

Government of India Ministry Of Earth Sciences (MOES) India Meteorological Department Meteorological Centre, Shimla

## <u>Post Monsoon</u> <u>Seasonal Weather Report</u> (October-December 2024)

#### 1. December month weather summary

- Himachal Pradesh experienced mainly dry weather conditions during December month with 3 days of isolated, 2 days of scattered, 1 day of fairly widespread and 2 days of widespread precipitation activities during December 2024. Himachal Pradesh experienced weak rainfall activity on many days with 3 days of normal rainfall activities, 1 day of active rainfall and 1 day of vigorous rainfall activity.
- Himachal Pradesh has received 44<sup>th</sup> Highest Rainfall (48.2 mm) from the period 1901-2024. The highest rainfall was received in the year 1929(176 mm) in the month of December.

#### **1.1 Precipitation and Departure for December month**

The state received an overall <u>excess</u> precipitation with departure (27%) having recorded actual rainfall of **48.2mm** against the normal rainfall of **38.1mm** in the month of December 2024. Districts Una, Hamirpur, Bilaspur, Shimla and Sirmaur received **large excess** rainfall; districts Kangra, Kullu, Mandi and Kinnaur received **excess** rainfall; districts Chamba and Lahaul-Spiti received **normal** rainfall & district Solan received **deficient** rainfall.

	December-2024				
District	Actual(mm)	Normal(mm)	Departure (%)		
Bilaspur	59.1	24.6	140		
Chamba	63.2	53.2	19		
Hamirpur	62.1	26.3	136		
Kangra	54.8	35.2	56		
Kinnaur	41.5	32.4	28		
Kullu	53.1	41.5	28		
Lahaul & Spiti	44.4	47.9	-7		
Mandi	38.7	25.7	51		
Shimla	45.3	27	68		
Sirmaur	46.7	29.1	60		
Solan	23.9	32.5	-26		
Una	53.6	20.5	161		
Sub-Division HP	48.2	38.1	27		

District wise rainfall and departure for December month-

#### 1.2 Fog:

- > Shallow to Moderate fog was observed at few places in the districts of Mandi, Una and Bilaspur.
- Dense to Very Dense fog was observed at isolated places in the districts of Bilaspur, Mandi and at isolated places in the district of Kangra.

#### 1.3 Cold day:

- Severe cold day was observed in Mandi, Sundernagar and Chamba on 27th Dec.; Sundernagar, Bhuntar, Kalpa, Manali, Mandi, Hamirpur and Chamba on 28th Dec.; Una on 30th Dec 2024.
- Cold day was observed in Bhuntar, Una and Bilaspur on 27th Dec.; Kangra on 28th Dec.; Kalpa on 31st Dec 2024.

#### **1.4 Cold Wave:**

**Cold wave to severe cold wave** conditions prevailed over some parts of Mandi district since 4th Dec; over Una district since 5th Dec; over Hamirpur district since 6th Dec; Bilaspur district since 9th Dec; over Kangra district since 10th Dec and over Chamba district since 13th Dec, 2024.

#### **1.5 Ground Frost:**

Ground Frost was observed in Palampur on 4<sup>th</sup>,09<sup>th</sup>,16<sup>th</sup>,17<sup>th</sup>, 19<sup>th</sup> Dec; Kangra on 16<sup>th</sup>, 17<sup>th</sup> Dec; Sundernagar on 18th Dec; Bhuntar on 19<sup>th</sup>, 25<sup>th</sup> Dec, Jubberhatti on 21<sup>st</sup>, 24<sup>th</sup> and 25<sup>th</sup> Dec, Shimla on 24<sup>th</sup> Dec.

### 2. District wise Precipitation (01.10.2024 to 31.12.2024)

#### October-

The State received <u>large deficient</u> precipitation (-97%) in Himachal Pradesh with **0.7 mm actual** rainfall against **25.1mm normal** rainfall in October month i.e. from 01.10.2024 to 31.10.2024. Districts Hamirpur, Bilaspur, Solan, Sirmaur, Kullu and Chamba have received **no rainfall** in October 2024.

#### November-

The State of Himachal Pradesh received <u>large deficient</u> precipitation (-99%) **0.2 mm actual** rainfall against **19.7 mm normal** rainfall in November month i.e. from 01.11.2024 to 30.11.2024. Districts Hamirpur, Bilaspur, Solan, Sirmaur, Kullu, Kangra, Mandi, Shimla, Una and Chamba have received **no** rainfall in November 2024.

#### Post Monsoon (Oct- Dec)-

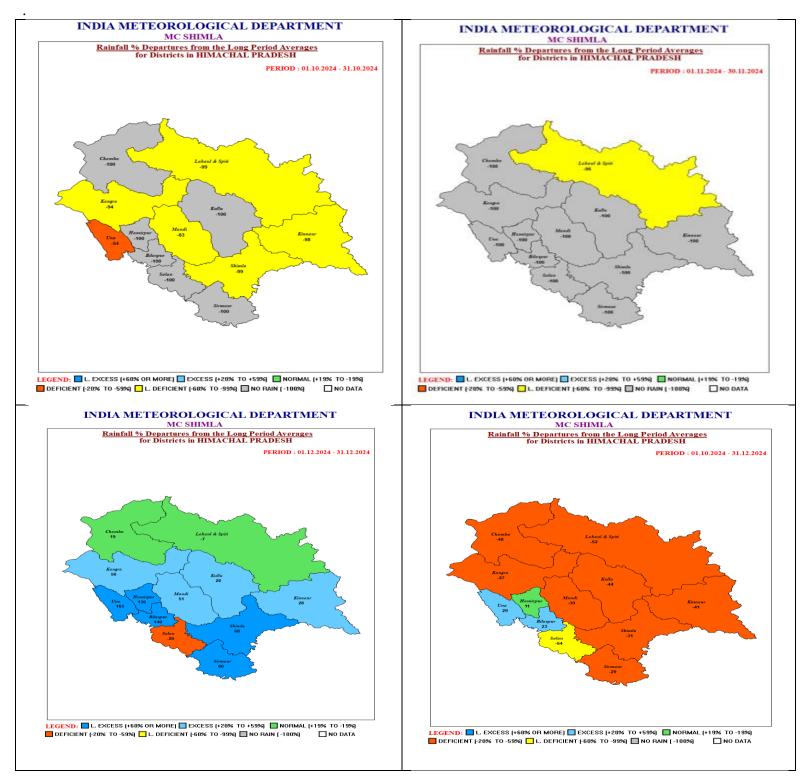
Himachal Pradesh has received **41<sup>st</sup> Lowest Rainfall (49.1 mm)** from the period 1901-2024. The highest rainfall was received in the year **1955(429.4 mm)** in the Post monsoon season.

The state has received <u>deficient</u> rainfall having departure of (-41%) with actual rainfall of **49.1 mm** against normal rainfall of **82.9 mm** in Post monsoon season.

Districts Bilaspur, Una received **excess** rainfall; district Hamirpur received **normal** rainfall; districts Chamba, Lahaul-Spiti, Kinnaur, Kullu, Mandi, Kangra, Shimla and Sirmaur received **deficient** rainfall & district Solan received **large deficient** rainfall.

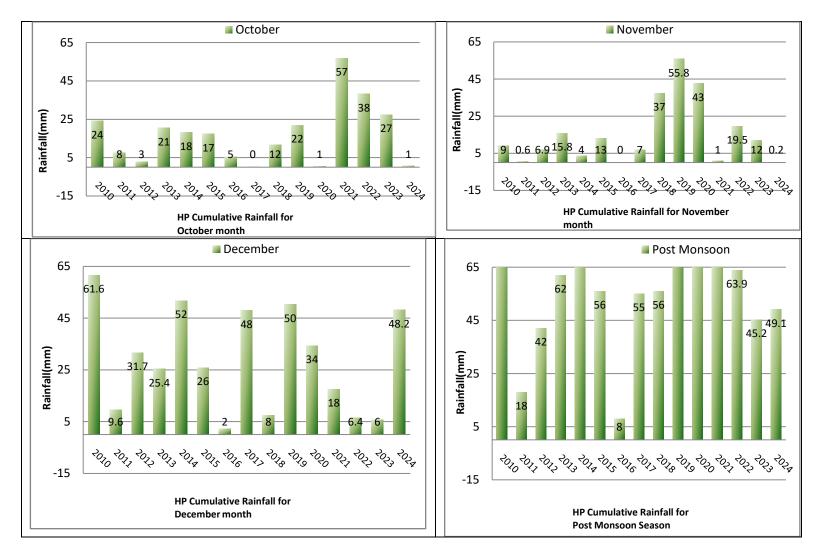
October-December-2024				
District	Actual(mm)	Normal(mm)	Departure (%)	
Bilaspur	59.1	48.2	23	
Chamba	63.2	122.5	-48	
Hamirpur	62.1	56.1	11	
Kangra	56.3	77.4	-27	
Kinnaur	41.9	71.4	-41	
Kullu	53.1	94	-44	
Lahaul & Spiti	45.4	95.4	-52	
Mandi	41.5	59	-30	
Shimla	45.4	65.4	-31	
Sirmaur	46.7	65.6	-29	
Solan	23.9	67	-64	
Una	62.2	48.3	29	
Sub-Division HP	49.1	82.9	-41	

## **3.** Pictorial representation of rainfall departure (%) from normal (October, November, December and for Post Monsoon Season)

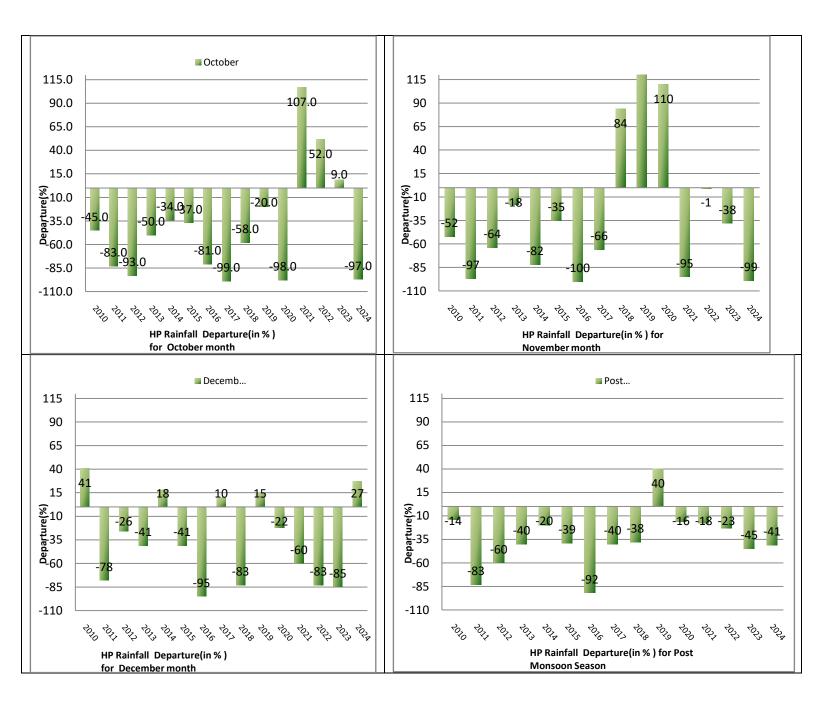


# **5.** Following graph shows the graphical representation of actual Rainfall (mm) and Departure (%)For Himachal Pradesh (Comparison from 2010 to 2024 )

#### **Graph 1:-Actual Rainfall**



#### Graph2:-Percentage departure



#### 6. Highest Precipitation

- Highest Rainfall (mm)- Bharwain(Una): 70.0 on 28<sup>th</sup>December 2024
- ➢ Highest Snowfall (cm)- Bharmaur(Chamba): 43.0 on 29<sup>th</sup>December 2024

## 7. Chief amount of Rainfall (mm)

	Date	Station		
October	05-10-2024	Manali(Dist Kullu) Tr.		
	06-10-2024	Una (Dist Una) 22.0, Jot(Dist Chamba) 18.2, Bijahi (Dist Mandi) 15.0, Amb(Dist Una) 12.4, Gohar(Dist Mandi) 10.0, Sandhole(Dist Mandi) 7.0, Murari Devi(Dist Mandi) 6.0, Jogindernagar(Dist Mandi) 3.0 Kangra(Dist Kangra) 2.2,Palampur(Dist Kangra) 2.0, Sundernagar(Dist Mandi) 1.4, Dharmshala (dist Kangra) 1.0		
	09-10-2024	Bhaba nagar(Dist Kinnaur) Tr, Shimla(Dist Shimla) Tr.		
	10-10-2024	Kalpa (Dist Kinnaur) 1.2, Sangla (Dist Kinnaur) 0.2, Moorang(Dist Kinnaur) 0.2		
	11-10-2024	Kalpa (Dist Kinnaur) 0.2, Sangla (Dist Kinnaur) 0.1		
	18-10-2024	Palampur (Dist Kangra) 7.0		
	19-10-2024	Jogindernagar (Dist Mandi) 1.0		
	23-10-2024	Sangla (Dist Kinnaur) 0.4.		
November	24-11-2024	Kukumseri (Dist Spiti) 3.2		
December	09-12-2024	Bhoranj (Hamirpur) 10.0, Mehre Barsar (Hamirpur) 7.0, Baldwara (Mandi)5.0, Kandaghat (Solan) 2.2		
	10-12-2024	Kothkai(Shimla) 0.5		
	24.12.2024	Sangrah(Sirmaur)18.0, Rohru(Shimla)15.0, Kotkhai(Shimla)9.5, Karsog(Mandi)9.2, Nalagarh(Solan)9.0, Tindar(Kullu)8.0, Chharari(Chamba)7.9, CPRI AWS(Shimla)7.5, Kumarsain(Shimla)7.4, Renuka Dadahu(Sirmaur)6.0,Pachhad(Sirmaur)8.0, Kasauli(Solan)7.0		
	25.12.2024			
	27.12.2024			
	28.12.2024	Bharwain(Una)70.0, Manali(Kullu)63.0, Naina Devi(Bilaspur)62.4,		
		Ghumarwin(Bilaspur)58.0, Guler(Kangra)57.4,		
		Brahmani(Bilaspur)56.4, Berthin(Bilaspur)52.4, Kheri(Chamba)50.0		
	29.12.2024	Sandhole(Mandi)42.4, Mehre (Barsar)(Hamirpur)38.0,		
		Tissa(Chamba)35.3, Dharamshala(Kangra)28.6, Jubbal(Shimla)25.8,		
		Renuka Dadahu(Sirmaur)22.0		
	30.12.2024	Renuka/Dadahu (Sirmaur) 3.0		

## 8. Chief amount of Snowfall(cm)

	Date	Station		
October	09.10.2024 Koksar-Tr			
	10.10.2024	Koksar-0.6		
November	24.11.2024	Koksar-1.4, Gondla-0.5, Kukumseri-Tr		
	01 10 0004			
	01.12.2024	Koksar-Tr		
	09.12.2024	Koksar-6.7, Hansa- 5.8, Jubbal- 5.0, Chopal -4.0,		
	10.12.2024	Nichar- 7.5, Khadrala-2.0, Koksar-0.5		
	11.12.2024	Koksar-Tr		
	12.12.2024	Koksar-Tr		
	24.12.2024	Khadrala-24.0, Sangla: 16.5, Shillaroo- 15.3, Jubbal & Chopal- 15.0,		
		Kalpa- 13.7, Koksar-11.2, Nichar & Theog- 10.0		
December	25.12.2024	Koksar-5.7, Khadrala & Shilaroo- 5.0, Gondla & Jot-1.0		
	27.12.2024	Koksar-13.0		
	28.12.2024	Sangla-38.5, Koksar-36.0, Gondla-32.5, Kalpa-23.0, Narkanda-22.0,		
		Kufri & Pooh-21.0, Kukumseri-20.1,		
	29.12.2024	Bharmaur-43.0, Jot-35.0, Tissa-20.0, Gondla-15.0, Kalpa-14.9,		
		Kufri-14.5, Pooh & Moorang- 12.0, Chhatarari-10.0		
	30.12.2024	Koksar-Tr		
	31.12.2024	Koksar-Tr		

With Regards Meteorological Centre Shimla

## For more information kindly visit:

Website:<u>https://mausam.imd.gov.in/shimla/</u> Twitter-<u>https://twitter.com/himachalmausam</u> <u>Facebook-https://www.facebook.com/profile.php?id=100018411811087</u>