# **BUSINESS PLAN**

# INCOME GENERATING ACTIVITY -Vermi-compost by Bharti - Self Help Group



| 2110                    |    | 34       |
|-------------------------|----|----------|
| SHG/CIG Name  VFDS Name | •• | Bharti   |
| Range                   | •• | Panesh   |
| Division                | •• | Taradevi |
|                         |    | Shimla   |
|                         |    |          |

# Prepared under:



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

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### Background

Vermicomposting has been gaining a strong foothold in the country due to simple production techniques, ecological, economic and human health benefits associated with it. A significant number of vermicomposting units have been set up by entrepreneurs, under government support/ with the technical guidance of Non-Governmental Organizations (NGOs), particularly in the southern and central parts of the country.

Vermicomposting has direct environmental and economic benefits as it contributes to the sustainable agriculture production and income of farmers significantly. There are a number of NGOs, Community Based Organizations (CBOs), Self-Help Groups (SHGs), Trusts etc. which are making concerted efforts to promote vermicomposting technology due to its established economic and environmental advantages.

### Vermicomposting

Production of compost through rearing/using earth worms is called the vermicomposting technology. Under this technology, earthworms eat biomass and excrete it in a digested form which is known as vermicomposting or vermicompost. It is one of the simplest and cost effective methods for the production of composting for both the small and large scale farmers. Vermicompost production unit can be set up in any land which is not under any economic use but shady and free from water stagnation. The site should also be nearer to a water resource

Vermicomposting, rightly called "gold from garbage" is the major input in organic agriculture production. Owing to simple technology, many farmers are engaged in vermicomposting production as it invigorates soil health, soil productivity reduces the cost of cultivation.

There is a gradual increase in demand for vermicompost due to the high level of nutrient contents.

# 1. Description of SHG/CIG

| SHG/CIG Name                | :: | Bharti           |
|-----------------------------|----|------------------|
| VFDS                        | :: | Panesh           |
| Range                       | :: | Taradevi         |
| Division                    | :: | Shimla           |
| Village                     | :: | Panesh           |
| Block                       | :: | Tuto             |
| District                    | :: | Shimla           |
| Total No. of Members in SHG | :: | 13               |
| Date of formation           | :: | June 2020        |
| Bank a/c No.                | :: | 2582000100031172 |
| Bank Details                | :: | PNB Kanda        |
| SHG/CIG Monthly Saving      | :: | 100/-            |
| Total saving                |    | 17820/-          |
| Total inter-loaning         |    | 7000/-           |
| Cash Credit Limit           |    | -                |
| Repayment Status            |    | -                |

# 2. Beneficiaries Detail:

| SI. | Name                      | Father/                   | Age | Categor | Income<br>Source  | Address  |
|-----|---------------------------|---------------------------|-----|---------|---|----------|
| No  |                           | HusbName                  |     | У       | CONTRACTOR OF THE PROPERTY OF | Davada   |
| 1   | Smt. Seema<br>Thakur      | Sh. Sunil Thakur          | 36  | Gen.    | Agriculture   | Panesh   |
| 2   | Smt. Ranjna<br>Thakur     | Sh. Vinod<br>Thakur       | 28  | Gen.    | Agriculture   | Panesh   |
| 3   | Smt.<br>Saraswati<br>Devi | Sh. Surjeet<br>Thakur     | 43  | Gen.    | Agriculture   | Panesh   |
| 4   | Smt. Kanta<br>Garg        | Sh. Suresh<br>Garg        | 51  | Gen.    | Agriculture   | Panesh   |
| 5   | Smt. Rekha                | Sh. Rakesh                | 35  | Gen.    | Agriculture   | Panesh - |
| 6   | Smt. Punam<br>Thakur      | Sh. Rajeev                | 34  | Gen.    | Agriculture   | Panesh   |
| 7   | Smt. Nisha<br>Devi        | Sh.<br>Mahinder<br>Thakur | 43  | Gen.    | Agriculture   | Panesh   |
| 8   | Smt. Nirmla<br>Thakur     | Sh. Ramesh<br>Thakur      | 45  | Gen.    | Agriculture   | Panesh   |
| 9   | Smt. Kanta<br>Devi        | Sh. Kamlesh<br>Thakur     | 42  | Gen.    | Agriculture   | Panesh   |
| 10  | Smt. Nisha<br>Thakur      | Sh. Ajeet<br>Thakur       | 39  | Gen.    | Agriculture   | Panesh   |
| 11  | Smt. Sharda<br>Devi       |                           | 60  | Gen.    | Agriculture   | Panesh   |
| 12  |                           |                           | 41  | Gen.    | Agriculture   | Panesh   |
| 13  |                           | Sh.<br>Mahinder<br>Singh  | 28  | Gen.    | Agriculture   | Panesh   |

# 3. Geographical details of the Village

| 3.1 | Distance from the District HQ   | :: | 28Km             |
|-----|---------------------------------|----|------------------|
| 3.2 | Distance from Main Road         | :: | 7Km              |
| 3.3 | Name of local market & distance | :: | Ghanahatti, 7 Km |
| 3.4 | Name of main market & distance  |    | Shimla, 28 Km    |
| 3.5 | Name of main cities & distance  |    | Shimla, 28 Km    |

|   |     |                                   |       |        |        |        | 100 | į. |
|---|-----|-----------------------------------|-------|--------|--------|--------|-----|----|
| [ | 2 / | Name of main cities where product | • • • | HP     | Forest | Deptt. | &   |    |
|   |     |                                   |       | Shim   | ala    |        |     |    |
|   |     | will be sold/ marketed            |       | 311111 | IIG    |        |     | J  |
|   |     | 7111111                           |       |        |        |        |     |    |

# 4. Description of Product related to Income Generating Activity

| 4.1 | Name of the Product                   |    | Vermicomposting  This positivity is being already   |
|-----|---------------------------------------|----|---|
| 4.2 | Method of product identification      | •• | This activity is being already done by some SHG members and hasbeen collectively decided by group members |
| 4.3 | Consent of SHG/ CIG / cluster members | :: | Yes   |

# 5. Description of Production Processes

| Step   |    | Description  |
|--------|----|--|
| Step-1 | :: | Processing involving collection of wastes, shredding, mechanical separation of the metal, glass and ceramics and storage of organic wastes.  |
| Step-2 | :: | Pre digestion of organic waste for twenty days by heaping the material along with cattle dung slurry. This process partially digests the material and fit for earthworm consumption. Cattle dung and biogas slurry may be used after drying. Wet dung should not be used for vermi-compost production. |
| Step-3 | :: | Preparation of earthworm bed. A concrete base is required to put the waste for vermi-compost preparation. Loose soil will allow the worms to go into soil and also while watering, all the dissolvable nutrients go into the soil along with water.  |
| Step-4 | :: | Collection of earthworm after vermi-compost collection. Sieving the composted material to separate fully composted material. The partially composted material will be again put into vermi-compost bed.  |
| Step-5 | :: | Storing the vermi-compost in proper place to maintain moisture and allow the beneficial microorganisms to grow.  |

### 6. Description of Production Planning

| 6.1 | Production Cycle (in days) | :: | 90 days (three cycles in a year) |
|-----|----------------------------|----|----------------------------------|
| 6.2 | Manpower required per      | :: | 1                                |
|     | cycle (No.)                |    |                                  |
| 6.3 | Source of raw materials    | :: | From household and own farms     |
| 6.4 | Source of other resources  | :: | Open market                      |

### 7. Description of Marketing/ Sale

| 7.1 | Potential market places                 | ::  | HP Forest Deptt.   |
|-----|---|-----|--|
| 7.2 | Distance from the unit                  | ::  | Local market   |
|     |   |     | Use on own farm  |
| 7.3 | Demand of the product in market place/s | ••• | HO Forest deptt is procuring huge vermi-compost for their nursery                                  |
| 7.4 | Process of identification of market     | ::  | PMU will facilitate the tie up of procurement of vermi-compost produced by SHG by HP Forest deptt. |

### 8. SWOT Analysis

### Strength

- Activity is being already done by some SHG members
- 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 self-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 HP Forest

### Threats/Risks

- Possibility of break of production cycle due to extreme weather
- Competitive market

### 9. 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

|       |   | :       | Quantity | Cost (Rs.)       | Year 1  | Year 2 | Year 3                   | Year 4   |
|-------|---|---------|----------|------------------|---------|--------|--------------------------|----------|
| S. No | Particulars                                 | CIIIIN  | / Nos.   | 20124            |         |        |                          |          |
| P     | Capital Cost                                |         |          |                  |         |        | ng di saganan Pangabanan |          |
| Α.1   | Construction of Pit and shed                |         |          |                  |         |        |                          |          |
|       | Construction as well as                     | P<br>er |          | )<br>)<br>)<br>) | 78000   | 0      | 0                        | 0        |
| _     | (Pit Size internal will be of 10ftX4ftX2ft) | member  | 13       | 6000             | /8000   | C      |                          | (        |
|       | Frrection of cover shed with                | Per     | <br>     | 4000             | 52000   |        |                          |          |
| 7     | iron angal                                  | member  |          |                  | 1 20000 | 0      | 0                        | 0        |
|       | Sub-total (A.1)                             |         |          |                  | 10000   |        |                          |          |
| A.2   | Machinery and equipment                     |         |          |                  |         |        |                          |          |
| ω     | Tools, equipment, weighing                  | Per     | 13       | 2000             | 26000   | 0      | 0                        | 0        |
|       | Scale etc.                                  |         |          |                  | 26000   | 0      | 0                        | 0        |
|       | Sub-total (A.2)                             |         |          |                  |         | ,      |                          | <b>D</b> |
|       | Total Capital Costs                         |         |          |                  | 156000  | 0      |                          |          |
|       | (A.1+A.2)                                   |         |          |                  |         |        |                          |          |
| œ     | Recurring Costs                             |         |          |                  | 7 500   | 0      | 0                        | 0        |
| 4     | Seed earthworm                              | Per Kg  | 13       | 500              | 0000    |        |                          |          |
| 5     | Cost of procurement of                      | Tonnes  | 70       | 900              | 63000   | 66150  | 69460                    | 72930    |
|       | Sidily/ Goriely Treat                       | Per     | 35       | 700              | 24500   | 25725  | 27011                    | 28362    |
|       |   |         | 7,000    | 2                | 10000   | 10500  | 11025                    | 11576    |
| 7     | Packing materials                           | No.     | 5000     |                  |         |        | -                        |          |

|                                   |                  |                      | T-    | _                    |                 | <b>.</b>    |           |                          |                       |        | 10                 |       | 9         |               | ) | 00                     |
|-----------------------------------|------------------|----------------------|-------|----------------------|-----------------|-------------|-----------|--------------------------|-----------------------|--------|--------------------|-------|-----------|---------------|---|------------------------|
| Net returns (C-B)                 | 13 Total revenue | 12 Sale of earthworm |       | Sale of vermicompost | vermicomposting | Income from | recurring | Total cost - Capital and | Total recurring costs |        | 0 Interest on loan | -     | Insurance | Other charges |   | Other handling charges |
|                                   |                  |                      |       | Tonnes               |                 |             |           |                          |                       |        | annum              | Per   | L/S       |               |   | Per<br>tonne           |
|                                   |                  |                      |       | 35                   |                 |             |           |                          |                       |        |                    |       |           |               |   | 35                     |
|                                   |                  |                      |       | 6000                 |                 |             |           |                          |                       |        | cent               | 2 per |           |               |   | 150                    |
| 97750                             | 71000            | 2000                 |       | 210000               |                 |             |           | 268250                   | 112230                | 112250 |                    | 3000  |           | 0             |   | 5250                   |
| 116113                            | 227000           | 227000               | 6500  | 000027               |                 |             |           | 110887                   | 1.000                 | 110887 |                    | 3000  | C         | 0             |   | 5512                   |
| 128241                            | 1,0001           | 20200                | 13000 |                      | 221525          |             |           | 116284                   |                       | 116284 |                    | 3000  |           | 0             |   | 5788                   |
| 116113   128241   134133   140303 | 331166           | 244525 254100 248257 | 13000 |                      | 242100          |             |           | 121945                   |                       | 121945 |                    | 3000  |           | 0             |   | 6077                   |
| 140000                            | 1 10245          | 268257               | 13000 | 200207               | 255257          |             |           | 127892                   |                       | 127892 |                    | 3000  |           | 0             |   | 6381                   |

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**

| ECONOMIC Allulysis            |         |        |        |        |        |          |
|-------------------------------|---------|--------|--------|--------|--------|----------|
|                               | Vegr 1  | Year 2 | Year 3 | Year 4 | Year 5 |          |
| Particulars                   | - cal - |        | 0      | 0      | 0      |          |
| Capital cost                  | 156000  | c      | c      |        |        |          |
|                               |         |        |        |        |        | 589258   |
| Recurring cost                | 112250  | 110887 | 116284 | 121945 | -      |          |
|                               | 112200  |        | 11.00. | 101015 | 127892 | 745258   |
| Total cost                    | 268250  | 11088/ | 116284 | 121740 | 7,0,7  | 1005000  |
| T)+2  b) b) fi+c              | 210000  | 227000 | 244525 | 256100 | /6267  | 1 200002 |
|                               | 02002   | 116113 | 128241 | 134155 | 140365 | 460624   |
| Net benefits                  | -30230  | 110110 |        |        |        |          |
| Net present worth of cost @15 | 745258  |        |        |        |        |          |
| per cent                      |         |        |        |        |        |          |
| Net present worth of benefits | 1205882 |        |        |        |        |          |
| @15 per cent                  |         |        |        |        |        |          |
| Benefit Cost Ratio            | 1.62    |        |        |        |        |          |
|                               |         |        |        |        |        |          |

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 35 tonnes vermicompost by all 13 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<br>Amount (Rs) | Project<br>support | SHG<br>contribution |
|---------|---|----------------------|--------------------|---------------------|
| 1       | Total capital cost                              | 156000               | 1,17,000           | 39,000              |
| 2       | Total Recurring Cost                            | 112250               | 0                  | 112250              |
| 3       | Trainings/ capacity building/skill up-gradation | 50000                | 50000              | 0                   |
| Note-   | Total =   | 318250               | 167000             | 151250              |

- 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 utilized for construction of pit (Size will be of 10ftX4ftX2ft)  • Upto Rs 1 lakh will be parked in the SHG bank account.  • Trainings/capacity building/ |
|---|
|   |

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

### 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 –



# Resolution-cum-Group Consensus Form

decided in the General group Bhanti held on 66-10-81 at Ponesh that our group will undertake the Nexmi Compost as Livelihood Income Generation Activity under the Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods (JICA Assisted).

Signature of Group Pradhan नारती स्वयं समुद्रता समूह पनेज

Signature of Group Secretary

पंजीकरण सं०-01 2020

# ग्रामीण वन विकास समिति (V.F.D.S.) पनेश

ग्राम पंचायन गलोट, डाकघर पनेश, नहसील व जिला शिमला (हि० प्र०) दूरभाष न०:- 94592-76267 (प्रधान), 97361-14714 (सचिव)

क्रमांक. 🕹 .

दिनांक <u>%। - 10 - 21</u>

Business Plan Approved by VFBS

Bhorati SIIG group will undertake the

Vermi composed poil undertake the

Jerrevation continty under the Project for

Information continty under the Project for

Information of Historial (JITA Assisted)

in this regard business plan of the 3182507

has been submitted by this group on dated 21-10-21 and this husines plan has been

approved by Panesth VFDS.

being subwitted to DMU through ETU for further action, please

Socy - VF DS - Pauesh

DFO-cum-DMU OFFICER
JICA FORESTRY Project
SHIMLA

## Submitted to DMU through FTU

Viksam ( b She hame & Signature of FTU Officer

Name & Signature of FTU Coordinator

Approved

DFO-cum-DMU OFFICER

Name & Signature of DMU Officer