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Himachal Pradesh
Forest Department

income generating activity
business plan
Mushroom cultivation and vermicomposting and its value addition
2022

Name of self help group	,	Radha krishna Self Help Group Bandla
Name of Rural Forest Development Committee	,	Bandla
Name of Field Technical Unit	,	Sadar
DMU / Forest Division	,	Bilaspur
FCCU / Circle	,	Bilaspur
Sponsored by Hiparvapaat Pra and Asupjaikaka	prepared by :- DMU Bilaspur , FTU Sadar and Radha Krishna Self Help Group	

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Introduction

Bandla village is located in Bilaspur Tehsil of Bilaspur district in Himachal Pradesh, India . It is located 14 km from Bilaspur which is the district and sub-district headquarters of Bandla village . The village has a newly established Government Hydroengineering College . It is spread over a valley in which several glacial rivers flow. About 90% of the state's population lives in rural areas. Agriculture , horticulture , hydropower and tourism are important components of the state's economy. There are 14 districts in the state and it accounts for 14.58% of the population. Bilaspur Second The district is

VFD Area Location :-

area of this micro plan includes two wards , ward number -3 and ward number - 4 . The Gram Panchayat Bandla is located in this area . This area is about 14 km away from the district headquarter Bilaspur. As per the survey conducted by the agency, there are total 163 families in Bandla macro plan with a population of 884 persons , of which 445 are males and 439 are females .

Distance from forest and other offices :

Bandla VFD is about 14 km away from Sadar Forest Range. VFDs Government Hydroengineering College is situated in the middle of Bandla. Bandla VFD is about 130 km away from the state capital Shimla.

Important characteristics of ward :-

Bandla is on the top of Bilaspur city . Hydroengineer College VFD is the main feature of Bandla forestandimportant

This district is situated in central Himachal and is famous for its tourist places and Himalayan trekking routes, Himalayan trekking routes from Bilaspur district connect Kullu , Shimla , Solan , Hamirpur and Kangra districts, these districts border Bilaspur district on the west and south and north - northeast , east respectively.

The district is famous for ancient settlements , traditional handlooms and wheat and maize cultivation.

Bilaspur city is situated on the banks of Govind Sagar lake , people of Bilaspur are known for their labour work.

Forests and forest ecosystems are storehouses of rich biodiversity , and play an important role in preserving fragile sloping lands and were the primary source of livelihood for rural populations. Rural people are directly dependent on forest resources for their livelihood and socio - economic development. The harsh reality is that these resources are constantly depleting due to overexploitation for fodder , fuel , NTFP extraction , grazing , fire and drought etc.

Two self-help groups have been formed under Radhakrishna Gramin Vikas Samiti to implement livelihood improvement activities. One of these , " Radha Krishna " self-help group , is related to mushroom cultivation and pickling and its value addition. The members of the group belong to the weaker sections of the society and have less land holdings. To improve his socio - economic status , he decided to produce mushrooms. Technical support for preparing the business plan was provided by Dr. Pankaj Jasud , Principal Scientist , Dr. Vita Sharma and DS Yadav , Center for Agricultural Sciences, Bilaspur, Bilaspur. Office Forest Division Bilaspur , Madhu Field Technical Unit Coordinator Markand Range, Shri Sachin Ram Forest Guard , Markand Beat and Forest Block Officer , Forest Block Bilaspur were involved in which Ved Prakash Pathania, retired from migration, contributed in preparing the business plan under the constant supervision and guidance.

executive Summary

“ Radha Krishna” Forest Rural Development Committee :-

“ RadhaKrishna” Rural Forest Development Committee is a part of Rajswamuhal Jaibhole Shankar and Forest Development Committee Radha Krishna has been formed in Gram Panchayat Nihar Khan Basla . It is located in Barham Pukhhar block of Bilaspur district in Himachal Pradesh. Radha Krishna Rural Forest Development Committee Bilaspur Forest Division Management Unit (DMU) Belongs to Namhol Beat of Barhampukh Block within Sadar Forest Range.

Important features of VFDs :-

This region is famous for urad , off-season vegetables , ginger , pomegranate seeds , lemon and walnut.

Number of families	163	
BPL families	103=63.2%	
total population	1768	

description of self-help group

Jai Radha Krishna Self- Help Group was formed in March 2021 under Van Gramin Vikas Samiti to provide livelihood improvement assistance by upgrading skills and capabilities. The group includes poor and marginal peasants.

Radha krishna Self Help Group is a women's group (6 women) comprising members from the marginalized and financially weaker sections of the society with limited land resources. Although all the members of the group grow seasonal vegetables etc. but since the land of these members is very small and irrigation facility is less and the production level has reached almost saturation , hence to fulfil their financial needs they decided to do mushroom farming which can increase their income. There are 6 members in this group and their monthly contribution is Rs 100 /- per month. The details of members of the group are as follows :-.

फोटो के साथ स्वयं सहायता समुह सदस्यों का विवरण

क्र स	नाम	पद	वर्ग	उम्र	शैक्षणिक योग्यता	मोबाइल नंबर
1.	पतनी देवी	प्रधान	Gen.	45	8th	98166 5258
2.	गोदावरी	सचिव	Gen.	53	8th	9418/-77245
3.	बीना	सदस्य	Gen.	45	5th	98169-22060
4.	कला देवी	सदस्य	Gen.	55	8th	62305-14709
5.	सन्ती देवी	कोषाध्यक्ष	Gen.	45	8th	62305-60510
6.	देऊकी	सदस्य	Gen.	43	8th	98054-81173
7.	सीता देवी					
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						

Details of SHG members with photographs

बीना देवी

देवकी

रतनी देवी (प्रधान)

कलांदेवी

बनती देवी(कोषाध्यक्ष)

गोदावरी (सचिव)

Name of self help group	,	Radha krishna self help group
SHG / CIGMIS CodeNumber	,	,
VFDS	,	Bandla
Enclave	,	Sadar
Forest Division	,	Bilaspur
Village	,	Bandla
Section	,	Sadar
District	,	Bilaspur
Total number of members in SHGs	,	6
Formation Date	,	10/8/2021
Bank name and details	,	Himachal Pradesh Rural
Bank account number	,	88811300000630
SHG / Monthly Savings	,	Rs.100 /- per month
Total savings	,	Himachal Pradesh Gramin Bank
Total Difference - Credit	,	Yes
cash credit limit	,	4300/-
Repayment Status		quarterly basis

geographical description of village

geographical description of village

Distance from district headquarter	,	20 Km
distance from main road	, ,	1 (but 100 to 200 meters from the main road) approx
Name and distance of local market	,	Bilaspur 20 Km .
Names and distances of major cities	, ,	Bilaspur 20, Brahmapukhar 7 km.
Names of major cities where Products to be sold / marketed	, ,	Brahmapukhar , Bilaspur
Previous and front spiders position	, ,	The latter lies in training , (Agriculture Centre) compost bags (Horticulture Department) and the latter lies in market suppliers etc.

Description of the product related to the income generating activity

Product Name	,	The group will be involved in the production of button mushroom and dhingri in controlled environment.

product identification method	,	Although the members of the entire group grow seasonal vegetables. As their land holding is very small and the production has reached saturation point , they are not able to meet their financial needs , hence it was decided by the group members that mushroom farming and pickling and value addition will increase their income. Besides this they usually go to sell their vegetable crop in Brampukhar \ Bilaspur market. The market links already exist. They will not have to spend extra time and money to market the mushrooms.
Consent of SHG / CIG / Group	,	The consent is attached as annexure.

Production rocesses

Arrangement for training in mushroom cultivation has been made by Jaika project in Bilaspur. The entire cost of training along with spot demonstrations is borne by the JICA project.

The group decided to start working with button mushroom production initially, as the training was completed during February and the workshop was to be held in March. April / May , June / July months after These are more suitable for mushroom cultivation. 250 compost spawn added bags will be purchased and planted in a rented / rented room.

Three tier wooden / bamboo rack fittings shall be installed along with two exhaust fans one for intake air and the other at the bottom to exhaust the indoor air. One ceiling fan to reduce the room temperature and another (heat blower) to increase the room temperature , A dry and wet thermometer will be installed in the hall to maintain the required room temperature. The room will be washed and cleaned with formalin (5 ml / litre) two to three times before loading the bags . Two crops of button mushrooms and Dhingri of two crops (70 to 75 days cycle for each) with the business plan , (August to February are the best months for button mushroom and March to July for Dhingri) prepared after discussion and participation with the group . The group members will work for 1 hour daily , half an hour in the morning and half an hour in the evening.

Description of the production plan :

Production cycle (75 days)	,	Button mushroom cultivation can be done from September to March in Bilaspur district. After putting the spawn in the compost bag, it takes 30 to 40 days for the mushrooms to pin up. then three flushes A total of 75 days are required to harvest three flushes of mushroom crop. The production cycle of one crop will be 75 days. Four crop cycles in a year will be repeated as detailed below:- of Dhingri mushroom (from February to April = for 75 days) Dhingrim is the second crop of mushroom (from May to the end of July) . 3rd Crop of Button Mushroom (September to November = for 75 days) Fourth crop of button mushroom (November to January = 75 days)
Manpower requirement (numbers)	,	Initially the whole group will work together to arrange / build racks , clean the room and carry the compost bags from the road to the production sites. After this, for the first 30 days 2 persons will work in turns for 1 hour (1/2 hour in the morning and 1/2 hour in the evening) for cleaning , humidifying , temperature regulation etc. 4 persons 3 hours for next 31 to 75 days for harvesting , soiling , caging , cleaning , weighing and packing. Marketing hours are not included as one of the members will regularly sell mushrooms along with vegetables in the market. 4 people making compost will work for 2 days and 2 hours. Total labour work will be 706 hours , if we divide it by 8 (hours) then it will become 88 days and multiplying it by wage rate of Rs. 300 / day, we get cost of labour 26400 Rs goes out.
Source of raw materials	,	Horticulture Department , Palampur and Solan District Of Himachal Pradesh. Generally all the materials are available in Sundarnagar KVK.
other sources Resource.	,	- above -

(i) Quantity required for button mushroom (75 days) (ii) Dhingrike a circle Of For required quantity i.e. 75 days	,	250 Compost Spoon Bags , Formalin , 200 ml , Bavistin 100 gm , Packing Material (Polyethylene Sleeves) 3 Kg. for dhingri Spawn : 25 kg , Wheat Or other crop straw : 500 kg , Formline : 2 liters , Bavistin : 100 grams , Polysheet : 1 Dhingri Fertilizer 300 Transparent Polythene Bags , Polythene Sleeves 5 Kg (3 Kg for new and 2 Kg for replacement of torn bags)
75 days	,	**Dhingri** :- The average production of Dhingri from one bag of compost is about 1.6 kg. 250 bags 400 Kg dhingrihogi **Buttonmushroom** , production of mushrooms from one bag is 2.0 kg / 1 bag = 2.0 kg 250 Bags x 2.0 kg .= 500 Kg **,**

Marketing / Sales Details

Potential Marketplace	,	Bilaspur.
distance from unit	,	Bilaspur 22 Kg . , Nauni 12 Kg . , Barhampukhar 7 Kg . , Jukhaala 3 Kg . , approx .
product demand in the market		The demand for mushrooms remains throughout the year.
Market Identification Process	,	The vegetable selling market is well established in Bilaspur ,
Impact of seasonality on the market.	,	Mushrooms are delicious in all seasons and are in high demand throughout the year. However , the demand increases during summer and wedding ceremonies.
Potential buyers of the product.	,	Potential market buyers are hospitals , hotels , hostels , shops , local residents / marriages and other formal occasions etc.
Potential consumers in the area.	,	All health conscious citizens / families.

Product marketing system.	,	Daily supply and stock of mushrooms based on market demand with local vegetables Bilaspur Bazaar We will sell them in the open market as well ,
ProductivityMarketingStrategy.	,	Initially the group will contact all the vegetable retailers of Bilaspur city, then as the production increases , retailers of Bilaspur market will also be contacted to sell their produce on net rate or commission basis.
Product branding.	,	" Radha Krishna mushroom " .
By production	,	**" Eat mushrooms to get healthy. "**

Management details among members

After all the members get trained, you all will divide your labour by involving yourself in daily work operations , marketing and department and Gramin Van Vikas Samiti.

SWOT Analysis

Description / Item	**,**	**Description**
Strength	,	All the members of the group are of similar ideology and are compatible with the local and social environment. Production costs are low , products are of high quality and in demand , growing cycles are short , production will occur throughout the year. Ready made compost bags are available with the Horticulture Department at Palampur and Solan. Training and exposure will be organized by JICA Forestry Project for financial assistance to SHGs.
weakness	,	New Self Help Group , Lack of experience in mushroom production / farming.
Opportunity	,	Demand is high and returns are high.
hazard	,	Internal fights in the group , lack of transparency and lack of capacity to take major risks

a description of potential hazards and ways to reduce them

potential risk	**,**	**remedy to do reduce for them.**
at the same time	,	First of all keep your hands clean by washing them

harmful infection product destruction we can do it 2. Temperature Maintenance and control 3. Market santripta	, , ,	And dip your feet in formalin solution before applying it with soap is entering the room. Only 2 to 3 persons will enter the room with full kit (hat, gloves , apron etc.) . Spray regularly to avoid fungal attacks. With the help of thermometer the required temperature will be prepared and consumed with the provided equipment. for value addition dry mushroom , Mushroom pickle , soup and other products etc. will be prepared.
Internal conflict in the group , transparency	, ,	The cause will be dealt with at the initial stage to end the discord. exposure to all members of the group , equal sharing of benefits , need to give respect and honour to every member.
market		There are always ups and downs in the market ; Demand and supply always vary. Therefore members should keep looking for new markets and buyers.
Production	,	Production will be increased gradually as per the market

Project description of economics

First cycle :

project cost	Amount Rooms
cost of capital	
three tier wooden / bamboo rack fitting	15,000
Ceiling Fan (1 No)	2500
Exhaust fans (2)	3000
Roomheat / Blower /	1500
Dry and Wet Thermometer (1 set)	1000
Electronic Weighing Machine (1no)	900
Hot plastic ceiling rod (1no)	800
Light Spray Pump (1no)	1800
Sharp Knife Set (1 Set)	75
Scissors , (2 nos)	400
Trays / Baskets (6 Nos)	600
Fruit basket (4 no .) .	2400
Water tanks 1000 liter 1 number including rent	8000
Water & Electricity Fittings Material & Charges	4000
Drier	16000
Grinder	10000
Miscellaneous expenses	3000

total capital cost	**70975**
Recurring cost of first cycle (75 days)	
Cost of room rent for 1 hall (mushroom growing unit) @ Rs. 1000/ month (3 months) =	3,000
Formalin	600
Labour wages 88 days =(@Rs 300 / day)= ₹ 26400	26400
Dhingri Compost Bags 250 No @ Rs 40 per bag and other raw materials inclusive of rent	10000
Packaging (packaging material etc.)	3000
Rent	1000
Electricity and water usage charges @ Rs 1000 per month	3000
Miscellaneous expenses (stationery , bill books , receipts etc.)	1500
Single cycle recurring cost = B1+B2+B3+B4+B5+B6+B7+B8	**485 00**
Total project cost (A + B)= 70975+ 485 00=119475	**119475**

Cost benefit analysis first cycle :-

Specific	**Unit**	**Quantity / No**	**expressions**	**Amount (Rupee .)**
10% on capital cost	month	3	10%	**1750**
3 months				
Room Rent Rate 1 Hall (Mushroom Growing Unit) @ Rs . 1000/ month (3 months)	month	3	1000	3,000
Each bottle containing 250 formalin.	No	2 bottles	300	600
Labour wages 88 days =(@ Rs 300/ day) = Rs 26400	Day	88	300	26400
Dhingri Fertilizer Bag 250 No @ Rs. 40 per bag and other raw materials including cart	No	250	40	10000
Packaging (packaging material etc.)	Kilogram	5	600	3000
traffic payment	,	,	,	1000
Electricity and water usage charges @ Rs 1000 per month	month	3	1000	3000
Miscellaneous Expenses (Stationery , bill book , receipt etc.)		L / S	,	1500
Total				**48500**
Total Productionkg .	Dhingri Fertilizer			400 Kg 500 Kg
Sale of produce in kilos.	Dhingri 400 kg @ Rs.150 Compost 500 kg @ 5			60000 2500

	Total	**62500**
total profit	62500- (1750+48500)	12250
gross profit	Net profit + labor wages + room rent 12250+(26400+3000)=	41650
Net amount to be reserved for profit and the amount to repay the third installment		14494
Amount available for distribution of profits among the members in the first round = Sales of production - (Principal + interest + recurring cost of second and third installment) 62500 - (18563 + 1437 + 48500 + 14494)		**-20494**

Note :- Rs 14494 . A reserve will be kept for payment of second and third installments of Rs. ,

cost benefit analysissecond cycle

Senior No	**Specific**	**Unit**	**Quantity / No**	**expressions**	**Amount (Rupee .)**
A	**10% on capital cost**	month	3	10%	**1750**
B	3 months				
1.	Room Rent Rate 1 Hall (Mushroom Growing Unit) @ Rs1000 / month (3 months)=	month	3	1000	3,000
2.	Each bottle contains 250 formalin	No	2 bottles	300	600
3.	Labour wages 88 days =(@ Rs 300/ day) = Rs 26400	Day	88	300	26400
4.	Dhingri Manure Bag 250 No @ Rs. 40 per bag and other raw materials including rent	No	250	40	10000
5.	Packaging (packaging material etc.)	Kilogram	5	600	3000
6.	traffic payment	,	,	,	1000
7.	Electricity and water usage charges @ Rs 1000 per month	month	3	1000	3000
	Total				**47000**
9.	Total Productionkg .	Dhingrimushroom Fertilizer			400 kg 500 Kg
10.	Sale of produce in kilos.	Dhingri 400 kg @ Rs.150 Compost 500 kg @ 5			60000 2500
		Total			**62500**
1 1 .	**total profit**	**62500 - (1750+47000)**			**19750**
12.	**gross profit**	**Net profit + labor wages + room rent 13750 +(26400+3000) =**			**43150**

13.	**among members in the second cycle = Sale of product – (Principal + Interest + Recurring cost for next cycle) =62500-(19032 + 968 +57300)**	**(-)14800**

cost benefit analysis third cycle

Specific	**Unit**	**Quantity / No**	**expressions**	**Amount (Rupee .)**
Depreciation at 10% on capital cost	month	3	10%	**1750**
3 months				
Cost of room rent 1 hall (mushroom growing unit) @ Rs 1000/ month. (3 months)	month	3	1000	3,000
Each bottle containing 250 formalin.	No	2 bottles	300	600
Labour wages 88 days =(@ Rs 300/ day) = Rs 24200	Day	88	300	26400
Button MushroomCompost Bags 250 Nos @ Rs 90 per bag and other raw materials including cart	No	250	90	22,500
Packaging (packaging material etc.)	Kilogram	2.5	600	1500
traffic payment	,	,	,	1000
Electricity and water usage charges @ Rs 1000 per month	month	3	1000	3000
Total				**58000**
Total Productionkg .	Button Mushroom Compost			**500 Kg 750 Kg**
Sale of produce in kilos.	**500 kg @ Rs.150** Compost **750 Kg @ Rs 10**			75000 7500
			Total	**82500**
total profit	**82500 -(1750+58000)**			**22750**
gross profit	**Net profit + labor wages + room rent 22750+ (26400+3000) =**			**52150**
among members in the third cycle = Sale of product – (Principal + Interest + Recurring cost) 82500-(19405 + 489 + 58000)				**4606**

cost benefit analysis fourth cycle

Specific	**Unit**	**Quantity / No**	**expressions**	**Amount (Rupee .)**
Depreciation at 10% on capital	month	3	10%	**1750**

cost				
3 months				
Room Rent Rate 1 Hall (Mushroom Growing Unit) @ Rs . 1000/ month (3 months)	month	3	1000	3,000
Each bottle containing 250 formalin.	No	2 bottles	300	600
Labor wages 88 days =(@ Rs 300/ day) = Rs . 26400	Day	88	300	26400
Button MushroomCompost Bags 250 Nos @ Rs 90 per bag and cart along with other raw materials	No	250	90	22,500
Packaging (packaging material etc.)	Kilogram	2.5	600	1500
traffic payment	,	,	,	1000
Electricity and water usage charges @ Rs 1000 per month	month	3	1000	3000
Total				**58000**

Total Productionkg .	Buttonmushroom Fertilizer	500 Kg 750 Kg
Sale of produce in kilos.	500 kg @ Rs.150 Compost 750 kg @ Rs 10	75000 7500
	Total	**82500**
total profit	82500 - (1750+58000)	22750
gross profit	Net profit + labor wages + room rent 22750 +(26400 + 3000)=	52150
among members in the fourth cycle = Sale of product – (Principal + Interest + Recurring cost) **82500 -(0+0+58000)**		**24500**

Income	
direct income	
(I) First cycle Dhingrimushroom	(-)20494
(ii) Second cycle Dhingrimushroom	(-)14800
(iii) Third Chakra Buttonmushroom	4606
(d) Fourth Chakra Buttonmushroom	24500
total direct income	**-6188**
Indirect Income	
labor wages	
(i) First cycle	26400
(ii) Second cycle	26400
(iii) Third Chakra	26400

(d) Fourth Chakra	26400
Total	**105600**
room rent	
(i) First cycle	3000
(ii) Second cycle	3000
(iii) Third Chakra	3000
(d) Fourth Chakra	3000
Total	**12000**
total indirect income	**117600**
total income	**111412**

Summary of Economics

Production cost in all four cycles

Specific	Amount in Rupees
total recurring cost	
(i) First cycle	
Dhingrimushroom	48500
(ii) Second cycle	
Dhingrimushroom	47000
(iii) Third Chakra	
Buttonmushroom	58000
(d) Fourth Chakra	
Buttonmushroom	58000
Total	**211500**
10% depreciation on capital cost (Annual) .	7000
10% interest on loan	2894
Total	**221394**

production cost summary

Description	**Amount (Rs .)**
recurring cost	**211500**
10% depreciation on capital Value Cost	7000
10% interest on loan	2894
Total	**221394**

estimation of selling price

Description	**Unit**	**Amount (Rs .)**
Recurring cost (221394/1800)	Kilogram	122
fixed profit 23%	Kilogram	28

Total		**150**
market price	**Kilogram**	**150**

Benefit Cost Analysis (Annual)

Description	**Amount (Rs .)**
Depreciation at 10% on capital cost (A)	**7000**
Recurring cost (B)	
room rent	12000
Labor	105600
Compost Bags Price	65000
Formalin	2400
Packaging (packaging material etc.)	9000
traffic payment	4000
Use of electricity and water	12000
Miscellaneous expenses (stationery , bill books , receipt , etc.)	1500
Total	**211500**
Total production of Dhingri and Button mushroom	1800 Kg
Selling price of Dhingri and Button mushroom	270000
selling price of fertilizer	20000
Total	**290000**
Gross profit = Selling price – (Capital cost + Recurring cost) =290000- (70975+211500)	7525
Gross Profit = Gross Profit + Labor Wages + Room Rent =7525+105600+12000	125125
after four cycles = Total Profit – (Principal + Interest + Recurring cost for fifth cycle) =7525-(0+0+48500)	-40925

Note :- This amount does not include labour wages and room rent.

From the above it is clear that each member will not get any additional income after completing four cycles of 75 days. The overall profit of 48500 is as recurring cost of the fifth cycle stand invested.

Resources of Funds and Requirement of Funds

Description of Resources	**Amount in Rupees**
of project at capital cost of ₹ 70,975 (50%)	35490
monthly contribution till date	26985
loan from bank	57000
Total	**119475**

A sum of Rs 1 lakh will be provided to the Self Help Group as revolving fund to take loan from the bank.

50% of the capital cost will be borne by the project.

5% interest on the loan will be borne by the project.

BreakBreak - Calculation of Even Points

BreakBreak - EvenPoint **=** Capital Cost / Sales / Kg . - Recurring Cost / Kg.

=70975/150 -122

=70975/28=2834 kg

2534 kg of Dhingri and Button mushrooms.

Loan repayment schedule (10 % interest)

S.N.O.	month	Refund			cumulative refund	loan balance		
		principal amount	Interest	Total		principal amount	Interest	Total
	Month - 1	0	0	0	0	57000	475	57475
2	Month - 2	0	0	0	0	57475	479	57954
3	Month - 3	0	0		0	57954	483	58437
4	Month - 4	18563	1437	20000	20000	38437	320	38757
5	Month - 5	0	0	0	0	38757	322	39057
6	Month - 6	0	0	0	0	39057	326	39383
7	Month - 7	19032	968	20000	20000	19405	162	19567
8	Month - 8	0	0	0	0	19567	163	19730
9	Month - 9	0	0	0	0	19730	164	19894
10	Month - 10	19405	489	19894	19894	0	0	0
1 1	**Total**	**57000**	**2894**	**59894**	**59894**		**2894**	

Comment :

The future vision of the group is to increase their income by value addition in the form of pickles , readymade soups , dried mushrooms etc.

Benefits for Your Skin , Brain and Bones

" They contain several minerals , such as selenium , potassium , copper , iron, and phosphorus, that are not often found in plant-based foods

1. Mushrooms help keep you young.
2. Mushrooms protect your brain as you age.

3. Mushrooms can improve your memory.
4. Mushrooms may help your heart health.
5. Mushrooms can help make your bones stronger.
6. Mushrooms will help give you energy.
7. Mushrooms help fight many diseases, especially cancer **,**

Mushroom delicacies are special dishes , delicious , healthy and economical.

Comment :
by the group is to develop ethics and its value addition keeping in view the future income of the group. As this decision was taken at the time of review mission in principle, a business plan should include more than one activity, hence the second proposed activity is attached below.
Vermiculture is a major component in promoting organic farming and the state government of Himachal Pradesh is giving special emphasis on production of vermicompost on a large scale. Vermicomposting process gives us very good quality compost in a few days with the help of earthworms. These " creepy - crawly " creatures are most useful. They break down dead plant material and other organic wastes , recycle nutrients and turn over the soil . The worms also regenerate during this process , and their population increases several times in about ten weeks. The compost is ready when the material is moderately loose and friable and the compost is dark brown in colour. It is black , granular , Becomes light and humus-rich.

In recent times , vermicomposting is gaining a strong foothold in the country due to its simple production techniques and associated ecological , economic and human health benefits. A significant number of vermicomposting units have been set up by entrepreneurs, especially in the southern and central parts of the country , under Government support / with technical guidance of non - governmental organizations (NGOs) . The State Government of Himachal Pradesh is also encouraging the local people to take up vermicomposting and providing subsidy to the farmers. The State Forest Department of Himachal Pradesh is also using this technique to provide manure for the ongoing nursery cultivation for afforestation activity in the area.

Vermicomposting has direct environmental and economic benefits as it contributes significantly to sustainable agricultural production and farmers' income. There are many NGOs , community based organizations (CBOs), self-help groups (SHGs), trusts, etc. who are making concerted efforts to promote vermicomposting technology due to its established economic and environmental benefits.

business plan
Income Generating Activity - Earthworm Composting
By
Radhakrishna Self Help Group

vermicompost

Vermicomposting process gives us very good quality manure in just a few days , this is done with the help of earthworms. These " creepy - crawly " creatures are most useful.

They break down dead plant material and other organic waste, recycle nutrients and turn over the soil. During this process the worms reproduce and double in number in about 10 weeks . The compost is ready when the material is moderately loose and crumbly, and the compost colour is dark brown. It becomes black , grainy , light and humus rich. The earthworms are introduced into a bed of loamy soil, in which the worms will live as their home. About 100 earthworms (combination of epidemic and anemic) should be put into a compost pit of about 4m x 1m x 0.5m. The vermibed should always be kept tidy . But never pour water.

A handful of fresh cattle dung is placed haphazardly over the vermiculite. The compost pit is then leveled with dry leaves or preferably chopped grass / straw to a height of about 50 mm . For the next 30 days the pit is kept moist by watering as needed. The bedding should be neither dry nor wet. The pit may then be covered with coconut or palmyra leaves or an old jute bag to discourage birds. Plastic sheets should be avoided on the bedding as they trap heat .

the first 30 days , as above , wet organic waste of animal and / or plant origin from the kitchen or hotel or hostel or farm is spread over the already digested compost to a thickness of about 50 mm . This may be repeated twice a week . All this organic waste may be turned over and mixed with a hoe or spade from time to time. Care must be taken not to disturb the vermicompost bed in which the worms live. Keep adding waste until the compost pit is almost full. Continue to maintain the pit for 30 to 45 days , carefully turning the material in the pit to prevent the worms from freezing. Turning may be done every fifth or seventh day with the help of a hoe.

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

Vermicomposting , also called " making gold from waste " , is one of the major inputs in organic agricultural production . Due to the simple technique, many farmers are engaged in vermicomposting production as it improves soil health , soil productivity thereby reducing cost of farming.

gradually increasing due to its high level of nutrients .

,

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

5.1	Product Name	,	vermicompost
5.2	product identification method	,	This activity is decided collectively by the group members.
5.3	SHG/CIG/ Cluster members	,	Yes

2. BB production processes

step		Description
Step 1	,	Processing includes waste collection , shredding , mechanical separation of metals , glass and ceramics, and storage of organic waste.
step 2	,	Pre-digestion of organic waste for twenty days by piling up the material with dung slurry. This process partially digests the material and makes it suitable for earthworm consumption. The dung and biogas slurry can be used after drying. Wet dung should not be used for making

step		Description
		vermicompost.
step 3	,	Preparing earthworm bed. To prepare vermicompost a solid base is required to put the waste. Loose soil will allow the worms to move into the soil and at the same time while watering all the soluble nutrients go into the soil with water.
step 4	,	Collection of earthworms after vermicompost collection. Sieving of compost material to separate completely compostable material. Partially prepared material will then be put into vermicompost bed.
Step 5–	,	Storing vermicompost in a proper place to maintain moisture and allow beneficial microorganisms to grow.

3. Description of the production plan

7.1	Production cycle (in days)	,	90 days (three cycles in a year)
7.2	Manpower required per cycle (no .)	,	1
7.3	Source of raw materials	,	from home and own fields
7.4	Source of other resources	,	free market

7.5	Raw material - quantity required per member per cycle (in kgs) .	,	1800kg per cycle
7.6	per member per cycle (kg) .	,	900kg per cycle

4. Marketing / Sales Details

8.1	Potential Marketplace	,	Himachal Pradesh Forest Department local market Experiment in your own field
8.2	distance from unit	,	
8.3	the market place / s	,	Himachal Pradesh Forest Department is purchasing vermi - compost in large quantities for its nurseries
8.4	Market Identification Process	,	PMUHP will facilitate the Forest Department to purchase vermi - compost produced by SHGs.
8.5	ProductivityMarketingStrategy		SHG members will also explore additional marketing options around their villages for better selling price in future.

8. 6	Product Branding		CIG / SHG level will be done by branding of the respective CIG / SHG. This IGA may later require branding at cluster level
8.7	Product " slogan "		" Nature-friendly "

5. SWOT analysis

❖ **Strength**

- The activity is already being done by some self help group members
- SHG member has 2 to 8 different cattle in each household
- The SHG member families are cultivating high value crops and vegetables which offer adequate availability of raw materials , i.e. agro organic waste throughout the year.
- Raw material is easily available in their farms
- The manufacturing process is simple
- Proper packing and easy to transport
- Other family members will also support the beneficiaries
- The product has a long self - life

❖ **weakness**

- , humidity , moisture on manufacturing process / product .
- Lack of technical knowledge

- **opportunity**
  - Increasing demand for vermicompost due to awareness among farmers about organic and natural farming
  - - Compost in your own farm will improve and enhance soil health and produce quality agricultural produce which will fetch better prices.
  - Best use of organic waste that is kept out of household kitchen
  - Possibility of marketing tie-up with HP One
- **Threats / Risks**
  - Possibility of disruption of production cycle due to extreme weather
  - competitive market
  - training / capacity building and skills upgradation

6. Management details among members

➔ **Production -** to be taken care of by individual members including procurement of raw materials

➔ **Quality Assurance -** Collectively

➔ **Cleaning and Packaging -** Collectively

➔ **Marketing -** Collectively

➔ **Unit monitoring -** collectively

7. description of economics

)Amount in actual rupees (

S.No.	Description	Units	volume number	Cost)Rs (.	year 1	Year 2	season 3	Year 4	Year 5
A.	**cost of capital**								
A. 1	**construction of pits and sheds**								
1	plus labor cost includingshed)size willbe 10 ftX4ftX2ft (	per member	6	6 000	36 000	0	0	0	0
2	Construction of Iron Angle Covered Shed	per member	6	40 00	24000				
	Subtotal)A.1 (				**60000**	**0**	**0**	**0**	**0**
.2	**machinery and equipment**								
3	Tools ,equipment ,weighing scales, etc.	per member	6	2000	12 000	0	0	0	0
	Subtotal)A.2 (				**12000**	**0**	**0**	**0**	**0**

	Total capital) costA.1 + A.2 (				**72000**	**0**	**0**	**0**	**0**
B	**recurring cost**								
4	Seed Earthworm	per kg	6	500	3000	0	0	0	0
5	slurry /dung /waste	ton	30	900	27000	28350	29768	31256	32819
6	labour cost	Per ton	15	700	10500	11025	11576	12155	12763
7	Packing Material	No.	2400	2	4800	10500	11025	11576	12155
8	Other handling charges	Per ton	30	150	4500	5040	5292	5557	5834
C	**other charges**								
9	Insurance	L /S			0	0	0	0	0
10	interest on loan	every year		2percent	0	0	0	0	0
	total recurring cost				**49800**	**49140**	**51597**	**54177**	**56886**
	Total cost –capital and				**121800**	**49140**	**51597**	**54177**	**56886**

	recurring								
D	**Income from Vermicomposting**								
1 1	**Sale of Vermicompost**	ton	30	**6000**	**180000**	**189000**	**198450**	**208373**	**218791**
12	**sale of earthworms**					**4000**	**8000**	**8000**	**8000**
13	**total revenue**				**180000**	**193000**	**206450**	**216373**	**226791**
14	NetReturn)DC (				130200	143860	154853	162196	169905

Note –Since the labor work will be done by the SHG members themselves and the already available /slurrydung /waste will be available at their place and these materials will not be purchased by them ,the recurring cost)labor cost cost of , purchase ofslurry /dung /waste (can be deducted from the total recurring cost.

economic analysis

Description	**year 1**	**Year 2**	**season 3**	**Year 4**	**Year 5**
cost of capital	**72000**	**0**	**0**	**0**	**0**
recurring cost	**49800**	**49140**	**51597**	**54177**	**56886**
total cost	121800	**49140**	**51597**	**54177**	**56886**

total profit	**180000**	**193000**	**206450**	**216373**	**226791**
net profit	130200	143860	154853	162196	169905

Distribution of net profit –according to share in production.

8. Conclusions of economic analysis

- 10X4X2 feet for each member for one pit .
- of production of vermicompost is Rs . 3.2 per kg
- Vermicompost (Orthodox) Rs . 6 per kg
- Net profit will be Rs. 2.8 per kg
- It is proposed that each member will produce 5.4 tonnes of vermicompost every year resulting in production of 80 tonnes of vermicompost by all the 11 members of the self help group in a year.
- The price of earthworm is fixed at Rs. 500.00 per kg
- During other years , there will be extra soil for sale (as it will multiply during the process of vermicompost production)
- Vermi - composting is a profitable IGA and can be taken up by SHG members.

9. Funds Requirement :

serial number	**business plan**	**cost of capital**	**recurring cost**	**part of the project**	**Beneficiary Contribution**	**total cost**
1.	Mushroom Cultivation	70975/-	211500/-	53231/-	17744/-	282475/-
2.	Earthworm making and its value addition	72000/-	49800/-	54000/-	18000/-	121800/-
	Training / A					
	Total	**1,42975**	**261300/-**	**107231/-**	**35744/-**	**404275/-**

Comment -

- **Capital Cost** 75 **–**% of **the capital cost will be** covered by the project and 25% by the self help group
- **Recurring cost To be borne by –**the SHG /CIG.

- **Training /Capacity building /Skills upgradation –**To be borne by the project

10. Source of Fund :

Project Support ;	• %50of the capital cost will be used for construction of pit) size will be 10 ftX4ftX2ft (• lakh will be deposited 1in the SHG bank account. • Training /Capacity Building /Skill Upgradation Cost.	/pits will be procured by the concerned DMU / FCCU after complying with all the codal formalities .
SHG Contribution	• %50of the capital cost will be borne by the SHG including , the cost of construction ofshed / shed. • Recurring costs will be borne by the Self Help Group	

11. bank loan repayment

If loan is taken from bank it will be in the form of cash credit limit and there is no repayment schedule for CCL; however , monthly savings and repayment receipts from members should be sent through CCL.

- In CCL , the outstanding principal loan of the SHG should be paid in full to the banks once in a year. Interest amount should be paid on monthly basis.
- In term loans , repayment should be done as per the repayment schedule in banks.

12. Training /Capacity Building /Skill Upgradation

training / capacity building / skill upgradation will be borne by the project.

Following are some of the training / capacity building / skill upgradation proposed / required :

➲ Project OrientationGroup Formation /Restructuring

- Group concept and management
- Introduction to IgA)General (
- Marketing and Business Plan Development
- Bank Credit Linkage and Enterprise Development
- SHGs /CIGs within –and outside the State

13. surveillance system

- The Social Audit Committee of VFDSwill monitor the progress and performance of the IGA and suggest corrective actions, if necessary, to .ensure the unit operates as per projections
- each member's IGAand suggest corrective actions, if necessary, to ensure that the unit is operating as projected.

अनुलग्नक

हम सब समूह सदस्य ने आईजीए गतिविधि में सक्रिय रूप से भाग लेने के लिए सहमति दी है एचपी पारिस्थितिकी तंत्र प्रबंधन और आजीविका में सुधार और वीएफडीएस के साथ समन्वय के लिए जेआईसीए परियोजना के दिशानिर्देश के अनुसार समूह ( ) द्वारा चुना गया।

सदस्यों का विवरण इस प्रकार है

क्र स	नाम	पद	वर्ग	उम्र	हस्ताक्षर
1.	रतनी देवी	प्रधान	Gen.	45	रतनी देवी
2.	गोदावरी	सचिव	Gen.	53	गोदावरी
3.	वीना देवी	सदस्य	Gen.	45	बीना देवी
4.	कला देवी	सदस्य	Gen.	55	कला देवी
5.	बन्ती देवी	कोषाध्यक्ष	Gen.	45	बन्ती देवी
6.	देवकी देवी	सदस्य	Gen.	43	देवकी देवी
~~7.~~	सीता देवी				सीता देवी
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समिति

Sachin Fgd

हस्ताक्षर
वन रक्षक

हस्ताक्षर
वन खण्ड अधिकारी

Danyaus
Forest Range Officer
Sadar Forest Range
Bilaspur (H.P.)

हस्ताक्षर
वन परिक्षेत्र अधिकारी

डीएमयू द्वारा स्वीकृत