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Winter Weather Report for Tripura during 2021

Based on Indian climatology, January and February are considered as the winter season for the country. This season is characterized by lower temperatures, dry weather and foggy weather in the morning hours. In this report a statistical analysis of the winter season Tripura during 2021 has been presented.

During winter 2021, the monthly average maximum temperatures (day temperatures) were slightly less than normal in January 2021, however it increased during February 2021 with the mean monthly temperature although in the normal range, but with positive departure during this month. Conversely, monthly mean minimum temperatures (night temperatures) were higher than normal during January and close to normal during February 2021. The number of dense fog events at Agartala Airport were 11 in the month of January whereas only 1 event in the month of February and in two occasions, fog cover remained over the whole state till afternoon, causing no sunlight and significant drop in day temperatures. The state also observed only 7.5 mm rainfall in the winter season, against the normal rainfall 35.5 mm (-79% from normal).

- **JANUARY 2021:-**

The mean monthly maximum temperature during January 2021 was lower than the normal value by 0.4°C at Agartala and by 0.1°C at Kailashahar, whereas the mean monthly minimum temperatures were higher than normal by 1.8°C at Agartala and 2.6°C at Kailashahar. In case of individual days, the maximum temperatures were below normal (less than 1.5°C or more from normal) on 14 days at Agartala and on 3 days at Kailashahar, above normal (1.5°C or more from normal) on 12 days at Agartala and 13 days at Kailashahar and



normal (within -1.5°C and $+1.5^{\circ}\text{C}$ from normal) on 5 days at Agartala and 15 days at Kailashahar during the month. Whereas the minimum temperatures were below normal on 1 day at Agartala, above normal on 15 days at Agartala and on 18 days at Kailashahar and normal on 15 days at Agartala and 13 days at Kailashahar during the month. Rainfall was observed on one day during this month, with monthly average rainfall for the state of 7.5 mm, against the normal value of 7.8 mm (-4% from normal). Dense fog was observed on 11 days at Agartala Airport during this month. On 21st and 24th January dense fog prevailed for more than twelve hours over Agartala Airport.

- **FEBRUARY 2021**

During February 2021, the mean monthly maximum temperature was higher than normal by 1.2°C at Agartala & 1.7°C at Kailashahar, however the mean monthly minimum temperatures were closer to the normal values, with departures of $+0.1^{\circ}\text{C}$ at Agartala & $+0.2^{\circ}\text{C}$ at Kailashhar. Number of foggy days was also very less as compared to January, with only one day of dense fog at Agartala Airport. Only trace rainfall occurred on one day during this month in Tripura, causing -100% departure from normal.



**Month wise brief weather summary for two stations of IMD in Tripura
(Agartala and Kailashahar) for the winter season.**

TABLES

Table 1: Mean monthly maximum and minimum temperatures and their departures from normal over Agartala during winter season 2021.

AGARTALA				
Month	Maximum Temperatures (°C)		Minimum Temperatures (°C)	
	Monthly Mean	Departure from Normal	Monthly Mean	Departure from Normal
January '21	24.8	-0.4	12.3	+1.8
February '21	29.0	+1.2	14.0	+0.1

Table2: Mean monthly maximum and minimum temperatures and their departures from normal over Kailashahar during winter season 2021.

KAILASHAHAR				
Month	Maximum Temperatures (°C)		Minimum Temperatures (°C)	
	Monthly Mean	Departure from Normal	Monthly Mean	Departure from Normal
January '21	26.6	-0.1	13.2	+2.6
February '21	29.4	+1.7	13.5	+0.2

Table 3: Month wise highest maximum and lowest minimum temperatures over Agartala and Kailashahar during winter season 2021.

Month	AGARTALA		KAILASHAHAR	
	Max Temp (°C)	Min Temp (°C)	Max Temp (°C)	Min Temp (°C)
January '21	29.6	08.4	30.6	09.6
February '21	34.4	07.5	32.7	09.2



Table 4: Month wise no. of days with maximum and minimum temperatures in the range of above normal, normal and below normal category at Agartala and Kailashahar during Winter

Month	Category *	AGARTALA		KAILASHAHAR	
		Max Temp (No. of days)	Min Temp (No. of days)	Max Temp (No. of days)	Min Temp (No. of days)
January '21	Above Normal	12	15	13	18
	Normal	5	15	15	13
	Below Normal	14	1	3	0
February '21	Above Normal	11	5	16	6
	Normal	13	17	11	18
	Below Normal	4	6	1	4
Total	Above Normal	23	20	29	24
	Normal	18	32	26	31
	Below Normal	18	7	4	4

* **Normal:** If temperature in the range -1.5 to +1.5°C from normal value

Above normal: If temperature departure from normal value is more than 1.5°C

Below normal: If temperature departure from normal value is more than -1.5°C

Table 5: Month wise number of days with dense fog less than or equal to 1 hours, 1 to 2 hours, 2 to 3 hours, more than 3 hours and total no of days with dense for at Agartala Airport during Winter

Month	AGARTALA				
	No. of days with dense fog hours				Total no. of days with dense fog
	<=1 hour	1-2 hours	2-3 hours	> 3 hours	
January '20	0	1	3	8	11
February '20	0	0	0	1	1

(Prepared by Rana Das , Ranjan Phukan, N. Kulkarni and D.Saha of Meteorological Centre Agartala, India Meteorological Department)