

## **Certificate**

It is certified that the Sub-Project Development Plan for Flow Irrigation Scheme *Rehu Khas to Manjo* has been rectified and finalized after the necessary compliance to the observations/comments raised by PMC Experts and same has been updated in the google sheet. The compliances to observations/comments raised by PMC Experts are being enclosed as per Annexure-I. Final SDP is not endorsed by KVA due to implementation of model code of conduct and will be endorsed after 4<sup>th</sup> June 2024.



Agriculture Expert

**BPMU**

**Solan (H.P)**



Agriculture Officer/  
Block Project Manager

**BPMU**

**Solan (H.P)**



Agriculture Extension Officer

**BPMU**

**Solan (H.P)**

  
**BLOCK PROJECT MANAGER**  
High Crop Diversification Promotion Project  
JICA-ODA PHASE-II, Distt. Solan (H.P)

S. No.	Section/Table/Paragraph	Observations raised	Compliance	Remarks
1.	Acknowledgment	First letter of sub Headings of the acknowledgment are not in capital	Acknowledgment Corrected	
2	Section 1/Table 1	In Table 1, Crop diversification Index is shown as 0, as it can't be 0%. Pl calculate and complete.	Crop diversification Index has been calculated and updated	
3	Section 1/Table 2,3 and 6	In Table 2,3 and 6, Pl put data figures on respective Bar diagrams.	Data figures has been updated in the bar diagrams	
4	Section 1/Table 4	In table 4, no separate number of Senior citizen be given as they come under Adult male and adult female.	updated	
5	Section 1/ section 1.4	In section 1.4 – Access to basic facilities / services, distance in Km from the sub projects be mentioned.	Already mentioned	
6	Section 1/ Table 9	Table 9 replace word Handicapped farmers with Specially abled farmers.	Already corrected	
7	Section 2/ Table 14	Table 14, Pl use approved template of Table as some information is missing. Also add relation of Custodian with the Land Owner and show Khasra numbers separately for Custodian farmers.	Updated	
8	Section 2 / Table 19	Table 19- Agribusiness activities in the	Nil	

		Vicinity, complete the Table.		
9	Section 2/ Table 20	Table 20- Wealth ranking, number of farmers are taken as 72 whereas it should be 74.	Updated	
10	Section 3/ Table 21	Table 21-No. of farmers is 72 instead of 74 and irrigation intensity is Zero % but Tomato & Peas are grown on considerable large area.	updated	
11	Section 3/ Table 22	Table 22- Total per ha income calculated is for 32.140 ha. , pl check	Corrected	
12	Section 3/ Table 25	Table 25- Area under Kharif/ Rabi season is different than total CCA/ Area under cultivation.	updated	
13	Section 3/ Table 26	Table 26, existing number of Sprayers and Chaff cutters is shown as zero but the area is famous for Vegetables and having high number of cattle. Pl check.	updated	
14	Section 3/ Section 3.6	Section 3.6 Time line showing introduction of Farming enterprises, technologies, infra-structure , introduction of Hybrids/ HYV, Water storage tanks, power tillers etc during past 15 years be shown.	updated	

15	Section 4 A/ section 4.1.3	Section 4.1.3 Farmers selection for Infra structure support for Ist stage is shown as Nil whereas area is already famous for vegetables and may need supports immediately.	Farmers selection for Infra structure support for Ist stage is has been decided by KVA and updated in SDP	
16	Section 4 A/ Table 32 &33	Table 32 & 33, there is drastic reduction in area from Tomato and Peas and bringing of Fellow and Banjar land under cultivation in just Ist year of Plan.	Area is reduced in tomato and peas because we have added other vegetables also.	
17	Annexure VII	Annexure VII – Crop schedule for flagship and general crops be checked keeping in view sowing and harvesting timings and then sowing of next season crops. Potato sowing and harvesting time be also checked. Time of Transplanting of crops be also shown.	It has been updated	
18		In the tables in place of dash (-) put zero (0).	updated	



## DEPARTMENT OF AGRICULTURE HIMACHAL PRADESH



### SUB PROJECT DEVELOPMENT PLAN (SDP)

#### FIS Redu Khad to Manlog



Block Project Management Unit: Solan

District Project Management Unit: Solan

### HIMACHAL PRADESH CROP DIVERSIFICATION PROMOTION PROJECT (Phase-II), HAMIRPUR (H.P)

## SUB PROJECT DEVELOPMENT PLAN

### **FOREWORD**

SUB PROJECT DEVELOPMENT PLAN in Himachal Pradesh Crop Diversification Project PHASE II is a document which is used to plan out the various needs and priorities of a farming community in selected Sub Project. It is a dynamic document and strives to address the requirements of farming Community in changing times. It has been planned to enable and motivate farmers to effectively resort to crop diversification/crop intensification, identify their needs and find means to fulfill them in a time bound manner. FAO guidelines have been followed in conformity with standard Participated Rural Appraisal (PRA) techniques through process based planning to prepare this document. Livelihood Plan and Service sector skill development are new activities which offer alternative income to the farmers. It also prepares grounds for Homestead Agriculture, including ways to augment issues on Gender Mainstreaming and to start group based activity which pours in more money in to their pockets. On one hand, it plans for the optimum resource use while simultaneously eliciting the roles and responsibilities of a KVA/ farmers interest group/SHGs in its sustainable management there by fulfilling the condition of Participatory Irrigation Management. Sub Project Development plan also registers the achievements, the gaps and the prospects of addressing new domains within the available and restricted resources. The resources and opportunities are few, the demands any and challenges are high. It addresses the progress made so far, identifies the gaps in implementation of Phase I and explores the new possibilities including training needs. It will help in understanding and achieving the project indicators as all plans are GPS tagged. Community Based Social Monitoring instills confidence and empowers farming community. The innovations in the SDP formats are planned to address the issues and concerns of the Farmer Interest Groups by the community, and for the community even beyond project cycle.

Dr. SUNIL CHAUHAN  
PROJECT DIRECTOR

## **SUB PROJECT DEVELOPMENT PLAN**

### **ACKNOWLEDGEMENT**

The Department of Agriculture Himachal Pradesh is implementing Himachal Pradesh Crop Diversification Promotion Project Phase II, a JICA funded project through H.P. Agriculture Development Society (a Registered Body under H.P. Cooperative Societies Registration Act, 2006). The project covers all Districts of Himachal Pradesh. There are 306 Sub project sites covering 26000 households which are targeted to be transformed to provide micro irrigation facilities and sustain them through Participatory Irrigation Management. The farming community is to be motivated, regrouped and trained to adopt crop diversification and intensification. Besides this various livelihood programs for resource poor have been designed including group production and marketing.

SUB PROJECT DEVELOPMENT PLAN has been formulated in accordance with the Project Document, enabling the KVS members to make plans in their cropping pattern according to the changing needs and priorities for sustainable development. This document will also help the communities to review the progress made against the plan and to put-forth focused efforts in accomplishing the work within stipulated time line. Working Group was constituted for facilitating preparation of SDP and questionnaire was designed by the committee for collection of data on (a) Demographic status, (b) Socio-economic conditions of the villagers, (c) Resources available in the village etc. The questionnaire was designed to facilitate (1) Assessment of current land use pattern and formulation of proposed land use pattern, (2) Participatory resource-based land-use planning, (3) Identification of livelihood needs. Participatory Rural Appraisal (PRA) exercise including group discussion, experience sharing, one to one discussion with the villagers etc. was conducted to promote people's participation in project planning, implementation and monitoring. Information on various issues concerning crop diversification was explained to the villagers. Preparation of existing land use map, seasonal Calendar (Cropping season) and wealth ranking exercise were completed during PRA activities. The principle of participatory land use planning was adopted with available technical inputs and in consultation with all the stakeholders. House-hold survey was carried out in the village covering all KVA families. Transect walk was done by the Working Group along-with some local farmers. During transect walk, inputs were obtained from the field for deciding upon the suitability of the proposed land-use. GPS reading of the prominent sites/spots visited by the Working group were also recorded. Awareness programmes, meetings and work-shops were conducted.

The collective efforts of field staff of BPMU Solan viz., Dr. Arun Kumar, BPM Solan, Dr. Tanvi Sood, Agriculture Expert, Mr. Saksham, Agriculture Officer and Ms. Dipanshi, Agriculture Extension Officer are duly acknowledged for putting their hard efforts to complete this Sub Project Development plan for the farmers of Flow Irrigation Scheme Redu Khad to Manlog. Gratitude is also due to Extension Officers of DPMU Solan and SPMU Hamirpur for finalizing this valuable document. It gives me immense pleasure to express our sincere gratitude to Dr. Sunil Chauhan, Project Director, for his constant support and guidance in finalizing the document.

Dr. S.K. Gupta  
District Project Manager

## SUB PROJECT DEVELOPMENT PLAN

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**SUB PROJECT  
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# **SECTION I**

## SUB PROJECT DEVELOPMENT PLAN

### **Sub Project Development Plan**

Period of SDP: *Four years (2024 to 2028)*

Date of approval of SDP by KVA .....

Date of approval of SDP by DPMU:.....

### **Key team members who facilitated the Preparation of SDP :-**

<b>Sr. No</b>	<b>Name of Team Members</b>	<b>Remarks</b>
1	<b>Dr. Arun Kumar Sharma</b>	Block Project Manager, HPCDP JICA (ODA) Phase II Solan, (H.P). Department of Agriculture.
2	<b>Dr. Tanvi Sood</b>	Agriculture Expert, Ph.D. in Plant Breeding and Genetics. Working in HPCDP JICA ODA Phase II, Solan (H.P) having experience of two years.
3	<b>Mr. Saksham Thakur</b>	Agriculture Officer, Masters in Agriculture Entomology YS Parmar University of Horticulture and Forestry, Nauni Solan. Working in HPCDP JICA ODA Phase II, Solan (H.P) having experience of six months.
4	<b>Ms. Dipanshi Thakur</b>	Agriculture Extension Officer, Masters in Agriculture Plant Pathology. Working in HPCDP JICA ODA Phase II, Solan (HP).

## **Concept of Community Organization for Effective Project Planning and Implementation**

Project need to be designed in a way that its interventions are directed towards the identified **focused groups**.

Constituent's beneficiaries in a KVA shall be the pool to identify various focused groups. **KVA (Krishak Vikas Association)** is the general group of beneficiaries who may have varied resources, needs and inclination towards crop diversification. Out of these diverse beneficiaries, the project must segregate them into small focused groups in line with the specified project interventions. As a Project team we should spearhead the support to different focused groups below the line of advance farmers groups in a way that they rise to become an advanced farmer for higher and sustainable income from different farm enterprises.

**I. MC (Management Committee)** is the first focussed group, they are to be skilled on Project Management for the effective and efficient mobilization of resources. They are to be developed as good leader & manager.

### **II. Farmers Groups:**

- First is the Advance Farmers Group.**

They are the individuals/ farmers who consider the project interventions as an opportunity to build their source of income through advanced farming as an enterprise. These farmers may be identified / grouped on basis of local situation irrespective to their resources and inclination towards the farming as an enterprise.

They have high interests towards any innovation and try to improve their skills and earn more profit. They are basically Innovator or Early adopter in the language of Extension. They are entrepreneur and having the capacity to take moderate risk. They are the local leader and other farmers of the village follow them.

- Second is the Conservative/Subsistence Farmers Group.**

They are the farmers, who do not consider farming as an opportunity to build their livelihood despite of valued land ownership. They are not and entrepreneur and not having the capacity take low risk too.

These farmers are basically not so positive towards crop diversification as well as cultivation of commercial crops therefore, they need to be motivated towards crop diversification by showing the result at the advanced farmers fields, but need to be the part of planning and evaluation input from the beginning to the possible extent.

- Third is the Intermediate Farmers Group.**

They are the farmers who are intermediate to category 1 and category 2 mentioned above. There are the potential beneficiaries who adopt crop diversification immediately after observe the good result at the fields of advanced farmers.

These farmers are more interested in getting more production and more profit. Maximum efforts should be made to bring farmers from intermediate farmer category to advanced farmer category.

### **III. Vulnerable Farmers**

In the MoD it has been provided that 10% of farming families of the project area may fall into the category of vulnerable farmers. In MoD it is also mentioned that not all farmers are target of livelihood activities but they may be from any of the above specified categories along with BPL families, Specially abled farmer, women headed families, landless farmers (if any). Special emphasis will be given in identifying such families and minimum number be maintained in a sub project and realistic families to be included.

### **IV. SHG – Self Help Groups**

Self-Help Group is intermediary committee usually composed of 10 to 20 members. SHGs are informal association of people who come together to find ways to improve their living standards. It can also be defined as self-governed peer-controlled information group of people with similar socio economic back ground and having the desire to collectively perform common purpose. Member in group may also make small and regular saving contributions over a few periods and funds collected can be lend to members on minimum interest rate. SHG group consist of woman headed families, landless farmers and actively working group.

### **V. Youth**

The involvement of youth in agriculture is vital as they are more energetic productive and receptive to new ideas and they are more in touch with advance technology. Programme for next generation has potential to involve the youth both undergoing education, as well as those looking for career. The proposed programme not only motivates youth to go for education in agriculture but also to take up capacity building and entrepreneurship avenues in this sector.

Farmers of above mentioned categories will be provided with different cultivation skills, trainings and demonstrations in the project, as **Project Goal is to improve farmer's income by diversification** of farm crops and adoption of new enterprises. To achieve project goal, first step is to provide technical support on crop cultivation and livelihood activities from **Bottom to Top Approach** along with infrastructure development in the sub project.

Second step is, support on establishment and capacity development of FPO's. FPO's will be formed and run by advanced farmers of sub project.

Third and final step, mandis and private sector for agribusiness will be supported to activate farmer's agriculture business. Along with this, project also provides provision of Farm Machinery for optimal utilisation of resources and economy in time. It has also been observed that in agriculture, involvement of female workers is more in comparison with male workers, therefore, no gender discrimination will be done for providing benefits of farm mechanization. Selection of farmers will be done as per the approved list of various groups of farmers by KVA and farmers will be rationalized by the project on the basis of performance of different categories of farmers at particular sub project.

## SUB PROJECT DEVELOPMENT PLAN

### General Profile of KVA:

After series of meetings and sensitization in the village, the beneficiary farmers were organized into **Krishak Vikas Association** and Management Committee members were elected collectively by all beneficiaries of sub project. The sub-project comprises CCA of 33.35 ha and farmers from revenue village i.e. Manlog.

The KVA have also framed its By- laws, rules and regulations and submitted Memorandum of Association to SDM Solan for registration under H.P Society Registration Act 2006.

#### **(a) Introduction of Krishak Vikas Association (KVA)**

1. **Name of KVA:** Jai Brijishwar Krishak Vikas Association, Manlog Gram Panchayat- Top Ki Ber, Tehsil- Solan District- Solan.
2. **Date of KVA Formation:** 18.07.2022
3. **Date of KVA Registration:** 20.01.2023
4. **KVA Registration No:** HPCD-11549
5. **No. of MC Members:** 9

#### **(b) Detail of Management Committee (KVA)**

Date of Formation: 18.07.2022

Tenure of Management Committee (2 years)



S. N.	Name of Farmer	Name of Father/ Husband	HPCDP Family Reg. No.	Designation	Photograph	Address
1	Sh.Prem Chand	Sh. Roop Ram Shandil	P290-SLN-RKM-45	President		Vill. Manlog Gram Panchayat - Top Ki Ber, Tehsil- Solan District- Solan.
2	Sh. Harnaam Singh	Sh. Geeta Ram	P290-SLN-RKM-6	Vice-President		

## SUB PROJECT DEVELOPMENT PLAN

3	Smt. Geeta Devi	Sh. Som Dutt	P290-SLN-RKM-10	Secretary		
4	Smt. Lalita	Sh. Rakesh Kumar	P290-SLN-RKM-41	Joint Secretary		
5	Sh. Khem Singh	Sh. Hari Singh	P290-SLN-RKM-74	Cashier		
6	Sh. Mann Singh	Sh. Sobha Ram	P290-SLN-RKM-7	Member		
7	Sh. Amar Singh	Sh. Sewak Ram	P290-SLN-RKM-11	Member		
8	Sh. Joginder Singh	Sh. Tulla Ram	P290-SLN-RKM-64	Member		

## SUB PROJECT DEVELOPMENT PLAN

9	Sh. Netra Singh	Sh. Devi Singh	P290-SLN-RKM-26	Member		
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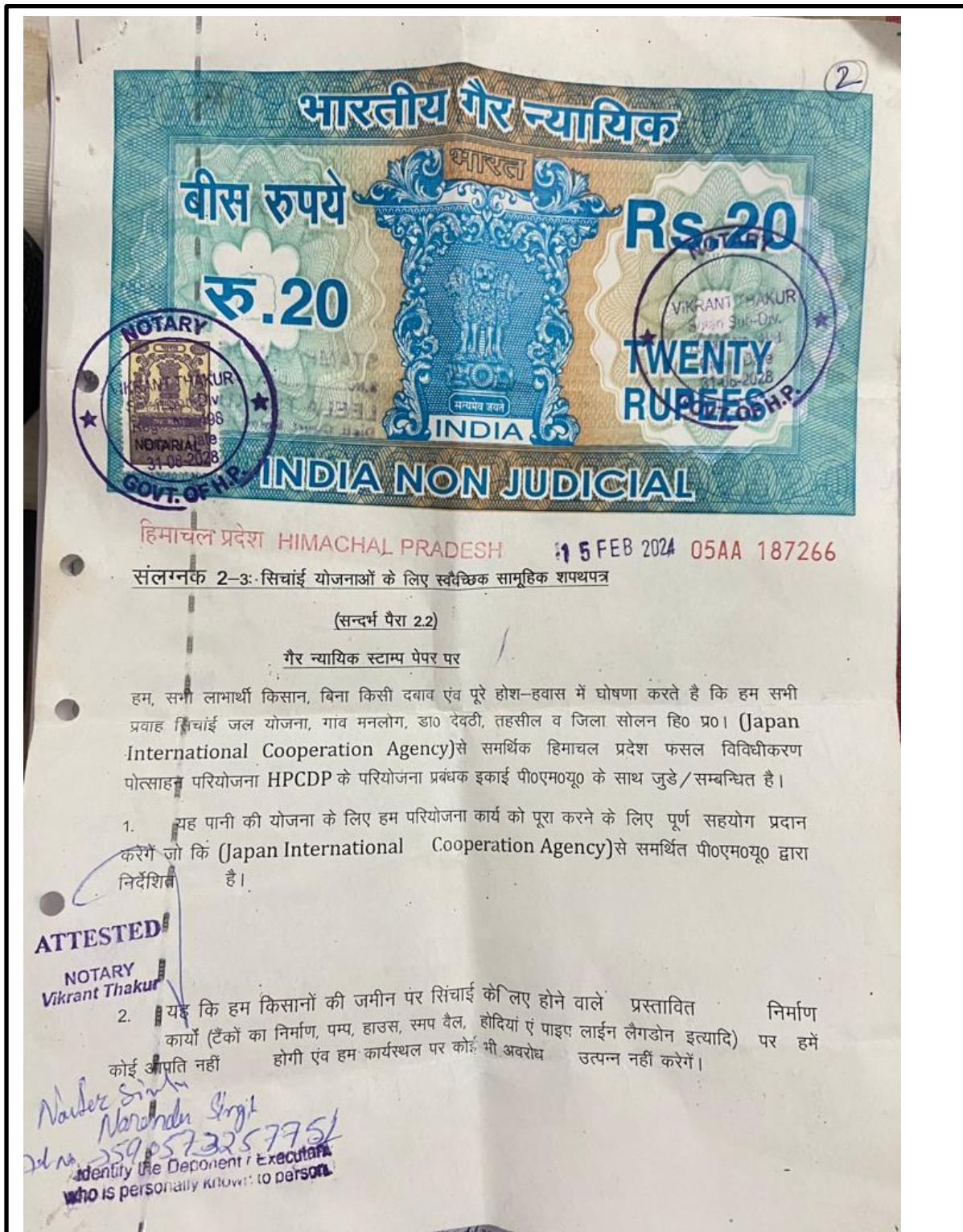
### **Willingness of Community:**

During 2021, the village community approached Department of Agriculture, HP for construction of flow irrigation scheme Redu Khad to Manlog under JICA Project. BPMU Solan team under JICA HPCDP Phase II visited site for feasibility and Panchayat resolution was taken from Gram Panchayat Top Ki Ber. The basic criteria for feasibility like willingness of beneficiaries, required lean period discharge of available perennial water source i.e Redu Khad and scope of crop diversification was checked accordingly as per the selection criteria of sub project.

The proposed sub project was found feasible. To make the community aware about the project components, awareness meetings were organized at different intervals by District Project Manager, Block Project Manager, Extension Officers and Engineering staff. The community gave undertaking for operation and maintenance of irrigation facilities and agreed for crop diversification and other livelihood programs.

## SUB PROJECT DEVELOPMENT PLAN

### Affidavit attached



## SUB PROJECT DEVELOPMENT PLAN

3. यह हम सभी किसान जापान इंटरनेशन कोपरेशन एजेंसी (Japan International Cooperation Agency)द्वारा समर्थित पी0एम0यू० के अंतर्गत सिंचाई योजनाओं के लिए किसी व्यक्ति/अभिकरण / कृषक विकास एसोसिएशन के पी0ए० को पूर्ण सहायता प्रदान करेंगे।

4. यह कोई भी किसान जिसकी भूमि का उपयोग सिंचाई के अंतर्गत हो व किसी भी प्रकार के मुआवजे का दावा नहीं करेगा।


 प्रयोग सिंचाई योजना जल योजना कीसमाप्ति के बाद \_\_\_\_\_ पम्प, हाउस, सम्पद बैल, लैदियां एं पाइप लाइन लैगडोन एंव पानी का वितरण आदि के लिए कृषक विकासएसोसिएशन के Sub-Div. किसान योजना के बिल एंव अन्य खर्चों आदि के भूकतान करने के लिए जिम्मेदार होंगे।  
 31-08-2028 की तारीख का शुल्क अदा करना पड़ेगा।

संख्या	नाम	पिता/पति का नाम	किसान के हस्ताक्षर	मोबाइल नं
१	बृंदा-प्रभु	बृंदा-प्रभु	_____	9817129293
२	नंदा-सिंह	नंदा-सिंह	_____	9817823740
३	देवदत्त	देवदत्त	_____	7876265724
४	देवेंद्र	देवेंद्र	_____	96255-88047
५	सुमित्रा	सुमित्रा	_____	82-9146509
६	लाला-प्रिया	लाला-प्रिया	_____	98165-92908
७	प्रियंका	प्रियंका	_____	88940085144
८	पृष्ठा	पृष्ठा	_____	94181 60318
९	सुमित्रा	सुमित्रा	_____	8629885153
१०	रमेश	रमेश	_____	98821-58943
११	दिलीप	दिलीप	_____	98170 85575
१२	प्रियंका	प्रियंका	_____	962980-294
१३	दीपांकर	दीपांकर	_____	98165-26726
१४	दीपा	दीपा	_____	98054982778
१५	मंगल	मंगल	_____	9817827740-
१६	दीपा	दीपा	_____	—
१७	पंकज	पंकज	_____	—
१८	पंकज	पंकज	_____	—
१९	पंकज	पंकज	_____	—
२०	नारायण	नारायण	_____	9816237146
२१	नारायण	नारायण	_____	96251 33220
२२	नारायण	नारायण	_____	98057 20012

ATTENDED Pranay Ram S/o Sohail Ram Parv → 8294736811

NOTARY  
Vikrant Thakur

25 प्रवाल सोहैल राम → 9894524539

26 Parvinder Singh, Sohail Devi Singh, Parvinder → 970189-32562

27 Madan Lal S. N. Patel → 9418372106

28 Madan Lal S/o N. Patel → 6230265962

Certified that the contents of the 1459872211 have been read over and explained to the executing deponent who seems perfectly fit to understand the same and have admitted it to be correct.

Notary  
Vikrant Thakur

15 FEB 2024

## SUB PROJECT DEVELOPMENT PLAN

### Photographs of micro planning process



Identification of khasra wise detail of land owners, custodians and cultivators.

Discussion with beneficiaries



Finalization of resource map

Capacity building programme

## SUB PROJECT DEVELOPMENT PLAN



Finalization of SDP with farmers



Department Of Agriculture HP  
JICA ODA PH-II (HPCDP)  
FIS Redu Khad To Manlog.  
15.06.2023 15:53  
30.94354 77.05702 (-16m)  
Altitude: 1240m  
Unnamed Road, Himachal Pradesh 173211

PMC Visit at the site

# SUB PROJECT DEVELOPMENT PLAN

## 1. SUB PROJECT INFORMATON

### 1.1 Salient Features

- Name of Sub project: FIS Redu Khad to Manlog
- Type of Scheme: Flow Irrigation Scheme
- Source of irrigation water: Redu Khad
- District: Solan
- Assembly Constituency: Solan
- Gram Panchayat: Top Ki Ber
- DPMU: Solan
- BPMU: Solan
- Satellite Office: Kailer
- Distance to the nearest APMC Market: Solan- 12 km
- Distance to the Local Market: Solan-12 km

**Table 1: Sub Project at Glance**

Sr. No.	Description	Units	Value
1	Estimated Cost (Irrigation Infrastructure Development)	Lakhs	72.722
2	GCA	ha	42.52
3	CCA	ha	33.35
4	Cost per ha	Lakhs	2.18
5	No. of beneficiary farmers	No.	74
6	No. of household (household survey including absentee)	No.	74
7	No. of land parcels (Chacks)	No.	44
8	Irrigation intensity (Existing)	%	89
9	Irrigation intensity (Projected)	%	181
10	Cropping intensity (Existing)	%	173
11	Cropping intensity (Projected)	%	206
12	Benefit Cost ratio	Ratio	2.31
13	Baseline crop diversification index	%	0.51

( *Source: DPR* )

## SUB PROJECT DEVELOPMENT PLAN

### Location of Sub Project Site:

- Latitude -30°56'4.382"N
- Longitude- 76°3'0.77"E

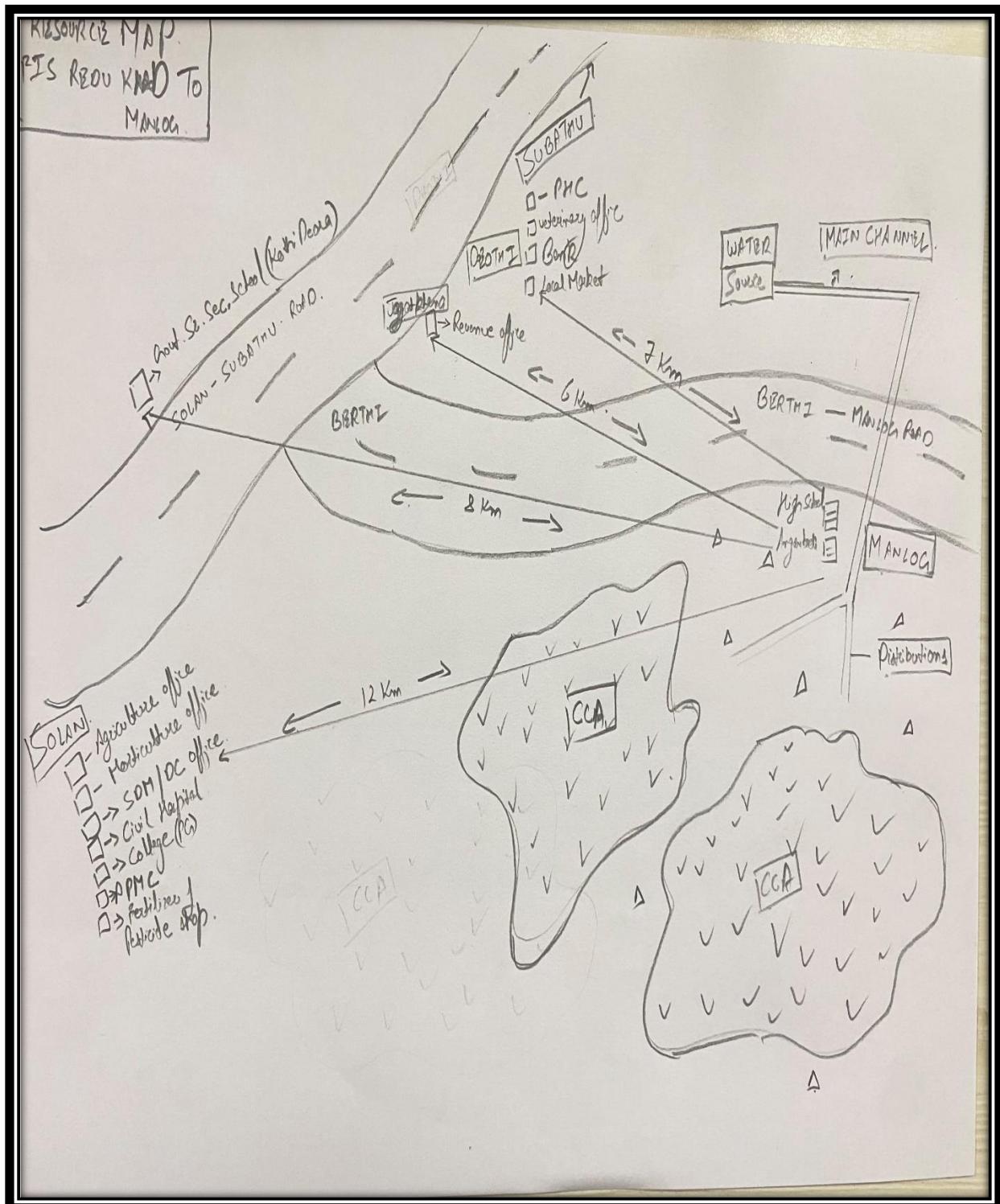
Sub project Redu Khad to Manlog is situated about 10Km from District Head Quarter Solan on Solan-Berti-Subathu road and is about 4Km on Berti-Manlog road. The area falls under Agro Climatic Zone II. The sub project is having sandy loam soil with good water holding capacity. The CCA falls in Patwar circle Jagatkhanna. There is no community center in the said village. The Gram Panchayat office is located at a distance of 5 km from the village. There is a common place i.e. open terrace at Manlog where the meetings, interactions and PRA exercises were conducted.



(Source: Google Map)

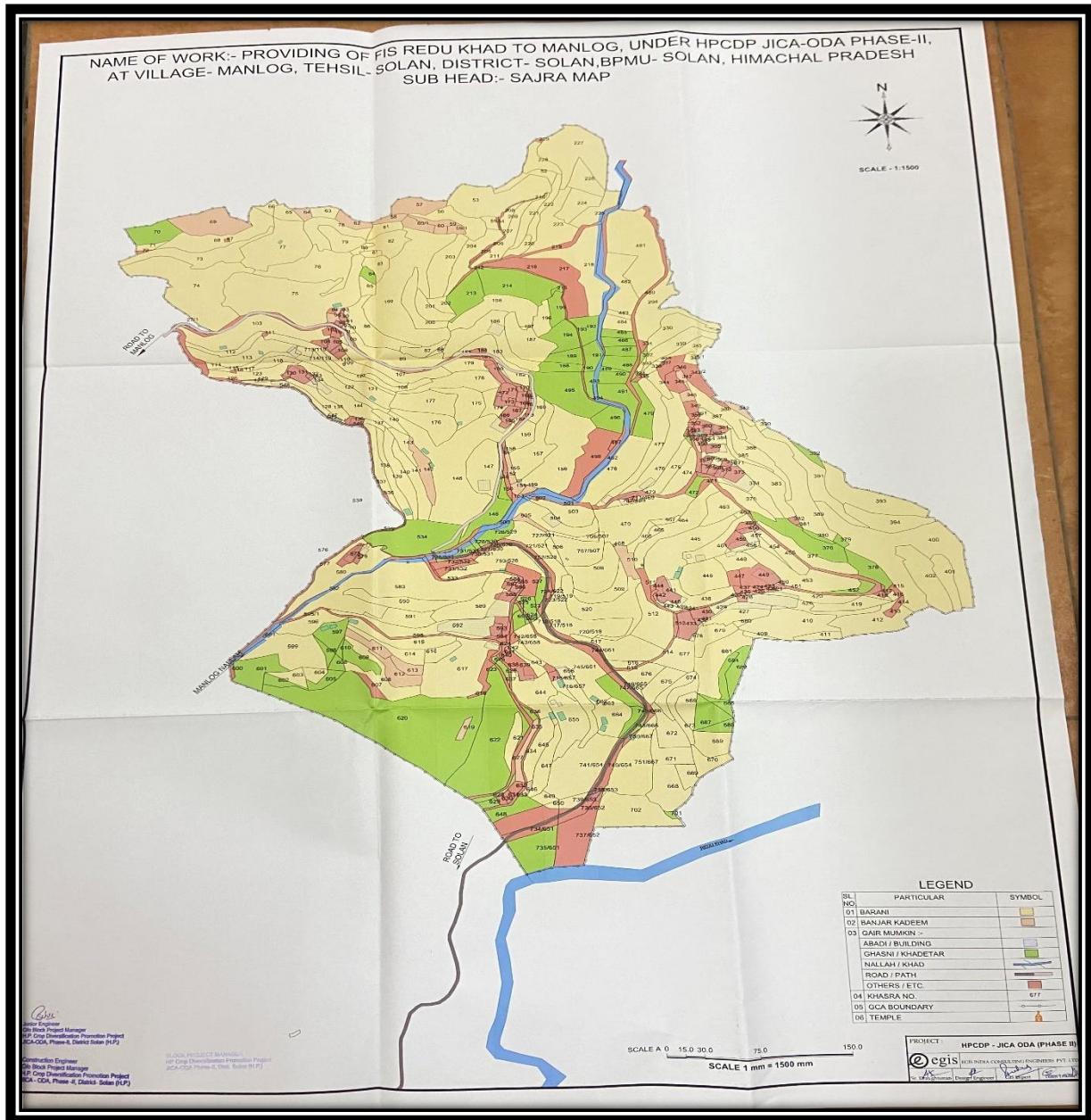
## SUB PROJECT DEVELOPMENT PLAN

### Village Resource Map (prepared by community through PRA method):



Source: PRA Exercise (Resource Mapping)

## GIS Survey Map (CCA):



Source : DPR

## SUB PROJECT DEVELOPMENT PLAN

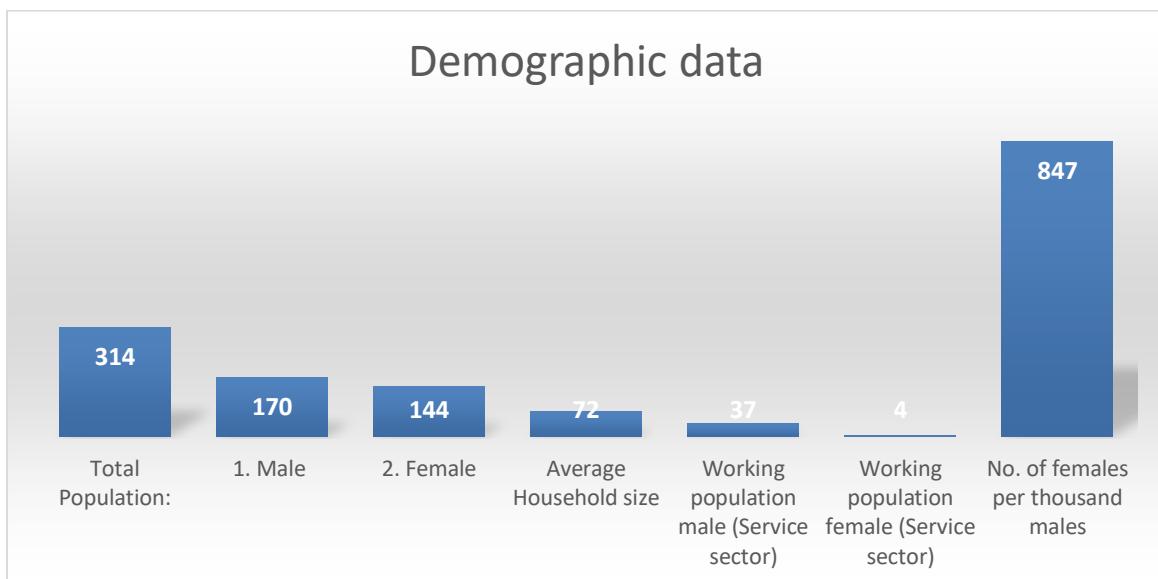
### 1.2 Demography Data of Sub-project

As per the Household survey and meetings with farmers different types of data are captured consolidated in the tables 2.

**Table 2: Demographic Data (HHs)**

Particular	Number
Total Population:	314
1. Male	170
2. Female	144
Average Household size	4
Working population male (Service sector)	37
Working population female (Service sector)	4
No. of females per thousand males	847

(Source: HHs)



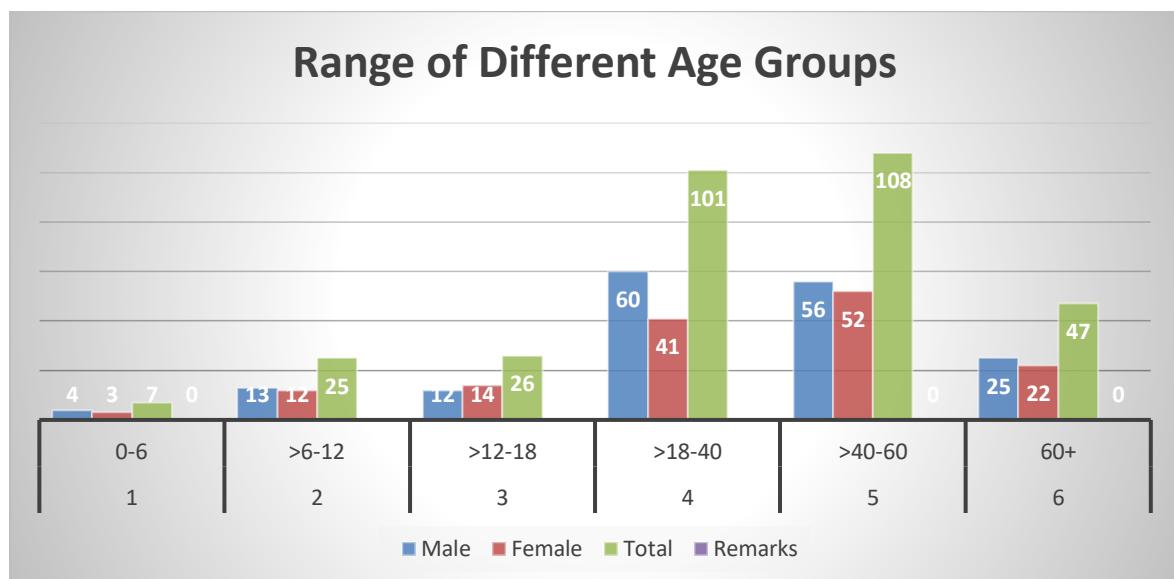
## SUB PROJECT DEVELOPMENT PLAN

<b>Total Population</b>	<b>314</b>
Adult Male	141
Adult Female	115
Total Adults	256
Male Children up to 18 years	29
Female Children up to 18 years	29
Total Children	58

**Table 3: Range of Different Age Groups:**

<b>Sr. No.</b>	<b>Age Group Years</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Remarks</b>
1	0-6	4	3	7	..
2	>6-12	13	12	25	..
3	>12-18	12	14	26	..
4	>18-40	60	41	101	..
5	>40-60	56	52	108	..
6	60+	25	22	47	..

(Source: HHs)

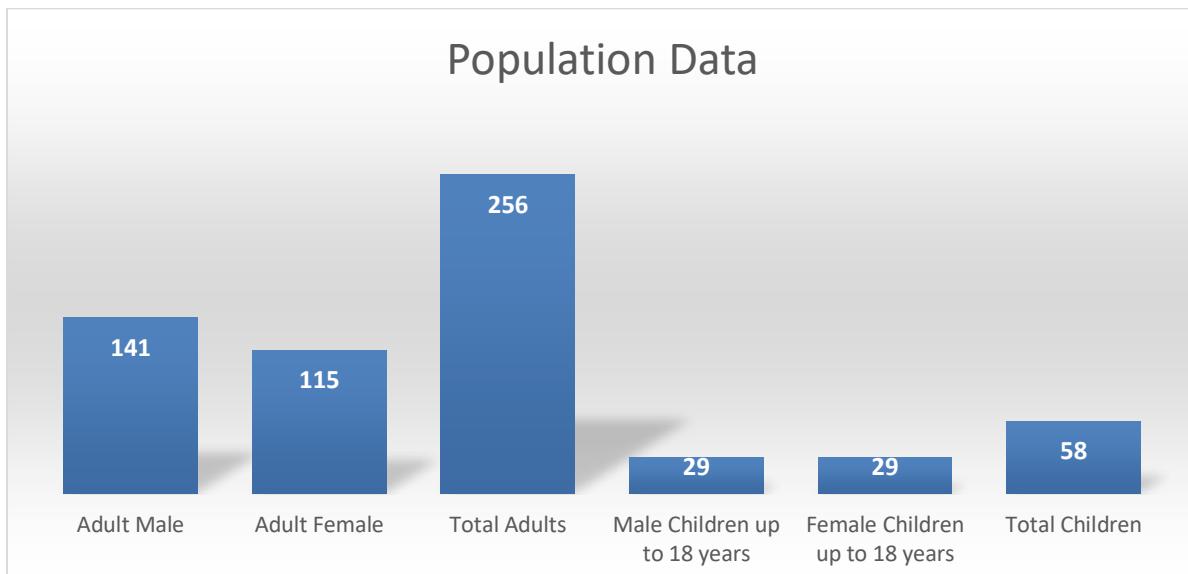


**Table :4 Population Data**

## SUB PROJECT DEVELOPMENT PLAN

<b>Total Population</b>	<b>314</b>
Adult Male	141
Adult Female	115
Total Adults	256
Male Children up to 18 years	29
Female Children up to 18 years	29
Total Children	58

**Table 4: Population Data**



**Table 5: Social Composition**

Category	No of households	% of total households	Remarks
General	41	55.41	-
OBC	0	0	-
Scheduled Caste	33	44.59	-
Scheduled Tribe	0	0	-
Total	74	100	-

(Source: HHs)

⊕ **Total number of households: 74**

## SUB PROJECT DEVELOPMENT PLAN

- ✚ **Total number of resident households: 74**
- ✚ **Number of non-resident household: Nil**
- ✚ **Female headed households: Nil**

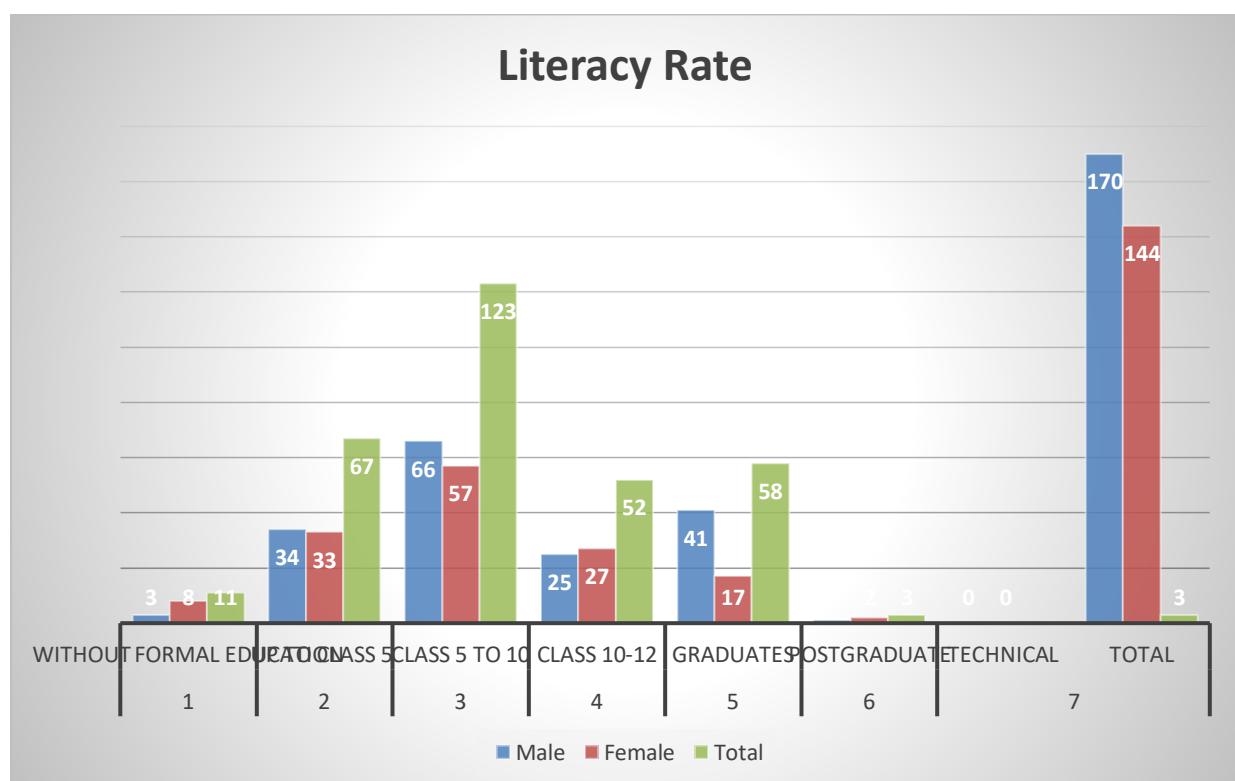
### 1.3 Literacy Rate

**Table 6: Educational Status**

Sr. No.	Education	Male	Female	Total
1	Without formal education	3	8	11
2	Up to Class 5	34	33	67
3	Class 5 to 10	66	57	123
4	Class 10-12	25	27	52
5	Graduates	41	17	58
6	Postgraduate	1	2	3
7	Technical	0	0	
	<b>Total</b>	<b>170</b>	<b>144</b>	<b>314</b>

(Source: HHs)

✚ **Literacy rate: 92%**



## SUB PROJECT DEVELOPMENT PLAN

### **1.4 Access to Basic Facilities/ Services**

#### **a) Health services:**

PHC is located at Deothi, which is 7 km away from sub project.

Civil Hospital is at Solan at a distance of 12 km.

#### **b) Veterinary services:**

Veterinary services are available at Deothi, which is 7 km away from sub project.

#### **c) Agriculture Service Centre:**

Agriculture and horticulture office is located at Solan and Chambaghat, which is 12 km and 13 km respectively away from sub project. Seed, pesticides, and fertilizer shops is in Solan.

#### **d) Lok Mitra Kendra:**

Lok Mitra Kendra is available at Deothi 6 Km

#### **e) Education Institutions:**

- Anganwadi: It is located at 100m distance from the sub project.
- Primary School: Primary School at Manlog, which is 100m away from sub project.
- Higher Sec School: Government High School and Senior Secondary School is at Kothi Deora which is 3 km away from sub project.
- College: Government Degree College is at Solan, H.P. at the distance of 12 km from the Sub Project.

#### **f) Transport:**

Village is connected to National highway through Kacha village road. Bus service is available at the distance of 3 km.

#### **g) Markets:** Local Market is available at Deothi for daily needs which is 7 km from sub project.

#### **h) Banks:** A Branch of State Bank of India, Punjab National Bank, UCO Bank and Jogindera Bank is available at Solan 12 km

#### **i) Post Office:** It is situated at Saproon which is 7 km from sub project

#### **j) Revenue Office:** It is located at Jagatkhana at the distance of 5 km.



**RESOURCE  
MAPPING OF THE  
VILLAGE**

## **SECTION II**

## SUB PROJECT DEVELOPMENT PLAN

### **1. RESOURCE MAPPING OF THE VILLAGE**

#### **2.1 Water Resources**

Presently about one hectare of land is under vegetable cultivation despite of availability of a perennial water sources namely Redu Khad in the Sub-project area. Currently farmers are using Kacha Channel for irrigation in fields. Jal Shakti Vibhag of Himachal Pradesh Government supplies drinking water to the households.

Land Resources:

- a) Total land GCA:** 42.52 ha
- b) CCA:** 33.35 ha
- c) Land under cultivation:** 28.85 ha
- d) Irrigated Land (As per revenue record):** 1 ha
- e) Present area under assured irrigation:** 1ha

**Table 7: Landholding Categories:**

Landholding Categories	No. of Farmers
Marginal Farmers (<1 ha)	69 No
Small Farmers (1.00 to 2.00 ha)	--
Medium Farmer (2.00 to 4.00 ha)	--
Large Land holding farmers (> 4.00 ha)	--
Total CCA held by small farmers (ha)	--
Total farmers (in No)	69 No
Average farm size of farmers in CCA is	0.483 ha

(Source:HHS)

#### **2.1.1 Soil Status and Health**

The soil type in the sub project ranges from sandy loam. Generally, soil depth is shallow, with the exception of places with dense vegetation. Because of its high nutrient content, soil is fruitful. All types of crops, including cereals, pulses, vegetables, spices, oil seeds, tubers, and fruit trees, can be grown at this depth of soil. The soil's pH ranges from 6 to 7.5 on average, suggesting a neutral to slightly acidic reaction. The majority of crops, including vegetables, thrive best in this pH range. The fields favorable drainage, fragmentation, and minor sloppiness all promote plant development. The soil is classified as Brown Hill Soil and has a sandy loam texture. Low to medium levels of organic carbon, medium levels of potassium that is readily available, low to medium levels of

## SUB PROJECT DEVELOPMENT PLAN

nitrogen, and medium to high levels of phosphorus are all present. The soil has enough amounts of micronutrients such as iron, manganese, copper etc.

<b>Latitude</b>	30°56'4.382"N degree/
<b>Longitude</b>	77°3'0.77"E degree
<b>Type of soil</b>	Brown Hill Soil
<b>Texture of the soil</b>	Sandy loam
<b>Agro climatic Zone</b>	Agro Climatic Zone II (Sub Humid Mid Hills)

### **2.3 Human Resource:**

In view of complications during the compilation of revenue record w.r.t. the ownership of land, the team worked with the farmers to ascertain legal heirs of the land, marked in the ownership of different land-owners in the sub-project. This exercise not only helped to identify actual target beneficiaries of the project interventions but also to mark the distribution of the land that they owe as legal heirs in the CCA. As per the baseline survey and farm walks and revenue record, the team identified different land owners, custodians (legal heirs) and cultivators and farmers are categorized into three groups namely **Advance, Intermediate, Conservative**.

**Beside this one more category of farmers has been carved out of all these which fall under the group of Vulnerable families (Refer Table No 13).** This has been done as per present status of crop diversification, livelihood activities etc.

Youth group i.e 19 to 40 years are also identified, however maximum numbers among these are involved in professional jobs or business. Farming is practiced by farmers more than aged 40 years along with few youth members.

<b>S. No.</b>	<b>Particulars</b>	<b>Nos.</b>
1	Land owner families	69
2	Custodians	74
3	Number of cultivators	74
4	No. of absentee farmers	-
5	Handicapped person	-
6	Women headed families	-

### SUB PROJECT DEVELOPMENT PLAN

7	BPL families	-
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#### **2.3.1 Farmers Categories for crop diversification:**

Extensive exercise and various field visits were conducted at sub project. Various PRA tools were applied to understand the cropping pattern and land data. Group meetings were conducted to categorize farmers into Advance (A), Intermediate (B) and Conservative (C) groups.

**Table No: 8 Detail of different group of farmers (Pre project interventions) (ON CUSTODIAN BASIS)**

Advance Group(A)	Intermediate (B)	Conservative(C)
	Sh. Kishan Singh S/O Late Sh. Mani Ram	
	Sh. Satpal S/O Late Sh. Garib Ram	
	Sh. Dev Dutt S/O Late Sh. Garib Ram	
	Sh. Kamlesh Kumar S/O Late Sh. Om Prakash	
	Sh. Hari Mohan S/O Sh. Gokul Chand	
	Sh. Harnam Singh S/O Sh. Geeta Ram	
	Sh. Man Singh S/O Late Sh. Shobha Ram	
	Sh. Hem Ram S/O Late Sh. Shobha Ram	
	Sh. Daya Ram s/o Late Sh. Layak Ram	
	Sh. Som Dutt S/O Sh. Layak Ram	
	Sh. Amar Singh S/O Late Sh. Sevak Ram	
	Sh. Geeta Ram S/O Sh. Ram Lal	
	Sh. Dev Dutt S/O Sh. Ram Lal	
	Sh. Ram Lal S/O Late Sh. Dayaliya Ram	
	Sh. Moti Ram S/O Late Sh. Jhulsia Ram	
	Sh. Mehar Singh S/O Sh. Sundar Lal	
	Sh. Jai Singh W/O Late Sh. Sohan Lal	

**SUB PROJECT DEVELOPMENT PLAN**

	Sh. Sundar Lal s/o Late Sh. Julphiya Ram	
	Sh. Sunil S/O Late Sh. Prem Singh	
	Sh. Naresh Kumar S/O Late Sh. Prem Singh	
	Sh. Sanjay Kumar S/O Sh. Nek Ram	
	Sh. Manoj Kumar S/O Sh. Nek Ram	
	Sh. Madan Lal S/O Late Sh. Nek Ram	
	Sh. Tara Dutt s/o Sh. Hari Mohan	
	Sh. Devinder Singh S/O Late Sh. Devi Singh	
	Sh. Nettar Singh S/O Late Sh. Devi Singh	
	Sh. Chatter Singh S/O Late Sh. Devi Singh	
	Sh. Vishal S/O Sh. Ram Singh	
	Sh. Puran Singh S/O Sh. Deep Ram	
	Sh. Joginder Singh S/O Sh. Deep Ram	
	Sh. Padam Singh S/O Sh. Deep Ram	
	Sh. Upender S/O Late Sh. Inder Singh	
	Sh. Vijay Kumar S/O Sh. Sevak Ram	
	Sh. Hardev Singh S/O Late Sh. Keswa Ram	
	Sh. Paras Ram S/O Sh. Sant Ram	
	Sh. Vikram S/O Late Sh. Dharamveer	
	Sh. Om Prakash S/O Sh. Jeeta Ram	
	Sh. Mukesh S/O Late Sh. Hari Mohan	
	Sh. Seeta Ram S/O Sh. Sant Ram	
	Sh. Mohan Singh S/O Sh. Ishwar Singh	
	Sh. Baldev Singh S/O Sh. Ishwar Singh	

**SUB PROJECT DEVELOPMENT PLAN**

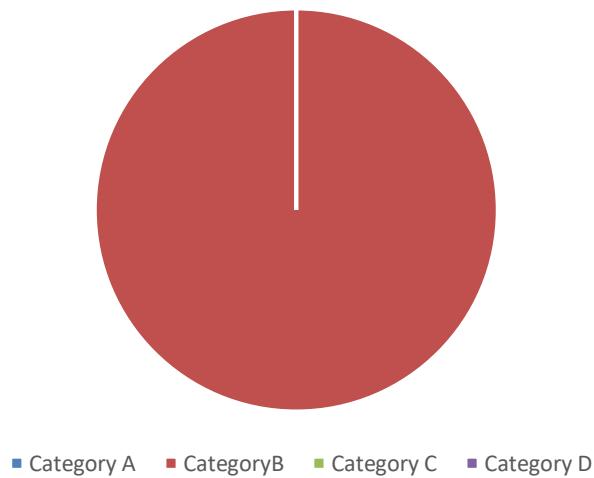
	Sh. Chain Singh S/O Sh. Ishwar Singh	
	Sh. Amar Singh S/O Late Sh. Jeet Ram	
	Sh. Med Ram S/O Late Sh. Jeet Ram	
	Sh. Prem Chand S/O Sh. Roop Ram	
	Sh. Sanjeev Kumar s/o Late Sh. Leela Dutt	
	Sh. Dev Rattan S/O Late Sh. Lakshmi Dutt	
	Sh. Mukesh S/O Late Sh. Lakshmi Dutt	
	Sh. Bal Kishan S/O Late Sh. Lakshmi Dutt	
	Sh. Devinder Singh S/O Late Sh. Ishwar	
	Sh. Padam Singh S/O Late Sh. Keshwa	
	Sh. Jai Singh S/O Late Sh. Keshwa	
	Sh. Devinder Singh S/O Late Sh. Keshwa	
	Sh. Nettar Singh S/O Late Sh. Udi Ram	
	Sh. Virender Singh s/o Late Sh. Chain Singh	
	Sh. Rajneesh S/O Late Sh. Chatter Singh	
	Sh. Prem Singh S/O Late Sh. Layak Ram	
	Sh. Man Singh S/O Late Sh. Layak Ram	
	Sh. Anil Kumar S/O Late Sh. Roshan Lal	
	Sh. Anil S/O Late Sh. Dayali	
	Sh. Jiya Lal S/O Sh. Bheem	
	Sh. Chaman Lal S/O Late Sh. Rattan	
	Sh. Gyan Chand S/O Late Sh. Geeta	
	Sh. Harish Kumar s/o Sh. Joginder Singh	

### SUB PROJECT DEVELOPMENT PLAN

	Sh. Devan Kumar s/o Sh. Joginder Singh	
	Sh. Bhupender Singh S/O Sh. Amar	
	Sh. Chandan S/O Late Sh. Bheem Singh	
	Sh. Ram Kishan S/O Sh. Ram Rattan	
	Sh. Madan Lal S/O Sh. Ram Rattan	
	Sh. Jagdish Chand S/O Late Sh. Jeeta Ram	
	Sh. Ved Prakash S/O Lat Sh. Jeet Ram	
	Sh. Ramesh S/O Sh. Om Prakash	
	Sh Manoj S/O Sh Parmanand	
	Sh Khem Singh S/O Sh Hari Singh	

**Total: Category A-0 No, Category B-74 No, Category C-0 No**

**Categorisation of farmers**



#### **2.3.2. Categorization of farmers for livelihood support (Vulnerable Group-Category D)**

There are 69 no. of families in the KVA. These 69 farming families have varied land ownership. Based on annual income from different sources, physical assets, livestock etc, data for wealth ranking collected through PRA tools. The project has considered to support such members of the KVA who are socially vulnerable and crop diversification may not be suitable for them for the purpose of extending livelihood support through on/off farm activities. However, to make it more

### SUB PROJECT DEVELOPMENT PLAN

yielding the maximum number of such families is restricted to 10 % of the total member's families of KVA. The selection of these eligible vulnerable families has been made from the following category of member families of the KVA and approved by its general house.

- Women/men under BPL category
- Women/men with disability
- Female headed household without assured income
- Single women (widow/separated/deserted/unmarried)
- Having very less land or landless families

**Table: 9 Detail of Specially abled (if any) in the Sub Project**

S.N.	Name of the farmer	Name of the Father/Husband	HPCDP Family Reg. No.	Age	Education	Current Occupation	Scope of income generation from project interventions including livelihood support
1				nil			

**Table: 10 Detail of Women headed families in the Sub Project:**

S.N.	Name of the women	Name of the Father/Husband	HPCDP Family Reg. No.	Age	Source of income	Annual Family Income (in Rs.)	Scope of income generation from project interventions including livelihood support
1				NIL			

**Table: 11 Detail of Below Poverty Line (BPL) families in the Sub Project**

S.N.	Name of the farmer	Name of the Father/Husband	HPCDP Family Reg. No.	Present Source of income	Scope of income generation from project interventions including livelihood support
1				nil	

**Table:12 Detail of other Vulnerable farming families on the basis of wealth ranking, other than the above four categories (Refer Table No 20 for Criteria)**

**SUB PROJECT DEVELOPMENT PLAN**

S.N.	Name of the farmer	Name of the Father/Husband	HPCDP Family Reg. No.	Present Source of income	Scope of income generation from project interventions including livelihood support
1	Sh. Som Dutt	S/O Sh. Layak Ram	P290-SLN-RKM-10	Farming	Mushroom cultivation

**Table: 13 Final approved List of Vulnerable farmers by the KVA under “Category D”**

S.N.	Name of Farmer & address
1	Sh. Som Dutt S/O Sh. Layak Ram, Vill. Manlog Gram Panchayat- Top Ki Ber, Tehsil-Solan District- Solan

**2.3.3 Detail of Land owners, custodian and cultivator along with HPCDP family registration number:**

After conducting various sensitization meetings, training camps, meetings with farmers regarding DPR preparation, revenue record is collected from respective revenue office and ownership statement for DPR is prepared consisting of detail of land owners and area under barani, banjar, gair mumkin, abadi etc. Detail of khasra wise area of different land owners is also prepared from the record. Also visited farmer's field with MC members and beneficiaries and with the help of KML file of contour plan of sub project custodians and cultivators of particular field is identified and marked in contour map of Sub-Project Redu Khad to Manlog (Map attached). HPCDP Family registration number is allotted to every custodian family including absentee farmers. Data is analyzed and compiled in below mention table.

**Table14: Details of Cultivator, Custodian, Landowners\***

S. N.	Name of landowner	HPCDP Family Registration Number	Custodian Family	Khasra No.	Area under planning (in ha)	Name of Cultivator in Family	Relationship of Cultivator with Landowner	Remarks*
1	Sh. Kishan Singh S/O	P290-SLN-	Sh. Kishan	70	0.71	Sh. Kishan Singh	Self	Live in village
				71				

**SUB PROJECT DEVELOPMENT PLAN**

	Late Sh. Mani Ram	RKM-1	Singh	72 74 87 139 141 142 150 151 152 163 164 165 166 167 186 198 203 204				
2	Sh. Satpal S/O Late Sh. Garib Ram	P290-SLN-RKM-2	Sh. Satpal	598P 606P	0.38	Sh. Satpal	Self	Live in village
3	Sh. Dev Dutt S/O Late Sh. Garib Ram	P290-SLN-RKM-3	Sh. Dev Dutt	598P 606P	0.39	Sh. Dev Dutt	Self	Live in village
4	Sh. Kamlesh Kumar S/O Late Sh. Om Prakash	P290-SLN-RKM-4	Sh. Kamlesh Kumar	598P 606P	0.36	Sh. Kamlesh Kumar	Self	Live in village
5	Sh. Hari Mohan S/O Sh. Gokul Chand	P290-SLN-RKM-5	Sh. Hari Mohan	79P 115P 116 117 118 120 121 122 123 124 127	0.42	Sh. Hari Mohan	Self	Live in village
6	Sh. Harnam Singh S/O Sh. Geeta Ram	P290-SLN-RKM-6	Sh. Harnam Singh	128 129 155 156 158 159	0.53	Sh. Harnam Singh	Self	Live in village

**SUB PROJECT DEVELOPMENT PLAN**

				160 162 191 330 334 335				
7	Sh. Man Singh S/O Late Sh. Shobha Ram	P290-SLN-RKM-7	Sh. Man Singh	61 171 172 173 176	0.45	Sh. Man Singh	Self	Live in village
8	Sh. Hem Ram S/O Late Sh. Shobha Ram	P290-SLN-RKM-8	Sh. Hem Ram	223 218 355 356 357 358 370 371 372 475 486	0.36	Sh. Hem Ram	Self	Live in village
9	Smt. Gulab Deyi W/O Late Sh. Layak Ram	P290-SLN-RKM-9	Sh. Daya Ram (Son)	53 63 89 90 97	0.49	Sh. Daya Ram	Son	Live in village
10	Sh. Som Dutt S/O Sh. Layak Ram	P290-SLN-RKM-10	Sh. Som Dutt	107 143 144 147 148 149	0.44	Sh. Som Dutt	Self	Live in village
11	Sh. Amar Singh S/O Late Sh. Sevak Ram	P290-SLN-RKM-11	Sh. Amar Singh	153 154 179 225 226 227 336 340 409 410 464	0.69	Sh. Amar Singh	Self	Live in village
12	Sh. Geeta Ram S/O Sh. Ram	P290-SLN-RKM-12	Sh. Geeta Ram	56 58 59	0.48	Sh. Geeta Ram	Self	Live in village

**SUB PROJECT DEVELOPMENT PLAN**

	Lal			60 88 193 207 208				
13	Sh. Dev Dutt S/O Sh. Ram Lal	P290-SLN-RKM-13	Sh. Dev Dutt	414 417 468 515 517 577 581 582 588 590 602 679	0.56	Sh. Dev Dutt	Self	Live in village
14	Sh. Ram Lal S/O Late Sh. Dayaliya Ram	P290-SLN-RKM-14	Sh. Ram Lal	59/1 60/1 706/50 7 711/46 9 712/46 9	0.46	Sh. Ram Lal	Self	Live in village
15	Sh. Moti Ram S/O Late Sh. Jhulsia Ram	P290-SLN-RKM-15	Sh. Moti Ram	715/65 7 732/53 2 733/53 2	0.33	Sh. Moti Ram	Self	Live in village
16	Sh. Mehar Singh S/O Sh. Sundar Lal	P290-SLN-RKM-16	Sh. Mehar Singh	736/65 2 737/65 2 738/65 3	0.42	Sh. Mehar Singh	Self	Live in village
17	Smt. Kamla Devi W/O	P290-SLN-RKM-17	Sh. Jai Singh	739/65 3	0.38	Sh. Jai Singh	Son	Live in village

**SUB PROJECT DEVELOPMENT PLAN**

	Late Sh. Sohan Lal			740/65 4				
18	Sh. Sundar Lal S/O Late Sh. Julphiya Ram	P290-SLN-RKM-18	Sh. Sundar Lal	741/65 4	0.38	Sh. Sundar Lal	Self	Live in village
19	Sh. Sunil S/O Late Sh. Prem Singh	P290-SLN-RKM-19	Sh. Sunil	646P	0.41	Sh. Sunil	Self	Live in village
20	Smt. Savitri W/O Late Sh. Prem Singh	P290-SLN-RKM-20	Sh. Naresh Kumar (Son)	646P	0.33	Sh. Naresh Kumar	Self	Live in village
21	Sh. Om Prakash S/O Sh. Nek Ram	P290-SLN-RKM-21	Sh. Sanjay Kumar (Son)	418 P 650 P	0.28	Sh. Sanjay Kumar	Son	Live in village
		P290-SLN-RKM-22	Sh. Manoj Kumar (Son)	418 P 650 P		Sh. Manoj Kumar		Live in village
22	Sh. Madan Lal S/O Late Sh. Nek Ram	P290-SLN-RKM-23	Sh. Madan Lal	418 P 650 P	0.28	Sh. Madan Lal	Self	Live in village
23	Sh. Hari Mohan S/O Sh. Nek Ram	P290-SLN-RKM-24	Sh. Tara Dutt (Son)	418 P 650 P		Sh. Tara Dutt		Live in village
24	Sh. Devinder Singh S/O Late Sh. Devi Singh	P290-SLN-RKM-25	Sh. Devinder Singh	418 P	0.36	Sh. Devinder Singh	Self	Live in village
				650 P				
25	Sh. Nettar Singh S/O Late Sh. Devi Singh	P290-SLN-RKM-26	Sh. Nettar Singh	418 P	0.39	Sh. Nettar Singh	Self	Live in village
				650 P				
26	Sh. Chatter	P290-SLN-	Sh. Chatter	418 P	0.36	Sh. Chatter Singh	Self	Live in village

**SUB PROJECT DEVELOPMENT PLAN**

	Singh S/O Late Sh. Devi Singh	RKM-27	Singh	650 P				
27	Sh. Ram Singh S/O Late Sh. Gareebu Ram	P290- SLN- RKM-28	Sh. Vishal (Son)	598P	0.38	Sh. Vishal	Son	Live in village
				606P				
28	Sh. Puran Singh S/O Sh. Deep Ram	P290- SLN- RKM-29	Sh. Puran Singh	410P	0.35	Sh. Puran Singh	Self	Live in village
				464P				
				467P				
				473P				
				509P				
				527P				
				625P				
				634P				
				655P				
29	Sh. Joginder Singh S/O Sh. Deep Ram	P290- SLN- RKM-30	Sh. Joginder Singh	148P	0.45	Sh. Joginder Singh	Self	Live in village
				149P				
				153P				
				154P				
				179P				
				225P				
				226P				
				227P				
				336P				
				340P				
				409P				
				410P				
30	Sh. Padam Singh S/O Sh. Deep Ram	P290- SLN- RKM-31	Sh. Padam Singh	464P	0.38	Sh. Padam Singh	Self	Live in village
				467P				
				473P				
				509P				
				527P				
				625P				
				634P				
				655P				
31	Smt. Urmila Chandel W/O Late Sh. Inder Singh	P290- SLN- RKM-32	Sh. Upender (Son)	148P	0.45	Sh. Upender	Son	Live in village
				149P				
				153P				
				154P				
				179P				
				225P				
				226P				
				227P				
				336P				
				340P				

**SUB PROJECT DEVELOPMENT PLAN**

				409P 410P				
32	Sh. Vijay Kumar S/O Sh. Sevak Ram	P290-SLN-RKM-33	Sh. Vijay Kumar	625 634 655 734/65 1 746/66 5 154P	0.38	Sh. Vijay Kumar	Self	Live in village
33	Sh. Hardev Singh S/O Late Sh. Keswa Ram	P290-SLN-RKM-34	Sh. Hardev Singh	80 81 84 85 98 178	0.38	Sh. Hardev Singh	Self	Live in village
34	Sh. Paras Ram S/O Sh. Sant Ram	P290-SLN-RKM-35	Sh. Paras Ram	334 335 375 384 394 400 416 419 426 520	0.48	Sh. Paras Ram	Self	Live in village
35	Smt. Shakuntla W/O Late Sh. Dharamve er	P290-SLN-RKM-36	Sh. Vikram(Son)	585 586 589 596 597 610 663 664	0.38	Sh. Vikram	Son	Live in village
36	Sh. Om Prakash S/O Sh. Jeeta Ram	P290-SLN-RKM-37	Sh. Om Prakash	224 P	0.38	Sh. Om Prakash	Self	Live in village
37	Smt. Kamla Devi W/O Late Sh. Hari Mohan s/o Jeeta Ram	P290-SLN-RKM-38	Sh. Mukesh(Son)	188P 189P 338P 364P 483P 701P 702P 752/52 8P	0.46	Sh. Mukesh	Son	Live in village
38	Sh. Amar Singh S/O Sh. Sant	P290-SLN-RKM-39	Sh. Seeta Ram (Son)	601 605 607	0.65	Sh. Seeta Ram	Son	Live in village

**SUB PROJECT DEVELOPMENT PLAN**

	Ram			612 614 617 620 621 622 626 627 628 636 637 638 639 643 644				
39	Sh. Ishwar Singh S/O Late Sh. Gulab Singh	P290-SLN-RKM-40	Sh. Mohan Singh (Son)	62 65 69 133 382 383 386 388 389 415 472	0.53	Sh. Mohan Singh	Son	Live in village
		P290-SLN-RKM-41	Sh. Baldev Singh(Son )	134 135 136 137 168 169 170	0.49	Sh. Baldev Singh	Son	Live in village
40	Sh. Amar Singh S/O	P290-SLN-	Sh. Amar Singh	188P 189P	0.47	Sh. Amar Singh	Self	Live in village

**SUB PROJECT DEVELOPMENT PLAN**

	Late Sh. Jeet Ram	RKM-43		338P 364P 483P 701P 752/52 8P				
41	Sh. Med Ram S/O Late Sh. Jeet Ram	P290-SLN-RKM-44	Sh. Med Ram	188P 189P 338P 364P 483P 701P 752/52 8P	0.52	Sh. Med Ram	Self	Live in village
42	Sh. Prem Chand S/O Sh. Roop Ram	P290-SLN-RKM-45	Sh. Prem Chand	702 188P 189P 338P 364P 483P 701P 752/52 8P	0.58	Sh. Prem Chand	Self	Live in village
43	Smt. Usha Devi W/O Late Sh. Leela Dutt	P290-SLN-RKM-46	Sh. Sanjeev Kumar (Son)	702 188P 189P 338P 364P 483P 701P 752/52 8P	0.49	Sh. Sanjeev Kumar	Son	Live in village
44	Sh. Dev Rattan S/O Late Sh. Lakshmi Dutt	P290-SLN-RKM-47	Sh. Dev Rattan	54P 174P 175P 177P 185P 192P 194P 209P 221P 344P	0.51	Sh. Dev Rattan	Self	Live in village
45	Sh. Suresh Kumar S/O Late Sh. Lakshmi Dutt	P290-SLN-RKM-48	Sh. Mukesh(Son)	373 374 412 413 428 496 497	0.69	Sh. Mukesh	Son	Live in village

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				516 662 669 343/1				
46	Sh. Bal Kishan S/O Late Sh. Lakshmi Dutt	P290-SLN-RKM-49	Sh. Bal Kishan	54P 174P 175P 177P 185P 192P 194P 209P 221P 344P	0.54	Sh. Bal Kishan	Self	Live in village
47	Smt. Kamla W/O Late Sh. Ishwar	P290-SLN-RKM-50	Sh. Devinder Singh (Son)	54P 174P 175P 177P 185P 192P 194P 209P 221P 344P	0.49	Sh. Devinder Singh	Self	Live in village
48	Sh. Padam Singh S/O Late Sh. Keshwa	P290-SLN-RKM-51	Sh. Padam Singh	54P 174P 175P 177P 185P 192P 194P 209P 221P 344P	0.49	Sh. Padam Singh	Self	Live in village
49	Sh. Jai Singh S/O Late Sh. Keshwa	P290-SLN-RKM-52	Sh. Jai Singh	80 81 84 85 98 178	0.56	Sh. Jai Singh	Self	Live in village
50	Sh. Devinder Singh S/O Late Sh. Keshwa	P290-SLN-RKM-53	Sh. Devinder Singh	180P 181P 182P 183P 184P 366P 367P 368P	0.57	Sh. Devinder Singh	Self	Live in village

**SUB PROJECT DEVELOPMENT PLAN**

51	Sh. Nettar Singh S/O Late Sh. Udi Ram	P290-SLN-RKM-54	Sh. Nettar Singh	369P 477P 480P 484P 485P 546P 547P	0.49	Sh. Nettar Singh	Self	Live in village
52	Smt. Shanta Devi W/O Late Sh. Chain Singh	P290-SLN-RKM-55	Sh. Virender Singh (Son)	180P 181P 182P 183P 184P 366P 367P 368P	0.48	Sh. Virender Singh	Son	Live in village
53	Smt. Shanta Devi W/O Late Sh. Chatter Singh	P290-SLN-RKM-56	Sh. Rajneesh (Son)	180P 181P 182P 183P 184P 366P 367P 368P	0.48	Sh. Rajneesh	Son	Live in village
54	Sh. Prem Singh S/O Late Sh. Layak Ram	P290-SLN-RKM-57	Sh. Prem Singh	369P 477P 480P 484P 485P 546P 547P	0.48	Sh. Prem Singh	Self	Live in village
55	Sh. Man Singh S/O Late Sh. Layak Ram	P290-SLN-RKM-58	Sh. Man Singh	367P 368P 369P 477P 480P 484P 485P 546P	0.58	Sh. Man Singh	Self	Live in village
56	Smt. Chandrawati W/O Late Sh. Roshan Lal	P290-SLN-RKM-59	Sh. Anil Kumar (Son)	207 208 414 468 515 517 577 581 582 588	0.53	Sh. Anil Kumar	Son	Live in village
57	Sh. Bheem	P290-	Sh. Anil	160	0.69	Sh. Anil	Son	Live in

**SUB PROJECT DEVELOPMENT PLAN**

	Singh S/O Late Sh. Dayali	SLN- RKM-60	(Son)	162 157 191 330 334 335 375 384 394 400 416 419 426 520				village
58	Sh. Jiya Lal S/O Sh. Bheem	P290- SLN- RKM-61	Sh. Jiya Lal	515 517 577 581 582 588 590 602 679 59/1	0.61	Sh. Jiya Lal	Self	Live in village
59	Sh. Chaman Lal S/O Late Sh. Rattan	P290- SLN- RKM-62	Sh. Chaman Lal	64 75 471 498 499 500 501 502 508 525	0.48	Sh. Chaman Lal	Self	Live in village
60	Sh. Gyan Chand S/O Late Sh. Geeta	P290- SLN- RKM-63	Sh. Gyan Chand	416 419 426 520 585 586 589 596 597 610	0.55	Sh. Gyan Chand	Self	Live in village
61	Sh. Joginder Singh S/O Late Sh. Tula Ram	P290- SLN- RKM-64	Sh. Harish Kumar (Son)	64 75 471 498 499	0.42	Sh. Harish	Son	Live in village
		P290-	Sh. Devan	500	0.49		Son	

**SUB PROJECT DEVELOPMENT PLAN**

		SLN-RKM-65	Kumar(Son)	501 502 508 525				
62	Sh. Bhupender Singh S/O Sh. Amar	P290-SLN-RKM-66	Sh. Bhupender Singh	127P 128P 129P 155P 156P 158P 159P 160P 162P 191P 330P 334P 335P 375P 384P	0.62	Sh. Bhupender Singh	Self	Live in village
63	Sh. Chandan S/O Late Sh. Bheem Singh	P290-SLN-RKM-67	Sh. Chandan	585P 586P 589P 596P 597P 610P 663P 664P	0.54	Sh. Chandan	Self	Live in village
64	Sh. Ram Rattan S/O Late Sh. Jeet Ram	P290-SLN-RKM-68	Sh. Ram Kishan (Son)	224P	0.52	Sh. Ram Kishan	Son	Live in village
		P290-SLN-RKM-69	Sh. Madan Lal (Son)		0.42	Sh. Madan Lal	Son	
65	Sh. Jagdish Chand S/O Late Sh. Jeeta Ram	P290-SLN-RKM-70	Sh. Jagdish Chand	224P	0.43	Sh. Jagdish Chand	Self	Live in village
66	Sh. Ved Prakash S/O Late Sh. Jeet Ram	P290-SLN-RKM-71	Sh. Ved Prakash	224P	0.38	Sh. Ved Prakash	Self	Live in village
67	Sh. Om Prakash S/O Late Sh. Jeet	P290-SLN-RKM-72	Sh. Ramesh	224P	0.260	Sh. Ramesh	Son	Live in village

### SUB PROJECT DEVELOPMENT PLAN

68	Sh Manoj S/O Sh Parmanan d	P290- SLN- RKM-73	Sh Manoj	598P	0.05	Sh Manoj	Self	Live in village
69	Sh Khem Singh S/O Sh Hari Singh	P290- SLN- RKM-74	Sh Khem Singh	79P	0.08	Sh Khem Singh	Self	Live in village
				115P				

(Source: PRA Exercise)

#### Abstract of Land owners, Custodian, Cultivators (as per baseline):

S.N.	Total number of Land owners	Total number of Custodian	Total number of Absentee Farmers	Total number of Cultivator	Average land holding per cultivator (in ha)
1	69	74		74	0.4507

S.N.	Range of land holding (in ha)	Total No of cultivators and area	Category A	Category B	Category C
1	Upto 0.2	(2)0.13	0	(2)0.13	0
2	More than 0.2 upto 0.4	(25)8.84	0	(25)8.84	0
3	More than 0.4 upto 0.8	(47)24.38	0	(47)24.38	0
4	More than 0.8	0	0	0	0

## 2.4. LIVELIHOOD MAPPING FOR THE VULNERABLE FAMILIES OF THE SUB PROJECT

### 2.4.1 Economic Categories

As per criteria fixed by the Department of Rural Development, GoHP, households of Manlog categorized by the gram Sabha as under:

- APL: 74 No's
- BPL: No's

### 2.4.2 Village Organisations

The survey findings indicate that the farmers in the sub project are engaged with community-based organizations. The details are as follows:

**SUB PROJECT DEVELOPMENT PLAN**

**Table:15 Detail of existing village organization**

S. N.	Institutions	Year of Formation	Membership		Detail of President
			Male	Female	
-	-	-	-	-	-

Source: Household Survey

**2.4.3. Present Livestock Resources:**

The farmers are rearing livestock as a supplementary agro-based income generation activity, especially for landholders with low landholding.

**Table 16: Detail of Present Livelihood activities within sub project-**

Sn	Type of livelihood/activities	No. of units	No's of animals	Self consumed/sale	Milk Production (if sold)	Value (Rs. ) at Base year
<b>1</b>	<b>Milch Animals</b>	No's				
a	Cow	67	75	Self	0	0
b	Buffalo	0	0	0	0	0
<b>2</b>	<b>Meat/ Milk Animals</b>	No's				
a	Sheep	-	0	0	0	0
b	Goats	-	0	0	0	0
<b>3</b>	<b>Fisheries</b>	No of farm enterprise				
<b>4</b>	<b>Poultry</b>	No's				
a	Meat	-	0	0	0	0
b	Eggs	-	0	0	0	0
<b>5</b>	<b>Mushroom</b>	No of farm enterprise	0	0	0	0
<b>6</b>	<b>Sericulture</b>	No of farm enterprise	0	0	0	0
<b>7</b>	<b>Apiculture</b>	No of farm enterprise	0	0	0	0
<b>8</b>	<b>Others</b>		0	0	0	0

### SUB PROJECT DEVELOPMENT PLAN

	a	Bullock	-	0	0	0	0
--	---	---------	---	---	---	---	---

(Source: HHs)

#### 2.4.4. Farm Business Pattern

As per household survey farmers of sub project are cultivating vegetables, cereals, along with dairy activity. The detail of category wise business pattern is given below:

**Table 17: Farm Business Pattern data**

Category	Nos of farmer s	Veget able	Frui ts	Food grains	Dair y	NTFP	Others	Remarks
Category A	0	0	0	0	0	0	0	
Category B	74	Pea, Tomat o	0	Wheat, Maize	0	0	0	Vegetables for commercial purpose, foodgrain and dairy for self consumption
Category C	0	0	0	0	0	0	0	

(Source: HHs)

#### 2.4.5. Present Occupational Structure of Sub Project

The finding of the survey shows that the population is engaged in Govt jobs, Private jobs, agriculture, business and other sources of income. The detail of occupation pattern is given in the table.

**Table 18: Present primary Occupation pattern and working population**

Category Families (Number of families)	Govt /Private service	Daily wagers	Agriculture and allied	Business	Others (Pensioner)	Farmer and pensioner both	Remarks
No of persons							
A (0)	0	0	0	0	0	0	Mostly

### SUB PROJECT DEVELOPMENT PLAN

B (74)	15	6	47	4	5	0	youth are involved in Govt/Private sector and adults above 35 are involved in agriculture and allied activities.
C (0)	0	0	0	0	0	0	

(Source:HHS)

#### **2.4.6 Livelihood and Agribusiness Activities prevalent in the vicinity/panchayat/block/district of sub project/cluster**

After detailed discussion with farmers of sub project, block office and other farmers and enterprises information on various enterprises prevalent in the vicinity of sub project is as under:

##### **⊕ Reference of activities as per MoD:-**

- Dairy farming
- Mushroom Cultivation
- Bee-keeping
- Trout (Fish Culture)
- Poultry
- Shiitake Mushroom

## SUB PROJECT DEVELOPMENT PLAN

**Table -19 Detail of Present Agribusiness Activities in the vicinity/district**

S.N.	Name of major enterprises	Detail about business activities	Business Volume (approx. per Month)	Major key Entrepreneur (Name and Contact Number)	Marketing Channel
Nil					

## SUB PROJECT DEVELOPMENT PLAN

### 2.4.7 Wealth Ranking:

A combination of different PRA techniques such as focus group discussions, household survey, meetings etc. were used to categorize the farmers according to the wealth status.

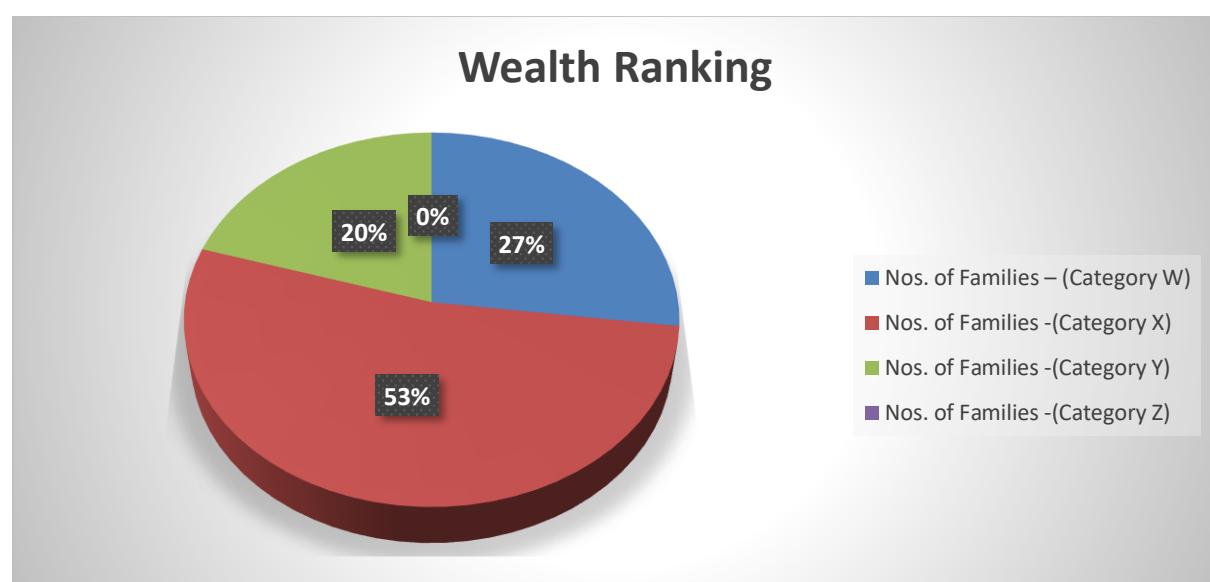
**Table20: Wealth Ranking for Different Social Ranks (Based on Baseline Survey) On the basis of owners**

Nos. of Families – (Category W)	Nos. of Families - (Category X)	Nos. of Families - (Category Y)	Nos. of Families - (Category Z)	Total Families(No's)
20	39	15	-	74

W- Better off, X- Manageable, Y- Poor, Z- Vulnerable

### Criteria for Wealth ranking

Category	Occupation	Annual Income +Livestock+ Physical Assets
Category W	Government employee/ Private Employee/ Pensioner, Business men/ others	More than 2.5 lakh + cow/ Buffalo+ Pucca House+ vehicle
Category X	Vegetable grower, Electrician, Beauty parlour, Small Business men	1.5 lakh to 2.5 lakh + cow/ Buffalo+ Kutch/ Semi pucca House + Small Vehicle (may or may not be)
Category Y	Daily wage labour, Pensioner (less) others, BPL families	Less than 1.5 lakh + Kutch/ Semi pucca House
Category Z	Women headed	As per data of Rural Development department and Household survey



## SUB PROJECT DEVELOPMENT PLAN



**EXISTING CROP  
CULTIVATION  
SCENARIO**

## **SECTION III**

### 3. EXISTING CROP CULTIVATION SCENARIO

Cropping pattern in Manlog village is dependent on several factors, production infrastructure including the local climate, soil conditions, market facilities, local food habits and agricultural practices. Existing cropping pattern is discussed with farmers during household surveys and data captured is consolidated in below mention table.

#### 3.1. Category-wise Area and Production-

The category-wise information of area and production under cultivation of major crops during rabi and kharif season before the project is given below:

**Table 21: Abstract of Category-wise Area under Crops and their Production (based on household survey and existing cropping pattern in DPR *Year 2022-23*)**

Category	No. of Farmers	Total Area(ha)(Rabi)	Major Rabi Crops			Major Kharif Crops			Total Area(ha)(Kharif)
			Crop	Area (ha)	Production (qt)	Crop	Area (ha)	Production (qt)	
A	-	-	-	-	-	-	-	-	-
B	74	27.49	Wheat	<b>11.76</b>	<b>199.92</b>	Maize	<b>16.15</b>	<b>258.40</b>	30.20
			Pea	<b>15.73</b>	<b>1100.82</b>	Tomato	<b>14.05</b>	1264.50	
C	-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	
			Fallow	3.61		Fallow	<b>1.94</b>		
			Banjar	2.25		Banjar	<b>1.21</b>		
<b>TOTAL</b>	<b>74</b>			<b>33.35</b>		<b>0</b>	<b>33.35</b>		

**DETAIL OF CATEGORYWISE EXISTING FLAGSHIP CROPS AND OTHER CROPS (AREA, PRODUCTION & INCOME  
(BEFORE CDP IMPLEMENTATION)**

**Table 22: (Kharif and Rabi Season)**

Category of farmer	Flagship Crops				Crop	Cereal Crop					Total		
	Crop	Area(ha )	Production(q t)	Income (Consumed and Sold)		Area(ha )	Production(q t)	Productivity (qt/ha)	Income (Consumed and Sold)	Area(ha )	Production(q t)	Income in Rs)	
A													
B	Tomato	14.05	1264.50	2529000.00	Maize	16.15	258.40	16.00	284240.00	30.2	1522.9	2813240	
	Pea	15.73	1100.82	3302460.00	Wheat	11.76	199.92	17.00	239904.00	27.49	1300.74	3542364	
C													
TOTAL				5831460					524144			6355604	

**Income of sub project before project implementation per ha**

<b>S no.</b>	<b>Source</b>	<b>Before CDP Amount (in Rs)</b>
<b>1</b>	Farming (Kharif Season)	<b>2813240/-</b>
<b>2</b>	Farming (Rabi Season)	<b>3542364/-</b>
<b>3</b>	Others	-
<b>Total Income</b>		<b>6355604/-</b>
<b>Total Income per ha</b>		<b>197747/-</b>

### 3.2 Status of Crop Yield (Existing and Target as per MoD)

The productivity of rabi and kharif cereal is very low. Need critical interventions like irrigation, weed control, IPM and improved farming practices to achieve the targets as per MoD. Various training on Food grain productivity and vegetable cultivation are designed accordingly to address critical gaps. The detail of pre project area under cereal crops, vegetables along with target of yield as per MoD and % deficit yield is given below:

**Table No: 23 Crop detail existing and target as per MoD**

Sr.No	Name of Crop	Area (in ha)	Pre-project yield (As per HHs)	Targeted Yield (as per MoD)	% deficit yield
1	Maize (Kharif)	16.15	16 q/ha	27 qt/ha	40.74
2	Wheat (Rabi)	11.76	17 q/ha	29 qt/ha	41.37
4	Tomato	14.05	90 q/ha	400qt/ha	77.50
5	Pea	15.73	70 q/ha	126 qt/ha	44.44

(Source:HHS and MoD)

### 3.3 Information on identification of flagship crops for the sub project

Since the project is targeting to have strong market force by developing Agri- Business operators from within the target farmers of project area, it is important to identify such crops which can be grown on large scale thereby yielding marketable surplus. To realize this clusters of different crops are required to be identified and complete focus on proliferating best crop production and post production interventions so as to help farmers in realizing best of its value.

In view of the above, project understands to strategize crop diversification approaches into two different levels. One is identification of most relevant crop in a season in term of Agro- climate suitability, already being in successful cultivation around the project area and already existing marketing linkages, to be termed as **Flagship Crops** for the said sub project/ cluster while second is thrust upon general crop diversification by the farmers for local sale and consumption. Some more elaborations are as under:

1. Crops of commercial interest: Crop to be scaled at commercial level should be identified keeping in view the farmers' interest, agro-climatic suitability, and marketability and in line with the set of crops specified in MoD for the agro- climatic zone, for the purpose. This shall be leading us in undertaking FPO formation for each crop with the supporting interventions under the value chain and marketing component.
2. Crop for local retailing: Set of crops during different growing season, in village which are produced for domestic needs, local retailing, or wholesale at local APMC. This may also specify yearly plan of shifting from area under food grains to area under high value crops. These crops may be in addition to those specified/identified under Point No.1, above.

On the basis of above understandings and discussion with the farmers and investigations into the farming scenario in the vicinity/panchayat/block/district of sub project following is observed: -

**Table:24 Major commercial crops grown in the vicinity/panchayat/block/district of sub project during different seasons**

S.No.	Season	Major crops being grown	Major key growers (Name, Address and Contact Number)		Major Marketing Channels
1	Kharif	Tomato, Ginger	Sh. Naresh Kumar S/O Ganga Ram	Village-Biddu, P/O Bakhlag, Teh- Arki, Solan	APMC Solan and APMC Chandigarh
			Sh. Rajesh Kumar	Village-Jablu, P/O Nayagram, P/O Bakhlag, Teh- Arki, Solan	
2	Rabi	Onion, Garlic, Potato, Pea, Cauliflower	Sh. Bal Kishan S/O Anant Ram	Village-Gharno, P/O Nayagram, P/O Bakhlag, Teh- Arki, Solan	APMC Solan and APMC Chandigarh
			Sh. Suresh S/O Narayan Dutt	Village-Gharno, P/O Nayagram, P/O Bakhlag, Teh- Arki, Solan	

### **3.4 Farm business evaluation of the sub project before crop diversification**

**Table: 25 Pre-project cropping pattern and value of produce (Kharif and Rabi season):**

#### **A. Kharif Season**

S.No.	Crops	Area (in ha)	Production (qt)	Productivity (qt/ha)	Value at base year (in Rs.)
i	Maize	16.15	258.40	16	<b>284240/-</b>
ii	Tomato	14.05	1264.50	90	<b>2529000/-</b>
iii	Paddy	-	-	-	-
iv	Oil Seeds	-	-	-	-
v	Pulses	-	-	-	-
vi	Fodder	-	-	-	-
vii	Fruit Crops	-	-	-	-
viii	Others	-	-	-	-

	<b>Total</b>	<b>11.53</b>	-	-	<b>2813240/-</b>
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### B. Rabi Season

S.No.	Crops	Area (in ha)	Production (qt)	Productivity (qt/ha)	Value at base year (in Rs.)
i	Wheat	11.76	190.57	17	<b>239904/-</b>
ii	Garlic	-	-	-	-
iii	Pea	15.73	1100.82	70	<b>3302460/-</b>
iv	Pulses	-	-	-	-
v	oil seeds	-	-	-	-
vi	Fodder	-	-	-	-
vii	Fruit crops	-	-	-	-
viii	Others	-	-	-	-
	<b>Total</b>	<b>11.63</b>	-	-	<b>3542364/-</b>

**Table No 26: Pre project agriculture assets and income thereof:**

S.No.	Assets	No. of units	Usage (commercial)	Income (in Rs)
1	Tractor	-	-	-
2	Power tiller (7 HP)	3-Xtrapower 7-Texas Lilli 5-Kisankraft Total -15	Self-use	-
3	Thresher	-	-	-
4	Chaffcutter	-	-	-
5	Power weeder	-	-	-
6	Sprayers	70	Self-use	-
7	Sprinklers/Drip	-	-	-
8	Poly House	-	-	-
9	Brush Cutter	-	-	-
10	Others	-	-	-

**Table No 27: Income of sub project before project per ha (as per baseline survey)**

S.No.	Source of Income	Amount (in Rs)	Remarks
1	Farming (Crops)	6355604/-	-
2	Livelihood activities	0	-

<b>3</b>	Other agro activities through Agri implements	0	-
<b>4</b>	Others	0	-
	<b>Total Income (in Rs.)</b>	<b>6355604/-</b>	-
	<b>Income per ha (in Rs.)</b>	<b>197747/-</b>	-

### 3.5. SWOT ANALYSIS OF SUB PROJECT

The SWOT analysis was carried out through Group discussion for identification of problems and threats in crop diversification, which is as given below:

**Table28:** Strength, Weakness, Opportunity and Threat Analysis

Strengths	Weakness	Opportunity	Threats
<ul style="list-style-type: none"> <li>(i) Farmers understand the importance of vegetable cultivation.</li> <li>(ii) The sub project falls under Sub humid Mid hills Zone II and suitable for vegetable cultivation.</li> <li>(iii) Farmers of sub project are Willing for crop diversification</li> <li>(iv) Texture of soil is Sandy loam which is suitable for veg production.</li> </ul>	<ul style="list-style-type: none"> <li>(i) Youth live outside the village for employment.</li> <li>(ii) Assured Irrigation facilities are not available and water resources are not properly managed</li> <li>(iii) Small land holdings</li> <li>(iv) Less experience in vegetable growing</li> <li>(v) Lack of technical knowledge.</li> <li>(vi) Less marketing information</li> </ul>	<ul style="list-style-type: none"> <li>(i) Creation of assured irrigation facilities to be operated and maintained by local farmers (KVA)</li> <li>(ii) Site specific plans, livelihood activities along with crop diversification by marginal farmers</li> <li>(iii) Low use of pesticides hence scope for organic farming.</li> <li>(iv) Support from agriculture extension services</li> <li>(v) Proving farm machinery on cost sharing</li> <li>(vi) Programs to motivate youth and next generation for adopting farming sector enterprises.</li> </ul>	<ul style="list-style-type: none"> <li>(i) Monocropping is being practiced for long time.</li> <li>(ii) Stray cattle and wild life menace.</li> <li>(iii) Labour shortage.</li> <li>(iv) Lack of processing facilities and marketing channels.</li> <li>(v) Lack of storage facilities.</li> <li>(vi) Less involvement of youth in agriculture due to low profitability.</li> </ul>

### **3.6 Timeline of Agriculture Related Events of the Village**

- Drinking water Scheme, high tap reached in village 40 years ago in the year 1983.
- Power weeders was introduced in Manlog around 2015.
- Farmers used to purchase seeds and other fertilizers from Private and Govt retailers District Solan.



**PLANS FOR  
SUBPROJECT  
DEVELOPMENT**

## **SECTION IV**

## 4. PLANS FOR SUBPROJECT DEVELOPMENT



### 4.1 Infrastructure Development Plan (IDP)

For construction of Minor Irrigation, Farm access roads (FAR) and catchment area treatment etc, site specific DPRs are prepared for the sub project which serve as road map for irrigation infrastructure development. For the sub project, irrigation assurance is designed to be provided on 33.35 ha of CCA through flow irrigation scheme to be constructed with an estimated cost of Rs. 72.722 lakhs. The perennial source of water i.e. Redu Khad is located in sub project FIS Redu Khad to Manlog.

In addition to the development of minor irrigation system, the project assistance /support will be provided as per the fund provisions, to the beneficiaries individually or jointly to increase the crop productivity and crop diversification as under:

- a) Support of MIS- Drip, Mini sprinkler & Micro Sprinkler, WST (9 cum) and Booster Pump.
- b) Solar fencing for vegetable growing areas/ sub projects as per DOA guidelines.
- c) Solar PV panels to energise the machinery.
- d) Support to farmers for suitable farm machinery on cost sharing 50:50
- e) Provision of polyhouses of different sizes, low tunnels and walk in tunnels.
- f) Provision of plastic mulch, anti-hail net, shade net houses and method demonstration.

After getting assured annual irrigation facility in CCA, the support under above Activity (*a to f*) are very crucial for willing farmers to take up and scale up vegetable cultivation. Keeping in view the budget provisions under above activities it is important that selection of beneficiaries will be done carefully and should be linked with area under vegetable cultivation/ crop diversification. The assessment of progress of crop diversification by candidate farmers may be based on the monitoring sheets for different seasons. The selection of farmers for infrastructure support and tentative plan (**Table No 21 & Table No. 22**) is prepared after analyzing household data, PRA tools and discussion with the beneficiary farmers.

Criteria for Selection of farmers for Infrastructure Development Support:

**First Stage:** Initially advance farmers and some intermediate farmers can be considered for assistance for infrastructure support.

**Second Stage:** On the basis of crop diversification of first/second cropping season some more intermediate farmers can be considered for assistance for infrastructure support.

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**Third Stage:** Third cropping season onwards till the project period the project assistance to all eligible advanced farmers shall be considered.

(\*Note- The eligible advance farmers list shall be updated after every cropping season on the basis of crop diversification data and endorsed by the general house of KVA for considering assistance from second stage onwards.

### **4.1.1 Before project status of infrastructure:**

As per field visits and meetings with farmers only ten farmer is cultivating vegetables and irrigation water is available through personal pumping unit at sub project. Remaining farmers are dependent on rains for their crops. The data regarding available assets collected and consolidated in below mention table.

**Table 29: Available Assets**

Sr. No.	Assets	No. of farmers who own these assets	No. of farmers who use these assets	Remarks
1	WST- 9 & above cum capacity	23	50	3-Community 20-Individual
2	MIS system: Drip/Sprinkler	-	-	-
3	Pumping Unit	-	-	-
4	Polyhouse	-	-	-
5	Farm Machinery (Power weeder, 5 HP) (Kirloskar-Mini Weeder)	15	15	-
6	Other	-	-	-
(Source HHs)				

### **4.1.2 Proposed Infrastructure Development for the Sub Project**

Assistance will be provided to farmers of Advance/ Intermediate category as per level of crop diversification. However, general support on countering the labour issues in term of small farm equipments shall also be designed and extended to farmers irrespective of all categories. Detail of assistance to be provided by project on cost sharing basis is given below

**Table 30: Project Support for Infrastructure on cost sharing (Indicative):**

Sr. No.	Project support for infrastructure	Unit	Qty	Name of the beneficiaries
1	WST- 9 cum capacity	No.	5	<b>Sh Chaman Lal S/O Sh Rattan Lal P290-SLN-RKM-62</b>  <b>Sh Dev Dutt S/O Garibu Ram P290-SLN-RKM-3</b>

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				<b>Sh Madan Lal P290-SLN-RKM-23</b> <b>Sh Balkishan S/O Sh Laxmi Dutt P290-SLN-RKM-49</b>  <b>Sh Chandan Kumar S/O Bhim Singh P290-SLN-RKM-67</b>
2	Pumping Unit 2/3 HP	No.	4	<b>Sh Balkishan S/O Sh Laxmi Dutt P290-SLN-RKM-49</b>  <b>Sh Jai Singh S/O Lt Sh Keshava Ram P290-SLN-RKM-52</b>  <b>Sh Prem Chand S/O Sh Roop Ram P290-SLN-RKM-45</b>  <b>Sh Manoj Kumar S/O Sh Parmanand P290-SLN-RKM-73</b>
3	Drip Irrigation System	Ha.	0.16 ha	<b>Sh Balkishan S/O Sh Laxmi Dutt P290-SLN-RKM-49</b>  <b>Sh Jai Singh S/O Lt Sh Keshava Ram P290-SLN-RKM-52</b>  <b>Sh Prem Chand S/O Sh Roop Ram P290-SLN-RKM-45</b>  <b>Sh Manoj Kumar S/O Sh Parmanand P290-SLN-RKM-73</b>
4	Mini/Micro Sprinkler Irrigation System	Ha.	0.08	<b>Sh Chandan Kumar S/O Bhim Singh P290-SLN-RKM-67</b>  <b>Sh Paras Ram S/O Lt Sh Sant Ram P290-SLN-RKM-35</b>

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5	Power Sprayer	No.	12	<p><b>Sh Hardev Singh S/O Lt Sh Keshava Ram P290-SLN-RKM-34</b></p> <p><b>Sh Balkishan S/O Sh Laxmi Dutt P290-SLN-RKM-49</b></p> <p><b>Sh Devender S/O Lt Sh Keshava Ram P290-SLN-RKM-53</b></p> <p><b>Sh Suresh S/O Sh Laxmi Dutt P290-SLN-RKM-48</b></p> <p><b>Sh Maan Singh S/O Sh Sobha Ram P290-SLN-RKM-7</b></p> <p><b>Sh Hari Mohan S/O Sh Gokul Chand P290-SLN-RKM-5</b></p> <p><b>Sh Kishan Singh S/O Sh Mani Ram P290-SLN-RKM-1</b></p> <p><b>Sh Madan Lal S/O Sh Nek Ram P290-SLN-RKM-23</b></p> <p><b>Sh Prem Chand S/O Sh Roop Ram P290-SLN-RKM-45</b></p> <p><b>Sh Jai Singh S/O Lt Sh Keshava Ram P290-SLN-RKM-52</b></p> <p><b>Sh Jai Singh S/O Sh Sohan Lal P290-SLN-RKM-17</b></p> <p><b>Sh Padam Singh S/O Sh Keshava Ram P290-SLN-RKM-51</b></p>
6	Fencing	Rmt.	2000	<p><b>Sh Chaman Lal S/O Sh Rattan Lal P290-SLN-RKM-62</b></p> <p><b>Sh Dev Dutt S/O Garib Ram P290-SLN-RKM-3</b></p> <p><b>Sh Devender S/O Sh Ishwar Singh P290-SLN-RKM-37</b></p> <p><b>Sh Prem Chand S/O Sh Roop Ram P290-SLN-RKM-45</b></p>

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				<p><b>Sh Paras Ram S/O Lt Sh Sant Ram</b> P290-SLN-RKM-35</p> <p><b>Sh Om Prakash S/O Sh Jeet Ram</b> P290-SLN-RKM-</p> <p><b>Sh Chandan Kumar S/O Bhim Singh</b> P290-SLN-RKM-67</p> <p><b>Sh Maan Singh S/O Sh Sobha Ram</b> P290-SLN-RKM-7</p> <p><b>Sh Dev Dutt S/O Sh Garibu Ram</b> P290-SLN-RKM-3</p> <p><b>Sh Ram Singh S/O Sh Garibu Ram</b> P290-SLN-RKM-28</p> <p><b>Smt Kaushalya W/O Lt Om Prakash S/O Garibu Ram</b> P290-SLN-RKM-4</p> <p><b>Sh Ishwar Singh S/O Gulab Singh</b> P290-SLN-RKM-40</p> <p><b>Sh Khem Singh S/O Hari Singh</b> P290-SLN-RKM-74</p> <p><b>Sh Kishan Singh S/O Sh Mani Ram</b> P290-SLN-RKM-1</p> <p><b>Sh Hari Mohan S/O Nek Ram</b> P290-SLN-RKM-24</p>
7	Farm Machinery (Power Weeder-7 HP)	No.	7	<p><b>Sh Maan Singh S/O Sh Layak Ram</b> P290-SLN-RKM-</p> <p><b>Sh Hari Mohan S/O Sh Gokul Chand</b> P290-SLN-RKM-5</p> <p><b>Sh Kishan Singh S/O Sh Mani Ram</b> P290-SLN-RKM-1</p> <p><b>Sh Hardev Singh S/O Lt Sh Keshava Ram</b> P290-SLN-RKM-34</p> <p><b>Sh Balkishan S/O Sh Laxmi Dutt</b> P290-SLN-RKM-49</p> <p><b>Sh Chandan Kumar S/O Bhim Singh</b> P290-SLN-RKM-67</p> <p><b>Sh Rohit S/O Neelkamal S/O Roshan Lal</b> P290-SLN-RKM-59</p>

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8	Mulching Sheet	Sq. m.	<b>0.016</b>	<b>Sh Paras Ram S/O Lt Sh Sant Ram P290-SLN-RKM-35</b> <b>Sh Hari Mohan S/O Nek Ram P290-SLN-RKM-24</b> <b>Sh Dev Rattan S/O Laxmi Dutt P290-SLN-RKM-47</b> <b>Sh Hari Mohan S/O Sh Gokul Chand P290-SLN-RKM-5</b>
9	Poly Tunnel 40 sqm	No.	<b>6</b>	<b>Sh Paras Ram S/O Lt Sh Sant Ram P290-SLN-RKM-35</b> <b>Sh Narender S/O Laxmi Dutt P290-SLN-RKM-47</b> <b>Sh Maan Singh S/O Sh Sobha Ram P290-SLN-RKM-7</b> <b>Sh Chaman Lal S/O Sh Rattan Lal P290-SLN-RKM-62</b> <b>Sh Madan Lal S/O Sh Nek Ram P290-SLN-RKM-23</b> <b>Sh Hari Mohan S/O Nek Ram P290-SLN-RKM-24</b>
10	Poly house 105 sqm	No.	<b>1</b>	<b>Sh Narender S/O Laxmi Dutt P290-SLN-RKM-47</b>
11	Brush Cutter	No.	<b>1</b>	<b>Sh Dev Dutt S/O Garib Ram P290-SLN-RKM-3</b>
12	Chaff cutter	No.	<b>7</b>	<b>Sh Dev Dutt S/O Garib Ram P290-SLN-RKM-3</b> <b>Sh Som Dutt S/O Sh Layak Ram P290-SLN-RKM-10</b> <b>Sh Jai Singh S/O Lt Sh Keshava Ram P290-SLN-RKM-52</b> <b>Sh Hardev Singh S/O Lt Sh Keshava Ram P290-SLN-RKM-34</b> <b>Sh Om Prakash S/O Sh Nek Ram P290-SLN-RKM-21</b> <b>Sh Madan Lal S/O Sh Nek Ram P290-SLN-RKM-23</b>

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				<b>Sh Amar Singh S/O Sh Sevak Ram P290-SLN-RKM-11</b>
13	<b>Chain saw cutter</b>	No.	<b>9</b>	<b>Sh Manoj Kumar S/O Sh Parmanand P290-SLN-RKM-73</b> <b>Sh Narendra S/O Dev Rattan S/O Laxmi Dutt P290-SLN-RKM-47</b> <b>Sh Balkishan S/O Sh Laxmi Dutt P290-SLN-RKM-49</b> <b>Sh Jai Singh S/O Lt Sh Keshava Ram P290-SLN-RKM-52</b> <b>Sh Maan Singh S/O Sh Sobha Ram P290-SLN-RKM-7</b> <b>Sh Hari Mohan S/O Nek Ram P290-SLN-RKM-24</b> <b>Sh Dev Dutt S/O Garib Ram P290-SLN-RKM-3</b> <b>Sh Prem Singh S/O Sh Layak Ram P290-SLN-RKM-57</b> <b>Sh Om Prakash S/O Sh Nek Ram P290-SLN-RKM-21</b>

### **4.1.3. Farmers' selection for infrastructure support for 1st stage on the basis of household survey**

**Table:31 Detail of Farmer for Stage I**

<b>Name of farmer</b>	<b>Category</b>	<b>Area under vegetables</b>	<b>Infrastructure needed</b>	<b>Remarks</b>
<b>Sh Chaman Lal S/O Sh Rattan Lal P290-SLN-RKM-62</b>	Intermediate	0.4 ha	WST- 9 cum capacity	
<b>Sh Dev Dutt S/O Garib Ram P290-SLN-RKM-3</b>	Intermediate	0.30	WST- 9 cum capacity	



## 4.2 Crop Diversification Plan (CDP) / Agriculture Development Plan (ADP)

Crop Diversification Plan should give the information on different focused groups primarily the advanced farmers, intermediate farmers, conservative farmers, and absentee farmers etc. The resources for crop production and scaling up of crop diversification available in the sub project area are summarized as under:

- Total Number of Cultivators- **74 No.** (farming families are interested in crop diversification). Out of them **65 No.** of families are interested in commercial vegetable cultivation along with cereal crops and remaining are interested in cultivation of cereal crops, kitchen gardening along with dairy activity.
- Area available for Cultivation **33.35** area under CCA which is taken for planning for crop diversification.
- Average landholding- **0.450 ha** is the average area per cultivator of the sub project.
- **116 no.** of Male and **93 no.** of Female farmers in the age group of 19-60 are available for agriculture activities. Out of these few farmers are involved in daily wage labour, business or private/Govt job.

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- **Target for Crop diversification (Vegetable area Kharif and Rabi season) – 18.42 ha and 17.00 ha respectively (to be achieved in 3 years)**

**Target for Flagship Crop – 23.20 ha** (Kharif – 12.30 ha and Rabi – 10.90 ha): After studying the farming situation in the vicinity and in the jurisdiction of BPMU following crops are suitable for scaling up as flagship crop for the sub project. Detail of farmer expertise in production and marketing as enumerated vide **Point No 4.3** above shall be helpful in capacitating the farmers in crop production and linking with the existing marketing arrangements accordingly.

Crop Priority	Kharif Season	Rabi Season
1 <sup>st</sup>	Tomato	Pea
2 <sup>nd</sup>	Beans	Garlic

**Target for general crop diversification – 29.00ha** (Kharif – 13.05 ha and Rabi- 15.95 ha): General crop diversification shall primarily focus on capacitating farmers to adopt large number of crops across the different cropping season to not only grow to sell in the vicinity including local APMC market yards but also to meet with the demand of their household/self-consumption their by ensuring good nutrition for the family while saving the money on purchasing the same from the market.

Crop Priority	Kharif Season	Rabi Season
Vegetables	Cucumber, Capsicum, Bottlegourd	Cauliflower, Chinese Sarson,
Fruit crops	-	-
Flower crops	-	-
Bulb crops	-	Onion
Leguminous crops	-	-
Spice crops	Ginger	-
Tuber crops	-	Potato

In this sub project out of total number of cultivators i.e 74, majority of the farmers are having conservative approach towards the crop diversification. However, most of them grow

## SUB PROJECT DEVELOPMENT PLAN

vegetables in **kitchen garden** sort of arrangement for daily need that too primarily in rainy season. All of them commit to undertaking commercial farming in line with the project outputs.

In view of this the project will start work on flagship crops with intermediate farmers, initially and after successful demonstration of the same area expansion along with migration of farmers to the advance farmer category shall be sought.

In addition to this the project shall work to mobilize all the families in adopting well planned crop diversification for retailing and domestic needs.

The following Crop diversification plan / Agricultural development plan has been prepared for next three years after discussion with the farmers.

### **RABI SEASON:**

- ⊕ Crop Diversification Plan / Agriculture Development Plan (Rabi Season) **(Refer: Table 32)**
- ⊕ Category wise Farmer wise Existing crop details **(Before CDP Implementations)**  
**Attachment 1**
- ⊕ Category farmers wise planning for CDP implementation (Rabi Season) **Attachment III**
- ⊕ Category-wise crop diversification monitoring plan (Rabi Crops) **Attachment V**

### **KHARIF SEASON:**

- ⊕ Crop Diversification Plan / Agriculture Development Plan (Kharif Season) **(Refer: Table 33)**
- ⊕ Category wise Farmer wise Existing crop details **(Before CDP Implementations)**  
**Attachment II**
- ⊕ Category farmers wise planning for CDP implementation (Kharif Season)  
**Attachment IV**
- ⊕ Category-wise Crop Diversification Monitoring Plan (Rabi Crops) **Attachment VI**
- ⊕ Abstract of category-wise cropped area, production and income after project intervention (kharif and rabi season) **(Refer Table:26)**
- ⊕ Crop schedule for flagship and general crops. **Attachment VII**

Table: 32 Crop Diversification Plan/Annual Agricultural Development Plan and Progress After Completion of Construction in Rabi Season

Crop Diversification Plan/Annual Agricultural Development Plan and Progress After Completion of Construction in Rabi Season																				
Sub-Project	Redu Khad to Manlog			District	Solan	Block		Solan		Site incharge		Dr. Tanvi Sood (AE)								
CCA	33.35 ha			No. of Custodian	72	No. of Cultivators		72		Date										
Existing condition				Proposed plan after construction																
(2022-23)				1st year (2024-25) 2nd Season			2nd year (2025-26) 4th Season				3rd year (2027-28) 6th season									
Crops	Area (Ha)	Unit Yield (Qt/ha)	Production (Qt)	Crops	Area (Ha)	Unit Yield (Qt/ha)	Production (Qt)	Crops	Area (Ha)	Unit Yield (Qt/ha)	Production (Qt)	Crops	Area (Ha)	Unit Yield (Qt/ha)	Production (Qt)					
Cereal Crops				Cereal Crops				Cereal Crops				Cereal Crops								
Wheat (TS)	11.76	17.00	199.92	Wheat (TS)	9.50	21.00	199.50	Wheat (TS)	8.00	26.00	208.00	Wheat (TS)	6.50	29.00	188.50					
Vegetable	15.73	70.00	1101.10	Flagship Crops				Flagship Crops				Flagship Crops								
Fellow	3.61	0.00	0.00	Garlic	4.50	70.00	315.00	Garlic	4.80	80.00	384.00	Garlic	4.90	110.00	539.00					
Banjar	2.25	0.00	0.00	Peas	5.50	80.00	440.00	Peas	5.80	100.00	580.00	Peas	6.00	126.00	756.00					
<b>Total</b>	33.35	87.00	1301.02		10.00				10.60				10.90							
				General Crops				General Crops				General Crops								
				Cauliflower	1.60	120.00	192.00	Cauliflower	1.70	150.00	255.00	Cauliflower	1.80	235.00	423.00					
				Onion	1.50	85.00	127.50	Onion	1.60	110.00	176.00	Onion	1.70	126.00	214.20					
				Potato	1.50	100.00	150.00	Potato	1.60	120.00	192.00	Potato	1.70	150.00	255.00					
				Chinese Sarson	0.70	80.00	56.00	Chinese Sarson	0.80	90.00	72.00	Chinese Sarson	0.90	105.00	94.50					
				Fodder (Barseem)	8.55	50.00	427.50	Fodder (Barseem)	9.05	60.00	543.00	Fodder (Barseem)	9.85	70.00	689.50					

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				Total	33.35		1907.50	Total	33.35		2410.00	Total	33.35		3159.70
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**Table: 33 Crop Diversification Plan/Annual Agricultural Development Plan and Progress After Completion of Construction in Kharif Season**

Crop Diversification Plan/Annual Agricultural Development Plan and Progress After Completion of Construction in Kharif Season																				
Sub-Project	Redu Khad to Manlog		District	Solan	Block		Solan		Site incharge		Dr. Tanvi Sood (AE)									
CCA	33.35 ha		No. of Custodian	72	No. of Cultivators		72		Date											
Existing condition			Proposed plan after construction																	
(2022-23)			1st year (2024) 1st Season				2nd year (2025) 3rd Season				3rd year (2026) 5th season									
Crops	Area (Ha)	Unit Yield (ton/ha)	Production (ton)	Crops	Area (Ha)	Unit Yield (Qt/ha)	Production (Qt)	Crops	Area (Ha)	Unit Yield (Qt/ha)	Production (Qt)	Crops	Area (Ha)	Unit Yield (Qt/ha)	Production (Qt)					
Cereal Crops			Cereal Crops				Cereal Crops				Cereal Crops									
Maize	16.15	16.00	258.40	Maize	13.50	18.00	243.00	Maize	10.00	23.00	230.00	Maize	8.00	27.00	216.00					
Vegetable	14.05	90.00	1264.50																	
Fellow	1.94	0.00	0.00	Flagship Crops				Flagship Crop				Flagship Crops								
Banjar	1.21	0.00	0.00	Tomato	5.20	175.00	910.00	Tomato	6.20	250.00	1550.00	Tomato	6.80	400.00	2720.00					
Total	33.35	106.00	1522.90	Beans	4.50	75.00	337.50	Beans	5.00	90.00	450.00	Beans	5.50	100.00	550.00					
				General Crops				General Crops				General Crops								
				Cucumber	1.50	85.00	127.50	Cucumber	1.70	100.00	170.00	Cucumber	1.80	140.00	252.00					
				Ginger	1.00	90.00	90.00	Ginger	1.20	100.00	120.00	Ginger	1.50	120.00	180.00					
				Capsicum	1.60	80.00	128.00	Capsicum	1.80	100.00	180.00	Capsicum	1.90	110.00	209.00					
				Bottlegaurd	0.85	60.00	51.00	Bottlegaurd	0.90	70.00	63.00	Bottlegaurd	0.92	90.00	82.80					
				Fodder (Sorghum)	5.20	60.00	312.00	Fodder (Sorghum)	6.55	70.00	458.50	Fodder (Sorghum)	6.93	90.00	623.70					

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				TOTAL	33.35		2199.00	TOTAL	33.35		3221.50	TOTAL	33.35		4833.50
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**ABSTRACT OF CATEGORY WISE AREA AND PRODUCTION (AFTER CDP IMPLEMENTATION)**

**Table 34: Abstract of Category-wise Cropped Area and Production after Project Intervention (Kharif and Rabi Season)**

Category of farmer	Flagship Crops				Cereal Crop				Other Crops				Total			Remarks
	Crop	Area (ha)	Production (qt)	Income	Crop	Area (ha)	Production (qt)	Income	Crop	Area (ha)	Production (qt)	Income	Area (ha)	Production (qt)	Income	
A																
B																
C																

(Note: To be filled after the cropping season)

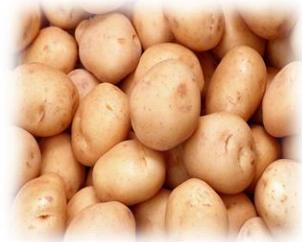
**Income of Sub Project After project implementation per ha**

SN	SOURCE OF INCOME	After CDP Amount(in Rs)
1	Farming (Crops)	-
2	Livelihood activities	-
3	Other agro activities through agri implements	-
4	Service sector	-
5	Others	-

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Total Income per ha	-
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*Category wise monitoring of Kharif and Rabi season will be done every year as per the above mention Tables. Category of farmers will change as per their level of crop diversification.*



### **4.3 Value Chain and Market Development Plan (MDP)**

Defective crop planning, forced sale, inadequate storage facilities, lack of market information, superfluous middlemen and inadequate processing facilities are prominent problems of agriculture marketing in the target area. The farmer needs to upgrade the skills on producer cum seller in domestic and distant market.

**The farmers need to know answer to questions like:**

- What to produce?
- When to produce?
- How much to produce?
- Value addition strategies?
- When and where to sell?
- At what price and to whom to sell?

Therefore, the production technology as well as market-oriented knowledge will be provided to farmers by the project. Existing and Proposed value chain for the vegetable crops and market development plan is as under.

**Table 35: Existing Value Chain and Market Development Plan of Sub Project**

S.No	Name of Produce	Quantity of Produce (qt)	No of farmers selling produce	Qty for Sale (qt)	Marketing Channel	Value added products
1	Wheat	199.92	-	-		Ceera, Wheat flour, Animal feed
2	Maize	258.40	-	-		Flour, Animal feed
3	Tomato	1264.50	60	1200	APMC, Solan	Ketch Up, Puree
4	Pea	1100.82	60	1090	APMC, Solan	Frozen peas

The planning of crops is done based on market demand and project activities range from production stage, pre/post harvesting stage, processing stage, distribution to retailing stage. After achieving the required level of area and production of flagship and other vegetable crops,

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motivate farmers to aggregate various producers into FIG and clusters with the vision to collective viable clusters into F.P.O to gain from economics of scale and better risk management.

In view of this value chain of different flagship and general crops is given below:

**Table 36: Detail of value chain of flagship and general vegetables**

Crop	Approx. time of Harvest	Value Chain
<b>Ginger</b>	Nov-Dec	Harvesting-Cleaning-Grading-Marketing
<b>Cucumber</b>	July- Aug	Harvesting- Washing- Grading- Marketing
<b>Onion</b>	April -May	Harvesting-Grading-Marketing- Storage
<b>Potato</b>	Feb-March	Harvesting – Washing- Processing (Chips etc)-Marketing- Storage
<b>Garlic</b>	April-May	Harvesting -Processing (Garlic paste)-Marketing- Storage of bulb in case of bulk produce
<b>Colocasia</b>	Nov-Feb	Harvesting-Processing (Pickle)- Marketing- Storage
<b>Tomato</b>	Aug- Sept	Harvesting – Washing- Processing (Ketchup, Tomato Puree etc)-Marketing- Storage
<b>Turmeric</b>	Nov-Dec	Harvesting- Drying-Marketing

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**Table 37: Proposed value chain and market development plan of sub project after CDP implementation**

S.No	Name of produce	Quantity of produce (qt)	No of farmers selling produce	Qty for sale (qt)	Marketing channel	Value added products
<b>Flagship Crops</b>						
1	Tomato	2720.00	65	2700	APMC, Solan	-
2	Beans	550.00	45	550	APMC, Solan	-
3	Cucumber	252.00	40	250	APMC, Solan	-
4	Ginger	180.00	30	180	APMC, Solan	-
5	Capsicum	209.00	45	200	APMC, Solan	-
6	Bottlegourd	82.80	20	80	APMC, Solan	-
7	Garlic	539.00	30	530	APMC, Solan	-
8	Pea	756.00	60	750	APMC, Solan	-
9	Cauliflower	423.00	20	420	APMC, Solan	-
10	Onion	214.20	35	210	APMC, Solan	-
11	Potato	255.00	35	250	APMC, Solan	-
12	Chinese Sarson	94.50	20	90	APMC, Solan	-
<b>Cereal Crops</b>						
1	Wheat	188.50	40	-	-	-
2	Maize	216.00	30	-	-	-
<b>Oil Seeds Crops</b>						
1						-
2						-
<b>Other ( Fruit Crops etc)</b>						
1						-
2						-



#### 4.4 Livelihood Development Plan (LDP):

Specific livelihood improvement support under on-farm/off-farm activities and service sector activities will be provided to the vulnerable families under the project. During PRA activity and household survey few farming family having very less land holding and less income from all sources. They will be supported for livelihood activities as per budget provision in order of preference in consultation with KVA, beneficiaries. The following farming families were categorized for livelihood support activities. The categorized farmers gave their preference for different livelihood support activities. The detail of beneficiary and suitable livelihood activity in order of preference is summarized as under:

**Table 38: Priority wise detail of farmers interested towards livelihood activities**

S.No.	Name of farmer	HPCDP FRN	First priority	Second priority	Third priority	Remarks
1	Sh Som Dutt S/O Sh Layak Ram	P290- SLN- RKM-10	Mushroom cultivation	-	-	Vulnerable family in sub project
2	Sh Paras Ram S/O Sh Sant Ram	P290- SLN- RKM-35	Poultry farming	-	-	Not vulnerable family but interested

(Source: PRA Exercise)

## SUB PROJECT DEVELOPMENT PLAN

### Final list of farmers selected for livelihood programme as per criteria of project

S.N.	Name of farmer	HPCDP FRN	First Priority	Second Priority	Third priority	Remarks
1	Sh Som Dutt S/O Sh Layak Ram	P290- SLN- RKM-10	Mushroom cultivation	-	-	Vulnerable family selected by KVA
2	Sh Paras Ram S/O Sh Sant Ram	P290- SLN- RKM-35	Poultry farming	-	-	Not vulnerable family but interested

### Service Sector:

The service sector encompasses a wide range of economic activities that involve the provision of intangible goods or services to customers. It includes ***motor repair, driving farm machines, band party, tailoring, electrician, plumbing*** in HDPE and Irrigation related pipeline repair (Based on List of beneficiaries selected in PRA and KVA General House)

**Table 39: Detail of farmers interested towards service sector activities for livelihood Support**

S.N.	Name of farmer	HPCDP FRN	Present Status of occupation	First Priority	Second Priority	Third priority	Remarks
1	-	-	-	-	-	-	-

(Source: PRA Exercise)

### Final list of farmers selected for livelihood programme as per criteria of project

S.N.	Name of farmer	HPC DP FRN	Present status of occupation	First priority	Second priority	Third priority	Remarks
1	-	-	-	-	-	-	-

### 4.4.1 Capacity Development Plan for implementing CDP:

- Areas of training/ capacity building: (Activities will be planned at different levels of project activities i.e before and after construction)

## SUB PROJECT DEVELOPMENT PLAN

- Orientation and Need Assessment
- Training on farm economy management, preparing crop calendar and production plan based on market demand.
- Training and method demonstration on flagship crops and other vegetable/cereals.
- Training on food grain productivity including method demonstration
- Assistance on suitable farm machinery
- Support on critical farm inputs like MIS/WST/Seeds? Mulching sheet etc as per MoD and budget provisions.
- Other trainings

(Source: MoD and Guidelines of Project)

## SUB PROJECT DEVELOPMENT PLAN

### “Summary of Plan for the Sub Project Redu Khad to Manlog by the HPCDP Team”

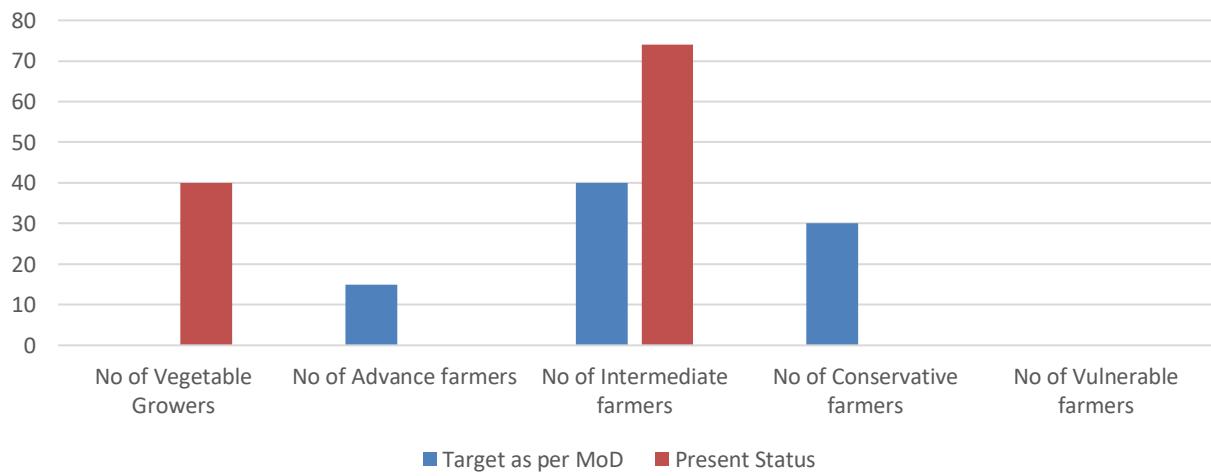
#### Present status of sub project and outcomes to key monitoring indicators:

To assess the success or impact of the project interventions, it is necessary to gather actual data on the current status w.r.t to key monitoring indicators. This would involve measuring the actual yield levels, household income, no. of farmers under different categories before and after the project interventions.

**Table:40 Status of sub project and target as per MoD**

Sr.No	Particulars	Target as per MoD	Present Status	After CDP implementation (1st cropping Season)
1	Area diversified under vegetable crops	More than 30 %	14.89 (44.64%)	15.30ha (45.87)
2	No of Vegetable Growers	--	40	60
3	No of Advance farmers	15	-	-
4	No of Intermediate farmers	40	74	-
5	No of Conservative farmers	30	-	-
6	No of Vulnerable farmers	--	-	-
7	No of farmers under Livelihood Activities	--	-	-
8	Gross Agriculture Income (in Rs. Per ha)	2,50,000/-	197747/-	-

Present status of sub project



## SUB PROJECT DEVELOPMENT PLAN

### Plan for the Sub Project Redu Khad to Manlog by the HPCDP Team

#### ⊕ Plan to achieve the project targets:

- ❖ Developing infrastructure facilities at sub project as per creation of production infrastructure facilities in sub project as per DPR.
- ❖ Implementation of SDP (Sub Project Development Plan)
- ❖ **Crop diversification plan: -**

Detail of Flagship crops identified, general crops, production, and productivity for the sub project after the implementation of Crop Diversification Plan. The CDP/ADP plan is proposed for three years (6 cropping season) and abstract of area, production, productivity, and number of farmers is given below:

#### Crop detail Existing and Target as per MoD

Sr.No	Name of Crop	Area (in ha)	Pre-project yield (As per HHs)	Targeted Yield (as per MoD)	% deficit yield
1	Maize (Kharif)	16.15	16 q/ha	27 qt/ha	40.74
2	Wheat (Rabi)	11.76	17 q/ha	29 qt/ha	41.37
3	Tomato	14.05	90 q/ha	400qt/ha	77.50
5	Peas	15.73	70 q/ha	126 qt/ha	44.44

#### PLAN FOR KHARIF SEASON (3 years)

Name of crop (Kharif Season)		Proposed Area (in ha)	Tentative No of farmers/ growers
Cereal Crop	Maize	8.00	20
Flagship Vegetable Crop	Tomato, Beans	12.30	65
General Crops	Capsicum, Ginger, Bottle Guard Cucumber, Fodder	13.05	50

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### PLAN FOR RABI SEASON

Name of crop (Rabi Season)		Proposed Area (in ha)	Tentative No of farmers/ growers
Cereal Crop	Wheat	6.50	20
Flagship Vegetable Crop	Garlic, Peas	10.90	60
General Crops	Cauliflower, Potato, Onion, Chinese Sarson, Fodder	15.95	50

#### ❖ Livelihood Plan:

Activity	I <sup>st</sup> Priority (No of Families)	II <sup>nd</sup> Priority (No of Families)	III <sup>rd</sup> Priority (No of Families)
<b>Dairy Farming</b>	-	-	-
<b>Mushroom Cultivation</b>	-	-	-
<b>Bee keeping</b>	-	-	-
<b>Back yard Poultry</b>	Paras Ram S/O Sh. Sant Ram (P290-SLN- RKM-35)	-	-
<b>Service Sector</b>			
<b>Electrician</b>	-	-	-
<b>Plumber</b>	-	-	-
<b>Tailor</b>	-	-	-
<b>Parlour</b>	-	-	-

## SUB PROJECT DEVELOPMENT PLAN

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