Government of Nepal
Ministry of Energy, Water Resources and Irrigation
Department of Hydrology and Meteorology
Nagpokhari, Kathmandu, Nepal.

PRELIMINARY WEATHER SUMMARY OF NEPAL

August 2018

Note: This weather summary is based on daily data of 38 meteorological stations established by Department of Hydrology and Meteorology.

MAIN HIGHLIGHT

Most parts of the country recorded above normal temperature and above normal rainfall (Fig.2 and Fig.4).

SYNOPTIC SEQUENCES

Weather over Nepal was affected by the following systems enhancing the rainfall activities during August 2018.

Monsoon Trough

During monsoon season, position of the monsoon trough plays an important role in the contribution of rainfall. In general, if it shifts north of its normal position towards foothills of Himalaya, Nepal generally gets significant rainfall and when it moves to the south, monsoon break period occurs resulting in less or no rainfall.

The position monsoon trough was north of its normal position during the first week. Also highest amount of rainfall was received during the first week (Table 1). For most of the second week, western end of monsoon trough was north of normal position while eastern end was in normal position. It oscillated southwards and remained south of the normal position in most of the days of third week. North ward propagation of the trough was observed during the fourth week. However in last few days of the month monsoon trough oscillated south of its normal position.

Low Pressure Area (LPA)

Two depression and two LPA's formed during this August. The first depression formed as a LPA over northwest Bay of Bengal and neighborhood on 6th August and concentrated into depression on 8th. Moving northwestward it weakened into low pressure area over Madhya Pradesh on 9th August. Another Depression formed over Coastal Odisha and neighborhood on 15th August and weakened into low pressure area as it moved west northwestwards over southwest Madhya Pradesh and neighborhood on 17th August. Third system of this month formed as a LPA over northwest Bay of Bengal and neighborhood on 19th and moving northwestwards it became less marked over northwest Madhya Pradesh and neighborhood on 22nd. Fourth low pressure area formed over coastal areas of West Bengal (25-29th August).

PRECIPITATION DISTRIBUTION

Except for patches over province 4, 2 and eastern parts of province 1, rest of the country received normal to above normal rainfall.

Among the 38 stations, the highest 24 hour rainfall of 177.0mm was recorded on 14th August over Lumle contributing to highest total rainfall of 1440.7mm (100.0%). The highest percentage of rainfall 195.6% (1138.8mm) was recorded at Jiri (Fig.1, Table 2).

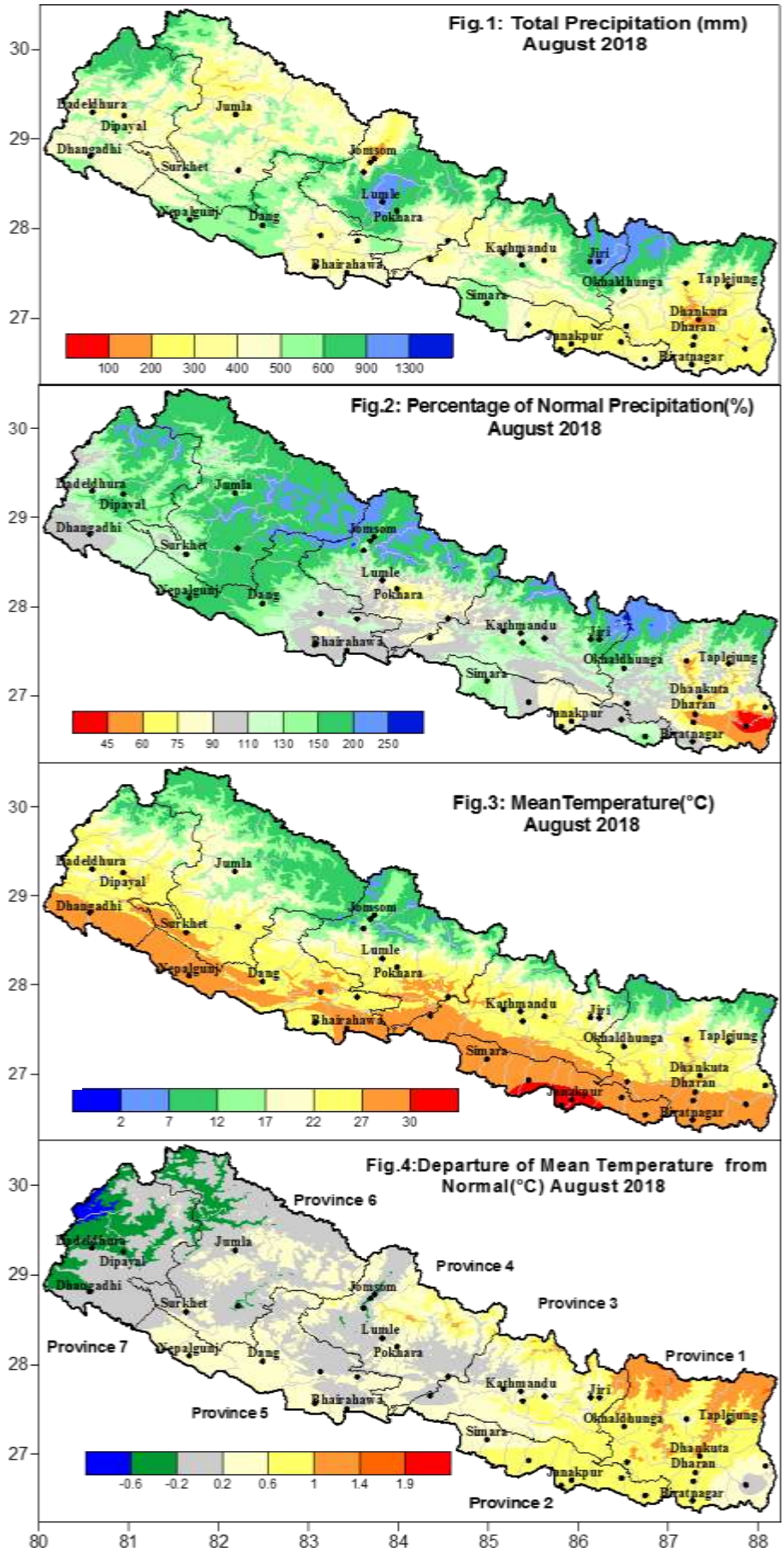
Table 1: Temporal distribution of average rainfall in August, 2018

Week	Total rainfall (**mm**) (arithmetic average of station rainfall)	Percentage (**%**) of monthly total	Daily rainfall Intensity (**mm**)
1st	126.0	29.6	18.0
2nd	98.5	23.2	14.1
3rd	67.5	15.9	9.6
4th	98.2	23.1	14.0
Remaining 2 days	34.7	8.2	11.6
Total	**425.0**	**100.0**	

TEMPERATURE PATTERN

Among 38 stations, mean temperature varied between less than 17.0°C in the northern part of the country to above 30.0°C in province 2 (Table 2). Except for province 6 and northwestern parts of province 7, rest of the country recorded normal to above normal temperature. Regarding the mean temperature departure, highest negative anomaly of -1.3°C was recorded in Darchula whereas the highest positive anomaly of 1.4°C was recorded over Taplejung (Fig.4, Table 2). Janakpur recorded the highest maximum temperature of 38.4°C on 19th August while Thakmarpha recorded the lowest minimum temperature of 10.0°C on 7th August (Table 2).

[The viewers of this site need to consider this difference that due to the interpolation of the data into (1kmx1km) grid to produce the figures listed below there is variability in the real data in the table and the color legends in the figure.]



Remarks: Normal Rainfall (Gray colour) = 100 ± 10 %
Normal Temperature (Gray colour) = 0 ± 0.2 °C

Table: 2

PRELIMINARY MONTHLY WEATHER DATA

August 2018

Stations	PRECIPITATION							TEMPERATURE								
			No. of Rainy Days					Maximum (°C)			Minimum (°C)			Mean (°C)		
	Total (mm)	% of Normal	≥ 1.0 mm	≥ 10.0 mm	≥ 25.0 mm	≥ 50.0 mm	24hrs Extreme Rainfall & Date	Average Max	Departure from the normal	Highest Max & Date	Average Min	Departure from the normal	Lowest Min & Date	Monthly Mean	Departure from the normal	No.of Days with minimum temperature >30°C
DADELDHURA	435.1	137.7	26	15	7	1	53/14	23.3	-0.5	26.7/17	17.7	0.6	16.6/29	20.5	0.1	0
DARCHULA	549.3	80.3	29	20	8	0	48.5/24	28.2	-3.3	33.4/16	22.0	0.6	20.5/7	25.1	-1.3	8
DHANGADHI	489.0	93.9	23	17	6	2	79.5/5	32.4	-0.4	37/19	25.3	-0.2	23.8/5	28.9	-0.3	24
DIPAYAL	322.2	142.7	21	10	4	1	58.7/9	32.7	-1.0	36/8	24.2	0.5	23.2/8	28.4	-0.3	29
JUMLA	225.4	129.3	28	8	1	0	25.4/27	23.9	-0.7	27.6/16	17	1.3	15/21	20.3	0.3	0
SURKHET	447.9	106.0	25	15	6	2	75.2/5	30.7	0.1	33.3/16	23.7	0.5	22.6/6	27.2	0.3	20
NEPALGUNJ AIRPORT	533.6	162.9	25	15	7	2	93.8/1	34.4	1.3	38/19	25.4	0.0	23.6/8	29.9	0.6	30
CHAURJHARITAR	410.5	181.6	24	15	6	1	67/5	30.7	-1.2	33/8	22.1	-0.1	21/29	26.4	-0.6	25
GHORAI (DANG)	598.0	141.8	23	16	8	3	83.2/7	30.2	0.6	34.5/19	23.6	0.8	22.6/9	26.9	0.7	18
JOMSOM	55.4	148.4	12	0	0	0	9.5/5	22.2	-0.6	24/8	13.7	0.2	12.5/7	17.9	-0.2	0
THAKMARPHA	69.9	110.5	16	2	0	0	11.6/5	21.6	0.2	23.5/1	11.0	-2.0	10/7	16.3	-0.9	0
TANSEN	397.7	113.3	23	13	6	2	61/3	27.7	-0.4	32.5/18	20.6	0.8	19.5/2	24.2	0.2	9
BHAIRHAWA AIRPORT	413.9	104.7	18	13	5	2	72.3/11	33.1	-0.3	36.9/18	26.2	0.3	22.6/30	29.6	0.0	26
KHANCHIKOT	387.4	97.3	20	14	4	2	69.6/2	24.2	0.8	32.5/30	18.0	0.6	16.4/16	21.1	0.7	1
TAULIHAWA	392.8	114.8	21	11	4	2	96.2/25	32.1	-1.0	34.5/18	26.2	0.7	24/20	29.1	-0.1	26
POKHARA AIRPORT	584.1	67.4	28	17	8	2	98.5/31	31.1	0.9	33.5/16	22.8	0.7	21.5/19	26.9	0.8	24
LUMLE	1440.7	100.0	29	23	21	10	177/14	23.6	0.0	27/7	17.8	0.4	17/2	20.7	0.2	0
RAMPUR	381.6	83.7	20	10	5	1	114/25	33.3	-0.2	36.2/18	25.5	0.1	24.4/25	29.4	0.0	30
SIMARA AIRPORT	602.4	137.2	19	12	10	5	106.6/24	33.4	0.7	37.5/19	25.9	0.5	25/1	29.7	0.6	29
GODAWARI	540.2	122.0	25	20	8	1	76.5/5	M	M	M	M	M	M	M	M	M
KATHMANDU AIRPORT	462.5	139.8	26	16	6	1	64/13	29.0	0.3	31.3/9	20.2	0.2	19.5/7	24.6	0.3	11
PANCHKHAL	276.8	96.3	24	11	4	0	32.9/28	32.6	1.0	34.8/23	23.1	0.7	22.1/31	27.8	0.8	30
DHUNIBESI	374.5	95.2	23	16	6	0	34.8/9	29.9	-0.1	33/11	22.2	0.6	21/5	26.1	0.2	18
JIRI	1138.8	195.6	30	28	19	9	85.8/17	25.1	1.2	27.5/18	17.0	0.1	15.5/26	21.0	0.7	0
JANAKPUR AIRPORT	182.5	53.8	13	3	3	1	52.4/13	34.1	1.4	38.4/19	26.9	0.4	24.8/13	30.5	0.9	30
JALESORE	304.9	114.6	14	6	4	3	76/13	33.6	-0.2	37.7/19	27.2	1.4	25.5/2	30.4	0.6	31
KABRE	769.2	130.5	29	24	13	3	90.2/5	25.5	0.4	28/16	18.2	0.1	17/7	21.8	0.2	0
OKHALDHUNGA	532.4	132.0	20	13	9	5	87/13	25.8	1.4	28.5/16	18.0	0.3	16.6/9	21.9	0.9	0
UDAYPURGADHI	293.4	85.4	18	9	4	1	73.4/10	32.5	2.0	36.1/19	24.5	0.4	23.4/13	28.5	1.2	30
LAHAN	260.1	99.8	19	9	3	0	43.5/25	32.9	0.2	37.5/19	26.3	0.8	25/1	29.6	0.5	29
RAJBIRAJ	424.1	139.7	16	9	6	3	102/12	33.1	-0.1	36.5/19	27.0	1.5	23.5/25	30.0	0.7	30
DHANKUTA	143.8	79.7	15	4	2	1	53.3/13	28.9	1.5	31.5/6	21.1	0.9	19.9/9	25.0	1.2	6
DHARAN	222.5	45.4	19	6	3	1	63/9	32.3	0.1	36/19	25.8	1.8	24.2/6	29.0	0.9	30
BIRATNAGAR AIRPORT	401.6	106.1	18	10	6	3	116/30	33.3	0.7	37.4/19	26.2	0.4	24.5/30	29.7	0.6	31
TARAHARA	219.0	56.8	15	9	2	1	66.5/13	33.4	1.1	37.5/19	25.7	0.6	24/6	29.5	0.8	31
KHADBARI	291.4	69.3	22	12	4	0	39.3/30	28.7	0.3	31.1/16	21.8	0.7	19.8/11	25.3	0.5	9
TAPLEJUNG	370.4	90.8	21	12	5	3	51/7	26.6	1.7	29.5/19	18.8	1.2	16/31	22.7	1.4	0
KANKAI	212.7	35.9	18	7	3	1	52/24	32.5	-0.7	38/19	23.6	-0.4	22.5/6	28.1	-0.5	23
Max	1440.7	195.6	30.0	28.0	21.0	10.0		34.4	2.0		27.2	1.8		30.5	1.4	
Min	55.4	35.9	12.0	0.0	0.0	0.0		21.6	-3.3		11.0	-2.0		16.3	-1.3	

Remarks: M = Data not available

Rainfall recorded on a day is the total 24 hour rainfall from the previous day 8:45 am till 8:45 am of that day.