 5% interest rate will be deposited directly to the Bank/Financial Institution by DMU and this facility will be only for three years. SHG/CIG has to pay the installments of the Principal amount on regular basis.

17. Monitoring Method-

- ❖ Social Audit Committee of the VFDS will monitor the progress and performance of the IGA and suggest corrective action if needed to ensure operation of the unit as per projection.
- ❖ SHG should also review the progress and performance of the IGA of each member and suggest corrective action if needed to ensure operation of the unit as per projection.

Some key indicators for the monitoring are as:

- ❖ Size of the group
- ❖ Fund management
- ❖ Investment
- ❖ Income generation
- ❖ Quality of product

18. Remarks

All the members are females and belongs to low income group and they can contribute 25% and project has to bear remaining 75%.

19. Group Member Photos:



Kiran (President)



Chanchla (Secretary)



Anuradha



Sudesh Kumari



Fula Devi



Pratima



Rajni



Resha Devi

20.Group Photo:



21. Resolution-cum-Group-consensus Form:

Revised

Resolution-cum-Group-consensus Form

It is decided in the General house meeting of the group Sai Ram held on 03-08-24 at Gayatri Mata Thandol that our group will undertake the Vermicompost as livelihood Income Generation Activity under the Project for Implementation of Himachal Pradesh Forest Ecosystem management and Livelihood (JICA assisted).

Signature of group President
प्रधान Kiran Sharma सचिव
साई राम स्वयं सहायता समूह
गायत्री माता थानडोल
तहसील पालमपुर जिला कांगड़ा हि.प्र.

Signature of group secretary
प्रधान चन्दन देवी सचिव
साई राम स्वयं सहायता समूह
गायत्री माता थानडोल
तहसील पालमपुर जिला कांगड़ा हि.प्र.

Signature of President VFDS
प्रधान Ramesh Kumar
ग्राम वन विकास समिति कन्यो पारा (पंजाब)
साई राम स्वयं सहायता समूह
गायत्री माता थानडोल
तहसील पालमपुर जिला कांगड़ा हि.प्र.

22. Business Plan Approval by VFDS and DMU:

Revised

Business Plan Approval by VFDS and DMU

Sai Ram Group will undertake the Vermicompost as Livelihood Income Generation Activity under the Project for Implementation of Himachal Pradesh Forest Ecosystem Management and Livelihood (JICA assisted). In this regard business Plan of Amount Rs. 321000 has been submitted by the group on 03-08-24 and the business plan has been approved by VFDS Gayatri Mata Thandol.

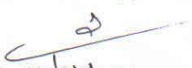

Business Plan is submitted to DMU through FTU for further action please.

Thank You.

Kiran Sharma
प्रधान सचिव
साई राम स्वयं सहायता समूह
गाव दे डा0 ठण्डोल,
बहरील पालमपुर जिला कागड़ा हि.प्र.
Signature of group President

सचिवालय
साई राम स्वयं सहायता समूह
गाव दे डा0 ठण्डोल,
बहरील पालमपुर जिला कागड़ा हि.प्र.
Signature of group secretary

Ramesh Kumar
ग्राम कृषि विकास समिती अध्यक्ष (ठण्डोल)
ग्राम पंचायत मन्दाह
बहरील पालमपुर
बिलास कागड़ा हि. प्र.
Signature of President VFDS

Approved

DMU cum  Palampur

