



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

Valid for 20th May to 2nd June, 2016

Date of Issue: 20th May, 2016

Issued by

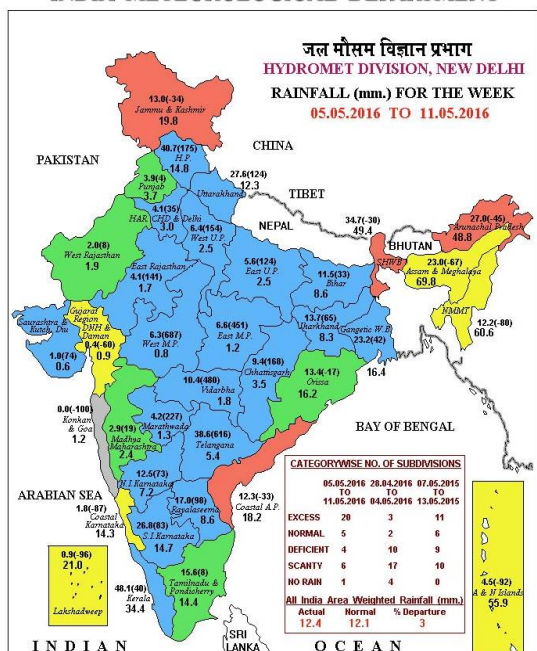
**Earth System Science Organisation
India Meteorological Department**

&

**Indian Council of Agricultural Research
All India Coordinated Research Project on Agricultura Meteorology (AICRPAM),
Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad**

Realized Rainfall (5th May to 18th May 2016)

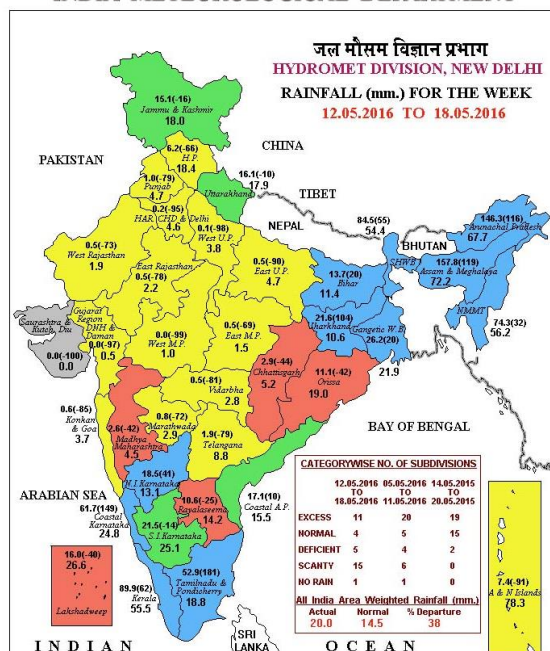
भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



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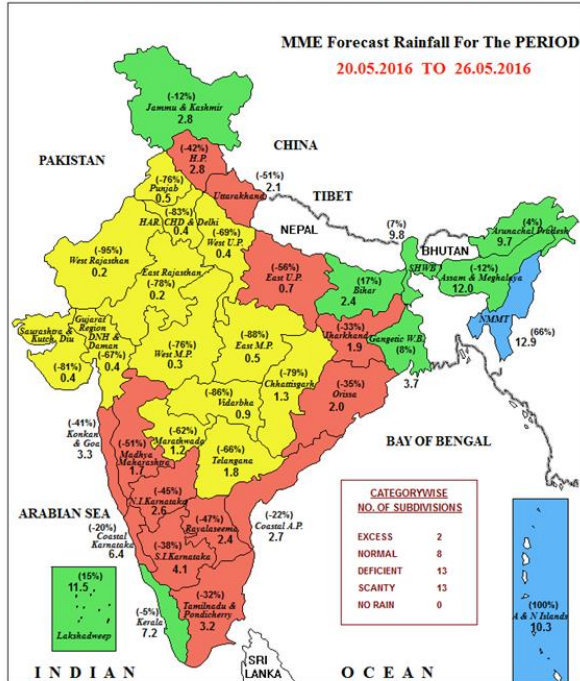
- Normal or above normal rainfall occurred during last two weeks in Uttarakhand, Bihar, Jharkhand, Gangetic West Bengal, Interior Karnataka, Kerala and Tamil Nadu.
- Normal or above normal rainfall occurred in either of the last two weeks in Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana & Delhi,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

Extended Range Forecast System

Subdivision wise rainfall forecast map for the next 2 weeks (IC =18 May)

Rainfall forecast (mm/day) (20 May – 2 June, 2016)

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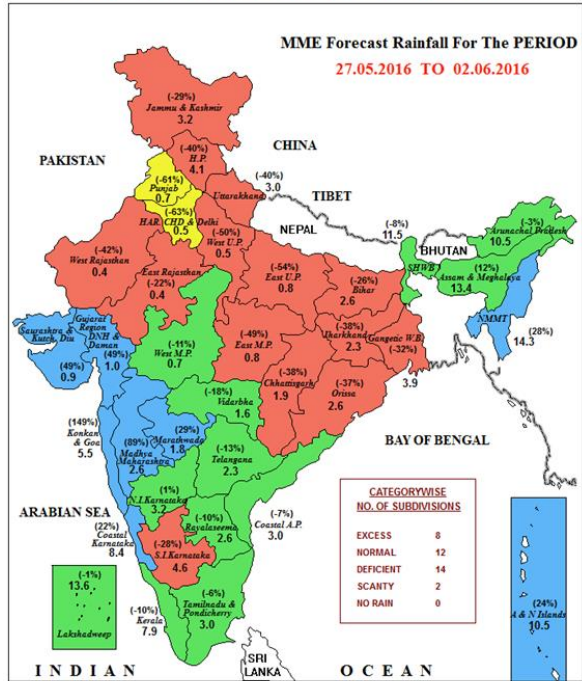


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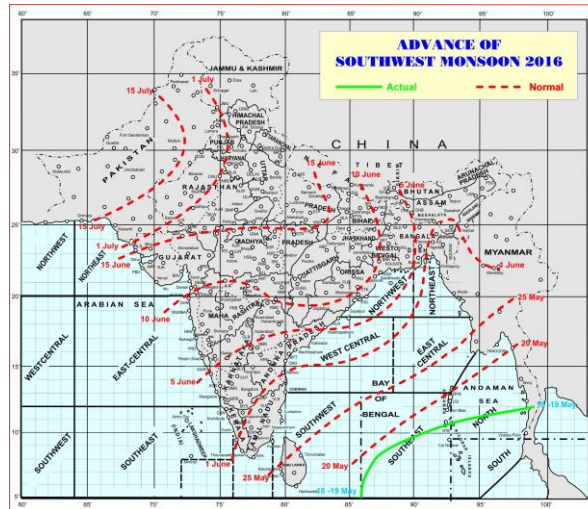
- (a) Rainfall figures are based on MME forecast
- (b) Bold figures indicate forecast Normal rainfall (mm/day)
- (c) Percentage Departures of Rainfall are shown in Brackets

- Normal or above normal rainfall would occur during next fortnight over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura and Kerala.
- Normal or above normal rainfall would occur in either of the next two weeks in Jammu & Kashmir, Bihar, Gangetic West Bengal, Gujarat State, Maharashtra, Goa, West Madhya Pradesh, Telangana, Andhra Pradesh, North Interior Karnataka, Coastal Karnataka and Tamil Nadu.
- Below normal rainfall would occur during the next two weeks over Himachal Pradesh, Punjab, Haryana & Delhi, Uttarakhand, Uttar Pradesh, Rajasthan, East Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha and South Interior Karnataka.

Forecast of the Onset Date of Southwest Monsoon - 2016 over Kerala

- The southwest monsoon is likely to set in over Kerala on 7th June with a model error of ± 4 days.

Advance of Southwest Monsoon - 2016



20th May, 2016

- The Northern Limit of Monsoon (NLM) continue to pass through Lat. 5.0°N/ Long.86.0°E, Lat. 8.0°N/ Long. 87.0°E, Hut Bay and Lat. 12.0°N /Long. 99.0°E.
- Conditions are favourable for further advance of southwest monsoon into some more parts of south Bay of Bengal, Andaman Islands and remaining parts of north Andaman Sea during next 48 hours.

Cyclone Warning

- The Cyclonic Storm 'Roanu' over westcentral Bay of Bengal moved northeastwards at a speed of 16 kmph during past 6 hours and lay centred at 0530 hours IST of today, the 20th May 2016, near Lat. 17.2°N and Long. 83.3°E, about 60 km southsoutheast of Visakhapatnam (Andhra Pradesh) and 120 km northeast of Kakinada (Andhra Pradesh). The system is likely to move northeastwards along & off Andhra Pradesh and Odisha coasts and intensify in to severe cyclonic storm by tonight. Continuing moving northeastwards, the system is likely to cross south Bangladesh coast between Khepupara and Cox's Bazar in the night of 21st / early morning of 22nd May as a cyclonic storm.

Strategic Agricultural Planning based on rainfall during next two weeks till 2nd June

Salient Agromet Advisories

- Northeastern states and some parts of states in east coast likely to receive rain during the period 20-26 May whereas west coast of India likely to receive rain during the period 27 May to 2 June with more rainfall activity over northern part of west coast.
- Undertake rain water harvesting for carrying out agricultural activities in eastern coastal states and west coast of India.
- Prevailing weather conditions are suitable to continue agricultural activities like land

preparation and sowing of *kharif* crops in North-eastern states, Kerala, Karnataka, Konkan and Madhya Maharashtra in Maharashtra and West Bengal.

- Heat wave/severe heat wave is prevailing and likely to prevail over Central India, Northwest India including some parts of eastern coastal states of India and thereafter below normal maximum temperatures are likely over some parts of Central India and Northwest India. Eastern coastal states will remain warmer than normal.
- Apply light and frequent irrigation to standing crops in the above regions and undertake mulching to conserve soil moisture.
- As there was heavy rainfall and also rainfall activity is likely to continue over coastal Odisha leading to flood like situation, keep already harvested produce at safer places.
- Drain out excess water from rice field, vegetable fields & orchards to avoid water stagnation in Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, from rice field, cotton, vegetable fields, banana and sugarcane to avoid water stagnation in North Tamil Nadu, from summer rice, groundnut, moong, black gram, sesame, maize, vegetables, sugarcane & orchard (mango, sweet orange) in Andhra Pradesh and from rice, groundnut, sunflower, green gram and sesame field in Odisha. Keep already harvested produce at safer place.

The following advisories are issued for Kerala, Karnataka, Konkan, Madhya Maharashtra, North-eastern States and West Bengal.

Kerala

Kerala state received good rainfall during previous fortnight and rainfall activity is likely to continue during next fortnight.

Major advisories for *kharif* crops

- Direct sowing of rice in Problem Area Zone.
- Nursery sowing of *Virippu* rice in Southern Zone.
- Land preparation for sowing of rice in Northern Zone, for sowing of rice (variety: Jyothi) in Central Zone.
- Sowing of *kharif* vegetables like bhindi, bitter gourd, amaranthus in High Altitude Zone and bhindi, brinjal, cucurbits like pumpkin, cucumber, bottle gourd in Southern Zone.
- Farmers can follow stale seed bed technique for the management of weeds.

Advisories for other crops

- Paddy: Third season (Puncha) crop has reached maturity and should be harvested because of heavy rainfall in the southern and central Kerala.
- Arrangement for drainage from vegetable and orchard crops.
- Planting of coconut, arecanut, pepper and cardamom in the High Altitude Zone.
- Planting of coconut seedlings in Problem Area Zone and in Southern Zone.
- Planting of Tapioca.
- Provide proper drainage in Nutmeg, earthing up in vegetable crops in Southern Zone.
- Coconut: Open the basins for application of fertilizers / lime.
- Banana: Sigatoka leaf spot disease may become severe due to increase in relative humidity. If the disease is severe spray 1% Bordeaux mixture or Tilt 25 EC (1ml/lit of water) after cutting the severely affected leaves and burning it.

- Pepper: there is a chance of Quick Wilt disease and the attack of Pollu beetle due to high relative humidity. Drench the soil and with 0.2 % Copper oxy chloride and spray the aerial part with 1% Bordeaux mixture as a prophylactic measure to control Quick wilt and Pollu beetle incidence.

Karnataka

Good rainfall occurred over many districts of South Interior Karnataka during the last fortnight. Agricultural operations like summer ploughing and spreading of FYM to fields are in progress.

Major advisories for *kharif* crops

Coastal Karnataka

- Sowing of *kharif* maize, cotton. and land preparation for nursery sowing of rice,
- Nursery raising for seedlings of black pepper in Hill Zone.

South Interior Karnataka

- Sowing of pulses like cowpea, green gram, black gram, horse gram, field bean etc., ragi, maize and green manure crops with available soil moisture in Mysore and Chamrajnagar districts in last week of May in Southern Dry Zone.
- Sowing of red gram (TTB-7, BRG-1, 2, 4, 5) and maize in Eastern Dry Zone in last week of May.
- Land preparation for sowing of ragi, sunflower, rice in Southern Transition Zone and maize, sorghum, sunflower, rice and vegetable crops in Central Dry Zone.
- Land preparation for pre-monsoon sowing of ragi (Indaf -9, ML-365), sesame (Navile-1, T-7), groundnut (TMV-2, JL-24, KCG-6), cowpea (TVX-944, KBC-1), green gram (PS-16, PDM-84,178) and black gram (Karagao-3, T-9, Rashmi (LBG-625) in Eastern Dry Zone.
- Sowing of red gram, groundnut, maize, cotton in Southern Transition Zone utilising realised rainfall.
- Continuation of summer deep ploughing across the slope to improve infiltration and conservation of more rain water and keeping the inputs ready for pre-monsoon sowing.

North Interior Karnataka

- Deep ploughing across the slope to improve infiltration and conservation of more rain water.
- Making ridges and furrows or compartment bunding so as to conserve rain water received during pre-monsoon showers.
- Continue land preparation for sowing of jowar, red gram, black gram, groundnut, soybean, pearl millet, maize, sunflower, sesame, rice and keep inputs ready for sowing.

Advisories for other crops

South Interior Karnataka

- Continue planting of ginger / turmeric.
- Ploughing across the slope and land leveling which helps in conserving more rain water in the soil.
- Land preparation for planting of coffee, cardamom, arecanut and banana in Kodagu district of Southern Transition Zone.
- Strengthen the bunds to facilitate conservation of rainwater due to pre-monsoon showers.

North Interior Karnataka

- Harvesting of fully matured fruits of mango to avoid the damage due to rain.
- Take up the repair of bunds and check dam so as to reduce the runoff and to check the soil erosion.

Andhra Pradesh

Coastal Andhra Pradesh

Major advisories for *kharif* crops

- Land preparation for sowing of pulses (red gram and green gram) and cotton in Krishna Godavari Zone.
- Land preparation for sowing pre-*kharif* crops viz. sesamum, bajra etc. in North Coastal Zone.
- Land preparation for planting of rainfed sugarcane in North Coastal Zone.
- Continue sowing of sesamum in North Coastal Zone.

Rayalaseema

Major advisories for *kharif* crops

- Land preparation for sowing of rice (early *kharif* plantings: Pushkala, Rasi, IR64), maize (medium duration hybrids/varieties: DHM 111, DHM 117, DHM-119, KH 510, Bio 9637, KH 9541, MCH 2, Kohinoor, Prabhal and Bisco 855) and groundnut (Kadiri-7 Bold, Kadiri-8, Bold, kadiri-6 Kadiri-9, Kadiri Harithandra, Kadiri Anantha) in High Altitude Tribal Zone.
- Continue nursery sowing of rice (MTU 1010, Nellore masuri) in Nellore district, inter cropping with crops like maize, jowar etc. in areas where rice sowing has not been taken up and continue deep summer ploughings utilizing the expected rain in the Southern Zone.
- Continue deep summer ploughing in the Scarce Rainfall Zone.
- Land preparation for sowing of *kharif* pigeon pea, sorghum and sunflower.

Maharashtra

Major advisory for *kharif* crops

Konkan

- Continue preparatory tillage for nursery sowing of *kharif* rice and finger millet.

Marathwada

Major advisory for *kharif* crops

- Prepare nursery for sowing of *kharif* vegetable crops like tomato, chilli, bitter gourd, cluster bean etc.

Advisories for other crops

- **Summer groundnut:** Dry the harvested crop of groundnut in shade before storage. For safe storage the moisture percent should be reduced to 8 to 10 %. Due to forecast of pre-seasonal rainfall the harvested crop should be stored at safe place.
- **Summer Sunflower:** Harvested heads of sunflower should be dried well in sun and threshed by beating the center of the head with a small stick or by thresher. Take care so that the harvested crop should not be damaged by pre-seasonal rainfall.

Vidarbha

- Tree basins of fruit crops should be mulched to conserve moisture. Juvenile/young plantation should be protected from heat with thatches and mulching of basins. Thatches may be made

of cotton/pigeon pea stalks/green shade net, etc. Apply light and frequent irrigations to summer crops/orchards preferably during evening hours.

- Undertake preparatory tillage for ensuing *kharif* season crops. For effective in-situ moisture conservation, preparatory tillage operations should be along the contour and across the field slope.
- Under prevailing high temperature and water shortage conditions avoid pre-monsoon cotton sowings.
- Wherever possible water bodies may be covered or treated with anti-evaporant sprays to check evaporation losses.

Arunachal Pradesh

Major advisories for *kharif* crops

- Nursery sowing and transplanting of rice.
- Sowing / transplanting of summer vegetables like cucumber, sponge gourd, bottle gourd and ladies finger.

Assam

Major advisories for *kharif* crops

- Completion of transplanting of normal *ahu* rice.
- Nursery raising of *sali* rice (Varieties: Ranjit, Bahadur, Satyaranjan, Basundhara, Kushal, Mahsuri, Bhogali, Rangilee, Ketekijoha). Choose varieties like Satyaranjan and Basundhara in double cropping areas having crop duration of 130-135 days and Jalashree, Jalkunwari, Plawan for flood affected areas.
- Sowing of *boro* rice in Lower and Central Bramhaputra Valley Zone. (varieties: Maguri, Kekua Bao, Negheri Bao, Tara Bao for Nagaon and Morigaon districts)

Advisories for other crops

- Land preparation and sowing of turmeric and ginger in Central Bramhaputra Valley Zone.
- Planting of tapioca in Hill Zone.
- Planting of pineapple in North Bank Plain Zone and Hill Zone.
- Planting of guava (varieties: Alahabad Safeda, Lucknow-49, Chittidar, Seedless) in Upper Bramhaputra Valley Zone.
- Completion of sowing of Jute (varieties: *Olitorious*) and mesta (varieties: HC 583 and AMC 108) in Central and Lower Bramhaputra Valley Zone.

Meghalaya

Major advisories for *kharif* crops

- Complete sowing of *Jhum* rice (varieties: Bhalum 1, 2, 3; IRAT 109, IR 50, etc.).

Advisories for other crops

- Planting of High Yielding Varieties of ginger/turmeric (varieties: turmeric- Lakadong, RCT-1, ginger- Nadia, Poona, Riodegenerio etc.).

Manipur

Major advisories for *kharif* crops

- Maintain water level at 5-8 cm in *kharif* rice.

- Sowing of soybean, groundnut and black gram.

Advisories for other crops

- Completion of planting of turmeric and ginger.
- Replanting of 2 to 2.5 years old tree bean.

Mizoram

Major advisories for *kharif* crops

- Nursery sowing of rice.
- Sowing of *kharif* green gram, black gram.

Advisories for other crops

- Transplanting of brinjal and chilli in the main fields.
- Sowing of *French* bean, cowpea.
- Land preparation for planting of turmeric and ginger.
- Complete sowing of Colocasia.
- Land preparation for planting of Okra.
- Sowing of maize.

Tripura

Major advisories for *kharif* crops

- Land preparation for sowing of groundnut (TAG 24, TG 37A, ICGS 76) in upland and medium upland regions.

Advisories for other crops

- Maintenance of 5 cm water level in *boro* rice fields (flowering stage).

Odisha

Advisories for other crops

- Heavy rainfall is likely to occur in the next two days and may be associated with high wind speed on 20 May. Do not keep harvested paddy in the field and place them in safe storage structures.
- Harvest matured pods of pulses before rain or immediately after rain to avoid viviparous germination of seeds in the pods itself. Dry the pods.
- Harvest the matured groundnut to avoid viviparous germination of kernels and rotting may occur if not harvested immediately after rain stops. Make bundles of the harvested plants and dry them in such a way that the pods should be in the up side and plants in down side.

West Bengal

Major advisories for *kharif* crops

- Land preparation for nursery sowing of *aman* and *aus* rice.
- Continue transplanting of *Aus*-rice in Laterite and Red Soil zone.

Advisories for other crops

- Land preparation and planting of ginger and turmeric in Terai Zone.
- Completion of transplanting of chilli in the main field and planting of ginger in Hill Zone.
- Undertake harvesting of matured sesame in Laterite and Red Soil zone.

For the areas receiving scanty rainfall:

- Dry sowing of paddy seeds is recommended. Collect IET-4094, Swarna, Shatabdi, Lalat, IET 9947, IET 1444, IET 2233 seed. Long duration varieties should be avoided.

For the areas prone to flash flood:

- In areas where flood or stagnation occurred, tall variety like Ranjit may be selected. Short duration variety (like *Daya*, which matures in 95 days) may be selected.
- Maize: Hybrid Ganga-11, Sartaj, HQPM-5, Pro-316, Bio-9681, Y-1402, HQPM-8 and composite variety Prabhat can be sown with a seed rate of 18-20 kg/ha.

Andaman & Nicobar

- Land preparation for raising nursery of vegetable like chilli and brinjal in the upland area of Portblair.

Advisories for remaining States

- Undertake harvesting of summer crops in central and North India.

❖ **National AAS Bulletin based on ERFS is also available at**

<http://www.indagrmet.gov.in/erfsview15>