



Income generating activity
Business plan
Dairy Products, Vermicompost and Mushrooms Cultivation
2023



SHG/Name	Kamrunaag Self Help Groups
VFDS Name	chhain Magal
FTU/Range	Nachan
DMU/Division	Nachan
FCCU/Circle	MANDI

sponsored by PIHPFEM&L	prepared by:- DMU Nachan , FTU Nachan and Kamrunag SHGs
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Introduction

Himachal Pradesh is a majestic, mythical land and is famous for its beauty and serenity, rich culture and religious heritage. The state has diverse ecosystems, rivers, and valleys, and has a population of 7.5 million. It covers an area of 55,673 sq. km, ranging from the foothills of the Shivalik mountains to the middle hills (300 - 6816 m above MSL), high hills, and the upper Himalayas. It also includes the cold arid areas of the Himalayas. The state is spread over valleys through which several perennial 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 12 districts in the state and Mandi is the second largest district with 14.58% population.

This district is located in central Himachal and is famous for its tourist spots. It is well-known for Himalayan tours. Himalayan tour routes from Mandi district connect Kullu, Shimla, Bilaspur, Solan, Mirpur, and Kangra districts. These districts border Mandi district on the west, south, north-north-east, and east respectively.

The district is famous for its ancient settlements, traditional handlooms, and apple cultivation. It is bordered by the Beas and Sutlej rivers, which are the main lifelines. The Balh Valley is the largest valley in the district, though other valleys such as Karsog and Jiuni are also known for food grain production. Known as the "Valley of Gods," the people of these valleys are also recognized for their hard work.

Forests and forest ecosystems are repositories of rich biodiversity and play a vital role in preserving fragile sloping lands. They were the primary sources of livelihood for the rural population. Rural people are directly dependent on forest resources for their livelihood and socioeconomic development. However, the harsh reality is that these resources are continuously depleting due to over exploitation for fodder, fuel, NTFP extraction, grazing, fire, drought, etc.

Two self-help groups have been formed to implement livelihood improvement activities under Chhain Magal Village Forest Development Society. **One of these is the "Kamrunaag" self-help group, which is involved in Dairy production, mushroom cultivation, and Vermi composting. The group members were already earning their livelihood by cultivating Kutki and Chiraita and now to enhance their socio-economic condition, they decided to take up Dairy production, mushroom cultivation and vermicomposting.**

Technical support for preparing the business plan was provided by Dr. Lal Singh. Team comprising of Deepika Guleria, Subject Matter Specialist-Office Forest Division Nachan, Ranjeet Singh Field Technical Unit Coordinator Nachan Forest Range; Shri Virendr Kumar, Forest Guard, Kamrunaag Beat; and Sundar Singh, Deputy Ranger, Tunna Block was involved and contributed in preparing the business plan under the constant supervision and guidance of DFO Nachan SS Kashyap.

Executive Summary

Chhain Magal, Village Forest Development Society: –

Chhain Magal VFDS, has been formed in Gram Panchayat Kandi Kamrunaag. It is located in Gohar Block of Mandi District in Himachal Pradesh and lies between 31° 28 ' 58.32 "N latitude- 77°03 ' 47.91 "E longitude. Chhain Magal VFDS comes under Kamrunag Beat of Tunna Forest Block under Nachan Forest Range of Nachan Forest Division Management Unit (DMU).

Number of families	31
BPL Families	2
total population	154
Total Cattle	341

Self help group details

The Kamrunaag Self Help Group was formed in March 2023 under Chhain Magal VFDS to provide livelihood improvement support by upgrading skills and capacities. The group comprises poor and marginal farmers. Kamrunag Self Help Group Women Group (12 women) which includes marginalized and financially weak sections of the society with less land resources.

Though all the members of the group grow seasonal vegetables etc., since the land holdings of these members are very small, irrigation facilities are limited, and the production level has reached near saturation, to meet their financial requirements, they decided to move forward. Dairy Products, Mushroom Cultivation, and making vermicompost were identified as activities that could increase their income.

There are 12 members in this group, and their monthly contribution is Rs 50/- per month. The details of the group members are as follows:

Self Help Group Members Details with Photo

Sr No	Name	Post	Social class	Age	Academic Ability
1.	Ghaneshwari Devi	President	General	44	8th
2.	Amravati	Member Secretary	General	45	10th
3.	Bharti Devi	Member	General	48	5th
4.	Leela Devi	Member	General	61	-
5.	Gema Devi	Member	General	26	10th
6.	Fulma Devi	Member	General	50	5th
7.	Nirmala Devi	Member	General	43	10th
8.	Jhansi Devi	Member	General	49	-
9.	Gorja Devi	Member	General	51	08th
10.	Dhanshi Kumari	Member	General	57	2 -th
11.	Bindra Devi	Member	General	52	10th
12.	Ganapatu Devi	Member	General	48	5th



Kamrunag Self Help Group chhain Magal

Name of the SHG	Kamrunaag
SHG/CIG MIS Code Number	-
VFDS	Chhain Magal
Forest Range	Nachan
Forest Division	Nachan
Village	chhain Magal
Block	Gohar
District	MANDI
Total number of members in the SHG	1 2
Date of formation	December 202 3
Name and details of the bank	Punjab National Bank gohar
Bank account number	2450000100005951
SHG/Monthly Savings	Rs . 50 /- per month
Total savings	36253 /-
Total Inter-Loan	Yes
Cash credit limit	-
Repayment Status	Quarterly Base

Geographical description of the village

Distance from district headquarter	,	70 Km
Distance from the main road	,	0 6 km
Local market name and distance	,	Chail Chowk , 27 km , Mandi 70 km approx.
Names and distances of major cities	,	Chail Chowk , 27 km , Mandi 70 km approx.
Names of major cities where The products will be sold/marketed	,	Chail Chowk , Sunder Nagar , Mandi
Backward and Forward Linkage status	,	The back link lies in training, (Krishi Vigyan Kendra) and the front link lies in market suppliers etc.

Description of Dairy Products Production

Members of the self-help group making ghee and cheese agreed to start the business initially with 120 kg of pure milk. Desi Ghee is used in almost every household. Desi Ghee, which enhances the taste of food, is also beneficial for health. Usually, ghee is bought from the market, but in the recent past, many cases of adulteration of milk and ghee have come to light, due to

which people have become suspicious about market ghee. This is the reason why many people have now started avoiding market ghee and are preferring pure village products.

Easy way to make Desi Ghee

To make Desi Ghee, first store the cream for 2-3 weeks in a vessel. For this, buy full fat milk and then heat the milk and let it cool overnight.. The next day, take out the thick cream settled in the milk in a vessel. Repeat this process for 2-3 days. After doing this for a week, enough cream will accumulate to prepare ghee. During this time, keep the stored cream in the fridge for the entire time. Now start the process of making ghee.

For this, put the stored cream in a vessel and add cold water to it and churn the cream well with hands or with the help of a churner. If you want, you can also add some ice cubes along with water in the cream. This makes it easy to extract white butter from the cream soon. After churning for 10-15 minutes, the white butter will separate from the cream. Make balls of it and keep it aside in a vessel.

Now take a thick and deep-bottom pan and put it on the gas to heat it on medium flame. After the pan is heated, put the white butter extracted from the cream in it and cook by reducing the flame. Cook the butter for at least 15 to 20 minutes. Cook for a minute and keep stirring it with a big spoon during this time. When the butter melts completely, turn off the gas and filter the mixture in a vessel with the help of a sieve, pure and nutritious Desi Ghee is ready. Cool it and keep it in an airtight container.

Method of Making Cheese

40 liter milk will be heated to a temperature of 80-90°C in thick milk vessels of 50 liter capacity with continuous stirring. When the temperature of milk becomes around 90°C, then 0.2% citric acid (i.e. 80 grams of citric acid) and keep stirring for 5-6 minutes and turn off the flame and let it cool. Pour the product into a muslin cloth and squeeze out the excess water and press the cheese by placing additional weight on top of the cheese and place the resulting material in the muslin cloth inside cold water. The same process will be repeated with the remaining 80 liters of milk in the other two milk vessels.

As per standard average about 24 kg of cheese will be produced from 120 liters of milk per day, which can be marketed appropriately as per the target markets to get better prices. On average if the price of cheese is Rs. At Rs 250 per kg, the net sale of SHG will be Rs 6000/- daily and if milk is purchased at the rate of Rs 40 per kg then the quantity of milk worked will be 120 kg and will be Rs 4800 per day and thus the gross profit will be Rs 1200 per day.

Market potential for starting Desi Ghee and Cheese making business

Desi Ghee, Paneer is a natural dairy item which is healthy, rich in nutrients and very much in demand. At present the demand is increasing and the demand is likely to increase in the near future. Business is profitable and it requires less capital, cheaper materials and basic machinery. Quality cheese demands quality control, with proper equipment and standardized protocols.

Desi Ghee , Paneer create Of Business Start to Of Reason

- Natural Dairy product
- Heavy Demand
- Business is going to make money
- Less capital of Need
- cheap Constituent
- SHG members are familiar with the activity at individual level

Equipment required for homemade Desi Ghee, Paneer

To start the production of Homemade Paneer, Desi Ghee, the following equipment will be purchased initially

1. Boiler Vessel 100lt Capacity
2. Mixture Etcetera To Shaking Of For Sticks
3. Connection Of with Commercial Gas Cylinder
4. Gas furnace (chulla)
5. Digital Weighing Machine
6. Measuring device (1lt, 2lt, 5lt)
7. Refrigerator (200 Litres)
8. Kitchen equipment & other various article
9. Poly Sealing Table Top
10. Heat Sealer
11. Apron, cap, plastic hand gloves etc
12. Chair, Table ect.
13. Cheese Pressing of Machine
14. Electrical Madhani
15. Ghee/ khoa making Machine

Description of the product related to the income generating activity

1	Name of product	,	Cheese or Ghee making
2	Product Identification Method	,	This product is already being made by some SHG members
3	Consent of SHG/CIG/Cluster members	,	Yes

Production Plan Details

1	Production cycle (days In)	,	1 Day
2	Per cycle Necessary Manpower (no.)	,	All Member
3	Source of raw materials	,	Available Locally
4	Source of other Resources	,	Sundar Nagar 72 KM , Mandi 7 0 km

5	Per cycle Necessary Quantity (kg)	,	120 Litres Milk (in starting)
6	Per cycle expected Production (kg)	,	24 kg (in starting)

Raw material requirement and expected production

Serial Number	Raw Goods	Unit	Time	amount	Amount Per (Rs)	Total Amount	Expected Cheese Production (kg)	Rs per Kilo	Total Amount
1	Cow Milk	Kilogram	Every Day	120 Litres	40	4800	24	250	6000

Marketing/Sales Details

1	Potential market place	,	Chail Chowk 27km , beautiful city 72 KM , Mandi 70 km
2	Distance from Unit	,	
3	Demand for the product in the market	,	Daily Demand
4	Market of Identification of Process	,	Group Of Member Own Production Capacity And Market In Demand Of According retail Dealer / Wholesale Seller Of Selected / Empanelled do. Start In product Near Markets In sold Will go.
5	product of Marketing strategy		SHGs Member Our product To Straight Village of Shops And Construction Venue / Shop From Will sell. Its In addition retail Seller by , near Markets Of bulk Businessman. Start In product 1 kilogram to Packaging In sold Will go.
6	product Branding		CIG / SHG level But CIG / SHG of Branding by product Of Marketing Did Will go. after In This IGA has been Cluster level But Branding of Need yes can Is
7	Product " slogan "		" Purity And supremacy Of One product "

SWOT Analysis

❖ Strength -

- The activity is already being carried out by some SHG members
- Raw material easily available
- The manufacturing process is simple
- Proper packing and easy to transport
- Product shelf life is long

❖ Weakness -

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

❖ Opportunity -

- Location of markets
- Daily/weekly consumption and consumption by all buyers across all seasons

❖ Threats/ Risk -

- Effect of temperature, humidity during manufacturing and packaging especially in winter and rainy season.
- Sudden increase in the prices of raw materials
- Competitive market

Management details among members

- With mutual consent, the members of the SHG group will decide their roles and responsibilities to carry out the work. The work will be divided among the members according to their mental and physical capacity.
- Some group members will be involved in the pre-production process (i.e. procurement of raw materials, etc.).
- Some group members will be involved in the production process.
- Some group members will be involved in packaging and marketing.

Financial Forecasts / Estimates

The last but most important step to start a business is to create a financial plan to determine the cost to run the business And this should also include the business profit that the SHG is going to earn initially A cost benefit analysis needs to be estimated.

A.	Capital Cost			
Sr No.	Description	amount	Unit Price	Total Amount (Rs .)
1	Boiler pot 100 (lt capacity)	3	5000	15000
2	Stirring rod	3	300	900
3	Commercial gas cylinder with connection	2	4000	8000
4	Gas furnace (chulla)	3	1500	4500
5	Digital Weighing Machine	1	10,000	10000
6	Measuring device (1lt, 2lt, 5lt)	3	L/S	1000
7	Refrigerator (200 Litres)	1	22000	22000
8	Kitchen equipment And Other various Article	L/S	L/S	4000
9	Poly Sealing Table Top Heat Sealer	1	2000	2000
10	Apron , Cap & Hand gloves etc.	12	L/S	6000
11	Chair , Table etc.		L/S	5000
12	Cheese Pressing Machine	1	L/S	3000
13	Electrical Madhani	2	L/S	8000
14	Ghee/Khoa making Machine	1	L/S	50000
	Total Capital Cost (A)			139 400

B. recurring cost				
Serial number.	Description	amount	price	Total Amount (Rs .)
1	raw milk	120 liters daily	40 Litres	144000
2	citric acid	6 litres	150 / litre	900
3	Room rent	per month	500	500
4	Packaging Materials	Monthly	3000	3000
5	Labor	2 persons per day	₹275 / person	16500
6	transportation	Monthly	Rs. per day	3000
7	Miscellaneous Expenses (i.e. Stationary, Electricity Bill, Water Bill, etc.)	Monthly	1000	1000
8	Gas	one cylinder per month	2000 / cylinder	2000
9	muslin cloth	By month	L/S	1500
10	Soaps and detergents/Vim scrubbers, brooms, wipers, etc.	month by month	L/S	1000
Total Recurring Cost (B)				173400

C. Cost of Production (Monthly)					
SrNo.	Description	Amount (Rs .)			
1	Total recurring cost	173400			
2	Depreciation at 10% per annum on capital cost	678			
Total cost of production		174078			
D. Total monthly income					
SrNo.	Description	Daily	Required Rate per Kg	Total sales	Monthly Sales
1	Total production of cheese	24 Kg	250/ kg	6000	180000
Cost Benefit Of Analysis					
Serial No	Description	Amount (Rs .)			

1	Depreciation at 10% on capital cost	678
2	Total recurring cost per month	173400
3	Total Expenses	174078
4	Total Production (Monthly)	720 kg
5	Required Rate per Kg	250/ kg
6	Total sales amount	180000
	Net Income (Monthly)= 180000-174078	5922
7	Profit sharing	The sharing of profits will be collectively agreed upon among the members; however a portion of the profits will be kept in reserve for future contingencies.

Note: The amount of labour (16500) added to the recurring cost is practically the income of the SHG members as the labour input will be within the SHG members.

Fund Flow

Sr.No. -	Description	Total Amount (Rs .)	Project support	SHG Contribution
1	total capital cost	139 400	104550(75%)	34850 (25%)
2	Total recurring cost	173400	,	173400
3.	Monthly contribution till date	36253		36253
4.	Training / competence Build / Skill Upgrades	60000	60000	,
	Total	409053	164550	244503

Comment -

- SHG consists of all members and 75% of capital cost will be contributed by the project.
- Recurring cost will be borne by SHG/CIG members.
- Training/capacity building/skill upgradation expenses will be borne by the project.

Source Of Fund

Project support	<ul style="list-style-type: none"> ● 75 % of the capital cost will be used for purchase of machinery including tools , as per Sl. No. 8 is described in. ● Upto Rs 1 lakh will be kept in the SHG bank account. ● Training / competence Build / Skill Upgrades Cost. 	/ equipment will be procured by the respective DMU / FCCU after following the codal formalities .
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SHGs Contribution	<ul style="list-style-type: none"> ● <input type="checkbox"/> 25% of the capital cost to be borne by the SHG, this includes cost of materials/equipment other than machinery. ● Recurring cost to be borne by the SHG 	
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Training / competence Build / Skill Upgrades

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

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

- Cost effective procurement of raw materials
- Quality control
- Packaging and marketing
- Financial management

Bank Loan Repayment -

If the loan is taken from a 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 the members should be sent through CCL.

- In CCL, the outstanding principal of the SHGs should be paid in full to the banks once a year. The interest amount should be paid on a monthly basis.
- In term loans, the repayment should be made as per the repayment schedule in the banks.

Supervision Method -

Baseline survey and annual survey of beneficiaries will be conducted.

Some of the key indicators for monitoring are:

- Group size
- Fund management
- Investment
- Income generation
- Production level
- Product quality
- Goods sold
- Market access

Comments :

The upcoming vision of the group is to increase their income by value addition in the form of other dairy products etc.

Business Plan Income Generating Activity– Vermicompost By Kamrunaag Self Help Groups

Introduction

Vermicomposting is gaining a strong foothold in the country due to simple production techniques, ecological, economic and human health benefits associated with it. A significant number of vermicomposting units have been set up by entrepreneurs, under government support, under the technical guidance of non-governmental organisations (NGOs), especially in the southern and central parts of the country.

Vermicomposting has direct environmental and economic benefits as it contributes significantly to sustainable agricultural production and farmers' income. There are many NGOs, Community Based Organisations (CBOs), Self Help Groups (SHGs), Trusts, etc. that are making concerted efforts to promote vermicomposting

technology due to its established economic and environmental benefits.

Vermicompost

Production of compost by rearing/using earthworms is called vermicomposting technique. Under this technique, earthworms eat biomass and excrete it in digested form which is known as vermicomposting or vermicompost. It is one of the simplest and cost-effective methods for production of compost for both small and large-scale farmers. Vermicompost production unit can be set up in any land that is not under any economic use but is shady and free from water stagnation. The location should also be near a water resource.

Vermicomposting, rightly called “waste to gold”, is the major input in organic agriculture production. Due to the simple technology, many farmers are engaged in vermicompost production as it strengthens the soil health, soil productivity reduces the cost of farming. The demand for vermicompost is gradually increasing due to its high amount of nutrients.

Description of the product related to the income generating activity

Name of Product	,	Vermi Compost
Product Identification Method	,	This activity is already being carried out by some SHG members and is collectively decided by the group members
Consent of SHG/CIG/Cluster members	,	Yes

Description of production processes

Step		Description
Step -1	,	Processing which includes collection of straw, and storage of organic waste.
Step -2	,	Pre-digestion of organic waste by piling up the material with cattle dung slurry for twenty days. This process partially digests the material and is suitable for earthworm consumption. The cattle dung and biogas slurry can be used after drying. Wet dung should not be used for vermicompost production.
step 3	,	Preparation of earthworm bed. A solid base is required for putting the waste for preparing vermicompost. Loose soil will allow the worms to move into the soil and while watering, all the soluble nutrients move into the soil with water.
step 4	,	Collection of earthworms after vermi-compost collection. Sieve the composted material to separate the fully composted material. The partially composted material will be again put into the vermicompost bed.
Step -5	,	Store the vermi-compost in a proper place to maintain moisture and allow the growth of beneficial microorganisms..
Step -6		A brick lined pit of 10X4X2.5 will be made and provided with thatch to protect it from water

Description of Production Plan

Production cycle (days In)	,	90 days (in year Three cycle)
Per cycle Necessary Manpower (no.)	,	1
Source of Raw Goods	,	Home & From our fields
Other Source of Resources	,	Free market
Raw material - quantity required per cycle (kg) per member	,	1800 kg Per cycle
Expected production per member per cycle (kg)	,	900 Kg Per cycle

Marketing/Sales Details

Potential market space	,	Himachal Pradesh Forest Department Local Market
Distance from the unit	,	For use on their farm
Demand for the product in the market/ s	,	HOFF (Forest Department) is procuring vermi-compost in bulk for their nurseries

Process of market identification	,	PMU will facilitate the purchase of vermicompost produced by SHGs by Himachal Pradesh Forest Department.
Marketing strategy of the product		SHG members will explore additional marketing options around their villages for better sale price in future.
Product branding		Marketing of the product at CIG/SHG level will be done by branding of respective CIG/SHG. Later this IGA may require branding at cluster level
Product " slogan "		" Nature Of Friendly "

SWOT Analysis

❖ Strength

- The activity is already being carried out by a few SHG members
- Each member of SHG has 2 to 8 cattle in each household
- Families of SHG members are cultivating high value crops and vegetables which provide adequate availability of raw material i.e. agricultural organic waste throughout the year.
- Raw material easily available in their farms
- Manufacturing process is simple
- Proper packing and easy to transport
- Other family members will also support the beneficiaries
- Product self-life is long

❖ Weakness

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

❖ Opportunity

- ❖ Increasing demand for vermicompost due to awareness among farmers towards organic and natural farming
- ❖ Using vermicompost in their farm will improve and increase soil health and produce quality agricultural produce which will give better value
- ❖ Best use of organic waste including household waste left over from kitchens
- ❖ Possibility of marketing tie-up with HP Forest

❖ Threats / Risks

- Possibility of disruption of production cycle due to extreme weather
- Competitive market
- Level of commitment among beneficiaries towards participation in training/capacity building and skill upgradation

Management details among members

1. Production - This will be taken care of by individual members including procurement of raw materials
2. Quality assurance - Collectively
3. Cleaning and packaging - Collectively

4. Marketing - Collectively
5. Monitoring of the unit - Collectively

Economics Of Description

(Amount Real (in Rs .)

Serial Number	Description	Units	volume number .	Cost (Rs .)	year 1	Year 2	season 3	Year 4	Year 5
A.	Capital Cost								
A.1	machinery and equipment								
	Tools , equipment , weights measures etc.	Per member	1 2	2000	2 4 000	0	0	0	0
	Total (A.1)				2 4 000	0	0	0	0
B	Recurring cost								
2	Biomass(Earthworm)	Per kg	1 2	500	6 000	0	0	0	0
3	Sludge / Dung / Waste of Purchase of Cost	Ton	80	Available with group members	Available with group members	Available with group members	Available with group members	Available with group members	Available with group members
4	Labor Costs	Per Tonne	40	700	28000	29400	30870	32414	34034
5	Packing Material	Number	5000	2	10000	10500	11025	11576	12155
6	Other handling charges	Per Tonne	40	150	6000	6300	6615	6946	7293
C	Other Charges								
7	Insurance	L / S			0	0	0	0	0
	Total recurring cost				50000	46200	48510	50936	53482
	Total Cost - Capital And recurring				74000	46200	48510	50936	53482
D	Income from Vermi Composting								
8	Sale of vermicompost	Ton	40	6000	240000	252000	264600	277830	291722
9	Total revenue				240000	252000	264600	277830	291722

10	Net Return (CB)				190000	205800	216090	226894	238240
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Note - As the labour work will be done by the Self Help Group members and the slurry/dung/waste is already available at their place and these materials are available with the group, therefore, the recurring cost (labour cost, cost of purchasing slurry/dung/waste) is deducted from the total recurring cost.

Economic Analysis

Description	year 1	Year 2	Year 3	Year 4	Year 5	
Capital Cost	24000	0	0	0	0	
recurring cost	50000	46200	48510	50936	53482	
Total Cost	74000	46200	48510	50936	53482	273128
Total profit	240000	252000	264600	277830	291722	1326152
Net profit	190000	205800	216090	226894	238240	1077024
Net present value of cost @15 %	273128					
Net present value of profits @15 per cent	1077024					
Benefit Cost Ratio	3.94					

Distribution of net profit – According to share in production.

Conclusion of Economic Analysis

- The pit size for each member is planned 10X4X2 feet for one pit.
- Cost of production of vermicompost Rs. 1.85 per kg
- Sale of vermicompost (conservation side) Rs. 6 per kg
- Net profit will be Rs. 4.15 per kg
- It is proposed that each member will produce 3.3 tons of vermicompost per year resulting in production of 40 tons of vermicompost by all the 12 members of the SHG in a year.
- Earthworm price = Rs. 500.00 per kg
- Vermicomposting is a profitable IGA and can be taken up by SHG members.

Fund of Need :

Sr. No.	Description	Total Amount (Rs .)	Project support	SHG Contribution
1	Total capital cost	24000	18000	6000
2	Total recurring cost	50000	0	50000
3	Training / Capacity Building / Skill Upgradation	50000	50000	0
	Total =	124000	68000	56000

Note-

- Capital cost - 75% of capital cost will be covered under the project**
- Recurring cost - To be borne by SHG/CIG.**
- Training/Capacity building/Skill upgradation - To be borne by the project**

Source of Fund :

Project support ;	● 75% of the capital cost will be used for purchase of weighing machines
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	<ul style="list-style-type: none"> ● Upto Rs. 1 lakh will be deposited in SHG bank account. ● Training/capacity building/skill upgradation cost.
SHGs Contribution	<ul style="list-style-type: none"> ● □25% of the capital cost to be borne by the SHG, this includes purchase of weighing machines ● Recurring cost to be borne by the SHG

Training/Capacity Building/Skill Upgradation

- The training/capacity building/skill upgradation cost will be borne by the project.
- The following are some of the training/capacity building/skill upgradation proposed/required:
 - Formation/Restructuring of Project Orientation Group
 - Group Concept and Management
 - Introduction to IGA (General)
 - Marketing and Business Plan Development
 - Bank Credit Linkage and Enterprise Development
 - Exposure Visits of SHGs/CIGs – Within the State and Outside the State

Monitoring Mechanism

- Social Audit Committee of VFDS will monitor the progress and performance of the IGA and suggest corrective action, if required, to ensure operation of the unit as per projection.
- SHGs should review the progress and performance of each member's IGA and suggest corrective action, if required, to ensure operation of the unit as per projection.

The total cost of the project is

Capital cost = 81400/-

Recurring cost = 173400/-

Total for milk production = 254800/-

The cost of earthworm composting project is

Capital cost = 24000/-

Recurring cost = 50000/-

Total for Vermicompost Making Project = 74000/-

Business Plan

Income Generating Activity– Mushrooms Cultivation

By
Kamrunaag Self Help Groups

Introduction

Now the demand for mushrooms is increasing rapidly in India. Earlier it was limited to urban people but now this mushroom has reached the villages as well. There are many types of mushrooms. In India, farmers are growing white butter mushroom, oyster mushroom, milky mushroom and shitake mushroom for good income. For mushroom cultivation, choose those varieties which can give good profit in a short time. Apart from this, mushrooms can also be produced according to the demand in the nearby market. At present, 70 varieties of cultivable mushrooms are found all over the world. However, in India, varieties of white butter mushroom, oyster mushroom, milky mushroom, padishtra mushroom and shiitake mushroom are being grown for good and huge profits. The biggest advantage of mushroom cultivation is that you do not need soil for it, but large plastic bags, compost manure, paddy and wheat straw are enough to grow it. The biggest advantage of mushroom cultivation is that you do not need soil for it, but large plastic bags, compost manure, paddy and wheat straw are enough to grow it.

Production processes

The group decided to start the work of Dhingri, Button and Shiitake mushroom cultivation. Initially group members decided to start the work with Dhingri mushroom production, as the months after March, April / May, June July are more suitable for cultivation of this mushroom. 250 Compost Spawn added bags will be purchased and installed in the rented/rented room. Three tier wooden/ bamboo rack fitting, along with two exhaust fans one for fresh air and other at the bottom to exhaust out the internal air will be installed. One ceiling fan to reduce the room temperature and other (heat blower) to increase the room temperature, One 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/liter) two to three times before loading the bags. Business plan with two crops of Button mushroom and two crops of Dhingri (70 to 75 days cycle

for each). (August to February are the best months for Button mushroom and March to July for Dhingri) has been prepared after discussion and participation with the group. Group members will work daily for 1 hour, half an hour in the morning and half an hour in the evening.

Description of the production plan:

<p>Production cycle (75 days)</p>	<p>,</p>	<p>Button mushroom cultivation can be done from September to March in Mandi district. After putting spawn in compost bags, it takes 30 to 40 days for the mushrooms to get pinup head. After that three flushes can be taken.</p> <p>A total of 75 days are required for taking three flushes of mushroom crop. The production cycle of one crop will be of 75 days. Four cycles of crop will be repeated in a year as per the details given below:-</p> <p>First Crop of Dhingri Mushroom (February to April = for 75 days)</p> <p>Second Crop of Dhingri Mushroom (May to end of July).</p> <p>Third Crop of Button Mushroom (September to November = for 75 days)</p> <p>Fourth Crop of Button Mushroom (November to January = for 75 days)</p>
<p>Manpower Requirement (Numbers)</p>	<p>,</p>	<p>Initially the whole group will work together to install/construct the racks, clean the room and carry the compost bags from the road to the production sites. Thereafter for the first 30 days 2 persons will work for 1 hour (1/2 hour in the morning and 1/2 hour in the evening) in rotation for cleaning, moisturizing, temperature regulation etc.</p> <p>For the next 31 to 75 days 4 persons will work for 3 hours each for harvesting, soiling, caging, cleaning, weighing and packing.</p> <p>Marketing hours are not included as one of the members will regularly sell mushrooms along with vegetables in the market.</p>

		<p>The 4 persons making compost will work for 2 days 2 hours each.</p> <p>The total labour work will be 706 hours, if we divide it by 8 (hours) it will become 88 days and multiplying it by the wage rate of Rs.300/day the labour cost comes to Rs.26400..</p>
Source of raw materials	,	Horticulture Department , Palampur and Solan District Of Himachal Pradesh. Generally all the material is available in Sundarnagar KVK.
source of other Resource.	,	- above -
<p>(i)Quantity required for button mushroom (75 days)</p> <p>(ii) Dhingri a circle Of For Required quantity i.e. 75 days</p> <p>(iii) Shiitake mushroom of Farming (it is on experimental basis)</p>	,	<p>250 Compost Spawn Bags , Formalin , 200 ml , Bavistin 100 gm , Packing material (polythene sleeves) 3 kg.</p> <p>For the Dhingri Spawn : 25 kg , Wheat Or straw of other crop: 500 kg , Formline: 2 liters , Bavistin: 100 grams , Polysheet: 1 300 Transparent Polythene Bags for Dhingri Manure , Polythene Sleeves 5 Kg (3 Kg for new and 2 Kg for replacement of torn bags)</p> <p>One kilogram of wet substrate in 250 polypropylene bags Spawn 's with</p>

<p>Expected production in 75 days</p>	<p>,</p>	<p>Dhingri :- Average production of Dhingri from one bag of compost is about 1.6 kg. Yield for 250 bags 400 kg it will be dingy</p> <p>Button Mushrooms , The average production of mushrooms from a bag is 2.0 kg / 1 bag = 2.0 kg 250Bags x 2.0 kg.= 500 Kg ,</p>
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Shiitake Mushroom (*Lentinula edodes*) Cultivation Technique

Edible and medicinal mushrooms *Lentinula edodes* The cultivation techniques of what are commonly called shiitake mushrooms have been standardized . The flow chart of the technology is as follows.

Substrate Preparation

(mixture of hardwood sawdust , wood chips , rice husk and calcium sulphate)



Fill one kg of wet substrate (65% moisture) in a polypropylene bag , plug with non - absorbent cotton



Sterilize the substrate (121°C, 15 lb pressure for 90-120 minutes in an autoclave)



Let the bags cool to room temperature



Spawning (Aseptically , @ 5% wet substrate)



Spawn running (22-26 °C , 60-70 days)



Running the Initial Spawn



Formation of the mycelial coat





Blistering



Open the bag for browning



Cold water shock treatment (10-15 °C water , 6-8 hours)



Fruiting (22-26 °C , 80-85% RH , light , cross ventilation)



Mushroom pinheads ready to be harvested



Sold as fresh or dried mushrooms

Marketing / Sales Details

Potential market space	,	Chail Chowk / Gahar , Sunder Nagar , Mandi
Distance from unit	,	Chail Chowk 27km , Sunder nagar 72 KM , Mandi 70 km
Demand for the product in the market		There is demand for mushrooms throughout the year.
Market Identification Process	,	Chail Chowk is a well established vegetable selling market in the town
Impact of weather on the market.	,	Mushrooms are delicious in all seasons and are in high demand throughout the year. However , the demand increases more during winter 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 region.	,	All health conscious citizens / families.
Marketing mechanism of the product.	,	Daily supply and batch of mushrooms based on demand in the market with local vegetables Chail Chowk , Gohar local market We will sell them in the open market as well ,

Marketing strategy of the product.	,	Initially the group was based in Chail Chowk , Gohar will contact all the vegetable retailers of the city , after that as the production increases , retailers of Mandi market will also be contacted to sell their produce on net rate or on commission basis.
Product branding.	,	, Fresh mushrooms".
Product slogan	,	" Eat mushrooms and stay healthy. "

Management details among members

After receiving training, all the members will divide their labour among themselves for running the daily work, marketing and maintaining connection with the department and VFDS.

SWOT Analysis

Description Item	/ ,	Description
Strength	,	All members of the group are like-minded and adapt to the local and social environment. Production cost is low , the product is of high quality and demand , growing cycles are short , production will be all year round. Ready made compost bags are available with the Horticulture Department in Palampur and Solan. Training and exposure will be organized by JICA Forestry Project for SHG financial assistance.
Weakness	,	New self help group , lack of experience in mushroom production/farming.
Opportunity	,	Demand is high and returns are high.
Threats	,	Internal conflicts within the group , lack of transparency and lack of ability to take major risks

Description of the economics of the project,

First cycle:

Project cost	Amount (In Rupee)
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Capital Cost	
Construction of three tire wooden/bamboo rack fitting	20,000
Ceiling Fan(1 no.)	2500
Exhaust Fans (2)	3000
Room heat/blower/ (2)	30 00
Dry and Wet Thermometer (1 Set)	1000
Electronic Weighing Machine (1no)	900
Hot Plastic Roof Rod (1no)	800
Lightweight Spray Pump (1no)	1800
Sharp Knife Set No. (1 Set)	75
Scissors , (2 nos)	400
Trays/Baskets (6 Nos)	600
Fruit crate (4 nos .)	2400
Water Tanks 1000 Litres 1 number including rental	8000
Water and electricity fittings material and charges	4000
Dryer	16000
Grinder	10000
Miscellaneous expenses	3000
Total capital cost	7 74 75
Recurring cost for 1st cycle (75 days)	
Cost of renting room 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 nos @ Rs.40 per bag and other raw materials including rent	10000
Packaging (packaging materials etc.)	3000
Rent	1000
Electricity and water usage charges @ Rs 1000 per month	3000
Miscellaneous Expenses (Stationery , Bill Books , Receipts etc.)	1500
Recurring cost of one cycle= B1+B2+B3+B4+B5+B6+B7+B8	485 00
Total project cost (A+B)= 7 74 75+ 485 00=1 259 75	1 259 75

Cost Benefit Analysis First Cycle:-

Specific	Unit	Quantity/No	expressions	Amount (Rupee.)
Depreciation 10% on capital cost	month	3	10%	1750
Recurring cost for 3 months				
Room rental price 1 hall (mushroom growing unit) @ Rs. 1000/ month. (3 months)	month	3	1000	3,000
Each bottle containing 250 Formalin.	,	2 bottles	300	600
Labour wages 88 days =(@ Rs 300/ day) = Rs 26400	Day	88	300	26400
Dhingri Manure Bags 250 No @ Rs. 40 per bag and other raw material including cart	,	250	40	10000
Packaging (packaging materials etc.)	Kilogram	5	600	3000
Transportation	,	,	,	1000
Electricity and water usage charges @ Rs 1000 per month	month	3	1000	3000
Miscellaneous Expenses (Stationery , bill books , receipts etc.)		L/S	,	1500
Total				48500
Total production kg.	Dhingri Fertilizer			400 Kg 500 Kg
Sale of production in kg.	Dhingri 400 kg @ Rs.150 Compost 500 kg @ 5			60000 2500
	Total			62500
Total Profit	62500- (1750+48500)			12250
Gross Profit	Total profit + Labor wages + Room rent 12250+(26400+3000)=			41650
Net amount to be reserved for benefits the second of and the amount to repay the third installment				14494
Amount available for distribution of profits among members in the first cycle = Product Sales – (Principal Amount + Interest + Second And recurring cost of 3rd installment) 62500- (18563 + 1437 + 48500 + 14494)				-20494

Note :- Rs 14494 will be kept in reserve for payment of 2nd and 3rd instalment.

Cost Benefit Analysis Second Cycle

Sr No	Specific	Unit	Quantity/No	expressions	Amount (Rupee.)
A	Depreciation 10% on capital cost	month	3	10%	1750
B	Recurring cost for 3 months				
1.	Room rental price 1 hall (mushroom growing unit) @Rs1000 /month.(3 months)=	month	3	1000	3,000
2.	Each bottle contains 250 Formalin	,	2 bottles	300	600
3.	Labour wages 88 days =(@ Rs 300/ day) = Rs 26400	Day	88	300	26400
4.	Dhingri Manure Bags 250 No @ Rs. 40 per bag and other raw material including rent	,	250	40	10000
5.	Packaging (packaging materials 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 production kg.	Dhingri Mushroom Fertilizer			400 kg 500 Kg
10.	Sale of production in kg.	Dhingri 400 kg @ Rs.150 Compost 500 kg @ 5			60000 2500
		Total			62500
11.	Total Profit	62500 - (1750+47000)			19750
12.	Gross Profit	Total profit + Labor wages + Room rent 13750 +(26400+3000) =			43150
13.	Amount available for distribution of profit among members in the second cycle = Sale of product – (Principal amount + 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
Recurring cost for 3 months				
Cost of rent of 1 hall room (mushroom growing unit) @ Rs 1000/ month. (Three months)	month	3	1000	3,000
Each bottle containing 250 Formalin.	,	2 bottles	300	600
Labour wages 88 days =(@ Rs 300 / day) = Rs 24200	Day	88	300	26400
Button Mushroom Compost Bags 250 nos @ Rs.90 per bag and other raw material including cart	,	250	90	22,500
Packaging (packaging materials 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 production kg.	Button Mushroom Compost			500 Kg 750 Kg
Sale of production in kg.	500 kg @ Rs.150			75000
	Compost 750 Kg @ Rs 10			7500
	Total			82500
total profit	82500 -(1750+58000)			22750
Gross Profit	Total profit + Labor wages + Room rent 22750+ (26400+3000) =			52150
Amount available for distribution of profit among members in the third cycle = Sale of product – (Principal amount + Interest + Recurring cost) 82500-(19 405 + 489 + 58000)				4606

Cost Benefit Analysis Fourth Cycle

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

Room rental price 1 hall (mushroom growing unit) @ Rs. 1000/ month. (3 months)	month	3	1000	3,000
Each bottle containing 250, Formalin.		2 bottles	300	600
Labour wages 88 days =(@ Rs 300/ day) = Rs. 26400	Day	88	300	26400
Button Mushroom Compost Bags 250 Nos @ Rs.90 per bag and other raw material including cart	,	250	90	22,500
Packaging (packaging materials 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 production kg.	Button Mushroom Fertilizer			500 Kg 750 Kg
Sale of production in kg.	500 kg @ Rs.150 Compost 750 kg @ Rs 10			75000 7500
	Total			82500
total profit	82500 - (1750+58000)			22750
Gross Profit	Total profit + Labor wages + Room rent 22750 +(26400 + 3000)=			52150
Amount available for distribution of profit among members in the fourth cycle = Sale of product- (Principal amount + Interest + Recurring cost) 82500 -(0+0+58000)				24500

Income	
Direct Income	
(I) First cycle Dhingri Mushroom	(-)20494
(ii) Second cycle Dhingri Mushroom	(-)14800
(iii) Third cycle Button Mushroom	4606
(d) Fourth Chakra Button Mushroom	24500
Total Direct Income	-6188
Indirect Income	

Labor wages	
(i (First cycle	26400
(ii) Second cycle	26400
(iii) Third cycle	26400
(d) Fourth Chakra	26400
Total	105600
Room rent	
(i (First cycle	3000
(ii) Second cycle	3000
(iii) Third cycle	3000
(d) Fourth Chakra	3000
Total	12000
Total Indirect Income	117600
total common day	111412

Summary of Economics

Cost of production in all four cycles

Specific	Amount in Rs.
Total recurring cost	
(i) First cycle	
Dhingri Mushroom	48500
(ii) Second cycle	
Dhingri Mushroom	47000
(iii) Third cycle	
Button Mushroom	58000
(d) Fourth Chakra	
Button Mushroom	58000
Total	211500
10% depreciation on capital cost (Annual).	7000
10% interest on loan	2894
Total	221394

The essence of production costs

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

Assessing the 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.)
10% on capital cost (a)	7000
Recurring Cost (B)	
Room rent	12000
Labor	105600
Compost Bags Price	65000
Formalin	2400
Packaging (packaging materials 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 = Total profit + Labor wages + Room Rent =7525+105600+12000	125125
Distribution of profit among group members after four cycles = Total Profit – (Principal amount + Interest + Recurring cost for fifth cycle) =7525-(0+0+48500)	-40925

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

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

Resources of funds and requirement of funds

Description of resources	Amount in Rs.
Share of project at capital cost of 77 47 5 (7 5%)	58107
Monthly contribution till date	26985
Loan from bank	57000
Total	142092

- one lakh The amount of Rs. will be provided to the self help group as revolving fund to take loan from the bank.
- 75 % of the capital cost will be borne by the project.
- 5% interest of the loan will be borne by the project.

Calculating the Break-Even Point

Break even point = Capital cost/sales/kg.-Recurring cost/kg.

$$=77\ 47\ 5/150 -122$$

$$=77\ 47\ 5/28=2\ 767\ \text{kg}$$

Break even point can be achieved after nine months after selling 2534 kg of Dhingri and Button mushrooms .

Loan Repayment Schedule (at 10% interest)

S.no	Month	Loan repayment			Cumulative loan repayment	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	2000 0	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	2000 0	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	1989 4	19894	0	0	0
11	Total	57000	2894	5989 4	59894		2894	

Comment:

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

Amazing Mushroom Health Benefits for Your Skin, Brain and Bones

"They contain many minerals like selenium, potassium, copper, iron and phosphorus which 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 enhance your memory.
- 4.Mushrooms can help with your heart health.
- 5.Mushrooms can help strengthen your bones.
- 6.Mushrooms will help give you energy.
- 7.Mushrooms help fight many diseases especially cancer.

Business plan The total sum of Rs. Only Rs 512775 /-

Sr. No	Business plan	Capital cost	Recurring cost	Share of the project (75%)	Beneficiaries Contribution (25%)	Total Cost
1.	Dairy Products	139400	173400	104550	34850	312800
2.	Vermicompost	24000	50000	18000	6000	74000
3.	Mushroom Cultivation	77475	48500	58107	19368	125975
	Total	240875	271900	180657	60218	512775

Capital cost = **240875**

Project share (75%) = **180657**

Beneficiaries Contribution (25%) = **60218**

हस्ताक्षर **अमर वर्मा**
सचिव स्वयं सहायता समूह
कमल नगर महिला कृषि एवं पशु चिकित्सा संस्थान
गांव मंगल

हस्ताक्षर **धनेश्वरी देवी**
प्रधान स्वयं सहायता समूह
सं. 11/11/11 (पंचायत)
कमल नगर महिला कृषि एवं पशु चिकित्सा संस्थान
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Distt. Mandi (H.P.)

हस्ताक्षर **Kamrunnisa Begum**
वन रक्षक

हस्ताक्षर **Tung**
Ranger Forest Officer
वन खण्ड अधिकारी

हस्ताक्षर **Nachan**
वन परिक्षेत्र अधिकारी

APPROVED

30/11/11
DIVISIONAL FOREST OFFICER,
NACHAN FOREST DIVISION,
GOHAR, DIST. MANDI (H.P.)

