



**National Agromet Advisory Service Bulletin**  
**Based on**  
**Extended Range Weather Forecast (ERFS)**

**Validity: (6<sup>th</sup> to 19<sup>th</sup> December 2019)**

**Date of issue: 06<sup>th</sup> December 2019**

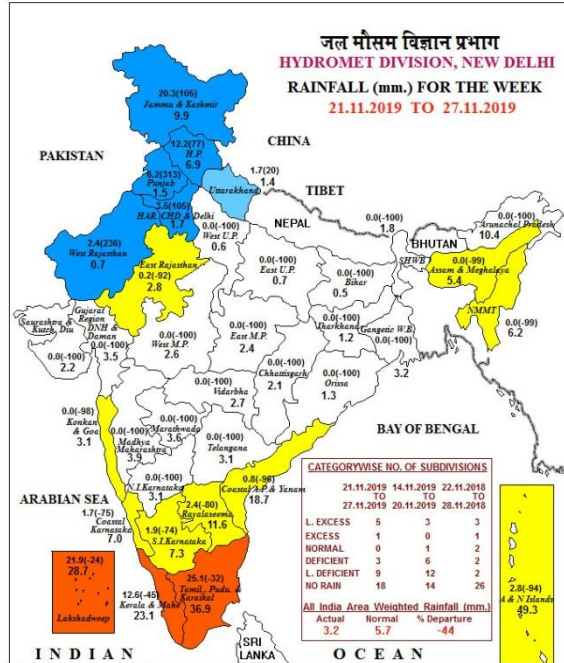
**Issued by**  
**Indian Council of Agricultural Research (ICAR)**  
**All India Coordinated Research Project on Agro meteorology (AICRPAM),**  
**Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad.**  
**&**  
**Earth System Science Organization**  
**India Meteorological Department**

## Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

### Realized Rainfall

(21<sup>st</sup> November to 4<sup>th</sup> December, 2019)

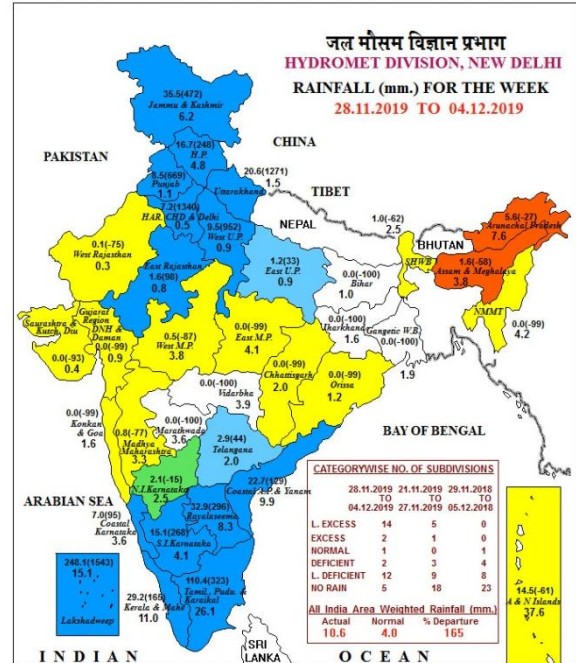
#### भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)  
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%)  NO RAIN (-100%)  NO DATA

NOTES:  
 (a) Rainfall figures are based on operational data.  
 (b) Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)  
 Percentage Departures of Rainfall are shown in Brackets.

#### भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)  
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%)  NO RAIN (-100%)  NO DATA

NOTES:  
 (a) Rainfall figures are based on operational data.  
 (b) Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)  
 Percentage Departures of Rainfall are shown in Brackets.

- Normal or above normal rainfall occurred in both the weeks in Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab and Haryana, Chandigarh & Delhi.
- Normal or above normal rainfall occurred in either of the two weeks in West Rajasthan, East Rajasthan, Uttar Pradesh, Telangana, Andhra Pradesh & Yanam, Karnataka, Kerala & Mahe, Tamil Nadu Puducherry & Karaikal and Lakshadweep.
- Below normal rainfall/no rain occurred over rest of the country.

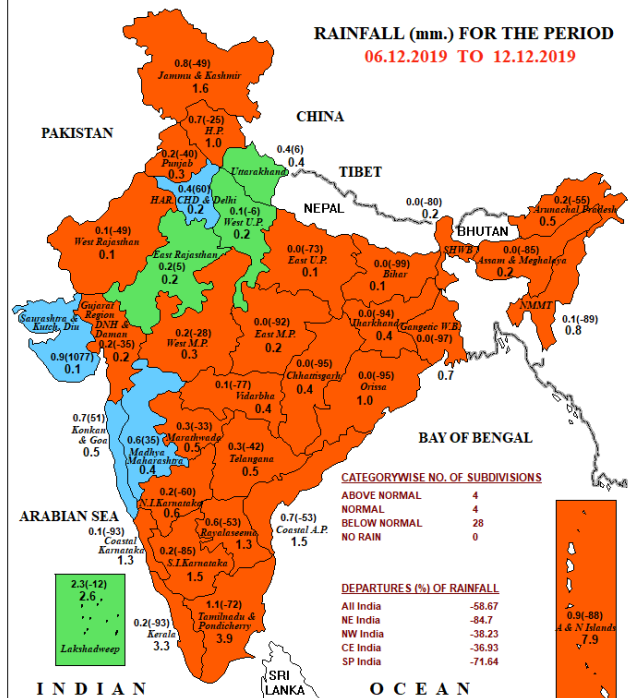
# Extended Range Forecast System

## Rainfall forecast maps for the next 2 weeks (IC – 04 December)

(6<sup>th</sup> to 19<sup>th</sup> December 2019)

### भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT

#### Rainfall Forecast Map - Normal RF Based Categories

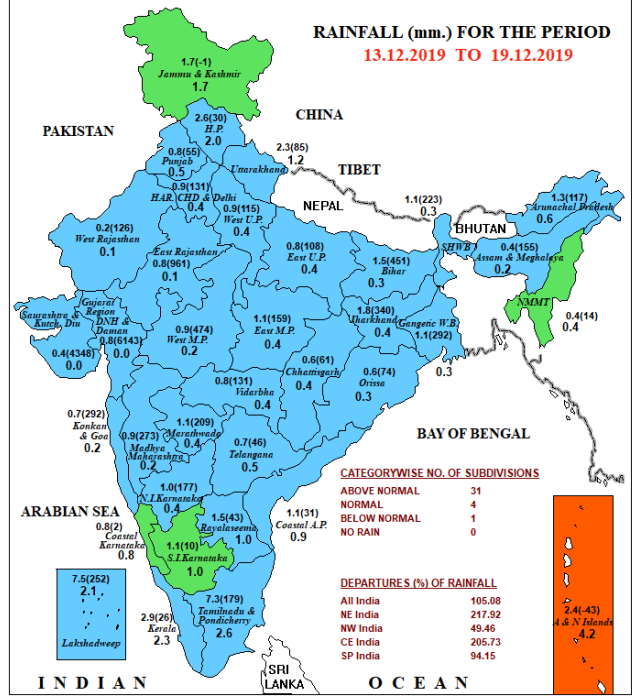


NOTES:

- (a) Rainfall figures are based on MME Forecast data.
  - (b) Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
- Percentage Departures of Rainfall are shown in Brackets.

### भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT

#### Rainfall Forecast Map - Normal RF Based Categories



NOTES:

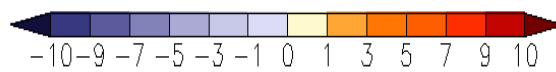
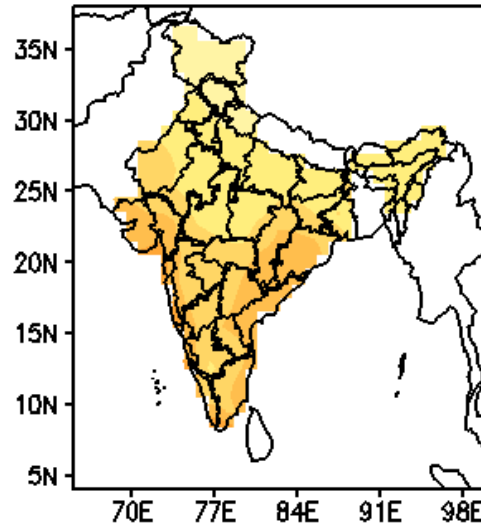
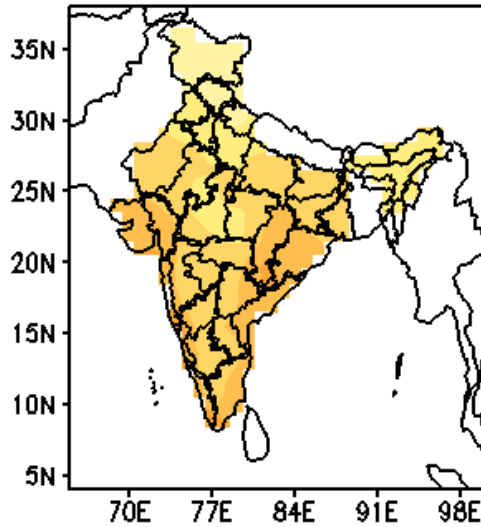
- (a) Rainfall figures are based on MME Forecast data.
  - (b) Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
- Percentage Departures of Rainfall are shown in Brackets.

**Maximum and Minimum temperature anomaly ( $^{\circ}\text{C}$ ) forecast  
for next 2 weeks (IC – 04 December)  
(6<sup>th</sup> to 19<sup>th</sup> December 2019)**

**MME Bias corrected forecast Tmax (Deg**

(Week1: 06Dec–12Dec)

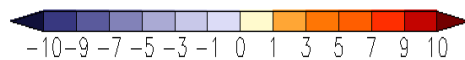
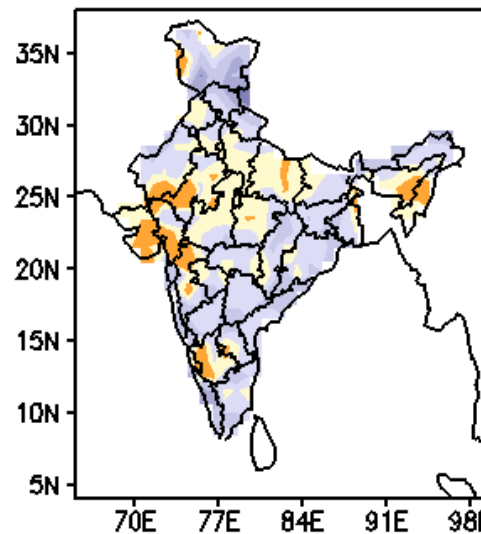
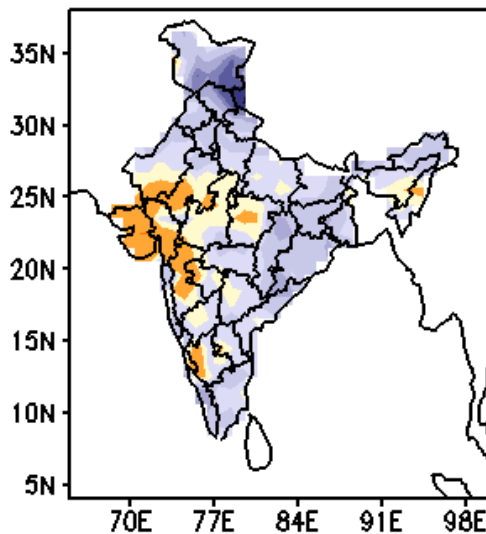
(Week2: 13Dec–19Dec)



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

(Week1: 06Dec–12Dec)

(Week2: 13Dec–19Dec)



## **Strategic Agricultural Planning based on rainfall during next two weeks till 19<sup>th</sup> December 2019**

### **Agromet Advisories**

#### **Kerala**

Amount of rainfall received over Kerala is 465.1 mm (32% excess) during the period of 01 Oct.-05 Dec. 2019. The extended range weather forecast for next two weeks (06-12 Dec. and 13-19 Dec. 2019) is below normal for week-1 and above normal for week 2.

- Due to cloudy weather condition, there is a chance of leaf folder attack in Mundakan Paddy. It is advised to use Trichogramma cards @ 2CC per one acre. If the attack is severe, spray Quinalphos @ 2ml/liter of water.
- Propping is advised in banana to reduce the damage caused due to high wind velocity.

#### **Tamil Nadu**

Amount of rainfall received over Tamil Nadu is 376.8 mm (11% normal) during the period of 01 Oct.-05 Dec. 2019. The extended range weather forecast for next two weeks (06-12 Dec. and 13-19 Dec. 2019) is below normal for week-1 and above normal for week 2.

- Prevailing weather condition is favorable for shoot fly incidence in sorghum. It is advised to spray any one of the insecticides Dimethoate 30 EC @ 500 ml/ha or Neem Seed Kernel extract 5%.
- Prevailing weather conditions are favorable for sucking pest and leaf hopper incidence in pulses. Spray Emamectin benzoate 5% SG 220 g/ha for the control of sucking pest and Methyl-o-demeton 750 ml in 700-1000 litre of water/ha for the control of leaf hopper.

#### **Maharashtra**

Rainfall received over Madhya Maharashtra is 228.0 mm (132% large excess), over Marathwada is 255.6 mm (172% large excess), Vidharbha is 63.8 mm (-15% deficit) and Konkan region 281.3 mm (108% large excess) during 01 Oct.-05 Dec. 2019. The extended range weather forecast for next two weeks (06-12 Dec. and 13-19 Dec. 2019) over Madhya Maharashtra and Konkan, are above normal and below normal in Marathwada and Vidharbha for week-1 and above normal over Marathwada, Madhya Maharashtra, Konkan, Vidharbha for week-2.

#### *Konkan*

- There is possibility of incidence of root knot nematodes in chilli plants. It is advised to destroy all infected plant parts by burning and then apply neem cake 125 g/plant by mixing into soil at the base of crop.
- To control the attack of red palm weevil on coconut, apply bordopaste to infected part. Install pheromone trap 2 nos./hectare in orchard.
- If incidence of wilt is noticed on watermelon, drenching of Carbendazim @1 g/litre is recommended.

### *Marathwada*

- To control rhizome fly earthing up is advised in turmeric crop and drenching of Chloropyriphos 50 % @ 500 ml per acre in water.
- Onion, Cabbage and Cauliflower can be sown as intercrop in pre seasonal sugarcane crop.

### **Rajasthan**

Rainfall received during 01 Oct.-05 Dec. 2019 over East Rajasthan is 34.3 mm (52% excess). The extended range weather forecast for next two weeks (06-12 Dec. and 13-19 Dec. 2019) over East Rajasthan is normal for week-1 and above normal for week-2.

- Late sowing of wheat should be done in first to third week of December. The improved varieties for late sowing are Raj-3765, Raj-3777, Lok-1 and HI-8498.
- In opium to control downy mildew spray, Metalaxyl 0.2 % or mancozeb 2kg/ha at 30 days.
- It is advised to give the first irrigation in barley where the crop is at 21 days. After 3-4 days of irrigation broadcast of second dose of nitrogen.

### **Jammu**

Rainfall received during 01 Oct.-05 Dec. 2019 in Jammu is 188.7 mm (157% large excess). The extended range weather forecast for next two weeks (06-12 Dec. and 13-19 Dec. 2019) is below normal for the week-1 and normal for week-2.

- Farmers are advised to go for sowing of wheat where sufficient moisture is available with recommended varieties viz. WH-1021, PBW-590, PBW-373, Raj-3077, Raj-3765, DBW-16.
- In chickpea, nipping is recommended after receipt of rain in 3-4 week old crop.
- To manage black rot, spray Copper fungicide @ 0.3%. Spray Mancozeb @ 0.25%, for the attack of downy mildew.

### **Chhattisgarh**

Amount of rainfall received over Chhattisgarh is 101.0 mm (42% excess) during 01 Oct.-05 Dec. 2019. The extended range weather forecast provided for next two weeks (06-12 Dec. and 13-19 Dec. 2019) over Chhattisgarh is below normal for week-1 and above normal for week-2.

- After harvesting of paddy farmers are advised for *rabi* crops sowing according to the availability of soil moisture.
- Due to extreme cold conditions, there is chances of infestation of yellow vein mosaic in vegetables, farmers are advised to go for spraying of systemic fungicides.
- If there is recurring infestation of wilt and collar rot disease in each year, farmers are advised to follow crop rotation. In *rabi* season wheat, safflower and linseed crops sowing are advised.



## **Odisha**

Amount of rainfall received over Odisha is 186.8 mm (49% excess) during 01 Oct.-05 Dec. 2019. The extended range weather forecast provided for next two weeks (06-12 Dec. and 13-19 Dec. 2019) over Odisha is below normal for week-1 and above normal for week-2.

- Minimum temperature is unfavorable for germination of paddy in nursery bed, for better growth and development of the seedlings, increase the temperature by using the dried FYM.
- Depending upon the soil moisture go for non-paddy crops like potato, onion, maize, cowpea, green gram, black gram, mustard, sunflower, etc. FYM should be applied at the time of sowing of seeds.
- Prepare nursery beds for late duration cole crops and tomato, to maintain proper temperature in the nursery beds, mulching is advised with coconut, paddy straw or polythene.

## **Himachal Pradesh**

Amount of rainfall received over Himachal Pradesh is 71.2 mm (41% excess) during 01 Oct.-05 Dec. 2019. The extended range weather forecast provided for next two weeks (06-12 Dec. and 13-19 Dec. 2019) on rainfall over Himachal Pradesh is below normal for week 1 and above normal for week 2.

- Sowing of wheat is advised after current rain spell to utilize the available soil moisture.
- Farmers should protect their milch animals and their young ones from morning/evening low temperature by covering them with gunny bags during night and ample exposure to sunlight during day time to avoid pneumonia.
- It is advised to sow nursery of mid season cauliflower and cabbage in poly houses in mid and lower hills.

## **Bihar**

Amount of rainfall received over Bihar is 25.5 mm (-62% large deficit) during 01 Oct.-05 Dec. 2019. The extended range weather forecast provided for next two weeks (06-12 Dec. and 13-19 Dec. 2019) for rainfall over Bihar is below normal for week 1 and above normal for week 2.

- Farmers are advised to complete the sowing of gram till 10<sup>th</sup> December. To protect against Kajra caterpillar (cut worm), seeds should be treated with Chlorpyrifos @ 8ml/kg.
- Monitoring is advised for infestation of fruit and shoot borers in brinjal, tomato, chilli, gram and pea. Installation of pheromone traps @ 3-4 traps per acre is advised.
- Continue decrease in temperature may adversely affect the milk production of milch animals. Farmers are advised to give protein enriched diets to the animals.

## **Hisar**

Amount of rainfall received over Hisar is 18.2 mm (30% excess) during 01 Oct.-05 Dec. 2019. The extended range weather forecast provided for next two weeks (06-12 Dec. and 13-19 Dec. 2019) on rainfall over Hisar is above normal for week-1 and week-2.

- Because of dry, thin fog and cloudy weather conditions, farmers were advised to go for sowing of wheat. Irrigate the crop at CRI stage.

- Apply requirement based irrigation and recommended doses of fertilizers in existing vegetable crops and monitor for insect-pests and diseases. Adopt effective weed management measures.

### **Assam**

Amount of rainfall received over Assam is 203.8 mm (9% normal) during 01 Oct.-05 Dec. 2019. The extended range weather forecast provided for next two (06-12 Dec. and 13-19 Dec. 2019) on rainfall over Assam is below normal for weeks-1 and above normal for week-2.

- Due to favourable weather conditions attack of red ant and cut worm may be observed in the potato field. Farmers are advised to apply Phorate 10% granules @ 2kg/bigha or Malathion 5% dust @ 5kg/bigha in the soil at the time of earthing up.
- Farmer may use trap along with poison bait to control field rat infestation in matured rice crop. Install the poison bait (10-15g) alongside the bunds or inside the live burrow and block the burrow.
- Farmer are advised to top dress fertilizers with dry compost in ring method at 25 days interval. Wipe out plants affected by Bacterial wilt and drench root zone of unaffected plants with mixture of 1g Hing +5 g turmeric in 10 litre water.

*Disclaimer: The predictability of weather depends on many factors which are dynamic in nature. The success of Agromet advisories provided here depends on the accuracy of the forecasts. In no event will India Meteorological Department (IMD) and Indian Council of Agricultural Research (ICAR) be liable to the user or to any third party for any direct, indirect, incidental, consequential, special or exemplary damages or lost profit resulting from any use or misuse of the information on this bulletin.*