

Business Plan

Income Generating Activity- Earthworm Compost

By

Self Help Group - Self Help Group Kafalah-3



Self Help Group/Common Interest Group	::	Self Help Group Kafalah -3
Village Forest Development Committee	::	Kafalah
forest Range	::	Kanda
forest division	::	Chopal

Funded By:



Himachal Pradesh Forest Ecosystem Management and Livelihood Improvement Project(JICA assisted)

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1. Background

Earthworm composting is gaining popularity, mainly due to the shift towards organic farming. It has ecological, economic and human health benefits associated with it. The use of vermin-compost in place of chemical fertilizers leads to soil health, balanced proportion of various minerals and good fertility and best quality crop production. Vermi-composting has direct environmental and economic benefits by contributing significantly to sustainable agricultural and horticultural production and farmers' income.

Earthworm Compost

Earthworm compost, aptly called Gold from Garbage, is a major investment in organic farming. Earthworm composting is a process in which earthworms convert organic waste into compost rich in high nutritional content. Earthworms are usually found living in the soil, gorge on biomass and excrete it in digested form. Earthworms feed on organic waste material and give excreta in the form of "vermicast" which is rich in nitrates and minerals such as phosphorus, magnesium, calcium and potassium. These vermicasts are used as fertilizers and they improve the quality of soil. Vermicompost is in great demand due to its high nutrient content

Material requirement

1. Water
2. Cow dung
3. Thatched roof
4. Soil or sand
5. Earthworms
6. Sacks
7. Organic biomass
8. Plastic or cemented tanks
9. Dried straw and leaves collected from farms
10. Biodegradable waste collected from farms and kitchens

1. स्वयं सहायता समूह/ सामान्य रुचि समूह का विवरण

Name of the Self Help Group/Common Interest Group	Self Help Group Kaflah -3
Rural Forest Development Committee	Kaflah
Forest Range	Kanda
Forest Division	Chopal
District	Shimla
Total No. of Self Help Group Members	10
Date of Formation	18/07/2017
Bank Account Number	
Bank Details	
Self Help Group/Common Interest Group Monthly Savings	100/-
Total Savings	
Total Inter-Loan	-
Cash Credit Limit	-
Repayment Status	-

2. Details of beneficiaries

Sr. No.	Name	Father / Husband Name	Age	Education	Category	Income Source	Address	Contact Number.
1.	Padma Sharma (President)	Sundar Singh	38	10th	General	Agriculture	Kaflah	9816625804
2.	Monica Sharma (Secretary)	Virendra Singh	28	12th	General	Agriculture	Kaflah	8091174956
3.	Reena Devi	Layak Ram	37	12 th	General	Agriculture	Kaflah	9015021256
4.	Seema Devi	Bilam Singh	38	8 th	General	Agriculture	Kaflah	8894928869
5.	Vidya Devi	Sundar	38	5 th	SC	Agriculture	Kaflah	7876152854
6.	Kamala Devi	Sahi Ram	65	-	General	Agriculture	Kaflah	8091174956
7	Tara Devi	Ram Bhajan	45	-	General	Agriculture	Kaflah	8894204972
8	Kala Devi	Jagat Singh	36	-	General	Agriculture	Kaflah	8580568498
9	Amrita Devi	Naresh Devi	27	M.A	General	Agriculture	Kaflah	8679616332
10	Anjana	Gopal	24	B.A	General	Agriculture	Kaflah	7876008696

3. Geographical description of the village

3.1	Distance from district headquarters	::	228 km
3.2	Distance from main road	::	500 m
3.3	Name and distance of local market	::	Nerwa, Kupvi, Haripurdhar
3.4	Name and distance of main market	::	Haripurdhar 05 Nerwa, Kupvi, 28 40 , Chopal 128 km
3.5	Name and distance of main cities	::	Shimla 228 km
3.6	Name of main cities where the product will be sold/marketed	::	, Nerwa, Kupvi, Haripurdhar

4. Description of the product related to the income generating activity

4.1	Name of the product	::	Earthworm Compost
4.2	Method of product identification	::	The activity was shortlisted and finalized keeping in mind the huge demand for earthworm compost, the area being an apple belt.
4.3	Consent of SHG/Common Interest Group/Cluster members	::	Yes, the activity was collectively decided by the group.

6. Description of the production process

Phase	To prepare earthworm compost, either a plastic or a concrete tank/pit can be used. The size of the tank/pit depends on the availability of raw material, however as a standard, the size is being kept 10ftX4ftX2ft.
Phase	Collect the biomass and keep it under the sun for about 8-12 days. Now cut it into the required size using a cutter.
Phase	Prepare a cow dung slurry and sprinkle it on the heap for quick decomposition.
Phase	Add a layer (2 – 3 inches) of cement concrete at the bottom of the tank/pit.
Phase	Now prepare the fine bedding by adding partially decomposed cow dung, dry leaves and other biodegradable waste collected from farms and kitchen. Distribute them evenly on the concrete layer.
Phase	Continue adding the chopped bio-waste and partially decomposed cow dung layer-wise to a depth of 0.5-1.0 feet in the tank/pit.
Phase	After adding all the bio wastes, release the earthworm species on the mixture and cover the compost mixture with dry straw or sack.
Phase	Sprinkle water regularly to maintain the moisture content of the compost.
Phase	Cover the tank/pit with a roof to prevent the entry of ants, lizards, mouse, snakes etc. and protect the compost from rain water and direct sunlight.
Phase	A frequent check to avoid the compost from overheating. Maintain proper moisture and temperature.
Phase	Collection of earthworms followed by vermicompost collection. Sieving of compost material to separate the fully composted material. Partially composted material will be again put into the vermi-compost bed.
Phase	Storage of vermicompost at a proper place to maintain moisture and allow beneficial micro-organisms to grow.

6. Details of the production plan

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 material	::	From home and own farms
6.4	Source of other material	::	Open market
6.5	Raw material - quantity required per member per cycle (kg)	::	1800 kg per cycle
6.6	Expected production per member cycle (kg)	::	900 kg per cycle

7. Marketing / Sales Details

7.1	Potential market locations	::	Himachal Pradesh Forest Department. Local market Use on their own farm
7.2	Distance from the unit	::	To be supplied to various places
7.3	Demand for the product in the market	::	Himachal Pradesh Forest Department. Buying huge vermicompost for their nurseries. Huge demand in the locality for orchard use, the area being an apple belt.
7.4	Process of market identification	::	The Project Management Unit will facilitate linking of the purchase of vermicompost produced by the Self Help Group with Himachal Pradesh Forest Department.
7.5	Marketing strategy of the product	::	The Self Help Group members will also explore additional marketing options around their villages for better sale price in future.
7.6	Product branding	::	Marketing of the product at Common Interest Group/Self Help Group level will be done by branding of the respective CIG/SHG. Later branding may be required at the cluster level for this income generation activity
7.7	Product "slogan"	::	"Let's go organic"

4. 9. SWOT Analysis

5. ☐ Strength

6. ☐ Each member of the SHG has cattle ranging from 2 to 4 in each household

7. ☐ Families of SHG members are cultivating high value crops and vegetables which provide adequate availability of raw material i.e. farm organic wastes throughout the year.

8. ☐ Raw material easily available in their farms

9. ☐ Manufacturing process is simple

10. ☐ Proper packing and easy to transport

11. ☐ Other family members will also cooperate with the beneficiaries

12. ☐ Product shelf life is long

13. ☐ Weakness

14. ☐ Effect of temperature, humidity, moisture on manufacturing process/product.

15. ☐ Lack of technical know-how

16. ☐ Opportunity

17. ☐ Increasing demand for vermi-compost due to awareness among farmers about organic and natural farming

18. ☐ Application of vermi-compost on their own field will go a long way in improving and increasing soil health and production of quality agricultural products which will provide better value

19. ☐ Best use of organic waste including household waste left outside the kitchen

20. ☐ Possibility of marketing tie up with Himachal Pradesh Forest

21. ☐ Risks

22. ☐ Possibility of breakage of production cycle due to extreme weather

23. ☐ Competitive market

24. ☐ Level of commitment among beneficiaries towards participation in training/capacity building and skill upgradation

25. 10. Management details among members

26. ☐ Production - This will be taken care of by individual members including procurement of raw materials

27. ☐ Quality assurance - Collectively

28. ☐ Cleaning and packaging - Collectively

29. ☐ Marketing - Collectively

30. 4. Monitoring of the unit - Collectively

10. Cost Analysis

(Amount in actual Rs.)

Sr.No.	Description	Unit	Quantity/	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 10ftX4ftX2ft)	per member	10	6000	60000	0	0	0	0
2	Construction of Covered Shed	per member	10	4000	40000				
	Sub-Total (A.1)				100000	0	0	0	0
A.2	Machinery & Equipment								
2	Tools, Tools etc.	per member	10	2000	20000	0	0	0	0
	Sub-Total (A.2)				20000	0	0	0	0
	Total Capital Cost (A.1+A.2)				120000	0	0	0	0
B	Recurring Costs								
3	Seed Earthworms	per kilo	10	500	5000	0	0	0	0
4	Cost of Procurement of Slurry/Dung/Waste	tonne	48	800	38400	40320	42336	44453	46676
5*	Labour Cost	per tonne	24	700	16800	17640	18522	19448	20420
6	Packing Material	number	208	35	7280	7644	8026	8427	8849
7	Other Handling Charges	per tonne	24	150	3600	3780	3969	4168	4376

C	Other Charges								
8	Insurance	L/s		0	0	0	0	0	0
9	Interest on loan	प्रति वर्ष		0	0	0	0	0	0
	Total recurring cost				70080	69384	72853	76496	72536
	Total cost = Capital + Recurring				166080	69384	72853	76496	72536
D	Income from vermicomposting								
12	Sale of vermicompost	रु	24	6200	148800	147840	180048	198052	217857
13	Sale of earthworms					4000	4000	8000	8000
14	Total revenue				148800	167680	188048	206052	225857
15	Net return (D-C)				78720	98296	115195	129556	153501

Note –

- Activity on own land
-
- All operations to be done by members themselves
-
- There is no extra labour cost, as all members will do the work themselves.

Essence of Cost / Benefit

Description	वर्ष 1	वर्ष 2	वर्ष 3	वर्ष 4	वर्ष 5
Capital Cost	96000	0	0	0	0
Recurring Cost	70080	69384	72853	76496	72356
Total Cost	166080	69384	72853	76496	72356
Total Revenue	148800	167680	188048	206952	225857
Net Profit	-17280	98296	115195	129556	153501

11. The essence of economic analysis

The size of the pit for each member has been planned at 10X4X2 feet for one pit.

The cost of production of vermi-compost has been estimated at Rs. 3.6 per kg

The sale of vermi-compost (conservative side) is proposed at the rate of Rs. 6 per kg

The net profit is estimated to be $6 - 3.6 = \text{Rs. } 2.4$ per kg

15. It is proposed that each member will produce 3.3 tonnes of vermi-compost every year resulting in production of 46.2 tonnes of vermi-compost by all the 14 members of the self-help group in a year.

The cost of earthworms is kept at Rs. 500.00 per kg

During the second year, there will be surplus earthworms for sale (as it will multiply during the process of producing vermi-compost)

18. Making of vermi-compost is a profitable income generating activity and hence it is started by the members of the Self Help Group.

13. Fund Requirement:

Sr. No.	Particulars	Total Capital	Project Contribution	Self Help Group (SHG) Contribution
1	Total Capital Cost	120000	90000	30000
2	Total Recurring Cost	70080	0	70080
3	Training/Capacity Building, Skill Upgradation	25000	25000	0
	Total	215080	115000	100080

Note: 1) Capital Cost- 75% of capital cost to be borne by the project and 25% by the Self Help Gro

2) Recurring Cost – To be borne by the Self Help Group

3) Training and Capacity Building/Skill Upgradation to be borne by the project

13. Sources of funding and purchases

Project Contribution	<ul style="list-style-type: none"> • The capital cost will be borne by the project Self Help Group. • Rs. 1 lakh will be credited as a revolving fund in the Self Help Group bank account. • Training/capacity building/skill upgradation cost.
Self Help Group (SHG) Contribution	<ul style="list-style-type: none"> • 25% of the capital cost will be borne by the Self Help Group. • Recurring cost will be borne by the Self Help Group

15. Bank loan repayment

The cost of training/capacity building/skill upgradation will be borne by the project. Following are some of the training/capacity building/skill upgradation proposed/required:

- Quality control
- Team work
- Marketing
- Financial management

16. Training/Capacity Building/Skill Upgradation

Training/Capacity building/Skill upgradation cost will be borne by the project.

- ☐ Following are some of the training/capacity building/skill upgradation proposed/required-
- ☐ Project orientation Group formation/restructuring
- ☐ Group concept and management
- ☐ Introduction to income generation activity (general)
- ☐ Marketing and business plan development
- ☐ Bank credit linkage and enterprise
- ☐ Exposure visits of SHGs – within the state and outside the state

.17. Monitoring Method

- The Social Audit Committee of the Gram Van Vikas Samiti shall monitor the progress and performance of the income generating activity and suggest corrective action, if necessary, to ensure operation of the unit as per the projection.
- The Self Help Group should review the progress and performance of the income generating activity of each member and suggest corrective action, if necessary, to ensure operation of the unit as per the projection.

18. समूह के सदस्यों की तस्वीरें



Prepared by: Narender Kumar FTU Co-Ordinator

प्रमाण पत्र

आय सृजन गतिविधि के लिए स्वयं सहायता समूह कफलाह-3 स्वयं सहायता समूह कि व्यवसाय योजना ग्रामीण वन विकास समिति के सामान्य सदन के समक्ष ग्राम वन विकास समिति कफलाह 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:-

स्थान:- कफलाह

Pradma Monika Pradhan
Pradhan Village Forest Development Society & CD & LI Unit Kallah-Ward No.3 Block Kupvi, Shimla HP
अध्यक्ष (स्वयं सहायता समूह) प्रधान (ग्राम वन विकास समिति)

Range Forest Officer
Forest Range Kanda

- | | | |
|-----------------|--------------|-------------|
| 1. पद्मा | - प्रधान | Pradma |
| 2. रीना | - 34 प्रधान | Reena |
| 3. मोनिका | - सचिव | Monika |
| 4. सीमा | - कोषाध्यक्ष | Seema |
| 5. कला देवी | - सदस्य | Kala Devi |
| 6. अंजना | - 11 - | Anjana |
| 7. अमला देवी | - 10 - | Amala Devi |
| 8. तारा देवी | - 10 - | Tara Devi |
| 9. कमला देवी | - 10 - | Kamala Devi |
| 10. विद्या देवी | - 10 - | Vidya Devi |

अनुमोदित

डी०ए०एम०ए० अधिकारी
वन मॉडल चौपाल