



Government of Nepal  
Ministry of Energy, Water Resource and Irrigation  
Department of Hydrology and Meteorology  
Climate Division (Climate Analysis Section)  
Babarmahal, Kathmandu

11<sup>th</sup> March 2025

Preliminary Precipitation and Temperature Summary  
Winter Season (December 2024 – February 2025)

Highlights

Precipitation over the country as a whole was 20.6% of the normal precipitation of the season. Most parts of the country recorded above normal maximum and minimum temperature.

Precipitation

Northern part of the Koshi Province and Sudurpaschim Province recorded precipitation above 50mm, whereas some parts of Lumbini Province, Bagamati Province and Madhesh Province recorded no precipitation at all (Figure 1). Most parts of the country recorded below normal precipitation (Figure 2). However, isolated parts within Koshi Province recorded near-normal precipitation.

Highest seasonal precipitation of 87.5 mm was recorded at Num station while the highest percentage of normal precipitation of 108.8% was recorded at Dharan Bazar station (Annex 1). Based on the average of 125 stations shown in figure 3, Nepal received 20.6% of the normal precipitation of the season. In general, less than 90% of normal precipitation is considered as below normal, 90 to 110% is considered as near normal, and more than 110% of normal precipitation is considered as above normal precipitation for the season.

The temporal distribution of seasonal cumulative average of daily precipitation shows that precipitation remained below normal during Winter (Figure 3). The Terai region, especially central and eastern parts, and Bagamati Province experienced predominantly dry conditions, with many stations with number of rainy days (Precipitation  $\geq 1$  mm) less than two days, while the norther part of Koshi Province and western part of the country recorded relatively more frequent precipitation, with some stations reporting over seven rainy days (Figure 4). The country averaged total precipitation of Winter shows drier conditions over last three years including 2025 (Figure 5).

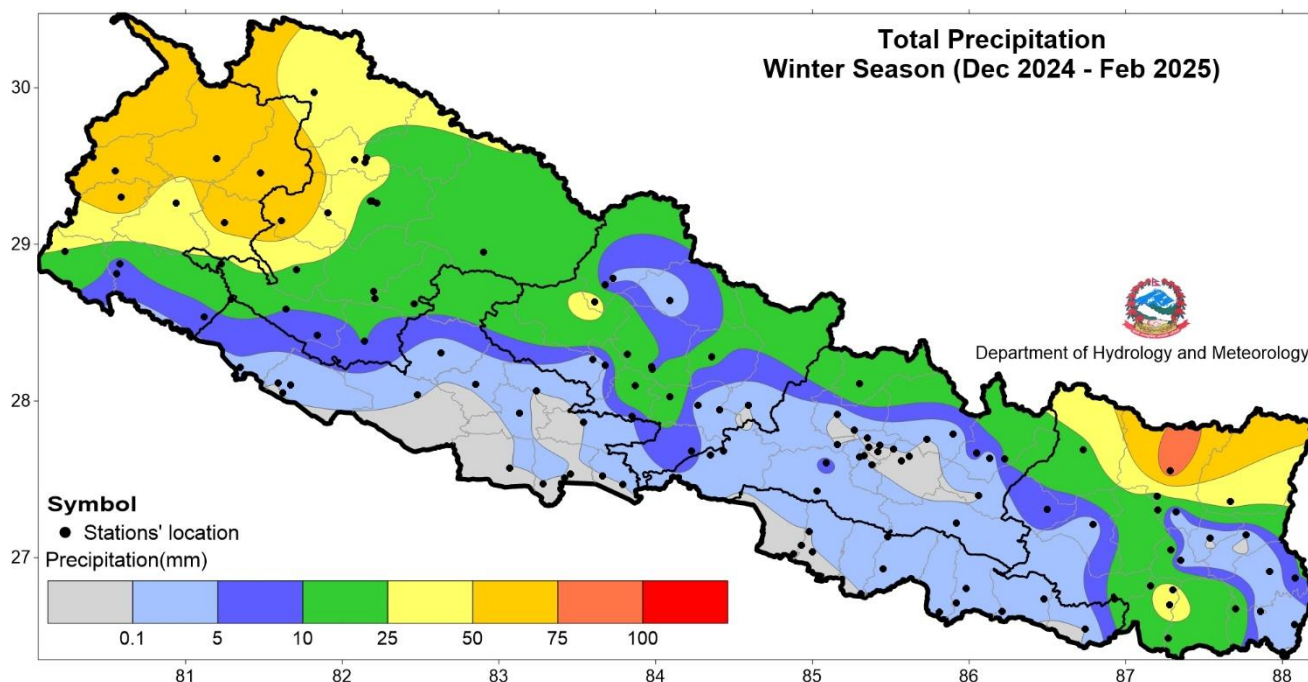


Figure 1: Total precipitation in Winter 2024-25



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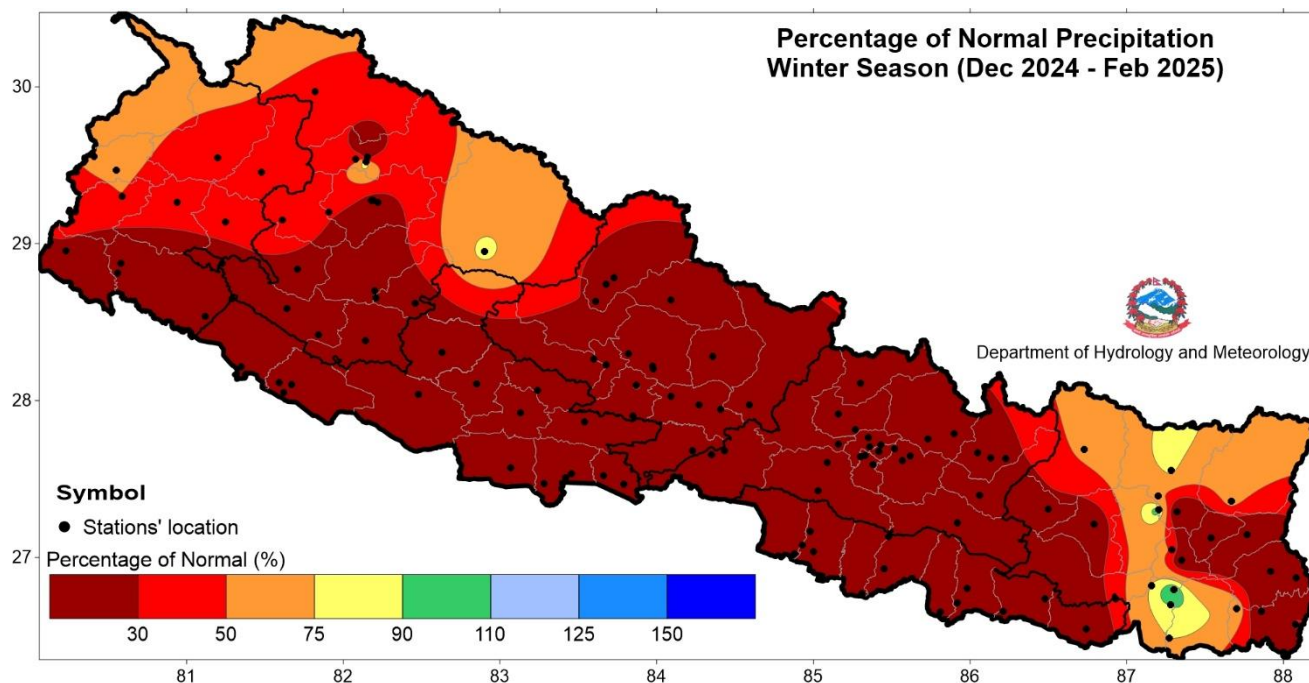


Figure 2: Percentage of normal precipitation in Winter 2024-25

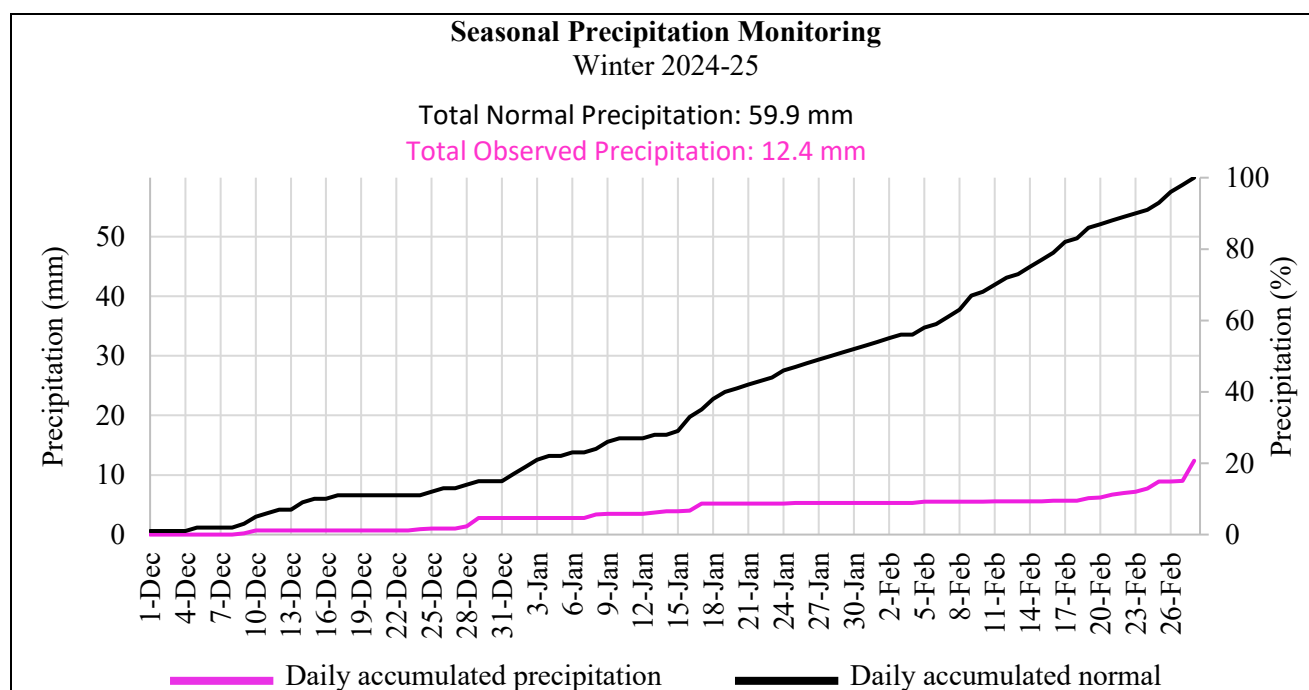
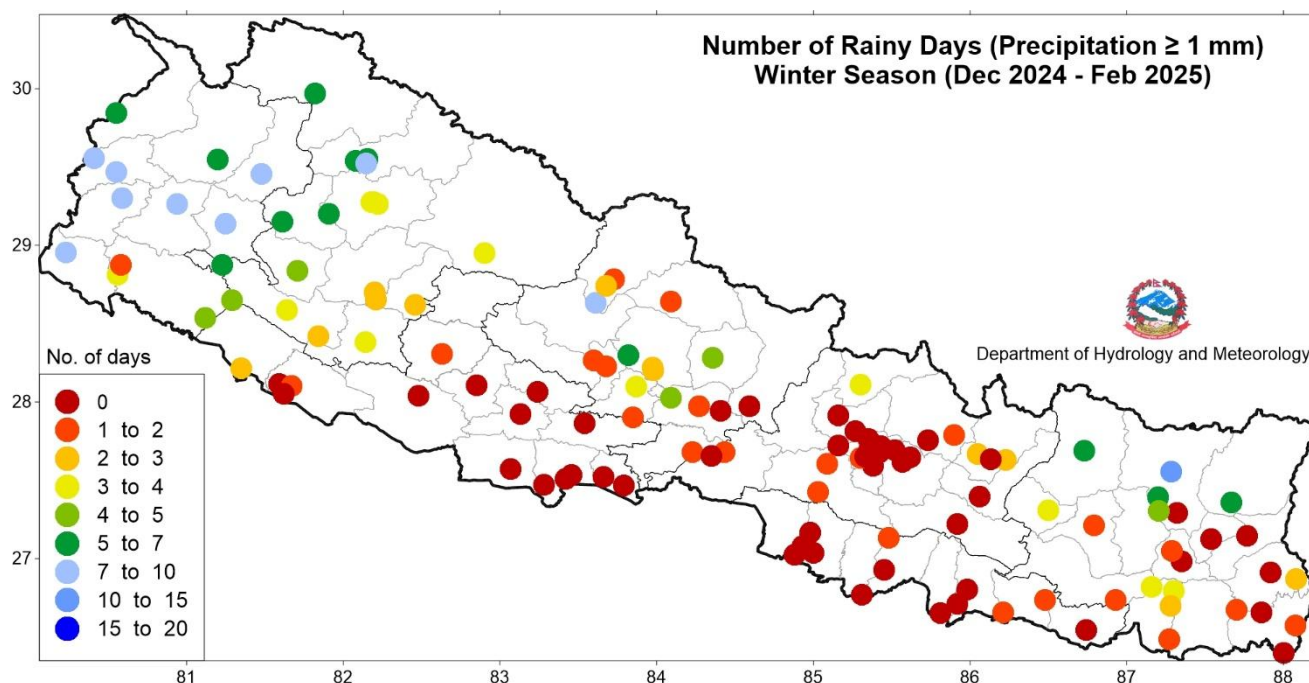


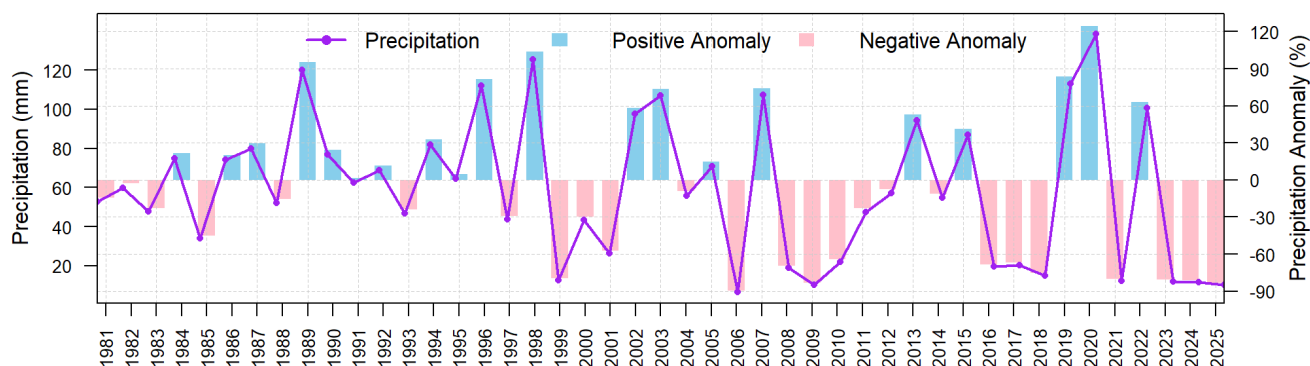
Figure 3: Cumulative average of daily normal and observed precipitation during Winter 2024-25



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**Figure 4: Number of rainy days during Winter 2024**



**Figure 5: All Nepal seasonal total precipitation of Winter Season from 1981 to 2025 (average of 94 stations)**

### Maximum Temperature

Maximum temperature of Terai remained above 21°C, reaching over 24°C across most parts of Lumbini Province, Madhesh Province and Koshi Province (Figure 6). Most parts of the country recorded above normal maximum temperature while a few parts of Karnali Province, Madhesh Province, Bagamati Province and Koshi Province recorded near-normal to below normal maximum temperature (Figure 7).

Lahan station and Humde station recorded the highest and lowest seasonal average maximum temperature of 26.8°C and 9.2°C respectively. Similarly, the highest seasonal anomaly of 4.2°C was recorded at Dhulikhel station and the lowest of -1.5°C was recorded at Charikot station (Annex 1). The highest daily maximum temperature of 31.5°C was recorded at Janakpur Airport station on 16<sup>th</sup> December while the lowest daily maximum temperature of 0.6°C was recorded at Simikot Station on 12<sup>th</sup> January. The country averaged maximum temperature of Winter shows warmer conditions in last three years including 2025 (Figure 8).





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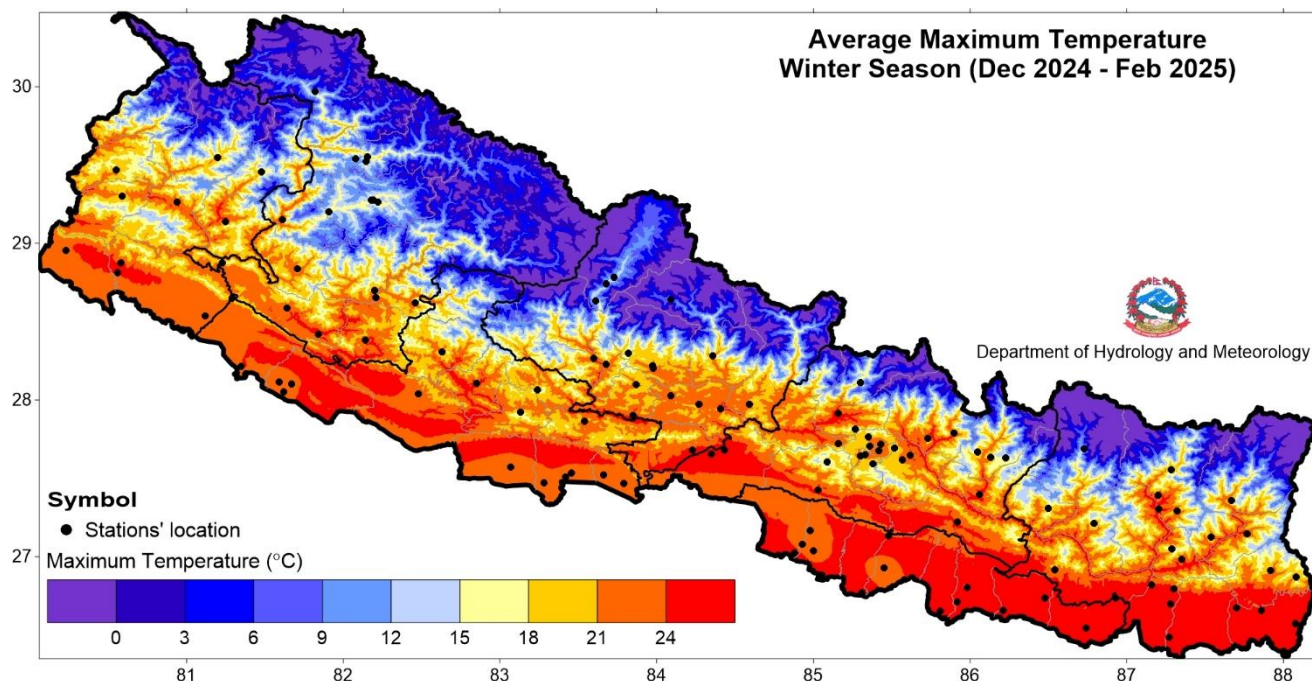


Figure 6: Maximum Temperature in Winter 2024-25.

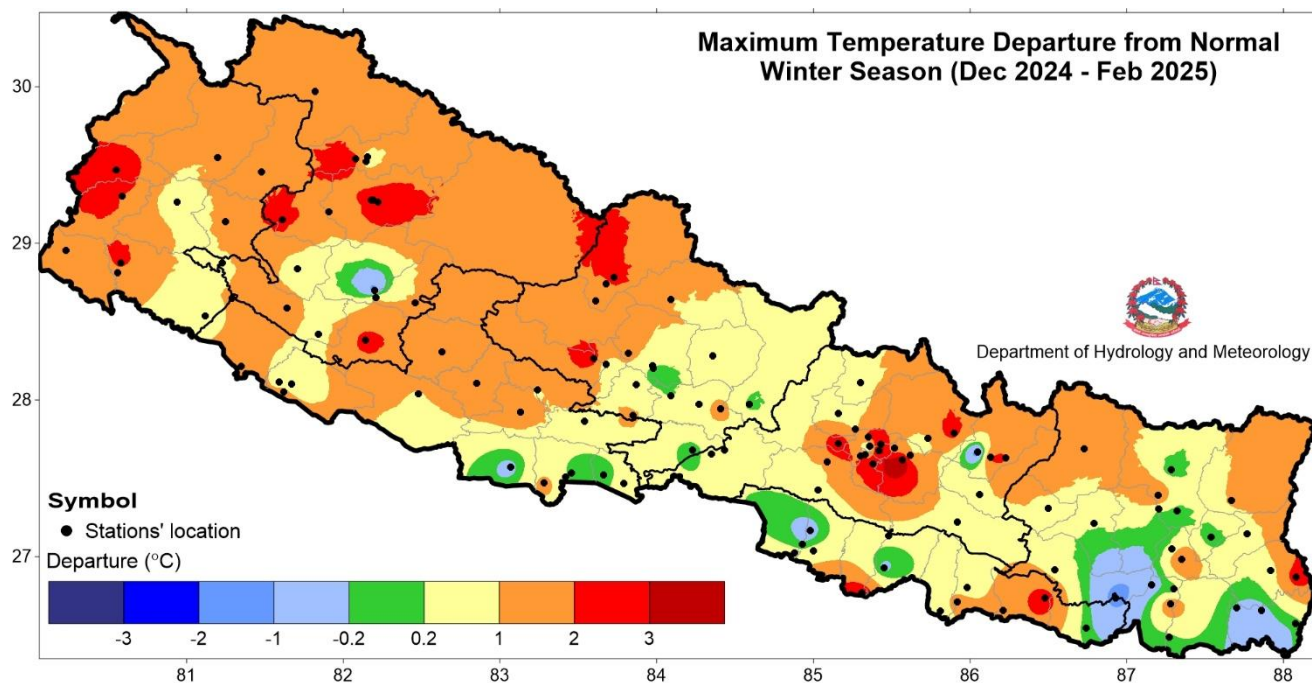
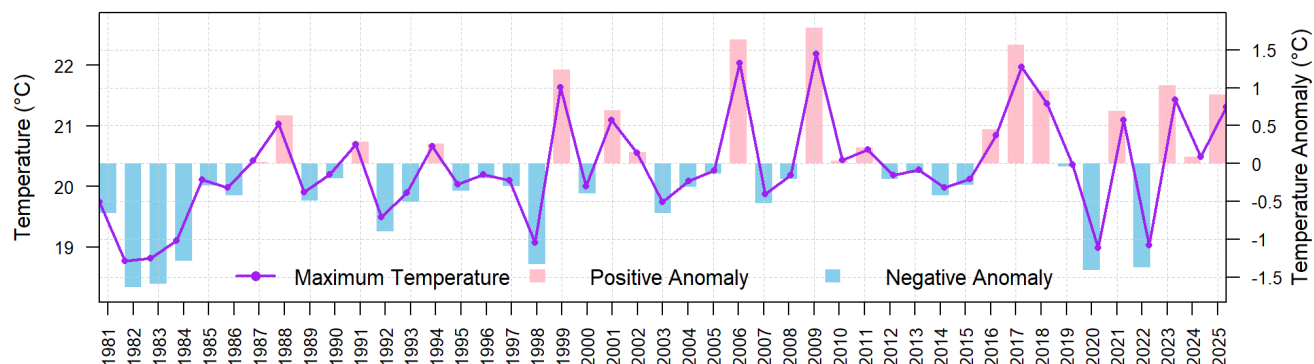


Figure 7: Departure from normal maximum temperature in Winter 2024-25.



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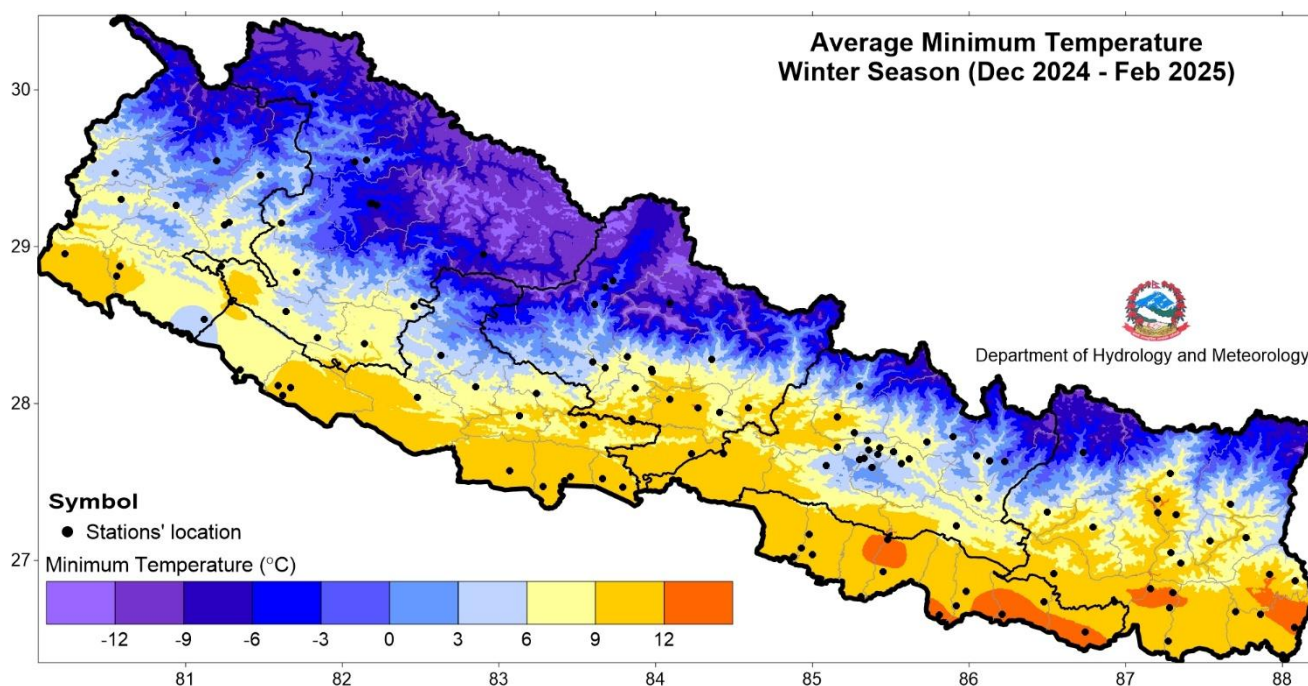


**Figure 8: All Nepal seasonal average maximum temperature of Winter Season from 1981 to 2025 (average of 54 stations)**

### Minimum Temperature

The minimum temperature in the most part of Terai remained above 9°C, reaching over 12°C across few parts of Madhesh Province and Koshi Province (Figure 9). Most parts of the country recorded above normal minimum temperature while the isolated parts across Bagmati Province, Gandaki Province, Karnali Province and Sudurpaschim Province recorded below normal temperature (Figure 10).

Karmaiya station and Humde station recorded the highest and lowest seasonal average minimum temperature of 13.3°C and -6.0°C respectively. Similarly, the highest seasonal anomaly of 4.3°C was recorded at Siraha station and the lowest anomaly of -4.5°C was recorded at Tikapur station (Annex 1). The highest daily minimum temperature of 20.4°C was recorded at Chatara station on 26<sup>th</sup> February while the lowest daily minimum temperature of -11.5°C was recorded at Humde station on 13<sup>th</sup> January. The country's average minimum temperature in Winter shows warmer conditions in last five years including 2025 (Figure 11).

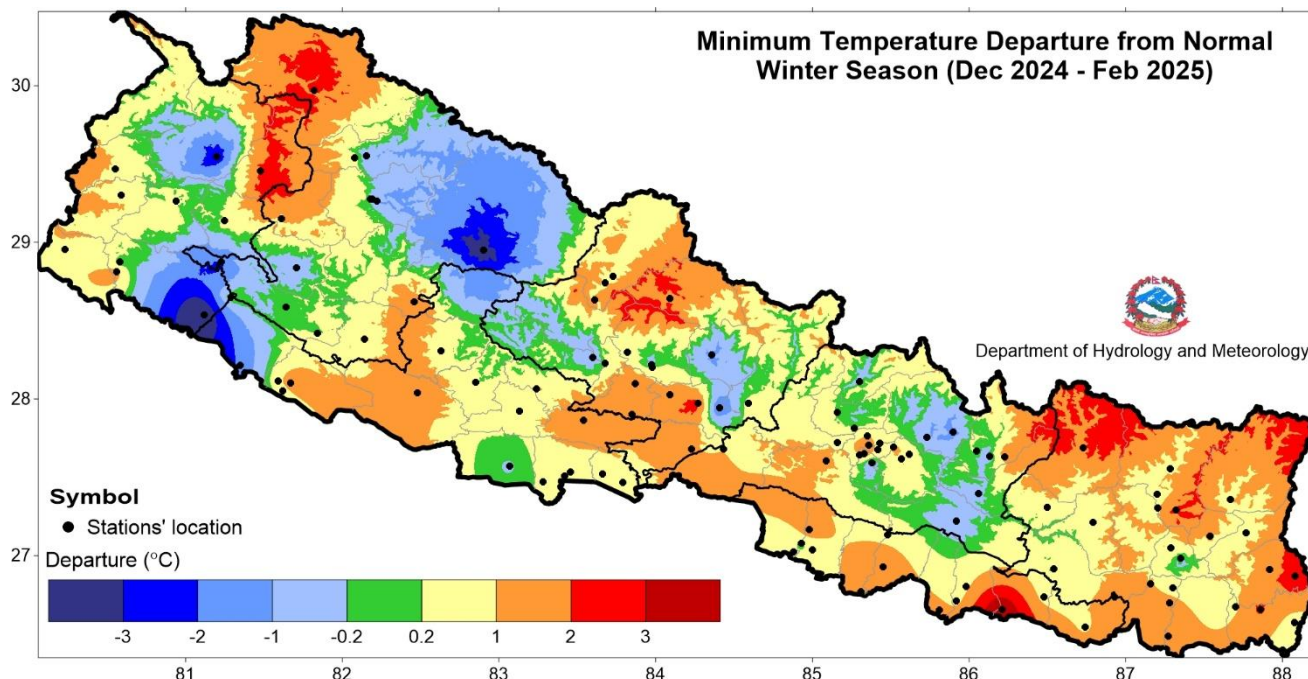


**Figure 9: Minimum Temperature in Winter 2024-25**

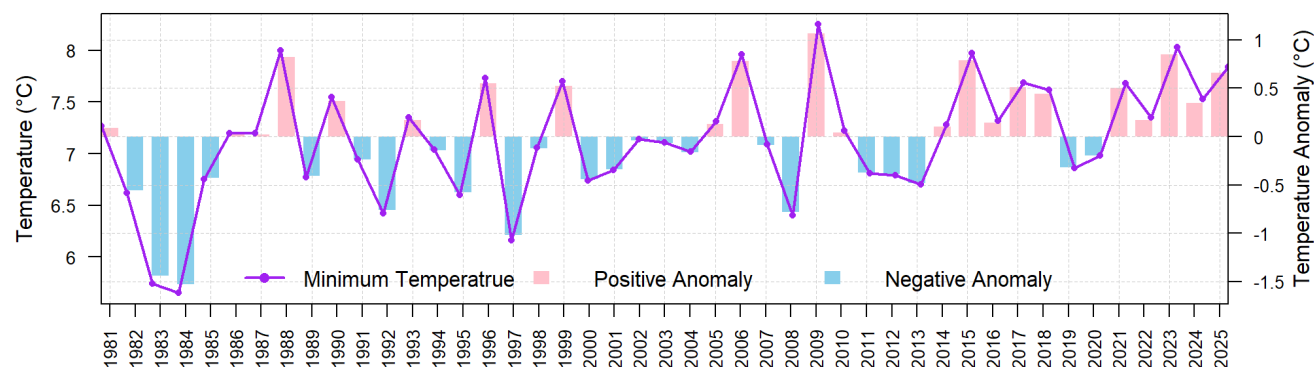




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**Figure 10: Departure from normal minimum temperature in Winter 2024-25**



**Figure 11: All Nepal seasonal average minimum temperature of Winter Season from 1981 to 2025 (average of 53 stations)**

### Diurnal Temperature Range

Most parts of the country recorded a moderate diurnal temperature range (DTR) between 10°C and 16°C. However, some stations in the Bagmati Province, Gandaki Province, Karnali Province and Sudurpaschim Province experienced higher DTRs above 20°C, while a few locations in Koshi Province, Gandaki Province and Lumbini Province recorded lower ranges below 10°C. (Figure 12).



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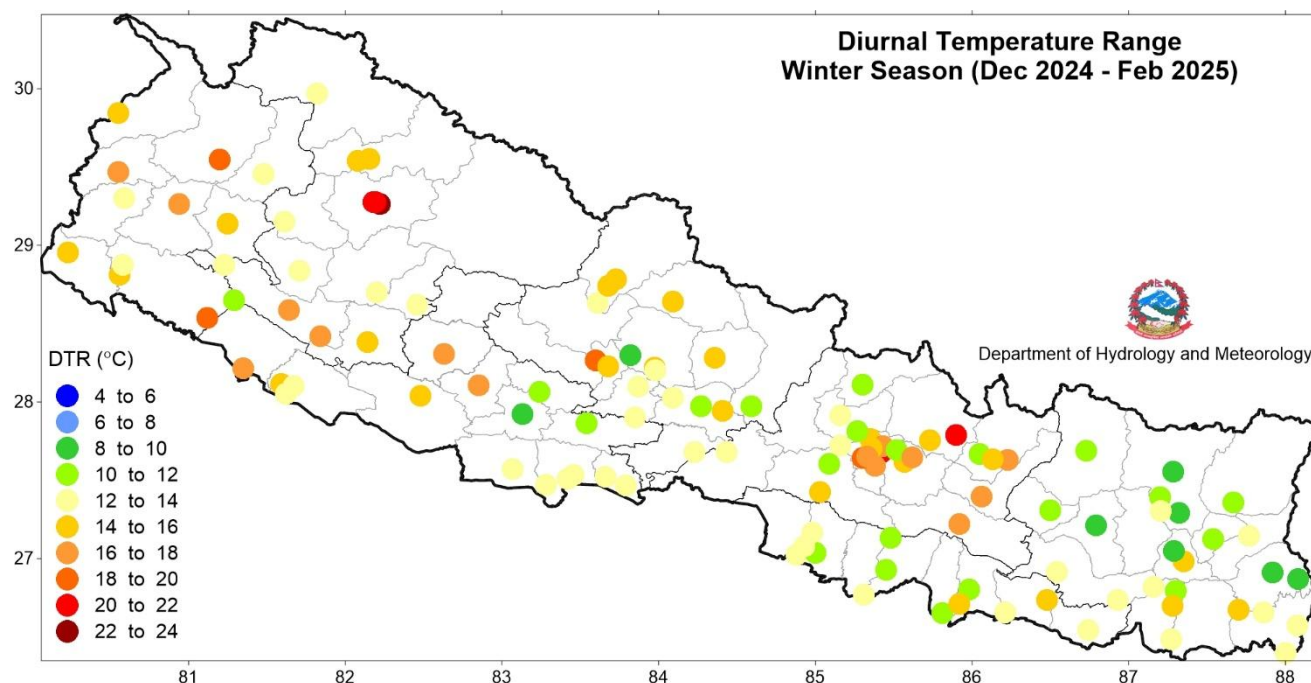


Figure 12: Diurnal temperature range in Winter 2024-25

### Drought

Lumbini Province, Gandaki Province, Bagamati Province, Madhesh Province, the southern parts of Sudurpaschim Province and Karnali Province and most parts of Koshi Province experienced extreme drought conditions (precipitation below normal by 70%) during this Winter season, whereas most of the remaining parts of the country faced moderate to severe drought conditions (Figure 2). Drought has been categorized based on the observed precipitation compared to normal. A drought is defined as moderate, severe and extreme as given in the table below.

Table 1: Drought category

S.N.	Percentage of normal precipitation (%)	Drought category
1	50 - 75	Moderate drought
2	30 - 50	Severe drought
3	< 30	Extreme drought



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Annex 1: Seasonal precipitation and temperature data of Winter 2024-25

Station	Latitude	Longitude	Elevation	Precipitation		Temperature					Station	Latitude	Longitude	Elevation	Precipitation		Temperature																
				Total (mm)	Normal	PoN (%)	Maximum		Minimum						Total (mm)	Normal	PoN (%)	Maximum		Minimum													
							Average (°C)	Normal	DFN (°C)	Average (°C)								Normal	DFN (°C)	Average (°C)	Normal	DFN (°C)											
Sudurpaschim Province																	Bagamati Province																
Baitadi (Gothalapani)	29.56	80.41	1352	63.6	120	53.0	-	19.3*	-	6.2	4.7*	1.5	Bahrabise	27.79	85.90	884	1.3	55.2	2.4	25.3	22.8*	2.5	5.2	6.7*	-1.5								
Bajura (Martadi)	29.46	81.48	1598	75.2	152.4	49.4	19.1	17.6*	1.5	6.3	4.2*	2.1	Bhaktapur	27.68	85.42	1315	0.0	47.8	0.0	24.0	20.9*	3.1	3.8	3.1*	0.7								
Chainpur (Bajhang)	29.55	81.2	1405	49.8	114.3*	43.6	20.6	19.5*	1.1	2.0	5*	-3.0	Bharatpur	27.68	84.43	216	1.5	49.3*	3.0	24.4	24.2*	0.2	11.8	10.8*	1.0								
Chisapani (Karnali)	28.65	81.29	201	13.7	79.1	17.4	22.7	21.5	1.2	11.9	11.8	0.1	Buddhanilakantha	27.76	85.35	1378	0.0	41.5*	0.0	21.0	18.8*	2.2	5.8	4.8*	1.0								
Dadeldhura	29.30	80.59	1879	64.0	129	49.6	17.9	15.9	2.0	5.6	4.7	0.9	Changu Narayan	27.72	85.43	1502	0.0	46.9	0.0	23.2	19.7*	3.5	6.6	6.1*	0.5								
Darchula New	29.84	80.55	945	61.1	115.3*	53.0	22.4	21.5*	0.9	6.9	6.8*	0.1	Charikot	27.67	86.05	1940	7.8	46.3	16.8	15.1	16.6*	-1.5	4.0	3.6*	0.4								
Dhangadhi (Attariya)	28.81	80.56	184	8.6	70.3	12.3	24.0	22.7	1.3	10.0	8.6	1.4	Chautara	27.75	85.73	1552	0.0	41.7	0.0	20.6	19.7*	0.9	5.9	6.5*	-0.6								
Dipayal (Doti)	29.26	80.94	563	42.7	107.8	39.6	24.2	23.9	0.3	6.6	6.3	0.3	Daman	27.60	85.09	2265	6.7	59.1*	11.4	15.0	13.9*	1.1	3.5	2.1*	1.4								
Godavari(West)	28.88	80.58	280	4.5	88.5	5.1	25.0	22.7	2.3	11.2	11.3	-0.1	Dhulikhel	27.62	85.57	1543	0.0	48.1	0.0	20.1	15.9	4.2	5.8	4.7	1.1								
Mahendra Nagar	28.95	80.23	197	23.4	88	26.6	23.7	22.5	1.2	9.3	8.4	0.9	Dhunche	28.11	85.30	1993	22.1	98.2*	22.5	15.0	14.5*	0.5	3.5	3.8*	-0.3								
Mangsalsen	29.14	81.25	1310	58.4	147.4	39.6	20.6	19.3*	1.3	6.2	5.7*	0.5	Dhuniwesi	27.72	85.16	991	0.0	51.7	0.0	23.0	20.0	3.0	9.6	9.1	0.5								
Patan new	29.47	80.55	1292	53.7	104*	51.6	21.5	18.4*	3.1	5.4	4.8*	0.6	Godavari	27.59	85.38	1527	0.0	56.0	0.0	19.7	17.4	2.3	2.9	3.9	-1.0								
Tikapur	28.54	81.12	149	8.2	87.3	9.4	23.1	22.7	0.4	3.72	8.2	-4.5	Hetauda N.F.I.	27.42	85.03	452	1.4	47.6	3.0	24.4	23.7	0.7	-	8.5	-								
Karnali Province																	Jiri																
Chaurjhari Tar	28.65	82.21	863	11.0	71.6	15.4	22.4	21.3	1.1	-	6.6	-	Kabre	27.63	86.13	1755	0.0	28.6*	0.0	19.9	17.8*	2.1	4.3	4.9*	-0.6								
Dalekh	28.84	81.71	1394	20.4	96.2	21.2	18.6	18.1	0.5	5.98	6.6	-0.6	Kakani	27.81	85.27	2030	0.0	60.6	0.0	15.9	15.0	0.9	5.3	5.1	0.2								
Dipal Gaun	29.26	82.22	2422	14.8	87.1	17	18.7	15.6	3.1	-4.8	-3.8	-1	Kathmandu Airport	27.70	85.36	1337	0.0	46.6	0.0	20.0	20.5	-0.5	6.1	4.1	2.0								
Dunai	28.95	82.9	2098	24.1	29.3	82.3	-	13.4*	-	-4.4	-0.2*	-4.2	Khokana	27.64	85.30	1309	3.6	53.5	6.7	21.6	19.7*	1.9	2.7	2*	0.7								
Gamadi Shree Nagar	29.55	82.15	2113	22.9	115.4	19.8	17.2	16.6*	0.6	2.55	3.3*	-0.8	Khumaltar	27.65	85.33	1334	0.0	45.4	0.0	21.2	19.3	1.9	5.1	3.2	1.9								
Ijarkot	28.7	82.2	1240	11.0	87.3	12.6	20.3	21.6*	-1.3	-	7.1*	-	Manthali	27.39	86.06	497	0.0	31.8	0.0	26.0	25.4*	0.6	8.4	8.9*	-0.5								
Jumla	29.27	82.18	2363	18.3	91.3	20.1	17.5	15.2	2.3	-4.1	-4	-0.1	Nagarkot	27.69	85.52	2147	0.0	48.9	0.0	15.3	14.2	1.1	5.2	3.9	1.3								
Jumla Airport	29.27	82.19	2384	18.2	86.5*	21.1	16.8	15*	1.8	-5.1	-4.5*	-0.6	Nuwakot	27.91	85.16	966	0.0	51.1	0.0	22.6	22.0	0.6	9.9	9.5	0.4								
Manma	29.15	81.61	1729	68.2	139.2*	49	19.5	17.1*	2.4	5.97	4.8*	1.2	Panchkhal	27.65	85.62	857	0.0	36.1	0.0	23.8	22.6	1.2	6.4	5.5	0.9								
Mehalkuna	28.42	81.84	464	7.1	55.5*	12.8	24.4	23.7*	0.7	7.84	7.6*	0.2	Rampur	27.65	84.35	189	0.0	46.1	0.0	24.5	24.1	0.4	-	8.9	-								
Musikot (Rukumkot)	28.62	82.46	1412	11.9	83.7	14.3	20.6	19.4	1.2	7.35	5.6	1.8	Sindhuli Madhi	27.22	85.92	556	1.0	37.7*	2.7	24.3	23.7*	0.6	7.8	8.6*	-0.8								
Nagma	29.2	81.91	2017	42.9	131.9	32.5	18.1	16.9*	1.2	-	0.4*	-	Madhesh Province																				
Pusma Camp	28.88	81.23	953	17.6	109	16.2	19.6	18.8	0.8	6.72	8.8	-2.1	Birganj	27.02	84.88	67	0.0	30.2*	0.0	24.7	24.1*	0.6	11.7	11.2*	0.5								
Rara	29.54	82.08	2989	38.6	93.7*	41.2	12.3	9.9*	2.4	-3.3	-3.8*	0.5	Gaur	26.77	85.31	77	0.0	26.5	0.1	24.6	21.8	2.8	10.9	9.7	1.2								
Salyan Bazar	28.38	82.14	1557	10.2	84.4	12.1	22.5	20.2	2.3	7.83	7.3	0.5	Hardinath	26.80	85.98	93	0.2	21*	1.0	23.8	23.1*	0.7	11.9	11.1*	0.8								
Simikot	29.97	81.82	2993	40.9	89.2*	45.9	11.3	9.6*	1.7	-2.3	-4.5*	2.2	Jalesor	26.65	85.81	68	1.4	10.5	13.5	24.3	23.9	0.4	12.6	11.1	1.5								
Surkhet Airport	28.59	81.64	720	9.9	100.5	9.9	23.5	22	1.5	6.39	6.5	-0.1	Janakpur Airport	26.71	85.92	76	1.1	23.2	4.7	25.7	24.3	1.4	11.4	10.7	0.7								
Talcha	29.52	82.15	2750	51.1	57.4*	89	12.8	12.1*	0.7	-	*	-	Kalaiya	27.04	85.00	100	0.0	35.4	0.0	23.8	23.2*	0.6	11.9	11.5*	0.4								
Lumbini Province																	Karmaiya																
Bhairahawa (Agric)	27.53	83.46	112	0.0	55.9	0.0	23.3	23.4	-0.1	10.7	9.9	0.8	Lahan	27.13	85.48	139	2.1	25.0	8.4	24.8	24.3	0.5	13.3	12.6	0.7								
Bhairahawa Airport	27.51	83.42	108	0.0	56.8	0.1	23.6	23.1	0.5	10.9	9.9	1.0	Lahar	26.73	86.48	110	1.2	31.1*	3.9	26.8	24.1*	0.7	11.9	11.2*	0.7								
Bijuwar Tar	28.10	82.85	835	0.4	67.3	0.7	25.3	23.6*	1.7	7.7	7.5*	0.2	Manusmara	26.93	85.45	90	0.8	26.9	3.0	23.4	23.8	-0.4	11.7	9.8	1.9								
Ghorai (Dang)	28.04	82.48	663	0.4	52.3	0.7	23.2	22.3	0.9	8.9	7.2	1.7	Parwanipur	27.08	84.93	87	0.0	33.6	0.0	23.5	23.6	-0.1	10.0	10.0	0.0								
Gulariya	28.21	81.35	126	4.0	58.9	6.8	24.1	22.2*	1.9	7.2	9.1*	-1.9	Phatlepur	26.74	86.93	83	12.0	31.7	37.9	25.2	26.5	-1.3	11.9	10.4*	1.5								
Khajura (Nepalganj)	28.11	81.59	129	0.0	59.8	0.1	23.6	23	0.6	9.5	8.8	0.7	Rajbiraj	26.54	86.74	68	0.0	28.2	0.0	24.7	24.7	0.0	12.1	11.2	0.9								
Khanchikot	27.92	83.13	1801	0.6	89.4	0.7	17.0	15.4	1.6	7.4	6.6	0.8	Simara Airport	27.16	84.98	137	0.0	37.5	0.0	23.2	23.8	-0.6	10.6	9.0	1.6								
Libang Gaun	28.31	82.63	1314	1.1	96.8	1.2	22.1	20.3*	1.8	5.3	4.9*	0.4	Siraha	26.66	86.21	63	2.1	25.8	8.1	25.3	24.0*	1.1	12.8	8.5*	4.3								
Lumbini	27.47	83.28	95	0.0	43.7	0.0	23.6	22.3*	1.3	9.9	9.6*	0.3	Koshi Province																				
Nepalganj Airport	28.1	81.67	165	2.7	53.6	5.1	23.3	22.9	0.4	10.6	9.1	1.5	Biratnagar Airport	26.48	87.27	72	20.0	26.9	74.4	24.7	24.7	0.0	11.7	10.5	1.2								
Nepalganj (Reg.Off.)	28.05	81.62	141	0.0	57.9	0.1	24.1	22.6	1.5	10.8	10.5	0.3	Chainpur (East)	27.29	87.32	1277	0.1	35.2	0.2	19.5	19.5	0.0	10.1	7.7	2.4								
Parasi	27.52	83.66	112	0.0	47.7	0.0	23.3	23.5*	-0.2	9.8	9.6*	0.2	Chandragadi Airport	26.57	88.08	95	1.3	4*	32.8	25.0	25.1*	-0.1	12.1	11.7*	0.4								
Semari	27.47	83.79	110	0.0	55.7	0.0	23.3	22.7	0.6	9.8	9.2	0.6	Chatara	26.82	87.16	105	23.0	30.5	75.4	25.4	26.2*	-0.8	12.4	11.3*	1.1								
Tamghas	28.06	83.24	1547	0.0	81.1	0.0	17.4	16.5	0.9	6.39	5.5	0.9	Damak	26.67	87.70	119	22.0	30.2	72.9	25.4	25.7*	-0.3	11.2	10.4*	0.8								
Tansen	27.86	83.54	1183	0.0	78.4*	0.0	21.3	20.4*	0.9	9.6	7.7	1.9	Dhankuta	26.98	87.35	1192	0.0	33.5	0.0	22.1	19.8	2.3	8.0	8.2	-0.2								
Taulihawa	27.57	83.07	106	0.0	48	0.0	22.7	23.2	-0.5	9.85	10.1*	-0.3	Dharan Bazar	26.79	87.30	310	31.1	28.6	108.8	24.5	24.6*	-0.1	13.2	12.9*	0.3								
Gandaki Province																	Diktel																
Baglung	28.26	83.60	964	1.2	66.7	1.8	24.7	22.2*	2.5	6.1	7.3	-1.2	Gaiga (Kankai)	26.66	87.86	107	0.0	29.0	0.0	25.2	25.7	-0.5	11.9	9.7	2.2								
Bandipur	27.94	84.41	991	0.8	59.																												