

Government of India Earth System Science Organization Ministry of Earth Sciences India Meteorological Department

Press: Dated: 25 Nov, 2021

Subject: Current Weather Status and Extended range Forecast for next two weeks (25 Nov-8 Dec 2021)

1. Salient Features

Fairly widespread to widespread rainfall with Isolated Heavy to Very heavy rainfall reported over Rayalseema, south coastal Andhra Pradesh, Tamil Nadu and Puducherry, Kerala and Coastal and southern parts of Interior Karnataka and Goa during the 1st half of the week of 18-20 Nov 2021 with isolated extremely heavy rainfall on 18th over Tamil Nadu and Puducherry and Rayalseema. Reduction in rainfall was reported during 2nd half of the week over Peninsular India. In the 1st half of the week, it was due to the formation and movement of a **Well Marked** Low Pressure Area over Southwest and adjoining Westcentral Bay of Bengal off north Tamil Nadu-south Andhra Pradesh coasts in the early morning of 18th Nov which then concentrated into a Depression over Southwest Bay of Bengal off north Tamilnadu coast and then crossed north Tamil Nadu & adjoining south Andhra Pradesh coasts between Puducherry & Chennai during 0300-0400 hrs IST of 19th November, 2021 Thereafter, its remnant moved over to South Interior Karnataka and neighbourhood as a low pressure area and became less marked on 21st November 2021. Isolated Heavy rainfall also reported over Gujarat region, Konkan, east Rajasthan and west Madhya Pradesh during 18-20 Nov due a trough in easterly seen from the cyclonic circulation associated with s a Low pressure area over Eastcentral Arabian Sea off south Maharashtra- Goa coasts to south Gujarat coast across north Maharashtra coast on 18th and to West Madhya Pradesh on 19th and to south Rajasthan on 20th.

2. Rainfall distribution during the current week of 18-24 Nov 2021 and Postmonsoon Rainfall Scenario (01 Oct to 24 Nov, 2021)

During the week ending on 24 Nov 2021, for the country as a whole, the weekly cumulative All India Rainfall departure from its long period average (LPA) during the week was **+189%** with weekly cumulative over south Peninsular India reported above normal of **+290%**, while all India cumulative rainfall during this year's post-monsoon season till 24 Nov, 2021 is above LPA by **+47%** and over south Peninsular India, it is above LPA by **+63%**. Details of the rainfall distribution over the four broad geographical regions of India are given in **Table 1** and Meteorological sub-division-wise rainfall both for week and season are given in Annex I and II respectively.

| Region | WEEK 18.11.2021 TO 24.11.2021 | | | | SEASON | | |
|-----------------------|----------------------------------|--------|-------|--------------------------|--------|-------|--|
| | | | | 01.10.2021 TO 24.11.2021 | | | |
| | Actual | Normal | % Dep | Actual | Normal | % Dep | |
| EAST & NORTH- | | | | | | | |
| EAST INDIA | 2.4 | 4.3 | -45% | 159.7 | 149.8 | +7% | |
| NORTH- WEST INDIA | 4.0 | 3.2 | +26% | 72.2 | 32.1 | +125% | |
| CENTRAL INDIA | 9.2 | 3.4 | +171% | 81.2 | 67.0 | +21% | |
| SOUTH PENINSULA | 67.1 | 17.2 | +290% | 380.3 | 233.0 | +63% | |
| country as a whole | 17.9 | 6.2 | +189% | 149.8 | 102.1 | +47% | |

Table 1: Rainfall status (Week and season)

3. Large scale features

➤ Currently La Niña conditions are prevailing over the Equatorial Pacific Ocean and neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The latest global model forecasts indicate that the La Niña conditions are likely to prevail until March 2022 and neutral IOD conditions are likely to continue during the upcoming seasons.

➤ The Madden Julian Oscillation (MJO) index currently lies in Phase 4 with amplitude close to 1. It will continue in same phase during first half of week 1. Thereafter, it will

move eastwards in phase 5 with amplitude close to 1 during rest of week 1. It will move to phase 6 with amplitude becoming more than 1 during week 2. Thus, MJO phase is conducive for enhancement of convective activity and hence cyclogenesis over the Bay of Bengal (BoB) during week 1.

4. Forecast for next two week

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (25 November to 01 December, 2021) and Week 2 (02 to 08 December, 2021)

Rainfall for week 1 (25 November to 01 December, 2021):

- A cyclonic circulation lies over southwest Bay of Bengal off south Sri Lanka coast at lower tropospheric levels and strong northeasterly winds are prevailing over Tamilnadu coast and south Coastal Andhra Pradesh at lower levels. Under its influence:
- Light to moderate scattered/fairly widespread rainfall very likely over Coastal Andhra Pradesh & Yanam, Rayalaseema, South Interior Karnataka, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal during the week and over Maharashtra during 2nd half of the week.
- Isolated heavy to very heavy rainfall with extremely heavy very likely over Tamilnadu, Puducherry & Karaikal on 25th & 26th; isolated heavy to very heavy during 27th to 29th November and isolated heavy on 30th November & 1st December, 2021. Isolated heavy rainfall also very likely over south Coastal Andhra Pradesh & Yanam and Rayalaseema on 26th & 27th and isolated heavy to very heavy rainfall very likely over south Coastal Andhra Pradesh & Yanam and Rayalaseema on 26th & 27th and isolated heavy to very heavy rainfall very likely over south Coastal Andhra Pradesh & Yanam and Rayalaseema on 28th & 29th November, 2021. Isolated heavy rainfall also very likely over Kerala & Mahe during 25th November to 1st December, 2021; and over Konkan & Goa and Madhya Maharashtra on 30th November and 1st December, 2021.
- A Low Pressure Area is likely to form over south Andaman Sea around 29th November, 2021. It is likely to become more marked and move westnorthwestwards during subsequent 48 hours. Under its influence, isolated heavy to very heavy rainfall likely over Andaman & Nicobar Islands on 29th November to 1st December, 2021.

- Squally wind (speed reaching 40-50 kmph gusting to 60 kmph) likely over Andaman & Nicobar Islands and adjoining Southeast & east central Bay of Bengal during 30th November to 02nd December, 2021.
- No active Western Disturbance is likely to affect northwest India during next one week and weather is very likely to be dry over northwest India.
- Overall, rainfall activity is likely to be above normal over south Peninsular & adjoining central India (including Andaman & Nicobar Islands & Lakshadweep); below normal over Western Himalayan Region and northeastern states and near normal or no rain over rest parts of the country.

Rainfall for week 2 (02 to 08 December, 2021):

- Light to moderate scattered/fairly widespread rainfall very likely to continue over south Peninsular India during most days of the week. Isolated heavy falls is also likely over Tamil Nadu, Puducherry & Karaikal and Kerala during 2nd half of the week.
- No active Western Disturbance is likely to affect northwest India during next one week.
- Rainfall activity is likely to be above normal over extreme south Peninsular and northeast & adjoining east India; below normal over Western Himalayan Region and near normal or no rain over rest parts of the country.

Minimum Temperatures for week 1(25 November to 01 December, 2021) and week 2(02 to 08 December, 2021)

Minimum Temperatures for Week 1(25 November to 01 December, 2021):

Minimum temperatures are markedly above normal (5.1°C or more) at many places over Madhya Maharashtra and Marathawada; at a few places over Vidharbha and Telangana; at isolated places over Odisha; appreciably above normal (3.1°C to 5.0°C) at many places over Konkan & Goa and Rayalaseema; at a few places over Coastal Andhra Pradesh & Yanam and West Madhya Pradesh; at isolated p[laces over Saurashtra & Kutch, East Madhya Pradesh, Interior Karnataka and Chhattisgarh; above normal (1.6°C to 3.0°C) at many places over Jharkhand and Coastal Karnataka; at a few places over Tamilnadu, Puducherry & Karaikal and at isolated places over Rajasthan and Gangetic West Bengal. These are below normal to near normal over

remaining parts of the country.

- Gradual rise in minimum temperatures by 2-3°C over most parts of Northwest India during 1st half of the week and fall gradually by 3-5°C thereafter.
- Gradual fall in minimum temperatures by 2-3°C very likely over many parts of East India during 1st half of the week and no significant change thereafter and
- No significant change in minimum temperatures over remaining parts of the country during the week.
- Overall, these are likely to be near normal or above normal by about 2° C over north & adjoining central India; and likely to be above normal by 2 to 4°C over most parts of rest India.
- No significant Cold wave is likely over any part of the country.

Minimum Temperatures for week 2 (02 to 08 December, 2021):

- Minimum temperatures are likely to be below normal by 1 to 3° C over most parts of northwest India; and near or above normal over most parts of the rest parts of the country.
- No significant Cold wave is likely over any part of the country. (Refer Annex IV)

5. Cyclogenesis forecast for North Indian Ocean during next 2 weeks

As per various model guidance IMD GFS, GEFS, NCUM, NEPS, ECMWF and ECMWF and all related products analysis, it may be concluded that a Low Pressure area is likely to form over south Andaman Sea & neighbourhood during the later half of week -1. After moving west-northwestwards, it could concentrate into a Depression towards the end of week-1, further intensify and move northward/north-northeastwards towards central & adjoining north Bay of Bengal during the first half of week-2. Accordingly a 'moderate' probability is assigned for cyclogenesis (formation of a Depression) over southeast BoB towards the end of week 1 and over central parts of the BoB during the initial half of week 2.

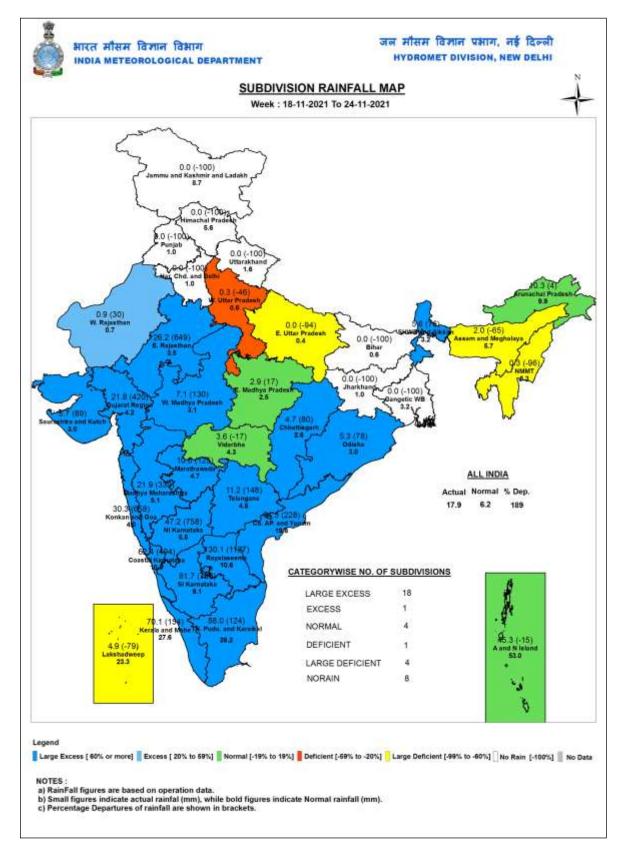
Next weekly update will be issued on next Thursday i.e 1 Dec 2021

Legends: Heavy Rain: 64.5 to 115.5 mm Very Heavy Rain: 115.6 to 204.4 mm, Extremely Heavy Rain > 204.4 mm

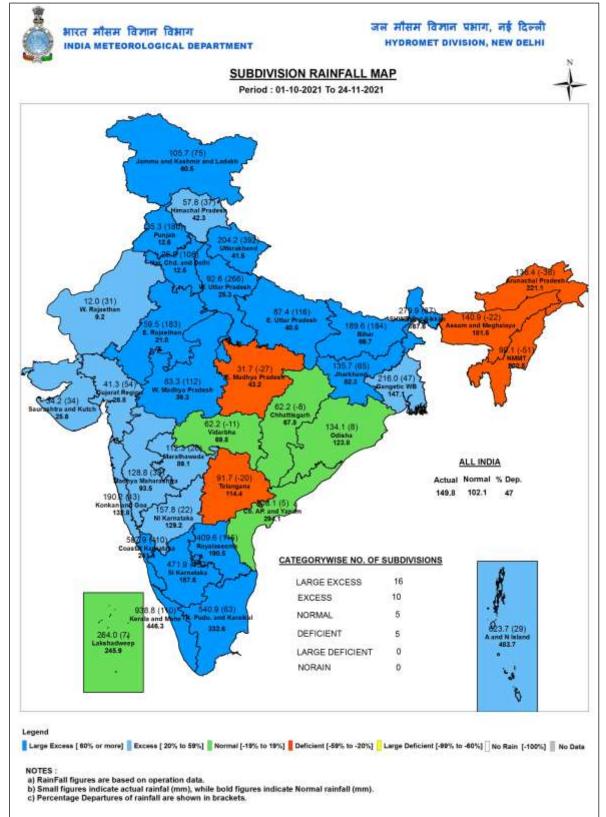
| SPATIAL DISTRIBUTION (% of Stations reporting) | | | | | |
|--|-------------------------------------|------------|-------------------------------|--|--|
| % Stations | Category | % Stations | Category | | |
| 76-100 | Widespread (WS/Most Places) | 26-50 | Scattered (SCT/ A Few Places) | | |
| 51-75 | Fairly Widespred (FWS/ Many Places) | 1-25 | Isolated (ISOL) | | |

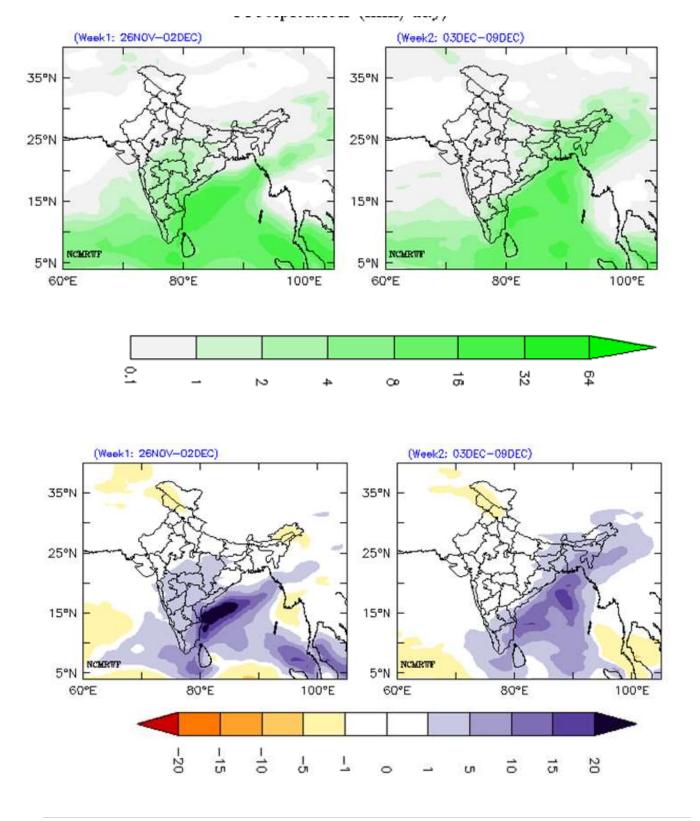
| Probabilistic Forecast | | | | |
|------------------------|-------------------------------|--|--|--|
| Terms | Probability of Occurrence (%) | | | |
| Unlikely | < 25 | | | |
| Likely | 25 - 50 | | | |
| Very Likely | 50 - 75 | | | |
| Most Likely | > 75 | | | |

Annex I



Annexure II





Annex III

