



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

Validity: 31 May to 13 June 2019

Date of issue: 31 May 2019

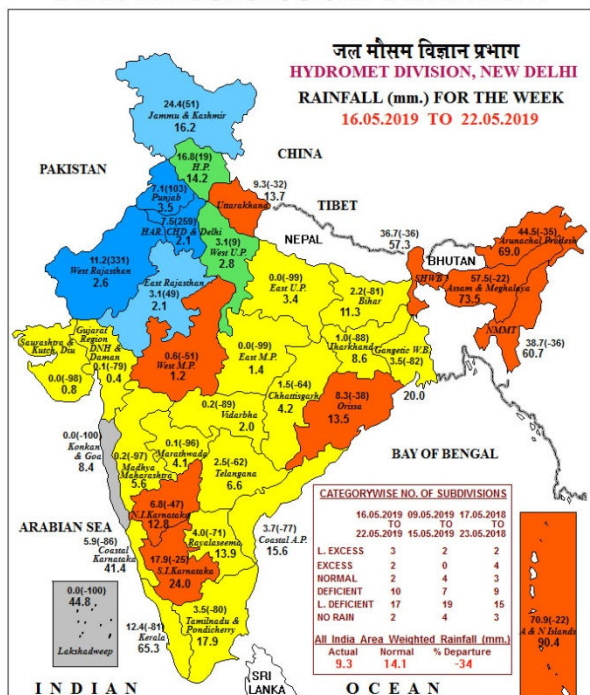
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Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad.
&
Earth System Science Organization
India Meteorological Department

Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

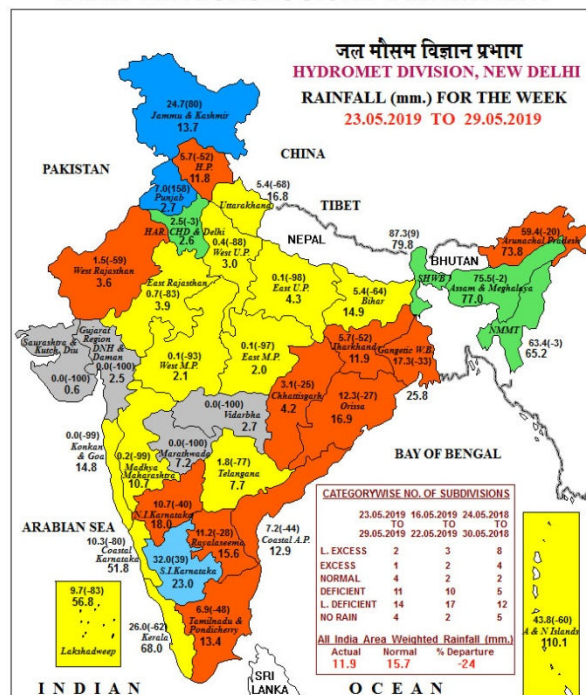
Realized Rainfall

(16th to 29th May, 2019)

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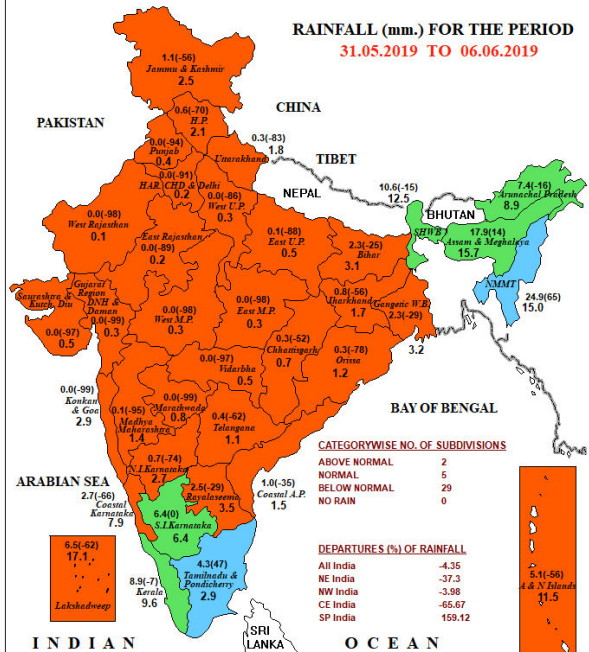
- Normal or above normal rainfall occurred in both the weeks in Jammu & Kashmir, Punjab, Haryana, Chandigarh & Delhi,
- Normal or above normal rainfall occurred in either of the two weeks in Himachal Pradesh, West Uttar Pradesh, Rajasthan, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura (NMMT) and South Interior Karnataka.
- Below normal rainfall / no rain occurred over rest of the country.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 29 May) (31st May to 13th June 2019)

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Rainfall Forecast Map - Normal RF Based Categories

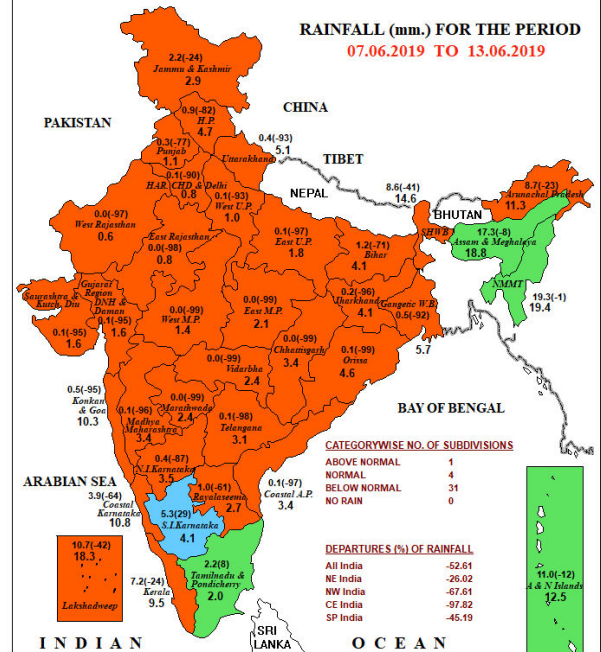


LEGEND: ■ ABOVE NORMAL (+20% OR MORE) ■ NORMAL (+19% TO -19%)
■ BELOW NORMAL (-20% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

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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 [a] Rainfall figures are based on MME Forecast data.
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 Percentage Departures of Rainfall are shown in Brackets.

Week 1 (31.05.2019 to 06.06.2019) and Week 2 (07.06.2019 to 13.06.2019):

(i) Rainfall mainly over Northeast India and parts of south peninsula during the week. However, it will be below normal over the region.

(ii) With regard to monsoon rainfall, it will be weak during these two weeks period.

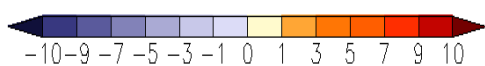
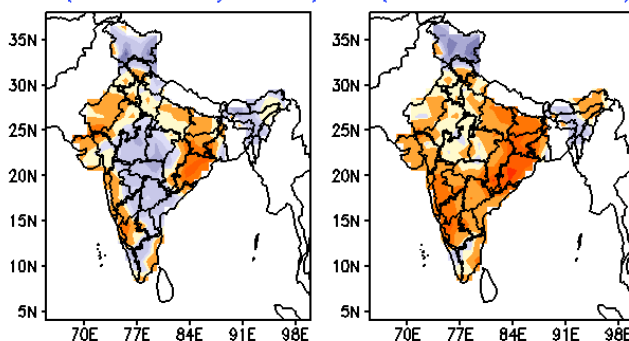
Thus, monsoon will progress slowly after the onset with subdued monsoon condition will remain during first half of June, 2019.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC – 29 May)
(31st May to 13th June 2019)**

MME forecast Tmax anomaly (Deg C)

(Week1: 31May–06Jun)

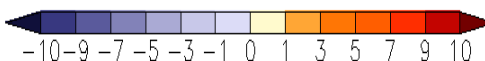
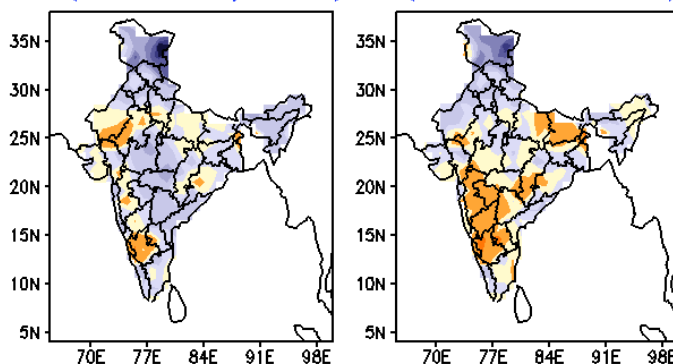
(Week2: 07Jun–13Jun)



MME forecast Tmin anomaly (Deg C)

(Week1: 31May–06Jun)

(Week2: 07Jun–13Jun)



Maximum Temperature (Tmax)

- **Week 1 (31.05.2019 to 06.06.2019) and Week 2 (07.06.2019 to 13.06.2019):** Except week 1 Tmax will be mostly above normal over most parts of India during the period. Slight below normal Tmax over central India during week 1.

Minimum Temperature (Tmin)

- **Week 1 (31.05.2019 to 06.06.2019) and Week 2 (07.06.2019 to 13.06.2019):** Mostly below normal Tmin during week 1. Above normal Tmax over central India during week 2 and below normal over rest of the region.

Strategic Agricultural Planning based on rainfall during next two weeks till 13th June 2019

Agromet Advisories

Kerala

Amount of rainfall received during the period from 01 March to 30 May 2019 over Kerala is 162.9 mm (55% deficit). The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) is normal for week-1 and below normal for week-2.

- There is a chance of sigatoka disease in banana. As a precaution, spray 20 g Pseudomonas per one litre of water.
- Apply fertilizers @ 85 kg urea, 150 kg rock phosphate and 66 kg potash per hectare in coffee. Leaf rust disease may become severe due to increase in relative humidity.
- Due to increase in air temperature, the attack of insects such as whitefly, mealy bug and grass hopper can increase in vegetables. They can be controlled by applying 2% neem oil emulsion once in a week.

Karnataka

Amount of rainfall received over North Interior Karnataka is 44.5 mm (45% deficit), South Interior Karnataka is 112.0 mm (19% deficit) and Coastal Karnataka is 47.4 mm (71 % deficit) during 01 March to 30 May 2019. The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) over North Interior Karnataka and Coastal Karnataka is below normal for both the weeks and over South Interior Karnataka is normal for week-1 and above normal for week-2.

South Interior Karnataka

- Tree species of Melia dubia (Hebbevu), Silver oak and Causurina are recommended for sustainable income under abnormal extreme rainfall events in the field bunds.
- TTB-7, BRG-1,2,4 & 5 varieties of red gram are recommended and TMV-2, JL-24, KCG-6 are recommended varieties of groundnut for sowing.

Tamil Nadu

Amount of rainfall received during the period of 01 March to 09 May 2019 over Tamil Nadu is 46.0 mm (63 % deficit). The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) is above normal for week-1 and normal for week-2.

- Prevailing weather condition is congenial for insect build up of sucking pests like Thrips and Aphids in chilli. To control, spray Imidacloprid 17.8% SL @ 3 ml/10 liters.
- Prevailing weather condition is favorable for citrus canker / scab disease incidence. To control, spray Copperoxy Chloride 0.2% at fortnight intervals.
- In the prevailing weather condition, shoofly occurrence is noticed in sorghum. Spray Dimethoate 30 EC @ 500 ml/ha or Neem Seed Kernel extract 5% to control.

Maharashtra

Amount of rainfall received over Madhya Maharashtra is 8.3 mm (77% deficit), over Marathwada is 6.1 mm (78% deficit), Vidarbha is 6.8 mm (77% deficit) and Konkan region 0.8 mm (98% deficit) during 01 March to 30 May 2019. The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) over all the sub divisions of Maharashtra is below normal for both the weeks.

Marathwada

- For sowing of rainfed cotton, one deep ploughing with an interval of 2-3 years is essential. After ploughing 2-3 harrowing should be done. Apply 5 tons per ha. of well decomposed FYM before last harrowing.
- For black gram and green gram cultivation, land should be prepared by at least one ploughing followed by 2 to 3 harrowing. Apply 5 tons of well decomposed FYM before last harrowing.
- Irrigation management should be done in banana orchard with the help of drip irrigation system. For new plantation of banana orchard, fill the pits with mixture of well fertile soil, well decomposed FYM, 1 to 1.5 kg SSP and Compost.

Madhya Maharashtra

- For control of fruit flies in cucurbit vegetables, install clue-luer traps @ 2 per acre and spray 5% Azadirachtin @ 10 ml + 10 litre of water.
- Give alternate furrow irrigation in sugarcane.
- Give clean, sufficient water and green fodder to milch animals and place them under shade to protect them from high temperature.

Konkan

- There is a possibility of incidence of bud rot fungal disease in young coconut palm during rainy season. To prevent, spray 1% bordo mixture onto the crown region of palm.
- For nursery of brinjal, chilli and tomato, prepare raised bed of 3m length x 1 m breadth x 15 cm height. Apply 5 kg FYM, 35 g urea, 100 g single super phosphate and 25g Muriate of Potash per sq. m.
- Provide clean, hygienic and plenty amount of drinking water to farm animals and poultry birds. To reduce the stress of heat in farm animals, provide roughages by mixing with solution of 1% jaggery and 0.5% salt separately.

Bihar

Amount of rainfall received over Bihar during 01 March to 30 May 2019 is 56.4 mm (24 % deficit). The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) is below normal for both the weeks.

- Nursery sowing of long duration varieties of paddy such as Rajshree, Rajendra sweta, Rajendra mansuri, BPT-5204, Swarna, Satyam and Kishori is advised. Before sowing, seed should be treated with Carbendazim @1.5 g/kg of seed.
- Land preparation/sowing of *kharif* maize is advised. Devki, Suwan, Shaktimaan-1, Shaktimaan-2, Rajendra shanker makka-3 and Ganga 11 varieties are suitable for sowing in North Bihar.
- Regular monitoring is advised for insect pest/diseases in spring maize crop. Maintain proper soil moisture in maize crop.

- Land preparation is advised for *kharif* onion. For healthy and strong seedlings, application of FYM/compost is advised during nursery preparation. Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan are recommended varieties for sowing in North Bihar region.

Odisha

Amount of rainfall received over Odisha during 01 March to 30 May 2019 is 56.4 mm (24 % deficit). The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) is below normal for both the weeks.

- Farmers are advised to go for non-paddy crops in rainfed uplands such as pulses, oilseeds, cotton, sunflower and vegetables either as sole or as mixed cropping for which seeds are to be collected.
- Field preparation should be done for *kharif* crops like rice, maize, ragi, jowar, bajra, small millets, arhar, groundnut, til, castor, niger, jute, etc.
- Kuduli, Laxipur, TuriaJunagarh, Raikia, Suprabha and Suruchi are recommended varieties of ginger.
- Ranga, Rasmi, Suroma are recommended varieties of turmeric.

Jharkhand

Amount of rainfall received over Jharkhand during 01 March to 30 May 2019 is 105.3 mm (39 % excess). The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) is below normal for both the weeks.

- Most of the rice crops are at grain filling stage and this stage is sensitive of moisture stress. Hence, maintain the water level in the field. Timely transplanted crops already have attained maturity stage.
- Farmers, who are willing to cultivate ginger, turmeric or elephant foot yam (Oal) are advised to prepare the land and sow the seeds immediately. Before sowing, a light irrigation is needed in case of deficit soil moisture.
- To conserve soil moisture for a longer period, interculture operation (weeding) must be done in green gram. Most of the crops have attained maturity stage. Pluck the matured pods always in the morning.
- Irrigate vegetable crops as per their requirements and before irrigation, inter culture operation is must.

Chhattisgarh

Amount of rainfall received over Chhattisgarh during 01 March to 30 May 2019 is 33.0 mm (27 % deficit). The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) is below normal for both the weeks.

- Need based irrigation and intercultural operation should be done in tomato, brinjal, chilli, okra and other vegetable crops. Increase frequency of irrigation as per air temperature.
- Irrigation management is required in mango, lemon and other fruit trees. Preparation should be done for establishing new fruit gardens.
- *Kharif* vine vegetables viz. , bottle gourd and round gourd should be prepared in the polybags.

Assam

Rainfall received over Assam is 572.6 mm (2% excess) during 01 March to 30 May 2019. The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) is normal for both the weeks.

- Arrange the seeds of high yielding varieties of Sali rice namely Ranjit, Bahadur, Satyaranjan, Basundhara, Kushal, Mahsuri, Bhogali, Rangilee, Ketekijoha etc. However, choose Satyaranjan and Basundhara in double cropping areas having crop duration of 130-135 days.
- Farmers may observe circular spots as well as water soaked sunken lesions with black margin in chilli fruits. Spray Captan @ 5 g/2.5 litre of water.
- Collect local cultivar of citrus viz. Assam lemon for planting in the orchard or homestead garden. Select high land with uniform soil texture for planting.
- Rooted slips of fodder crops like hybrid napier, setaria and guinea etc may be planted due to sufficient moisture in the field.

West Bengal

Rainfall received over Gangetic West Bengal is 224.3 mm (43% excess) during 01 March to 30 May 2019. The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) is below normal for both the weeks.

- Complete the harvesting of Boro rice as early as possible as moderate rainfall is expected from 02.06.2019. Thus, dry the harvested crops in a shade place.
- As per last week suggestion, complete the intercultural operations and apply top dressing in jute. Under prevalent weather situation, there is a chance of the attack of weevil. To control, apply 2ml Endosulphan per litre of water.
- In pumpkin, ridge-gourd, pointed gourd and cucumber, there is a chance of attack of Red-Pumpkin Beetle in the weather condition. To control the pest, apply Dimecron or Rogor (1ml per litre of water).

Punjab

Rainfall received over Punjab is 55.2 mm rainfall (5% excess) during 01 March to 30 May 2019. The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) is below normal for both the weeks.

- Eradicate the weeds like kanghi buti, peeli buti, puth kanda etc growing on cotton field bunds, waste lands, road side and irrigation channels/canals to avoid further spread of whitefly to cotton field.
- Apply paddy straw or rice husk or sugarcane trash @ 20-25 q/acre between the rows of sugarcane to reduce soil temperature and moisture loss.
- Chilli fruits may be dropped due to the high temperature during May and June. Two foliar sprays of Naphthalene Acetic Acid (NAA) at 10 day interval @ 4g after 45 and 55 days of transplanting can be done to increase the green and red ripe fruit yield of chilli.
- For the control of powdery mildew in cucurbits, spray Karathane @ 50-80 ml/acre.

Jammu

Rainfall received during 01 March to 30 May 2019 over Jammu is 219.1 mm, which is 32% deficit. The extended range weather forecast for next two weeks (31 May to 06 June and 07 to 13 June) is below normal for both the weeks.

- In Cucurbits spray, mancozeb @ 0.2%, if symptoms of downey mildew is observed. To control fruit fly, apply Malathion @ 1.5ml/litre at weekly interval.
- To control tomato leaf curl, remove virus infected plants and spray Imidacloprid @ 0.5ml/litre of water to check secondary spread of disease. To control early blight, spray Mancozeb @ 0.25%.
- Due to rise in temperature, farmers are advised to protect young fruit plants from heat by providing thatches/cover but ensure free circulation of air. Spray Dimethoate @ 1ml/litre to control citrus psylla, leaf miner, if observed.

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