



**Income Generation Activity**  
**Medicinal Plant Propagation Business Plan**  
**2022**



**VFDS Name** : **Veh**  
**FTU/Range** : **Kangoo**  
**DMU/Division** : **Suket**  
**FCCU/Circle** : **Mandi**

**Sponsored by**  
**PIHPFEM&L**

**Prepared by:-**  
**DMU Suket, FTU Kangoo & VFDS Veh**

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## 1. Introduction

Medicinal plants are a great gift to mankind due to their therapeutic uses. The crops and trees with untapped potential have always been the target of investigation by plant scientists, nutritionists and growers alike. Of late, *Moringa oleifera* is one such tree which has been in the spotlight due to its fast growth, higher nutritional attributes and utilization as a livestock fodder crop. This tree has its origin in sub-Himalayan tracts of the Indian subcontinent which can withstand a diverse temperature range (25-35°C to 48°C) and grows in different types of soils. However, it grows best in the direct sunlight under 2000 m altitude and prefers a neutral to slightly acidic (pH 6.3-7.0), well drained sandy or loamy soil for optimal growth. The tree can attain a height of about 10-12 m. Due to wide adaptability and ease of establishment; it is grown throughout the tropics for multi-purpose use viz. human food, livestock forage, medicinal values, dye and water purification. Although all parts of Moringa tree are traditionally used for different purposes, its leaves are most widely used globally as they contain high amount of macronutrients viz. Mg and K which in turn, can effectively be used to fulfill the dietary and nutritional requirements of livestock animals. The leaves also have a good amount of beta-carotene, vitamin C, calcium and iron. Therefore, in addition to their use in human consumption, the leaves of this tree have also been used as a major component in animal feed/fodder. Most importantly, according to a recent Japanese research report, the rate of absorption of carbon dioxide by the Moringa tree is twenty times higher than that of general vegetation. This capacity of Moringa tree is inspiring in mitigating the adverse effects of climate change. Keeping in view the suitability of environmental conditions, areas under Suket Forest Division can be ideal for its propagation. More specifically, efforts are already on to raise significant planting stock at JICA Nursery under Suket Forest Divisions. Therefore, it is felt that if the propagation of this species is initially undertaken in the areas under this Forest Division, the same may easily be developed into a model site and replicated to other appropriate areas subsequently.

**Scheme:** Under the scheme, suitable areas at an appropriate altitude in the District Mandi will be identified. CIGs of interested families will take up propagation through intercropping in the adjoining fenced forest plantation areas of VFDS or on village common land. After initial training, once the cultivation or propagation is

started, a shed will be set up on village common land for storage and working on cleaning and packaging. Marketing will be carried out by the marketing committee set up at Cluster level of VFDS and under the aegis of Manager (Marketing) from PMU.

**Activities:** The suitable areas for propagation will be identified in the Suket Forest Division. Moringa propagation by seeds is preferred and they must be sown at a maximum depth of 2 cm. The seeds can germinate and grow without irrigation if they are sown during the rainy season (June-July). The waterlogged conditions should be avoided. Depending on the soil moisture and season, the irrigation in pit areas is required at regular intervals for optimal growth of the plant. In case of temperature remaining less than 25°C, irrigation can be done even at an interval of 30-40 days. However, if the temperature remains above 40°C, surface irrigation is recommended every 20 days.

VFDS Veh has consented to cultivate medicinal plants by raising plantation of *Moringa oleifera* to enhance their income. To raise their socio-economic conditions, they decided to cultivate Medicinal Plants. A technical input for preparing Business plan was provided by Regional cum Facilitation Centre Joginder Nagar. Team consisting of Dr. Akhilesh Thakur, Manager Enterprise Development o/o CPD JICA, Sh. Vijay Kumar SMS, o/o DMU Sunder Nagar, Mr. Jitender Kumar, Forest Guard, Jyor Beat prepared the business plan under the constant supervision and guidance of V. P. Pathania, Rtd. DFO.

## **2. Executive summary**

### **Veh VFDS: -**

Veh VFDS is part of Veh revenue Mohal and the VFDS is constituted of ward III of Gram Panchayat Salwana. It is located in Dehar block of Mandi district in Himachal Pradesh and lies between 31.4628132°N latitude- 76.8402296°E longitudes. The Veh VFDS falls under Jyor beat of Dehar forest block of Kangoo Range in Suket forest Divisional Management Unit (DMU)

**Important features of VFDS: -**

The area is famous for Mango orchard. The mangos are known for its quality. The area is located in sliding zone so namely as Veh.

No. of Households	112
BPL families	20=17.86%
Total population	364
Total Cattle	372

**Veh VFDS**

Name of VFDS	::	Veh
Range	::	Kangoo
Division	::	Suket
Village	::	Veh
Block	::	Sunder Nagar
District	::	Mandi
Total no of members in VFDS	::	162
Date of formation	::	February 2021
Bank Name and details	::	PNB Jarol IFSC Code PUNB0203200
Bank A/C No. FEMP	::	2032000100111199
CD & LI Account		2032000100112064
Total inter-loaning	::	Yes
Repayment status		Quarterly Bases

**Geographical detail of the Village**

3.1	Distant from District HQ	:	16 km
3.2	Distant from Main Road	:	6 Km (But from link road 100 to 200 mts) approximately
3.3	Name of Local Market and distant	:	Sunder nagar,16kms, Mandi 40 kms app.
3.4	Name of main Cities and distant	:	Sunder nagar, 16kms, Mandi 40 kms app.
3.5	Name of the main cities where Products will be sold/ marketed	:	Sundernagar, Jarol

### Description of product related to Income Generating Activity.

4.1	Name of the Product	::	The Group will be involved in propagation of <i>Moringa oleifera</i> in Govt Land (ND 324 Dratak)
4.2	Method of Product Identification	::	Though the entire Group member grows seasonal vegetable crops. As their land holding is very small, has reached in saturation point of production, so they are not able to meet out their financial requirements' therefore it has been decided by the VFDS member for propagation of <i>Moringa oleifera</i> in Govt Land (ND 324 Dratak) which will enhance their income. Further they usually go to sell their vegetable crops in Sunder Nagar Market.  Market linkages will be set up by the Manager (Marketing) from PMU.
4.3	Consent of VFDS Executive	::	Consent is attached as an Annexure.

### Production Processes

The plantation will be carried out in DPF Dratak over an area of 10 hac with *Moringa oleifera* of a grafted origin. The cost of planting material will be borne by the project. The plantation will be looked after by the VFDS for the first five years for which no support by the Project. Moreover watering facility to the plants in the dry season during the first year will be supported by the project to tune of Rupees fifty thousand. The planting of this medicinal plant are to be done in the same area which is proposed for planting under Departmental Mode. Hence, the soil conservation works proposed under Scheme amounting to Rs. 123750/- are available. The SMC proposed in module are for the purpose of calculation of cost benefit ratio.

## **Description of Production Planning:**

### **Production Cycle (1 year):**

The medicinal plant of above mentioned spp. start producing first crop of leaves of commercial value after a span of six months and subsequently second crop again after six month of span, which range in Sept. and April of every year, keeping all ideal climatic conditions. Hence, all the operations such as protection of plantation will be sole responsibility of the VFDS. Further no usufruct sharing between FD and VFDS of the product so obtained.

### **Manpower required (Number):**

Initially whole VFDS will associate in planting of medicinal plant obtained from Range Nursery Kangoo and Circle Nursery Kamand of Mandi Division. The total support will be borne by the project at the initial stage and later the area management, protection and its harvest will be decided by the group formed of the VFDS Veh.

### **Source of raw material:**

JICA Nursery of Kangoo Range and Circle Nursery Kamand of Mandi Division.

### **Quantity required:**

*Moringa oleifera* =5000

### **Expected production:**

*Moringa oleifera* =110 Qtl/year

## **Description of Marketing /Sale**

Potential Market Places	::	Jarol, Mandi, Sundernagar.
Distance from unit	::	Jarol 6 kms Sundernagar 16 kms and Mandi 40 kms
Demand of the Product in Market		Medicinal plants are always in demand throughout the year.
Process of Identification of Market	::	The market for Herbal products is well established in Sundernagar as well as Mandi town.
Impact of seasonality on Market.	::	Dried leaves can be store for long period of time
Potential buyers of the Product	::	Potential Market Buyers are Pharmacies and local Pansari etc.
Potential consumers in the area.	::	All Health-conscious citizens /Households and Pharmas

Marketing mechanism of the Product.	::	Annual supply at the time of ripe of crop.
Marketing strategy of the Product.	::	Initially group will contact Pharmas around Sunder nagar and other Distt. The Jadi Buti Cell will also help in locating market for the product or for value addition.

### Description of Management among the Members

All Members will take part in plantation and divide themselves for daily works after one year for the protection of the plantation.

### SWOT Analysis

Sl.no	Detail/Items	:	Description
1.	Strength	::	All Group members are like minded, well adapted to local and social environment. Production cost is less, Produce is of high quality and Demand, growing cycles are long, and production will be once in a year. Medicinal plants are made available from JICA Nursery of Kangoo Range and Circle Nursery Kamand of Mandi Division. For VFDS Financial support, Trainings and exposures will be organized by JICA Forestry Project (Jadi Buti Cell).
2.	Weakness	::	New VFDS, lack of experience in propagation of Medicinal Plants.
3.	Opportunity	::	Demand is high and return is low at initial stage.
4.	Threats	::	Internal Conflict in Group, lack of Transparency, and lack high Risk bearing capacity

### Description of Potential risks and measures to mitigate them

Potential risks	:	Measures to mitigate them.
At times Fungal infection can destroy the crop	:	Time to time inspection of the plantation and in case of infection if any observed early spray of fungicide advised
Market saturation	:	The material can be stored during down markets of the products.



Internal Conflict in Group, Transparency	:	Conflicts to be dealt within the initial stage, to eradicate the cause. Equal exposure to all VFDS members, equal benefit sharing needed Give Respect, and honour to every member.
Market	:	Market is always fluctuating; Demand and supply are always at variance. So members to keep on searching new markets and buyers.
Production	:	Production will be increased slowly as per the market Demand and members' experience.

### Description of Economics of the Project

No.	Activities	Units	Quantity	Norms	Cost
1	Constitution of CIG from VFDS	1	1		
<b>A.</b>	<b>PROJECT COST</b>				
	<b>Capital cost</b>				
<b>A.1</b>	Planting material cost <i>Moringa oleifera</i>	5000	10 Hac.	13.65	68250
<b>A.2</b>	Agricultural Implements	LS	LS	LS	7000
<b>A.3</b>	Digging of pits (45x45x45) cm size	5000		22.23	111150
<b>A.4</b>	Filling of pits (45x45x45) cm size	5000		6.37	31850
<b>A.5</b>	Planting of plants in P-bags	5000		5.08	25400
<b>A.6</b>	Carriage of plants from Circle Nursery Kamand to W/site	LS		LS	10000
<b>A.7</b>	Potassium acrylate	LS		LS	7000
	<b>Total (A.1+A.2+A.3+A.4+A.5+A.6)</b>				<b>260650</b>

<b>B.</b>	<b>RECURRING COST of First year (1 Year)</b>	
<b>B.1</b>	Collection and Carriage of material	20000
<b>B.2</b>	Cleaning & Packing cost	20000
<b>B.3</b>	Packaging material cost	5000
<b>B.4</b>	Cost of labels	1,000
<b>B.5</b>	Sale & Auction	1,000
<b>B.6</b>	General Overheads/Other Charges	50,000
	<b>Total</b>	<b>97000</b>
	<b>Recurring Cost of First year =B.1+B.2+B.3+B.4+B.5+B.6</b>	<b>97000</b>
	<b>Total Project cost (A+B)= 260650+ 97000= 498361</b>	<b>357650</b>

**Benefit Analysis (First year):-**

Sr. No	Particular	Unit	Quantity/no	Rate	Amount (Rs)
A	<b>Depreciation 10% on Capital Cost</b>	Years	5	10%	<b>700</b>
<b>B</b>	<b>Recurring Cost for 1 Year</b>				
1.	Collection and Carriage of material	No.	L/S	L/S	20000
2.	Cleaning & Packing cost	No.	L/S	L/S	20000
3.	Packaging material cost				5000
4.	Cost of labels				1000
5.	Sale & Auction				1000
6.	General Overheads/Other Charges		L/S	L/S	50000
	<b>Total B</b>				<b>97000</b>
	<b>Total (A+B)</b>				<b>97700</b>
Total Production in Kg.	<i>Moringa oleifera</i> 110 Qtl/year				
Sale of Production in Kg.	<i>Moringa oleifera</i> 110 Qtl @ Rs 45 =				495000
<b>Total</b>					<b>495000</b>
<b>Total Benefit</b>	<b>495000-(260650+ 97000)</b>				<b>137350</b>
<b>Gross profit</b>	<b>Total Profit + Labour wages</b> <b>137350+213400=350750</b>				<b>350750</b>

<b>C.</b>	<b>INCOME</b>		
<b>C.1</b>	<b>Direct income First year</b>		
	<i>Moringa oleifera</i>		137350
	<b>Total Direct Income</b>		<b>137350</b>
<b>C.2</b>	<b>Indirect Income</b>		
	<b>Labour wages</b>		
	(i) First year		<b>213400</b>
		<b>Total</b>	<b>213400</b>
	<b>Total Indirect Income</b>		<b>213400</b>
	<b>Gross Income</b>		<b>350750</b>

## Summary of Economics

### (a) Cost of Production in First Year

Sr. No.	Particular	Amount in Rs.
1	<b>Total Recurring Cost</b> (i) <i>Moringa oleifera</i> <b>Total</b>	97000 <b>97000</b>
2	10% Depreciation values on Capital Cost	700
	<b>Total</b>	<b>97700</b>

### (b) Assessment of sale value

Sr. No	Details	Unit	Amount(Rs)
1	Recurring cost (97700/11000)	Kg	8.88
2	Profit Fixed 80.26%	Kg	36.12
	<b>Total</b>		<b>45</b>
3.	<b>Market Price</b>	<b>Kg</b>	<b>45</b>

### Resources of Funds and Fund Requirement

Sr. No	Detail of Resources	Amount in Rs.
1	Project share on Capital cost of <b>260650</b> (100%)	<b>260650</b>
	<b>Total</b>	<b>260650</b>

- 100% of Capital cost (260650) will be borne by Project (Jadi Buti Cell)

### Computation of Break – even Point

**Break-even Point**=Capital Cost/Sale/kg.-Recurring Cost/Kg.

$$=260650/45- 8.88$$

$$=260650/36.12=7216.22 \text{ Kg}$$

After sales of 7216.22 kg of *Moringa oleifera* dried leaves breakeven point can be achieved in first year period of plantation.

### Fund flow

Sr.No.	Particulars	Total Amount (Rs)	Project support	SHG Contribution
1	Total capital cost	260650	260650	-
2	Total Recurring Cost	97000	-	97000
3.	Trainings/capacity building/ skill up-gradation	60000	60000	-
	<b>Total</b>	<b>417650</b>	<b>320650</b>	<b>97000</b>

### Note-

- The VFDS will be provided as one time support for the capital cost amounting to rupees 260650.
- The recurring Cost will be borne by the VFDS members.
- Trainings/capacity building/skill up-gradation expenditure will be borne by the project.

### Sources of fund

Project support	<ul style="list-style-type: none"><li>• 100 % of capital cost will be utilized for purchase of plants including planting and equipment's as detailed above.</li><li>• Trainings/capacity building/ skill up-gradation cost.</li></ul>	Procurement of plants including planting and machineries/equipment will be done by respective DMU/FCCU after following all codal formalities.
SHG contribution	<ul style="list-style-type: none"><li>• Recurring cost to be borne by SHG</li></ul>	

### Trainings/capacity building/skill up-gradation

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

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

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

### **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.

### **Monitoring Method –**

At the initial stage baseline survey and yearly survey will be conducted of the beneficiaries.

Some key indicators for the monitoring are as:

- Size of the group
- Fund management
- Investment
- Income generation
- Production level
- Quality of product
- Quantity sold
- Market reach

### **Remarks:**

The forth coming vision of the Group is to enhance their income by value addition in the form of manufacturing by products from the raw material.

### **Total Cost of Project**

**Capital cost = 260650**

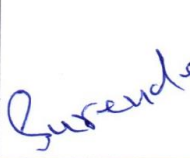
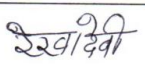



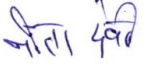
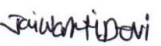
**Recurring cost = 97000**

**Total cost for the propagation of medicinal plants = 357650**

**Annexure**

We the member group here by consented to actively participate in the IGA activity opted by the group (Propagation of Medicinal Plants) as per the guideline of JICA project For Improvement of H P Ecosystems management and livelihood and coordination with the VFDS.

The detail of members is as under


Sr. No.	Name	Male/ Female	Designation	Signature
1.	Sh. Surender Kumar S/o Sh. Sant Ram, Village Veh, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No. 88949-32458	Male	President	
2.	Smt. Rekha Devi W/o Sh. Raj Kumar, Village Veh, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No.98164-34642	Female	Vice President	
3.	Smt. Monika Devi W/o Sh. Monu, Village Veh, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No. 88949-49021	Female	Joint Secretary	
4.	Smt. Neelam Devi w/o Sh. Dinesh Kumar, Village Veh, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No.78077-02364	Female	Member Secretary	
5.	Sh. Ashok Kumar s/o Sh. Roshan Lal, Village Behli, P.O. Sikroha The Sadar, Distt Bilaspur (H.P.) Mob-9805069732	Male	Treasurer	
6.	Sh. Ambru s/o Sh. Krishan Village Veh, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No. 89885-98501	Male	Member	
7.	Smt. Jaiwanti Devi w/o Sh. Ravi Kumar, Village Veh, P.O. Salwana, Tehsil Sunder Nagar,	Female	Member	

	Distt. Mandi, Himachal Pradesh Mob No.78075-88606			
8.	Smt. Anita Devi w/o Sh. Roshan Lal, Village Veh, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No. 98168-81805	Female	Member	Anita Devi
9.	Smt. Chinta Devi, w/o Sh. Babu Ram, Village Pukhar, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No.98821-10923	Female	Member	बिता
10.	Sh. Ranvir Singh s/o Sh. Sohan Lal, Village Fagala, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No. 98160-57276	Male	Member	
11.	Smt. Leela Devi w/o Sh. Dhanu Ram, Village Veh, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No.96257-67740	Male	Member	लीला देवी
12.	Sh. Ramesh Chand s/o Sh. Kala Ram, Village Veh, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No.98165-69493	Male	Member	Ramesh
13.	Smt. Vaishali w/o Sh. Sharwan Thakur, Village Veh, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No.85805-17578	Female	Member	Vaishali
14.	Smt. Meena Devi w/o Sh. Daya Ram, Village Veh, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No.98052-23931	Female	Member	मीना देवी
15.	Smt. Naina Devi w/o Sh. Ishu Ram, Village Fagla, P.O. Salwana, Tehsil Sunder Nagar, Distt. Mandi, Himachal Pradesh Mob No. 94185-43528	Female	Member	नैना देवी
16.	Sh. Jitender Kumar s/o Sh. Rajesh	Male	Member	Jitender


	Kumar, Village Nalani, P.O. Maloh, Teh. Sunder Nagar, Distt. Mandi, Himachal Pradesh I/C Incharge Jyor Beat(Forest Gaurd) Mob No. 82193-47015			
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Monika Devi  
Signature of VFDS Secretary

  
President  
Signature of VFDS Chairman

  
Signature of Fgd

  
Block Forest Officer.  
Signature of Block Officer

  
Signature of RFO  
Range Forest Officer  
Kangoo Forest Range

  
Divisional Forest Officer  
Approved by DFO  
Suket Forest  
Sundemagar (H.P.) - 175018