

**Republic of India**

**State of Himachal Pradesh, Department of Agriculture**

**THE PREPARATORY SURVEY  
ON  
HIMACHAL PRADESH CROP  
DIVERSIFICATION PROMOTION  
PROJECT PHASE-II (HPCDP II)  
IN  
REPUBLIC OF INDIA  
FINAL REPORT  
(Advanced Version)  
VOLUME-II  
ATTACHMENTS**

**March 2021**

**Japan International Cooperation Agency (JICA)**

**Nippon Koei Co., Ltd.**

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PROMOTION PROJECT PHASE-II (HPCDP II)  
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**FINAL REPORT**

**LIST OF VOLUMES**

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# *Attachment for Chapter 3*

*Present Condition of Agriculture Sector  
in the Survey Area*

**Attachment-3.4.1 The collected information from APMCs and CAs:**

Cabbage

Estimated Distribution Volume in % by APMCs

No	APMC Area	Distribution Channel (%)					
		Farmer ⇒ APMC Markets ⇒ Local Markets	Farmer ⇒ APMC Markets ⇒ Outer State	Farmer ⇒ Local Markets/ Consumers	Farmer ⇒ Outer Buyers (Supply to Other States)	Farmer ⇒ Local Processing Industries	From Other States
1	Bilaspur	70	0	20	0	0	10
2	Chamba	6.8	0	0	0	0	93.2
3	Hamirpur	0	0	3	0	0	97
4	Kangra	10	0	30	0	0	60
5	Kullu and L.Spiti	20	50	15	15	0	0
6	Mandi	10	28	0	57	0	5
7	Shimla & Kinnaur	4	96	1	0	0	0
8	Sirmaur	20	50	15	15	0	0
9	Solan	30	50	0	20	0	0
10	Una	70	0	20	0	0	10

Source: Interview Survey by JICA Survey Team

Estimated Distribution Volume in % by CAs

No	APMC Area	Buying Channel (%)				Selling Channel (%)			
		Farmers to Mandi	Farmer Groups to Mandi	Rural Collectors to Mandi	From Other States	Mandi to Local Retailers	Mandi to Local Middlemen	Mandi to Inter-state Traders	Mandi to Supermarkets /Chain stores/Exporter
1	Bilaspur	5	0	0	95	100	0	0	0
2	Chamba	7	0	0	93	100	0	0	0
3	Hamirpur	0	0	0	100	98	0	2	0
4	Kangra	8	0	0	92	100	0	0	0
5	Kullu and L.Spiti	85	0	0	15	15	0	85	0
6	Mandi	62	0	33	5	9	1	90	0
7	Shimla & Kinnaur	100	0	0	0	4	1	96	0
8	Sirmaur	20	5	75	0	60	30	10	0
9	Solan	20	50	30	0	20	5	65	10
10	Una	65	4	20	11	95	0	5	0

Source: Interview Survey JICA Survey Team

## Capsicum

## Estimated Distribution Volume in % by APMCs

No	APMC Area	Distribution Channel (%)					
		Farmer ⇒ APMC Markets ⇒ Local Markets	Farmer ⇒ APMC Markets ⇒ Outer State	Farmer ⇒ Local Markets/ Consumers	Farmer ⇒ Outer Buyers (Supply to Other States)	Farmer ⇒ Local Processing Industries	From Other States
1	Bilaspur	60	0	22	10	0	8
2	Chamba	1.7	0	0	0	0	98.3
3	Hamirpur	3	0	3	0	0	94
4	Kangra	10	0	30	0	0	60
5	Kullu and L.Spiti	40	50	5	5	0	0
6	Mandi	39	48	4	4	0	5
7	Shimla & Kinnaur	4	96	1	0	0	0
8	Sirmaur	40	50	5	5	0	0
9	Solan	10	60	0	30	0	0
10	Una	30	35	15	10	0	10

Source: Interview Survey by JICA Survey Team

## Estimated Distribution Volume in % by CAs

No	APMC Area	Buying Channel (%)				Selling Channel (%)			
		Farmers to Mandi	Farmer Groups to Mandi	Rural Collectors to Mandi	From Other States	Mandi to Local Retailers	Mandi to Local Middlemen	Mandi to Inter-state Traders	Mandi to Supermarkets /Chain stores/Exporter
1	Bilaspur	10	5	0	85	100	0	0	0
2	Chamba	2	0	0	98	100	0	0	0
3	Hamirpur	3	0	0	97	95	0	5	0
4	Kangra	5	0	0	95	100	0	0	0
5	Kullu and L.Spiti	40	0	0	60	50	0	50	0
6	Mandi	80	0	15	5	45	0	55	0
7	Shimla & Kinnaur	100	0	0	0	4	1	95	0
8	Sirmaur	10	2	88	0	10	10	80	0
9	Solan	25	15	60	0	25	15	60	0
10	Una	40	2	30	28	85	7	3	0

Source: Interview Survey by JICA Survey Team

## Cauliflower

## Estimated Distribution Volume in % by APMCs

No	APMC Area	Distribution Channel (%)					
		Farmer ⇒ APMC Markets ⇒ Local Markets	Farmer ⇒ APMC Markets ⇒ Outer State	Farmer ⇒ Local Markets/ Consumers	Farmer ⇒ Outer Buyers (Supply to Other States)	Farmer ⇒ Local Processing Industries	From Other States
1	Bilaspur	75	0	20	5	0	0
2	Chamba	6.7	0	0	0	0	93.3
3	Hamirpur	10	0	10	0	0	80
4	Kangra	10	0	30	0	0	60
5	Kullu and L.Spiti	10	60	5	20	0	5
6	Mandi	29	29	0	37	0	5
7	Shimla & Kinnaur	3	96	1	0	0	0
8	Sirmaur	10	60	5	20	0	5
9	Solan	30	60	0	10	0	0
10	Una	60	0	20	20	0	0

Source: Interview Survey by JICA Survey Team

## Estimated Distribution Volume in % by CAs

No	APMC Area	Buying Channel (%)				Selling Channel (%)			
		Farmers to Mandi	Farmer Groups to Mandi	Rural Collectors to Mandi	From Other States	Mandi to Local Retailers	Mandi to Local Middlemen	Mandi to Inter-state Traders	Mandi to Supermarkets /Chain stores/Exporter
1	Bilaspur	5	3	92	0	100	0	0	0
2	Chamba	7	0	0	93	100	0	0	0
3	Hamirpur	10	0	0	90	95	0	5	0
4	Kangra	5	0	0	95	100	0	0	0
5	Kullu and L.Spiti	90	0	0	10	10	0	90	0
6	Mandi	65	5	25	5	30	0	70	0
7	Shimla & Kinnaur	100	0	0	0	4	0	96	0
8	Sirmaur	35	3.5	61.5	0	90	8	2	0
9	Solan	20	20	60	0	20	10	70	0
10	Una	60	40	25	21	95	0	5	0

Source: Interview Survey by JICA Survey Team



French bean

Estimated Distribution Volume in % by APMCs

No	APMC Area	Distribution Channel (%)					
		Farmer ⇒ APMC Markets ⇒ Local Markets	Farmer ⇒ APMC Markets ⇒ Outer State	Farmer ⇒ Local Markets/ Consumers	Farmer ⇒ Outer Buyers (Supply to Other States)	Farmer ⇒ Local Processing Industries	From Other States
1	Bilaspur	65	0	30	0	0	5
2	Chamba	1.6	0	0	0	0	98.4
3	Hamirpur	0	0	2	0	0	98
4	Kangra	5	0	40	0	0	55
5	Kullu and L.Spiti	30	50	10	10	0	0
6	Mandi	19	38	0	38	0	5
7	Shimla & Kinnaur	5	95	1	0	0	0
8	Sirmaur	30	50	10	10	0	0
9	Solan	10	60	0	30	0	0
10	Una	15	70	10	0	0	5

Source: Interview Survey by JICA Survey Team

Estimated Distribution Volume in % by CAs

No	APMC Area	Buying Channel (%)				Selling Channel (%)			
		Farmers to Mandi	Farmer Groups to Mandi	Rural Collectors to Mandi	From Other States	Mandi to Local Retailers	Mandi to Local Middlemen	Mandi to Inter-state Traders	Mandi to Supermarkets /Chain stores/Exporter
1	Bilaspur	10	0	0	90	100	0	0	0
2	Chamba	2	0	0	98	100	0	0	0
3	Hamirpur	0	0	0	100	100	0	0	0
4	Kangra	6	0	0	94	100	0	0	0
5	Kullu and L.Spiti	60	0	0	40	45	0	0	55
6	Mandi	81	0	14	5	20	0	80	0
7	Shimla & Kinnaur	100	0	0	0	4	1	95	0
8	Sirmaur	5	1	94	0	65	25	10	0
9	Solan	25	20	55	0	25	20	50	5
10	Una	45	3	25	27	90	0	10	0

Source: Interview Survey by JICA Survey Team

Peas

Estimated Distribution Volume in % by APMCs

No	APMC Area	Distribution Channel (%)					
		Farmer ⇒ APMC Markets ⇒ Local Markets	Farmer ⇒ APMC Markets ⇒ Outer State	Farmer ⇒ Local Markets/ Consumers	Farmer ⇒ Outer Buyers (Supply to Other States)	Farmer ⇒ Local Processing Industries	From Other States
1	Bilaspur	60	0	37	3	0	0
2	Chamba	2.1	0	0	0	0	97.9
3	Hamirpur	2	0	5	0	0	93
4	Kangra	5	0	30	0	0	65
5	Kullu and L.Spiti	30	50	10	10	0	0
6	Mandi	15	30	0	50	0	5
7	Shimla & Kinnaur	4.5	95	0.5	0	0	0
8	Sirmaur	30	50	20	0	0	0
9	Solan	30	50	20	0	0	0
10	Una	15	30	15	0	0	40

Source: Interview Survey by JICA Survey Team

Estimated Distribution Volume in % by CAs

No	APMC Area	Buying Channel (%)				Selling Channel (%)			
		Farmers to Mandi	Farmer Groups to Mandi	Rural Collectors to Mandi	From Other States	Mandi to Local Retailers	Mandi to Local Middlemen	Mandi to Inter-state Traders	Mandi to Supermarkets /Chain stores/Exporter
1	Bilaspur	3	0	97	0	95	0	5	0
2	Chamba	2	0	0	98	100	0	0	0
3	Hamirpur	5	0	0	95	100	0	0	0
4	Kangra	3	0	0	97	100	0	0	0
5	Kullu and L.Spiti	85	0	0	15	15	0	85	0
6	Mandi	32	0	63	5	16	0	84	0
7	Shimla & Kinnaur	100	0	0	0	4	1	95	0
8	Sirmaur	20	2	78	0	80	20	0	0
9	Solan	20	30	50	0	10	10	60	10
10	Una	50	4	26	20	70	3	27	0

Source: Interview Survey by JICA Survey Team

## Potato

## Estimated Distribution Volume in % by APMCs

No	APMC Area	Distribution Channel (%)					
		Farmer ⇒ APMC Markets ⇒ Local Markets	Farmer ⇒ APMC Markets ⇒ Outer State	Farmer ⇒ Local Markets/ Consumers	Farmer ⇒ Outer Buyers (Supply to Other States)	Farmer ⇒ Local Processing Industries	From Other States
1	Bilaspur	40	0	60	0	0	0
2	Chamba	29.5	0	0	0	0	70.5
3	Hamirpur	0	0	0	0	0	100
4	Kangra	10	0	30	0	0	60
5	Kullu and L.Spiti	30	50	10	10	0	0
6	Mandi	25	10	0	60	0	5
7	Shimla & Kinnaur	5	94	1	0	0	0
8	Sirmaur	25	0	30	45	0	0
9	Solan	30	30	0	40	0	0
10	Una	25	0	30	45	0	0

Source: Interview Survey by JICA Survey Team

## Estimated Distribution Volume in % by CAs

No	APMC Area	Buying Channel (%)				Selling Channel (%)			
		Farmers to Mandi	Farmer Groups to Mandi	Rural Collectors to Mandi	From Other States	Mandi to Local Retailers	Mandi to Local Middlemen	Mandi to Inter-state Traders	Mandi to Supermarkets /Chain stores/Exporter
1	Bilaspur	7	0	93	0	100	0	0	0
2	Chamba	30	0	0	70	100	0	0	0
3	Hamirpur	0	0	0	100	100	0	0	0
4	Kangra	15	0	0	85	100	0	0	0
5	Kullu and L.Spiti	10	0	0	90	90	0	10	0
6	Mandi	64	0	31	5	27	0	73	0
7	Shimla & Kinnaur	100	0	0	0	5	1	94	0
8	Sirmaur	30	3	67	0	90	10	0	0
9	Solan	30	25	45	0	20	10	70	0
10	Una	45	3	37	15	85	5	10	0

Source: Interview Survey by JICA Survey Team

Tomato

Estimated Distribution Volume in % by APMCs

No	APMC Area	Distribution Channel (%)					
		Farmer ⇒ APMC Markets ⇒ Local Markets	Farmer ⇒ APMC Markets ⇒ Outer State	Farmer ⇒ Local Markets/ Consumers	Farmer ⇒ Outer Buyers (Supply to Other States)	Farmer ⇒ Local Processing Industries	From Other States
1	Bilaspur	60	10	20	10	0	0
2	Chamba	14	0	0	0	0	86
3	Hamirpur	8	0	10	0	0	82
4	Kangra	10	5	25	0	0	65
5	Kullu and L.Spiti	25	45	10	15	5	0
6	Mandi	10	25	0	60	0	5
7	Shimla & Kinnaur	10	85	5	0	0	0
8	Sirmaur	25	45	10	15	5	0
9	Solan	10	60	0	30	0	0
10	Una	50	20	20	10	0	0

Source: Interview Survey by JICA Survey Team

Estimated Distribution Volume in % by CAs

No	APMC Area	Buying Channel (%)				Selling Channel (%)			
		Farmers to Mandi	Farmer Groups to Mandi	Rural Collectors to Mandi	From Other States	Mandi to Local Retailers	Mandi to Local Middlemen	Mandi to Inter-state Traders	Mandi to Supermarkets /Chain stores/Exporter
1	Bilaspur	30	5	2	63	90	5	5	0
2	Chamba	14	0	0	86	100	0	0	0
3	Hamirpur	8	0	0	92	96	0	4	0
4	Kangra	10	0	0	90	100	0	0	0
5	Kullu and L.Spiti	50	0	0	50	10	0	90	0
6	Mandi	73	0	22	5	12	0	88	0
7	Shimla & Kinnaur	40	20	40	0	10	10	80	0
8	Sirmaur	50	5	45	0	10	10	80	0
9	Solan	40	20	40	0	10	10	80	0
10	Una	46	5	27	22	82	4	14	9

Source: Interview Survey by JICA Survey Team

## Apple

## Estimated Distribution Volume in % by APMCs

No	APMC Area	Distribution Channel (%)					
		Farmer ⇒ APMC Markets ⇒ Local Markets	Farmer ⇒ APMC Markets ⇒ Outer State	Farmer ⇒ Local Markets/ Consumers	Farmer ⇒ Outer Buyers (Supply to Other States)	Farmer ⇒ Local Processing Industries	From Other States
1	Bilaspur	100	0	0	0	0	0
2	Chamba	0.9	0	0	0	0	99.1
3	Hamirpur	0	0	0	0	0	100
4	Kangra	0	0	0	0	0	100
5	Kullu and L.Spiti	1	50	0	45	4	0
6	Mandi	0	33	0	57	10	0
7	Shimla & Kinnaur	1	44	0	66	0	0
8	Sirmaur	25	45	10	15	5	0
9	Solan	10	90	0	0	0	0
10	Una	78	0	15	0	0	7

Source: Interview Survey by JICA Survey Team

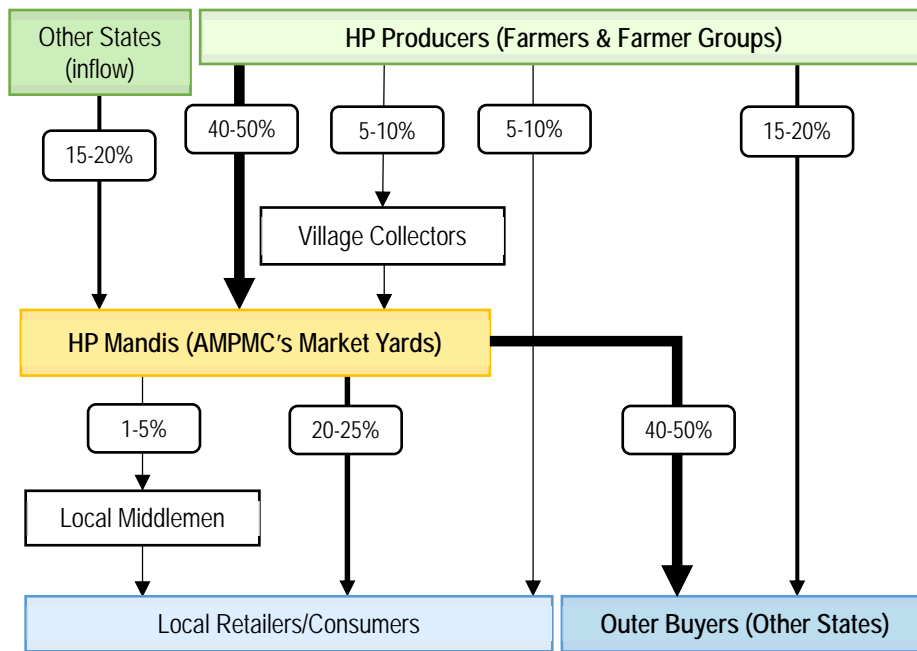
## Estimated Distribution Volume in % by CAs

No	APMC Area	Buying Channel (%)				Selling Channel (%)			
		Farmers to Mandi	Farmer Groups to Mandi	Rural Collectors to Mandi	From Other States	Mandi to Local Retailers	Mandi to Local Middlemen	Mandi to Inter-state Traders	Mandi to Supermarkets /Chain stores/Exporter
1	Bilaspur	0	0	0	100	95	0	5	0
2	Chamba	1	0	0	99	100	0	0	0
3	Hamirpur	0	0	0	100	100	0	0	0
4	Kangra	0	0	0	100	100	0	0	0
5	Kullu and L.Spiti	100	0	0	0	5	0	95	0
6	Mandi	100	0	0	0	0	10	90	0
7	Shimla & Kinnaur	95	0	5	0	2	3	95	0
8	Sirmaur	90	0	5	5	90	10	0	0
9	Solan	95	0	5	0	2	3	95	0
10	Una	2	2	3	93	95	0	5	5

Source: Interview Survey by JICA Survey Team

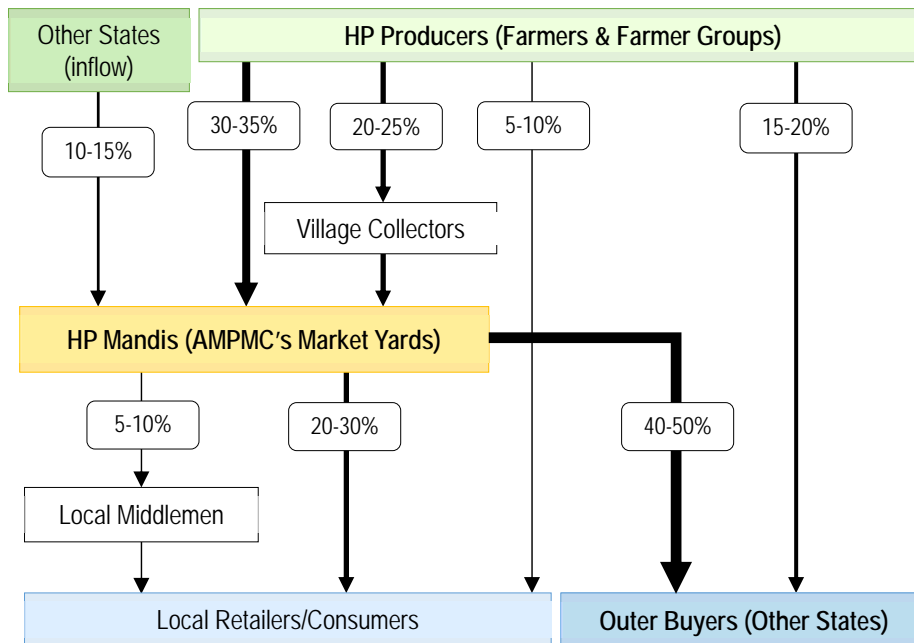
**Attachment 3.4.2 A State of Distribution of Major Vegetables and Apple in Himachal Pradesh (Estimation)**

1. Cabbage



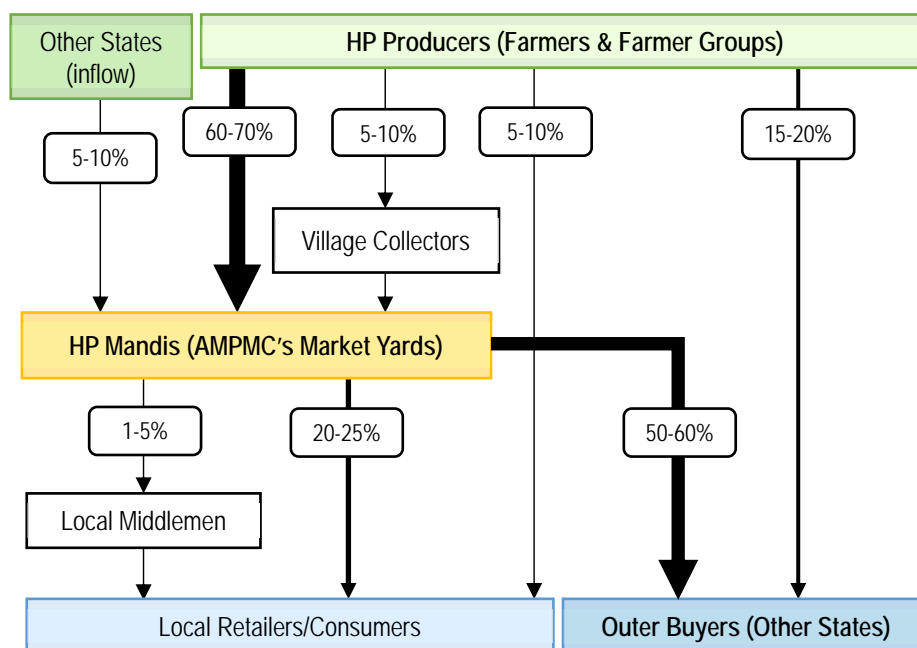
Source: Survey Team based on collected information

2. Capsicum



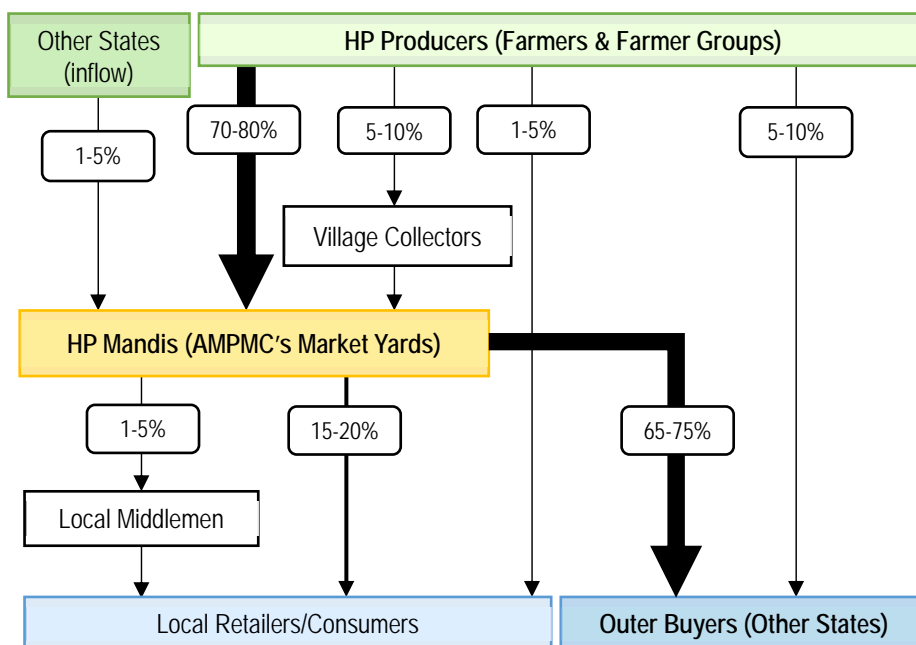
Source: Survey Team based on collected information

3. Cauliflower



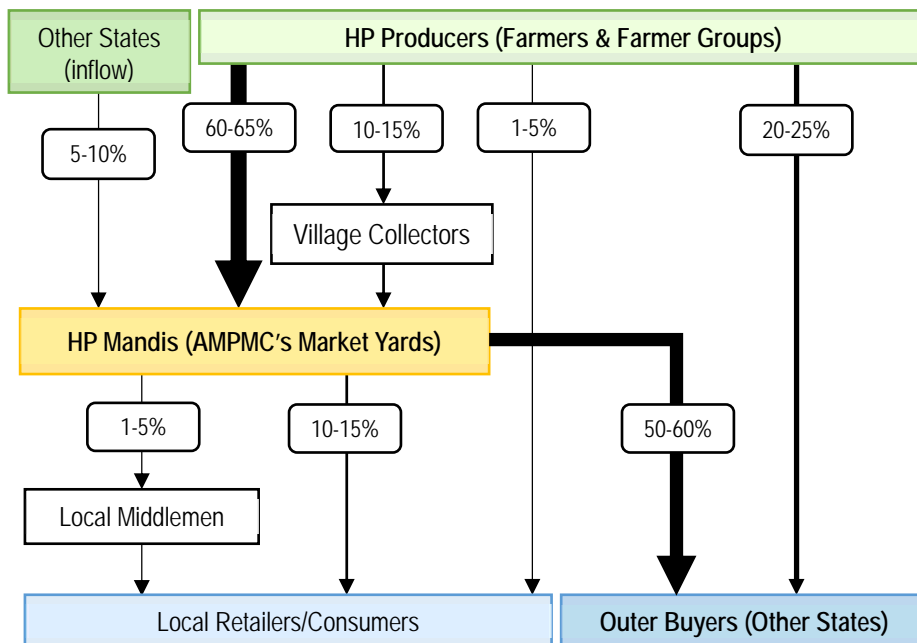
Source: Survey Team based on collected information

4. French bean



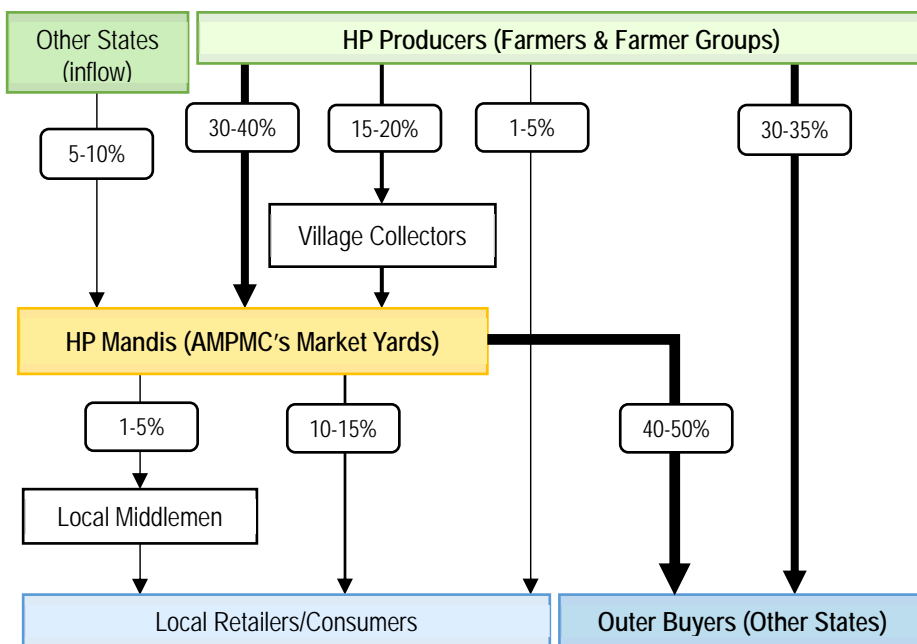
Source: Survey Team based on collected information

5. Peas



Source: Survey Team based on collected information

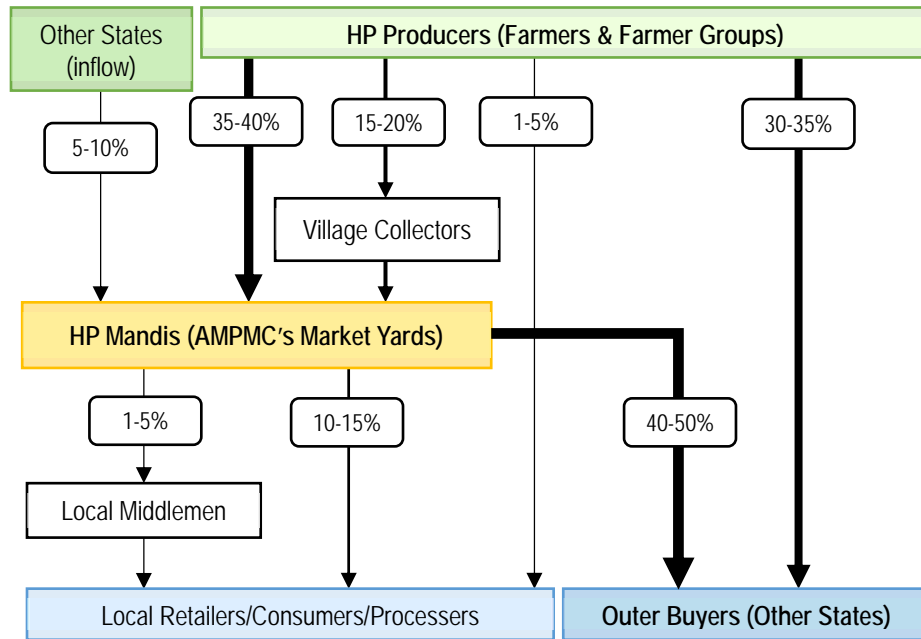
6. Potato



Source: Survey Team based on collected information

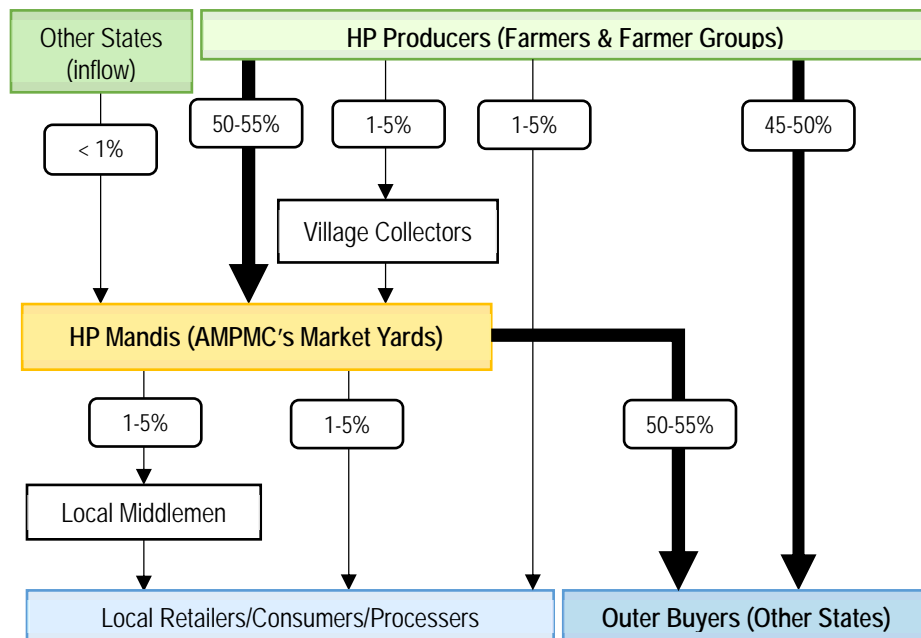


7. Tomato



Source: Survey Team based on collected information

8. Apple



Source: Survey Team based on collected information

Attachment 3.4.3 Arrival and Price of APMC Markets in Himachal Pradesh by District (Ave. 2015-19)

1. Arrival

(1) Cabbage

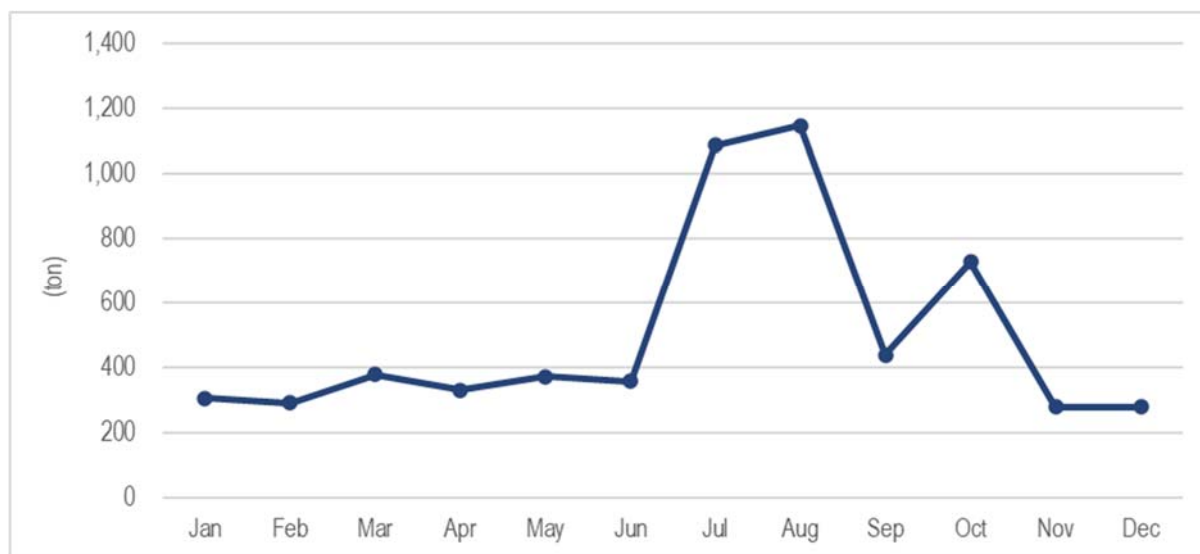
The following table and figure show the average monthly arrival of cabbage in the *mandis* in 2015-19 by districts in Himachal Pradesh:

**Table 1 Monthly Arrival of Cabbage to the *Mandis* by Districts in Himachal Pradesh (Average: 2015-19)**

District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
Bilaspur	7.5	7.9	7.6	6.8	8.8	7.3	7.4	7.0	4.5	4.9	6.5	7.3	83.5	(1.4)
Chamba	10.9	19.1	51.1	37.4	40.6	21.8	6.6	4.1	1.9	4.8	5.5	16.8	220.6	(3.7)
Hamirpur	15.6	14.9	15.3	13.6	15.2	9.0	12.0	11.6	12.2	10.9	12.4	14.5	157.2	(2.6)
Kangra	91.8	88.4	109.7	100.3	93.2	88.2	80.1	66.2	51.4	45.4	51.1	53.9	919.7	(15.3)
Kullu	21.7	21.1	29.4	31.3	30.7	65.1	139.5	147.6	69.4	53.4	33.3	29.7	672.2	(11.2)
Mandi	57.5	53.2	61.9	46.5	63.9	84.8	197.1	158.8	110.1	153.8	86.4	56.9	1,130.9	(18.9)
Shimla	37.6	15.2	17.3	32.0	64.0	40.9	600.3	659.5	122.0	402.3	54.3	43.3	2,088.7	(34.8)
Sirmaur	5.0	4.8	5.3	3.1	2.8	2.7	1.3	1.5	3.3	2.3	2.9	3.7	38.7	(0.6)
Solan	34.4	34.3	44.8	36.6	36.3	29.6	31.0	79.4	53.1	42.9	19.9	37.4	479.7	(8.0)
Una	23.8	31.7	37.2	22.6	17.0	7.7	10.1	10.6	10.8	8.0	7.6	16.4	203.5	(3.4)
HP Total	305.8	290.6	379.6	330.2	372.5	357.1	1,085.4	1,146.3	438.7	728.7	279.9	279.9	5,994.7	(100.0)
(%)	(5.1)	(4.8)	(6.3)	(5.5)	(6.2)	(6.0)	(18.1)	(19.1)	(7.3)	(12.2)	(4.7)	(4.7)	(100.0)	

Note: Coloured cell:  $\geq 10\%$

Source: <https://agmarknet.gov.in/>



Source: <https://agmarknet.gov.in/>

**Figure 1 Monthly Arrival of Cabbage to the *Mandis* in Himachal Pradesh (Average: 2015-19)**

The annual arrival is about 6,000 tons. Shimla District accounts for the largest share of the arrival followed by Kangra, Kullu and Mandi districts. The peaks of the monthly arrival in Himachal Pradesh have been recorded in July-August and October. Although the monthly arrival tends to decrease during the *rabi* (winter) season months in districts with a small share of the annual arrival, the monthly arrival in Himachal Pradesh is larger during the *kharif* (monsoon) season months as the monthly arrival in districts with a large share of the annual arrival is larger during the months. This implies that cabbage production targeted for large cities like Delhi has been well developed in the districts with a large share of the annual arrival.

## (2) Capsicum

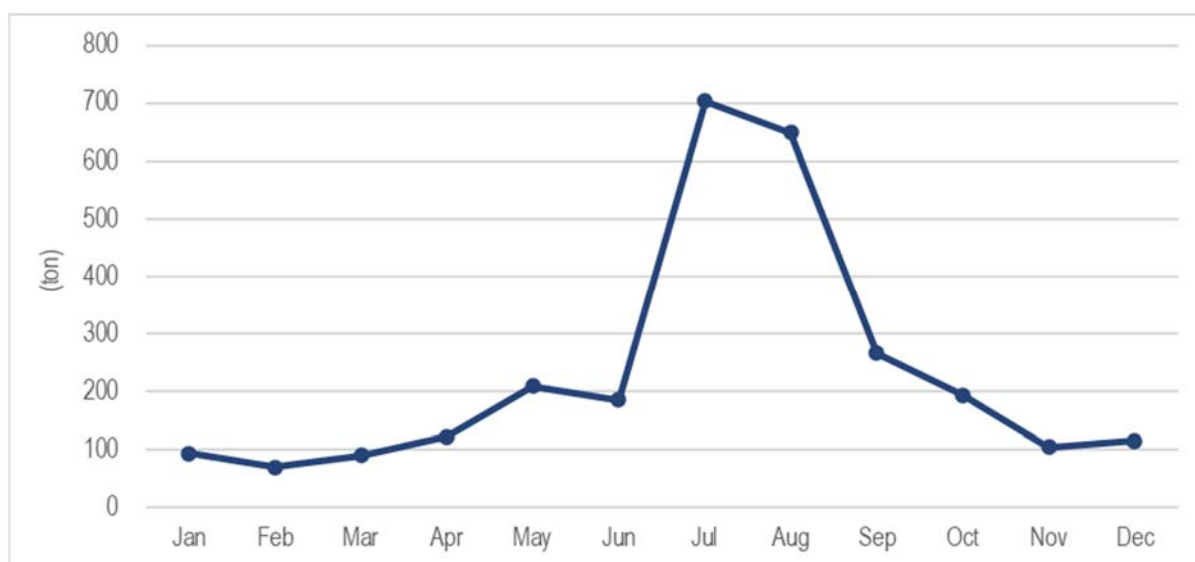
The following table and figure show the average monthly arrival of capsicum in the *mandis* in 2015-19 by districts in Himachal Pradesh:

**Table 2 Monthly Arrival of Capsicum to Mandis by Districts in Himachal Pradesh (Average: 2015-19)**

District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
Bilaspur	4.8	4.2	5.2	5.1	8.1	7.3	7.1	5.3	4.4	5.4	5.6	6.0	68.5	(2.4)
Chamba	1.2	1.1	1.6	4.1	10.9	7.0	1.9	0.5	0.9	0.9	1.8	1.9	33.8	(1.2)
Hamirpur	3.8	3.5	3.9	5.6	9.8	6.5	5.3	5.3	5.7	4.4	5.0	4.7	63.5	(2.3)
Kangra	21.3	20.0	27.1	36.4	45.1	40.1	30.4	26.3	21.8	20.9	22.2	22.9	334.5	(12.0)
Kullu	7.5	5.9	8.0	7.6	16.7	8.1	19.9	23.3	17.5	15.9	10.0	9.6	150.0	(5.4)
Mandi	15.3	14.3	16.0	25.4	42.0	32.1	40.1	27.3	19.4	14.4	19.7	22.8	288.8	(10.3)
Shimla	25.0	6.4	9.2	10.1	17.3	9.7	83.9	141.3	34.6	63.7	17.3	27.1	445.6	(15.9)
Sirmaur	1.1	1.3	1.3	2.4	4.2	1.7	2.0	2.7	2.3	2.2	1.8	2.2	25.2	(0.9)
Solan	8.5	7.7	10.0	14.4	24.6	55.0	501.6	408.3	151.4	60.6	17.4	12.5	1,272.0	(45.5)
Una	4.9	5.1	6.9	10.5	29.3	17.8	11.3	8.5	7.6	4.5	3.3	5.2	114.9	(4.1)
HP Total	93.4	69.5	89.2	121.6	208.0	185.3	703.5	648.8	265.6	192.9	104.1	114.9	2,796.8	(100.0)
(%)	(3.3)	(2.5)	(3.2)	(4.3)	(7.4)	(6.6)	(25.2)	(23.2)	(9.5)	(6.9)	(3.7)	(4.1)	(100.0)	

Note: Coloured cell:  $\geq 10\%$

Source: <https://agmarknet.gov.in/>



Source: <https://agmarknet.gov.in/>

**Figure 2 Monthly Arrival of Capsicum to the Mandis in Himachal Pradesh (Average: 2015-19)**

The annual arrival is about 2,800 tons. Solan District accounts for the largest share of the arrival followed by Kangra, Mandi and Shimla districts. The peak of the monthly arrival in Himachal Pradesh has been recorded in July-August. This is because the peak in Solan and Shimla districts, which have a large share of the annual arrival, is in the same period, although the peak in the other districts is in May. This implies that capsicum production targeted for large cities has been well developed in Solan and Shimla districts.

## (3) Cauliflower

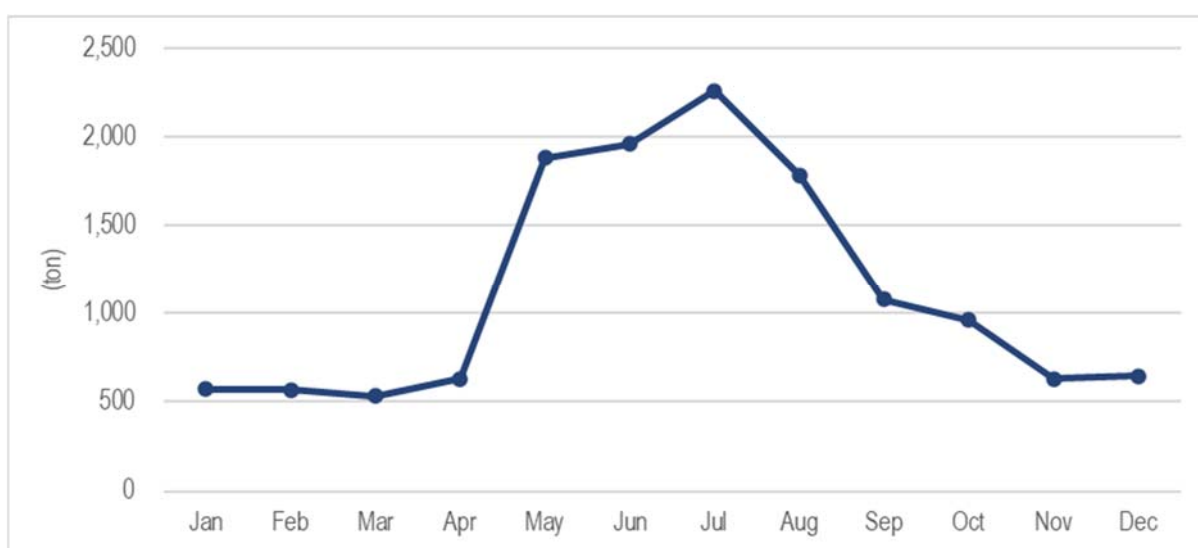
The following table and figure show the average monthly arrival of cauliflower to the *mandis* in 2015-19 by districts in Himachal Pradesh:

Att.3.4.3-3

**Table 3 Monthly Arrival of Cauliflower to the Mandis by Districts in Himachal Pradesh (Average: 2015-19)**

District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
Bilaspur	20.0	18.1	17.6	12.2	10.1	7.3	9.6	9.7	7.0	9.2	14.4	17.6	152.8	(1.1)
Chamba	17.4	22.1	47.3	35.9	8.5	1.6	0.2	0.4	1.1	5.6	20.1	15.9	176.1	(1.3)
Hamirpur	31.3	30.4	28.3	19.3	18.1	10.0	13.0	14.3	15.1	18.8	26.5	23.0	248.1	(1.8)
Kangra	72.0	65.1	67.4	70.2	61.6	61.0	52.0	51.6	48.8	56.5	82.1	89.8	778.1	(5.8)
Kullu	49.7	48.9	52.5	85.9	417.4	561.4	672.3	948.0	600.6	313.2	104.1	53.9	3,907.9	(29.0)
Mandi	118.1	114.9	100.1	159.8	230.5	241.1	371.4	521.5	280.2	216.5	194.8	220.8	2,769.7	(20.5)
Shimla	46.2	29.5	21.5	123.3	1,052.4	1,011.8	1,069.5	165.5	45.3	207.8	48.2	46.5	3,867.5	(28.7)
Sirmaur	17.5	18.7	15.7	8.5	5.0	3.1	1.3	1.7	3.6	6.5	13.0	16.8	111.4	(0.8)
Solan	92.7	96.4	90.0	58.8	47.9	36.3	43.1	48.8	54.2	94.5	70.8	69.7	803.2	(6.0)
Una	106.8	123.1	90.3	55.7	30.2	25.2	26.2	22.4	22.0	34.1	55.5	92.4	683.9	(5.1)
HP Total	571.7	567.2	530.7	629.6	1,881.7	1,958.8	2,258.6	1,783.9	1,077.9	962.7	629.5	646.4	13,498.7	(100.0)
(%)	(4.2)	(4.2)	(3.9)	(4.7)	(13.9)	(14.5)	(16.7)	(13.2)	(8.0)	(7.1)	(4.7)	(4.8)		

Note: Coloured cell:  $\geq 10\%$   
Source: <https://agmarknet.gov.in/>



Source: <https://agmarknet.gov.in/>

**Figure 3 Monthly Arrival of Cauliflower to the Mandis in Himachal Pradesh (Average: 2015-19)**

The annual arrival is about 13,500 tons. Kullu, Mandi and Shimla districts capture almost the whole arrival in Himachal Pradesh. The peak of the monthly arrival in Himachal Pradesh has been recorded in May-August. Same as the case of cabbage, the monthly arrival in Himachal Pradesh is larger during the *kharif* season months, and the monthly arrival in the districts with a large share of the annual arrival tends to be larger during these months. This implies that cauliflower production targeted to be distributed to large cities like Delhi during lean market season has been well developed in the districts.

#### (4) French Bean (Fresh)

The following table and figure show the average monthly arrival of french bean to the *mandis* in 2015-19 by districts in Himachal Pradesh:

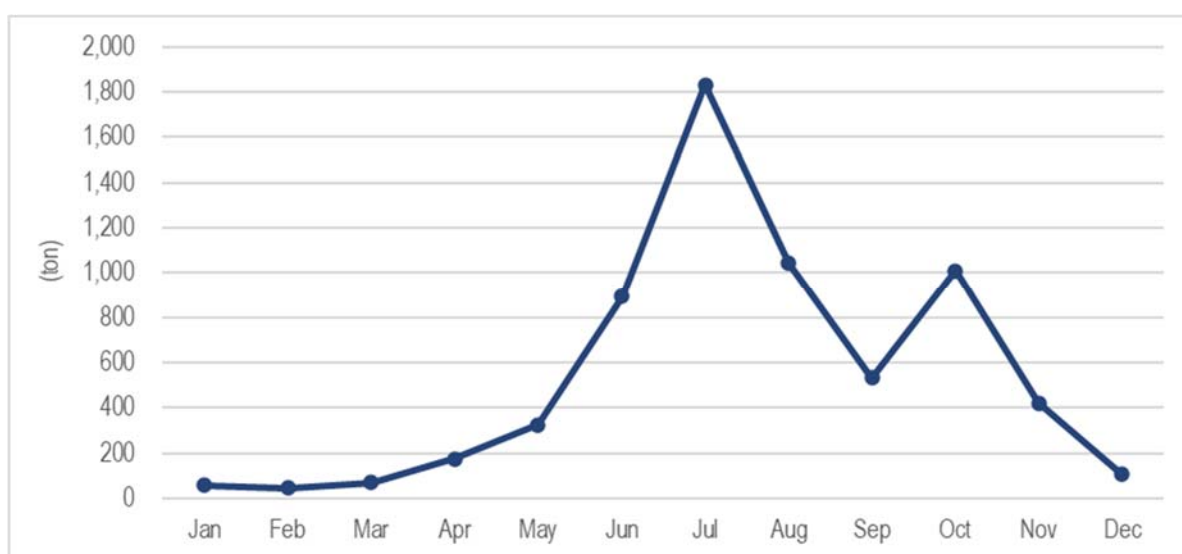
**Table 4 Monthly Arrival of French Bean to the Mandis by Districts in Himachal Pradesh (Average: 2015-19)**

District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
Bilaspur	0.0	0.2	0.1	0.3	0.3	0.2	1.1	1.4	0.3	0.0	0.5	0.2	4.6	(0.1)
Chamba	1.6	1.4	1.7	4.8	5.0	0.2	2.4	0.1	0.0	0.0	0.8	2.7	20.7	(0.3)

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District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
Hamirpur	1.8	1.2	2.0	3.6	3.8	2.2	4.3	4.5	3.5	3.7	3.6	3.0	37.2	(0.6)
Kangra	16.6	19.3	21.3	26.1	27.8	23.3	24.1	21.0	28.8	27.8	23.7	30.8	290.6	(4.5)
Kullu	5.5	4.5	4.9	6.2	7.3	8.2	21.4	36.2	27.2	21.5	10.8	7.6	161.3	(2.5)
Mandi	6.2	4.9	5.9	10.6	10.5	29.6	69.0	54.8	30.0	25.6	26.8	12.7	286.6	(4.4)
Shimla	14.8	2.8	6.0	76.8	110.9	586.5	1,473.6	744.5	329.9	660.9	190.4	24.3	4,221.4	(64.7)
Sirmaur	0.7	0.5	0.5	0.9	0.8	1.0	1.7	1.3	1.4	1.3	1.0	0.7	11.8	(0.2)
Solan	4.1	2.9	6.5	11.3	77.1	216.2	197.9	140.1	95.2	261.2	155.9	18.0	1,186.4	(18.2)
Una	6.9	8.0	22.1	35.6	84.0	26.0	37.7	40.3	15.6	9.7	8.3	7.1	301.3	(4.6)
HP Total	58.2	45.7	71.0	176.2	327.5	893.4	1,833.2	1,044.2	531.9	1,011.7	421.8	107.1	6,521.9	(100.0)
(%)	(0.9)	(0.7)	(1.1)	(2.7)	(5.0)	(13.7)	(28.1)	(16.0)	(8.2)	(15.5)	(6.5)	(1.6)	(100.0)	

Note: Coloured cell:  $\geq 10\%$   
Source: <https://agmarknet.gov.in/>



Source: <https://agmarknet.gov.in/>

**Figure 4 Monthly Arrival of French Bean to the Mandis in Himachal Pradesh (Average: 2015-19)**

The annual arrival is about 6,500 tons. Shimla District accounts for the largest share of the arrival followed by Solan District. The share of the other districts is minimal. The peak of the monthly arrival in Himachal Pradesh has been recorded in June-August and October. Whilst the monthly arrival tends to increase during the *khari* season months in many districts, the arrival is high during the last month before the *khari* season in Chamba and Una districts. The arrival in Kangra District is relatively stable throughout the year.

**(5) Garlic**

The following table and figure show the average monthly arrival of Garlic to the *mandis* in 2015-19 by districts in Himachal Pradesh:

**Table 5 Monthly Arrival of Garlic to the Mandis by Districts in Himachal Pradesh (Average: 2015-19)**

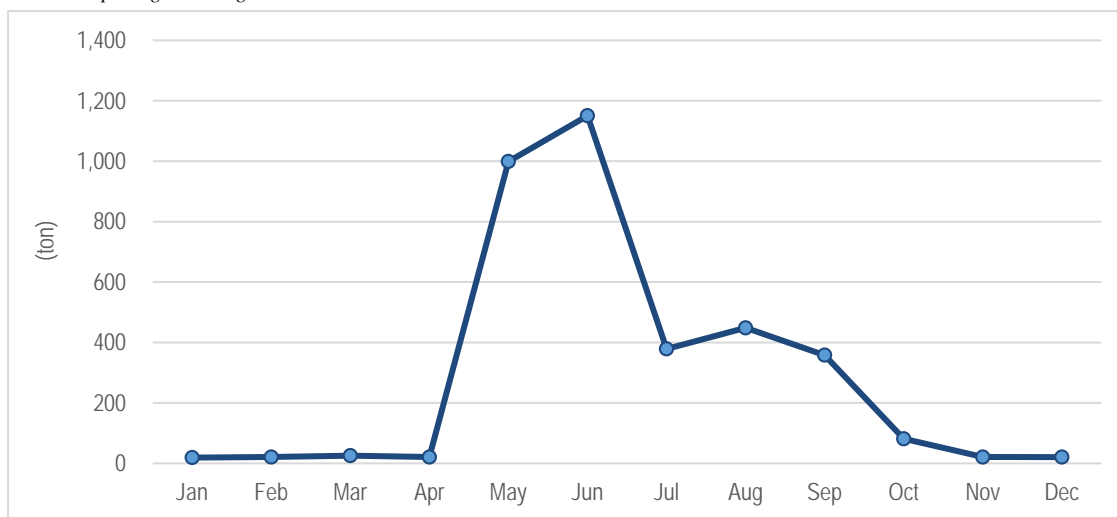
District	Month												Total	(%)	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.			
Bilaspur	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)
Chamba	0.1	0.3	0.4	0.4	0.5	0.1	0.1	0.0	0.1	0.1	0.1	0.1	2.3	(0.1)	
Hamirpur	3.9	5.1	4.5	1.4	1.5	1.4	2.1	2.1	1.1	3.2	3.0	4.5	33.7	(1.0)	

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District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
Kangra	0.0	0.0	0.4	1.7	1.7	2.0	2.0	1.9	2.3	2.0	1.7	1.9	17.6	(0.5)
Kullu	3.8	3.4	3.7	4.1	11.4	7.4	9.6	10.5	7.6	6.1	5.3	5.7	78.4	(2.2)
Mandi	5.8	6.2	7.6	7.1	9.0	7.7	6.4	8.2	4.6	8.5	5.1	3.7	79.9	(2.3)
Shimla	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)
Sirmaur	0.0	0.2	0.1	0.1	0.1	0.2	0.0	0.1	0.2	0.2	0.1	0.1	1.4	(0.0)
Solan	3.1	3.2	6.3	4.8	973.7	1,131.1	357.8	425.2	341.7	60.8	5.1	4.2	3,316.9	(93.6)
Una	2.5	2.5	2.3	1.5	1.3	0.8	0.6	0.5	0.6	0.7	0.6	0.7	14.5	(0.4)
HP Total	19.1	20.9	25.4	20.9	999.2	1,150.6	378.7	448.5	358.2	81.5	20.9	20.8	3,544.6	(100.0)
(%)	(0.5)	(0.6)	(0.7)	(0.6)	(28.2)	(32.5)	(10.7)	(12.7)	(10.1)	(2.3)	(0.6)	(0.6)	(100.0)	

Note: Coloured cell:  $\geq 10\%$

Source: <https://agmarknet.gov.in/>



Source: <https://agmarknet.gov.in/>

**Figure 5 Monthly Arrival of Garlic to the Mandis in Himachal Pradesh (Average: 2015-19)**

The annual arrival is about 3,500 tons. Solan District accounts for the largest share of the arrival whilst the share of the other districts is quite minimal. The peak of the monthly arrival in Himachal Pradesh has been recorded in May-June which directly reflects the arrival of Solan District. As garlic has a steady demand throughout the year as an essential spice crop to Indian people, it seems that many non-farming families also grow it in their kitchen gardens. The table implies that garlic production targeted for large cities like Delhi has been well developed only in Solan district.

**(6) Okra**

The following table and figure show the average monthly arrival of okra to the *mandis* in 2015-19 by districts in Himachal Pradesh:

**Table 6 Monthly Arrival of Okra to the Mandis by Districts in Himachal Pradesh (Average: 2015-19)**

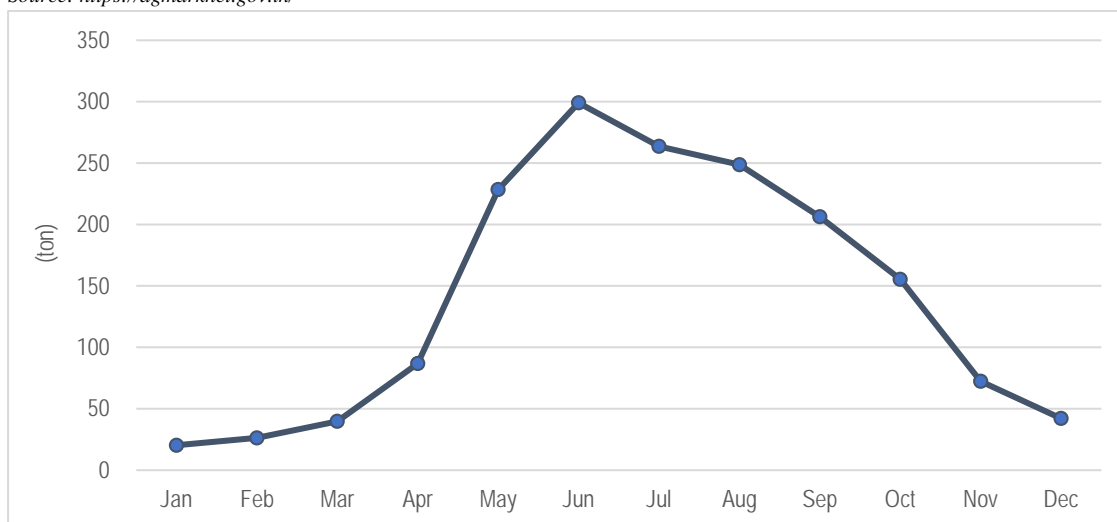
District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
Bilaspur	0.3	0.4	0.6	1.2	3.5	5.8	5.1	4.6	3.7	11.5	1.9	0.8	39.4	(2.3)
Chamba	0.7	1.1	2.9	5.9	15.9	21.9	14.9	7.4	28.9	7.0	2.8	0.8	110.1	(6.5)
Hamirpur	0.6	1.0	3.4	6.2	15.6	16.5	15.7	14.6	11.6	6.2	2.8	0.4	94.5	(5.6)
Kangra	4.8	6.5	13.8	31.5	55.6	72.7	61.4	61.9	52.1	43.2	16.5	5.0	425.0	(25.2)
Kullu	4.5	6.0	4.3	7.7	10.4	8.9	9.0	9.5	8.9	10.6	9.9	7.2	96.8	(5.7)
Mandi	4.2	5.9	7.7	19.2	54.0	61.9	51.8	79.5	40.2	37.4	13.8	4.6	380.2	(22.5)
Shimla	0.0	0.0	0.0	0.0	0.2	13.3	19.4	15.8	19.1	17.5	13.5	15.7	114.5	(6.8)
Sirmaur	0.0	0.1	0.3	0.3	4.8	7.1	4.9	5.4	5.0	3.0	0.6	0.0	31.5	(1.9)
Solan	5.0	4.5	5.8	9.9	22.7	26.3	20.6	13.7	16.4	14.1	10.1	6.9	155.8	(9.2)
Una	0.2	0.5	1.1	4.8	45.6	64.7	60.9	36.2	20.4	4.9	0.5	0.8	240.7	(14.3)

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District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
HP Total	20.2	26.2	39.7	86.7	228.4	299.1	263.6	248.7	206.3	155.4	72.3	42.0	1,688.6	(100.0)
(%)	(1.2)	(1.6)	(2.4)	(5.1)	(13.5)	(17.7)	(15.6)	(14.7)	(12.2)	(9.2)	(4.3)	(2.5)	(100.0)	

Note: Coloured cell:  $\geq 10\%$

Source: <https://agmarknet.gov.in/>



Source: <https://agmarknet.gov.in/>

**Figure 6 Monthly Arrival of Okura to the Mandis in Himachal Pradesh (Average: 2015-19)**

The annual arrival is about 1,500 tons. The arrival is the smallest among the crops discussed in this paper. Kangra, Mandi and Una districts capture the large share of arrival in Himachal Pradesh. The monthly arrival is high during the *kharif* season months in all districts. The peak of the monthly arrival in Himachal Pradesh has been recorded in May-September. The market price in all districts largely remains higher than the price in Azadpur market throughout the year. It seems that the marketing to other provinces is limited even from the 3 districts, except for during a limited period in Una District.

**(7) Onion**

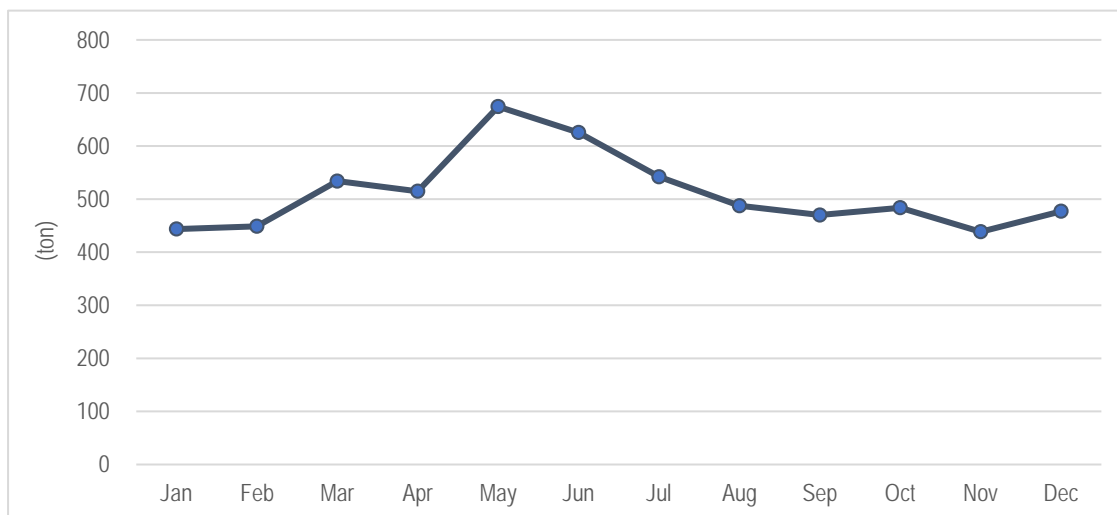
The following table and figure show the average monthly arrival of onion to the *mandis* in 2015-19 by districts in Himachal Pradesh:

**Table 7 Monthly Arrival of Onion to the Mandis by Districts in Himachal Pradesh (Average: 2015-19)**

District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
Bilaspur	22.7	23.3	23.0	24.3	28.7	28.2	35.3	33.9	27.1	28.9	27.6	27.4	330.5	(5.4)
Chamba	9.2	10.0	18.0	20.3	31.9	24.0	18.2	11.9	12.3	13.3	13.6	14.7	197.2	(3.2)
Hamirpur	30.4	30.5	33.2	26.5	43.3	43.2	35.4	32.5	27.0	24.1	27.9	26.9	380.9	(6.2)
Kangra	62.5	59.6	77.4	85.9	97.4	92.1	77.1	75.4	68.8	73.1	71.3	67.5	908.1	(14.8)
Kullu	51.7	43.6	48.3	61.2	76.2	78.5	58.9	57.7	51.1	48.0	46.5	49.8	671.5	(10.9)
Mandi	83.9	82.5	91.4	91.5	108.1	98.4	82.7	79.9	78.3	117.2	93.7	84.3	1,091.9	(17.8)
Shimla	0.0	0.0	0.0	0.0	1.7	50.9	47.1	37.7	44.0	42.2	33.8	41.4	299.0	(4.9)
Sirmaur	8.4	7.9	9.8	8.8	12.0	12.0	9.8	7.7	9.3	10.0	9.1	8.2	112.8	(1.8)
Solan	94.6	106.2	145.5	133.9	153.9	106.8	75.5	72.4	98.3	85.1	77.9	97.1	1,247.1	(20.3)
Una	80.2	85.4	87.4	62.4	121.4	91.5	102.1	78.4	53.7	42.0	37.3	59.8	901.3	(14.7)
HP Total	443.6	448.8	533.9	514.8	674.5	625.4	542.0	487.6	470.0	483.8	438.6	477.2	6,140.3	(100.0)
(%)	(7.2)	(7.3)	(8.7)	(8.4)	(11.0)	(10.2)	(8.8)	(7.9)	(7.7)	(7.9)	(7.1)	(7.8)	(100.0)	

Note: Coloured cell:  $\geq 10\%$

Source: <https://agmarknet.gov.in/>



Source: <https://agmarknet.gov.in/>

**Figure 7 Monthly Arrival of Onion to the Mandis in Himachal Pradesh (Average: 2015-19)**

The annual arrival is about 6,150 tons. Though onion has a steady demand throughout the year as a daily-use vegetable crop to Indian people, the arrival is relatively small. Different from other vegetables discussed in this paper, the share is evenly distributed among many districts and stable throughout the year, whilst a small peak of the monthly arrival in Himachal Pradesh has been recorded in May-June. The market price in all districts remains higher than the price in Azadpur market throughout the year. It implies that the marketed amount to other provinces is limited.

#### (8) Peas (Fresh)

The following table and figure show the average monthly arrival of peas to the *mandis* in 2015-19 by districts in Himachal Pradesh:

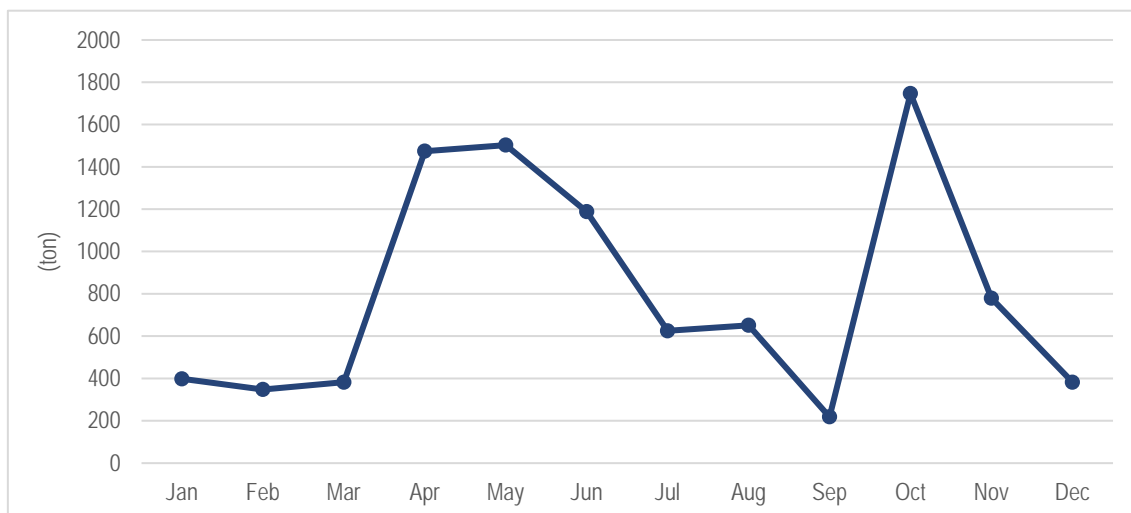
**Table 8 Monthly Arrival of Peas to the Mandis by Districts in Himachal Pradesh (Average: 2015-19)**

District	Month												Total	(%)	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.			
Bilaspur	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)
Chamba	0.2	0.6	0.9	0.4	1.9	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.7	(0.0)
Hamirpur	23.8	25.6	22.7	9.9	9.0	4.9	4.1	5.1	2.8	19.3	11.1	34.1	172.4	(1.8)	
Kangra	190.7	180.4	102.3	56.2	8.5	5.0	11.5	4.3	12.2	15.0	100.7	189.5	876.2	(9.0)	
Kullu	27.2	24.4	57.3	411.6	523.1	191.8	247.4	282.9	93.9	116.0	42.4	18.8	2,036.8	(21.0)	
Mandi	10.6	16.1	106.1	502.5	666.0	313.4	168.7	246.4	47.2	683.6	226.3	13.3	3,000.0	(30.9)	
Shimla	71.1	26.7	26.1	477.0	277.1	662.4	183.4	105.0	58.3	905.1	385.9	68.0	3,246.1	(33.5)	
Sirmaur	8.1	8.1	5.2	1.1	0.6	0.2	0.1	0.1	0.1	0.5	1.5	4.8	30.4	(0.3)	
Solan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	
Una	66.1	65.7	61.4	15.5	16.6	9.9	9.4	7.4	3.8	7.1	10.9	53.4	327.2	(3.4)	
HP Total	397.8	347.6	382.0	1,474.2	1,502.8	1,188.1	624.7	651.1	218.2	1,746.7	778.7	381.9	9,693.7	(100.0)	
(%)	(4.1)	(3.6)	(3.9)	(15.2)	(15.5)	(12.3)	(6.4)	(6.7)	(2.3)	(18.0)	(8.0)	(3.9)	(100.0)		

Note: Coloured cell:  $\geq 10\%$

Source: <https://agmarknet.gov.in/>





Source: <https://agmarknet.gov.in/>

**Figure 8 Monthly Arrival of Peas to the Mandis in Himachal Pradesh (Average: 2015-19)**

The annual arrival is about 11,600 tons. Shimla District accounts for the largest share of the arrival followed by Mandi and Kullu districts. The peak of the monthly arrival in Himachal Pradesh has been recorded in April-June and October. The monthly arrival in districts with a small share of the annual arrival tends to be larger during the *rabi* season months as shown by the reverse trend in figure above. This implies that peas production targeted for large cities like Delhi has been well developed in and around Shimla, Mandi and Kullu districts.

#### (9) Potato

The following table and figure show the average monthly arrival of potato to the *mandis* in 2015-19 by districts in Himachal Pradesh:

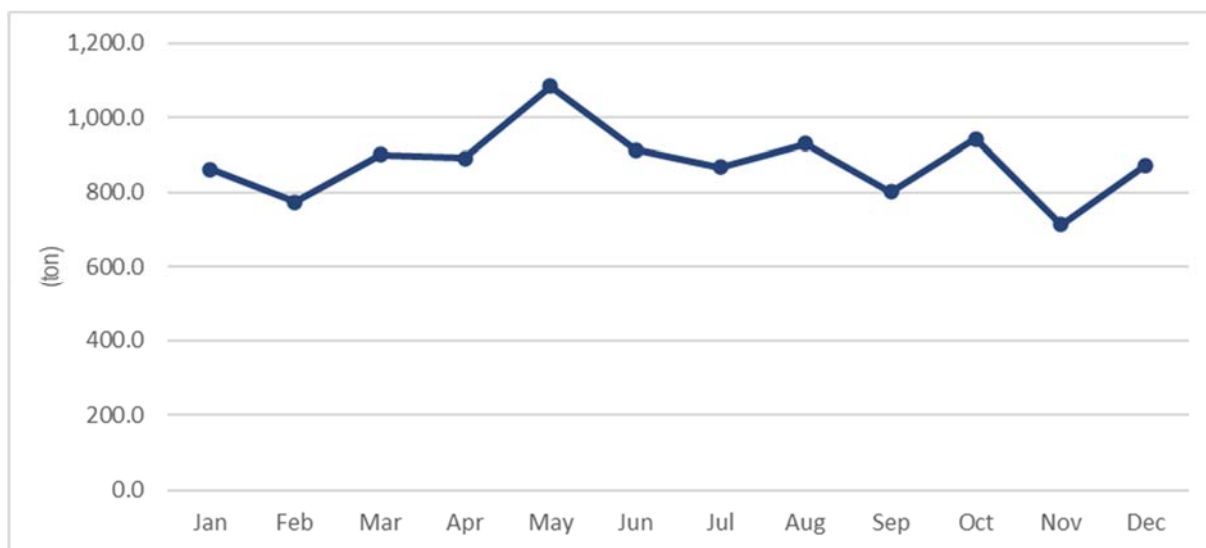
**Table 9 Monthly Arrival of Potato to the Mandis by Districts in Himachal Pradesh (Average: 2015-19)**

District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
Bilaspur	28.3	28.0	24.3	27.9	37.6	33.8	39.2	33.9	36.9	38.3	31.4	32.5	392.1	(3.7)
Chamba	39.9	36.1	54.0	68.9	68.2	38.2	21.9	15.2	20.9	27.5	34.6	48.8	474.2	(4.5)
Hamirpur	52.9	50.5	48.4	49.5	56.4	59.9	60.5	61.3	53.3	51.5	54.6	56.3	655.1	(6.2)
Kangra	78.8	70.0	87.0	94.1	106.2	103.5	84.7	87.0	81.2	85.1	89.2	94.2	1,061.0	(10.0)
Kullu	63.7	54.8	56.3	65.6	82.8	96.3	83.1	78.8	73.6	65.8	53.0	59.1	832.9	(7.9)
Mandi	122.9	117.7	123.9	118.1	144.0	132.6	135.9	125.4	113.0	181.1	134.2	111.6	1,560.4	(14.8)
Shimla	84.6	40.0	63.6	46.8	87.7	78.0	84.1	195.8	64.1	230.5	78.5	109.9	1,163.6	(11.0)
Sirmaur	37.0	30.8	25.3	22.7	25.0	29.1	26.3	22.9	24.1	26.7	28.1	31.2	329.2	(3.1)
Solan	179.5	188.9	261.8	264.0	223.1	163.8	147.3	161.5	153.2	146.7	128.0	180.8	2,198.6	(20.8)
Una	175.2	157.9	155.6	134.6	253.0	178.1	185.2	148.3	180.7	90.7	82.9	148.5	1,890.7	(17.9)
HP Total	862.8	774.7	900.2	892.2	1,084.0	913.3	868.2	930.1	801.0	943.9	714.5	872.9	10,557.8	(100.0)
(%)	(8.2)	(7.3)	(8.5)	(8.5)	(10.3)	(8.7)	(8.2)	(8.8)	(7.6)	(8.9)	(6.8)	(8.3)	(100.0)	

Note: Coloured cell:  $\geq 10\%$

Source: <https://agmarknet.gov.in/>

Att.3.4.3-9



Source: <https://agmarknet.gov.in/>

**Figure 9 Monthly Arrival of Potato to the Mandis in Himachal Pradesh (Average: 2015-19)**

The annual arrival is about 10,500 tons. Different from the other vegetables discussed in the paper but like onion, the share is evenly distributed among many districts, and the monthly arrival in Himachal Pradesh does not fluctuate much throughout the year. Potato also has a steady demand throughout the year as a daily-use vegetable crop to Indian people. Whilst the monthly arrival in Chamba, Solan and Una districts records a higher amount from the late *rabi* season to the early *kharif* season, the arrival in Mandi and Shimla districts records a higher amount from the middle to the end of the *kharif* season.

**(10) Tomato**

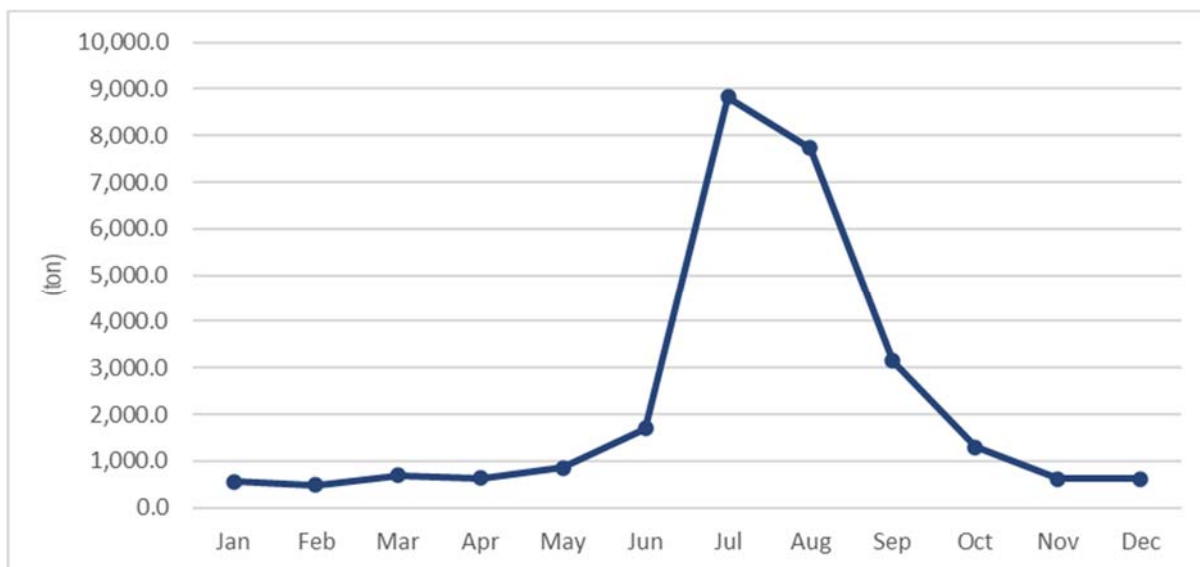
The following table and figure show the average monthly arrival of tomato to the *mandis* in 2015-19 by districts in Himachal Pradesh:

**Table 10 Monthly Arrival of Tomato to the Mandis by Districts in Himachal Pradesh (Average: 2015-19)**

District	Month												Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.		
Bilaspur	8.7	8.5	9.5	9.0	11.6	9.1	9.9	9.1	16.7	26.2	15.7	11.9	145.9	(0.5)
Chamba	19.8	20.6	30.8	36.6	57.5	41.4	5.3	2.1	14.6	22.5	22.7	25.9	299.8	(1.1)
Hamirpur	28.8	27.5	28.2	27.1	33.6	32.7	38.3	34.0	36.7	34.3	33.4	33.5	388.1	(1.4)
Kangra	85.1	75.2	93.2	110.4	125.7	125.6	101.6	100.4	93.3	105.5	108.5	117.0	1,241.5	(4.6)
Kullu	56.6	51.3	63.4	63.2	75.3	180.6	1,034.4	782.0	882.2	154.5	49.4	52.5	3,445.4	(12.7)
Mandi	85.7	85.2	88.4	155.8	110.6	278.9	1,668.3	1,749.3	383.5	146.0	102.1	92.1	4,945.9	(18.2)
Shimla	0.0	0.0	36.0	27.7	31.1	62.6	201.6	266.5	24.8	23.2	27.6	29.3	730.4	(2.7)
Sirmaur	159.2	84.7	152.3	49.9	123.2	186.5	180.0	73.0	22.9	96.0	87.8	85.9	1,301.4	(4.8)
Solan	73.8	86.9	117.0	120.3	162.6	693.2	5,529.8	4,675.9	1,629.0	662.7	145.4	130.7	14,027.3	(51.6)
Una	46.2	52.4	73.2	39.2	126.9	83.7	58.4	45.0	49.3	33.4	27.8	42.3	677.8	(2.5)
HP Total	563.9	492.3	692.0	639.2	858.1	1,694.3	8,827.6	7,737.3	3,153.0	1,304.3	620.4	621.1	27,203.5	(100.0)
(%)	(2.1)	(1.8)	(2.5)	(2.3)	(3.2)	(6.2)	(32.5)	(28.4)	(11.6)	(4.8)	(2.3)	(2.3)	(100.0)	

Note: Coloured cell:  $\geq 10\%$

Source: <https://agmarknet.gov.in/>



Source: <https://agmarknet.gov.in/>

**Figure 10 Monthly Arrival of Tomato to the Mandis in Himachal Pradesh (Average: 2015-19)**

The annual arrival is about 27,200 tons which is the largest amount amongst the selected vegetables for this analysis. Solan District accounts for more than half of the arrival followed by Kullu and Mandi districts. The total share of the three districts accounts for more than 80% of the arrival in Himachal Pradesh. The peak of the monthly arrival in Himachal Pradesh has been recorded during the mid-*kharif* season, i.e., July-August, and this corresponds to the peak in the above three districts. This implies that tomato transaction to be marketed to large cities like Delhi in the districts enters the high season.

### (11) Apple

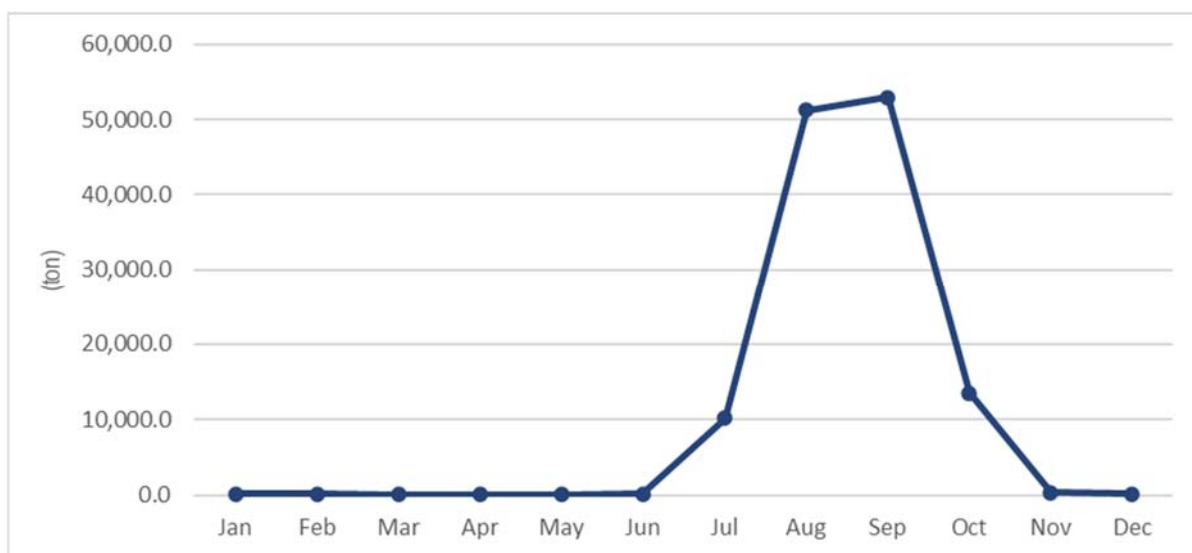
The following table and figure show the average monthly arrival of apple to the *mandis* in 2015-19 by districts in Himachal Pradesh:

**Table 11 Monthly Arrival of Apple to the Mandis by Districts in Himachal Pradesh (Average: 2015-19)**

District	Month													Total	(%)
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.			
Bilaspur	1.1	1.2	0.8	0.5	1.0	0.3	2.1	3.3	4.0	3.2	2.1	1.8	21.4	(0.0)	
Chamba	0.1	0.5	0.0	0.1	0.1	0.0	0.2	0.2	0.6	0.5	0.7	0.2	3.2	(0.0)	
Hamirpur	4.5	4.4	5.1	3.2	2.4	1.6	2.9	15.0	24.7	17.8	10.7	6.0	98.3	(0.1)	
Kangra	34.1	31.3	34.9	35.1	38.8	37.0	38.1	77.4	87.6	79.1	53.0	48.0	594.4	(0.5)	
Kullu	0.1	0.0	0.0	0.0	0.0	0.8	913.8	10,403.5	12,574.1	2,490.2	11.8	0.3	26,394.6	(20.5)	
Mandi	10.4	6.6	5.9	7.8	3.0	2.7	166.5	1,062.2	1,408.5	311.4	21.1	10.4	3,016.5	(2.3)	
Shimla	0.0	0.0	0.0	0.0	0.2	61.8	7,016.0	22,164.8	22,093.5	5,880.2	37.9	0.0	57,254.4	(44.5)	
Sirmaur	4.1	1.7	1.4	0.8	0.6	0.1	1.0	7.3	12.5	11.0	5.5	4.6	50.6	(0.0)	
Solan	26.0	39.6	26.1	13.9	10.3	8.7	2,038.1	17,470.7	16,677.2	4,659.3	149.8	22.8	41,142.5	(31.9)	
Una	14.8	12.2	11.0	6.2	4.6	3.4	5.0	25.5	57.2	41.2	17.9	18.8	217.8	(0.2)	
HP Total	95.2	97.5	85.2	67.6	61.0	116.4	10,183.7	51,229.9	52,939.9	13,493.9	310.5	112.9	128,793	(100.0)	
(%)	(0.1)	(0.1)	(0.1)	(0.1)	(0.0)	(0.1)	(7.9)	(39.8)	(41.1)	(10.5)	(0.2)	(0.1)	(100.0)		

Note: Coloured cell:  $\geq 10\%$

Source: <https://agmarknet.gov.in/>



Source: <https://agmarknet.gov.in/>

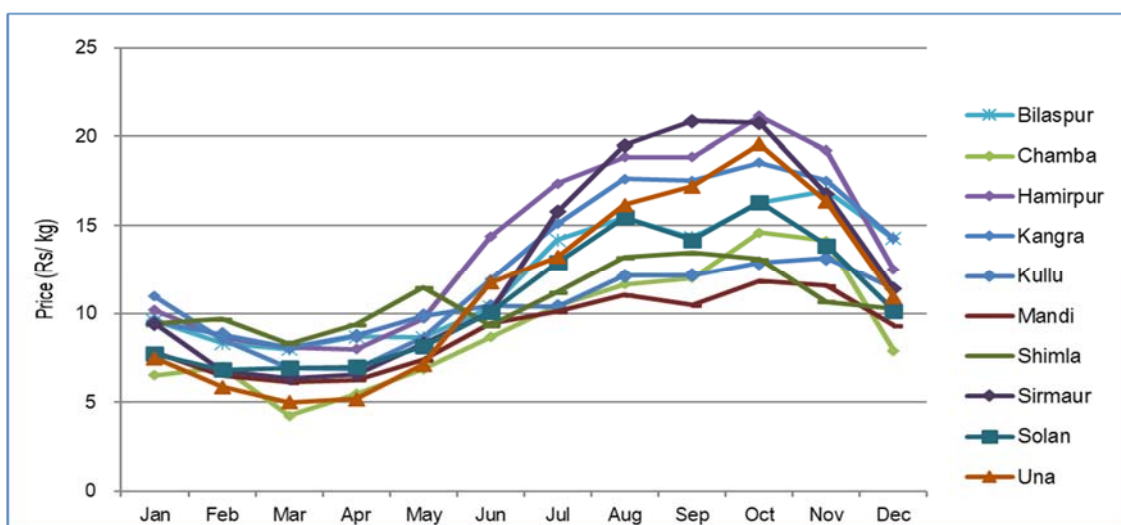
**Figure 11 Monthly Arrival of Apple to the Mandis in Himachal Pradesh (Average: 2015-19)**

Apple is the most famous agricultural produce representing Himachal Pradesh. The annual arrival is about 128,800 tons which is the largest amount in the selected vegetables and fruits for this analysis. Kullu, Shimla and Solan districts account for almost all the share of the arrival, whilst the share of the other districts is minimal. The peak of the monthly arrival in Himachal Pradesh has been recorded in August-September. The peak in all districts is almost in the same period, as it is difficult to control the harvest season in case of fruits, different from common vegetables.

## 2. Price

### (1) Cabbage

The following figure shows the change of the average monthly market price of cabbage in the *mandis* in 2015-19 by districts in Himachal Pradesh:



Source: <https://agmarknet.gov.in/>

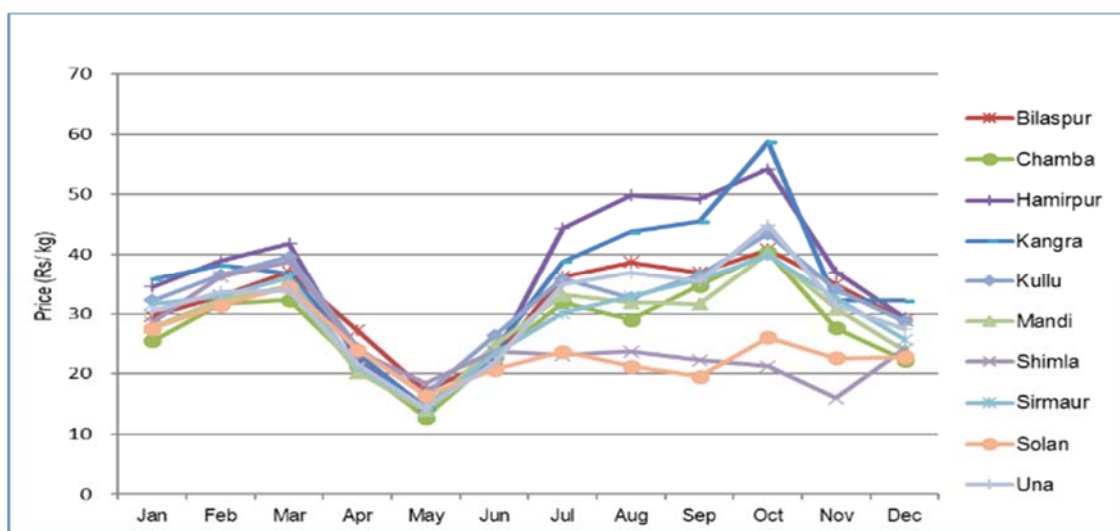
**Figure 12 Monthly Market Price of Cabbage by Districts in Himachal Pradesh (Average: 2015-19)**

**Att.3.4.3-12**

The market price changes between INR 5/kg and INR 20/kg. The price bottoms out in March-April, whilst it peaks in August-October. The price change shows a similar trend in all districts. The price difference between districts becomes wider during the high price season, as the price in the districts with a large share of the annual arrival in Himachal Pradesh, i.e., Kullu, Mandi and Shimula except for Kangra, stays at lower level than the other districts during the season. A low-price season corresponds to a high-arrival season in most districts.

**(2) Capsicum**

The following figure shows the change of the average monthly market price of capsicum in the *mandis* in 2015-19 by districts in Himachal Pradesh:



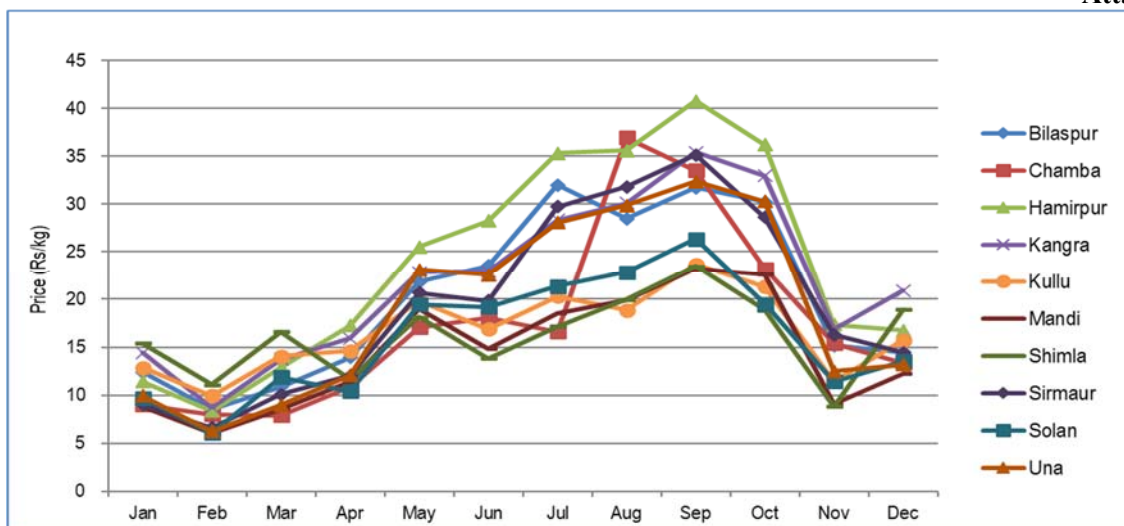
Source: <https://agmarknet.gov.in/>

**Figure 13 Monthly Market Price of Capsicum by Districts in Himachal Pradesh (Average: 2015-19)**

The market price changes between INR 10/kg and INR 60/kg. The price fluctuation range is wider than the range of cabbage. The price bottoms out in May, whilst it peaks in March and October. The price change shows a similar trend in all districts. However, the price increase in October remains inconspicuous in Shimla and Solan districts. The price difference between districts becomes wider in July-October. As a higher amount of arrival is recorded in the two districts during the period, the lower price is influenced by the price for inter-state distribution destined for major cities. On one hand, the price drops in May as influenced by the peaked arrival in many districts due to high harvesting of most local producers. In contrast, the price increase in March and October is caused by off-harvesting of the producers.

**(3) Cauliflower**

The following figure shows the change of the average monthly market price of cauliflower in the *mandis* in 2015-19 by districts in Himachal Pradesh:



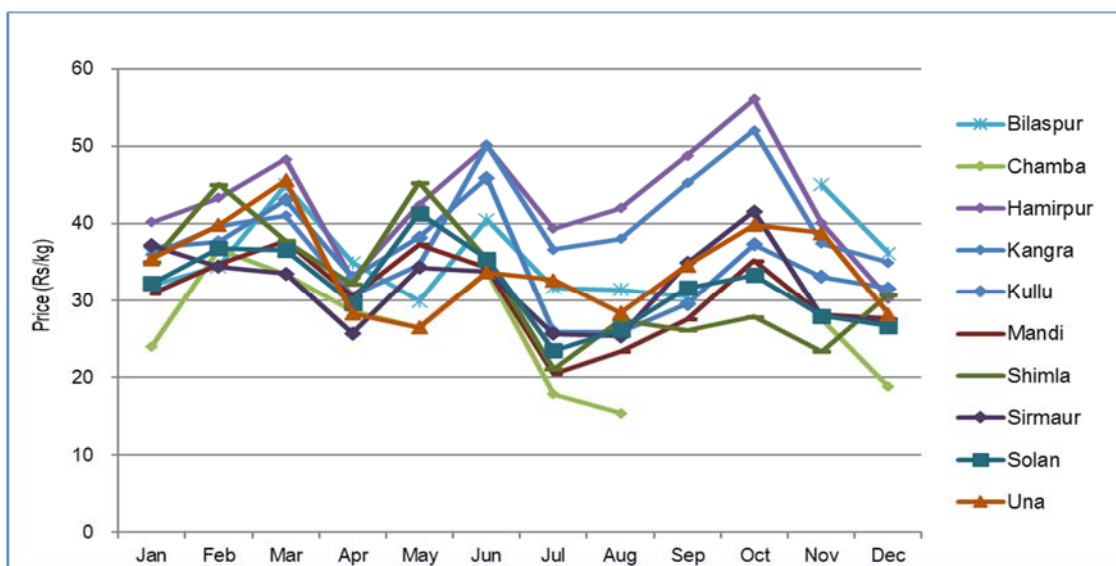
Source: <https://agmarknet.gov.in/>

**Figure 14 Monthly Market Price of Cauliflower by Districts in Himachal Pradesh (Average: 2015-19)**

The market price changes between INR 5/kg and INR 40/kg. The price fluctuation range is wide even though it is less than the range for capsicum. The price change pattern is like the pattern for cabbage, whilst the times of the bottom and peak prices are about one month ahead the time for cabbage. Also, like cabbage, the peak price is relatively lower in districts with a larger share of the annual arrival in Himachal Pradesh, i.e., Kullu, Mandi, and Shimla districts.

#### (4) French Bean (Fresh)

The following figure shows the change of the average monthly market price of French bean in the *mandis* in 2015-19 by districts in Himachal Pradesh:



Source: <https://agmarknet.gov.in/>

**Figure 15 Monthly Market Price of French Bean by Districts in Himachal Pradesh (Average: 2015-19)**

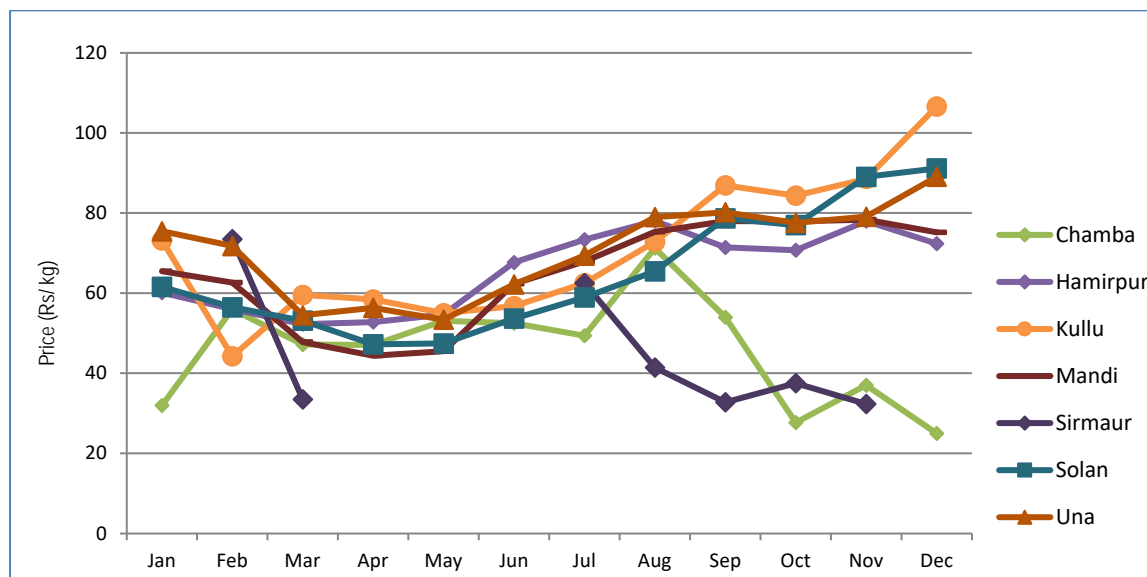
The market price changes between INR 20/kg and INR 50/kg. The price fluctuates within several months and has three times of peaks in a year, i.e., in March, June and October. The price change shows a similar trend in

Att.3.4.3-14

all districts. The price change pattern is due to the nature of French bean, which is short maturing and flexible cropping season in open field.

**(5) Garlic**

The following figure shows the change of the average monthly market price of garlic in the *mandis* in 2015-19 by districts in Himachal Pradesh:



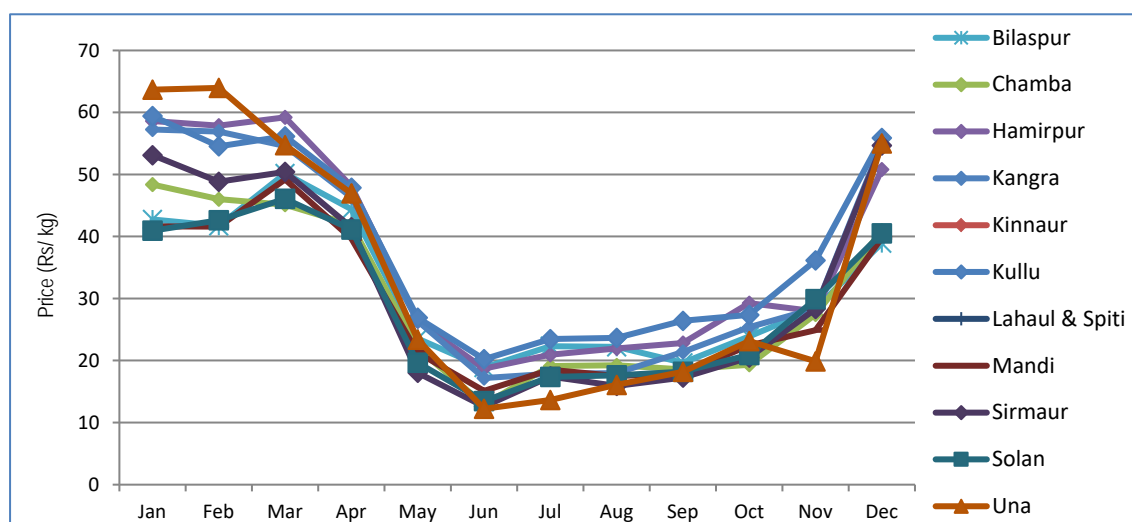
Source: <https://agmarknet.gov.in/>

**Figure 16 Monthly Market Price of Garlic by Districts in Himachal Pradesh (Average: 2015-19)**

The market price changes between INR 40/kg and INR 100/kg. The price bottoms out in April-May, whilst it peaks in the end of the year. The price change shows a similar trend in all districts. The figures in Chamba and Sirmaur show an outlier trend due to missing data in many years. A lower price season is mostly synchronised with a higher arrival season in contrast to many other vegetable crops discussed in the paper.

**(6) Okra**

The following figure shows the change of the average monthly market price of Okra in the *mandis* in 2015-19 by districts in Himachal Pradesh:



Source: <https://agmarknet.gov.in/>

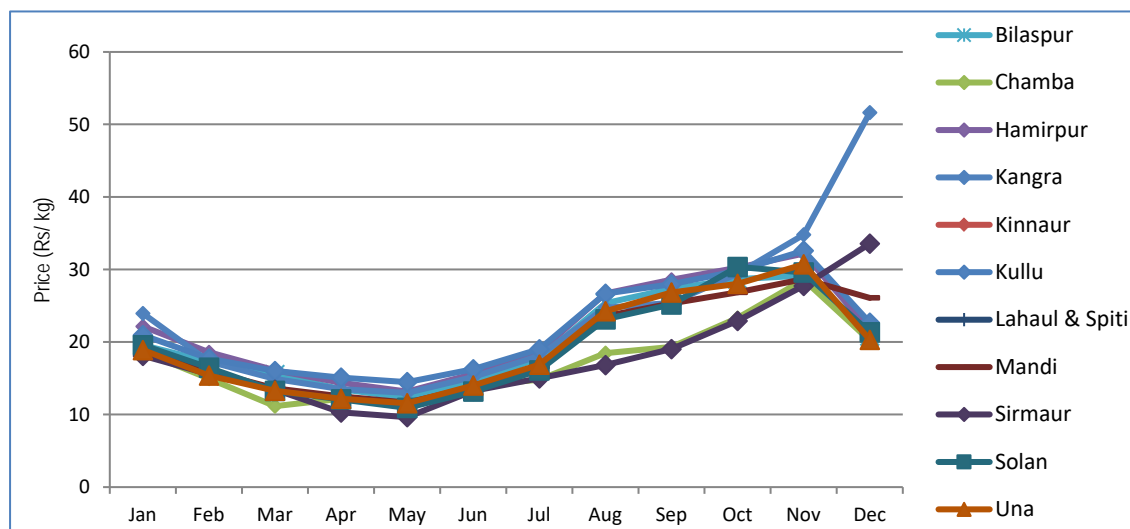
Att.3.4.3-15

**Figure 17 Monthly Market Price of Okra by Districts in Himachal Pradesh (Average: 2015-19)**

The market price changes between INR 10/kg and INR 60/kg. The price fluctuation range is relatively wider. The price bottoms out in June, whilst it peaks in January-March. The price change shows a similar trend in all districts. The price trend changes obviously in inverse relation to the arrival trend in contrast to many other vegetable crops discussed in the paper.

**(7) Onion**

The following figure shows the change of the average monthly market price of Onion in the *mandis* in 2015-19 by districts in Himachal Pradesh:



(Source) <https://agmarknet.gov.in/>

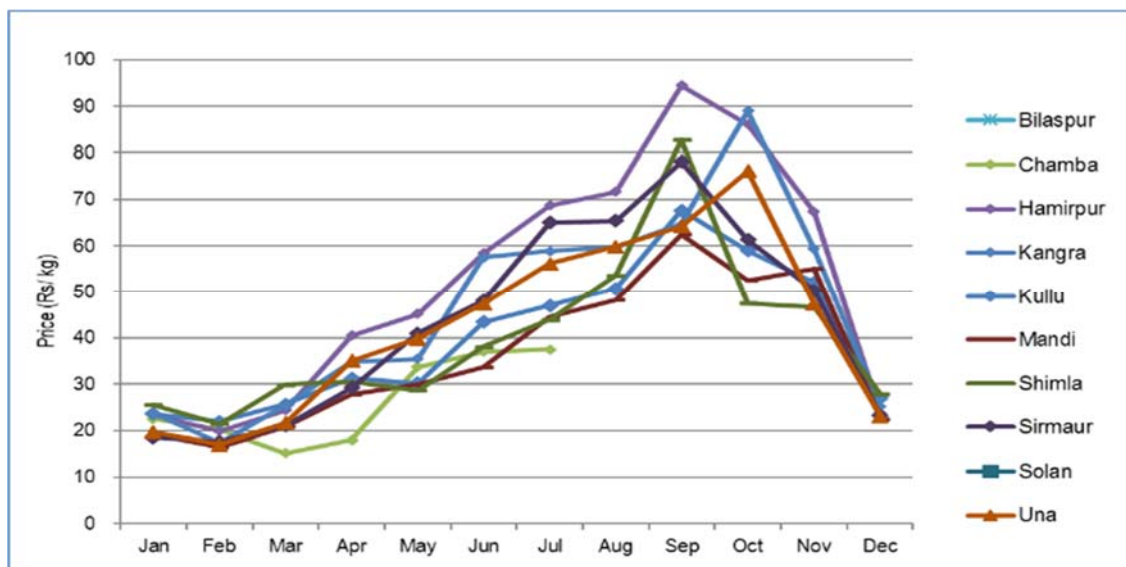
**Figure 18 Monthly Market Price of Onion by Districts in Himachal Pradesh (Average: 2015-19)**

The market price changes between INR 10/kg and INR 30/kg. The price fluctuation range is small compared with the other vegetables as same as potato. The price difference between districts is also small throughout the year. The price bottoms out in May, whilst it peaks November. The price trend changes obviously in inverse relation to the arrival trend.

**(8) Peas (Fresh)**

The following figure shows the change of the average monthly market price of peas in the *mandis* in 2015-19 by districts in Himachal Pradesh:





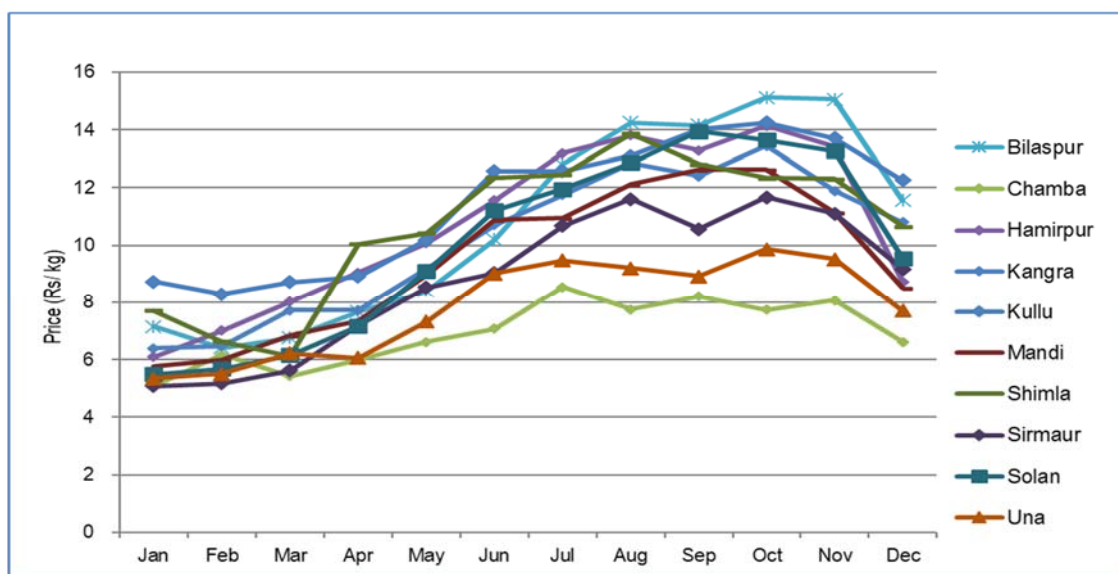
(Source) <https://agmarknet.gov.in/>

**Figure 19 Monthly Market Price of Peas by Districts in Himachal Pradesh (Average: 2015-19)**

The market price changes between INR 20/kg and INR 90/kg. The price fluctuation range is the widest among the selected vegetables. Whilst the arrival increases in the *rabi* season months except for Kullu, Mandi and Shimla districts which account for a large share of the annual arrival in Himachal Pradesh, it is considered that peas are traditionally harvested during the *rabi* season in most areas in Himachal Pradesh. The price bottoms out during the *rabi* season months. Then, it starts to increase before the *kharif* season and peaks in September-October. The price difference between districts becomes wider during the price increasing months and the price in Kullu, Mandi and Shimla districts is lower than in the other districts during these months, same case as for the other selected vegetables.

**(9) Potato**

The following figure shows the change of the average monthly market price of potato in the *mandis* in 2015-19 by districts in Himachal Pradesh:



Source: <https://agmarknet.gov.in/>

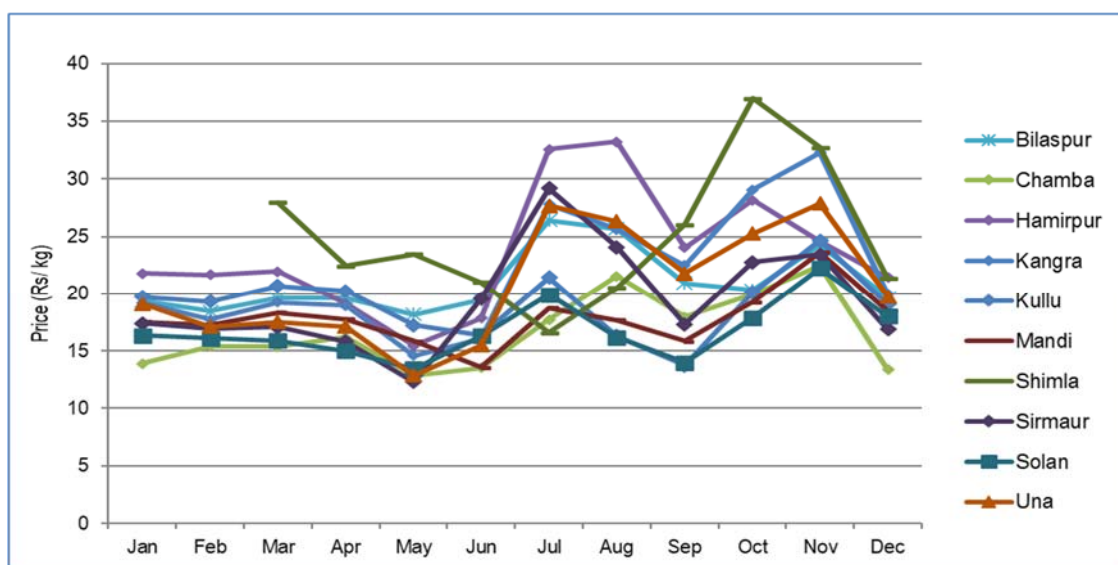
**Figure 20 Monthly Market Price of Potato by Districts in Himachal Pradesh (Average: 2015-19)**

**Att.3.4.3-17**

The market price changes between INR 5/kg and INR 15/kg. The price fluctuation range is small compared with the other selected vegetables. The price decreases during the *rabi* season months whilst it increases during the *kharif* season months like for many other vegetables. It is considered that potato is also harvested mainly during the *rabi* season in most areas in Himachal Pradesh. The price difference between districts becomes wider during the price increasing months, same case as for the other selected vegetables. However, the price in the districts with a large share of the annual arrival in Himachal Pradesh is not necessarily lower than the price in the other districts. This implies that the price is largely influenced by supply and demand trends in the local market as the share of inter-state distribution in the total marketed amount in Himachal Pradesh is relatively small in the case of potato.

**(10) Tomato**

The following figure shows the change of the average monthly market price of tomato in the *mandis* in 2015-19 by districts in Himachal Pradesh:



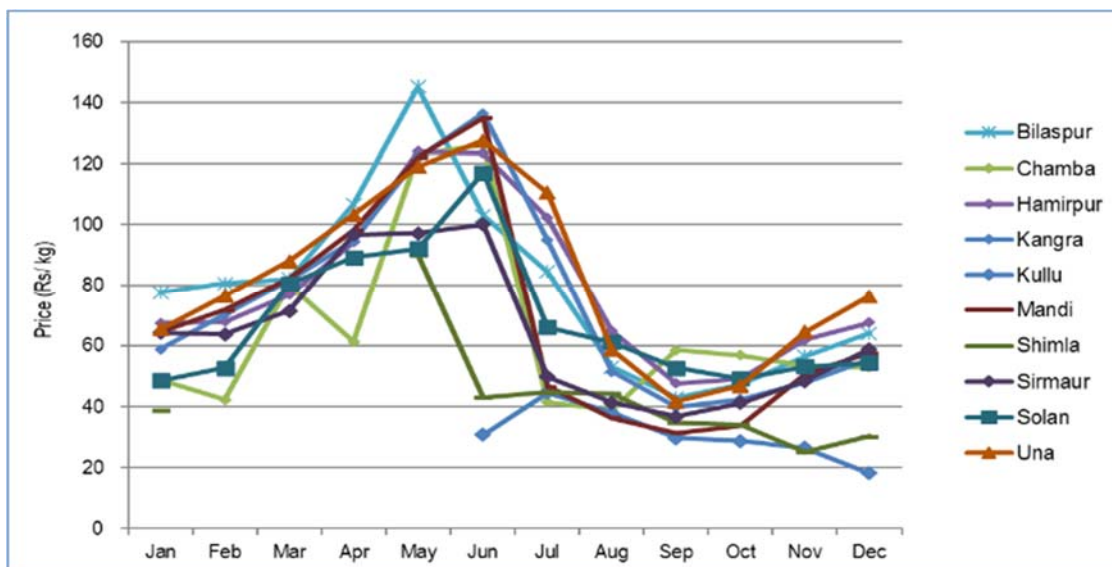
Source: <https://agmarknet.gov.in/>

**Figure 21 Monthly Market Price of Tomato by Districts in Himachal Pradesh (Average: 2015-19)**

The market price changes between INR 15/kg and INR 35/kg. Although the price is stable from the *rabi* season to the summer season, it starts to increase during the *kharif* season months. The price drops once in September in many districts. This time is the end of the high-arrival season in Kullu, Mandi and Solan districts which account for a large share of the annual arrival in Himachal Pradesh. It seems that a substantial amount of surplus transacted for inter-state distribution flows into the local market in September. The price in the three districts is lower than the price in the other districts even in the high-arrival season, same case as for the other selected vegetables.

**(11) Apple**

The following figure shows the change of the average monthly market price of apple in the *mandis* in 2015-19 by districts in Himachal Pradesh:



Source: <https://agmarknet.gov.in/>

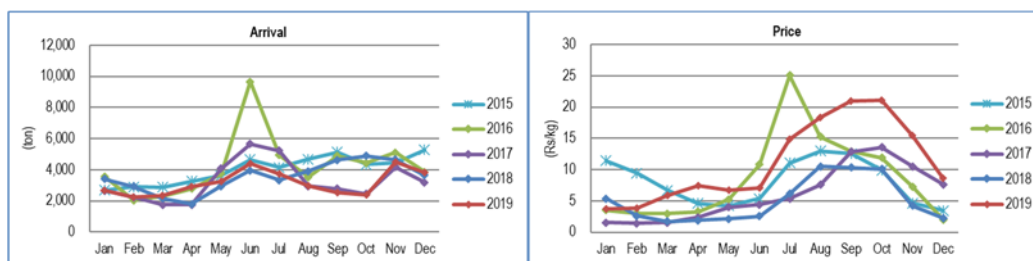
**Figure 22 Monthly Market Price of Apple by Districts in Himachal Pradesh (Average: 2015-19)**

The market price changes between INR 20/kg and INR 140/kg. The price fluctuation range is very wide compared with the other selected vegetables. The price bottoms out in August-November, and this period corresponds to the high harvesting season. The price peaks in May-June, during which only a small amount of arrival is recorded in Kullu and Shimla districts which account for a large share of the annual arrival in Himachal Pradesh.

**Attachment 3.4.4 Arrival and Price of Azadpur Market (Ave. 2015-19)**

**1. Cabbage**

The annual arrival is about 43,500 tons, whilst the monthly arrival changes between 2,000 tons and 6,000 tons. Whilst the monthly arrival has two peaks in June and November, it tends to be higher during the *kharif* season. The monthly price changes between INR 1.5/kg and INR 20/kg, and it has the peak in August-October. The change patterns of the arrival and price are almost the same every year (the data in June-July in 2016 might be an outlier value) (see the figure below).



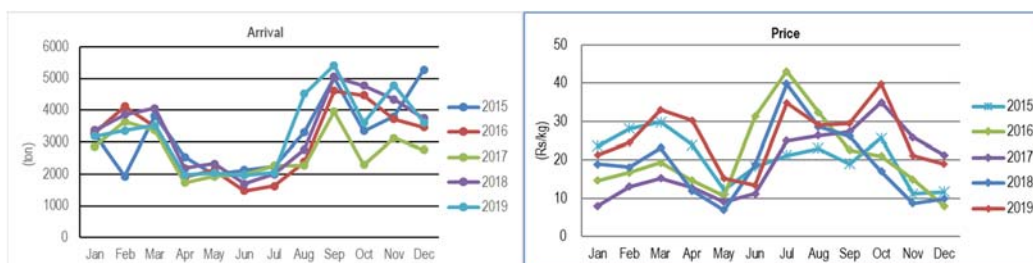
Source: <https://agmarknet.gov.in/>

**Figure 1 Monthly Arrival and Price of Cabbage in Azadpur Mandi (Average: 2015-19)**

Whilst the change pattern of the monthly price in Azadpur *Mandi* almost corresponds with the pattern in the Himachal Pradesh *mandis*, the price in the Himachal Pradesh *mandis* is generally higher than the price in Azadpur *Mandi*. However, the price in the districts with a large share of the annual arrival in Himachal Pradesh is lower than the price in Azadpur *Mandi* during the high arrival season (July-August) of the districts. It implies that farmers in the production centres in Himachal Pradesh grow cabbage by controlling the harvesting time, so that the cabbage can be marketed to Azadpur *Mandi* during the season when the *mandi* records relatively low arrival and high price.

**2. Capsicum**

The annual arrival is about 37,500 tons, whilst the monthly arrival changes between 2,000 tons and 5,000 tons. Although the monthly arrival has the peak in September-November, it tends to be higher during the *rabi* season. The monthly price changes between INR 10/kg and INR 40/kg, and it has a peak in July which is the last period of the low arrival season. A little peak is also seen in March. The change patterns of the arrival and price are almost the same every year (see the figure below).



Source: <https://agmarknet.gov.in/>

**Figure 2 Monthly Arrival and Price of Capsicum in Azadpur Mandi (Average: 2015-19)**

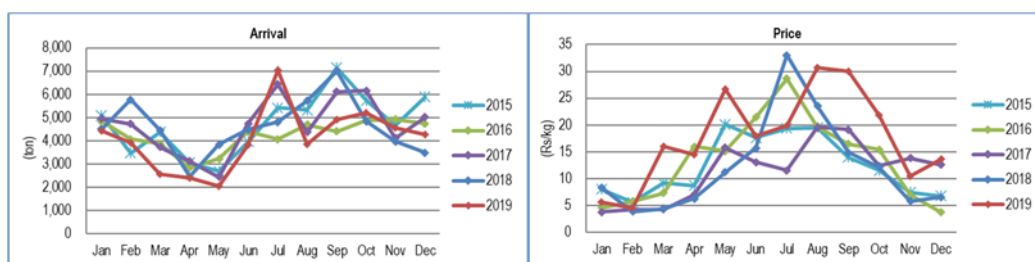
Whilst the change pattern of the monthly price in Azadpur *Mandi* almost corresponds with the pattern in the Himachal Pradesh *mandis*, the price in the Himachal Pradesh *mandis* is generally higher than the price in

**Att.3.4.4-2**

Azadpur *Mandi*. The price in the districts with a large share of the annual arrival in Himachal Pradesh is lower than the price in Azadpur *Mandi* during the high arrival season (July-August) of the districts.

**3. Cauliflower**

The annual arrival is about 53,600 tons, whilst the monthly arrival changes between 2,000 tons and 7,000 tons. Whilst the monthly arrival has the peak in September-October, and even in July sometimes, it tends to be higher during the *kharif* season. The monthly price changes between INR 5/kg and INR 30/kg, and it has a peak in July-August when the arrival is becoming high. The change patterns of the arrival and price do not change much every year (see the following figure).



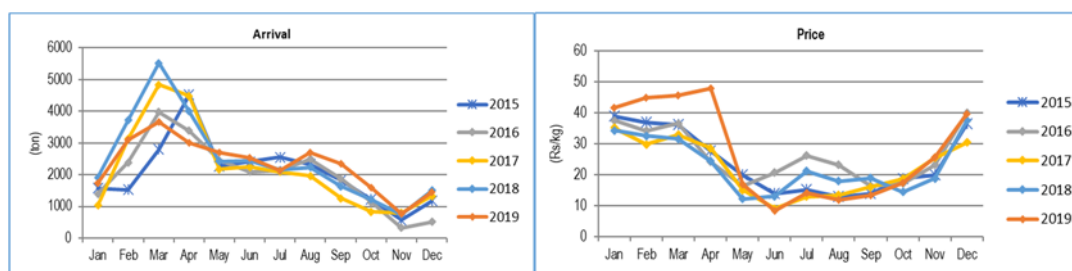
Source: <https://agmarknet.gov.in/>

**Figure 3 Monthly Arrival and Price of Cauliflower in Azadpur *Mandi* (Average: 2015-19)**

Whilst the change pattern of the monthly price in Azadpur *Mandi* almost corresponds with the pattern in the Himachal Pradesh *mandis*, the price in the Himachal Pradesh *mandis* is generally higher than the price in Azadpur *Mandi*. The price in the districts with a large share of the annual arrival in Himachal Pradesh is lower than the price in Azadpur *Mandi* during the high arrival season (May-August) of the districts.

**4. Okra**

The annual arrival is about 26,500 tons, whilst the monthly arrival changes between 1,000 tons and 5,000 tons. The monthly arrival starts to increase in November and comes to the peak in March-April. The monthly price changes between INR 10/kg and INR 50/kg, and it has a high season in December-March. The change patterns of the arrival and price do not change much every year (see the following figure).



Source: <https://agmarknet.gov.in/>

**Figure 4 Monthly Arrival and Price of Okra in Azadpur *Mandi* (Average: 2015-19)**

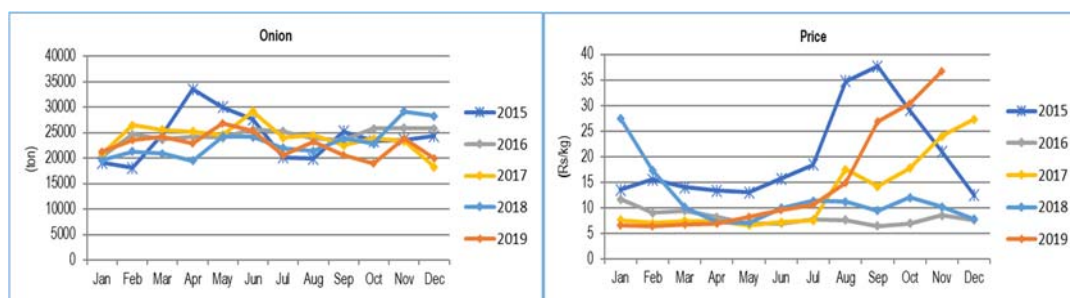
Whilst the change pattern of the monthly price in Azadpur *Mandi* almost corresponds with the pattern in the Himachal Pradesh *mandis*, the price in the Himachal Pradesh *mandis* is generally higher than the price in Azadpur *Mandi*. The price in all districts in Himachal Pradesh is almost same or slightly higher than the price

**Att.3.4.4-3**

in Azadpur *Mandi* throughout the year. It implies that okra produced in Himachal Pradesh are not much marketed to Azadpur *Mandi*.

**5. Onion**

The annual arrival is about 283,900 tons. The amount is the 2<sup>nd</sup> largest after potato among the vegetables discussed in the paper. The monthly arrival is relatively steady throughout the year and it changes between 2,000 tons and 2,600 tons. The change patterns of the arrival do not change much every year. The monthly price changes between INR 5/kg and INR 30/kg. The price is relatively stable among vegetable crops discussed in the paper. The price change pattern is not same every year whilst the price tends to be high in August-December (see the following figure).



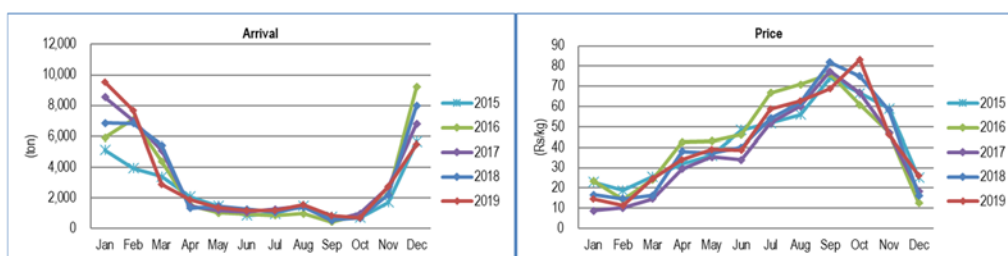
Source: <https://agmarknet.gov.in/>

**Figure 5 Monthly Arrival and Price of Onion in Azadpur Mandi (Average: 2015-19)**

Whilst the change pattern of the monthly price in Azadpur *Mandi* almost corresponds with the pattern in the Himachal Pradesh *mandis*, the price in the Himachal Pradesh *mandis* is higher than the price in Azadpur *Mandi* throughout the year. Though the arrival of the Himachal Pradesh *mandis* records the peak in May-June in general, the price in all districts in the period is even higher. It implies that onion produced in Himachal Pradesh are not much marketed to Azadpur *Mandi*.

**6. Peas (Fresh)**

The annual arrival is about 35,100 tons, whilst the monthly arrival changes seasonally between 500 tons and 9,000 tons. Whilst the monthly arrival has the peak in December-February, it tends to be higher during the *rabi* season. The monthly price also highly changes between INR 10/kg and INR 80/kg, and it has the peak in September-October, immediately before the arrival starts to increase. The change patterns of the arrival and price are almost the same every year (see the following figure).



Source: <https://agmarknet.gov.in/>

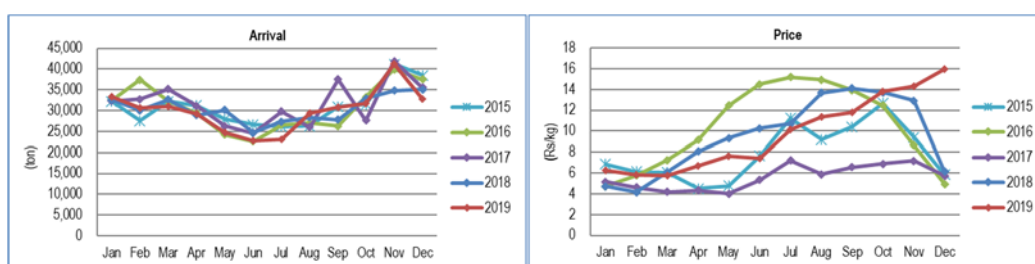
**Figure 6 Monthly Arrival and Price of Peas in Azadpur Mandi (Average: 2015-19)**

**Att.3.4.4-4**

The change pattern of the monthly price in Azadpur *Mandi* almost corresponds with the pattern in the Himachal Pradesh *mandis*, and the price difference between the Himachal Pradesh *mandis* and Azadpur *Mandi* is small. The price in the districts with a large share of the annual arrival in Himachal Pradesh is lower than the price in Azadpur *Mandi* in March-October, whilst the districts have two high arrival months, i.e., May and October.

**7. Potato**

The annual arrival is about 369,600 tons, whilst the monthly arrival changes between 25,000 tons and 40,000 tons. Whilst the monthly arrival has the peak in November-December, it tends to be higher during the *rabi* season. The monthly price changes between INR 4/kg and INR 16/kg, and it has a peak during the *kharif* season months (July-October). The change patterns of the arrival are almost the same every year, although the price patterns change from year to year (see the following figure).



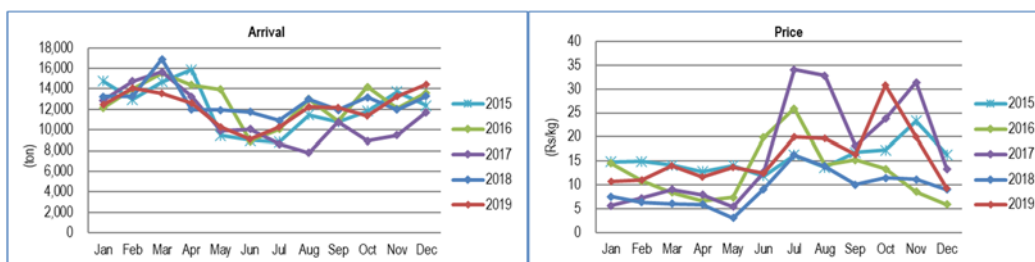
Source: <https://agmarknet.gov.in/>

**Figure 7 Monthly Arrival and Price of Potato in Azadpur *Mandi* (Average: 2015-19)**

The change pattern of the monthly price in Azadpur *Mandi* almost corresponds with the pattern in the Himachal Pradesh *mandis*, and the price difference between the Himachal Pradesh *mandis* and Azadpur *Mandi* is small. As the peak of the arrival in the Himachal Pradesh *mandis* is May, Himachal Pradesh would be a supply source of potato to Azadpur *Mandi* when the arrival is decreasing. The price in the Himachal Pradesh *mandis* is almost the same as the price in Azadpur *Mandi* throughout the year even in districts with a large share of the annual arrival in Himachal Pradesh.

**8. Tomato**

The annual arrival is about 146,300 tons, whilst the monthly arrival changes between 8,000 tons and 16,000 tons. Whilst the monthly arrival has the peak in February-March, it tends to be higher during the *rabi* season. The monthly price changes between INR 5/kg and INR 35/kg. After the price comes to a peak in July, it then goes down. Then, it increases again and has another peak in October-November. The change patterns of the arrival and price do not change much every year (see the following figure).



Source: <https://agmarknet.gov.in/>

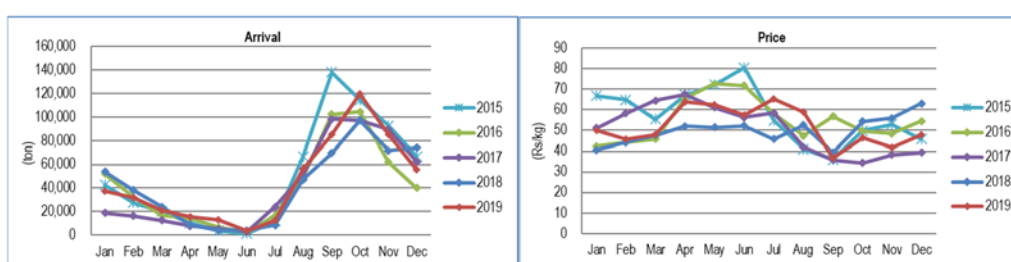
**Figure 8 Monthly Arrival and Price of Tomato in Azadpur *Mandi* (Average: 2015-19)**

**Att.3.4.4-5**

Whilst the change pattern of the monthly price in *Azadpur Mandi* almost corresponds with the pattern in the Himachal Pradesh *mandis*, the price in the Himachal Pradesh *mandis* is generally higher than the price in *Azadpur Mandi*. The price in the districts with a large share of the annual arrival in Himachal Pradesh is lower than the price in *Azadpur Mandi* during the high arrival season (July-September) of the districts.

**9. Apple**

The annual arrival is about 523,500 tons, whilst the monthly arrival changes seasonally between 2,000 tons and 140,000 tons. Whilst the monthly arrival has the peak in September-October, it tends to be higher during August-December. The monthly price changes between INR 30 and INR 80/kg. The range is relatively small compared with that of the monthly arrival. The change patterns of the arrival and price do not change much every year (see the following figure).



(Source) <https://agmarknet.gov.in/>

**Figure 9 Monthly Arrival and Price of Apple in Azadpur Mandi (Average: 2015-19)**

Whilst the change pattern of the monthly price in *Azadpur Mandi* almost corresponds with the pattern in the Himachal Pradesh *mandis*, the price in the Himachal Pradesh *mandis* is generally higher than the price in *Azadpur Mandi* and seasonally changes with a wider range. The price in the districts with a large share of the annual arrival in Himachal Pradesh is generally lower than the price in *Azadpur Mandi* during the high arrival season (August-September) of the districts.



# *Attachment for Chapter 5*

*Proposed Subprojects and  
Result of Sample Survey*

**Attachment 5.1.1 Basic Data on Agricultural Components of 296 Sub-projects**

Hamirpur

**Att.5.1.1-1**

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/Farmers	Major crops		Total Vegetable Farmers (% out of total farm HHs)		Commercial Vegetable Farmers (% out of total vegetable farmers)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermedi	Conserv
1	LIS Kharwar	Kharwar Nallah: 2 lps, June 2020	New	Y	-	N31° 36' 35.7"	E76° 37' 37.0"	1034 m	8.00	20	Maize	Wheat	4	20%	3	75%	1	19	1
2	LIS Kotlu Upper	Kotlu Nallah: 8 lps, March 2020	New	Y	0.2	N31° 36' 29.0"	E76° 26' 04.5"	715 m	10.00	20	Maize, sugarcane	Wheat, sugarcane	3	15%	1	33%	-	19	1
3	LIS Khatrod	Reoulla Nallah: 5 lps, June 2020	New	Y	-	N31° 40' 02.1"	E76° 24' 30.7"	596 m	12.00	26	Maize	Wheat	4	15%	-	-	6	20	-
4	LIS Kot	Kangral Nallah: 7 lps, June 2020	New	Y	-	N31° 42' 37.6"	E76° 33' 10.1"	829 m	15.00	50	Maize	Wheat	1	2%	1	100%	-	50	-
5	LIS Dakhol	Kunah Khad: 20 lps, March 2020	New	Y	-	N31° 40' 49.3"	E76° 27' 01.7"	567 m	12.00	50	Maize	Wheat	3	6%	1	33%	1	49	-
6	LIS Tajyar	Gawald Khad: 10 lps, March 2020	New	-	0.1	N31° 29' 28.4"	E76° 34' 18.5"	720 m	10.00	38	Maize	Wheat	5	13%	-	-	-	38	-
7	LIS Tikkar	Dugh Nallah: 8 lps, March 2020	New	-	-	N31° 39' 54.3"	E76° 26' 58.7"	601 m	10.00	50	Maize	Wheat	3	6%	1	33%	1	46	3
8	STW Siuni	Ground Water: Resistivity Survey Required	New	Y	-	N31° 42' 07.4"	E76° 30' 52.4"	923 m	8.00	30	Maize	Wheat	4	13%	2	50%	-	30	-
9	LIS Dalchera	Dalchera Nallah: 5 lps, June 2020	New	Y	-	N31° 29' 22.7"	E76° 32' 03.4"	829 m	12.00	12	Maize	Wheat	3	25%	2	67%	3	9	-
10	LIS Rohwin	Sanihal Khad: 20 lps, June 2020	New	Y	-	N31° 37' 46.0"	E76° 38' 26.8"	941 m	20.40	65	Maize	Wheat	2	3%	2	100%	5	60	-
11	LIS Maslana	Sarhyali Khad: 10 lps, June 2020	New	Y	-	N31° 27' 57.3"	E76° 30' 19.6"	673 m	10.00	75	Maize	Wheat	4	5%	1	25%	-	73	2
12	LIS Chak Kathal	Jamli Khad: 200 lps, June 2020	New	-	-	N31° 40' 33.3"	E76° 33' 07.2"	777 m	20.00	81	Maize	Wheat	2	2%	-	-	26	51	4
13	LIS Jhanjyani	Sahyali Khad: 10 lps, June 2020	New	Y	-	N31° 28' 35.4"	E76° 30' 22.3"	704 m	30.00	38	Maize	Wheat	6	16%	3	50%	7	30	1
14	LIS Samella	Gawald Khad: 10 lps, June 2020	New	Y	-	N31° 28' 39.9"	E76° 34' 48.4"	685 m	18.00	44	Maize	Wheat	6	14%	3	50%	3	41	-
15	LIS Baroha	Jamli Khad: 5 lps, June 2020	Improvement	Y	-	N31° 40' 22.6"	E76° 32' 18.5"	745 m	21.00	30	Maize	Wheat	-	-	-	-	-	30	-
16	LIS Pidhartta	Sanehal Khad: 8 lps, June 2020	New	Y	0.3	N31° 37' 06.1"	E76° 39' 03.3"	885 m	10.00	50	Maize	Wheat	4	8%	-	-	1	49	-
17	LIS Ramehra	Balhi Nallah: 3 lps, June 2020	New	-	-	N31° 36' 44.1"	E76° 38' 32.8"	882 m	15.00	38	Maize	Wheat	6	16%	2	33%	2	35	1
18	LIS Badaran	Mutard Khad: 5 lps, June 2020	New	Y	-	N31° 37' 08.2"	E76° 28' 11.8"	784 m	8.00	28	Maize	Wheat	3	11%	-	-	3	22	3
19	LIS Nukhel	Mutard Khad: 5 lps, March 2020	New	Y	-	N31° 37' 59.3"	E76° 26' 48.3"	730 m	8.00	25	Maize	Wheat	1	4%	-	-	-	25	-
20	LIS Balduhak	Salasi Khad: 5 lps, June 2020	New	Y	-	N31° 45' 51.3"	E76° 26' 57.6"	728 m	10.00	10	Maize	Wheat	-	-	-	-	3	7	-
21	LIS Jamreda	Chammed Nallah: 12 lps, June 2020	New	-	-	N31° 39' 00.6"	E76° 35' 01.2"	878 m	10.00	38	Maize	Wheat	2	5%	-	-	-	38	-
22	LIS Langiyana	Bai Da Chou: 15 lps, June 2020	New	-	-	N31° 35' 47.7"	E76° 26' 40.8"	768 m	20.00	70	Maize	Wheat	7	10%	3	43%	-	70	-
23	LIS Kwant	Rakkar Cho: 2 lps, June 2020	New	-	-	N31° 41' 20.0"	E76° 20' 48.6"	635 m	10.00	34	Maize	Wheat	5	15%	4	80%	4	27	3
	<b>Total</b>				<b>16</b>	<b>0.60</b>			<b>307.40</b>	<b>922</b>			<b>78</b>		<b>29</b>		<b>66</b>	<b>838</b>	<b>18</b>

AT 5-1

Bilaspur

Att.5.1.1-2

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/ Farmers	Major crops		Total Vegetable Farmers (% out of total farm HHHs)		Commercial Vegetable Farmers (% out of total vegetable farmers)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	LIS Daloh	Perenial Source: 18 lps, March 2020	New	Y	-	N31° 29' 41.1"	E76° 36' 55.6"	669 m	10.00	41	Maize	Wheat	7	17%	-	-	-	7	34
2	LIS Dhadus	Ali Khad: 20 lps, June 2020	New	Y	-	N31° 19' 18.3"	E76° 49' 20.3"	700 m	20.00	35	Maize	Wheat	10	28%	2	20%	2	10	23
3	LIS Kuddi	Ali Khad: 16 lps, June 2020	New	Y	-	N31° 22' 44.9"	E76° 47' 42.8"	547 m	15.00	13	Maize	Wheat	3	23%	-	-	-	3	10
4	LIS Makri	Makri Ka Kiar: 15 lps, June 2020	New	Y	-	N31° 18' 54.3"	E76° 48' 41.3"	771 m	10.00	25	Maize	Wheat	10	40%	2	20%	2	10	13
5	LIS Fatoh	Chhiber Fatoh Nallah: 10 lps, March 2020	New	Y	-	N31° 24' 24.0"	E76° 44' 07.9"	538 m	10.00	47	Maize	Wheat	10	21%	2	20%	2	10	35
6	LIS Chanjyara (Himar Chatt)	Didwan Khad: 10 lps, March 2020	New	Y	-	N31° 27' 11.0"	E76° 38' 33.7"	614 m	12.00	53	Maize	Wheat	10	18%	-	-	-	10	43
7	LIS Chanjota	Ali Khad Katli Nallah: 15 lps, June 2020	Improvement	Y	0.15	N31° 16' 36.9"	E76° 51' 31.2"	828 m	10.00	24	Maize	Wheat	5	20%	-	-	-	5	19
8	LIS Sangrana	Kanouni Khad: 15 lps, June 2020	New	-	0.1	N31° 19' 12.8"	E76° 50' 15.9"	755 m	10.00	14	Maize	Wheat	4	28%	1	25%	1	4	9
9	LIS Trauntra	Trauntra Nallah: 12 lps, March 2020	New	Y	0.15	N31° 26' 04.0"	E76° 43' 26.8"	610 m	12.00	18	Maize	Wheat	2	11%	1	50%	1	2	15
10	LIS Challei	Jarad Khad: 16 lps, June 2020	New	Y	0.2	N31° 15' 24.1"	E76° 48' 27.1"	684 m	20.00	30	Maize	Wheat	5	16%	2	40%	2	5	23
11	LIS Dadhol Kalan	Daliyan-Ka-Cho: 16 lps, June 2020	New	Y	-	N31° 29' 19.2"	E76° 40' 01.8"	681 m	22.00	25	Maize	Wheat	5	20%	3	60%	3	5	17
12	LIS Dadhol Khurd	Rohal Khad: 15 lps, March 2020	New	Y	-	N31° 29' 34.3"	E76° 40' 22.5"	665 m	15.00	25	Maize	Wheat	5	20%	-	-	-	5	20
13	LIS Chanjoli	Rohal Khad: 15 lps, March 2020	New	Y	-	N31° 31' 05.9"	E76° 39' 22.4"	703 m	15.00	90	Maize	Wheat	10	11%	1	10%	1	10	79
14	LIS Parli	Pani Ki Bauri: 10 lps, June 2020	New	Y	0.3	N31° 16' 01.4"	E76° 38' 18.4"	557 m	12.00	20	Maize	Wheat	6	30%	1	17%	1	6	13
15	LIS Kotlu Brahmna	Soda Cho: 16 lps, June 2020	New	Y	0.15	N31° 26' 02.3"	E76° 38' 46.1"	620 m	40.00	40	Maize	Wheat	4	10%	-	-	-	4	36
16	LIS Sayar	Jhambloo Sayar: 10 lps, June 2020	New	Y	-	N31° 19' 49.49"	E76° 50' 26.26"	798 m	15.00	40	Maize	Wheat	7	17%	2	29%	2	7	31
17	LIS Daloli	Fatla Nallah: .5 lps Balhian: 12 lps, March 2020	New	-	-	N31° 31' 16.8"	E76° 42' 17.8"	714 m	10.00	25	Maize	Wheat	2	8%	-	-	-	2	23
18	LIS Dharbyain	Souli Khad (Daryaindu di aal): 15 lps, March 2020	New	Y	0.8	N31° 31' 43.7"	E76° 43' 11.8"	693 m	15.00	35	Maize	Wheat	-	-	-	-	-	-	35
19	LIS Chambi Kahran	Chambi Kehran Nallah: 20 lps, June 2020	Improvement	-	0.5	N31° 18' 01.0"	E76° 53' 42.4"	1026 m	20.00	90	Maize	Wheat	54	60%	10	19%	10	54	26
	<b>Total</b>			<b>16</b>	<b>2.35</b>				<b>293</b>	<b>690</b>			<b>159</b>		<b>27</b>		<b>27</b>	<b>159</b>	<b>504</b>

AT-5-2

Una

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/F armers	Major crops		Total Vegetable Farmers (% out of total farm HHs)		Commercial Vegetable Farmers (% out of total vegetable farmers)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	TW Babelhar	Ground Water: Resistivity Survey Required	New	Y	-	N31° 47' 09.9"	E75° 59' 02.8"	556 m	15.00	100	Maize	Wheat	-	-	-	-	-	-	100
2	TW Labana Majra (Nagnoli)	Ground Water: Resistivity Survey Required	New	Y	0.3	N31° 33' 14.8"	E76° 05' 49.1"	459 m	12.00	60	Maize	Wheat	7	12%	-	-	-	7	53
3	TW Pathak Mohalla	Ground Water: Resistivity Survey Required	New	Y	-	N31° 30' 06.6"	E76° 10' 27.2"	403 m	15.00	70	Maize	Wheat	11	16%	-	-	-	11	59
4	STW Nakdoh (Ramnagar)	Ground Water: Resistivity Survey Required	New	Y	-	N31° 44' 05.1"	E76° 03' 16.3"	519 m	12.00	45	Maize	Wheat	-	-	-	-	-	-	45
5	LIS Dohgi	Dugh Nallah: 5 lps, June 2020	New	N	-	N31° 37' 17.0"	E76° 21' 02.7"	641 m	15.00	84	Maize	Wheat	4	5%	-	-	-	4	80
6	STW Lower Bhanjal	Ground Water: Resistivity Survey Required	New	Y	-	N31° 42' 47.3"	E76° 04' 07.2"	494 m	15.00	65	Maize	Wheat	7	11%	-	-	-	7	58
7	LIS Sohari Baduha No. 2	Dhug Nallah: 3 lps, June 2020	New	Y	-	N31° 40' 06.9"	E76° 13' 16.4"	572 m	12.00	45	Maize	Wheat	5	11%	-	-	-	5	40
8	LIS Talmehra	Badoha Nallah: 6 lps, June 2020	New	Y	-	N31° 38' 43.8"	E76° 16' 49.4"	640 m	10.00	51	Maize	Wheat	4	8%	-	-	-	4	47
9	STW Loharli	Ground Water: Resistivity Survey Required	New	Y	-	N31° 34' 50.2"	E76° 06' 56.8"	430 m	15.00	34	Maize	Wheat	-	-	-	-	-	-	34
10	STW Behdala	Ground Water: Resistivity Survey Required	New	Y	-	N31° 28' 16.9"	E76° 20' 16.4"	418 m	15.00	47	Maize	Wheat	5	11%	-	-	-	5	42
11	STW Chattara	Ground Water: Resistivity Survey Required	New	Y	-	N31° 28' 16.9"	E76° 20' 16.4"	418 m	10.00	41	Maize	Wheat	3	7%	-	-	-	3	38
12	LIS Lamlehri (Majra Badla)	Perennial source: 0.5 lps, June 2020	New	Y	0.2	N31° 30' 20.4"	E76° 19' 04.4"	479 m	10.00	28	Maize	Wheat	-	-	-	-	-	-	28
13	STW Samoor Kalan	Ground Water: Resistivity Survey Required	New	Y	-	N31° 30' 46.6"	E76° 17' 23.2"	456 m	12.00	20	Maize	Wheat	-	-	-	-	-	-	20
14	LIS Mandholi	Mandholi Khad: 10 lps, June 2020	New	Y	-	N31° 43' 07.4"	E76° 06' 35.6"	577 m	18.00	25	Maize	Wheat	3	12%	-	-	-	3	22
15	STW Fatehpur Bhadarkali Ward No.-2	Ground Water: Resistivity Survey Required	New	Y	0.2	N31° 46' 40.2"	E76° 03' 01.7"	628 m	15.00	40	Maize	Wheat	4	10%	-	-	-	4	36
16	WHS Cum LIS Majhiani	Majhiani Chou: 10 lps, March 2020	New	N	-	N31° 39' 30.1"	E76° 19' 50.0"	569 m	10.00	35	Maize	Wheat	-	-	-	-	-	-	35
17	WHS Cum LIS Muchhali Khas	Khuh wali choi: 5 lps, March 2020	New	N	-	N31° 37' 05.2"	E76° 20' 55.9"	553 m	10.00	40	Maize	Wheat	-	-	-	-	-	-	40
18	WHS Cum LIS Gurudwara Blah Khalsa	Manki Wala Nallah: 4 lps, March 2020	New	Y	0.2	N31° 28' 49.11"	E76° 21' 22.38"	516 m	10.00	20	Maize	Wheat	3	15%	-	-	-	3	17
19	LIS Sakoun	Kalma da Chou: 4 lps, June 2020	New	Y	-	N31° 33' 14.0"	E76° 19' 59.6"	625 m	12.00	20	Maize	Wheat	-	-	-	-	-	-	20
<b>Total</b>				<b>16</b>	<b>0.90</b>				<b>243.00</b>	<b>870</b>			<b>56</b>					<b>56</b>	<b>814</b>

AT 5-3

## Mandi

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/Farmers	Major crops		Total Vegetable Farmers (% out of total farm HHs)		Commercial Vegetable Farmers (% out of total vegetable)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	FIS Lohara	Lohara Khad: 30 lps, June 2020	New	N	-	N31° 35' 00.8"	E76° 56' 52.5"	785 m	40	120	Maize, Paddy, Vegetables	Wheat, Barley, Vegetables	42	35%	10	24%	5	37	78
2	FIS Rati Malther	Rati Nallah: 15 lps, June 2020	New	N	-	N31° 35' 53.9"	E76° 54' 12.1"	779 m	65	300	Maize, Paddy, Vegetables	Wheat, Barley, Vegetables	161	54%	18	11%	4	157	139
3	FIS Challi Nallah to Jawalapar	Challi Nallah: 25 lps, June 2020	New	N	-	N31° 45' 18.6"	E77° 07' 58.7"	2265 m	50	250	Maize, Veg., Orchard	Wheat, Barley, Vegetables	75	30%	12	16%	2	73	175
4	FIS Kasant to Sanj	Perennial Source: 30 lps, June 2020	Improvement	N	-	N31° 36' 58.6"	E77° 03' 07.2"	1140 m	32	55	Maize, Paddy, Vegetables	Wheat, Barley, Vegetables	13	24%	3	23%	-	13	42
5	FIS Baloh	Perennial Source: 5 lps, June 2020	Improvement	N	-	N31° 42' 25.5"	E76° 53' 15.3"	1099 m	24	60	Maize, Paddy, Vegetables, Pulses	Wheat, Barley, Vegetables	10	17%	4	40%	-	10	50
6	FIS Khunag to Saroh	Perennial Source: 20lps, March 2020	New	N	-	N31° 35' 07.5"	E77° 08' 35.0"	1625 m	15	100	Maize, Paddy, Vegetables, Pulses	Wheat, Barley, Vegetables	49	49%	9	18%	1	48	51
7	FIS Auhun	Perennial Source: 10 lps, March 2020	New	N	-	N31° 32' 24.5"	E77° 08' 41.8"	2266 m	60	125	Maize, Vegetables, Pulses	Wheat, Barley, Vegetables	45	36%	12	27%	1	45	80
8	FIS Godhiman Majhothi	Perennial Source: 12 lps, March 2020	Improvement	N	-	N31° 33' 18.0"	E77° 04' 57.3"	1618 m	14	70	Maize, Vegetables, Pulses	Wheat, Barley, Vegetables	9	13%	2	22%	1	9	61
9	FIS Rohara to kataru	Perennial Source: 20 lps, June 2020	New	N	-	N31° 30' 01.9"	E77° 11' 38.7"	2383 m	45	300	Maize, Paddy, Vegetables, Pulses	Wheat, Barley, Vegetables	99	33%	16	16%	1	94	201
10	FIS Bajrohu to Kot	Tanpalu Nallah: 15 lps, June 2020	Improvement	N	-	N31° 32' 13.5"	E77° 01' 51.3"	1513 m	20	30	Maize, Paddy, Vegetables	Wheat, Barley, Vegetables	7	23%	3	43%	1	7	23
11	FIS Jauli Badan	Shilli Khad: 30 lps, June 2020	Improvement	N	-	N31° 30' 27.0"	E77° 05' 08.1"	1838 m	17	195	Maize, Paddy, Vegetables, Pulses	Wheat, Barley, Vegetables	64	33%	14	22%	1	62	131
12	FIS Panredi to Baghi	Perennial Source: 12 lps, June 2020	New	N	-	N31° 46' 31.3"	E77° 04' 45.2"	1940 m	18	70	Maize, Vegetables, Pulses	Wheat, Barley, Vegetables	37	53%	8	22%	1	37	33
13	FIS Suma to Shivabadar	Summa Khad: 12 lps, June 2020	New	N	-	N31° 42' 59.6"	E77° 03' 41.4"	1261 m	15	150	Maize, Paddy, Vegetables, Pulses	Wheat, Barley, Vegetables	14	9%	4	29%	1	14	136
14	FIS Juddi Ropa Mahidhar	Perennial Source: 30 lps, March 2020	New	N	-	N31° 32' 05.3"	E77° 08' 58.9"	2184 m	18	25	Maize, Vegetables, Pulses	Wheat, Barley, Vegetables	9	36%	2	22%	1	9	16
15	FIS Gambhar Khad	Gambhar Khad: 10 lps, June 2020	Improvement	N	-	N31° 40' 37.4"	E76° 51' 37.2"	1174 m	25	40	Maize	Wheat	7	18%	2	29%	1	7	33
16	FIS Dhalwas Rahidhar	Perennial Source: 10 lps, March 2020	New	N	-	N31° 33' 00.7"	E77° 08' 09.7"	2132 m	18	100	Maize	Wheat	37	37%	7	19%	1	37	63
17	FIS Cheuni Khad to Nihri	Cheuni Khad: 35 lps, June 2020	Improvement	N	-	N31° 34' 13.3"	E77° 11' 59.8"	1947 m	30	210	Maize, Vegetables, Pulses	Wheat, Barley, Vegetables	94	45%	16	17%	1	90	116
18	FIS Kansa Khad to Ganekar Ropa	Kansa Khad: 25 lps, June 2020	Improvement	N	0.75	N31° 32' 10.4"	E76° 56' 09.4"	885 m	24	35	Maize, Paddy, Vegetables	Wheat, Barley, Vegetables	9	26%	1	11%	1	9	26
19	FIS Masog Nalag	Perennial Source: 4 lps, June 2020	Improvement	N	-	N31° 22' 03.1"	E77° 12' 49.5"	1267 m	80	35	Maize, Paddy, Vegetables	Wheat, Barley, Vegetables	11	31%	4	36%	1	11	24
20	FIS Girjhanu Khad to Kao Chalaru	Girjhanu Khad: 12 lps, June 2020	Improvement	N	-	N31° 22' 08.3"	E77° 13' 21.9"	1239 m	25	35	Maize, Paddy, Vegetables	Wheat, Barley, Vegetables	8	23%	2	25%	1	8	27
21	FIS Chinnu to Vakhrog	Jiuni Khad: 60 lps, June 2020	Improvement	N	-	N31° 31' 33.9"	E77° 03' 41.8"	1595 m	60	110	Maize, Paddy, Vegetables	Wheat, Barley, Vegetables	40	36%	6	15%	1	40	70
22	FIS Got Khad to Kandi	Gor Khad: 25 lps, June 2020	Improvement	N	-	N31° 29' 33.9"	E77° 04' 50.6"	2095 m	22	40	Maize, Paddy, Vegetables	Wheat, Barley, Vegetables	21	53%	8	38%	1	21	19
23	FIS Padhar to Aarang	Dev Pani Nallah: 16 lps, June 2020	New	N	-	N31° 52' 16.3"	E77° 01' 19.7"	1573 m	10	45	Maize	Wheat	9	20%	3	33%	1	9	36
24	FIS Kotang to Tha	Kotang Khad: 20 lps, June 2020	Improvement	N	-	N31° 51' 05.6"	E77° 01' 04.4"	1344 m	35	130	Maize	Wheat	45	35%	8	18%	1	45	85
25	FIS Bhadrohi	Perennial Source: 10 lps, June 2020	New	N	1	N31° 38' 38.1"	E76° 48' 03.0"	1267 m	35	62	Paddy, Maize, fodder, pulses	Wheat, pulses, fodder	4	6%	1	25%	1	3	58
26	WHS cum LIS Nawahi	Perennial Source: 10lps, March 2020	New	Y	-	N31° 39' 47.8"	E76° 43' 46.8"	833 m	20	125	Paddy, Maize, fodder	Wheat, fodder	12	10%	2	17%	1	11	113
27	LIS Bakarta	SeerKhad: 12 lps, March 2020	New	Y	-	N31° 40' 45.5"	E76° 43' 21.3"	866 m	12	75	Paddy, Maize, fodder, pulses	Wheat, pulses, fodder	9	12%	1	11%	1	8	66
28	LIS Jol to Mudhai Ransed	Perennial Source: 5 lps, March 2020	New	Y	-	N31° 32' 21.8"	E76° 44' 19.3"	723 m	16	35	Paddy, Maize, fodder, pulses	Wheat, pulses, fodder	5	14%	-	-	1	5	30
29	FIS Bharnal	Sihl Khad: 10 lps, June 2020	New	N	-	N31° 36' 09.9"	E76° 47' 26.6"	1037 m	12	60	Paddy, Maize, Vegetables	Wheat, Vegetables	6	10%	1	17%	1	6	54
30	FIS Alsogi	Chamba Nallah: 10 lps, March 2020	New	N	-	N31° 31' 09.4"	E76° 47' 01.9"	1126 m	20	170	Paddy, Maize, Vegetables	Wheat, Vegetables	14	8%	1	7%	1	14	156
31	LIS Kotlu	Kansa Khadd: 15 lps, March 2020	New	N	-	N31° 29' 47.0"	E76° 58' 23.2"	1268 m	20	27	Paddy, Maize, Vegetables	Wheat, Vegetables	3	11%	-	-	1	3	24
32	LIS Therahred/ Pihhar	Ganed Khad: 14 lps, June 2020	New	Y	-	N31° 47' 35.5"	E76° 42' 49.0"	733 m	8	100	Paddy, Maize, Vegetables	Wheat, Vegetables	11	11%	-	-	1	11	89

**Mandi**

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						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
33	FIS Idli Sainji	Sai & Kansa Khadd 10 lps, March 2020	New	N	1	N31° 30' 31.5"	E76° 58' 02.9"	1144 m	12	35	Paddy, Maize, Vegetables	Wheat, Vegetables	9	26%	2	22%	1	8	26
34	FIS Gumma	Bhamani Nalla: 20 lps, June 2020	New	N	1	N31° 58' 37.4"	E76° 51' 10.4"	1605 m	20	60	Paddy, Maize, Vegetables	Wheat, Vegetables	9	15%	1	11%	1	8	51
35	LIS Roparu	Roparu Khad: 12 lps, June 2020	New	N	-	N31° 57' 47.0"	E76° 42' 31.0"	756 m	15	100	Paddy, Maize, Vegetables	Wheat, Vegetables	19	19%	1	5%	1	19	81
36	FIS Upper Behna & Lower Behna	Behna Nallah: 10 lps, June 2020	New	N	-	N31° 38' 50.8"	E76° 47' 39.4"	1150 m	12	25	Paddy, Maize, Vegetables, Ginger	Wheat, Vegetables	4	16%	-	-	1	4	21
37	LIS Yoh	Balhi(yoh) near Sir Khad: 15 lps, March 2020	New	N	-	N31° 41' 03.9"	E76° 43' 38.1"	849 m	15	45	Paddy, Maize, Pulses, Vegetables	Wheat, Vegetables, Fooder	8	18%	1	13%	1	7	37
38	LIS Malhua Jol	Beas River: 200 lps, March 2020	New	Y	-	N31° 50' 23.2"	E76° 45' 05.5"	599 m	16.00	50	Paddy, Maize	Wheat	6	12%	-	-	-	6	44
39	LIS Sidhpur Balh	Beas River: 200 lps, March 2020	New	Y	-	N31° 51' 15.6"	E76° 45' 12.7"	599 m	16.00	100	Paddy, Maize	Wheat	17	17%	-	-	1	16	83
40	LIS Sayoh Balh	Beas River: 200 lps, March 2020	New	Y	-	N31° 52' 53.4"	E76° 43' 04.6"	595 m	48.00	262	Paddy, Maize	Wheat	35	13%	3	9%	2	33	227
41	FIS Ghulanu	Ghulanu Nallah: 8 lps, March 2020	New	N	-	N31° 39' 54.2"	E76° 44' 17.4"	839 m	12.00	30	Paddy	Wheat	6	20%	1	17%	1	5	24
42	LIS Beri Pantheda	Bhaleti Nallah: 3 lps, March 2020	New	N	-	N31° 44' 44.9"	E76° 46' 10.6"	816 m	16.00	50	Paddy, Maize	Wheat	9	18%	1	11%	-	9	41
43	LIS Ludhiana (Kharehad)	Kunth Nalla: 10 lps, March 2020	New	N	-	N31° 48' 02.0"	E76° 48' 20.4"	1054 m	16.00	15	Paddy, Maize	Wheat	2	13%	-	-	-	2	13
44	FIS Kounsil	Saryal Nallah: 12 lps, March 2020	New	N	-	N31° 48' 19.3"	E76° 48' 08.1"	971 m	16.00	40	Paddy, Maize	Wheat	4	10%	-	-	-	4	36
45	LIS Baggi (Ponta)	Seer Khad: 25 lps, June 2020	New	Y	1	N31° 36' 51.4"	E76° 43' 11.2"	755 m	25.00	90	Paddy, Maize	Wheat	11	12%	2	18%	1	10	79
46	FIS Dohag (Jasehd)	Neharu Nallah: 10 lps, June 2020	New	N	-	N32° 00' 34.0"	E76° 46' 12.2"	1204 m	25.00	50	Paddy, Maize	Wheat	7	14%	1	14%	-	7	43
47	FIS Harwani	Sikandri Khad (Kalthri Khad): 13 lps, June 2020	New	N	-	N31° 34' 18.9"	E76° 47' 36.5"	923 m	14.00	150	Paddy, Maize	Wheat	23	15%	-	-	1	22	127
48	LIS Mandir Tanda (Chowki)	Lohara Khad: 30 lps, June 2020	New	N	-	N31° 35' 00.8"	E76° 56' 52.5"	785 m	100.00	200	Paddy, Maize	Wheat	109	55%	15	14%	4	105	91
49	FIS Trambi Nallah to Jadda	Trambi Nallah: 10 lps, June 2020	New	N	-	N31° 37' 16.8"	E76° 49' 32.7"	1294 m	8.00	50	Paddy, Maize	Wheat	9	18%	1	11%	-	9	41
50	FIS Nagni Gad to Sainjab	Nagni Nallah: 12 lps, June 2020	New	N	-	N31° 29' 57.5"	E77° 18' 19.7"	2080 m	10.00	60	Paddy, Maize	Wheat, Veg.	12	20%	2	17%	-	12	48
51	FIS Naun	Gharol Nallah: 12 lps, June 2020	Improvement	N	-	N31° 31' 58.4"	E77° 01' 55.4"	1587 m	18.00	60	Paddy, Maize	Wheat, Veg.	35	58%	7	20%	2	33	25
52	LIS Hajara Khad to Kao	Hajra Khad: 8 lps, June 2020	New	N	-	N31° 21' 06.8"	E77° 13' 53.1"	1181 m	15.00	25	Paddy, Maize	Wheat	6	24%	1	17%	-	6	19
53	FIS Khuda Nallah to Jung Dhar	Dhamal Nallah: 15 lps, June 2020	New	N	-	N31° 26' 21.5"	E77° 08' 48.3"	1984 m	32.00	45	Maize	Wheat	11	24%	3	27%	-	11	34
54	FIS Badar Nallah to Kushal Sanad	Bathar Nallah: 10 lps, June 2020	New	N	-	N31° 24' 24.1"	E77° 09' 54.9"	1860 m	15.00	30	Paddy, Maize	Wheat	8	27%	3	38%	-	8	22
					<b>8</b>	<b>4.75</b>			<b>1381</b>	<b>4856</b>			<b>1338</b>		<b>225</b>		<b>55</b>	<b>1297</b>	<b>3518</b>

Kangra

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/Farmers	Major crops		Total Vegetable Farmers (% out of total farm HHs)		Commercial Vegetable Farmers (% out of total vegetable farmers)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	FIS Gartuhal Kunal	Chorat Nallah: 40 lps, March 2020	New	N	-	N32° 02' 57.8"	E76° 43' 37.3"	1584 m	40.00	110	Paddy	Wheat	25	23%	5	20%	5	101	4
2	FIS Bhattiyadi Da Chou	Soon Khad: 50 lps, June 2020	Improvement	N	0.20	N32° 05' 05.7"	E76° 29' 39.8"	1044 m	27.00	65	Paddy	Wheat	15	23%	2	13%	2	60	3
3	FIS Chamruhal Kunal	Niugal Khad: 150 lps, March 2020	Improvement	N	-	N32° 07' 00.4"	E76° 30' 42.9"	1158 m	32.00	185	Paddy	Wheat	35	19%	5	14%	5	175	5
4	FIS Riduan(Rehru) Kunal	Jogal Khad 100 lps, June 2020	Improvement	N	-	N32° 05' 22.0"	E76° 20' 44.6"	768 m	60.00	165	Paddy	Wheat	45	27%	10	22%	10	147	8
5	FIS Bharwana Chowthammi Kunal	Awa Khad 150 lps, June 2020	Improvement	N	-	N32° 04' 13.8"	E76° 35' 01.3"	1095 m	50.00	150	Paddy	Wheat	30	20%	4	13%	4	142	4
6	FIS Anuhal Kunal	Niugal Khad: 200 lps, March 2020	Improvement	N	1.50	N32° 06' 51.7"	E76° 30' 07.6"	1130 m	45.00	190	Paddy	Wheat	55	29%	10	18%	15	170	5
7	FIS Kand Kosri(HDPE Pipe)	Magroo Nallah: 5 lps, March 2020	New	N	1.00	N32° 04' 46.9"	E76° 41' 35.7"	1598 m	25.00	70	Maize	Barley	20	29%	10	50%	10	55	5
8	FIS Dhooni Kunal	Soon Khad: 50 lps, June 2020	Improvement	N	-	N32° 02' 11.2"	E76° 28' 28.2"	873 m	70.00	180	Paddy	Wheat	50	28%	15	30%	18	156	6
9	FIS Soian Kunal	Neugal Khad: 200 lps, June 2020	Improvement	N	-	N32° 03' 05.9"	E76° 27' 26.8"	872 m	27.00	65	Paddy	Wheat	10	15%	2	20%	2	60	3
10	FIS Changre Da Chau	Naid Nallah: 15 lps, March 2020	Improvement	N	-	N32° 07' 01.5"	E76° 28' 03.8"	1116 m	20.00	110	Paddy	Wheat	22	20%	3	14%	3	102	5
11	FIS Chhoo Nala Kunal	Chhoo Nalah: 25 lps, March 2020	Improvement	N	0.50	N32° 02' 03.3"	E76° 36' 49.6"	927 m	35.00	40	Paddy	Wheat	10	25%	3	30%	3	35	2
12	FIS Chetu Da Chou	Bhager Nallah: 8 lps, March 2020	Improvement	N	0.40	N32° 03' 06.1"	E76° 33' 27.4"	1030 m	12.00	40	Paddy	Wheat	5	13%	1	20%	1	38	1
13	FIS Vaidan Di Kunal	Soon Khad: 50 lps, June 2020	Improvement	N	1.00	N32° 04' 46.5"	E76° 29' 28.2"	1030 m	60.00	80	Paddy	Wheat	15	19%	5	33%	5	71	4
14	FIS Kothi Kohar (HPDE Pipes)	Kohar Nallah: 30 lps, June 2020	New	N	-	N32° 05' 40.9"	E76° 48' 21.0"	2525 m	15.00	60	Maize, Pulses	Wheat	25	42%	9	36%	9	48	3
15	FIS Badagran(HPDE Pipes)	Badgran Nala 15 lps, June 2020	New	N	-	N32° 05' 12.6"	E76° 46' 34.1"	2355 m	18.00	45	Maize, Pulses	Wheat	20	44%	5	25%	5	35	5
16	FIS Brehu Kunal	Baner Khadd: 4 cumecs, June 2020	Improvement	N	-	N32° 05' 39.2"	E76° 20' 16.3"	730 m	40.00	45	Paddy	Wheat	18	40%	5	28%	5	37	3
17	FIS Balehar Kunal	Ghar Nallah: 40 lps, June 2020	Improvement	N	-	N32° 03' 12.6"	E76° 32' 18.5"	1008 m	15.00	70	Paddy	Wheat	5	7%	2	40%	2	64	4
18	FIS Nalohata (HPDE Pipes)	Badagran Nallah: 80 lps, June 2020	New	N	-	N32° 05' 29.5"	E76° 46' 38.8"	2382 m	35.00	125	Maize, Pulses	Wheat	25	20%	5	20%	5	116	4
19	FIS Dawar	Manuni Khad 850 lps, March 2020	Improvement	N	2.00	N32° 08' 07.2"	E76° 17' 55.4"	755 m	50.00	400	Paddy	Wheat	20	5%	2	10%	15	368	17
20	FIS Nai Kunal	Manuni Khad 800 lps, March 2020	Improvement	N	-	N32° 08' 34.5"	E76° 18' 28.6"	795 m	50.00	425	Paddy	Wheat	20	5%	3	15%	17	384	24
21	FIS Parul	Manuni Khad: 750 lps, March 2020	Improvement	N	-	N32° 07' 51.7"	E76° 17' 40.9"	734 m	50.00	441	Paddy	Wheat	25	6%	5	20%	20	406	15
22	FIS Malti Kunal	Manuni Khad 870 lps, March 2020	New	N	1.50	N32° 08' 20.9"	E76° 18' 16.3"	780 m	50.00	340	Paddy	Wheat	25	7%	4	16%	25	297	18
23	FIS Rori Kori	Chanaur Khad: 70 lps, March 2020	Improvement	N	2.00	N31° 53' 05.3"	E76° 06' 21.8"	634 m	50.00	310	Paddy	Wheat	18	6%	2	11%	7	293	10
24	LIS Takipur Khas	Daddan Nallah: 6 lps, March 2020	New	Y	-	N32° 02' 34.0"	E76° 15' 29.4"	580 m	30.00	225	Maize/Paddy	Wheat	8	4%	-	-	5	211	9
25	LIS Bather	Basa Nallah: 20 lps, March 2020	New	Y	1.00	N32° 00' 29.1"	E76° 10' 32.2"	445 m	30.00	80	Maize/Paddy	Wheat	10	13%	1	10%	4	71	5
26	FIS Surani	Surani Nallah: 4 lps, June 2020	New	N	-	N31° 53' 31.0"	E76° 20' 47.1"	699 m	10.00	95	Paddy	Wheat	12	13%	-	-	2	83	10
27	LIS Mour	Mour Nallah: 5 lps, June 2020	New	Y	-	N31° 53' 33.1"	E76° 24' 09.8"	667 m	15.00	80	Maize/Paddy	Wheat	15	19%	2	13%	3	68	9
28	FIS Jhikli Ichhi	Manjhi Khad 960 lps, March 2020	Improvement	N	-	N32° 09' 26.4"	E76° 17' 03.2"	792 m	60.00	360	Paddy	Wheat	20	6%	5	25%	5	337	18
29	FIS Pule wali kunal	Manuni Khad 850 lps, March 2020	Improvement	N	-	N32° 08' 14.8"	E76° 18' 10.1"	766 m	90.00	450	Paddy	Wheat	20	4%	5	25%	18	416	16
30	FIS Rainta	Bagdwari Nallah: 450 lps, June 2020	New	N	3.00	N31° 52' 31.9"	E76° 16' 17.5"	442 m	40.00	110	Paddy	Wheat	15	14%	5	33%	5	93	12
31	FIS Adhwani	Suhag Nallah: 120 lps, March 2020	New	N	-	N31° 49' 09.1"	E76° 18' 35.9"	455 m	35.00	95	Maize/Paddy	Wheat	25	26%	3	12%	3	83	9

AT-5-6

## Kangra

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/Fa rmers	Major crops		Total Vegetable Farmers (% out of total farm HHS)		Commercial Vegetable Farmers (% out of total vegetable farmers)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
32	LIS Riri Kuthera -II	Kan Khad: 30 lps, March 2020	New	Y	1.00	N31° 55' 01.0"	E75° 56' 35.4"	354 m	48.00	120	Maize/Paddy	Wheat	5	4%	-	-	5	100	15
33	FIS Naggan Patt	Manjhi Khad 960 lps, March 2020	Improvement	N	-	N32° 09' 26.4"	E76° 17' 03.2"	792 m	40.00	225	Paddy	Wheat	8	4%	2	25%	6	204	15
34	FIS Dann Kuhal	Daroon Khad: 60 lps, March 2020	Improvement	N	-	N32° 08' 34.7"	E76° 21' 46.5"	923 m	28.00	80	Paddy	Wheat	10	13%	2	20%	2	77	1
35	FIS Bhedi Kuhal	Gajj Khad: 100 lps, June 2020	Improvement	N	-	N32° 11' 05.2"	E76° 13' 55.8"	718 m	96.00	200	Paddy	Wheat	20	10%	5	25%	5	192	3
36	FIS Traimbla Kuhal(Khabli Kuhal)	Johar Khad: 60 lps, March 2020	Improvement	N	-	N32° 09' 45.9"	E76° 14' 16.2"	656 m	25.00	120	Paddy	Wheat	15	13%	2	13%	2	116	2
37	FIS Manuni Kuhal	Manuni Khad: 100 lps, March 2020	Improvement	N	2.00	N32° 10' 23.7"	E76° 20' 00.1"	980 m	40.00	150	Paddy	Wheat	10	7%	2	20%	2	146	2
38	LIS Nana Khas	Nanna Khad: 50 lps, March 2020	New	Y	-	N32° 07' 37.5"	E76° 03' 56.3"	478 m	14.00	30	Maize/Paddy	Wheat	3	10%	1	33%	1	28	1
39	FIS Lakhnehar Khabbal	Khakhod Khad: 200 lps, March 2020	New	N	0.20	N32° 10' 15.4"	E76° 02' 29.4"	445 m	19.00	40	Paddy	Wheat	3	8%	1	33%	1	37	2
40	LIS Jagnoli	Baruna Khad 20 lps, March 2020	New	Y	1.00	N32° 03' 24.9"	E75° 56' 45.4"	434 m	45.00	150	Maize/Paddy	Wheat	10	7%	-	-	2	144	4
41	FIS Salli Bhaled Kuhal	Jagnoli Chatta Khad: 50 lps, March 2020	Improvement	N	1.00	N32° 18' 07.6"	E76° 14' 28.5"	1735 m	60.00	160	Paddy	Wheat	4	3%	-	-	2	155	3
42	LIS Sunhi	Bardi Khad: 15 lps, June 2020	New	Y	0.50	N32° 01' 24.4"	E76° 18' 28.9"	701 m	25.00	65	Maize/Paddy	Wheat	8	12%	2	25%	2	61	2
43	FIS Grayen Di Kuhal	Neugal Khadd: 5 cumecs, June 2020	Improvement	N	-	N32° 09' 27.4"	E76° 32' 38.2"	1508 m	80.00	225	Paddy	Wheat	35	16%	10	29%	10	211	4
44	FIS Katuhul Kuhal	Krini Khadd: 100 lps, June 2020	Improvement	N	-	N32° 07' 18.0"	E76° 27' 08.9"	1134 m	30.00	90	Paddy	Wheat	14	16%	3	21%	3	84	3
45	FIS Daduhul Kuhal	Baner Khadd: 250 lps, June 2020	Improvement	N	-	N32° 09' 35.9"	E76° 27' 19.6"	1257 m	80.00	250	Paddy	Wheat	22	9%	3	14%	3	236	11
46	FIS Ghamota Chou	Soon Khad: 50 lps, June 2020	New	N	0.50	N32° 05' 23.7"	E76° 29' 58.9"	1069 m	25.00	50	Paddy	Wheat	8	16%	3	38%	3	45	2
47	FIS Badehar&Acharyan Kuhal	Arla Nallah: 15 lps, June 2020	Improvement	N	-	N32° 04' 11.9"	E76° 29' 39.5"	1008 m	24.00	60	Paddy	Wheat	5	8%	2	40%	2	56	2
48	LIS Balu Galoa	Nakehar Khadd: 30 lps, June 2020	New	Y	-	N31° 56' 12.1"	E76° 16' 03.9"	484 m	30.00	80	Maize/Paddy	Wheat	6	8%	1	17%	5	65	10
49	LIS Baklehar	Pule Wala Nalla: 4 lps, June 2020	New	Y	1.00	N32° 02' 28.3"	E76° 08' 23.2"	524 m	11.00	34	Maize/Paddy	Wheat	6	18%	1	17%	1	26	7
50	FIS Chanaur	Chanaur Khad: 70 lps, March 2020	New	N	1.00	N31° 53' 35.4"	E76° 07' 06.3"	576 m	60.00	150	Paddy	Wheat	3	2%	-	-	2	138	10
51	LIS Nagrota	Sardaran Da Nalla: 5 lps, June 2020	New	Y	1.00	N31° 56' 19.6"	E75° 56' 58.5"	354 m	16.00	45	Maize/Paddy	Wheat	3	7%	1	33%	2	37	6
52	LIS Amb Pathiar-I	Chamoti Nalla: 100 lps, March 2020	New	Y	-	N31° 50' 55.8"	E76° 18' 47.2"	461 m	22.00	60	Maize/Paddy	Wheat	5	8%	1	20%	3	48	9
53	LIS Amb Pathiar-II	Chamoti Nalla: 100 lps, March 2020	New	Y	0.50	N31° 51' 14.0"	E76° 18' 36.8"	465 m	30.00	80	Maize/Paddy	Wheat	5	6%	1	20%	2	68	10
54	LIS Nagrota	Doda Nalla: 50 lps, March 2020	New	Y	0.40	N31° 50' 08.9"	E76° 18' 16.7"	422 m	30.00	90	Maize/Paddy	Wheat	5	6%	1	20%	3	75	12
55	LIS Dhaneti Garla	Chhonchh Khadd: 14 lps, June 2020	New	Y	1.00	N32° 13' 30.9"	E75° 52' 23.5"	471 m	40.00	120	Maize/Paddy	Wheat	5	4%	-	-	2	115	3
56	LIS Kior Gharian	Garhian da Nalla: 8 lps, June 2020	New	Y	1.00	N32° 20' 23.2"	E75° 56' 37.6"	607 m	25.00	40	Maize/Paddy	Wheat	5	13%	-	-	2	34	4
57	FIS Sandh Kuhal	Gharloo Nallah: 25 lps, June 2020	Improvement	N	1.00	N32° 09' 38.2"	E76° 18' 06.6"	852 m	30.00	85	Paddy	Wheat	10	12%	2	20%	2	82	1
58	FIS Baddi/Dondu Kuhal	Gharloo Nallah: 60 lps, June 2020	Improvement	N	-	N32° 09' 37.4"	E76° 17' 50.7"	837 m	60.00	165	Paddy	Wheat	15	9%	2	13%	2	162	1
59	FIS Nannayia Kuhal	Gharloo Nalla/Manjhi Khad: 60 lps, June 2020	Improvement	N	-	N32° 09' 34.4"	E76° 17' 38.8"	822 m	30.00	70	Paddy	Wheat	10	14%	3	30%	3	65	2
60	FIS Chhadul Kuhal	Dhaloon Khad: 100 lps, March 2020	Improvement	N	-	N32° 10' 21.0"	E76° 23' 11.4"	1097 m	40.00	120	Paddy	Wheat	5	4%	-	-	5	113	2
	<b>Total</b>			<b>15</b>	<b>27.20</b>				<b>2289</b>	<b>8360</b>			<b>926</b>		<b>189</b>		<b>323</b>	<b>7642</b>	<b>395</b>



## Kullu

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/F armers	Major crops		Total Vegetable Farmers (% out of total farm HHs)		Commercial Vegetable Farmers (% out of total)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	FIS Sharagha	Kais Nallah: 25 lps, June 2020	Improvement	N	-	N 32° 01' 23.8"	E 077° 08' 38.7"	1514 m	30.00	66	Maize, Paddy, Orchard	Wheat, Barley, Peas, Orchard	43	65%	15	35%	13	42	11
2	FIS Parsha	Parsha Nallah: 20 lps, March 2020	Improvement	N	-	N 32° 12' 24.7"	E 077° 10' 59.3"	1887 m	32.00	74	Maize, Paddy, Orchard	Wheat, Barley, Peas, Orchard	44	59%	15	34%	10	50	14
3	FIS Dodani Bai	Kais Nallah: 30 lps, June 2020	Improvement	N	-	N 32° 01' 15.2"	E 077° 08' 08.1"	1447 m	48.00	107	Maize, Paddy, Orchard	Wheat, Barley, Peas, Orchard	66	62%	27	41%	12	85	10
4	FIS Bran Bihal Seri	Bran Nallah: 20 lps, March 2020	Improvement	N	-	N 32° 10' 29.9"	E 077° 10' 23.8"	1784 m	32.00	39	Maize, Paddy, Orchard	Wheat, Barley, Peas, Orchard	12	31%	6	50%	9	25	5
5	FIS Khanor Himi Seri	Mashala Nallah: 30 lps, June 2020	Improvement	N	-	N 32° 05' 27.1"	E 077° 09' 24.3"	1690 m	80.00	250	Maize, Paddy, Orchard	Wheat, Barley, Peas, Orchard	145	58%	63	43%	30	210	10
6	FIS Nashala	Mashala Nallah: 30 lps, March 2020	Improvement	N	-	N 32° 05' 23.3"	E 077° 09' 45.7"	1747 m	40.00	85	Maize, Paddy, Orchard	Wheat, Barley, Peas, Orchard	51	60%	21	41%	14	65	6
7	FIS Dobha Seri	Bran Nallah: 20 lps, March 2020	Improvement	N	-	N 32° 09' 51.5"	E 077° 10' 03.8"	1834 m	28.00	98	Maize, Pulses, Orchard	Wheat, Barley, Peas, Orchard	39	40%	15	38%	18	68	12
8	FIS Tharas	Thrash Nallah: 50 lps, March 2020	Improvement	N	-	N 31° 50' 03.6"	E 077° 11' 12.4"	1082 m	35.00	70	Maize, Pulses, Orchard	Wheat, Barley, Peas, Orchard	49	70%	21	43%	14	49	7
9	FIS Falatnala	Falat Nallah: 25 lps, March 2020	Improvement	N	-	N 31° 50' 30.9"	E 077° 08' 57.5"	1170 m	20.00	180	Maize, Paddy, Orchard	Wheat, Barley, Peas, Orchard	126	70%	54	43%	35	140	5
10	FIS Tinder Nohanda	Tinder Nallah: 15 lps, June 2020	Improvement	N	-	N 31° 38' 40.8"	E 077° 27' 21.3"	1937 m	12.00	40	Maize, Rajmash	Wheat, Barley	18	45%	6	60%	8	27	5
11	FIS Tipudhar (Shalera)	Tipudhar Nallah: 20 lps, June 2020	Improvement	N	-	N 31° 41' 16.7"	E 077° 20' 33.7"	1812 m	10.00	48	Maize	Wheat, Barley	4	8%	10	25%	10	33	5
12	LIS Bathogi (Shil)	Tirthan River: 25 lps, June 2020	New	Y	-	N 31° 39' 07.9"	E 077° 19' 21.1"	1414 m	10.00	75	Maize, Rajmash	Wheat, Barley	41	55%	15	71%	15	53	7
13	FIS Ghayagi	Perennial Nallah: 50 lps, June 2020	Improvement	N	-	N 31° 34' 38.4"	E 077° 22' 21.4"	2111 m	10.00	45	Maize	Wheat, Barley	23	51%	11	73%	12	28	5
14	FIS Barnogi	Perennial Nallah: 18 lps, June 2020	New	N	-	N 31° 38' 41.4"	E 077° 27' 20.6"	1871 m	10.00	55	Maize	Wheat, Barley	33	60%	11	61%	8	43	4
	<b>Newly Proposed</b>																		
15	FIS Malana	Perennial Nallah: 60 lps, March 2020	New	N	-	N 032° 03' 47.4"	E 077° 15' 41.3"	2633 m	12.00	115	Maize, Pulses, Potato, Millet	Wheat, Barley	46	40%	12	26%	5	100	10
16	FIS Sheglu	Perennial Nallah: 70 lps, March 2020	Improvement	N	-	N 032° 01' 23.1"	E 077° 08' 31.9"	1497 m	24.00	120	Maize, Pulses, Oil seed	Wheat, Barley, pulses	84	70%	42	50%	15	100	5
17	FIS Much Kuhl	Perennial Nallah: 30 lps, March 2020	Improvement	N	-	N 032° 01' 23.6"	E 077° 08' 28.3"	1489 m	20.00	108	Maize, Paddy, Orchard	Wheat, Barley, peas	76	70%	42	55%	18	85	5
18	FIS Bran Behal Rampur Seri	Perennial Nallah: 25 lps, March 2020	Improvement	N	-	N 032° 06' 46.4"	E 077° 12' 51.0"	2117 m	14.00	50	Maize, Pulses, Oil seed	Wheat, Barley, pulses	25	50%	13	52%	8	38	4
19	FIS Chhaki Seri	Chakki Nallah: 75 lps, June 2020	Improvement	N	3	N 031° 57' 49.2"	E 077° 06' 35.3"	1632 m	40.00	280	Maize, Pulses, Oil seed	Wheat, Barley, pulses	154	55%	84	55%	30	240	10
20	LIS Ratwah	Tirthan Khad: 50 lps, June 2020	New	Y	-	N 031° 40' 34.1"	E 077° 17' 36.1"	1146 m	20.00	50	Maize, Pulses, Oil seed	Wheat, Barley, pulses	30	60%	18	60%	12	35	3
21	FIS Shirar Sauni Pul Rouda Seri	Shirar Nallah: 80 lps, March 2020	Improvement	N	-	N 032° 04' 01.1"	E 077° 06' 41.8"	1581 m	24.00	120	Maize, Pulses, Oil seed	Wheat, Barley, peas	78	65%	48	61%	30	82	8
22	FIS Bhuthi	Bhuthi Nallah: 25 lps, June 2020	New	N	-	N 031° 57' 46.5"	E 077° 02' 52.9"	1615 m	12.00	105	Maize, Pulses, Oil seed	Wheat, Barley, pulses	63	60%	32	51%	25	70	10
23	FIS Chinch Ropa	Perennial Malhaj Nalla 27 lps, March 2020	Improvement	N	-	N 032° 09' 35.1"	E 077° 09' 36.7"	1878 m	16.00	90	Maize, Pulses, Oil seed, Orchard	Wheat, Barley, pulses, Orchard	59	65%	32	54%	20	65	5
24	FIS Kalehali	Bajoura Nallah: 60 lps, March 2020	Improvement	N	-	N 031° 50' 40.8"	E 077° 09' 19.7"	1141 m	20.00	120	Maize, Pulses, Oil seed, Orchard	Wheat, Barley, pulses, Orchard	84	70%	60	71%	40	75	5
25	FIS Gadherni	Shaleen Nallah: 60 lps, June 2020	Improvement	N	-	N 032° 13' 09.5"	E 077° 11' 08.8"	1893 m	30.00	80	Maize, Pulses, Oil seed, Orchard	Wheat, Barley, pulses, Orchard	48	60%	16	33%	25	50	5
26	FIS Bhalyani	Perennial Nallah: 20 lps, June 2020	Improvement	N	-	N 031° 56' 48.7"	E 077° 02' 50.7"	1917 m	14.00	120	Maize, Pulses, Oil seed	Wheat, Barley, pulses	60	50%	18	30%	15	95	10
	<b>Total</b>			<b>2</b>	<b>3</b>				<b>643</b>	<b>2590</b>			<b>1501</b>		<b>707</b>		<b>451</b>	<b>1953</b>	<b>186</b>

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**Kinnaur**

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/F armers	Major crops		Total Vegetable		Commercial		Dominant Farmers (Advanced/		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	FIS Japrodan (Khawangi Kanda)	Shwalling Nallah: 6 Ips	Improvement	N	-				5.00	23	Rajmash, Peas, Apple, Buckwheat	18	78%	4	22%	8	7	8	
2	FIS Nichla Bhaturi	Natural River	Improvement	N	-				10.00	17	Rajmash, Wheat, Potato, Apple, Barley, Pea	17	100%	12	71%	5	8	4	
3	FIS Rogfa to Kothi Kanda	Rogfa Pond: 5 Ips	Improvement	N	-				4.50	30	Buckwheat, Rajmash, Potato, Apple	10	33%	5	50%	12	10	8	
<b>Total</b>									<b>19.50</b>	<b>70</b>		<b>45</b>		<b>21</b>		<b>25</b>	<b>25</b>	<b>20</b>	

Shimla

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/Farmers	Major crops		Total Vegetable Farmers (% out of total farm HHs)		Commercial Vegetable Farmers (% out of total)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	FIS Paneo Nallah to Dharku	Pau Nallah: 6 lps, March 2020	New	N	-	N31° 30' 16.4"	E77° 20' 28.4"	2142 m	12.00	38	Maize	Wheat	8	21%	2	25%	6	32	-
2	FIS Karmad to Guhanda	Karmad Nallah: 4 lps, June 2020	New	N	-	N31° 29' 37.9"	E77° 24' 55.4"	1986 m	20.00	120	Maize	Wheat, Garlic	20	17%	6	30%	18	102	-
3	FIS Thanach to Rumali	Thanach Nallah: 15 lps, June 2020	New	N	-	N31° 31' 41.7"	E77° 28' 02.0"	2338 m	30.00	130	Maize	Wheat, Garlic	15	12%	12	80%	18	112	-
4	FIS Sunara Dhagaon	Sunara Nallah: 20 lps, March 2020	New	N	2.00	N31° 26' 38.6"	E77° 31' 42.1"	1245 m	23.00	55	Paddy, Maize	Wheat	8	15%	6	75%	8	47	-
5	FIS Thanda Pani to Odia	Thanda Pani: 12 lps, March 2020	New	N	2.00	N31° 32' 30.3"	E77° 32' 21.5"	2111 m	19.00	85	Maize, Pulses	Wheat, Garlic	15	18%	12	80%	13	72	-
6	FIS Saladi Khad to Bathada	Saladi Nallah: 12 lps, March 2020	New	N	1.50	N31° 24' 02.2"	E77° 41' 54.9"	1189 m	15.00	85	Paddy, Maize	Wheat, Gram	10	12%	8	80%	8	77	-
7	FIS Deothi Nallah to Keem	Deothi Nallah: 15 lps, March 2020	New	N	-	N31° 25' 47.3"	E77° 43' 14.2"	2155 m	20.00	125	Maize	Wheat, Apple, Peas	18	14%	18	10%	18	107	-
8	FIS Garasu to Suha	Garasu Nallah: 30 lps, June 2020	New	N	-	N31° 17' 57.2"	E77° 36' 26.5"	1722 m	45.00	145	Maize, Apple, Pulses	Wheat, Apple, Peas, Garlic	19	13%	15	79%	18	127	-
9	FIS Sadoli to Siyarla	Sadoli Nallah: 15 lps, March 2020	New	N	-	N31° 21' 44.0"	E77° 44' 27.3"	1768 m	18.00	45	Maize, Potato, Pulses	Wheat, Garlic, Peas	8	18%	6	75%	8	37	-
10	FIS Madholi to Bajetyl	Madholi Khad: 12 lps, June 2020	New	N	-	N31° 18' 51.4"	E77° 38' 21.7"	1781 m	30.00	85	Maize, Potato, Pulses	Wheat, Garlic, Peas	15	18%	12	80%	15	70	-
11	FIS Kepu	Khekhar Nallah: 25 lps, March 2020	Improvement	N	-	N31° 19' 43.3"	E77° 27' 14.1"	1003 m	30.00	85	Paddy, Maize, Potato, Pulses	Wheat, Garlic, Peas	20	24%	8	40%	12	73	-
12	FIS Shakrori	Sakrori Nallah: 5 lps, March 2020	Improvement	N	-	N31° 13' 26.9"	E77° 09' 10.6"	742 m	30.00	70	Maize	Wheat, Mix Vegetables	12	17%	4	33%	4	66	-
13	FIS Gharyana	Satluj River, March 2020	Improvement	N	0.50	N31° 14' 30.0"	E77° 06' 20.7"	693 m	20.00	85	Maize, Pulses	Wheat, peas	20	24%	6	30%	8	77	-
14	FIS Karyali	Bhoon ka Jhal: 2 lps Dumli Ki Kuhl: 8 lps, March 2020	Improvement	N	-	N31° 13' 43.3"	E77° 15' 19.8"	1399 m	17.00	60	Maize, pulses	Wheat, peas	15	25%	4	27%	5	55	-
15	FIS Ajeetpur	Kui Nallah: 8 lps, June 2020	Improvement	N	-	N30° 53' 42.8"	E77° 38' 43.2"	1311 m	15.00	54	Maize, Vegetables	Wheat, Tomato	10	19%	-	-	4	47	3
16	FIS Jhaladi to Gadda Gram	Jhaladi Nallah: 10 lps, June 2020	Improvement	N	-	N30° 52' 40.0"	E77° 38' 30.8"	1643 m	19.00	43	Maize, Pulses, Vegetables	Wheat, Tomato, capsicum	13	30%	4	31%	5	36	2
17	FIS Kui Nallah to Shillinia	Kui Nallah: 10 lps, June 2020	Improvement	N	-	N30° 53' 10.1"	E77° 38' 29.7"	1531 m	13.00	22	Maize, Puses, Vegetables	Wheat, Tomato, beans	7	32%	-	-	5	13	4
18	FIS Bharanu to Nalli	Bharanu Khad: 16 lps, June 2020	Improvement	N	1.00	N30° 57' 08.8"	E77° 40' 15.8"	1253 m	15.00	41	Wheat, Pulses, Vegetables	Wheat, Tomato, Beans	13	32%	-	-	5	33	3
19	FIS Dudhvi Nallah to Kandugad	Dudhvi Nallah: 10 lps, June 2020	Improvement	N	-	N31° 29' 19.9"	E77° 24' 26.0"	1695 m	8.00	55	Maize, Potato, Nurseries of Apple, Pulses	Wheat, Gram, Nerseries of apple	2	4%	-	-	-	50	5
20	FIS Kedas (Kandu) to Shavar	Out fall: 15 lps, March 2020	Improvement	N	-	N31° 27' 01.4"	E77° 33' 25.4"	1192 m	15.00	85	Maize, Palm, Potato, Pulses	Wheat, Gram, Palm, Veg.	20	24%	15	75%	15	70	-
21	FIS Kurpan Khad to Khatal	Kurpan Khad: 20 lps, March 2020	Improvement	N	-	N31° 24' 00.6"	E77° 34' 28.5"	884 m	7.00	15	Paddy, Potato, Mix Veg.	Wheat, Mix Veg.	5	33%	5	10%	5	10	-
22	FIS Buini Nallah to Kalaras	Buini Nallah: 12 lps, March 2020	New	N	-	N31° 30' 06.5"	E77° 34' 06.4"	1681 m	20.00	35	Maize, Potato, Paddy, Pulses	Wheat, gram, pulses, Veg.	10	29%	8	80%	8	27	-
23	FIS Pashad Nallah to Bari Lanj	Pashad Nallah: 15 lps, June 2020	New	N	1.5	N31° 27' 53.7"	E77° 30' 48.6"	1618 m	20.00	85	Maize, Paddy, Potato	Wheat, gram, pulses, Veg.	10	12%	8	80%	8	77	-
24	FIS Jood to Bhawana	Jood Nallah: 7 lps, June 2020	Improvement	N	1.5	N31° 06' 05.1"	E77° 05' 49.6"	1619 m	15.00	70	Paddy	Wheat	28	40%	14	50%	12	58	-
<b>Total</b>									<b>476.00</b>	<b>1718</b>			<b>321</b>		<b>173</b>		<b>226</b>	<b>1475</b>	<b>17</b>

AT 5-10

## Chamba

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/F armers	Major crops		Total Vegetable Farmers (% out of total farm HHs)		Commercial Vegetable Farmers (% out of total)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	FIS Gohanana	Churi Nallah: 4 lps, June 2020	Improvement	N	1	N32° 29' 10.0"	E76° 10' 23.4"	1089 m	12.00	35	Maize	Wheat	7	20%	2	29%	2	31	2
2	FIS Tadgrawn	Tadgrawn Nallah: 6 lps, June 2020	Improvement	N	-	N32° 31' 35.5"	E76° 07' 58.5"	955 m	12.00	50	Maize	Wheat	5	10%	1	20%	1	45	4
3	FIS Kolka	Kolka Nallah: 7 lps, June 2020	Improvement	N	-	N32° 30' 43.9"	E76° 06' 55.0"	1516 m	12.00	55	Maize	Wheat	8	15%	2	25%	2	50	3
4	FIS Rupiana	Rupiana Khad: 20-25 lps, March 2020	Improvement	N	-	N32° 22' 05.1"	E76° 03' 54.9"	1331 m	10.00	35	Paddy	Wheat	4	11%	1	25%	1	30	4
5	FIS Naroli Nala to Hagga Kuther	Naroli Nallah: 7 lps, March 2020	Improvement	N	-	N32° 26' 27.9"	E76° 01' 39.1"	1233 m	35.00	30	Paddy	Wheat	5	17%	1	20%	1	24	5
6	FIS Tar Se Dharwai	Lohali Khad: 20 lps, March 2020	Improvement	N	2	N32° 20' 34.7"	E76° 06' 41.6"	1248 m	30.00	36	Paddy	Wheat	3	8%	1	33%	1	31	4
7	FIS Seri Dharna	Tundi Nallah: 10 lps, March 2020	Improvement	N	-	N32° 20' 01.2"	E76° 03' 28.9"	998 m	15.00	40	Paddy	Wheat	4	10%	2	50%	2	36	2
8	FIS Ritta Urehla	Sach Khad: 30 lps, June 2020	Improvement	N	1.80	N32° 28' 36.7"	E76° 10' 40.5"	1133 m	12.00	40	Maize	Wheat	4	10%	2	50%	2	35	3
9	FIS Bharodi	Bhatalwan Nalah: 18 lps, June 2020	Improvement	N	1	N32° 33' 10.4"	E76° 06' 31.0"	977 m	16.00	40	Maize	Wheat	10	25%	3	30%	3	34	3
10	FIS Nagori	Mehla Khadd: 200 lps, June 2020	Improvement	N	-	N32° 34' 07.7"	E76° 06' 06.9"	1011 m	25.00	25	Maize	Wheat	8	32%	2	25%	2	19	4
11	FIS Priyungal	Satsar: 6 lps, June 2020	Improvement	N	-	N32° 30' 40.1"	E76° 07' 00.6"	1535 m	11.00	70	Maize	Wheat	6	9%	1	17%	1	67	2
12	FIS Bhadsar	Dehgran Nallah: 10 lps, June 2020	Improvement	N	-	N32° 50' 29.1"	E76° 04' 09.4"	1999 m	24.00	60	Maize	Barley	7	12%	2	29%	2	54	4
13	FIS Kukren to Thanoti	Kukren Nallah: 40 lps, June 2020	Improvement	N	-	N32° 47' 42.0"	E75° 55' 44.3"	1701 m	35.00	90	Maize	Barley	5	6%	1	20%	1	85	4
14	FIS Nandan and Jusab	Gharat Nallah: 35 lps, June 2020	Improvement	N	1.80	N32° 42' 11.2"	E76° 02' 52.8"	1008 m	20.00	55	Maize	Wheat	4	7%	2	50%	2	46	7
15	FIS Dharmaran	Sua Nallah: 50 lps, June 2020	Improvement	N	-	N32° 47' 42.0"	E75° 55' 44.3"	1701 m	15.00	70	Maize	Barley	5	7%	1	20%	1	63	6
16	FIS Sanooh	Kali Mata Nallah: 50 lps, June 2020	Improvement	N	-	N32° 47' 31.4"	E75° 56' 19.3"	1734 m	12.00	40	Maize	Oil Seed/Barley	8	20%	2	25%	2	33	5
<b>Total</b>					<b>7.60</b>				<b>296</b>	<b>771</b>			<b>93</b>		<b>26</b>		<b>26</b>	<b>683</b>	<b>62</b>

Sirmour

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/F armers	Major crops		Total Vegetable Farmers (% out of total farm HHs)		Commercial Vegetable Farmers (% out of total)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	FIS Lohara Khala	Lohara Nallah: 6 lps, June 2020	New	N	-	N30° 39' 09.2"	E77° 25' 55.7"	984 m	10.00	16	Maize, Ginger, Mix Veg.	Wheat, Oat, Mix. Veg.	7	44%	1	14%	4	8	4
2	FIS Pandhara Choken	Pandhara Khad: 10 lps, June 2020	New	N	-	N30° 49' 51.2"	E77° 17' 33.3"	1303 m	15.00	30	Maize, Ginger, Mix Veg.	Wheat, Oat, Mix. Veg.	13	43%	3	23%	5	15	10
3	FIS Godia Chhuni	Chunji Khala: 8 lps, June 2020	New	N	-	N30° 43' 45.1"	E77° 17' 40.5"	1223 m	10.00	14	Maize, Ginger, Mix Veg.	Wheat, Oat, Mix. Veg.	6	43%	2	33%	3	6	5
4	LIS Chod Ka Malavan	Chod ka Malavan: 12 lps, June 2020	New	Y	-	N30° 52' 33.8"	E77° 17' 17.7"	1150 m	16.00	42	Maize, Ginger, Mix Veg., Pulses	Wheat, Oat, Mix. Veg., Pulses	16	38%	5	31%	12	15	15
5	LIS Tai Tisri Khad	Thanoh Nallah: 12 lps, June 2020	New	Y	-	N30° 53' 33.9"	E77° 20' 23.0"	1769 m	30.00	75	Maize, Ginger, Mix Veg., Pulses	Wheat, Oat, Mix. Veg., Pulses	30	40%	4	13%	10	45	20
6	LIS Bhool to Tikkri	Bhool Khurla, June 2020	New	Y	-	N30° 48' 17.0"	E77° 18' 47.7"	1389 m	18.00	100	Maize, Ginger, Mix Veg., Pulses	Wheat, Oat, Mix. Veg., Pulses	40	40%	6	15%	20	50	30
7	FIS Adwar	Suka Khad: 8 lps, June 2020	New	N	-	N30° 32' 34.8"	E77° 42' 16.3"	866 m	8.00	9	Maize, Ginger, Mix Veg.	Wheat, Oat, Mix. Veg.	3	33%	1	33%	2	5	2
8	FIS Patti Bass	Borad Khala: 12 lps, June 2020	New	N	-	N30° 34' 26.2"	E77° 44' 58.6"	994 m	8.50	15	Maize, Ginger, Mix Veg., Pulses	Wheat, Oat, Mix. Veg., Pulses	7	47%	2	29%	3	8	4
9	FIS Dhayan Khala to Thontha, Naya, Kafenu, Panjod, Kukdech, Bheev	Dhayan Nallah: 15 lps	New	-	1	N30° 42' 28.1"	E77° 36' 05.9"	1805 m	156.85	318	Maize, Ginger, Veg. Pulses	Wheat, Vegetables, Pulses, Oat	140	44%	10	7%	38	200	80
<b>Total</b>									<b>272.35</b>	<b>619</b>			<b>262</b>		<b>34</b>		<b>97</b>	<b>352</b>	<b>170</b>

Solan





Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/F armers	Major crops		Total Vegetable Farmers (% out of total farm HHs)		Commercial Vegetable Farmers (% out of total)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	FIS Chandpur	Ghornu Nallah: 8 lps, June 2020	New	N	-	N31° 10' 03.4"	E76° 56' 03.5"	1130 m	20.00	250	Maize, Paddy, Pulses	Wheat, Barley, Oil seed	100	40%	2	2%	20	170	60
2	FIS Manjhu Khad	Manshu Khad: 20 lps, June 2020	New	N	-	N31° 08' 04.1"	E76° 59' 51.3"	1016 m	40.00	100	Maize, Paddy, Pulses	Wheat, Barley, Oil seed, Mix Veg.	40	40%	2	5%	10	50	40
3	FIS Sari	Dagech: 10 lps, June 2020	New	N	-	N31° 11' 40.4"	E76° 57' 15.1"	1521 m	20.00	25	Maize, Mix Veg.	Wheat, Barley, Oil seed, Mix	10	40%	1	10%	5	10	10
4	FIS Beral	Beral Nallah: 7 lps, June 2020	New	N	-	N31° 19' 37.1"	E76° 56' 44.8"	695 m	10.00	55	Maize, Paddy, Pulses	Wheat, Barley, Oil seed	25	45%	2	8%	5	25	25
5	FIS Changer Chalama	Chalama Nallah: 6 lps, June 2020	New	N	2	N31° 12' 35.1"	E76° 50' 47.6"	1096 m	45.00	20	Maize, Ginger, Tomato	Wheat, Onion, Garlic	6	30%	1	17%	2	9	9
6	LIS Kolthi	Kolthi Nallah: 6 lps, June 2020	New	Y	-	N31° 02' 00.4"	E76° 58' 09.1"	920 m	10.00	70	Maize, Pulses	Wheat, Pulses, Mustard	30	43%	2	7%	10	40	20
7	LIS Mahog	Tandi Ka nallah Nallah: 15 lps, March 2020	New	Y	-	N30° 57' 57.6"	E77° 10' 23.0"	1539 m	45.00	40	Maize, Mix Veg.	Wheat, Mix Veg.	10	25%	5	50%	5	25	10
8	LIS Jhaja	Tandi Ka nallah Nallah: 15 lps, March 2020	New	Y	-	N30° 57' 53.5"	E77° 10' 23.4"	1562 m	25.00	45	Maize, Mix Veg.	Wheat	20	44%	1	5%	8	27	10
9	LIS Anji	Anji Ka Nallah: 7 lps, March 2020	New	Y	-	N30° 58' 21.3"	E77° 05' 41.3"	1248 m	13.00	15	Maize	Wheat	6	40%	1	17%	2	10	3
10	FIS Mahi	Kalon Ka Nallah: 12 lps, March 2020	New	N	-	N30° 57' 25.4"	E77° 06' 55.8"	1466 m	13.00	25	Maize	Wheat	9	36%	1	11%	4	14	7
11	LIS Bola	Dagan Ka Nallah: 15 lps, March 2020	New	Y	-	N31° 01' 37.7"	E77° 01' 36.9"	911 m	13.00	23	Maize	Wheat	10	44%	1	10%	3	10	10
12	FIS Redu	Kool Khud Methal: 5 lps, June 2020	New	N	-	N31° 06' 15.7"	E76° 42' 37.0"	410 m	100.00	183	Maize, Paddy	Wheat	80	44%	2	3%	23	80	80
13	FIS Gharwa Plasara	Perenial Source: 5 lps, June 2020	New	N	-	N31° 04' 47.0"	E76° 43' 48.5"	426 m	30.00	60	Maize, Paddy	Wheat	15	25%	1	7%	10	25	25
14	LIS Navti Thura	Chatyan ka Nallah: 6 lps, June 2020	New	Y	-	N30° 56' 47.8"	E76° 58' 48.6"	1051 m	11.50	28	Maize, Foeder	Wheat, Foeder	11	39%	2	18%	5	13	10
15	LIS Kanda Kathyadu	Kandoli Khad: 8 lps, June 2020	New	Y	1	N30° 55' 56.9"	E76° 59' 39.3"	1129 m	11.66	51	Maize, Foeder	Wheat, Foeder	16	31%	3	19%	11	25	15
16	FIS Dhayari- Dhalli-Jadari	Baandh Ka Nallah: 10 lps, March 2020	Improvement	N	-	N30° 57' 45.1"	E77° 05' 41.6"	1457 m	40.00	110	Maize, Foeder	Wheat, Foeder	50	45%	2	4%	20	50	40
17	FIS Sarawan	Stream: 7 lps, May 2020	Improvement	N	1	N30° 52' 41.1"	E77° 09' 32.8"	1562 m	20.00	35	Maize, Foeder	Wheat, Foeder	10	28%	1	10%	10	15	10
18	FIS Kailar	Nauni: 6 lps, June 2020	Improvement	N	-	N30° 54' 41.2"	E77° 04' 37.4"	1479 m	16.00	119	Maize, Foeder	Wheat, Foeder	55	46%	2	4%	19	65	35
19	FIS Khaldar (Ghatti)	Khaldar: 5 lps, June 2020	Improvement	N	-	N30° 55' 04.6"	E77° 03' 42.5"	1490 m	45.00	156	Maize, Foeder	Wheat, Foeder	70	45%	2	3%	26	70	60
20	FIS Bhumbak to Top ki Ber (Nau) (Manlog)	Bhumbak Nallah: 6 lps, June 2020	Improvement	N	-	N30° 55' 42.5"	E77° 02' 50.8"	1458 m	18.00	261	Maize, Foeder	Wheat, Foeder	110	42%	2	2%	40	121	100
21	FIS Rawan Ka ban to Choura (Sheel)	Rawan Ka Ban: 7 lps, June 2020	Improvement	N	-	N30° 55' 48.5"	E77° 02' 50.0"	1397 m	22.00	300	Maize, Foeder	Wheat, Foeder	120	40%	3	3%	50	180	70
22	FIS Chakli (Shawad to Dadla)	Shawad: 6 lps, May 2020	Improvement	N	1	N30° 56' 24.6"	E77° 02' 36.5"	1342 m	11.00	45	Maize, Foeder	Wheat, Foeder	20	44%	1	5%	6	20	19
<b>Total</b>				<b>7</b>	<b>5</b>				<b>579.16</b>	<b>2016</b>			<b>823</b>		<b>40</b>		<b>294</b>	<b>1054</b>	<b>668</b>

AT 5-13





Lahaul & Spiti

Sr. No.	Name & Type of Scheme	Source of Discharge (Observation : Month Year etc.)	New or Improvement	Solar Pump (Y/N)	Farm Access Road (Km)	GPS Location of Source			C.C.A (Hect.)	No. of farm Households/F armers	Major crops		Total Vegetable Farmers (% out of total farm HHs)		Commercial Vegetable Farmers (% out)		Dominant Farmers (Advanced/ Intermediate/ Conservative)		
						Latitude	Longitude	Elevation			In Kharif	In Rabi	Nos.	% age	Nos.	% age	Advanced	Intermediate	Conservative
1	FIS Panahi	Chanas Nallah: 55 lps, June 2020	New	N	-	N 32° 47' 43.7"	E 076° 43' 44.2"	3146 m	20.00	18	Potato, veg, pulses barley	snow No crop	12	67%	7	58%	5	10	3
2	FIS Dara Nallah (Jasrath)	Nalda Nallah: 60lps, June 2020	Improvement	N	-	N 32° 38' 11.3"	E 076° 51' 21.3"	2777 m	15.00	16	Potato, veg, pulses barley	snow No crop	11	69%	7	64%	7	6	3
3	FIS Telang Way	Shamsha Nallah: 50 lps, June 2020	Improvement	N	-	N 32° 36' 44.5"	E 076° 56' 07.4"	3315 m	30.00	10	Potato, veg, pulses barley	snow No crop	7	70%	4	57%	3	5	2
4	FIS Rawaling Kuhal	Perennial Source: 60 lps, June 2020	Improvement	N	-	N 32° 36' 46.6"	E 076° 55' 20.6"	3209 m	25.00	18	Potato, veg, pulses barley	snow No crop	12	67%	8	67%	4	11	3
5	FIS Grooni (Thakurti)	Jahlman Nallah: 80 lps, June 2020	Improvement	N	-	N 32° 37' 49.6"	E 076° 52' 34.0"	2991 m	30.00	10	Potato, veg, pulses barley	snow No crop	6	60%	5	83%	4	4	2
6	FIS Paadi	Jahlman Nallah: 75 lps, June 2020	Improvement	N	-	N 32° 37' 50.6"	E 076° 52' 31.3"	2978 m	30.00	10	Potato, veg, pulses barley	snow No crop	6	60%	5	83%	4	4	2
7	FIS Kardang	Peukas Nallah: 85 lps, June 2020	Improvement	N	-	N 32° 34' 00.0"	E 077° 01' 20.5"	3135 m	40.00	12	Potato, veg, pulses barley	snow No crop	8	67%	5	62%	5	5	2
8	FIS Murticha & Jagla	Perennial Source: 20 lps, June 2020	Improvement	N	-	N 32° 30' 20.6"	E 077° 03' 18.8"	3284 m	25.00	25	Potato, veg, pulses barley	snow No crop	15	60%	9	60%	7	16	2
9	FIS Rahling	Perennial Source: 18 lps, June 2020	Improvement	N	-	N 32° 30' 20.6"	E 077° 03' 18.8"	3284 m	25.00	18	Potato, veg, pulses barley	snow No crop	11	61%	6	54%	5	11	2
10	FIS Khurpani	Perennial Source: 15 lps, June 2020	Improvement	N	-	N 32° 30' 20.6"	E 077° 03' 18.8"	3284 m	20.00	17	Potato, veg, pulses barley	snow No crop	10	58%	6	60%	6	9	2
11	FIS Jobrang	Jobrang Nallah: 90 lps, June 2020	Improvement	N	-	N 32° 37' 02.5"	E 076° 52' 46.5"	2897 m	20.00	16	Potato, veg, pulses barley	snow No crop	11	68%	7	63%	7	6	3
12	FIS Purad	Spring: 45 lps, June 2020	Improvement	N	-	N 32° 30' 31.5"	E 77° 01' 48.4"	3231 m	30.00	20	Potato, veg, barley	snow bound No crop	13	65%	7	54%	4	12	4
13	FIS Madgran	Sangrana Nalla: 40 lps, June 2020	Improvement	N	-	N 32° 42' 50.8"	E 076° 40' 30.8"	2666 m	60.00	46	Potato, veg, barley	snow bound No crop	32	70%	21	65%	10	31	5
14	FIS Mayur Kuhl Gemoor	Kolong Nallah: 50 lps, June 2020	Improvement	N	-	N32° 36' 43.1"	E77° 08' 46.7"	3295 m	20.00	25	Potato, veg, barley	snow bound No crop	16	64%	10	62%	5	18	2
15	FIS Yarti (Tinno)	Perennial Nallah: 45 lps, June 2020	Improvement	N	-	N 32° 34' 50.9"	E 077° 07' 53.3"	3231 m	40.00	28	Potato, veg, barley	snow bound No crop	18	64%	11	61%	6	19	3
16	FIS Peukar	Perennial Nalla: 40 lps, June 2020	Improvement	N	-	N 32° 33' 43.5"	E 077° 04' 34.2"	3154 m	32.00	20	Potato, veg, barley	snow bound No crop	14	70%	10	71%	7	11	2
17	FIS Barbog	Peukar Nallah: 60 lps, June 2020	Improvement	N	-	N 32° 44' 43.2"	E 076° 38' 02.4"	3213 m	50.00	33	Potato, veg, barley	snow bound No crop	23	70%	17	74%	10	20	3
18	FIS Khangsar	Perennial Nallah: 20 lps, June 2020	Improvement	N	-	N32° 30' 20.6"	E77° 03' 18.8"	3284 m	42.00	21	Potato, veg, barley	snow bound No crop	13	62%	8	62%	7	11	3
19	FIS Shooling	Perennial Nallah: 26 lps, June 2020	Improvement	N	-	N32° 30' 20.6"	E77° 03' 18.8"	3284 m	30.00	45	Potato, veg, barley	snow bound No crop	30	67%	18	60%	12	28	5
20	FIS Dhawansa	Perennial Nalla: 60 lps, June 2020	Improvement	N	-	N 32° 36' 46.8"	E 076° 55' 22.2"	3121 m	30.00	15	Potato, veg, barley	snow bound No crop	11	73%	8	73%	5	8	2
21	FIS Gawazang	Bravy Nallah: 35 lps, June 2020	Improvement	N	-	N32° 33' 24.0"	E77° 00' 21.1"	3130 m	20.00	19	Potato, veg, barley	snow bound No crop	12	63%	7	58%	4	13	2
<b>Total</b>					<b>0.00</b>				<b>634</b>	<b>442</b>			<b>291</b>		<b>186</b>		<b>127</b>	<b>258</b>	<b>57</b>

AT-5-14

<p>Sample sub project No.: 1          Sample subproject Name: LIS Samella (New)          District Name: Hamirpur</p>	<p>Date of Survey: 14.08.2020          Surveyor: Mr. Vivek Thakur, Mr. Pranav Gupta</p>
<p style="text-align: center;">(14 farmers were present in the discussion &amp; out of 14, 4 were female &amp; 10 were male)</p>	
<p style="text-align: center;">Non-disclosure information due to portrait protection</p>	
<p>No.1: Discussion with farmers at village Samella, G.P Samella, Dsitric Hamirpur (H.P)</p>	<p>No. 2: Existing cultivated field -1 (Wheat crop)</p>
	
<p>No. 3: Existing cultivated field-2 (Maize)</p>	<p>No. 4: Closeup view of Expected water source.</p>
	<p style="text-align: center;">Non-disclosure information due to portrait protection</p>
<p>No. 5: Expected water source namely Gawald Khad. Plenty of water is available in the khad and during dry season 70% of water remains in this khad.</p>	<p>No. 6: Photo with farmers during visit to water source.</p>



<p>Sample sub project No.: 2          Sample subproject Name: <i>LIS Balduhak (New)</i>          District Name: <i>Hamirpur</i></p>	<p>Date of Survey: <i>13.08.2020</i>          Surveyor: <i>Mr. Vivek Thakur, Mr. Pranav Gupta</i></p>
<p style="text-align: center;"><i>(11 farmers were present in the discussion &amp; out of 11, 5 were female &amp; 6 were male)</i></p>	
<p style="text-align: center;">Non-disclosure information due to portrait protection</p>	
<p>No.1: Discussion with farmers at village Bihal, G.P. Balduhak, Dsitrict Hamirpur (H.P)</p>	<p>No. 2: Existing cultivated field -1 (Wheat crop)</p>
	
<p>No. 3: Existing cultivated field-2 (Turmeric)</p>	<p>No. 4: Closeup view of Expected water source namely Salasi Khad.</p>
	<p style="text-align: center;">Non-disclosure information due to portrait protection</p>
<p>No. 5: Expected water source namely Salasi Khad. Plenty of water is available in the khad and during dry season 60% of water remains in this khad.</p>	<p>No. 6: Panorama view of discussion with farmers</p>

Sample sub project No.: 3 Sample subproject Name: <i>STW Chattara (New)</i> District Name: <i>Una</i>	Date of Survey: <i>17.08.2020</i> Surveyor: <i>Mr. Aman Rana, Mr. Shubham Jamwal</i>
<i>(15 farmers were present in the discussion &amp; out of 15, 10 were female &amp; 5 were male. The source of water in this sub project is tubewell.</i>	
Non-disclosure information due to portrait protection	Non-disclosure information due to portrait protection
No.1: Discussion with farmers at village Chattara, G.P Chattara, Dsitric Una (H.P)	No. 2: Discussion with farmers
	
No. 3: Existing cultivated field: Maize crop.	No. 4: Panorama view of CCA.
	Non-disclosure information due to portrait protection
No. 5: Existing nallah near tubewell.	No. 6: Discussion with farmers

Sample sub project No.: 4  
 Sample subproject Name: LIS Mandholi (New)  
 District Name: Una  
 Date of Survey: 18.08.2020  
 Surveyor: Mr. Aman Rana, Mr. Shubham Jamwal

(14 farmers were present in the discussion & out of 14, 9 were female & 5 were male)



No.1: Discussion with farmers at village Mandholi, G.P Mandholi, Dsitric Una (H.P)



No. 2: Existing cultivated field (Maize)



No. 3: Expected Water Source: Mandholi Khad, 80% water remains in this source during dry season.



No. 4: Close up view of expected water source



No. 5: Panorama view of expected water source.



No. 6: Panorama view of CCA.

Sample sub project No.: 5 Sample subproject Name: <i>LIS Chanjota</i> (Improvement) District Name: <i>Bilaspur</i>	Date of Survey: 14.08.2020 Surveyor: Mr. Aman Rana, Mr. Shubham Jamwal
(10 farmers were present in the discussion & out of 10, 4 were female & 6 were male)	
Non-disclosure information due to portrait protection	
No.1: Discussion with farmers at village Chanjota, G.P Panjain Khurd, Dsitric Bilaspur (H.P)	No. 2: Existing cultivated field -1 (Wheat crop)
	
No. 3: Existing Kutcha Farm Access Road (Approx. length is 150 metres)	No. 4: Closeup view of Expected water source namely Ali Khad.
	Non-disclosure information due to portrait protection
No. 5: Expected water source namely Ali Khad. Plenty of water is available in the khad and during dry season 50% of water remains in this khad.	No. 6: Discussion with farmers







No. 7: Existing water storage tank of approx. 15000 ltrs capacity.












No. 8: Existing cement concrete distribution channels

Sample sub project No.: 6 Sample subproject Name: LIS Dharbyain (New) District Name: Bilaspur	Date of Survey: 13.08.2020 Surveyor: Mr. Aman Rana, Mr. Shubham Jamwal
(16 farmers were present in the discussion & out of 16, 6 were female & 10 were male)	
Non-disclosure information due to portrait protection	Non-disclosure information due to portrait protection
No.1: Discussion with farmers at village Dharbyain, G.P Kuthera, District Bilaspur (H.P)	No. 2: Existing cultivated field -1 (Wheat crop)
	
No. 3: Existing Kutcha Farm Access Road (Approx. length is 800 metres)	No. 4: Closeup view of Expected water source namely Sauli Khad.
Non-disclosure information due to portrait protection	Non-disclosure information due to portrait protection
No. 5: Expected water source namely Sauli Khad. Plenty of water is available in the khad and during dry season 60% of water remains in this khad.	No. 6: Panorama view of discussion with farmers

Sample sub project No.: 7 Sample subproject Name: <i>FIS Kasan to Sanj (Improvement)</i> District Name: <i>Mandi</i>	Date of Survey: 18.08.2020 Surveyor: Mr. Vivek Thakur, Mr. Pranav Gupta
(19 farmers were present in the discussion & out of 19, 12 were female & 7 were male)	
Non-disclosure information due to portrait protection	
No.1: Discussion with farmers at village Sanj, G.P. Sanj, Dsitric Mandi (H.P)	No. 2: Existing cultivated field -1 (Wheat crop)
	
No. 3: Panorama view of CCA	
	
No. 4: Existing water source namely Kasan Khad. Plenty of water is available in the khad and during dry season 70% of water remains in this khad.	No. 5: Close up view of existing water source.



Sample sub project No.: 8 Sample subproject Name: <i>FIS Suma to Shivabadar</i> (New) District Name: <i>Mandi</i>	Date of Survey: 17.08.2020 Surveyor: Mr. Vivek Thakur, Mr. Pranav Gupta
(16 farmers were present in the discussion & out of 16, 6 were female & 10 were male)	
Non-disclosure information due to portrait protection	
No.1: Discussion with farmers at village Shivabadar, G.P. Shivabadar, District Mandi (H.P)	No. 2: Existing cultivated field -1 (Wheat crop)
	
No. 3: Panorama view of CCA	
	
No. 4: Expected water source namely Summa Khad. Plenty of water is available in the khad and during dry season 60% of water remains in this khad.	No. 5: Closeup view of expected Water Source.





Sample sub project No.: 9 Sample subproject Name: <i>FIS Manuni Kuhal (Improvement)</i> District Name: <i>Kangra</i>	Date of Survey: <i>13.08.2020</i> Surveyor: <i>Mr. Ronit Kumar, Mr. Rohit Kumar</i>
(16 farmers were present in the discussion & out of 16, 3 were female & 13 were male)	
Non-disclosure information due to portrait protection	
No.1: Discussion with farmers at village Kaned, G.P Kaned, Dsitrict Kangra (H.P)	No. 2: Existing cultivated field -1 (Paddy crop)
	
No. 3: Existing cultivated field-2 (Paddy crop)	No. 4: Closeup view of existing water source
	
No. 5: Existing water source namely Manuni Khad. Plenty of water is available in the khad and during dry season 70% of water remains in this khad.	No. 6: Existing Kutch channel (kuhal) constructed by farmers for taking water to their cultivated fields.









No. 7: Existing Kutcha Farm Access Road approx. length 2 Km.



No. 8: 2<sup>nd</sup> Closeup view of existing water source

Sample sub project No.: 10 Sample subproject Name: LIS Balu Galoa (New) District Name: Kangra	Date of Survey: 14.08.2020 Surveyor: Mr. Ronit Kumar, Mr. Rohit Kumar
(11 farmers were present in the discussion & out of 11, 3 were female & 8 were male)	
Non-disclosure information due to portrait protection	
No.1: Discussion with farmers at village Balu Galoa, G.P Balu Galoa, District Kangra (H.P)	No. 2: Existing cultivated field -1 (Wheat crop)
	
No. 3: Existing cultivated field-2	No. 4: Closeup view of expected water source
	Non-disclosure information due to portrait protection
No. 5: Expected water source namely Nakehar Khad. Plenty of water is available in the khad and during dry season 60% of water remains in this khad.	No. 6: Group Discussion with farmers

Sample sub project No.: 11 Sample subproject Name: FIS Bran Bihal Seri (Improvement) District Name: Kullu Date of Survey: 13.08.2020 Surveyor: Mr. Garvit Gupta, Mr. Vijay Kumar	
(17 farmers were present in the discussion & out of 17, 2 were female & 15 were male)	
Non-disclosure information due to portrait protection	Non-disclosure information due to portrait protection
No.1: Discussion with farmers at village Bran Bihal Seri , G.P Bran, District Kullu (H.P)	No. 2: Existing cultivated field -1 (Tomato & Wheat crop)
Non-disclosure information due to portrait protection	
No. 3: Existing cultivated field-2 (Apple Orchard)	No. 4: Closeup view of existing water source: Bran Nallah and water is available throught the year and 70% water remains in the source in dry season.
Non-disclosure information due to portrait protection	Non-disclosure information due to portrait protection
No. 5: Existing cultivated field-3 (Beans)	No. 6: Existing Water Source

Sample sub project No.: 12 Sample subproject Name: <i>FIS Dobha Seri (Improvement)</i> District Name: <i>Kullu</i>	Date of Survey: 14.08.2020 Surveyor: <i>Mr. Garvit Gupta, Mr. Vijay Kumar</i>
(12 farmers were present in the discussion & out of 12, 5 were female & 7 were male)	
Non-disclosure information due to portrait protection	
No.1: Discussion with farmers at village Dobha, G.P Baran, Dsitrict Kullu (H.P)	No. 2: Existing cultivated field -1 (Beans & Apple)
	
No. 3: Existing cultivated field-2 (Maize)	No. 4: Existing cultivated field-3 (Apple)
	
No. 5: Existing cultivated field-4 (Cabbage)	No. 6: Existing cultivated field-5 (Brinjal)