BUSINESS PLAN
INCOME GENERATING ACTIVITY – Vermi-Composting
by
Self Help Group Vermi-composting - Self-help Group Chanjalpul

SHG/CIG Name	**::**	**Self Help Group Chanjalpul**
VFDS Name	**::**	**Jhiknipul**
Range	**::**	**Bamta**
Division	**::**	**Chopal**

Prepared under:

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

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1. Background

Vermi-composting has been gaining popularity, mainly due to shift towards organic farming. There is ecological, economic and human health benefits associated with it. The use of vermin-composting in place of chemical fertilizers results into better soil health, balanced ratio of various minerals and good fertility and best quality crop production. Vermi-composting has direct environmental and economic benefits by contributing to the sustainable agriculture and horticulture production and income of farmers significantly.

Vermicomposting

Vermi-composting, rightly called **Gold** from garbage is the measure input in organic farming. Vermi-composting is a process in which the earthworms convert in the organic waste into manure rich and high nutritional content. Earthworms are commonly found living in soil, feeding on biomass and excreting it in a digested form. Earthworms feed on the organic waste materials and give out excreta in the form of "vermicasts" that are rich in nitrates and minerals such as phosphorus, magnesium, calcium and potassium. These vermicasts are used as fertilizers and they improve the soil quality. There is great demand for vermin-compost due to the high leval of nutrient content.

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.

2. Description of SHG/CIG

SHG/CIG name	Self Help Group Vermi compost **Chanjalpul**
VFDS	Jhiknipul
Range	Bamta
Division	Chopal
District	Shimla
Total no. of members in SHG	07
Date of formation	13-12-2022
Bank account no.	41535331609
Bank details	SBI
SGH/CIG monthly saving	100 /-
Total saving	700
Total inter-loaning	-
Cash credit limit	-
Repayment status	-

3. Benificiaries Detail:

	Name	Father/ Husband Name	Age	Education	Category	Income Source	Address	Contact No
	Sumitra devi	D/O Mohi Ram	42	8th	S.C	Agriculture	Vill Chanjalpul	8894691624
	Sunita devi	W/O Prakash	42	8th	Gen.	Agriculture	Vill Chanjalpul	9816153052
	Ganga devi	W/O Madan Lal	34	12th	S.C	Agriculture	Vill Chanjalpul	9816899016
	Anita devi	W/O Rakesh	30	12th	S.C	Agriculture	Vill Chanjalpul	9815390557
	Sheela Devi	W/O Mehar Singh	51	5th	S.C	Agriculture	Vill Chanjalpul	6203619423
	Rekha Devi	W/O Mohan Lal	38	10th	S.C	Agriculture	Vill Chanjalpul	7807386176
	Begu Devi	W/O Lokinder	38	5th	S.C	Agriculture	Vill Chanjalpul	8627023813

4. Geographical Details of The Village

3.1	Distance from the District HQ	::	120 Km
3.2	Distance from main Road	::	0 Km
3.3	Name of local market & distance	::	Jhiknipul 0 km
3.4	Name of main market & distance	::	Chopal 20km Nerwa 10 Km
3.5	Name of main cities & distance	::	Shimla 120 km
3.6	Name of main places where product will be sold/ marketed	::	Chopal, Nerwa

5. Description of Product related to Income Generating Activity

4.1	Name of the Product	::	Vermi-compost
4.2	Method of product identification	::	The activity was shortlisted and finalized, keeping in view the great demand of Vermicompost , the area being an apple belt.
4.3	Consent of SHG/CIG/cluster members	::	Yes, the activity was collectively decided by the group.

6. Description of Production Process

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 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.
Step-11	Collection of earthworms after Verm compost collection. Sieving of the composted material to separate fully composted ready material. The partially material will be again put into Vermi-compost bed.
Step-12	Storage of vermi compost in proper place to maintain moisture and allow the beneficial microorganis to grow.

7. Description of Production Planning

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

8. Description of Marketing/ Sale

7.1	Potential market places	::	HP Forest Deptt. Local market Use on own farm
7.2	Distance from the unit	::	To be supplied to different locations
7.3	Demand of the product in market place/s	::	HP Forest Department is procuring huge vermi-compost for their nursery. Huge demand in locality for orchard use, area being an apple belt.
7.4	Process of identification of market	::	PMU will facilitate the tie up of procurement of vermi-compost produced by SHG with HP Forest Deptt.
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"	::	"Let's go organic"

9. SWOT Analysis

- **Strength**
  - Each of the SHG members are having cattle varying from 2 to 4 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 HP Forest

❖ **Threats/Risks**

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

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 -** Collective

11. Cost analysis

(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 work-shed**								
1	Hardware items, construction of pit (Size will be of 10ftX4ftX2ft)	Per member	10	6200	62000	0	0	0	0
2	Construction of cover shed	Per member	10	4200	42000				
	Sub-total (A.1)				**104000**	**0**	**0**	**0**	**0**
A.2	**Machinery and equipment**								
2	Tools, equipment etc.	Per member	10	2300	23000	0	0	0	0
	Sub-total (A.2)				**23000**	**0**	**0**	**0**	**0**
	Total Capital Costs (A.1+A.2)				**127000**	**0**	**0**	**0**	**0**
B	**Recurring Costs**								
3	Seed earthworm	Per Kg	10	600	6000	0	0	0	0
4	Cost of procurement of Slurry/dung/waste	Tonnes	42	900	37800	39690	41674	43757	45944
5*	Labour Cost	Per tonne	21	700	14700	15435	16206	17016	17866
6	Packing materials	No.	182	50	9100	9555	10032	10533	11059
7	Other handling charges	Per tonne	21	150	3150	3307	3472	3645	3827
C	**Other charges**								

8	Insurance	L/S		0	0	0	0	0	0
9	Interest on loan	Per annum		0	0	0	0	0	0
	Total recurring costs				**70750**	**67987**	**71384**	**74951**	**78696**
	Total cost = Capital + recurring				**197750**	**67987**	**71384**	**74951**	**78696**
D	**Income from vermicomposting**								
12	**Sale of vermicompost**	Tonnes	21	**6400**	**134400**	**147840**	**162624**	**178886**	**196775**
13	**Sale of earthworm**					**3500**	**7000**	**7000**	**7000**
14	**Total revenue**				**134400**	**151340**	**169624**	**185886**	**203774**
15	Net returns (D-C)				**-63350**	**83353**	**98240**	**110935**	**125079**

Note –

Activity on own land

All operations to be done by the members themselves

No extra labour cost, since all member will do the work themselves.

Abstract of Cost/ Benefit

Particulars	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Capital cost	**127000**	**0**	**0**	**0**	**0**
Recurring cost	**70750**	**67987**	**71384**	**74951**	**78696**
Total cost	**197750**	**67987**	**71384**	**74951**	**78696**
Total revenue	**134400**	**151340**	**169624**	**185886**	**203774**
Net profit	**-63350**	**83353**	**98240**	**110935**	**125079**

12. Gist of Economic Analysis

- Pit size for each member has been planned at 10X4X2 ft for one pit.
- Cost of production of vermi-compost has been estimated at Rs. 3.6 per Kg
- Sale of vermi-compost (conservative side) is proposed at Rs. 6 per Kg
- Net profit is estimated to be Rs. 6-3.6 = 2.4 per Kg
- It is proposed that each member will produce 3.3tonnes of vermi-compost every year resulting in production of 46.2tonnesvermi-compost by all 14 members of SHG in one year.
- Cost of earthworm has been kept at Rs. 500.00 per kg
- During the second years onwards, there will be surplus earthworms for sale (as it will multiply during the process of production of vermi-compost)
- The vermi-compost making is a profitable IGA and therefore has been taken up by the SHG members.

13. Fund requirement:

Sl. No.	Particulars	Total Amount (Rs)	Project support	SHG contribution
1	Total capital cost	**127000**	**95250**	**31750**
2	Total Recurring Cost	**70750**	**0**	**70750**
3	Trainings/ capacity building/skill up-gradation	**25000**	**25000**	**0**
	Total =	**222750**	**120250**	**102500**

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

14. Sources of fund:

Project support;	• 75 %andof capital cost will be utilized for construction of pit (Size will be of 10ftX4ftX2ft) • Rs 1 lakh as revolving fund will be parked in the SHG bank account (should be utilized for taking bank loan in case of taking loan from bank) or as a revolving fund. • Trainings/capacity building/ skill up-gradation cost.	Procurement of materials for pit/construction of pitwillbe done by respective DMU/FCCU after following all codal formalities.

SHG contribution	• 75% of capital cost to be borne by SHG, this include cost of shed/construction of shed. • Recurring cost to be borne by SHG	

15. 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.

16. 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 SHG – Within the State& Outside State

17. 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 -

Prepared by : Anchal Justa (FTU Co-ordinator) Bamta Range

प्रमाण पत्र

आय सृजन गतिविधि के लिए स्वयं सहायता समूह **स्वयं सहायता समूह चनजालपुल** कि व्यवसाय योजना ग्रामीण वन विकास समिति के सामान्य सदन के समक्ष ग्राम वन विकास समिति **जीखनीपुल** को अनुमोदन हेतु प्राप्त विभिन्न सदस्यों द्वारा लम्बी चर्चा और विचार – विमर्श के बाद, केंचुआ खाद व्यवसाय योजना को स्वयं सहायता समूह में अपनाने और स्वयं सहायता समूह के सदस्यों द्वारा आगे कार्यान्वयन के लिए अनुमोदित किया गया।

दिनांक:-
स्थान:- **जीखनीपुल**

President
Village Forest
Devlopment S...
...171211

Secretary
...Jhiknipul

Treasurer I.D.O
VFDS

अध्यक्ष(स्वयं सहायता समूह) | प्रधान (ग्राम वन विकास समिति) | कोषाध्यक्ष (ग्राम वन विकास समिति) | एफ०टी०यू०अधिकारी बमटा

स्वयं सहायता समूह चनजालपुल
ग्रा0 प0 जीखनीपुल, त0 चौपाल,
जिला शिमला, (हि0 प्र0)

अनुमोदित

डी०एम०यू० अधिकारी
वन मण्डल चौपाल