



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

Validity: 22 December 2017 to 04 January, 2018

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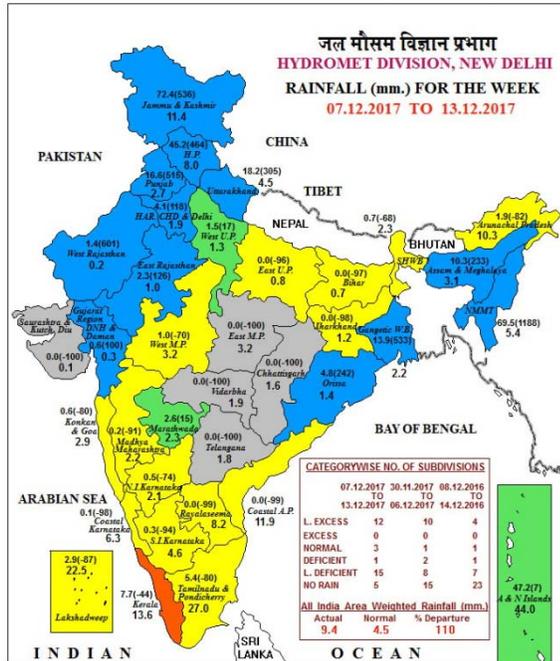
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&
Earth System Science Organization
India Meteorological Department

Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall

(7th December to 20th December 2017)

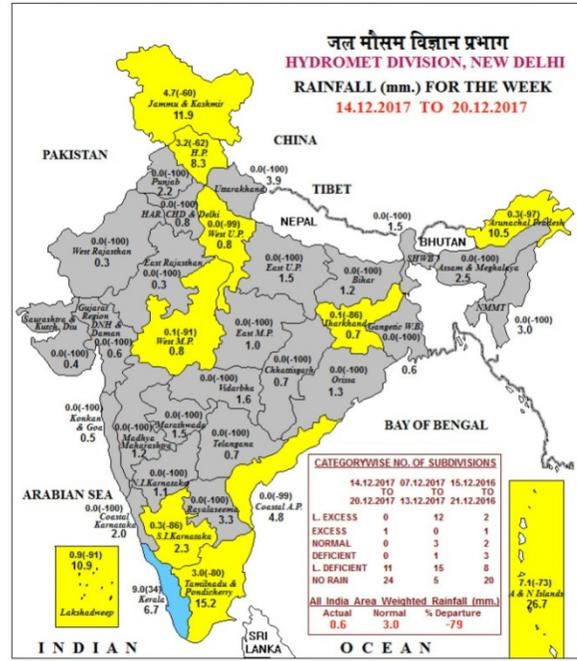
भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ L. 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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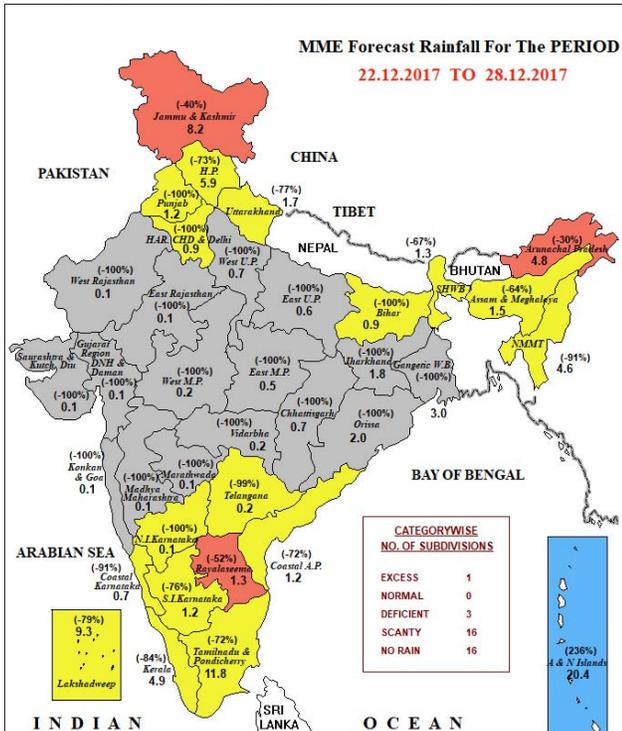
- Normal or above normal rainfall occurred in either of the last two weeks in Jammu & Kashmir, Punjab, Haryana, Chandigarh & Delhi, Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Rajasthan, Gangetic West Bengal, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Gujarat Region, Kerala and Andaman & Nicobar Islands.
- Below normal rainfall/no rain occurred in the last two weeks in East Uttar Pradesh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Saurashtra & Kutch, Vidarbha, Madhya Pradesh, Chhattisgarh, Konkan & Goa, Madhya Maharashtra, Telangana, Karnataka, Rayalaseema, Coastal Andhra Pradesh, Tamil Nadu and Lakshadweep.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 20 December)

(22nd December 2017 to 4th January 2018)

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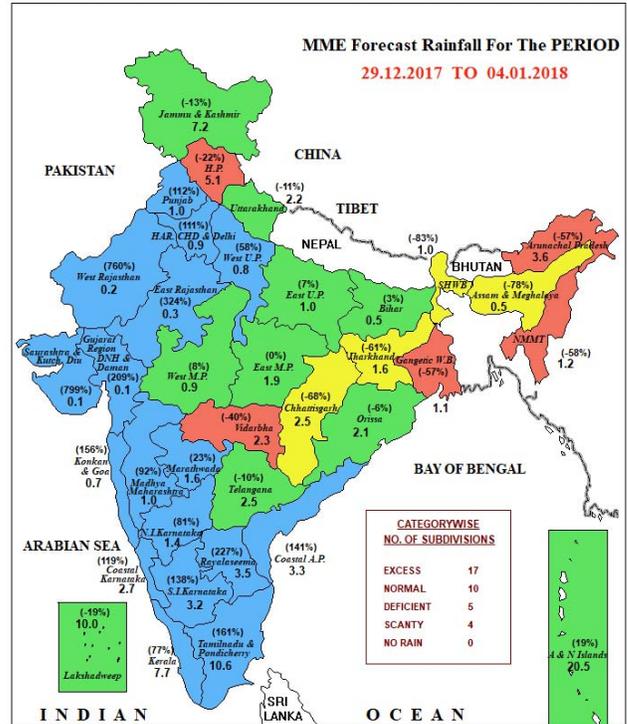


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■ SCANTY (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

NOTES:

- [a] Rainfall figures are based on MME Forecast.
- [b] Bold figures indicate Forecast Normal rainfall [mm.]
- [c] Percentage Departures of Rainfall are shown in Brackets.

भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



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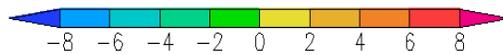
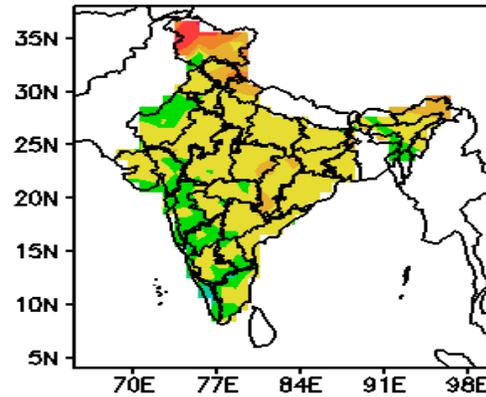
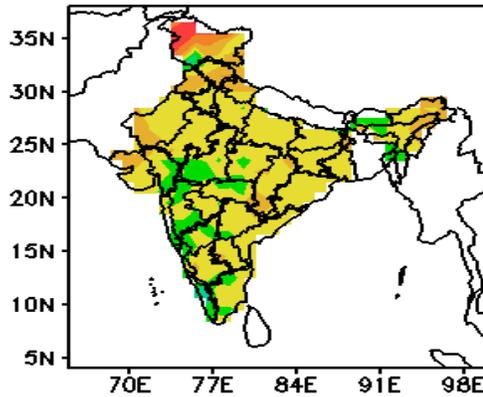
Extended Range Rainfall Forecast: Mostly anti-cyclonic flow over the NW and adjoining central India during week 1 (22-28 Dec.) with no significant weather events. Mostly increase in rainfall in week 2 (29 Dec. to 04 Jan) is forecasted over northwest and south India.

**Maximum and Minimum temperatures and anomaly ($^{\circ}\text{C}$) forecast for next 2 weeks (IC – 20
December)
(22nd December 2017 to 4th January 2018)**

MME Bias Corrected Tmax Anomaly (Deg)

(Week1: 22Dec–28Dec)

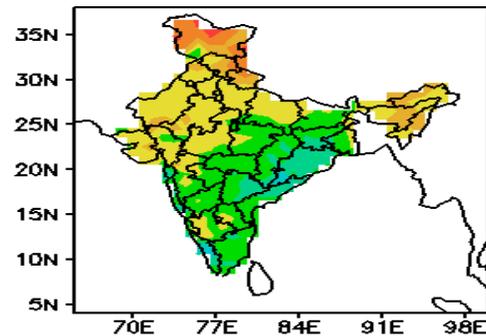
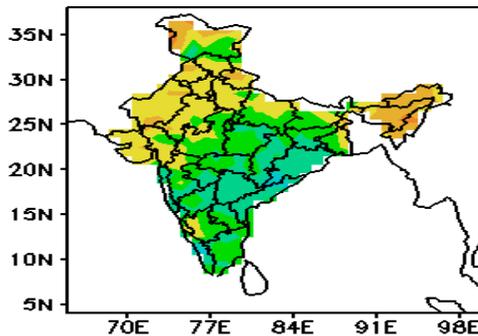
(Week2: 29Dec–04Jan)



MME Bias Corrected Tmin Anomaly (Deg)

(Week1: 22Dec–28Dec)

(Week2: 29Dec–04Jan)



Maximum Temperature (Tmax) :

- **Week 1 & Week 2 (22 Dec. to 04 Jan.):** Mostly above normal Tmax over NW, Central and eastern India during week 1 and week 2.

Minimum Temperature (Tmin) :

- **Week 1 & Week 2 (22 Dec. to 04 Jan.):** Eastern coastal regions, adjoining central India and regions of south peninsula, Tmin will be below normal, whereas, it will be above normal over NW and adjoining northern India during week 1 & week 2.

Strategic Agricultural Planning based on rainfall during next two weeks till

04 January 2018

Agromet Advisories

Tamil Nadu

Rainfall Situation

Rainfall received during the period of 01 October to 20 December 2017 over Tamil Nadu is 391.9 mm, which is 6% deficit than the normal. The extended range weather forecast provided for next two weeks [22 to 28 December (week-1) and 29 December to 4 January (week-2)] for Tamil Nadu is below normal for week-1 and above normal for week-2.

- Expected weather condition is favorable for thrips incidence in rice nursery. The affected plants show terminal rolling and drying of leaves from tip to base. To control this farmers are advised to spray 50ml of Phosphamidon 40 SL during week-1.
- As below normal rainfall is forecasted, farmers are advised to irrigate the *rabi* sown field as per the irrigation schedule of the crop.
- Prevailing weather condition is favorable for the occurrence of yellow mosaic virus and powdery mildew disease and pod borer pest incidences in green gram and black gram. For control of yellow mosaic virus, spray Dimethoate 30 EC @ 500 ml/ha (or) Thiamethoxam 75 WS @ 1g /3 liters and repeat after 15 days if necessary during week-1. To control powdery mildew disease, spray Carbendazim at 500g (or) Wettable sulphur @1500g/ha at initial stage of the disease and repeat the application 10 days later.

Karnataka

Rainfall Situation

Rainfall received during the period of 01 October to 20 December 2017 over different meteorological sub-divisions of Karnataka are: North Interior Karnataka: 155.5 mm (8% excess compared to the normal); South Interior Karnataka: 201.7 mm (3% deficit); Costal Karnataka: 199.3 (12% deficit). The extended range weather forecast provided for next two weeks over different meteorological sub-divisions of Karnataka are: below normal for week-1 and above normal for week-2.

North Interior Karnataka:

- As below normal rainfall is forecasted during week-1, farmers are advised to take up intercultivation and earthen up the rows, and keep the crops free from weeds.
- Farmers are also advised to withhold irrigation in *rabi* crops as above normal rainfall is forecasted during week-2.
- Farmers are recommended to give de-worming medicine to livestock under the supervision of the veterinary doctor. Vaccinate (ET vaccine) sheep and goats against Enterotoxemia.
- For milch animals, follow schedule of 1 kg feed + 50 g mineral mixture per 2 litres of milk yield and feed animals with both green and dry fodder.

South Interior Karnataka:

- Farmers are recommended to go for sowing of late *rabi* season crops such as short duration varieties of cowpea (KBC-1, TVX-944 and PKB-4), Sunflower (Morden, KBSH-1, 41, 44 & 52) and Niger (KBN-1, No-71). On black soils, Bengal gram (Annigeri-1, J.J-11, KAK-2, Vishal) and Field bean (HA-1,3 and 4) are recommended.
- This is the right time for harvesting of September sown ragi crop, as below normal rainfall is forecasted during week-1.
- The shoots/branches touching ground may be pruned for more ground clearance to prevent the incidence of pests and disease in grapes.

Maharashtra

Rainfall Situation

Rainfall received during the period of 01 October to 20 December 2017 over different meteorological sub divisions of the state are: Vidarbha: 57.8 mm (27% deficient); Marathwada: 105.4 mm (5% surplus); Madhya Maharashtra: 122.3 mm (14% surplus) and Konkan: 182.7 mm (23% surplus). The extended range weather forecast provided for different meteorological sub divisions of the state are no rain during week-1 and above normal in Marathwada, Madhya Maharashtra and Konkan and below normal in Vidarbha during week-2.

Madhya Maharashtra

- Due to lowering of temperature, there is possibility of aphids incidence in vegetable crops (Beans and peas). Farmers are advised to spray Dimethoate @ 15 ml or Thiamethoxam @ 3 to 4 g in 10 lit of water.
- As no rainfall is forecasted during coming week, farmers are advised to irrigate the *rabi* sorghum at grain filling stage, wherever irrigation facilities are available.
- Incidence of aphids in *rabi* crops like safflower, sunflower and sorghum have increased due to lowering of temperature and to control this, farmers are advised to spray acephate @ 16 g or Acetamiprid @ 4-5 g in 10 lit of water.
- Present weather condition favors incidence of thrips in chili and to control it, spray alternately Diamethoate 30% concentrate @ 15 ml or Lambda cyhalothrin 5% concentrate @ 6 ml per 10 lit. of water.

Konkan

- Present weather favours the incidence of mango hopper. If it is noticed, farmers are advised to spray Lambda cyhalothrin 5% E.C. @ of 6 ml per 10 liter of water.
- There is a possibility for incidence of Tea mosquito bug in cashew. If it is noticed, spray Profenophos 15% (10 ml. in 10 lit. of water) to protect new emerging flush of cashew from Tea mosquito bug.
- Farmers are recommended to protect the poultry birds from low temperature by provision of electric bulbs as per the need.

Marathwada

- As no rainfall is forecasted, farmers are advised to provide irrigation to *rabi* sorghum during primordial initiation and flowering stages, wherever irrigation facilities are available.
- Farmers are advised to avoid ratooning in cotton crop. Picking is recommended up to end of December. Remaining plant parts should be collected and destroyed properly.
- Farmers are advised to provide irrigation in Mrug bahar banana during fruit initiation stage.

Vidarbha

- For very late sowing of wheat (December 15-7 January), cv. AKW-381 is recommended. Seed treatment with Thiram @ 3.0 g / kg seed or Vitavax 75 WP @ 2.5 g / kg seed is advisable.
- Farmers are advised to protect the livestock from cold weather, particularly during night time/early morning. Protect poultry birds/chicks from cold winds by the use of electric bulbs for heat.

Odisha

Rainfall Situation

Rainfall received over Odisha during the period of 01 October to 20 December 2017 is 195.9 mm, which is 37% excess. The extended range weather forecast provided for Odisha is no rain for week 1 and normal for week 2.

- In green gram/black gram, a chance of infestation of leaf eating caterpillar and black headed caterpillar prevails. To control this, farmers are advised to spray mixture of Profenofos 50% EC @ 2m or Quinalphos 25% EC @ 2 ml or Dichlorvos 76% EC @ 1 ml per litre of water and 200 litres of mixture per acre.
- To conserve soil moisture in groundnut and pulses, farmers are recommended to undertake weeding and hoeing operation.
- Weather is favourable for sowing of Coriander during week-2. Farmers are advised to go for high yielding varieties like CO-1, CO-2, CO-3, Swati, Sadhana, Ram Selction and Udi. Recommended seed rate is 6 kg of seeds/acre. Treat the seeds with 1.5 g Carbendazim or 3 g Thiram/kg of seeds. Soak the seeds overnight for 10 to 12 hours for better germination. Apply 1 ton FYM along with 4:16 kg NP per acre as basal during final land preparation. Sow the seeds in lines with 30 x 8 cm.

Madhya Pradesh

Rainfall Situation

Rainfall received during the period of 01 October to 20 December 2017 over different meteorological sub-divisions of Madhya Pradesh are, West Madhya Pradesh:16 mm (69% deficit) and East Madhya Pradesh: 19.5 mm (64% deficit). The extended range weather forecast provided for next two weeks over West Madhya Pradesh and East Madhya Pradesh is no rain during week-1 and normal during week-2.

East Madhya Pradesh

- For late sowing of wheat, recommended varieties under irrigated condition are: MP 3366, Lok-1, and HD 2864.

Jharkhand

Rainfall situation

Rainfall received over Jharkhand during the period of 01 October to 20 December 2017 is 106.4 mm, which is 21% excess. The extended range weather forecast provided for Jharkhand is no rain for week 1 and below normal for week-2.

- In 22-25 days old wheat crop, farmers are advised to undertake intercultural operation, which is essential for conserving soil moisture as well as controlling weeds. After intercultural operation, irrigate the field and broadcast urea @ 22 kg per acre after next day of irrigation. Existing weather condition is conducive for the incidence of leaf spot disease. Spray the fungicide Indofil M-45 @ 2 g per liter of water as and when symptoms appear on the plant.
- Existing weather condition is conducive for the attack of powdery mildew disease in pulses. So, farmers are advised to spray Sulfex @ 3 g per litre of water to control the disease.
- The weather is favourable for F.M.D. in milch animals. Animals should be vaccinated twice in a year as a preventive measure. Cattle should be protected from cold waves and care must be taken to keep their place warm and not allow them to remain in open sky after sunset and before sunrise.

Bihar

Rainfall Situation

Bihar received 49 mm of rainfall during the period of 01 October to 13 December 2017, which is 33% deficit when compared to the normal. The extended range weather forecast provided for week-1 is below normal and week-2 is normal.

- Farmers are advised to provide irrigation to early sown wheat crop, which is in Crown Root Initiation (CRI) stage (21-25 days after sowing) during week-1. Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation.
- Farmers are advised to go for planting onion under irrigated condition. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation.
- Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc.
- In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feed. To maintain milk production, animals should be given medicines such as Fatomax and M-Power. A mixture of minerals and vitamins @50 gm per animal every day is also recommended.

Uttar Pradesh

Rainfall situation

Rainfall received during the period of 01 October to 20 December 2017 over different meteorological subdivisions of Uttar Pradesh is: West Uttar Pradesh: 2.2 mm (96% deficit and East Uttar Pradesh: 3.0 mm (95% deficit). The extended range weather forecast provided for next two weeks over West Uttar Pradesh: no rain for week-1 and above normal for week-2; East Uttar Pradesh: no rain for week-1 and normal for week-2.

- Farmers are advised to irrigate wheat and $\frac{3}{4}$ recommended dose of urea should be top dressed at proper moisture.
- Foggy condition may prevail over the region. So, potato farmers should spray Mancozeb @ 2g/lit or Zineb @ 2.0-2.5 g /lit. of water for protection against late blight at 10-15 days intervals.

Assam

Rainfall Situation

Assam received 49 mm of rainfall during the period of 01 October to 20 December 2017, which is 24% excess. The extended range weather forecast provided over Assam for next two weeks is below normal for both the weeks.

- Farmers are advised to do the thinning operation in rapeseed and mustard to maintain the optimum plant population in the field and to conserve soil moisture as below normal rainfall is forecasted.
- Farmers are advised for earthing up in potato at 25 days after planting (stolon formation stage), just before first irrigation.
- Farmers are also recommended for vaccinate their poultry birds to control the ranikhet disease of poultry.

Himachal Pradesh

Rainfall Situation

Rainfall received during the period of 01 October to 20 December 2017 over Himachal Pradesh is 52.4 mm, which is 28% deficit. The extended range weather forecast provided for Himachal Pradesh is below normal for both the weeks.

- The area where sowing of wheat is yet to be completed, farmers are advised to complete sowing with recommended late varieties under irrigated conditions.
- Though there is increase in maximum and minimum temperature during past couple of days, cold wave condition is likely to prevail in some low lying areas of the state. So farmers are advised to protect the animals from morning and evening low temperature conditions.

Jammu

Rainfall Situation

Rainfall received during the period of 01 October to 20 December 2017 over Jammu and Kashmir is 88.7 mm, which is 10% deficit. The extended range weather forecast provided over Jammu & Kashmir is below normal for week-1 and normal for week-2.

- Farmers are advised to go for sowing of late sown wheat cv. WH-1021, PBW-590, PBW-373, Raj-3077, Raj-3765, and DBW-16 in irrigated areas.
- Weather is congenial for the incidence of mustard saw-fly. So, farmers are advised to apply Cypermethrin 10EC @ 1ml/lit or Chlorpyrifos 3EC @ 2ml/lit to control the disease during week-1.
- In vegetable crops (Radish/ Broccoli / Cauliflower/ Knolkhol), weather is congenial for the incidence of downy mildew. So, farmers are advised to apply Mancozeb @ 0.25% at 0-15 days interval. Apply 2% Methyl parathion dust @ 250gm/basins or alternatively sticky grease band, 15-20 cm wide, 0.5 m above ground level to check mealy bugs.

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