



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

***Valid for 28 July to 10 August, 2017***

**Date of Issue: 28 July, 2017**

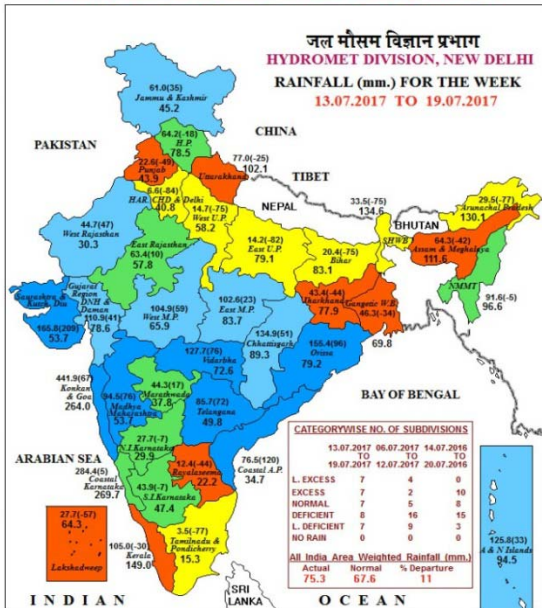
**Issued by**  
**Indian Council of Agricultural Research (ICAR)**  
**All India Coordinated Research Project on Agricultural Meteorology (AICRPAM),**  
**Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad**  
**&**  
**Earth System Science Organisation**  
**India Meteorological Department**

# Realized Rainfall and Extended Range Forecast

## Realized Rainfall

(13<sup>th</sup> to 26<sup>th</sup> July 2017)

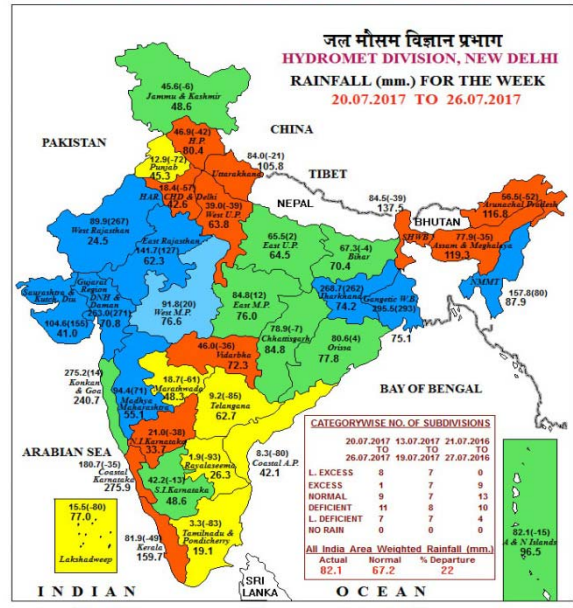
### भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



LEGEND: L. EXCESS (+60% OR MORE) EXCESS (+20% TO +59%) NORMAL (+19% TO -19%)  
L. DEFICIENT (-20% TO -59%) 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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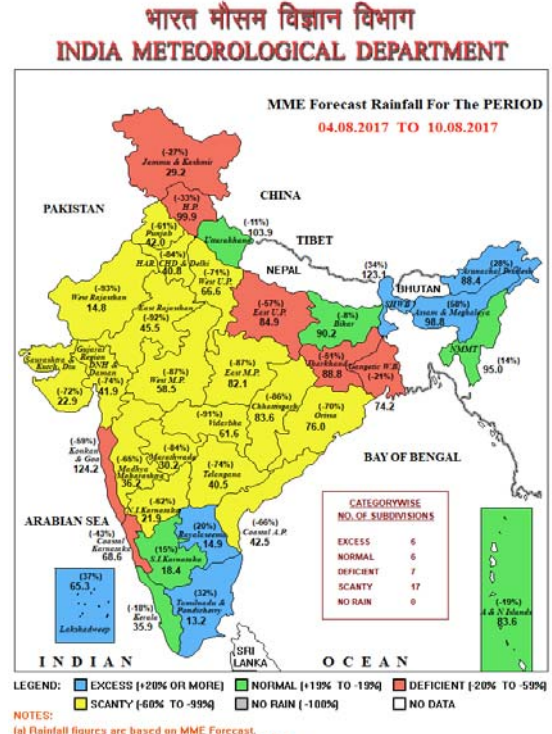
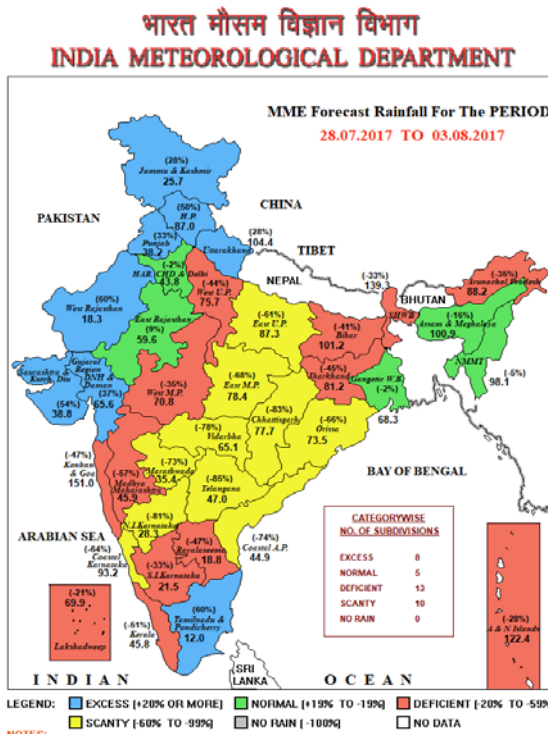
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NOTES:  
[a] Rainfall figures are based on operational data.  
[b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)  
Percentage Departures of Rainfall are shown in Brackets.

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

# Extended Range Forecast System

## Subdivision wise rainfall forecast maps for the next 2 weeks (IC = 26 July) (28<sup>th</sup> July to 10<sup>th</sup> August 2017)



- Extended Range Forecast (ERFS) indicates that, during week 1 (28 July - 03 August), the isobar is becoming more N-S orientation and the monsoon circulation is expected to be weak particularly over central India, northeast India and south peninsula. Parts of northwest India (Gujarat, western Rajasthan, Himachal Pradesh, Punjab, Haryana) and some isolated pockets over southern peninsula will get above normal rainfall, whereas the central India, eastern India and southern peninsula monsoon rainfall will be weak.
- During week 2 (04 August - 10 August), main rainfall belt will be over the Northeastern states and the rest of the India will have subdued monsoon condition.

**Agromet Advisories**

**Kerala**

- As dry weather is prevailing in the state and the same is forecasted in the coming week, infestation of Eriophyid mite in coconut may occur. Spray neem oil – garlic emulsion (20 ml neem oil + 20 g garlic paste in 1 litre of water) as prophylactic measure against coconut eryophid mites. Spraying may be avoided on young inflorescence. Care should be taken to spray the spray fluid on the perianth region of the buttons.
- **Banana:** Farmers are advised to provide propping to standing banana crop, as there is chance of high wind speed in the coming dates.

**Karnataka**

**South Interior Karnataka**

Deficit rainfall during first week (July 28 to 3 Aug) and normal rainfall during second week (4-10 August is forecasted according to ERFS.

- In Eastern Dry Zone, postpone sowing of crops till soaking/ sufficient rainfall is received. Undertake intercultural operations to control the weeds and to increase the moisture availability to crops. Wherever, the long duration crops like red gram, and castor has been sown, undertake earthing up operation
- Since deficit rainfall condition is prevailing over the region, make use of farm pond water to provide protective irrigation to crops
- Postpone sowing operation until soaking/sufficient rainfall is received
- As normal rainfall is forecasted during 4-10 August, sowing of groundnut and red gram can be resumed

**North Interior Karnataka**

Largely deficit rainfall has been forecasted for North Interior Karnataka for coming two weeks

- Farmers are advised to take up soil moisture retention practices like removal of weak seedlings, adoption of intercultivation and weeding practices in these districts
- In the deep black soils earmarked for *rabi* crops, *in situ* soil moisture conservation measures such as ridges and furrows, tied ridges and compartment bunding can be prepared for conservation of rain water
- Farmers can take up spraying of pesticides in green gram, cotton and horticulture crops, as well as weedicide for bajra and cotton, as chances of rainfall is less.
- Wherever irrigation facility is available, protective irrigation may be provided for pigeon pea and sugarcane.

## Andhra Pradesh

Largely deficit rainfall is forecasted for both coastal Andhra Pradesh and Rayalaseema for coming two weeks as per the ERFS.

- Farmers of Ananthapuramu, Kurnool, Chittoor, Kadapa districts are advised not to go for sowing of groundnut after 31<sup>st</sup> July, as there will be considerable yield reduction in late sown crop during the month of August.
- As there is deficit rainfall forecast for Ananthapuramu district, farmers are advised to go for sowing of contingency crops viz., foxtail millet, bajra, cowpea, redgram (up to 15<sup>th</sup> August), horsegram, castor and clusterbean as contingency crops in red soils during August, after the receipt of sufficient rainfall. Farmers in black soil areas can go for sowing of foxtail millet, redgram, castor, cotton (August 15<sup>th</sup>) and cluster bean during the month of August.
- In the districts of Rayalaseema region, farmers are advised to provide protective irrigation to early sown rainfed groundnut, wherever water is available in farm ponds or nearby water sources as the crop is experiencing moisture stress. Farmers of Ananthapuramu district can utilize Panta sanjeevani program of Govt. of AP for providing protective irrigation.

## Maharashtra

### Vidarbha

Largely deficit rainfall is forecasted over the region for coming two weeks. Wherever, assured irrigation is available the following measures may be considered.

- Un-sown areas of the region can be sown with suitable crops/crop varieties/intercropping (as mentioned below) in the western/central Vidarbha districts (Akola, Buldana, Amravati, Washim, Yavatmal, Wardha, Nagpur)
  - Pigeonpea PKV- Tara, BSMR-736, Asha (ICPL 87119) and C-11 with 60 x 30cm/90x20 cm spacing.
  - For delayed *khari*, intercropping systems include pearl millet + pigeonpea (2:1 or 4:2), sunflower + pigeonpea (2:1).
  - Alternative crops include pearl millet (PKV Raj, Shradha, Saburi, Pratibha), sesame (AKT64), sunflower (PDKVSH-952, KBSH-44, KBSH-1, DRSH-1, PKV SF-9, PKVSH-27) and castor (AKC-1, GCH-4, GCH-5, Dipti (DCH-32), Deepak (DCH-177)).

## Gujarat

Excess and largely excess rainfall is forecasted in the coming week in Saurashtra & Kutch region and Gujarat region, respectively. But during 4-10 August, largely deficit rainfall is forecasted for both the regions.

- Drain out excess water from the fields to avoid water stagnation and crop damage
- In Bhal and Coastal Zone of Gujarat, carry out hand weeding in sesame, pearl millet, cotton

to conserve soil moisture at vasma condition. After current spells of heavy rain, undertake sowing of black gram, green gram, cow pea, castor, cluster bean, transplanting of vegetable crops and planting of saplings of new orchards.

- In Middle Gujarat Zone, drain out excess water from the low land areas to facilitate aeration to the crops. Conserve runoff water in farm pond or use for recharging wells.
- After current spells of heavy rain, continue sowing of pearl millet (variety GHB-744, moderate duration and GHB-558, GHB-538, GHB-719 for early maturity) crop. Take green gram, pigeon pea, guar as an intercrop in pearl millet for getting more income.

### **Madhya Pradesh**

Deficit and largely deficit rainfall is forecasted for coming week over West and East MP, respectively. During 4-10 August, largely deficit rainfall is forecasted for both the regions.

- Soybean, green gram and black gram crops: herbicidal treatment with surfactant and sticker is recommended to control weeds. Place yellow sticky cards to monitor white flies.

### **Chattisgarh**

Largely deficit rainfall is forecasted for the state during the next fortnight (28 July to 10 August). Some parts of Balodabazar, Durg, Raipur and Koriya districts are facing dry spell condition.

- For maintaining soil moisture in the fields, farmers should use vegetative mulching. At the same time if possible the unwanted plants (weeds etc.) should be uprooted and removed from the fields. In case the drought condition prolongs, locally available material like leaves, grass and polythene etc. should be used for covering the space in between the crop rows.

It is reported that districts viz., Balod, Sukma, Kabirdham, Kondagaon, Surguja and Bastar have received excess amount of rainfall.

- Ensure proper drainage in paddy and then apply 1/3<sup>rd</sup> of recommended dose of potash fertilizer.

### **Haryana**

Normal rainfall is forecasted during 28 July to 3 August and largely deficit rainfall is forecasted during 4-10 August 2017.

- Due to possibility of light to moderate rain during coming week, farmers are advised to go for transplanting of rice. Farmers are advised to apply the 1g Carbendazim per square meter by mixing with sand in the paddy nursery before 7 days of transplanting for protection against *Bakanae* disease.
- Farmers are advised to keep the seeds of guar, bajra and maize ready and go for sowing after

the receipt of rainfall.

- Due to possibility of rain during this week, exercise caution while providing irrigation in vegetable crops and fruits plants. Farmers are advised to start the transplanting of fruit crops after rain with the consultation of officers of Horticultural Dept., Government of Haryana (GoH).

### **Assam**

Normal and largely excess rainfall is forecasted during 28 July – 3 August and 4 – 10 August, respectively over Assam and Meghalaya.

- Due to flood most of the seedlings in the nursery bed get affected in the flood affected areas. Contingent strategies for flood affected areas of Assam are:

#### **Sali Rice:**

- i. If there is total damage of seedlings or crops in the main field, farmers are advised to go for sowing seeds for replanting with medium to short duration varieties like – Monohar Sali, Salpona, Prasad bhog, Gobin bhog etc in nursery bed within 1<sup>st</sup> week of August.
- ii. Initiative should be taken for raising community nursery for late planting with old seedlings of the varieties like Profulla and Gitesh (If more than 50% damaged).
- iii. The farmers are suggested to use 21-25 days old seedlings and adopt closer spacing of 15 cm X 15 cm for transplanting with the late sown seedlings as mentioned above.
- iv. When planted with relatively aged seedlings, farmers are advised to use more number of seedlings (4-5 seedlings per hill) with closer spacing of 20 cm x 15 cm and ensure application of at least recommended dose of fertilizer.

The farmers are advised to use seedling root-dip treatment (the uprooted seedlings are washed and then the root portion is dipped in 0.2 % solution of Chloropyriphos *i.e.* 1 ml/l of water along with 1 % urea for 3 hours) as a protective measure against stem borer, gall midge and hoppers in the field. As an alternative to this, the farmers may use Carbofuran at the rate of 3 g/sq m in seedbed 5-7 days before uprooting seedlings or spray Chloropyriphos @ 0.05 % in nursery.

- v. Considering the possibility of weed infestation due to inadequate puddling and non availability of ponding water in the field, the farmers are advised to use suitable herbicide (Butachlor @ 1.5 kg a.i./ha or Pretilachlor @ 0.75 kg a.i./ha or Anilophos @ 0.4 kg a.i./ha at 3 days after planting).
- vi. Wet seeding of sprouted seeds (@75-80 kg/ha) of short to medium duration varieties like Disang, Luit, (100 days) Kapili, Kalong (120 days)
- vii. Late and staggered planting with the old seedlings (50-60 days old seedlings) of the varieties like Profulla and Gitesh (If the field is heavily damaged).
- viii. Direct seeding with the photo insensitive short duration variety like Luit
- ix. Adoption of submergence tolerance varieties like Jalashree and Jalkuwari for repeat flood prone areas
- x. In partially affected fields, drain excess water and apply 1/3<sup>rd</sup> N<sub>2</sub> + 50% K<sub>2</sub>O as top dressing during the tillering stage

### **Meghalaya**

- Complete transplanting of *Sali* rice.
- Avoid water stagnation in soybean field.
- Hand weeding in soybean.
- Earthing up in ginger and turmeric.
- Maintain proper drainage facilities in standing crop fields.

Normal rainfall is forecasted during 28 July to 3 August and 4-10 August for Nagaland, Manipur, Mizoram and Tripura.

### **Nagaland**

- Continue transplanting of TRC/WRC rice in Dimapur, Kephire, Kohima, Longleng, Mokokchung, Mon, Paren, Phek, Tuensang, Wokha and Zunheboto districts of Nagaland.
- Maintain proper drainage to manage soil borne root diseases in green gram field.
- Provide drainage facility and undertake earthing-up in maize to avoid lodging and to save the crop.

### **Manipur**

- Undertake gap filling in the flood affected fields; plant 2-3 seedlings (40-45days old) per hill.
- For flooded areas, contingency nurseries with late variety/ cold tolerant variety RC Maniphou 7 may be raised; Raise seedlings of rice using dry bed method with RC Maniphou- 12 for transplanting before 15<sup>th</sup> August. If transplanting was not done so far, complete transplanting before 15<sup>th</sup> August, if seedlings are available.
- Maintain a thin film of water upto 7 days after transplanting.
- Earthing-up and thinning may be done at 30 to 40 days after sowing of soybean and groundnut crop after rain.
- Avoid water logging in the maize crop field.
- Avoid sowing of black gram and rice bean in water logged fields

### **Mizoram**

- Continue transplanting of rice.
- Transplant 2-3 seedlings per hill for avoiding gap filling.
- Keep some seedlings in nursery or corner of the field for gap filling.
- Maintain proper drainage in the orchards, *Jhum* rice, and maize fields.

### **Tripura**

- Continue transplanting of *Aman* rice.
- Avoid flooding or excess moisture in SRI field. There may be attack of yellow stem borer due to substantial decrease in sunshine hours with occasional rain. To manage the attack, spray of either Validamycin 3litre @ 2.5 ml or Hexaconazole 5 EC @ 2.0 ml or Propiconazole 25 EC @ 1 ml /liter of water.
- Drain out excess water from maize field.

Deficit rainfall and excess rainfall is forecasted over Arunachal Pradesh during 28 July to 3



August and during 4-10 August, respectively.

### **Arunachal Pradesh**

- Maintain proper drainage in already sown crop fields.
- Follow proper drainage and earthing up practices in low land/plain areas to avoid water stagnation in fruit orchards.
- Weeding/earthing up in ginger/turmeric field is recommended.
- Sowing of short duration finger millet varieties like VL-324 & VR-708 without delay; If already sown, maintain proper drainage in the field.
- Gap filling is recommended in the early sown pulses/groundnut crop
- Manual weeding in greengram/blackgram
- Raise vegetable nursery inside well covered structure with a raised bed to protect against continuous rain/shower.

### **Rajasthan**

Largely excess rainfall and normal rainfall is forecasted over West and East Rajasthan during 28 July to 3 August. During 4-10 August, largely deficit rainfall is forecasted over both the meteorological sub-divisions.

- Drain out excess rain water where water logging condition prevailed in the field due heavy rainfall.
- In soybean, weed management should be done where the crop is at 15-20 days, by manual weeding or apply herbicides. The recommended herbicide for the control of weed in soybean are Imazethapyr @100g/ha or Quizalfop ethyl @ 50g/ha.
- Top dressing of urea in maize @55 kg/ha, where the crop is at 25-30 days is recommended, as there is sufficient soil moisture

### **Bihar**

Deficit and normal rainfall is forecasted over Bihar during 28 July - 3 August and 4-10 August.

- Transplanting of kharif paddy can be undertaken during 4-10 August, after the receipt of sufficient rain.
- Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0 liters or Pritlachlor@1.5liters or Pendimethaline@3.0liters* in 500-600 liters of water for one hectare.