



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

Validity: (17th January to 30th January 2020)

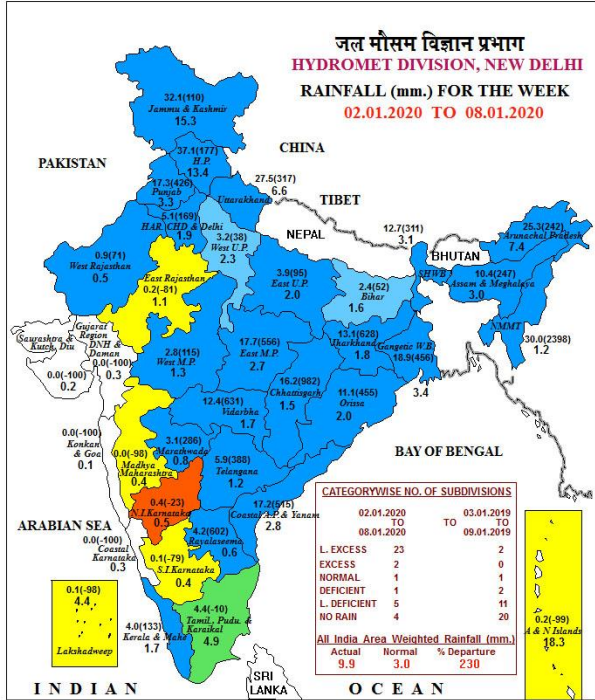
Date of issue: 17th January 2020

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&
Earth System Science Organization
India Meteorological Department

Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall (2nd to 15th January, 2020)

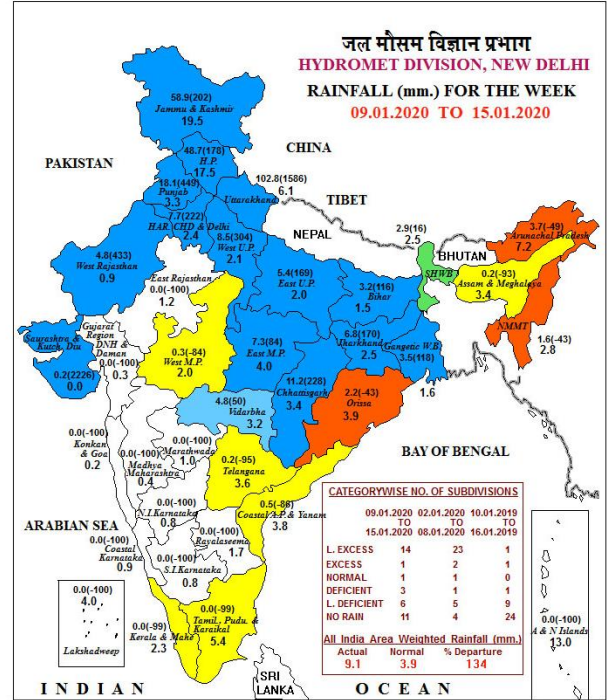
भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



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.

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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, Haryana, Chandigarh & Delhi, Uttar Pradesh, West Rajasthan, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Gangetic West Bengal, East Madhya Pradesh, Chhattisgarh and Vidarbha,
- Normal or above normal rainfall occurred in either of the two weeks in West Madhya Pradesh, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura (NMMT), Saurashtra & Kutch, Marathwada, Telangana, Andhra Pradesh, Tamil Nadu Puducherry & Karaikal and Kerala & Mahe.
- Below normal rainfall/no rain occurred over rest of the country.

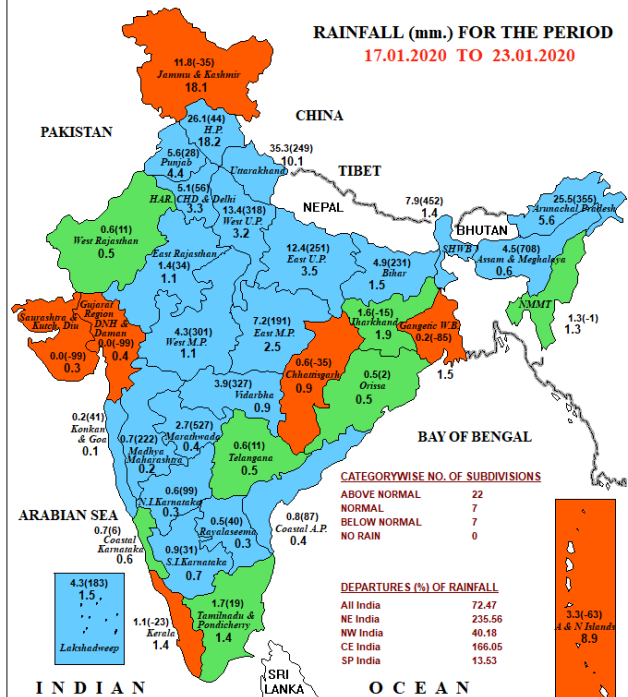
Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 15 January)

(17th to 30th Jan. 2020)

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Rainfall Forecast Map - Normal RF Based Categories

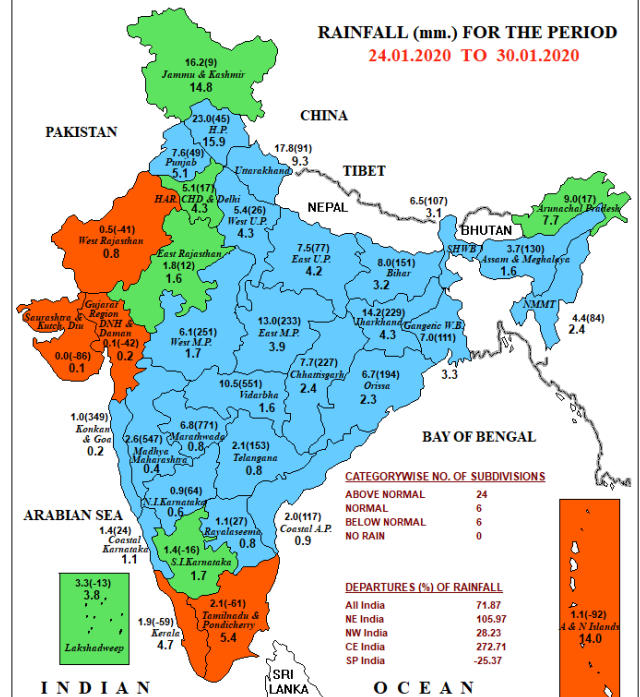


LEGEND: ■ ABOVE NORMAL [+20% OR MORE] ■ NORMAL [+19% TO -19%]
■ BELOW NORMAL [-20% TO -99%] ■ NO RAIN [-100%] ■ NO DATA

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.

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Rainfall Forecast Map - Normal RF Based Categories



LEGEND: ■ ABOVE NORMAL [+20% OR MORE] ■ NORMAL [+19% TO -19%]
■ BELOW NORMAL [-20% TO -99%] ■ NO RAIN [-100%] ■ NO DATA

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.

- **Week 1 (17.01.2020 to 23.01.2020) and Week 2 (24.01.2020 to 30.01.2020):** North Indian states along with parts of Uttar Pradesh, Bihar and adjoining central India will get rainfall under the influence of moving Western Disturbance over the region.

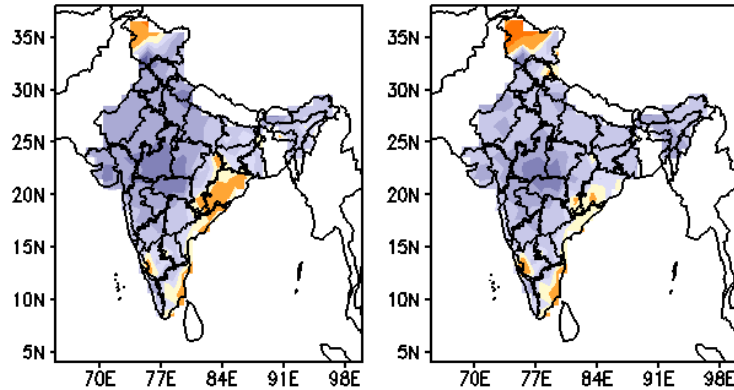
Maximum and Minimum temperature anomaly (°C) forecast

for next 2 weeks (IC – 15 January)
(17th to 30th Jan. 2020)

MME forecast Tmax anomaly (Deg C)

(Week1: 17Jan–23Jan)

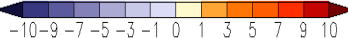
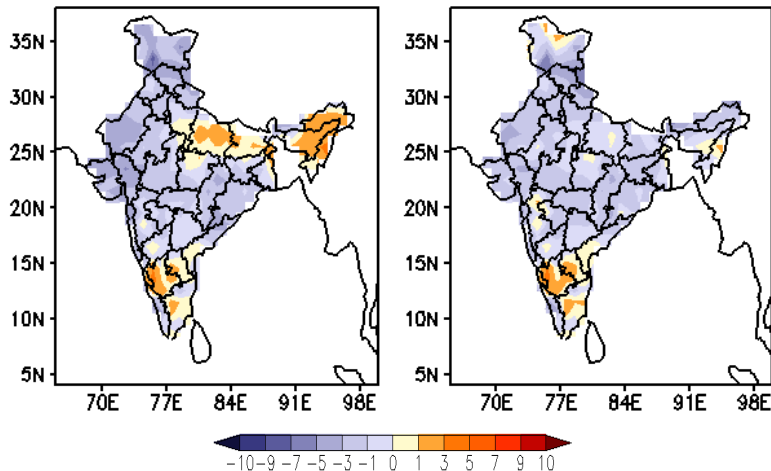
(Week2: 24Jan–30Jan)



MME forecast Tmin anomaly (Deg C)

(Week1: 17Jan–23Jan)

(Week2: 24Jan–30Jan)



Maximum Temperature (Tmax)

- **Week 1 (17.01.2020 to 23.01.2020) and Week 2 (24.01.2020 to 30.01.2020):** Tmax anomaly is mostly negative over most parts of India except extreme north India and some parts of eastern coastal regions.

Minimum Temperature (Tmin)

- **Week 1 (17.01.2020 to 23.01.2020):** Below normal Tmin over most parts of India during the week except some parts over Uttar Pradesh, Bihar, Northeastern states and part of South peninsula, where it is above normal. Over some parts of south peninsula and North East India it will be above normal.
- **Week 2 (24.01.2020 to 30.01.2020):** Mostly below normal Temperature over the region except some parts of south peninsula and extreme north India, where it is above normal.

Strategic Agricultural Planning based on rainfall during next two weeks till 30th January 2020

Agromet Advisories

Kerala

Amount of rainfall received over Kerala is 629.1 mm (27% excess) during the period of 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) is below normal for week-1 and for week-2.

- There is a chances of white fly attack in chilli. Apply 2% Neem oil garlic emulsion or spraying of 20 g Lecanicillium lecanii per one litre of water in ten days interval is advised.
- To control sigatoka disease in banana, cut and remove the severely affected leaves and apply Propiconazole 1ml/ litre of water.
- There is a chance of fusarium wilt in cowpea. Drench the soil rhizosphere with 2 g of Bavistin or 2 ml of Contaf /litre of water alternatively within 15 days interval.

Tamil Nadu

Amount of rainfall received over Tamil Nadu is 459.0 mm (normal rainfall) during the period of 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) is normal for week-1 and below normal for week-2.

- Farmers are advised to monitor ear worm incidence in maize. If symptoms noticed, spray any one of the following insecticide to control. (Carbaryl 10 D 25 kg/ha (or) Malathion 5 D 25 kg/ha (or) Emamectin benzoate 5 SG @ 0.4 g/litre (or) Spinetoram 12 SP @ 0.5 ml/litre).
- Prevailing weather condition is favorable for head borer in sunflower. It is advised to spray 5% Neem seed kernal extract before egg laying.

Maharashtra

Rainfall received over Madhya Maharashtra is 228.6 mm (120% large excess), over Marathwada is 260.4 mm (154% large excess), Vidharbha is 86.5 mm (-1% deficit) and Konkan region 281.5 mm (101% large excess) during 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) over Madhya Maharashtra, Marathwada, Konkan and Vidharbha are above normal for week-1 and week-2.

Madhya Maharashtra

- Spray of 1% KNO₃ is advised during flowering stages of chickpea crop.
- Weather is congenial to aphid infestation in safflower crop. For control, spray Dimethoate 20 EC @15 ml/10 litre of water.

Vidharbha

- Due to prevailing humid weather, there is chances of aphid infestation in wheat. It is advised to spray Entomopathogenic fungi metarhizium anisopliae @ 40 g/10 litres of water.

- It is advised to harvest the mature pigeon pea crop. In late sown pigeon pea it is advised to spray of 5% Neem seed kernel extract for the control of initial infestation of pod borer.

Marathwada

- To control leaf spot disease in late sown turmeric crop, spray of Mancozeb (75 WP) 25 g or Carbendazim (50 WP) 10 g per 10 litre of water is advised.
- For management of fall armyworm in *rabi* sorghum crop, spray of Thiamethoxam 12 % + Lambda – cyhalothrin 9.5 % ZC @ 5 ml or Spinetoram 11.7 % SC @ 4 ml per 10 liter of water is advised.

Rajasthan

Rainfall received during 01 Oct. 2019 - 16 Jan. 2020 over East Rajasthan is 39.1 mm (38% excess). The extended range weather forecast for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) over East Rajasthan is above normal for week-1 and normal for week-2.

- Irrigation is advised after 65-70 days in wheat at jointing and booting stage, at flowering stage in barley and at grain development stage in mustard.
- In present weather condition constant monitoring of aphid is advised in mustard crop. If insect population above ETL then spraying of Rogar or Quinalphos @ 2.0 ml/ litre water is recommended.
- For monitoring of the pod borer in the gram crop, installation of Pheromone trap @ 3-4 traps/acre is advised. “T” shaped bird perches in and around crop field to be installed for controlling insect population.

Jammu

Rainfall received during 01 Oct. 2019 - 16 Jan. 2020 in Jammu is 342.9 mm (94% large excess). The extended range weather forecast for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) is below normal for week-1 and normal for week-2.

- Monitoring of zinc deficiency is advised in normal sown wheat crop. If deficiency occurs, spray 0.2% zinc sulphate hepta hydrate ($ZnSO_4 \cdot 7H_2O$) and one supplementary dose of nitrogenous fertilizer.
- Due to congenial weather for collar rot and root rot in gram, rogue out affected plants and drench the affected patches of the field with Thiram or Captan @ 2 g/litre of water.

Himachal Pradesh

Amount of rainfall received over Himachal Pradesh is 208.1 mm (61% large excess) during 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast provided for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) on rainfall over Himachal Pradesh is above normal for week-1 and for week-2.

- It is advised to wrap the mango trunk with plastic sheets to prevent climbing of young mealy bugs.
- It is advised to cover horticulture saplings with grass to avoid frost injury.
- Farmers are advised to make proper arrangement to collect and store the rain water in their fields for

the future use.

Hisar

Amount of rainfall received over Hisar is 41.5 mm (60% large excess) during 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast provided for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) on rainfall over Hisar is above normal for week-1 and normal for week-2.

- Farmers are advised to keep vigilance insect/pests in sugarcane crop. Apply need based irrigation to the crop.
- Apply requirement based irrigation in evening hours to protect the crops from frost and low temperature and apply recommended doses of fertilizers in existing vegetable crops and monitor for insect-pests and diseases. Go for effective weed management measures.
- It is advised to maintain good amount of water in pond to save fishes from low temperature.

Jharkhand

Amount of rainfall received over Jharkhand is 161.3 mm (69% large excess) during 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast provided for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) on rainfall over Jharkhand is normal for week-1 and above normal for week-2.

- Present weather is conducive for the occurrence of wilt disease in lentil. Hence, spraying of Carbendazim @ 1 g/ litre water twice at weekly interval is recommended.
- Early to medium duration variety of potato matures within 80-120 days. Farmers are advised to stop irrigation and remove the upper leaves/parts (Dehaulming) of the crop, before 7 – 10 days of digging.

Gujarat

Amount of rainfall received over Gujarat is 83.8 mm (176% large excess) during 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast provided for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) on rainfall over Gujarat is below normal for week-1 and week-2.

- "T" shaped bird perches in and around chickpea crop field is advised to install for natural controlling of prodenia and heliothes population. If infestation cross ETL, spray Emamectin Benzoate 5 % SG 7 g in 10 litres of water.
- For control of mustard aphid, apply Phosphamidon @ 3ml or Dimethoate @10ml or Monocrotophos @ 10 ml in 10 litre of water.

Karnataka

Rainfall received during 01 Oct. 2019 - 16 Jan. 2020 over South Interior Karnataka is 307.8 mm (50% excess) and North Interior Karnataka is 245.5 mm (76% large excess). The extended range weather forecast for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) over South Interior Karnataka is above normal for week-1 and normal for week-2 and over North Interior Karnataka above normal for week-1 and week-2.

South Interior Karnataka

- There is a chance of leaf hopper and powdery mildew disease incidence before flowering and after fruit formation in mango. To control, spraying of Carbaryl, 50WP @4g/litre of water or Imidachlorprid @ 0.3ml/ litre of water is advised.
- It is the right time to harvest the matured and dried redgram pods or whole plants.
- Manage the humidity in the silk worm rearing house by providing good cross-ventilation. Dust dry slaked lime powder when silkworms settle for moult.

Odisha

Amount of rainfall received over Odisha is 202.0 mm (46% excess) during 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast provided for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) on rainfall over Odisha is normal for week-1 and above normal for week-2.

- Due to rainfall condition, there is a chance of infestation of collar rot disease in early sown *rabi* groundnut crop. Spray of Thiophanatemethyl 1.5 g/liter water is advised.
- Weather is optimum for sowing of summer maize. Recommended composite varieties are Navjot, Dhabal and Vijay. Hybrids varieties are Ganga, Deccan -105, Deccan, Kargil 633.
- Due to cloudy weather, there is a chance of aphid in pulses and in mustard crop. To control, spraying of 4 ml Neem based pesticide or 2 ml Metasystox per each litre of water is advised.

Uttar Pradesh

Uttar Pradesh Rainfall received during 01 Oct. 2019 - 16 Jan. 2020 over East Uttar Pradesh is 60.4 mm (14% normal) and West Uttar Pradesh is 68.4 mm (80% large excess). The extended range weather forecast for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) over East Uttar Pradesh and West Uttar Pradesh are above normal for week-1 and week-2.

- Nipping is advised in chickpea at 45 DAS.
- Because of prevailing rainy weather, farmers are advised to skip irrigation for *rabi* crops.
- Farmers are advised to follow a regular vaccination programme for cattle, buffalo, goat, sheep and poultry to prevent the infectious diseases.

West Bengal

Amount of rainfall received over West Bengal is 266.5 mm (64% large excess) during 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast provided for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) on rainfall over West Bengal is below normal for week-1 and above normal for week-2.

- Application of water in the field at night and draining the water at morning is advised in the boro rice field to avoid frost injury.
- Due to present foggy weather conditions, there are chances of early blight in potato. To control, apply 2 g Mancozeb/litre of water.

Punjab

Amount of rainfall received over Punjab is 97.9 mm (191% large excess) during 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast provided for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) on rainfall over Punjab is above normal for week-1 and week-2.

- Protect the young evergreen fruit plants from cold weather. Prepare thatches and application of light irrigations to young fruit plants.
- Monitor the symptoms of sulphur deficiency in wheat crop, If noticed, broadcast one quintal gypsum/acre followed by a light irrigation and mixed by hoeing.
- Farmers are advised to monitor the late blight disease in potato crop. If observed, spraying of Indofil M-45/Mass M-45/Markzeb/Kavach @ 500-750g using 250-350 litre of water per acre at 7 days interval is advised.

Assam

Amount of rainfall received over Assam is 215.5 mm (6% normal) during 01 Oct. 2019 - 16 Jan. 2020. The extended range weather forecast provided for next two weeks (17 - 23 Jan. and 24 - 30 Jan. 2020) on rainfall over Assam is above normal for week-1 and week-2.

- Because of no rainfall, farmers are advised to go for irrigation in boro paddy field during vegetative growth stage to maintain a standing water of 5±2 cm depth.
- Farmers are advised to go for pruning disease if citrus plantations affected by wither tip followed by two sprays of Copper Oxychloride (COC) @ 3g/litre water at 30 days interval.
- Earthing up is advised in the potato crops at stolon formation stage (25 days after planting). Mulching is advised to enhance the tuber quality and yield of potato crop.

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.