BUSINESS PLAN

Income Generating Activity -Vermi-Compost by Radha Krishan Mandir - Self Help Group.









| SHG/CIG Name | Radha Krishan Mandir |
|--------------|----------------------|
| VFDS Name | Kashna |
| Range | Balson |
| Division | Theog |

Prepared Under





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

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Background

Vermicomposting

In Himachal Pradesh, farmers have marginal landholdings and traditionally practising organic way of farming. Cowdung collected from stallfed cattle is being used in farms. Over the last few decades, the cropping pattern and practices have changed from subsistence crop production to cash crop production. This has resulted in huge demand for manure. Vermicomposting can play a vital role in increasing the environment / health friendly crop production and can be a good income generating activity for the forest dependent communities in the state.

Radha Krishna mandir Self Help Group of Kashna Village Forest Development Society (VFDS), after having various meetings, unanimously passed a resolution to adopt Vermicomposting as their income generating business activity. The group approached the ward facilitators, who intimated the FTU and DMU. and this business plan came into existence.

Why Vermicomposting preferred as business plan by SHG?

- 1. There is a gradual increase in demand for vermicompost due to the high level of nutrient contents.
- 2. There exist about 97 jersey/desi cows, 20 bullocks and 16 sheeps and goats in Kashna area. Most of this "Pashudhan" are fed during autumn and rainy season.

The process:

Vermicomposting is the process of converting the organic waste in to highly nutritious manure by earthworms. Earthworms feed on the organic waste materials and excreta in the form of **Vermicasts** that are rich in nitrates and minerals. These vermicasts are used as fertilizers.

Materials required

- 1. Water
- 2. Cow dung
- 3. Thatched roof
- 4. Soil or sand
- 5. Earthworms
- 6. Gunny bags
- 7. Organic biomass
- 8. Plastic or cemented tank

- 9. Dry straw and leaves collected from the fields
- 10. Biodegradable wastes collected from fields and kitchen

Before venturing into vermicompost making, farmers training of making vermicompost by an expert is required for which possibilities are being explored in agriculture department by the DMU.

1. Description of SHG/CIG

| SHG/CIG Name | :: | RadhaKrishanMandir Joy |
|-----------------------------|----|--|
| VFDS | :: | Kashna |
| Range | :: | Balson |
| Division | •• | Theog |
| Village | ** | Kashna |
| Block | :: | Ghodna |
| District | ** | Shimla |
| Total No. of Members in SHG | ** | 12 |
| Date of formation | :: | 03-06-2021 |
| Bank a/c No. | :: | 2196000100054628 |
| Bank Details | :: | Punjab National Bank |
| SHG/CIG Monthly Saving | ** | Rs 1200/- (Total combined contribution of all members) |
| Total saving | | Rs 4800/- (Total combined contribution of all members) |
| Total inter-loaning | | , |
| Cash Credit Limit | | |
| Repayment Status | | |

2. Beneficiaries Detail:

| SI. No | Name | Father/ Husband Name | Age | Qualific ation | Category | Income Source | Address |
|-----------|----------|-------------------------|-----|------------------|----------|---------------|---------|
| 1 | Subhadra | Kewal Ram | 44 | BA | General | Agriculture | Dhartoo |
| 2 | Meera | Narayan Singh | 41 | 10 th | General | Agriculture | Joy |
| 3 | Sarla | Santosh | 47 | 10 th | General | Agriculture | Joy |
| 4 | Asha | Atma Ram | 48 | 8 th | General | Agriculture | Joy |
| 5 | Bimla | Hari Ram Bhandari | 52 | 5 th | General | Agriculture | Joy |
| 6 | Shanti | Sawa Ram | 36 | 8 th | General | Agriculture | Joy |
| 7 | Reena | Atma Ram | 35 | 10 th | General | Agriculture | Joy |
| 8 | Pushpa | Mohan Lal | 35 | 12 th | General | Agriculture | Dhartoo |
| 9 | Reena | JiaLal | 39 | 10 th | General | Agriculture | Dhartoo |
| 10 | Sanju | Manjeet | 26 | 12 th | General | Agriculture | Joy |
| 11 | Sarojini | Ranjeet | 34 | 10 th | General | Agriculture | Joy |
| 12 | Binta | Parkash | 36 | 10 th | General | Agriculture | Joy |

3. Geographical details of the Village

| 3.1 | Distance from the District HQ | :: | 80km | |
|-----|--|----|---------------------------|--|
| 3.2 | Distance from Main Road | :: | 1km | |
| 3.3 | Name of local market & distance | :: | Balag (8km), Kuthar (3km) | |
| 3.4 | Name of main market & distance | | Balag (8km) | |
| 3.5 | Name of main cities & distance | | Theog (45km) | |
| 3.6 | Name of main cities where product will be sold/ marketed | :: | Theog | |

4. Description of Product related to Income Generating Activity

| 4.1 | Name of the Product | :: | Vermicompost |
|-----|---------------------------------|----|---|
| 4.2 | Why Vermicomposting identified? | :: | Due to changing cropping patterns, there is an increased demand for manure in the area. SHG members had |

| | | | collectively decided to go for |
|-----|-------------------------------|----|--------------------------------|
| | | | producing Vermicompost to |
| | | | meet the new situation. |
| 4.3 | Consent of SHG/ CIG / cluster | :: | Yes |
| | members | | |

5. Description of Production Processes

| Step 1 | To prepare compost, either a plastic or a concrete tank/pit can be used. The size of the tank/pit depends upon the availability of raw materials, however as a standard, the sizing is being kept 10ftX4ftX2ft. |
|---------|---|
| Step-2 | Collect the biomass and place it under the sun for about 8-12 days. Now chop it to the required size using the cutter. |
| Step-3 | Prepare a cow dung slurry and sprinkle it on the heap for quick decomposition. |
| Step-4 | Add a layer $(2-3 \text{ inch})$ of cement concrete at the bottom of the tank/pit. |
| Step-5 | Now prepare fine bedding by adding partially decomposed cow dung, dried leaves and other biodegradable wastes collected from fields and kitchen. Distribute them evenly on the concrete layer. |
| Step-6 | Continue adding both the chopped bio-waste and partially decomposed cow dung layer-wise into the tank/pit up to a depth of 0.5-1.0 ft. |
| Step-7 | After adding all the bio-wastes, release the earthworm species over the mixture and cover the compost mixture with dry straw or gunny bags. |
| Step-8 | Sprinkle water on a regular basis to maintain the moisture content of the compost. |
| Step-9 | Cover the tank/pit with a thatch roof to prevent the entry of ants, lizards, mouse, snakes, etc. and protect the compost from rainwater and direct sunshine. |
| Step-10 | Have a frequent check to avoid the compost from overheating. Maintain proper moisture and temperature. |

6. Description of Production Planning

| 6.1 | Production Cycle (in days) | :: | 90 days (three cycles in a year) |
|-----|--|----|----------------------------------|
| 6.2 | Manpower required per | :: | One |
| | cycle (No.) | | |
| 6.3 | Source of raw materials | :: | From household and own farms |
| 6.4 | Source of other resources | :: | Open market |
| 6.5 | Raw material - quantity required per cycle (Kg) per member | :: | 1800 Kg per cycle |
| 6.6 | Expected production per cycle (Kg) per member | :: | 900Kg per cycle |

7. Description of Marketing/ Sale

| 7.1 | Potential market places | :: | HPFD, Local market, Own Farmland | | | | |
|-----|---|----|--|--|--|--|--|
| 7.2 | Distance from the unit | :: | Initially about 1-2 km | | | | |
| 7.3 | Demand of the product in market place/s | :: | HPFD nurseries, Horticulturists, Vegetable Producers in vicinity | | | | |
| 7.4 | Process of identification of market | :: | JICA project PMU, DMU and FTU will facilitate to sell the produce to HPFD nurseries and also cater to the demand of local population | | | | |
| 7.5 | Marketing Strategy of the product | | SHG members will also explore the additional marketing options around their villages for better sale price in future. | | | | |
| 7.6 | Product branding | | At CIG/SHG level product will be marketed by branding of respective CIG/SHG. Later this IGA may require branding at cluster level | | | | |
| 7.7 | Product "slogan" | | "Prakritik Uphaar" | | | | |

8. SWOT Analysis

Strength

- SHG heard about this activity from fellow farmers and media.
- Each of the SHG members are having cattle varying from 2 to 8 in each household
- → Families of SHG members are cultivating high value crops & vegetables which offers adequate availability of raw materials i.e. farm organic wastes throughout the year
- 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 shelf-life is long

Weakness

- Effect of temperature, humidity, moisture on manufacturing process/product.
- Lack of technical know-how

Opportunity

- Increasing demand of vermi-compost on account of awareness among farmers about organic and natural farming
- Application of vermi-compost on their own field will go a long way in improving and enhancing the soil health and production of quality farm produce which will offer better price.
- Best utilization of organic waste including household left outs of kitchens
- Potential for marketing tie up with HPFD and nearby villagers

Threats/Risks

- Possibility of break of production cycle due to extreme weather
- Level of commitment among beneficiaries towards participation in training/ capacity building & skill up-gradation

9. Description of Management among Members

- → Production Collectively
- → Quality assurance Collectively
- → Cleaning & packaging Collectively
- → Marketing Collectively
- → Monitoring of the unit Collectively

10. Description of Economics

(Amount in actual Rs.)

| S. No | Particulars | Units | Quantity / Nos. | Cost (Rs.) | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|------------|---|---------------|--------------------|------------|--------|--------|--------|--------|--------|
| A. | Capital Cost | | | | | | | | |
| A.1 | Construction of Pit and shed | | | | | | | | |
| 1 | Construction as well as labour cost (Pit Size internal will be of 10ftX4ftX2ft) | Per member | 12 | 6000 | 72000 | 0 | 0 | 0 | 0 |
| 2 | Errection of cover shed | Per member | 12 | 4000 | 48000 | | | | |
| | Sub-total (A.1) | | | | 120000 | 0 | 0 | 0 | 0 |
| A.2 | Machinery and equipment | | | | | | | | |
| 3 | Tools, equipment, weighing scale etc. | Per member | 12 | 2000 | 24000 | 0 | 0 | 0 | 0 |
| | Sub-total (A.2) | | | | 24000 | 0 | 0 | 0 | 0 |
| | Total Capital Costs (A.1+A.2) | | | | 144000 | 0 | 0 | 0 | 0 |
| В | Recurring Costs | | | | | | | | |
| 4 | Lease of land for setting up unit | Per annum | 12 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Seed earthworm | Per Kg | 12 | 500 | 6000 | 0 | 0 | 0 | 0 |
| 6 | Cost of procurement of Slurry/dung/waste | Tonnes | 0 | 0 | 0 | 0 | 0 | 0 | |

| | Labour Cost | Per tonne | 40 | 700 | 28000 | 29400 | 30870 | 32414 | 34034 |
|----|--|--------------|-----|---------------|--------|--------|--------|--------|--------|
| 7 | Packing materials | No. | 200 | 50 | 10000 | 10500 | 11025 | 11576 | 12155 |
| 8 | Other handling charges | Per tonne | 40 | 150 | 6000 | 6300 | 6615 | 6946 | 7293 |
| С | Other charges | | | | | | | | |
| 9 | Insurance | L/S | | | 0 | 0 | 0 | 0 | 0 |
| 10 | Interest on loan | Per annum | | 2 per cent | 3000 | 3000 | 3000 | 3000 | 3000 |
| | Total recurring costs | | | | 53000 | 49200 | 51510 | 53936 | 56482 |
| | Total cost =(capital cost+recurring cost) | | | | 197000 | 49200 | 51510 | 53936 | 56482 |
| D | Income from vermicomposting | | | | | | | | |
| 11 | Sale of vermicompost | Tonnes | 40 | 6000 | 240000 | 252000 | 264600 | 277830 | 291722 |
| 12 | Sale of earthworm | | | | | 7500 | 15000 | 15000 | 15000 |
| 13 | Total revenue | | | | 240000 | 259500 | 279600 | 292830 | 306722 |
| 14 | Net returns (total revenue- total (D-C) (240000-197000) | | | | 43000 | 210300 | 228090 | 238894 | 250240 |

Note— As labour work will be done by SHG members themselves and Slurry/dung/waste already available at their place and these materials will be not procured by them, therefore, recurring cost (Labour Cost, Cost of procurement of Slurry/dung/waste) can be deducted from total recurring cost.

Economic Analysis

| Particulars | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
|----------------|--------|--------|--------|--------|--------|---------|
| Capital cost | 144000 | 0 | 0 | 0 | 0 | |
| Recurring cost | 53000 | 49200 | 51510 | 53936 | 56482 | |
| Total cost | 197000 | 49200 | 51510 | 53936 | 56482 | 408128 |
| Total benefits | 240000 | 259500 | 279600 | 292830 | 306722 | 1378652 |
| Net benefits | 43000 | 210300 | 228090 | 238894 | 250240 | 970524 |

Distribution of net profite – As per share in production.

11. Inferences of Economic Analysis

- Pit size for each member has been planned at 10X4X2 ft for one pit.
- Cost of production of vermi-compost comes to Rs. 3.2 per Kg
- Sale of vermi-compost (conservative side) is Rs. 6 per Kg
- Net profit will be Rs. 2.8 per Kg
- ⇒ It is proposed that each member will produce 2.7 tonnes of vermicompost every year resulting in production of 40 tonnesvermicompost by all 15 members of SHG in one year.
- Cost of earthworm has been kept at Rs. 500.00 per kg
- During th second years onwards, there will be surplus earthwork for sale (as it will multiply during the process of production of vermicompost)
- The vermi-compost making is a profitable IGA and can be taken up by the SHG members.

12. Fund requirement:

| SI. No. | Particulars | Total Amount (Rs) | Project support | SHG contribution |
|---------|---|----------------------|--------------------|---------------------|
| 1 | Total capital cost | 144000 | 108000 | 36000 |
| 2 | Total Recurring Cost | 53,000 | 0 | 53,000 |
| 3 | Trainings/ capacity building/skill up-gradation | 50000 | 50000 | 0 |
| | Total = | 247000 | 113000 | 89000 |

Note-

- Capital Cost 75% of capital cost to be covered under the Project
- Recurring Cost To be borne by the SHG/CIG.
- Trainings/capacity building/ skill up-gradation To be borne by the Project

13. Sources of fund:

| Project support; | 75% of capital cost will be | Procurement of | | |
|------------------|--|----------------------------------|--|--|
| | utilized for construction of pit | materials for | | |
| | (Size will be of 10ftX4ftX2ft) | pit/construction of pitwill | | |
| | | be done by respective | | |
| | UptoRs 1 lakh will be parked | DMU/FCCU after | | |
| | in the SHG bank account. | following all codal formalities. | | |
| | Trainings/capacity building/ | iornaines. | | |

| | skill up-gradation cost. | |
|------------------|---|--|
| SHG contribution | 25% of capital cost to be borne by SHG, this include cost of shed/construction of shed. | |
| | Recurring cost to be borne by SHG | |

14. 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.

15. Trainings/Capacity Building/Skill Up-gradation

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

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

- Project Orientation Group Formation/ Reorganization
- Group Concept and Management
- Introduction to IGA (General)
- Marketing and Business Plan Development
- Bank Credit Linkages & Enterprise Development
- Exposure Visit of SHGs/ CIGs Within the State & Outside State

16. Monitoring Mechanism

- Social Audit Committee of the VFDS will monitor the progress and performance of the IGA and suggest corrective action if need be 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 need be to ensure operation of the unit as per projection.

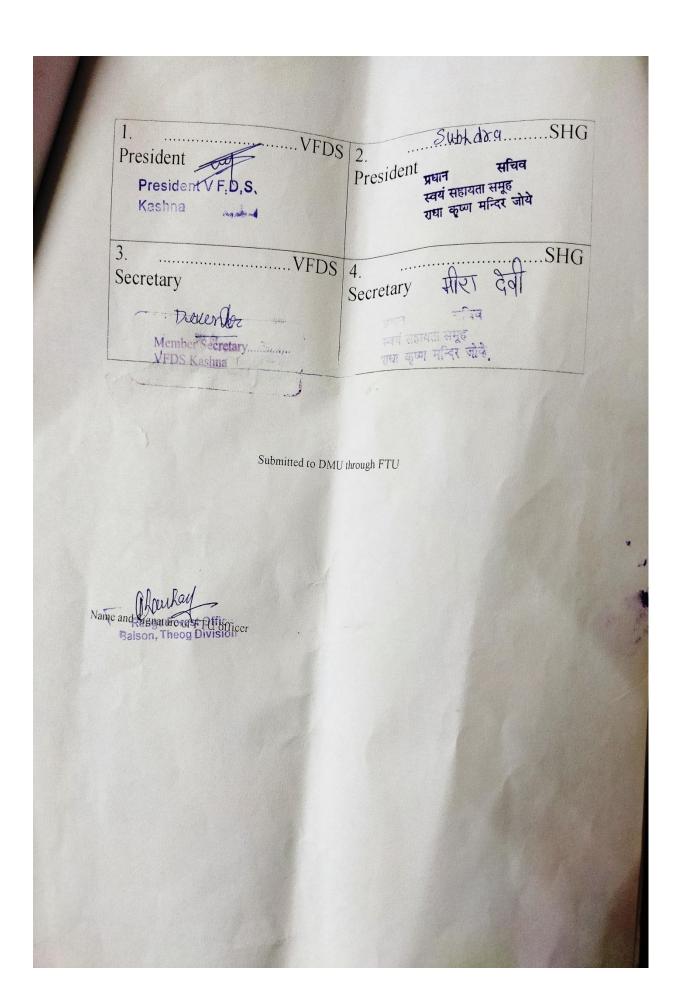
Group members Photos –

| SI. No | Name | Photo |
|-----------|----------|-------|
| 1 | Subhadra | |
| 2 | Meera | |
| 3 | Sarla | |
| 4 | Asha | |

| | T | |
|---|-------------|--|
| 5 | Bimla | |
| 6 | Shanti | |
| 7 | Reena Verma | |
| 8 | Pushpa | |



Prepared by: SHG members in consultation with DMU Theog, FTU Balson Forest Range and JICA staff.



Annexure

We the member of group hereby consented to actively participate in the IGA activity Opted by the group (Vermicomposting) as por the the group (Vermicomposting) as per the guideline of JICA Project For Improvement of HP Forest Ecosystens Management and Linear Control of the VFDS. Forest Ecosystens Managenent and Livelihood and coordination with the VFDS.

The details of the members is as under:

| SI | | Father/ Husbar Name | d Age | Qualificati | Category | Income Source | Signature |
|-----|----------|------------------------|-------|------------------|----------|------------------|-----------|
| 1 | Subhadro | Kewal Ram | 44 | BA | General | Agriculture | Subhara |
| 2 | Meera | Narayan Singh | 41 | 10 th | General | Agriculture | भीरा देवी |
| 3 | Sarla | Santosh | 47 | 10 th | General | Agriculture | भरला |
| 4 | Asha | Atma Ram | 48 | .8th | General | Agriculture | आया देवी |
| 5 | Bimla | Hari Ram Bhandari | 52 | 5 th | General | Agriculture | निवसला |
| 6 | Shanti | Sawa Ram | 36 | 8 th | General | Agriculture | |
| 7 | Reena | Atma Ram | 35 | 10 th | General | Agriculture | Shorti |
| 8 | Pushpa | Mohan Lal | 35 | 12 th | General | Agriculture | Reena |
| 9 | Reena | JiaLal | 39 | 10th | General | Agriculture | 20 |
| 0 | Sanju | Manjeet | 26 | 12th | General | | रीना |
| 1 : | Sarojini | Ranjeet | 34 | 10th | | Agriculture | Sanju |
| 2 B | Binta | Parkash | 36 | 10th | General | Agriculture | थरी जनी |
| | 1 | | | 10.11 | General | Agriculture | 6.1 |

Resolution-cum-Group-Consensus Form

It is decided in the General House Meeting of the Group Radha Krishan Mandir Joe Held on 7/12/2021 at Ratha Krishan Mandix that our group will undertake the Verme or history as Livelihood Income Generation Activity under the Project for Improvement of Himselfold P. Management & Livelihoods (JICA) Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods (JICA Assisted) Assisted). Subhaloa प्रधान सचिव स्वयं सहायता समूह राधा कृष्ण मन्दिर जोये Signature of Group President

Radha Kaishan Mander group will undertake the Verencembosting Forest Ecosystems Management & Livelihoods (JICA Assisted). In this regard Business Plan of amount (Rs), 356500 /amount (Rs) 356500 / has been has been has been were plan has been approved by VFDS Kashna Business Plan with SHG resolution is being submitted to DMU through FTU for further action, please. Thank you. Suphdra स्वयं सहायता समूह राधा कृष्ण मन्दिर जोये Signature of Group President

| Cuhl Axa | |
|--|---|
| प्रधान सिवव स्वयं सहायता समृह राधा कृष्ण मन्दिर जोगे Signature of SHG President | |
| President V F.D.S. Kashna | |
| Signature of Block Officer Treasurer VFDS Kashna | |
| | |
| | |
| | |
| | स्वयं सहायता समृह तथा कृष्ण मन्दिर जोये Signature of SHG President President V F.D.S. Kashna Signature of VFDS President Signature of Block Officer Treasurer VFDS Kashna |