



National Agromet Advisory Service Bulletin

based on

Extended Range Weather Forecast

Valid for 11th to 24th September 2015

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Earth System Science Organisation
India Meteorological Department

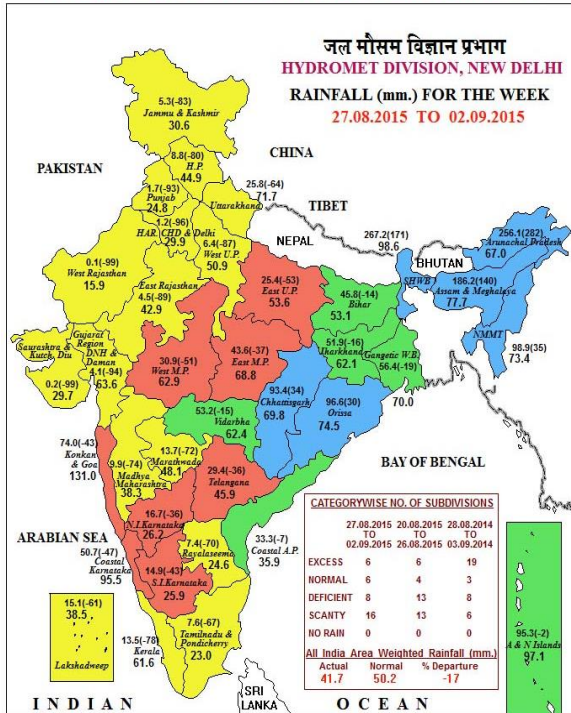
Indian Institute of Tropical Meteorology, Pune

&

Indian Council of Agricultural Research
AICRPAM, CRIDA, Hyderabad

Realized Rainfall (27th August to 9th September 2015)

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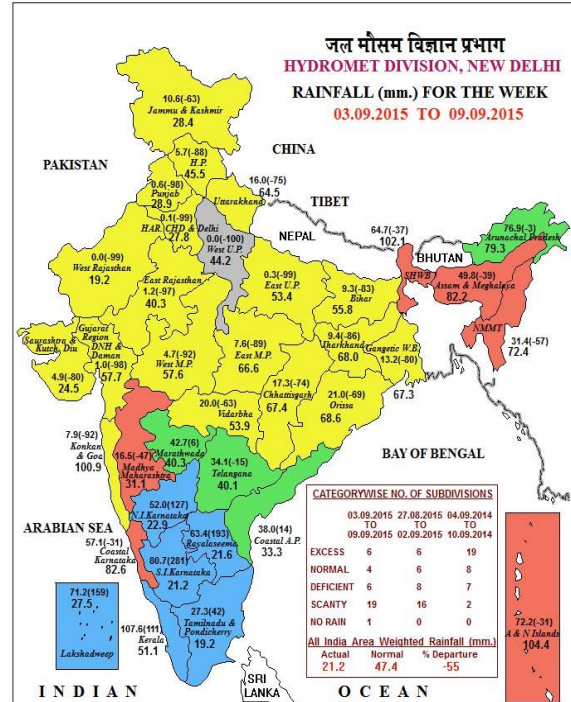


LEGEND: ■ EXCESS (+20% OR MORE) ■ NORMAL (+19% TO -19%) ■ DEFICIENT (-20% TO -59%)
■ SCANTY (-60% TO -99%) ■ NO RAIN (-100%) NO DATA

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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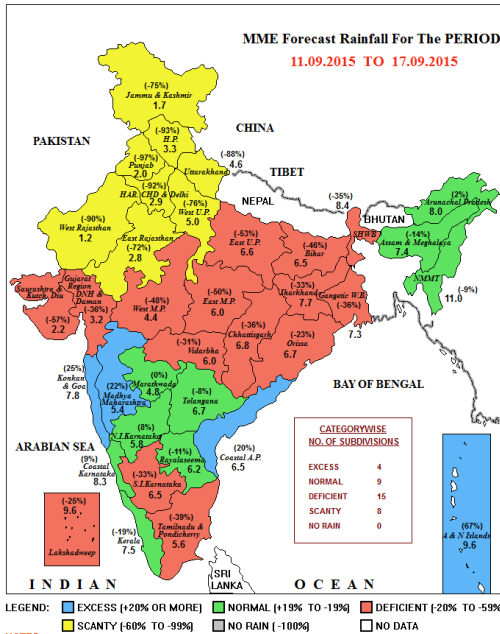
- Normal or above normal rainfall occurred during last two weeks in Arunachal Pradesh and Coastal Andhra Pradesh.
- Normal or above normal rainfall occurred in either of the last two weeks Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura, West Bengal & Sikkim, Marathwada, Vidarbha, Bihar, Jharkhand, Chhattisgarh, Odisha, Interior Karnataka, Telangana, Rayalaseema, Kerala and Tamil Nadu.
- Below normal rainfall occurred in the last two weeks over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana & Delhi, Rajasthan, Uttar Pradesh, Gujarat State, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra and Coastal Karnataka.

Extended Range Forecast System

Subdivisionwiseraingfallforecast map for the next 2 weeks (IC =9 September)

Rainfall forecast (mm/day) (11 – 24 September, 2015)

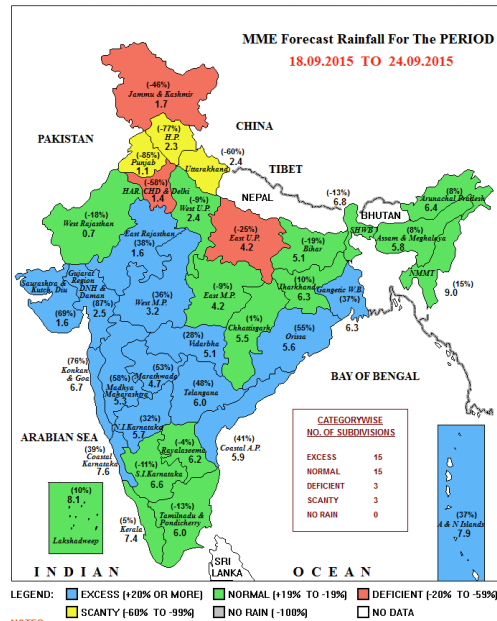
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Notes:

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

Strategic Agricultural Planning based on rainfall during next two weeks till 24 September

Good rainfall occurred over **Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Chhattisgarh, Vidarbha, Marathwada, Andhra Pradesh, Interior Karnataka** and **TamilNadu** during last fortnight. However, the Southwest Monsoon has withdrawn from western parts of Rajasthan and some parts of Punjab and Haryana. The withdrawal line passes through Amritsar, Hissar, Ajmer and Barmer.

The condition of crops experiencing moisture stress situation over **Royalaseema** up to first fortnight of August and over **Telangana** up to end of August due to deficient rainfall during earlier weeks, the situation improved due to good rainfall during last few weeks.

Over the regions like **Marathwada, North Interior Karnataka** and **Madhya Maharashtra**, either sowing of crops was poor or the already sown have been experienced moisture stress situation due to deficient rainfall during earlier weeks. However, over most parts of these regions, good rainfall received during last week may be beneficial for taking early *rabi* crops.

Over **Gujarat State, Rajasthan** and **Uttar Pradesh**, crops have been still experiencing moisture stress situation due to deficient rainfall during last few weeks. There are reports of floods in some districts of **Assam** during last week and in **Gangetic West Bengal** during first week of August due to heavy to very heavy rainfall.

Rainfall belt will be mainly over southern Peninsula and parts of northeast in week 1 (11-17 September).

Overall increase of rainfall during week 2 (18-24 September) will be mainly over central India and south peninsula is likely to have positive departure. Over NE India it is likely to be normal, whereas, over NW India it is likely to be deficient.

In consideration of poor rainfall situation in Marathwada, North Interior Karnataka, Madhya Maharashtra, Rajasthan, Gujarat State and Uttar Pradesh during earlier weeks, receipt of good rainfall during last week and likely occurrence of good rainfall in Marathwada, North Interior Karnataka and Madhya Maharashtra, following agricultural activities are suggested.

Marathwada

- Sowing of *kharif* crops is not profitable any more. Instead, early *rabi* crops may be undertaken in view of recently occurred and likely occurrence of good rainfall.
- For taking early *rabi* crops, compartmental bunding to conserve soil moisture wherever sowing is not carried out.
- Preparation of fields and sowing of early *rabi* jowar and preparation of fields for safflower.
- Prevailing cloudy weather is congenial for the incidence of downy mildew in cucurbitaceous vegetables; spray solution of Metalaxyl 8 % + Mancozeb 64 % @ 20 g in 10 litres of water on a non-rainy day.

North Interior Karnataka

As there is improvement in rainfall situation in North Interior Karnataka due to good rainfall during last week and likely occurrence of rainfall during next couple of weeks, following agricultural activities are suggested.

- For taking early *rabi* crops, follow soil moisture conservation techniques in dryland such as compartmental bunding, ridges and furrows and scooping in fields for *rabi* sowing.
- During second fortnight of September, undertake sowing of Sunflower, *rabi* sorghum,

safflower and horsegram as sole crop.

- Adoption for intercropping systems instead of sole crop, so as to overcome the failure of crops during soil moisture deficit situation. (*rabi* sorghum + chickpea (2:1 row proportion); chickpea + safflower (4:2 row proportion), wheat + safflower (7:1 row proportion)).
- Selection of short duration, drought resistant crops and variety (*rabi* sorghum: Maldandi and Mugati; chickpea: A-1, JG-11, Jaki-9218; Safflower: A-1).
- Sowing of crops across the slope.
- Adoption of wider row spacing (120-135cm) in sunflower in rainfed situations.
- Concentrate on fodder based cropping wherever good rainfall has occurred.

Madhya Maharashtra

- Maintenance of 5-7 cm water level in transplanted rice in Western Ghat (western parts of Sangli, Satara, Kolhapur, Pune, Ahmednagar, Dhule, Nandurbar and Nasik districts).
- Further sowing of *kharif* crops is not any more profitable. Instead, early *rabi* crops may be undertaken.
- For taking *rabi* crops, compartmental bunding to conserve soil moisture wherever sowing is not carried out.
- Preparation of fields and sowing of early *rabi* jowar and preparation of fields for safflower.

Gujarat

- Due to deficit rainfall in the region, spraying of 2% Urea in transplanted paddy under below normal rainfall region.
- Maintenance of 5 cm water level in transplanted rice field.
- Protective irrigation in standing crops like pearl millet, groundnut, cotton, green gram, black gram, vegetable, castor etc. under moisture stress condition.
- Carry out hand weeding and inter-culturing in pearl millet and vegetable crops in Bhal and Coastal Zone to conserve soil moisture.
- In week 2, sowing of castor and sorghum in Bhal and Coastal Zone. Undertake transplanting of brinjal, tomato, chillies and other vegetables into main field.

Uttar Pradesh

- Due to deficit rainfall in the region, spraying of 2% Urea in transplanted paddy under below normal rainfall region.
- Irrigation in paddy crop as to maintain 5-7 cm. water in the field at tillering/ PI stage.
- Undertake weeding in late sown green gram and black gram.
- Sowing of short duration and low water requiring vegetables such as carrot, turnip, spinach, coriander, raddish etc.
- Mulching with crop residue to conserve soil moisture.
- Application of protective irrigation in standing crops in view of water stress condition.
- In Bundelkhand Zone in West Uttar Pradesh, completion of nursery sowing of early grown cauliflower, tomato, chilli and brinjal on raised beds and transplanting in main fields if nurseries are ready and application of light irrigation in groundnut, soybean, sesame, vegetables and fodder crops.

Rajasthan

West Rajasthan

- Lifesaving irrigation in moth bean, cluster bean and pearl millet crops, where irrigation water is available.

East Rajasthan

- Lifesaving irrigation in maize, pulses and other *kharif* crops, where irrigation water is available.

- Spray 1000 ppm thiourea in maize where the crop is at tasseling stage in order to provide drought resistance in the crop.
- Remove tassel in maize.

In view of improvement of condition in Rayalaseema due to good rainfall during last few weeks and in Telanaga during last week and likely occurrence of rainfall during next fortnight, following agricultural activities are suggested.

Rayalaseema

- Maintenance of 5 cm water level in rice field.
- In view of receipt of good rainfall and likely occurrence of rainfall, sowing of contingency crops, as mentioned below-
 - Sowing of contingent crops like sorghum, cowpea, horse gram, korra, bajra in Anantpur and Kurnool districts.
 - Sowing of redgram, castor, greengram, cowpea, sorghum, bajra and horsegram in Cuddapah and Chittoor districts.
- Compartmental bunding to conserve soil moisture for taking *rabi* crops, wherever sowing is not carried out.
- Harvesting of rain water.

Telangana

- Maintenance of 5 cm water level in rice fields.
- Harvesting of rain water.
- If moisture is sufficient, application of 30-35 kg urea and 10 kg Muriate of Potash per acre at 60-65 days and 80-85 days after sowing as top dressing in Bt cotton and application of 45-50 kg urea and 30-35 kg Muraite of Potash at flowering stage as top dressing in rainfed maize.

In view of occurrence of floods in Assam during end of July and third week of August and in Gangetic West Bengal during first week of August, following agricultural activities are suggested.

Assam

Due to continuous rain and recent flooding in Dhemaji, Lakhimpur, Tinsukia, Dibrugarh, Kokrajhar, Bongaigaon, Sonitpur, Barpeta, Jorhat, Goalpara, Morigaon, Cachar, Golaghat and Nagaon districts, standing crops have been affected.

- Drain out excess water from crop fields.
- In North Bank Plain Zone of Assam, in flood affected areas –
 - Transplanting of old seedlings of improved long duration varieties like MonoharSali, Salpona, Prasadbhog, Gobindobhog etc. up to mid-September.
 - Sowing of *kharif* sesame, green gram, black gram, early cauliflower and radish.
 - Late and staggered planting after receding of flood water with 60 to 80 days old seedlings of the varieties like Prafulla (80 days) and Gitesh (60 days) up to mid-September.
- Transplanting of finger millet, sowing of green gram (T44, Kopergaon, K851, ML56, ML131, SG1 (Pratap), SG21-5) and black gram (T9, T27, Pant U 19, T122, SaoniaMah (SB123), KU 301, USJD113) and winter vegetables in Lower Brahmaputra Valley Zone of Assam.

For post flood condition

- Go for wet seeding of sprouted rice after receding of flood water wherever possible with short duration cultivars.

- In other areas, plan for sowing of green gram, lentil, early *rabi* vegetables etc.

West Bengal

12 districts in Bengal is flood-hit with heavy rain hitting the state in July and early August. Contingency measures for these areas have been mentioned below-

Post Flood Crop Contingency Plan:

- Hand weeding to keep the fields weed free at tillering stage.
- In upland area where rice could not be cultivated, sowing of red amaranthus, spinach, coriander etc., sowing of *vadukalai* like Kalindi and Swarna.
- In Old Alluvial Zone, undertake land preparation and sowing of black gram.
- Sow short duration pulse crops like black gram, pigeon pea and horse gram in mid and uplands.
- Black gram (T9, Pant urd 30 and Pant urd 19), Green gram (T44, Samrat), Pigeon pea (Bahar, Pusa 9 and Narendra Arhar 1) and Groundnut (TAG 24, TG 44) and Kulthi (DV 7, BR 5, BR 10, S67/26, 14, 31) can be sown with available seeds in locality/seed agencies.
- Grow vegetables like cucurbits, ladies finger, brinjal, tomato etc.
- Grow maize, cow pea, sorghum hybrid napier, etc. for fodder.

Normal agricultural activities are continued over remaining parts of the country in view of receipt of good rainfall during the season.