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



SHG/CIG Name	::	Self Help Group Ashavadi Vridjan
VFDS Name	::	Chilla chapandali
Range	**	Chopal
Division	::	Chopal

Prepared under:



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

Table of Contents

Sl. No.	Particulars	Page/s
1.	Background	3
2.	Description of SHG/CIG	4
3.	Beneficiaries Detail:	4
4.	Geographical details of the Village:	5
5.	Description of Product related to Income Generation Activity	5
6.	Description of Production Processes	5
7.	Description of Production Planning	6
8.	Description of Marketing /Sale	6
9.	SWOT Analysis	7
10	Description of Management among Members	7
11	Cost analysis	8-9
12.	Gist of Economic Analysis	10
13.	Fund Requirement	10
14.	Sources of Fund	10
15.	Bank Loan Repayment	11
16.	Trainings/capacity building/skill up-gradation	11
17.	Monitoring Method	11
18.	Photo SHG Members	12
19.	Business Plan Approval	13

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 Ashavadi Vridjan
VFDS	Chilla Chapandali
Range	Chopal
Division	Chopal
District	Shimla
Total no. of members in SHG	07
Date of formation	14-05-2012
Bank account no.	04110110007358
Bank details	UCO Bank
SGH/CIG monthly saving	100 /-
Total saving	700-
Total inter-loaning	-
Cash credit limit	-
Repayment status	-

3. Benificiaries Detail:

S.No	Name	Father/ Husban d Name	Age	Education	Categ ory	Income Source	Address	Contact No
1	Sahi RAm (President)	S/O Jatti Ram	59	5th	Gen.	Agricult ure	Vill Chapandali	9817349000
2	Megh Ram (Vice Presiden t)	S/O Ghingdu Ram	66	8th	Gen.	Agricult ure	Vill Chapandali	9459449006
3	Kirpa Ram (Secretary)	S/O Mohi Ram	72	8th	Gen.	Agricult ure	Vill Chapandali	9805777268
4	Bishan Singh	S/O Mehar SIngh	64	4th	Gen.	Agricult ure	Vill Chapandali	
5	Manohar Lal	S/O Ram Singh	63	-	Gen.	Agricult ure	Vill Chapandali	

6	Bimla Devi	W/O	36	8th	Gen.	Agricult	Vill Chapandali	9418516547
		Dinesh				ure		
7	Kamla	W/O	47	-	Gen.	Agricult	Vill Chapandali	9418219508
		Tula				ure		
		Ram						

4. Geographical Details of The Village

3.1	Distance from the District HQ	::	112Km
3.2	Distance from main Road	::	500 Mtr.
3.3	Name of local market & distance	::	Chopal,12 km.
3.4	Name of main market & distance	::	Chopal,-12km, Nerwa 26 Km,
3.5	Name of main cities & distance	::	Shimla 112km
3.6	Name of main places where product will be sold/marketed	::	Nerwa Chopal

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 $(2-3 \text{ inch})$ 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.
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.
- **Selection** 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
Α.	Capital Cost								
A.1	Construction of work-shed								
1	Hardware items, construction of pit (Size will be of 10ftX4ftX2ft)	Per member	7	6000	36000	0	0	0	0
2	Construction of cover shed	Per member	7	4000	24000				
	Sub-total (A.1)				60000	0	0	0	0
A.2	Machinery and equipment								
2	Tools, equipment etc.	Per member	7	2000	12000	0	0	0	0
	Sub-total (A.2)				12000	0	0	0	0
	Total Capital Costs (A.1+A.2)				72000	0	0	0	0
В	Recurring Costs								
3	Seed earthworm	Per Kg	08	500	3000	0	0	0	0
4	Cost of procurement of Slurry/dung/waste	Tonnes	42	800	33600	35280	37044	38896	40841
5*	Labour Cost	Per tonne	21	700	14700	15435	16206	17016	17866
6	Packing materials	No.	182	40	7280	7644	8026	8427	8849
7	Other handling charges	Per tonne	21	150	3150	3307	3472	3646	3828
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				61730	61666	64748	67985	71384
	Total cost = Capital + recurring				133730	61666	64748	67985	71384
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	203775
15	Net returns (D-C)				-11830	89674	104876	117901	132391

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	84000	0	0	0	0
Recurring cost	62230	61666	64748	67985	71384
Total cost	146230	61666	64748	67985	71384
Total revenue	134400	151340	169624	185886	203775
Net profit	-11830	89674	104876	117901	132391

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
- \bigcirc Net profit is estimated to be Rs. 6-3.6 = 2.4 per Kg
- The is proposed that each member will produce 3.3 tonnes of vermi-compost every year resulting in production of 46.2 tonnes vermi-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	84000	42000	42000
2	Total Recurring Cost	62230	0	62230
3	Trainings/ capacity building/skill up- gradation	25000	25000	0
	Total =	171230	67000	104230

Note-

- Capital Cost -50% 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% and 50% of capital cost will be utilized for construction of pit (Size will be of 10ftX4ftX2ft)	Procurement of materials for pit/construction of pitwillbe done by respective DMU/FCCU after following
	• Rs 1 lakh as revolving fund will	all codal formalities.
	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.	

SHG contribution	• 75% and 50% 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.

18. Group Photo:



प्रमाण पत्र

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

दिनांक:- 08-05-2023

स्थान: चिल्ला चांपाइली

एकिस्टीव्यु व्अधिकारी ल

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