



WEEKLY WEATHER REPORT

साप्ताहिक मौसम विवरण

for the week ending on 8th August 2018 (17th Sravana 1940 Saka)

CHIEF FEATURES: Formation of a Depression over the northwest Bay of Bengal (on 7th August) during the week.

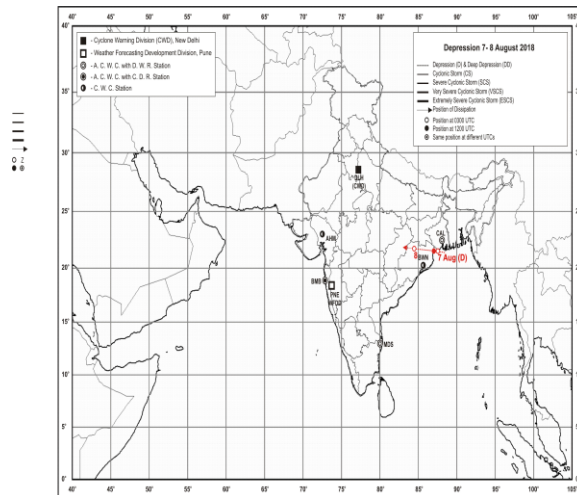


Fig. (a)

Fig. (a) illustrates the track of the **Depression**.

3rd August: **active** over Bihar, east Uttar Pradesh and Punjab, subdued over Himachal Pradesh, Jammu & Kashmir, Rajasthan, west Madhya Pradesh, Gujarat State, Vidarbha, Rayalaseema and Interior Karnataka.

4th August: **active** over Bihar, east Uttar Pradesh and Himachal Pradesh. It has been subdued over Odisha, Jammu & Kashmir, Rajasthan, Madhya Pradesh, Gujarat State, Marathwada, Vidarbha, Chhattisgarh, Telangana and Interior Karnataka.

5th August: **active** over Bihar and Himachal Pradesh. It has been subdued over Haryana, Jammu & Kashmir, Rajasthan, Madhya Pradesh, Gujarat State, Marathwada, Vidarbha, Chhattisgarh, coastal Andhra Pradesh, Telangana and south interior Karnataka.

6th August: **active** over Gangetic West Bengal, Jharkhand, Bihar, Uttarakhand and Himachal Pradesh. It has been subdued over Arunachal Pradesh, Rajasthan, Madhya Pradesh, Gujarat State, Marathwada, Vidarbha, Chhattisgarh and Andhra Pradesh.

7th August: **active** over Odisha, Bihar, Himachal Pradesh, Jammu & Kashmir and coastal Andhra Pradesh, subdued over Arunachal Pradesh, Assam & Meghalaya, Rajasthan, west Madhya Pradesh, Gujarat State, Marathwada, Rayalaseema and Tamil Nadu.

8th August: **vigorous** over Kerala and **active** over Odisha, Jammu & Kashmir, east Madhya Pradesh, Chhattisgarh and coastal Karnataka, subdued over west Rajasthan and Gujarat State.

SEMI-PERMANENT FEATURES:

- Heat Low (HL):** During the week, the lowest isobaric value varied between 994 & 998 hPa.
- Monsoon Trough (MT):** During the week, it remained north of its normal position.
- Tibetan Anticyclone (TA):** It was observed northwestwards of its normal position on most days during the week.
- Tropical Easterly Jet (TEJ):** The highest wind speed of 87 kts was recorded over Mangalore at 126 hpa on 8th August.
- Mascarene High (MH):** During the week, it was seen to the north of its normal position. Its intensity varied between 1020 and 1028 hPa.
- Lower Level Jet (LLJ):** During the week, the wind speed observed ranged between 10-20 kts.

WEATHER AND ASSOCIATED SYNOPTIC FEATURES:

- A cyclonic circulation lay over southwest Bangladesh & neighbourhood and extended upto 3.1 km a.s.l. on 4th. It lay over Bangladesh and adjoining West Bengal and extended upto 3.6 km a.s.l. on 5th. Under its influence, a low pressure area formed over northwest Bay of Bengal & neighbourhood with the associated cyclonic circulation extending upto 7.6 km a.s.l., tilting southwestwards with height on 6th, lay as a well marked low pressure area over northwest Bay of Bengal and adjoining West Bengal and Odisha with the associated cyclonic circulation extending upto 7.6 km a.s.l. tilting southwestwards with height on 7th. It concentrated into a **Depression** over the same region in the afternoon of 7th and lay centered at 1430 IST near latitude 21.5°N and longitude 87.5°E. It moved west-northwestwards, crossed north Odisha - West Bengal coasts near Balasore during the night of 7th,

continued to move west northwestwards, it weakened into a well marked low pressure area and lay over north Chhattisgarh and neighbourhood in the morning of 8th.

- Last week's low pressure area lay over East Uttar Pradesh and adjoining Bihar with associated cyclonic circulation extending upto 5.8 km a.s.l. on 2nd. The low pressure became less marked on 3rd, however, the associated cyclonic circulation lay over western parts of Bihar and neighbourhood and extended upto 3.1 km a.s.l. on 3rd August. It merged with the monsoon trough on 4th.
- The axis of monsoon trough at mean sea level passed through Amritsar, Karnal, Hardoi, centre of low pressure area over East Uttar Pradesh and neighbourhood, Malda and thence to Northeast of Bay of Bengal across Bangladesh on 2nd, through Amritsar, Karnal, Bareilly, Balia, Dhanbad, Burdwan and thence to Northeast Bay of Bengal across Bangladesh on 3rd; through Kapurthala, Ambala, Pantnagar, Bahraich, Gorakhpur, Muzaffarpur, Malda and thence to Northeast Bay of Bengal across southwest Bangladesh on 4th; through Jammu, Chandigarh, Hardoi, Patna, Dumka, Kolkata and southeastwards to Northeast Bay of Bengal on 5th, passed through Ferozepur, Kaithal, Delhi, Hardoi, Gorakhpur, Patna, Burdwan, central of low pressure area over Northwest Bay of Bengal and neighbourhood and thence southeastwards to eastcentral Bay of Bengal on 6th; passed through Anupgarh, Churu, Gwalior, Siddhi, Daltonganj, centre of well marked low pressure area over Northwest Bay of Bengal & adjoining West Bengal and Odisha and thence southeastwards to East-Central Bay of Bengal on 7th and passed through Bikaner, Churu, Jhansi, Umariya, center of the well marked low pressure area over north Chhattisgarh & neighbourhood, Gopalpur and thence southeastwards to East Central Bay of Bengal on 8th.
- The lower parts of last week's cyclonic circulation over south Bangladesh and adjoining Gangetic West Bengal merged with the trough from cyclonic circulation over East Uttar Pradesh and adjoining Bihar to eastern parts of Assam whereas its upper part lay over Northwest Bay of Bengal and adjoining areas of Gangetic West Bengal and Odisha between 5.8 km & 7.6 km a.s.l. on 2nd, the cyclonic circulation over Northwest Bay of Bengal and adjoining areas of Gangetic West Bengal & Odisha persisted over the same region and continued to extend between 5.8 and 7.6 km a.s.l. on 3rd. It lay over northwest and adjoining west central Bay of Bengal off Odisha- north Andhra Pradesh coasts, tilting south-westwards with height on 4th; It lay over south Odisha & neighbourhood between 5.8 and 7.6 km a.s.l., tilting southwards with height on 5th. It merged with the low pressure area over northwest Bay of Bengal and neighbourhood on 6th.
- Last week's eastwest shear zone at 7.6 km a.s.l. ran roughly along Lat. 19°N across Peninsular India on 2nd and became less marked on 3rd.
- Last week's cyclonic circulation at 5.8 km a.s.l. over Jammu & Kashmir and adjoining Himachal Pradesh persisted on 2nd and became less marked on 3rd.
- Last week's trough in mid & upper air tropospheric westerlies with its axis at 7.6 km a.s.l. roughly along Long. 72°E to the north of Lat. 32°N persisted on 2nd, roughly along Long. 77°E to the north of Lat. 30°N at 5.8 km a.s.l. on 3rd and moved away northeastwards on 4th.
- A trough ran from the cyclonic circulation over East Uttar Pradesh and adjoining Bihar to eastern parts of Assam across Sub-Himalayan West Bengal and extended upto 3.6 km a.s.l. on 2nd, ran from the cyclonic circulation over western parts of Bihar and neighbourhood to western parts of Assam across Sub-Himalayan West Bengal and extended upto 3.6 km a.s.l. on 3rd and merged with the trough from the cyclonic circulation over southwest Bangladesh & neighbourhood to western parts of Bihar on 4th.
- A cyclonic circulation extending upto 0.9 km a.s.l. lay over northwest Uttar Pradesh and neighbourhood on 2nd. It persisted over the same region on 3rd, merged with the monsoon trough on 4th.
- A cyclonic circulation lay over south Rajasthan and adjoining Gujarat between 3.1 km & 5.8 km a.s.l. on 2nd, persisted over the same region and between 3.6 km & 5.8 km a.s.l. on 3rd; over south Gujarat Region and adjoining north Konkan between 3.1 km & 5.8 km a.s.l. tilting southwards with height on 4th; over north Madhya Maharashtra & neighborhood at 5.8 km a.s.l. on 5th and became less marked on 6th.
- A cyclonic circulation at 7.6 km a.s.l. lay over south Konkan and neighbourhood on 3rd and merged with the shear zone on 4th.
- A trough extending upto 3.1 km a.s.l. ran from the cyclonic circulation over southwest Bangladesh & neighbourhood to western parts of Bihar on 4th, from Bihar to Nagaland with an embedded cyclonic circulation over Bangladesh & adjoining West Bengal on 5th and became less marked on 6th.
- A cyclonic circulation between 1.5 km & 3.1 km a.s.l. lay over northern parts of East Uttar Pradesh & neighbourhood on 4th. It was seen as a trough along Long. 80°E to the north of Lat 26°N between 3.1 & 4.5 km a.s.l. on 5th and became less marked on 6th.
- A cyclonic circulation lay over Punjab & neighbourhood at 5.8 km a.s.l. on 4th and became less marked on 5th.
- An east-west shear zone at 7.6 km a.s.l. ran roughly along Lat 16°N across peninsular India on 4th and it became less marked on 5th.
- A cyclonic circulation extending upto 0.9 km a.s.l. lay over eastern parts of Bihar & neighbourhood on 6th and became less marked on 7th.
- Another cyclonic circulation extending upto 0.9 km a.s.l. lay over northwest Uttar Pradesh & neighbourhood on 6th and became less marked on 7th.
- A cyclonic circulation between 3.1 km & 5.8 km a.s.l. lay over eastern parts of Jammu & Kashmir & neighbourhood on 6th and it has moved away east-Northeastwards on 7th.
- A cyclonic circulation lay over north Pakistan and adjoining Jammu & Kashmir between 4.5 km & 7.6 km a.s.l. on 7th and lay over Jammu & neighbourhood and extended between 4.5 and 7.6 km a.s.l. on 8th.
- A cyclonic circulation lay over Northwest Madhya Pradesh & neighbourhood and extended upto 2.1 km a.s.l. on 7th and over southeast Rajasthan and neighbourhood between 1.5 km & 3.6 km a.s.l. on 8th.
- A cyclonic circulation at 7.6 km a.s.l. lay over southeast Arabian Sea and adjoining Lakshadweep area on 8th.

Details of the rainfall received under the influence of these synoptic systems are given in the subsequent Figures and Tables.

Media Reports: 1) 12 people died in rain related incidents in Uttar Pradesh. Around 2 crore people in the state facing the wrath of floods in different districts (4th August **Hindustan Times**) 2) At least six people dead and 4000 families have been evacuated to safer places following torrential rain and flashflood across Nagaland since last month (PTI 6th August).

(Dr. A. K. Srivastava)

8th August 2018
Pune - 5

Head, Climate Monitoring & Analysis Group,
Climate Research Division, Pune

Rainfall % Departure For the week ending

8th August 2018

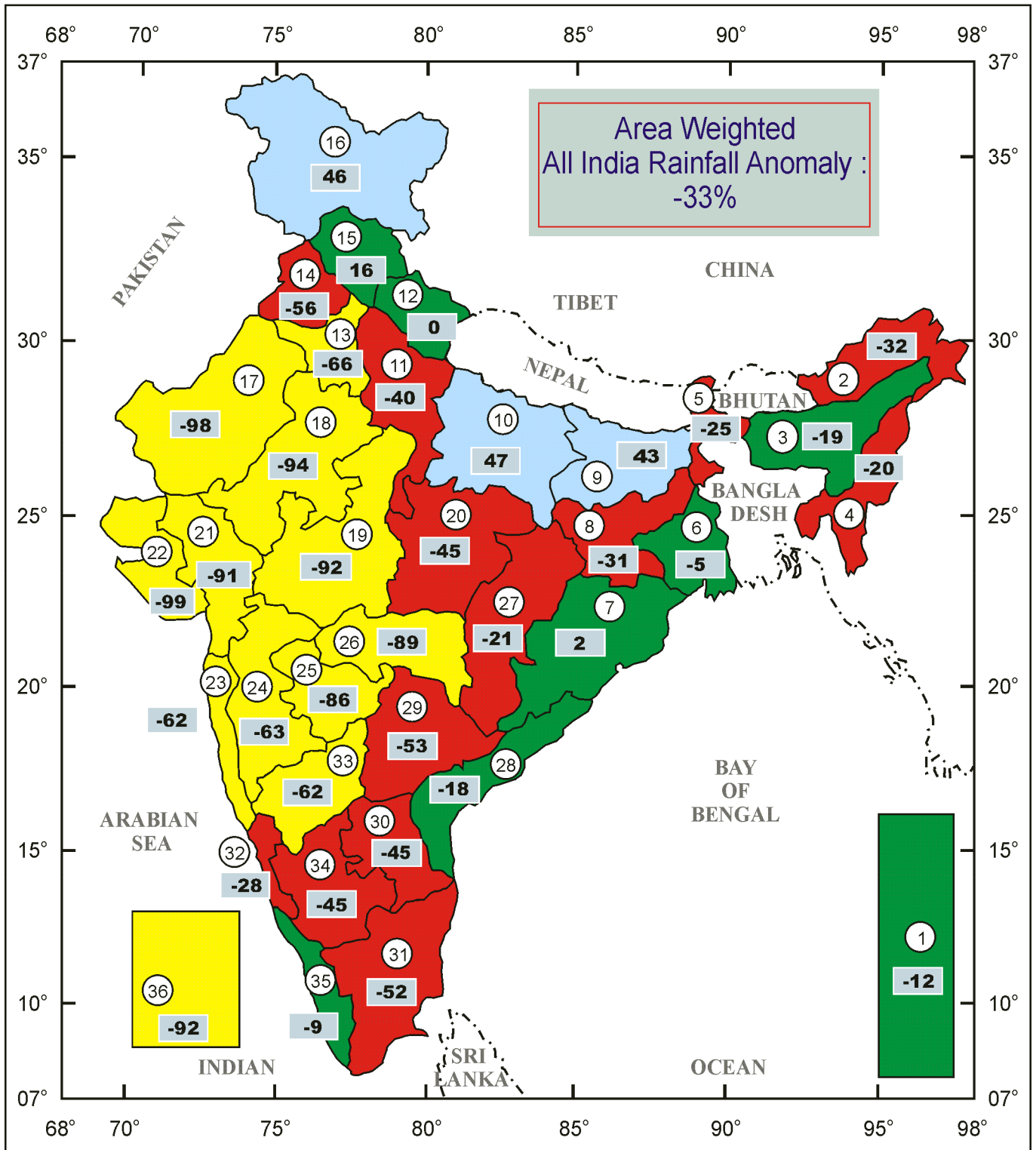


Figure in ○ Indicates sub-division number.

Figure in □ indicates rainfall anomaly.



Rainfall % Departure For the period

1st June to 8th August 2018

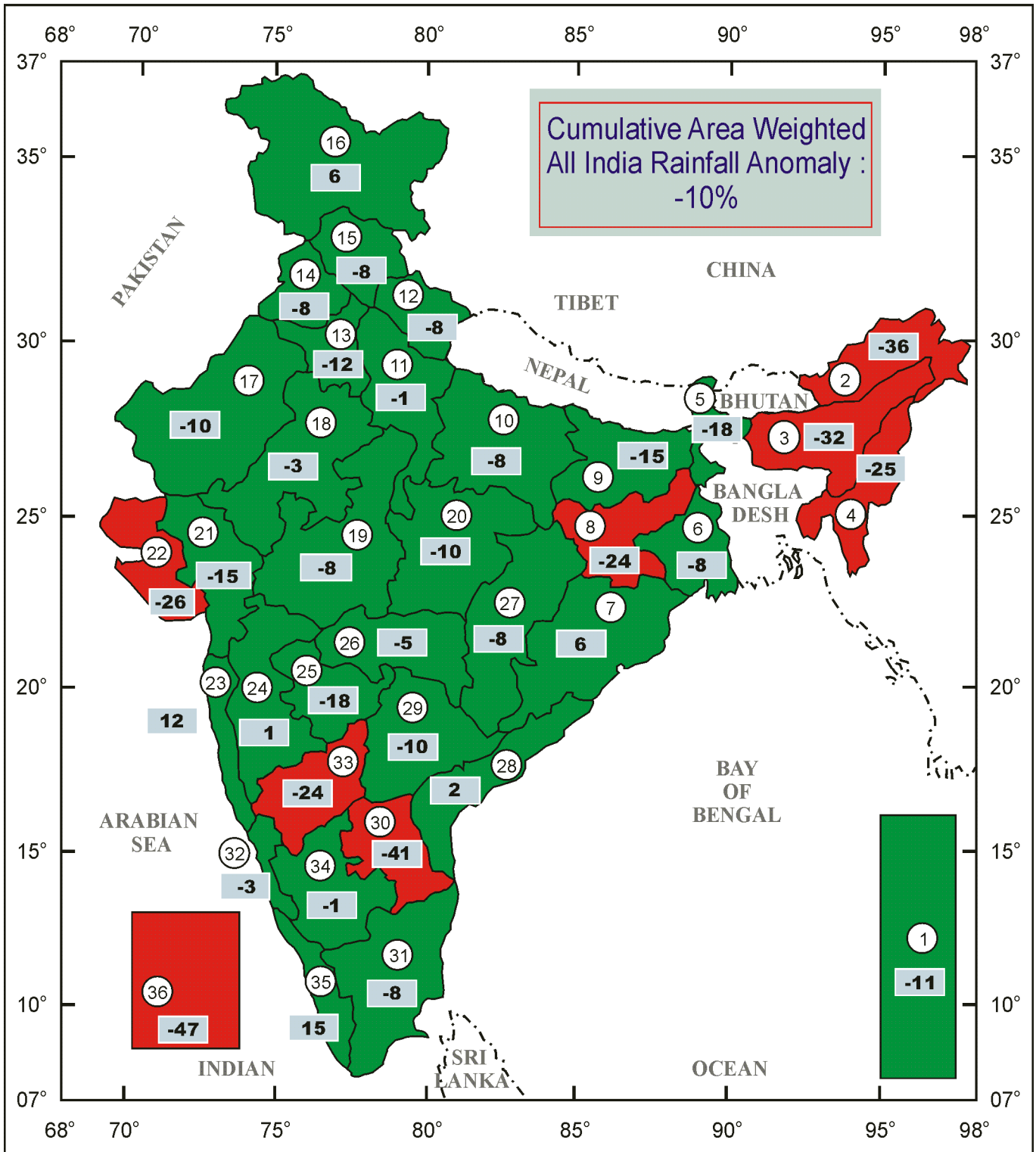


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