



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

**Press: Dated: 18 Nov, 2021**

**Subject: Current Weather Status and Extended range Forecast for next two weeks  
(18 Nov-1 Dec 2021)**

**1. Salient Features**

- Fairly widespread to widespread rainfall with **Isolated Heavy to Very heavy rainfall** reported over Tamil Nadu and Puducherry **in almost all dates during last week of 11-18 Nov 2021 with isolated extremely heavy rainfall on 11<sup>th</sup> and 13<sup>th</sup> Nov. Isolated Heavy to Very heavy rainfall** reported over south Coastal Andhra Pradesh and Rayalseema during almost all days in the week. **In the 1<sup>st</sup> half of the week, it was due** to the last week's **Well Marked Low Pressure Area** over southeast & adjoining southwest Bay of Bengal which concentrated into a **Depression** over southwest Bay of Bengal and moved west-northwestwards and crossed north Tamil Nadu & adjoining south Andhra Pradesh coasts close to Chennai, near Lat. 12.95°N and Long. 80.25°E between 1730 and 1830 hrs IST of 11<sup>th</sup> November and then weakened into a Well Marked Low Pressure Area over north Tamil Nadu and neighbourhood in the early morning hours of 12<sup>th</sup> and further into a Low Pressure Area over north interior Tamil Nadu and neighbourhood in the morning of the same day. Thereafter, its remnant as cyclonic circulation moved over to South Interior Karnataka & adjoining north Interior Tamilnadu on 14<sup>th</sup> and then merged with the cyclonic circulation extended upto mid tropospheric levels over Eastcentral & adjoining Southeast Arabian Sea off Karnataka- north Kerala coasts on 15<sup>th</sup> November 2021. **In the 2<sup>nd</sup> half of the week, it was due to** a trough extending upto 3.1 km above mean sea level ran from a cyclonic circulation lay over Southeast Arabian sea to Southwest Bay of Bengal across north Kerala on 14<sup>th</sup> and 15<sup>th</sup> and then from cyclonic circulation associated with a Low pressure area over Eastcentral Arabian Sea off Karnataka coast to the Low Pressure Area over Southeast Bay of Bengal and extended upto 4.5 km above mean sea level on 16<sup>th</sup>

- Heavy to very heavy rainfall at isolated places over Odisha during 12-15 Nov and Jharkhand and Chhattisgarh on 13-14 Nov due to a trough ran from remnant of the above depression to Odisha-Jharkhand during the period at lower levels.
- **Rainfall during the week:** During the week ending on 17 Nov 0221, weekly cumulative All India Rainfall departure from its long period average (LPA) during the week was **+150%** with weekly cumulative over south Peninsular India reported above normal of **+220%**.

**2. Rainfall distribution during the current week of 11-17 Nov 2021 and Post-monsoon Rainfall Scenario (01 Oct to 17 Nov, 2021)**

During the week ending on 17 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 **+150%** with weekly cumulative over south Peninsular India reported above normal of **+220%**, while all India cumulative rainfall during this year's post-monsoon season till 17 Nov, 2021 is above LPA by **+38%** and over south Peninsular India, it is above LPA by **+45%**. 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.

**Table 1: Rainfall status (Week and season)**

Region	WEEK			SEASON		
	11.11.2021 TO 17.11.2021			01.10.2021 TO 17.11.2021		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	8.2	5.7	+44%	157.3	145.5	+8%
NORTH-WEST INDIA	0.0	2.4	-100%	68.2	28.9	+136%
CENTRAL INDIA	9.7	3.7	+161%	72.1	63.6	+13%
SOUTH	64.7	20.0	+220%	313.2	215.8	+45%

<b>PENINSULA</b>						
<b>country as a whole</b>	<b>17.3</b>	<b>6.9</b>	<b>+150%</b>	<b>131.9</b>	<b>95.9</b>	<b>+38%</b>

### 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 till first half of week 2 with amplitude remaining less than 1. Thereafter, it will move eastwards and remain in phase 5 with amplitude less than 1 during rest of week 2. Thus, MJO phase is conducive for enhancement of convective activity and hence cyclogenesis over the Arabian Sea (AS) during week 1 and over the Bay of Bengal (BoB) during entire forecast period

### 4. Forecast for next two week

#### Forecast for next two week

#### Weather systems & associated Precipitation during Week 1 (18 to 24 November, 2021) and Week 2 (25 November to 01 December, 2021)

#### Rainfall for week 1 (18 to 24 November, 2021):

- The Depression over southwest Bay of Bengal off north Tamil Nadu coast moved west-northwestwards with a speed of 18 kmph during past 6 hours and lay centred at 1730 hrs IST of today, the 18<sup>th</sup> November 2021, over southwest Bay of Bengal off north Tamil Nadu coast, near Lat. 11.8°N and Long. 80.9°E, about 150 km south-southeast of Chennai, 120 km east-southeast of Puducherry and 150 km east-northeast of Karaikal . It is very likely to continue to move west–northwestwards and cross north Tamilnadu & adjoining south Andhra Pradesh coasts between Puducherry & Chennai by early morning of tomorrow, the 19<sup>th</sup> November, 2021.
- A **Low Pressure Area** lies over Eastcentral Arabian Sea. It is likely to move west-southwestwards away from west coast of India and become more marked during next 48 hours.

- A trough runs from the cyclonic circulation associated with the above Low Pressure Area over Eastcentral Arabian Sea to southwest Madhya Pradesh across north Maharashtra at lower tropospheric level.
- No active Western Disturbance is likely to affect northwest India during next one week.
- **Under the influence of above systems;**
- ✓ Light to moderate rainfall at most places with **heavy to very heavy rainfall at a few places and extremely heavy falls at isolated places very likely over Tamil Nadu, Puducherry & Karaikal** on 18<sup>th</sup>, **isolated heavy to very heavy** on 19<sup>th</sup> and isolated heavy rainfall on 20<sup>th</sup>, 22<sup>nd</sup> & 23<sup>rd</sup> November, 2021: **heavy to very heavy rainfall and extremely heavy falls** at isolated places over Rayalaseema on 18<sup>th</sup> and **isolated heavy** on 19<sup>th</sup> November, 2021 and heavy to very heavy rainfall at isolated places over south coastal Andhra Pradesh & South Interior Karnataka on 18<sup>th</sup> and **isolated heavy** on 19<sup>th</sup> November, 2021. Fairly widespread rainfall with isolated heavy falls is also likely over Telangana & North Interior Karnataka on 18<sup>th</sup> & 19<sup>th</sup> and over Kerala & Mahe on 18<sup>th</sup>, 22<sup>th</sup> & 23<sup>rd</sup> November, 2021.
- ✓ Light to moderate scattered/fairly widespread rainfall is very likely over rest parts of the south Peninsular India including Andaman & Nicobar Islands during the week.
- ✓ Light isolated to scattered rainfall is likely over Maharashtra, Gujarat, Madhya Pradesh and East Rajasthan during 1<sup>st</sup> half of the week.
- ✓ Weather is very likely to be dry over remaining parts of India during most days of the week.
- Overall, rainfall activity is likely to be above normal over south Peninsular & central India and below normal to near normal over rest parts of the country.

#### **Rainfall for week 2 (25 November to 01 December, 2021):**

- Light to moderate rainfall at most places with isolated **heavy to very heavy falls likely over Tamil Nadu, Puducherry & Karaikal**, Rayalaseema and coastal Andhra Pradesh and isolated heavy falls is also likely over South Interior Karnataka and Kerala & Mahe during 1<sup>st</sup> half of the week. Light to moderate scattered/fairly widespread rainfall is very likely over rest parts of the south Peninsular India including Andaman & Nicobar Islands during the week.
- No active Western Disturbance is likely to affect northwest India during next one week

- **Rainfall activity is likely to be below normal to near normal over most parts of northwest and adjoining central India and above normal over south Peninsular and northeast & adjoining east India during the week.**

**Minimum Temperatures for week 1(18 to 24 November, 2021) and week 2(25 November to 01 December, 2021)**

**Minimum Temperatures for Week 1(18 to 24 November, 2021):**

- Minimum temperatures are markedly above normal (5.1°C or more) at most places over Madhya Maharashtra, Marathwada and Vidarbha; at a few places over Telangana and Gujarat; at isolated places over West Madhya Pradesh and Chhattisgarh; appreciably above normal (3.1°C to 5.0°C) at many places over Konkan & Goa; at a few places over East Madhya Pradesh, Coastal Andhra Pradesh & Yanam and Karnataka; at isolated places over Rayalaseema; above normal (1.6°C to 3.0°C) at many places over Uttarakhand; at a few places over East Rajasthan and Odisha and at isolated places over West Uttar Pradesh and Tamilnadu, Puducherry & Karaikal. These are below normal to near normal over remaining parts of the country.
- No significant change in minimum temperatures over most parts of Northwest India during 1<sup>st</sup> half of the week and fall by 2-3°C thereafter.
- No significant change in minimum temperatures over most parts of East India during next 2 days and rise by 2-3°C thereafter.
- No significant change in minimum temperatures over remaining parts of the country during the week.
- **Overall, these are likely to be below normal by 1 to 3° C over northwest India; and likely to be above normal over remaining parts of the country.**

**Minimum Temperatures for week 2 (25 November to 01 December, 2021):**

- **Minimum temperatures are likely to be near normal over most parts of the country.**
- **No significant Cold wave is likely over any part of the country.** (Refer Annex V)

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

The low pressure area (LPA) that formed over south Andaman Sea & adjoining Thailand on 13th November moved west-northwestwards and intensified into a depression over southwest Bay of Bengal(BoB) on 18th. It is likely to move further west-northwestwards and cross North Tamil Nadu & adjoining south Andhra Pradesh coasts by 19th early

morning (0000 UTC). Another LPA formed over east-central Arabian Sea(AS) off Karnataka-Kerala coasts on 16th Nov. It moved slowly west-northwestwards and lay over east-central AS on 18th November. It is likely to move gradually westsouthwestwards and become more marked during next 48 hours. Most of the numerical models including IMD GFS, GEFS, NCUM, NEPS, ECMWF and ECMWF ensemble are indicating (1) the existing depression over southwest BoB would cross North Tamil Nadu & adjoining south Andhra Pradesh coast by 19th morning (0000 UTC), (2) the LPA over eastcentral AS would move west-southwestwards towards southwest AS by middle of week 1 and (3) a fresh LPA would form over equatorial Indian ocean & adjoining south Andaman Sea towards the later part of week 2 and its intensification into a higher category system (Depression or above) over southeast BoB & neighbourhood towards the end of week 2. IMD GPP index is indicating west-southwestwards movement of a Potential Genesis zone corresponding to the existing LPA over east-central AS till 21<sup>st</sup> Nov.

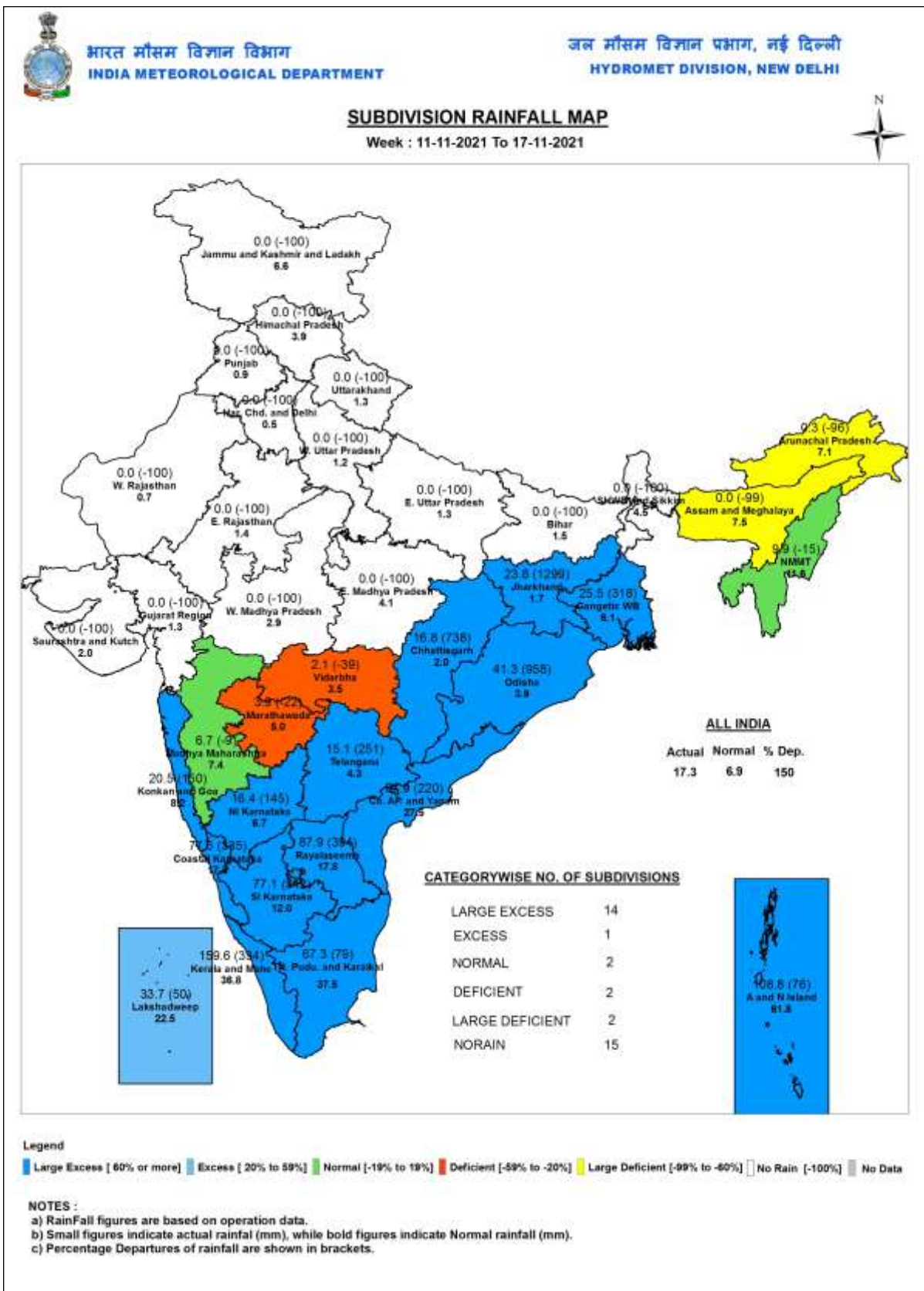
**In view of the above, (1) the existing depression over southwest BoB is likely to cross North Tamil Nadu & adjoining south Andhra Pradesh coast by 0000 UTC of 19th Nov., (2) the LPA over eastcentral AS would move west-southwestwards towards southwest AS with marginal intensification by middle of week 1 and (3) low probability is assigned for cyclogenesis (formation of a Depression) over southeast BoB towards the end of week 2**

**Next weekly update will be issued on next Thursday i.e. 25 Nov 2021(Happy Diwali)**

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

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

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



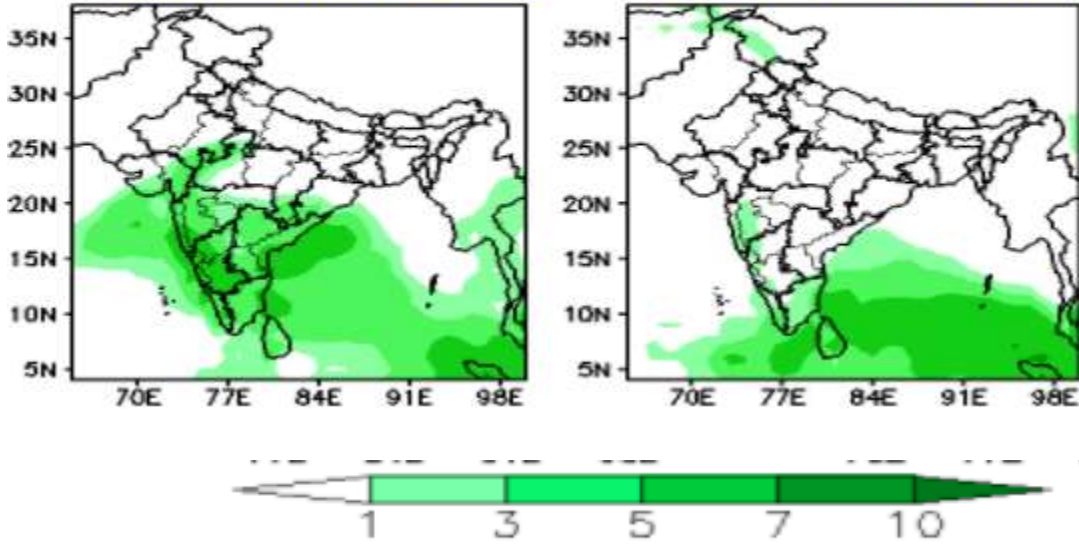




**Forecast Rainfall (mm/day)**

(Week1: 19Nov-25Nov)

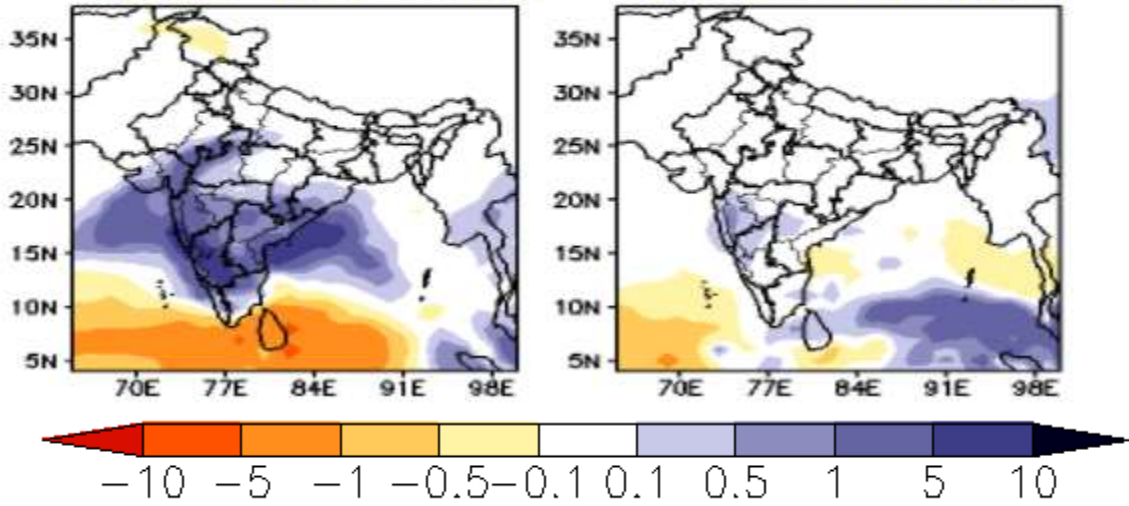
(Week2: 26Nov-02Dec)



**Forecast Rainfall Anomaly (mm/day)**

(Week1: 19Nov-25Nov)

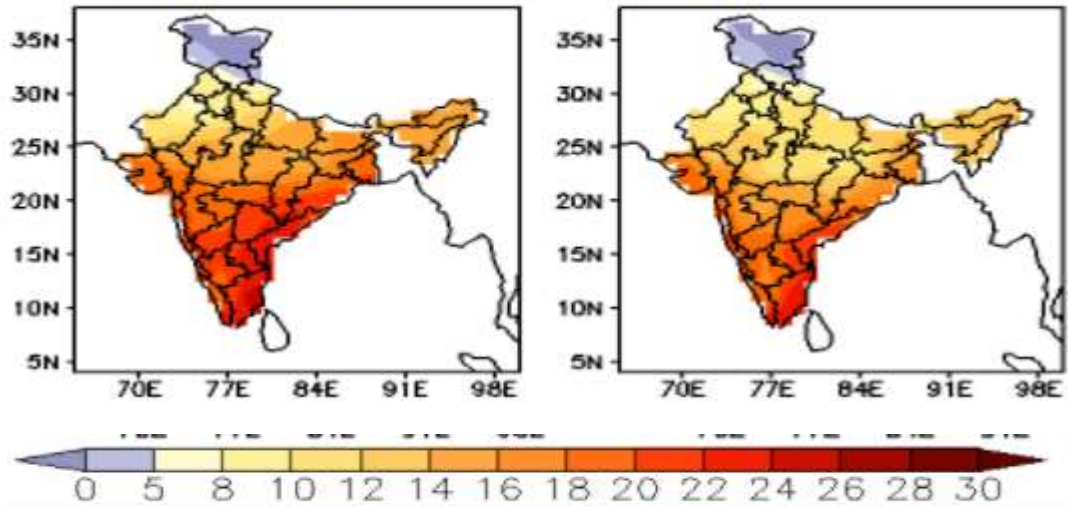
(Week2: 26Nov-02Dec)



**MME Bias corrected forecast Tmin (Deg)**

(Week1: 19Nov–25Nov)

(Week2: 26Nov–02Dec)



**MME forecast Tmin anomaly (Deg C)**

(Week1: 19Nov–25Nov)

(Week2: 26Nov–02Dec)

