Business Plan

On

Income Generation Activity – Vermicomposting

For

Self Help Group –Jai Shiv Shankar

SHG/CIG name	Jai Shiv Shankar
VFDS name	Gaddidhar
Range	Kamlah
Division	Joginder Nagar

Size of Pit: 5 m X 1.5 m X 0.75 m
Prepared Under

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

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1. Introduction

Vermicomposting tanks made of ordinary bricks in a semi-commercial unit. The model for vermicomposting consists of three chambers enclosed by a wall and size of one chamber (1.5 m width, 5 m length and 0.75 m height) with three chambers in a pit. The walls are made up of different materials such as normal bricks, hollow bricks. This model contains partition walls with small holes to facilitate easy movement of earthworms from one chamber to another. Providing an outlet at one corner of each chamber with as light slope facilitates collection of excess water, which is reused later or used as earthworm leach ate on crop. The three components of a tank are filled with plant residues one after another. The first chamber is filled layer by layer along with cow dung and then earthworms are released. Then the second chamber is filled layer by layer. Once the contents in the first chamber are processed the earthworms move to chamber 2, which is already filled and ready for earthworms. This facilitates harvesting of decomposed material from the first chamber and also saves labor for harvesting and introducing earthworms. This technology reduces labour cost and saves water as well as time.

A group of 10 women of different age group came together to form a SHG under JICA project and decided to craft a business plan which can help them to take this IGA in collective manner and raise their additional income.

After discussing about the market potential and different aspects very carefully before getting into this IGA (Income Generation Activity) and moreover an MoU will be signed between the Range Forest Officer of the Forest Department and SHG, for the procurement of good quality vermin

compost produced by the SHG to utilize in the nurseries.Jai Shiv Shankar SHG was formed in the year 2021 and has also been included under Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods (JICA Assisted), which fall under VFDS Gaddidhar . This SHG consists of 8 females. These females with the help of this project funding, training and assistance they will develop this skill and become professional. They will be able to sell vermicompost in large scale and will become self dependent and generate income. The detailed business plan of this SHG have been crafted according to its investment capacity, marketing & promotional strategy and the detailed action plan will be discussed here in under:

2. Description of SHG/CIG

1.	SHG/CIG Name	Jai Shiv Shankar
2.	VFDS	Gaddidhar
3.	Range	Kamlah
4.	Division	Joginder Nagar
5.	Village	Sadhoti
6.	Block	Sarkaghat
7.	District	Mandi
8.	Total no. of members in SHG	10
9.	Date of formation	Nov-2021
10.	Bank a/c No.	33210101143
11.	Bank details	HPSCB & IFSC: hpsc0000332
12.	SHG/CIG monthly savings	1000 (100per person)
13.	Total saving	11459
14.	Total inter loaning	-
15.	Cash Credit Limit	-
16.	Repayment status	-

3. Beneficiaries Detail

S.No.	Name	M/F	Father/ Husband name	Category	Designation	Contact no.
1	Rekha Devi	F	Sanjeev Kumar	General	President	8626865695
2	Ruchika	F	Vinod Kumar	General	Secretary	9817405998
3	Seema Devi	F	Pradeep Kumar	General	Member	9816532284
4	Sunita Devi	F	Ramesh Chand	General	Member	
5	Rja Devi	F	Kashmir Chand	General	Member	8894935206
6	Nisha Devi	F	Prataap Chand	General	Member	9817241893
7	Priya Devi	F	Raj Kumar	General	Member	8894182872
8	Pooja Devi	F	Sunil Kumar	ST	Member	7018356799
9	Pinki Devi	F	Krishan Chand		Member	7650850709
10	Sooma Devi	F	Ram Chand		Member	7650043500

4. Geographical details of the Village

1	Distance from the District HQ	120 Km
2	Distance from Main Road	2 Km
3	Name of local market & distance	Gaddidhar 5 km
4	Name of main market & distance	Tihra 6 Km
5	Name of main cities & distance	Mandi 120 km Sarkaghat 35 Km Dharampur 25 Km Sandhol 25 Km
6	Name of main cities where product will be sold/ marketed	Sarkaghat, Dhrampur, Sandhol, Awah Devi

5. Market Potential

Vermicompost has been emerging as an important source in supplementing and substituting chemical fertilizers in agriculture. Vermicompost, also known as 'farmers' friend' is used for general crops and plantation crops. It is a valuable input for sustainable agriculture and wasteland development. It is a growth promoter and helpful in providing hormones required for plant growth. There is a lot of demand for vermicompost among farmers as its use increases quality of agricultural products and it's price is also cheaper. It is also used widely in pot culture and in home gardens. In addition, many government departments including agriculture, forest and horticulture buy it in bulk. Government agencies and NGOs are popularizing organic agriculture using vermi-compost by organizing awareness campaigns and film show in rural and urban areas. After learning the skill of producing good quality vermi-compost, Jai Shiv Shankar SHG will target the Forest Department Nurseries and the private nurseries. There is a huge market potential with the increased awareness regarding the benefits of using organic compost in place of chemical fertilizers and promoting organic farming.

1	Potential market places/locations	Manyoh, & Dharmpur Nursery and also in open market.
2	Vermicompost demand	Throughout the year.
3	Process of identification of market	Group members will contact nearby villagers/households/institutions/ Forest Deptt..
4	Marketing Strategy	SHG members will directly take orders (individual levels/ group level) from nearby villagers/households/ Govt. Deptt.

6. Executive Summary

Vermicomposting (Iincome Ggeneration Aactivity) has been selected by this Self Help Group. This IGA will be carried out by all ladies of this SHG by constructing individual pits. This business activity will be carried out yearly by group members. The divisions of labour between the members have been planned carefully as they are working individually so that each contributes towards strengthening the IGA and resulting the additional money into their pockets. This SHG will ensure to become the most renowned vermicompost centre with good quality of vermicompost in its area of operation in coming years.

7. Description of product related to Income Generating Activity

1	Name of the Product	Vermi compost
2	Method of product identification	Has been decided by group members
3	Consent of SHG/ CIG / cluster members	Yes

8. Description of Production Processes

- **Vermicomposting materials:** Decomposable organic wastes such as animal excreta, kitchen waste, farm residues and forest litter are commonly used as composting materials. In general, animal dung mostly cow dung and dried chopped crop residues are the key raw materials. Mixture of leguminous and non-leguminous crop residues enriches the quality of vermicompost. Red earthworm (Eisenia foetida) is preferred species of earthworms because of its high multiplication rate and thereby converts the organic matter into vermin-compost within 45-50 days. Since it is a surface feeder it converts organic materials into vermin-compost from top.

- **Process of vermicompost preparation:** Vermicomposting is done by either bed or pit method. In bed method composting is done on the pucca / kachcha floor by making bed of organic mixture while in pit method it is done in the cemented pits.
  - Vermicomposting unit should be in a cool, moist and shady site
  - Cow dung and chopped dried leafy materials are mixed in the proportion of 3: 1 and are kept for partial decomposition for 15 – 20 days. • A layer of 15-20cm of chopped dried leaves/grasses should be kept as bedding material at the bottom of the bed.
  - Beds of partially decomposed material of size 5x5x2.5 feet should be made.
  - Each bed should contain 3-4.0qtl. of raw material and the number of beds can be increased as per raw material availability and requirement.
  - Red earthworm (1500-2000) should be released on the upper layer of bed.
  - Water should be sprinkled with can immediately after the release of worms
  - Beds should be kept moist by sprinkling of water (daily) and by covering with gunny bags/polythene.
  - Bed should be turned once after 30 days for maintaining aeration and for proper decomposition.
  - Compost gets ready in 45-50 days. The finished product is 3/4th of the raw materials used.
- **Harvesting:** When raw material is completely decomposed it appears black and granular. Watering should be stopped as compost gets ready. The compost shout be kept over a heap of partially decomposed cow dung so that earthworms could migrate to cow dung from compost. After two days compost can be separated and sieved for use.

1	Time taken	It is assumed that there will be around 3-4 cycles of production in the first year and 5 – 6 cycles in the subsequent years with a duration of each cycle at around 65-70 days.
2	Number of ladies involved	All ladies

3	Source of raw material	Animal excreta, kitchen waste, farm residues and forest litter .
4	Source of other resources	Animal excreta, kitchen waste, farm residues and forest litter.
5	Expected production per cycle	80 quintal per cycle from 8 numbers of pits (10 quintal from each pit.)
6	Expected production per year	240 quintal per year.

9. SWOT Analysis

❖ **Strength** □

- 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.
- Infertility and soil erosion are the main problems in front of Indian farmers, the use of vermi compost improves soil structure, texture, aeration, water holding capacity and prevent soil erosion.
- It is an easily adoptable low cost technology.
- Cheap price as compare to chemical fertilizers.
- Crops harvested by using this manure have high demand in international market. This crop fetches premium selling price.
- Media is creating awareness about importance of vermi-compost at national and international level

❖ **Weakness**

- Lack of technical know-how.
- Effect of temperature, humidity, moisture on manufacturing process/product.
- At initial level its use increases the cost of production.
- Less awareness among the people.
- Because of the natural way of production, we cannot reduce the production time.

❖ **Opportunity**

- Increasing demand of vermi compost on account of awareness among farmers about organic and natural farming.
- Potential for marketing tie ups with HP forest.
- Best utilization of organic waste including household left outs of kitchens.
- People are more concerned about their health so they want to consume organic food.
- Hundreds of tones biodegradable organic waste is being thrown in cities creating disposal problems in the country. This waste can be converted into valuable compost by utilizing as raw material.
- Legitimate support by the government to the farmers to start this unit.
- Absence of competitors in the market can be a big opportunity for producers.
- Wide scope at national and international level.

❖ **Threats & Risks**

- Competitive market
- Level of commitment among beneficiaries towards participation in training/capacity building and skill up-gradation.
- Possibility of break of production cycle due to extreme weather conditions.
- Some small players have distorted its image in its nascent stage.
- 90% farmers are using chemical fertilizers. Farmer does not take initiative to convert his farm into organic.

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** – Collectively

11. Description of Economics

A. Capital cost				
Sr. No.	**Particulars of item**	**Quantity**	**Unit Price**	**Amount**
	Land and Building			
1	Open Shed with brick lined bed bottom & platform with RCC / MS pipe post & truss and thatch /HDPE / locally available roof (@ 1000/m2) for : Pit Size- 5m x1.5m x0.75m			
a.	Vermi-compost beds (5 m*1.5 m*10 nos = 75 m2 + 5 m 2 pathways/utility = 80 m2)	80	2000	160000
b.	For finished products 10 m2	LS	LS	10000
	Sub total			**170000**
	Implements and machinery			
1	Shovels, spades, buckets, bamboo baskets, trowel,	10	2000	20000
4	Sieving hand operated with 3 wire mesh sieves- 0.6 m x 0.9 m size.	10	1000	10000
5	Digital Weighing machine	1	4000	4000
7	Bag sealing machine	1	6000	6000
8	Culture trays (plastic) (35 cm x 45 cm) - 1 Nos	1	600	600
	Sub total			**40600**
	Water provision - Watering Can	10	1000	**10000**
	Earthworms (@1 Kg per m3 and @`300/Kg, total utilized bed volume = 36m3)	40	300	**12000**
	TOTAL CAPITAL COST			**232600**

B. Recurring Cost				
Sr. No.	**Particulars of item**	**Quantity**	**Unit Price**	**Amount**
1	Agricultural wastes (cost, collection and transportation) @ 320 kg per m^3 and Rs.200/MT (5*1.5*0.75*10*4*320*200/1000)	72	200	14400
2	Cow dung (cost, collection and transportation) @ 80 kg/m3 and Rs.250/MT (5*1.5*0.75*10*4*80*250/1000)	18	250	4500
3	Labour wages on day to day basis in formation of vermi bed with agro-waste, cow dung and worms, watering, stirring, harvesting, sieving, packing, etc., including cost of bags (250 mds[@ Rs.200/md)	5	10000	50000
4	Repair and maintenance	10	1000	10000
5	Cost of bags and packaging	1078	25	26950
	Total Recurring Cost			**105850**

Note – The group members will do the work themselves and therefore labour cost has not been included and the members will manage between them the working schedule to be followed.

Net Recurring Cost = Total Recurring Cost - Labour wages
= 1050850-50000 = 55850

C. Cost of production (Monthly)		
S. No.	**Particulars**	**Amount**
1	Total recurring cost	105850
2	10% depreciation annually on capital cost	10585
Total =116435/-		

D. Selling price calculation			
S. No.	Particulars	Unit	Price
1	Selling price per quintal	1 Quintal	800-1000

Cost Benefit Analysis (Cycle)

Cost benefit analysis (cycle)		
S. No.	Particulars	Amount
1	10% depreciation annually on capital cost	23260
2	Net Recurring Cost	55850
3	Total bags (50 Kg) per year	1078
4	Selling Price of 1 bag	Approx Rs 450
5	Income generation	485100
6	Net profit (Income generation - Net Recurring cost)	429250
7	Distribution of net profit	✓ Profit will be distributed equally among members monthly/yearly basis. ✓ Profit will be used for further investment in IGA

12. Fund flow arrangement in SHG

S. No.	Particulars	Total Amount (Rs)	Project Contribution	SHG contribution
1	Total capital cost	232600	1,74,450	58,150
2	Total Recurring Cost	105850	0	105850
3	Training/capacity building/skill up-gradation.	50,000	50,000	0
Total		**3,88,450**	**2,24,450**	**1,64,000**

Note:

i) Capital cost- 75% capital cost will be borne by the project as the group is of female and they are poor and 25% by the SHG.

ii) Recurring cost- to be borne by the SHG.

iii) Training and capacity building/ skill up gradation to be borne by the project.

13. Sources of Fund

Project support	✧ 75% of capital cost will be provided by project if members belong to other then general category. If the members belong to general then 50% capital cost is will be borne by project. ✧ Up to Rs 1 lakhs will be parked in the SHG bank account. ✧ Training/capacity building/ skill up- gradation cost. ✧ The subsidy of 5% interest rate will be deposited directly to the Bank/Financial Institution by DMU and this facility will be only for three years. SHG have to pay the installments of the Principal amount on regular basis.	Procurement of machines/equipment will be done by respective DMU/FCCU after following all codal formalities.
SHG Contribution	✧ 50% or 25% of capital cost to be borne by SHG for general category and other categories respectively. ✧ All the members are females and belongs to low income group and they can contribute 25% and project has to bear remaining 75%. ✧ Recurring cost to be borne by SHG.	

14. Training/capacity building/skill up-gradation

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

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

- ✧ Cost effective procurement of raw material
- ✧ Quality control
- ✧ Packaging and Marketing
- ✧ Financial Management

15. Computation of break-even point

= Capital Expenditure/(selling price (per bag)-cost of production (per bag))

=232600/ (450-250)=1163

In this process break-even will be achieved after production of 1163bags.

16. 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.
- ✧ Project support - The subsidy of 5% interest rate will be deposited directly to the Bank/Financial Institution by DMU and this facility will be only for three years. SHG/CIG has to pay the installments of the Principal amount on regular basis.

17. Monitoring Method

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

Some key indicators for the monitoring are as:

- ✧ Size of the group
- ✧ Fund management
- ✧ Investment
- ✧ Income generation
- ✧ Quality of product

18. Remarks

All the members are females and belong to low income group and they can contribute 25% and project has to bear remaining 75%.

19. Group Member Photos:

Rekha Devi

Ruchika

Seeema Devi

Sunita Devi

Rja Devi

Nisha Devi

Priya Devi

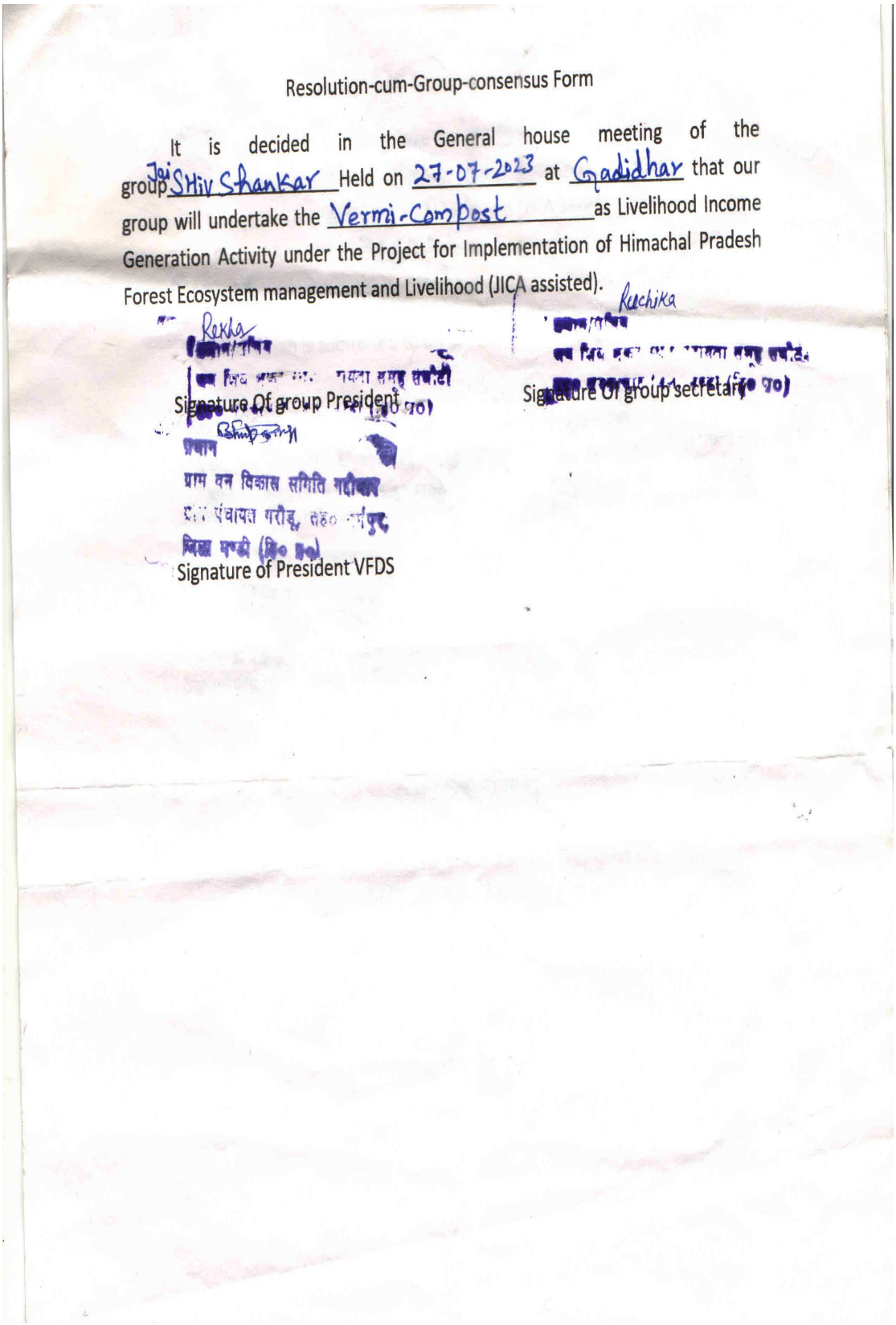
Pooja Devi

Pinki Devi

Soma Devi

20. Group Photo:

21. Resolution-cum-Group-consensus Form:



Resolution-cum-Group-consensus Form

It is decided in the General house meeting of the group Jai Shiv Shankar Held on 27-07-2023 at Gaddidhar that our group will undertake the Vermi-Compost as Livelihood Income Generation Activity under the Project for Implementation of Himachal Pradesh Forest Ecosystem management and Livelihood (JICA assisted).

Rekha

Signature Of group President

Ruchika

Signature Of group secretary

प्रधान
ग्राम वन विकास समिति गद्दीधार
ग्राम पंचायत गरोह, तहसील कमलाह
जिला मण्डी (हि० प्र०)

Signature of President VFDS

22. Business Plan Approval by VFDS and DMU:

Business Plan Approval by VFDS and DMU.

Jai shiv shankar Group will undertake the Vermi-Compost as Livelihood Income Generation Activity under the Project for Implementation of Himachal Pradesh Forest Ecosystem management and Livelihood (JICA assisted).In this regard business Plan of Amount Rs. 388450/- has been submitted by the group on 27-07-23 and the Business Plan has been approved by VFDS ~~Chowki~~ Gaddidhar

Business Plan is submitted to DMU through FTU for further action please.

Thank You.

Rekha

Signature Of group President

Ruchika

Signature Of group secretary

Signature of President VFDS

Approved

D.M.U.-cum-
Divisional Forest Officer
Joginder Nagar

DMU cum DFO Joginder Nagar