



National Agromet Advisory Service Bulletin

Friday 29th June 2018

(For the period 29th June to 4th July 2018)



Issued by

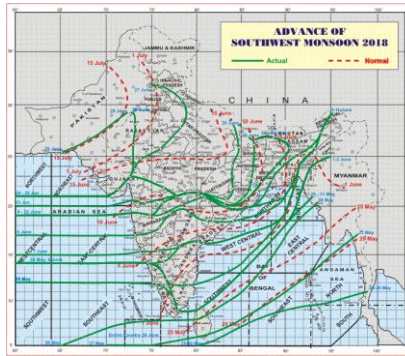
India Meteorological Department

Weblink For

District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>

State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

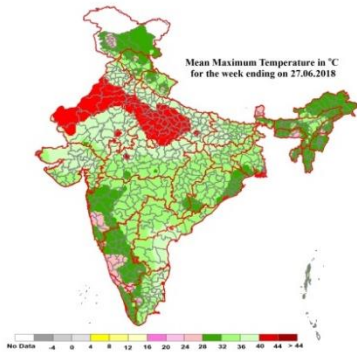
Advance of South West Monsoon



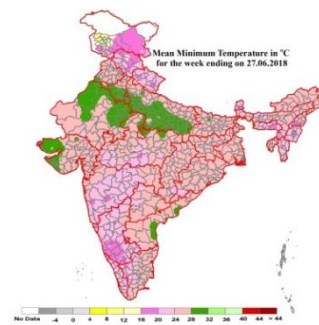
- Southwest monsoon has further advanced into remaining parts of Gujarat state, Rajasthan and north Arabian Sea. Thus the southwest monsoon has covered the entire country today, the 29th June 2018.
- The monsoon trough which is currently seen to the south of its normal position is likely to shift northwards towards the foot hills of the Himalayas from 1st July to 6th July. As a result, the rainfall activity is likely to reduce over central India and increase along the foot hills regions on 1st & 2nd July.

Spatial distribution of weather parameters for the week ending 27.06.2018

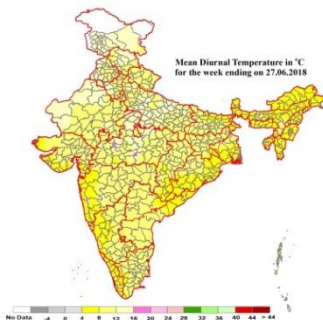
Mean Maximum Temperature (°C) for the week ending 27.06.2018



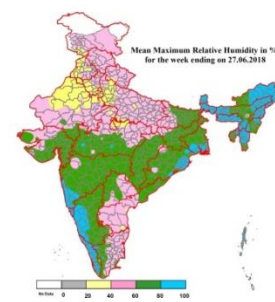
Mean Minimum Temperature (°C) for the week ending 27.06.2018



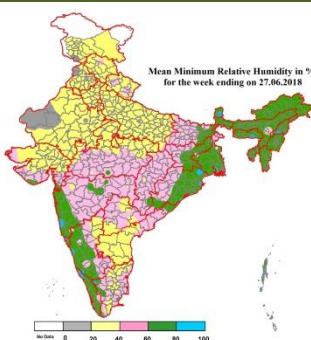
Mean Diurnal Temperature Variation (°C) for the week ending 27.06.2018



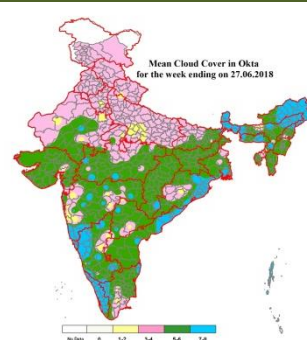
Mean Maximum Relative Humidity (%) for the week ending 27.06.2018



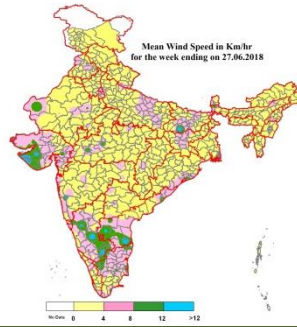
Mean Minimum Relative Humidity (%) for the week ending 27.06.2018



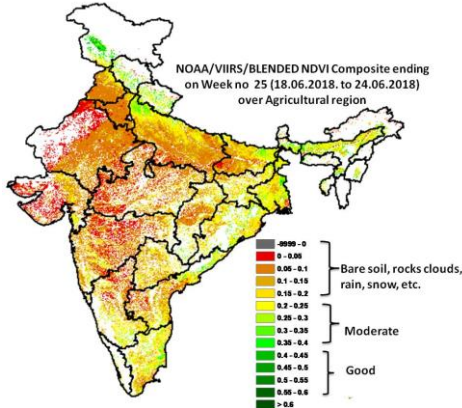
Mean Cloud Cover (okta) for the week ending 27.06.2018



Mean Wind Speed (km/hr) for the week ending 27.06.2018

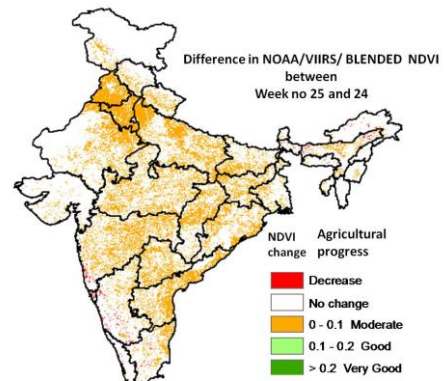


NOAA/VIIRS NDVI composite for the week ending on 24th June 2018 over Agricultural regions of India



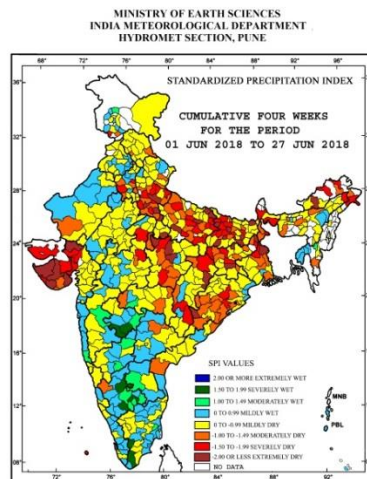
- Agriculture vigour is moderate over few parts of Jammu & Kashmir, West Bengal and adjoining Assam, Bihar, Tamilnadu, Uttarakhand & adjoining Uttar Pradesh, Himachal Pradesh, Odisha, North Coastal Andhra Pradesh and South Interior Karnataka.

Difference in NOAA/VIIRS NDVI between 17th June and 24th June 2018



- Decrease in progress of agricultural vigour was observed over few patches in Konkan, coastal Karnataka and its adjoining parts, Tamilnadu and Assam. Rest of the country shows moderate progress of agriculture.

Standardised Precipitation Index Cumulative 4 weeks for the period 1st June to 27th June 2018

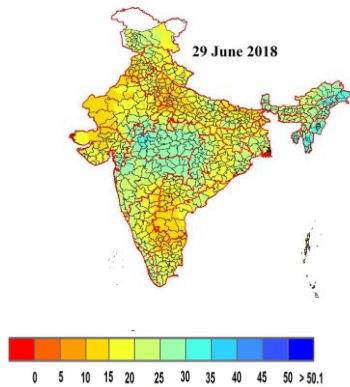


- Extremely/severely wet conditions experienced in Osmanabad, Latur districts of Maharashtra; Theni, Tirunelveli districts of Tamil Nadu & Puducherry; Bangalore Rural, Chitradurga, Mandya districts of Karnataka.
- Extremely/Severely dry conditions experienced in most districts of Saurashtra, Kutch & Diu; many districts of Arunachal Pradesh; few districts of West Bengal; Jharkhand; Bihar; Uttar Pradesh; Gujarat Region; Tinsukia district of Assam; Angul, Nawarangpur, Nayagarh districts of Odisha; Bhiwani, Panipat districts of Haryana; Jammu district of Jammu & Kashmir; Shivpuri, Vidisha, Chhatarpur, Katni, Panna, Seoni,

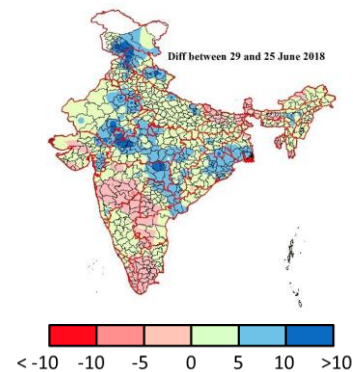
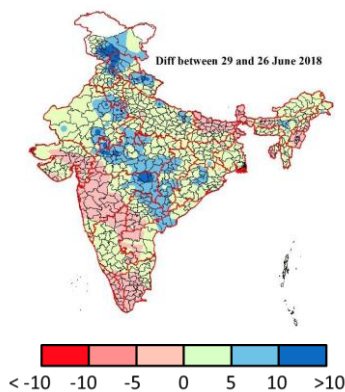
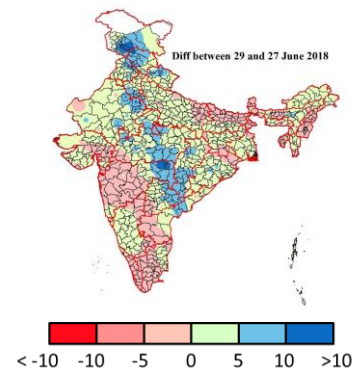
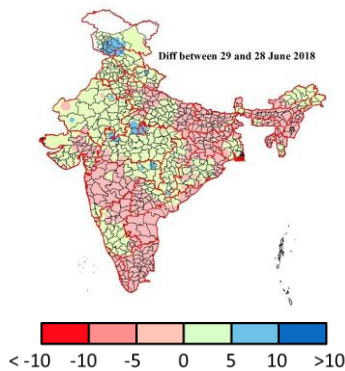
Tikamgarh districts of Madhya Pradesh; Bastar, Kanker, Raigarh, Surguja districts of Chhattisgarh; Lakshadweep district of Lakshadweep.

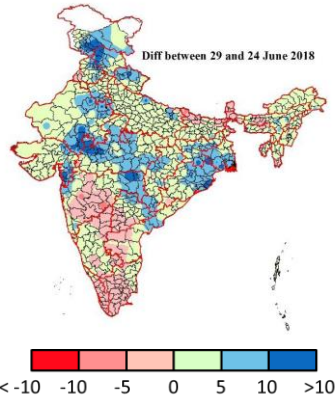
- Moderately dry conditions experienced in many districts of Delhi; few districts of Arunachal Pradesh; West Bengal; Odisha; Jharkhand; Saurashtra, Kutch & Diu; Kamrup, Shonitpur, Bongaigaon, districts of Assam; West Garo Hills district of Meghalaya; Lunglei district of Mizoram; Jahanabad, Nalanda, Saharsa, Samastipur, Sitamarhi districts of Bihar; Allahabad, Azamgarh, Barabanki, Gonda, Hardoi, Kheri, Pratapgarh, Unnao, Agra, Aligarh, Etah, Etawah, Ghaziabad, Jyotiba Phule Nagar, Lalitpur, Shahjahanpur districts of Uttar Pradesh; Gurgaon, Hisar, Mahendragarh, Sonapat, Panchkula districts of Haryana; Almora, Udham Singh Nagar districts of Uttarakhand; Bilaspur, Kinnaur districts of Himachal Pradesh; Udhampur district of Jammu & Kashmir; Barmer district of Rajasthan; Bhopal, Balaghat, Damoh, Jabalpur, Mandla districts of Madhya Pradesh; Buldhana, Chandrapur, Gondia districts of Maharashtra; Koriya, Rajnandgaon districts of Chhattisgarh; Prakasam, Srikakulam districts of Andhra Pradesh; Karimnagar district of Telangana; Shimoga district of Karnataka.
- Rest of the country experienced moderately wet/mildly dry/mildly wet conditions.

Daily Soil Moisture (mm) for 29th June 2018 (ending at 0830 IST) for 60 cm depth

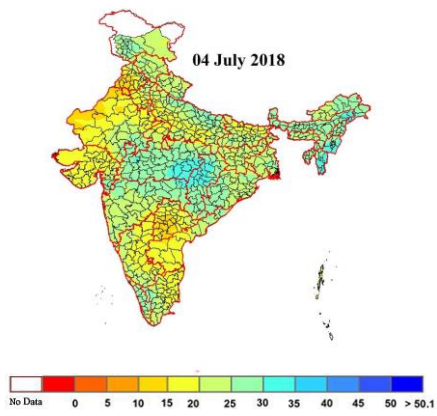
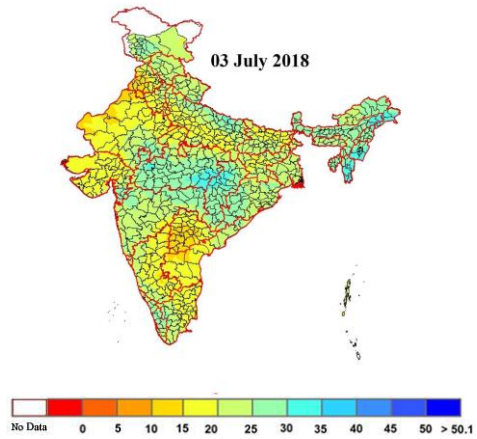
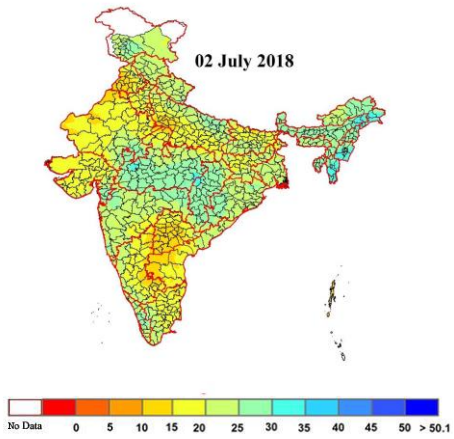
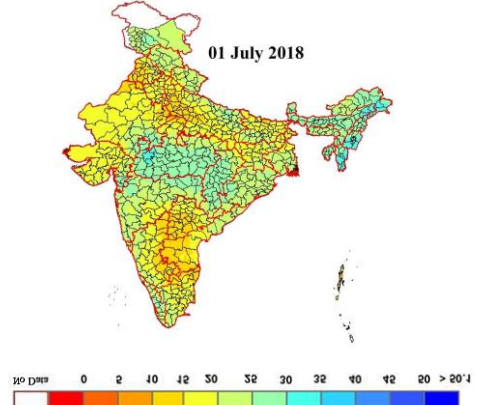
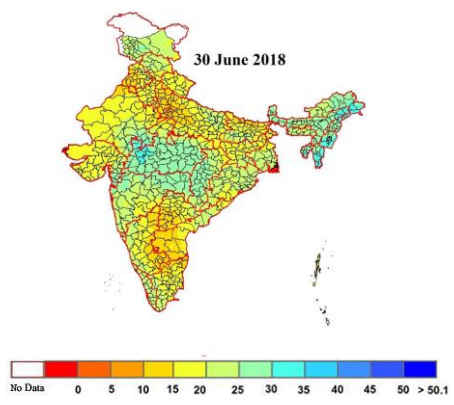


Difference of Soil Moisture (mm) for 60 cm depth





Forecasted Soil Moisture (mm) from 30th June to 4th July 2018 (ending at 0830 IST) for 60 cm depth



Weather Forecast for next 5 days valid upto 0830 hours of 4th July 2018

- Meteorological subdivision wise detailed 5 days rainfall forecast is given in Table below.
- No significant change in maximum temperatures over most parts of the country during next 3 days.

5 Day Rainfall Forecast (Mid day) 29th June 2018

Met-Sub-Division	29-Jun Today	30Jun Sat	01Jul Sun	02Jul Mon	03Jul Tue
1. Andaman & Nicobar Islands	FWS	FWS	FWS	FWS	FWS
2. Arunachal Pradesh	WS	WS	WS	WS	WS
3. Assam & Meghalaya	WS	WS	WS	WS	WS
4. N. M. M. & T.	FWS	WS	WS	WS	WS
5. S.H. West Bengal & Sikkim	WS	WS	WS	WS	WS
6. Gangetic West Bengal	FWS	SCT	SCT	FWS	FWS
7. Odisha	FWS	SCT	SCT	FWS	FWS
8. Jharkhand	FWS	SCT	SCT	FWS	FWS
9. Bihar	SCT	SCT	FWS	WS	WS
10. East Uttar Pradesh	SCT	FWS	WS	WS	FWS
11. West Uttar Pradesh	SCT	FWS	WS	WS	WS
12. Uttarakhand	WS	WS	WS	WS	WS
13. Haryana, Chd & Delhi	FWS	FWS	FWS	SCT	SCT
14. Punjab	FWS	FWS	SCT	FWS	FWS
15. Himachal Pradesh	WS	FWS	FWS	FWS	FWS
16. Jammu & Kashmir	WS	FWS	SCT	SCT	FWS
17. West Rajasthan	WS	SCT	ISOL	ISOL	ISOL
18. East Rajasthan	WS	SCT	ISOL	ISOL	ISOL
19. West Madhya Pradesh	FWS	SCT	ISOL	ISOL	SCT
20. East Madhya Pradesh	SCT	SCT	SCT	SCT	SCT
21. Gujarat Region	SCT	ISOL	ISOL	ISOL	ISOL
22. Saurashtra & Kutch	SCT	ISOL	ISOL	ISOL	ISOL
23. Konkan & Goa	WS	WS	WS	WS	WS
24. Madhya Maharashtra	SCT	SCT	SCT	SCT	SCT
25. Marathawada	SCT	SCT	ISOL	SCT	SCT
26. Vidharbha	SCT	ISOL	ISOL	SCT	SCT
27. Chhattisgarh	SCT	SCT	SCT	SCT	SCT
28. Coastal Andhra Pradesh	SCT	SCT	SCT	SCT	SCT
29. Telangana	SCT	ISOL	ISOL	SCT	SCT
30. Rayalaseema	ISOL	ISOL	ISOL	ISOL	ISOL
31. Tamilnadu & Puducherry	ISOL	ISOL	ISOL	ISOL	ISOL
32. Coastal Karnataka	WS	WS	WS	WS	WS
33. North Interior Karnataka	SCT	SCT	ISOL	SCT	SCT
34. South Interior Karnataka	SCT	SCT	SCT	SCT	SCT
35. Kerala	WS	WS	WS	WS	WS
36. Lakshadweep	WS	WS	WS	WS	WS

% Station Reporting Rainfall

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		

Weather Warning during next 5 days

- **29 June (Day 1):** Heavy rain at a few places with very heavy rain at isolated places very likely over Coastal Karnataka; heavy to very heavy rain at isolated places over East Rajasthan and Konkan & Goa, heavy rain at isolated places over Arunachal Pradesh, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim, Odisha, Uttarakhand, Himachal Pradesh, Jammu & Kashmir, West Madhya Pradesh, West Rajasthan, north Gujarat region and Kerala.
- **30 June (Day 2):** Heavy to very heavy rain at isolated places very likely over Assam & Meghalaya, Uttarakhand and Coastal Karnataka; heavy rain at isolated places over Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Uttar Pradesh, Punjab and Kerala.
- **01 July (Day 3):** Heavy to very heavy with extremely heavy rain at isolated places very likely over Assam & Meghalaya; heavy rain at a few places with very heavy rain at isolated places very likely over Uttarakhand and

East Uttar Pradesh; heavy to very heavy rain at isolated places over Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim and West Uttar Pradesh heavy rain at isolated places over Nagaland, Manipur, Mizoram & Tripura, Bihar, Haryana, Chandigarh & Delhi, Himachal Pradesh and Coastal Karnataka.

- **02 July (Day 4):** Heavy to very heavy with extremely heavy rain at isolated places likely over Assam & Meghalaya; heavy to very heavy rain at isolated places over Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Uttar Pradesh, Uttarakhand; heavy rain at isolated places over Nagaland, Manipur, Mizoram & Tripura, Bihar, Punjab, Himachal Pradesh, Konkan & Goa and Coastal Karnataka.
- **03 July (Day 5):** Heavy to very heavy rain at isolated places likely over Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim and Konkan & Goa; heavy rain at isolated places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Odisha, Bihar, Punjab, Jammu & Kashmir and Coastal Karnataka.

Weather Outlook for subsequent 2 days from 4th to 6th July 2018

- Widespread rainfall with isolated heavy falls likely over Northeast India and along northern parts of West coast.
- Isolated to scattered rainfall activity likely over Northwest, West, Central and South India and Scattered to fairly widespread rainfall over East India.

Salient Advisories

- Southwest monsoon has further advanced into remaining parts of Gujarat state, Rajasthan and north Arabian Sea. Thus the southwest monsoon has covered the entire country today, the 29th June 2018.
- Utilising the realized and expected rainfall, continue nursery preparation for rice in **South Gujarat** and undertake sowing of cotton and groundnut in **middle Gujarat**. Undertake sowing of red gram, green gram, groundnut, pearl millet, sorghum, maize & cluster bean in **East Rajasthan**. In **West Rajasthan**, undertake land preparation and sowing of pearl millet, cluster bean, mung bean, moth crops. Undertake sowing of maize, soybean and groundnut in **Madhya Pradesh** and continue nursery sowing of rice in **Chhattisgarh**. Undertake sowing of direct seeded upland rice, maize, groundnut, pigeon pea, urad and moong in **Jharkhand**. Continue sowing of non-paddy crops like pulses, oilseeds and *kharif* vegetables in upland and nursery sowing of rice in **Odisha**.
- Continue sowing of soybean, groundnut, black gram and rice bean in **Manipur**. Continue transplanting of *kharif* rice in **Konkan**. In **Coastal Karnataka**, undertake transplanting of rice. Continue sowing of cow pea, groundnut, green gram and black gram in **South Interior Karnataka**. In **North Interior Karnataka**, continue sowing of soybean, green gram, black gram (DU-1, DBGV-5), red gram (TS-3R), groundnut (G 2-52, GPBD-4, GPBD -5 (rainfed), HD-86, TAG-24 (irrigated) and maize (Arjun, GH-0727). In **Andhra Pradesh**, undertake sowing of maize, pulses and groundnut. In **Telangana**, undertake sowing of rainfed crops like soybean, jowar, maize, redgram, green gram, cotton etc. in areas which received cumulative rainfall of 50-60 mm in light soils and 60-75 mm in heavy soils or the soil should be wet up to 15-20 cm depth. In **Tamil Nadu** continue nursery raising of *kuruvai* rice.
- In view of the heavy to very heavy with extremely heavy rain at isolated places likely over Assam & Meghalaya on 1st and 2nd July, avoid nursery sowing for *Sali* rice in **Assam** and nursery sowing for low land *Sali/kharif* rice in **Meghalaya**. For flood affected areas, grow flood tolerant *Sali* rice variety viz. Swarna Sub-1, Ranjit Sub-1 and Bahadur Sub-1; OR sow Gitesh and Manohar *Sali* as even 60 days old seedlings of these varieties can be transplanted or sow short duration rice variety like Luit and Dishang in the nursery beds. Provide adequate drainage in jute, ginger and turmeric fields in Assam.

SOUTH INDIA [TAMIL NADU, TELANGANA, ANDHRA PRADESH, KARNATAKA, KERALA]

- **Realised Rainfall:** Rainfall occurred in all districts of Kerala, all districts of Coastal Karnataka, Belgavi district of North Interior Karnataka, Chikamangaluru, Kodagu and Shivamogga districts of South Interior Karnataka, Vishakhapattanam district of Coastal Andhra Pradesh and in all districts of Telangana except J. Bhupalpally, Jangaon, Jogulamba, Gadwal, Nagarkurnool, Ranjanna Sircilla, Vikarabad, Wanapathy and Y. Bhuvangiri during the week. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers would occur at most places over Kerala and Coastal Karnataka during the period, along with heavy rain at a few places with very heavy rain at isolated places very likely over Coastal Karnataka on 29th, heavy to very heavy rain very likely at isolated places over Coastal Karnataka on 30th, heavy rain at isolated places over Kerala on 29th and 30th, over Coastal Karnataka from 1st to 3rd July, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.
 - **Kerala:**
 - Complete transplanting of *Viruppu* rice and planting of vegetables like bhindi, chilli, brinjal, etc. Fix rain guard for rubber trees during the month. Continue planting of saplings of coconut varieties like Lakshaganga, Keraganga, Anandaganga, Kerasree, Kerasoubhagya (hybrids) and Kuttiyadi and Komadan (high yielding local varieties). Undertake planting of brinjal, chilli, bhindi and bitter gourd during the month.
 - To control downy mildew in cucurbits, spray combination fungicide Cymoxanil + Mancozeb @ 2g/litre of water after current spell of rain. For leaf folder and stem borer in rice at tillering stage, use Trichocards @ 5cc/ha at weekly interval. If the infestation is severe apply Fame (Flubendiamide) @ 1ml/10 litres of water after current spells of rain.
 - In order to control sheath blight in one month old *Viruppu* rice, spray *Pseudomonas* culture 10 g/ 1 litre of water after current spell of rain. Coconut palms are seen affected by red palm weevil. Apply Imidacloprid (Neonicotinoid) 1 ml/10 litres of water at spindle leaf area. Sigatoka leaf spot disease in banana may become severe due to increase in relative humidity. Spray 1% Bordeaux mixture or Tilt 25 EC (1ml/litre of water) after cutting the severely affected leaves and burning them after current spell of rain. To control aphids in vegetable crops, spray tobacco leaf emulsion. If severe attack is seen, spray Rogor 1.5 ml/1litre of water after current spell of rain.
 - **Andhra Pradesh:**
 - Undertake sowing of pulses, ragi, groundnut. Seed treatment should be followed with Mancozeb @ 3 g/ kg seed. Choose high yielding varieties like K 6, K 9, Dharani, Kadiri, Chitravani and Amaravathi for groundnut and LRG 41, PRG 176 and LRG 52 varieties for red gram. Choose high yielding varieties of castor like Kranthi, Haritha, Jwala, PCH 111 and DCH 157. Rainfed sugarcane can be planted by utilizing the realized rainfall. Treat the setts with 10 % lime solution. Take up timely sowings of early maturing cotton varieties so that the cotton bolls mature before the heavy population of pink bollworm builds up.
 - In the Scarce Rainfall Zone, undertake land preparation for sowing of groundnut.
 - **Telangana:**
 - Undertake sowing of rainfed crops like soybean, jowar, maize, redgram, green gram, cotton etc. in areas which received cumulative rainfall of 50-60 mm in light soils and 60-75 mm in heavy soils or the soil should be wet up to 15-20 cm depth. Take-up sowing of Sunhemp and Dhaincha as in-situ green manure crop preceding rice. Take-up nursery sowing of Tomato, Brinjal and Chilli. Take-up direct sowing of Gourds, Beans and Bhendi wherever irrigation facility is available.
 - **Tamil Nadu:**
 - Provide support to banana and sugarcane crops. Undertake sowing of tomato after seed treatment with *Trichoderma Viride* @ 4g/kg or *Pseudomonas Flurosence* @ 10g/kg seeds.
 - For SRI cultivation in this kuruvai season, prepare 1 cent raised bed nursery for 1 ac planting. Broadcast uniformly 2 kg of pre-germinated seeds in the nursery bed and sprinkle water on the bed during morning and evening hours using rose can. Maintain standing water in the channel around the beds from 6th day of sowing. Sprinkle 0.5 % urea solution on 9th day after sowing. The seedlings will be ready at 14 days after sowing and stop irrigation two days before pulling out the seedlings.
 - To control thrips in the Kuruvai paddy nursery, spray Chloripyriphos @ 2.5 ml/litre of water. To control the incidence of sucking pest in the vegetable crops, spray neem seed kernal extract 5%. To control boll worm in cotton, spray Chlorantraniliprole 18.5% SC 150 ml/ha or Chlorpyriphos 20% EC 1250 ml/ha. Prevailing weather condition is favourable for leaf folder incidence in paddy. To control, spray Phosalon 35 EC 1500 ml / ha or Phosphamidon 40 SL 1250ml/ ha.

- **Karnataka:**

- In Coastal Karnataka, undertake transplanting of rice. Continue sowing of maize, turmeric and ginger, cotton dibbling and transplanting of areca nut seedlings. Drain out excess water from already sown crop fields.
- In South Interior Karnataka, in areas where the soil moisture condition is favorable for sowing, under double cropping, continue sowing of cowpea, green gram, black gram, horse gram, field bean, ragi, sesamum, groundnut, onion, maize and under mono cropping, sowing of long duration crops like red gram, castor, cotton, jowar crops and horticulture crops. Intercropping of groundnut + red gram in 8:2 proportion and groundnut + castor in 8:2 proportion is suggested for good income. Continue nursery preparation of rice. Undertake thinning in already sown crops for better availability of scarce soil moisture to the reduced population of crop plants and wherever possible, undertake mulching for conservation of moisture.
- In North Interior Karnataka, in areas where the soil moisture condition is favourable for sowing, continue sowing of soybean, green gram, black gram, red gram (TS-3R), sunflower, bajra, sesamum, navane, groundnut, cotton and maize crops. To make efficient use of available soil and water resources and to get higher returns, in light and medium black soils, intercropping of bajra + groundnut (bunch) in 2:4 row proportion; bajra + red gram in 2:1 row proportion; groundnut (bunch) + red gram in 3:1 or 4:2 row proportion, red gram + sesamum in 1:2 or 2:4 row proportion is advised. In drill sown paddy, if the rainfall is scarce, irrigate the crop at critical stages when hair cracks are observed through channel water or any other sources. Spare some land exclusively for fodder crops or give preference for grain cum fodder crops. Repair of bunds/water retention structures is recommended.

- **Animal Husbandry**

- In Kerala, avoid grazing of the animals in waterlogged areas to prevent leptospirosis. Contact nearest veterinary hospital for HS and FMD vaccination.
In Tamil Nadu, sprinkle water to high yielding dairy cows 2 or 3 times a day to reduce heat stress. Add 10-20 ml of B-complex or liver tonic to the drinking water per 100 birds to reduce heat stress. Protect cattle against Hemorrhagic Septicaemia disease in the rainy season.
- In Karnataka, vaccinate the cow against the Foot and Mouth Disease (FMD) & Black Quarter.

- **Integrated Farming System (IFS)**

- Undertaken fish culture in the rainwater storage structures like farm pond, check dam and nala bund by releasing the fingerlings.

NORTHEAST INDIA [ARUNACHAL PRADESH, NMM&T, ASSAM, MEGHALAYA]

- **Realised Rainfall:** Rainfall occurred in all districts of Arunachal Pradesh except Dibang Valley, East Kameng, Tawang and Upper Siang, in all districts of Assam except Darrang, Dhemaji, Goalpara, Kamrup (Rural), Kamrup (Metro), Karbi Anglong, Nagaon and Nalbari, in all districts of Meghalaya, Aizawl and Serchip districts of Mizoram, Imphal East, Imphal West and Senapati districts of Manipur, Dimapur, Kohima, Mon and Phek districts of Nagaland and in Dhalai, South Tripura and West Tripura districts of Tripura during the week. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at most places over, Assam & Meghalaya and Arunachal Pradesh during the period, at most/many places over Nagaland, Manipur, Mizoram & Tripura during the period, along with heavy to very heavy with extremely heavy rain at isolated places likely over Assam & Meghalaya on 1st and 2nd July, heavy to very heavy/heavy rain at isolated places very likely over Assam & Meghalaya on 29th, 30th June and 3rd July, over Arunachal Pradesh during the period, heavy rain at isolated places over Nagaland, Manipur, Mizoram & Tripura from 1st to 3rd July, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.
 - **Arunachal Pradesh:**
 - Undertake transplanting of kharif rice and maintain adequate water level in the field. Cut the tips of leaves before transplanting to reduce stem borer population.
 - Spray Imidacloprid 17.8 SL (0.003%) to chilli, tomato and brinjal crops inside net/green house or grown in shade for leaf curl at vegetative/flowering stage after current spells of rain.
 - **Assam:**
 - Provide proper drainage in the Olitorius jute field. In view of the heavy to very heavy rainfall rainfall, postpone field preparation for sowing sesamum and drain out excess water from the field. Continue planting of papaya. After current spells of heavy rain, undertake sowing of pigeon pea (variety: T-21) and sowing of maize with seeds (2.5-3.0 Kg/bigha) of normal hybrids like Ganga 11, Deccan 107, Deccan 109, Vivek 9; Quality Protein Hybrid like HQPM-1; normal Composite variety like NLD, Parbhat, Novjot, Pusa Comp 1 & 2 and Quality Protein composite like Shakti-1. Continue field preparation for early cauliflower. Continue main field preparation/puddling for transplanting of Sali rice seedlings at 3-4 leaves stage. Postpone harvesting of

Ahu rice in view of the rainfall for coming 5 days.

- In areas affected by floods, grow flood tolerant Sali rice variety *viz.* Swarna Sub-1, Ranjit Sub-1 and Bahadur Sub-1; OR sow Gitesh and Manohar Sali as even 60 days old seedlings of these varieties can be transplanted or sow short duration rice variety like Luit and Dishang in the nursery beds.
- Spray Carbendazim @1gm per litre of water to control blast disease in Sali paddy seedlings. Increasing temperature and humidity favours the rice bug & stem borer in normal Ahu paddy. To control, spray Malathion 5% dust @ 20kg/ha. Powdery mildew attack may be seen in bitter melon, ash gourd and bottle gourd crops. Spray Bavistin @ 0.1% to control the disease. Undertake plant protection measures after current spells of rain.
- **Meghalaya:**
 - Prepare raised nursery bed of size 10m (length) × 1.25m (width) × 10cm (height) with 20-30cm wide channel between the two seed beds for lowland Sali/kharif rice HYVs like Shansarang -1, Lampnah, IR 64, Ranjit, RCPL 1-412, RCPL 1-410, RCPL 1-411 & local varieties like Mendri, Manipuri, etc after current spells of heavy rain. Continue field preparation for upland kharif rice and undertake sowing of maize after current spells of heavy rain. Provide support of bamboo structure for climbers of bottle/ash gourd. Continue sowing of okra seeds on raised bed at spacing 45x30cm. Use bamboo sticks for staking in French bean, cow pea and cucurbit crops.
 - Spray Rogor @ 1ml/litre of water to control pest in cucurbits after current spells of rain.
- **Manipur:**
 - Carry out weeding in soybean, groundnut, black gram and rice bean. Continue nursery raising of kharif rice varieties RC Maniphou-7, RC Maniphou- 10 and RC Maniphou- 13. Undertake land preparation for transplanting kharif rice seedlings to the main field. Prepare nursery bed for early cauliflower.
 - For grown up turmeric plants, spray Dithan M45 @ 2 to 2.5 ml/litre of water as prophylactic measures. For sheath blight/sheath rot in pre-kharif rice, apply Propiconazole @ 15ml/15 litres water. For bacterial sheath blight in pre-kharif rice, spray Streptocycline @ 1gm/15 litres of water. Undertake plant protection measures after current spells of rain.
- **Mizoram:**
 - Undertake raising seedlings of Khasi Mandarin, acid lime, star fruit, plum and peach. Transplant seedlings in secondary bed or polythene bags at 4-6 leaves stage. Carry out land preparation for sowing kharif pulses like green gram, black gram and rajma. Carry out earthing up in Jhum rice, chilli, cowpea, okra and maize fields on a non rainy day and provide proper drainage. Undertake planting of ginger and turmeric crops after treating rhizomes with Thiram @ 4 g per kg seeds. Apply irrigation to coffee plants every alternate day as it will help improve fruit retention, fruit development and the fruit quality.
 - In chilli and cucurbitous crops, apply Carbaryl 0.2 per cent or Malathion 0.15 per cent suspension containing sugar or jaggery at 10 g/litre of water at fortnightly intervals at flowering and fruit initiation against fruit fly/pumpkin beetle after current spells of rain.
- **Tripura:**
 - Complete the sowing of maize by the second week of July. Go for early Aman paddy in the areas where Aus paddy is completely or more than 50 percent damaged. Long duration high yielding variety of Aman paddy may minimize the losses. In lowland areas, submersible variety like Swarna Sub 1 or Ranjeet Sub 1 may be selected. Adequate drainage system must be maintained in nursery bed to avoid water logging. It will be better if farmers can go for community nursery. Flood has damaged entire cowpea crop in many places. In the fields which have not been affected by flood, carry out weeding and maintain good drainage.
 - To manage fungal diseases like brown spot and rice blast in Aman paddy, apply Carbendazim+ Mancozeb @ 2.5gm per liter of water in the seedbed after current spells of rain.
- **Nagaland:**
 - Undertake nursery preparation for sowing of TRC/WRC paddy. Undertake timely harvesting in maize and green gram crops. Maintain proper drainage in ginger/turmeric field.
 - Monitor cucurbit plants against red pumpkin beetle especially in bottle gourd, pumpkin, cucumber, water melon etc. Mechanically collect and destroy the pest if incidence is low. Remove infested okra and brinjal fruits and shoots regularly and destroy them.
- **Animal Husbandry**
 - Keep the poultry houses clean and provide balanced feed and clean drinking water to birds. Vaccinate poultry birds against Coccidiosis, Ranikhet and Gamboro diseases.
 - Carry out periodic cleaning of cowsheds along with the feeding pans during the rainy season to prevent fungal and bacterial infections. Vaccinate pigs against FMD & swine fever and cattle/sheep/goat against FMD, Hemorrhagic Septicaemia, Black Quarter, etc.
 - Vaccinate all newly born piglets against swine fever at the age of 3 months followed by annual booster dose. Vaccinate 6-9 months old calves with Brucella Abortus cotton strain-19 @ 5ml subcutaneous on the neck. De-worm pigs and cattle with anti helminthic drugs such as Fento Plus @ 1 tablet per 30 kg body weight.

- **Fishery**

- If there is sufficient water in pond due to rainfall in previous weeks, go for releasing fingerling @ Rahu 108 nos., Silver carp 136 nos., Catla 108 nos., Grass carp 70 nos, Mrigal 136 nos., and Common carp 136 nos. per bigha.
- Fish farmers have suffered huge losses due to floods in Tripura. Almost entire stock of fishes has flown out with flood water. Before new stocking, drain out flood water from the pond. Apply lime @48 kg per kani of pond. After 15 days-20 days of lime application, apply 300-350 kg FYM per kani of pond. Maintain a good height of embankment around the pond.

EAST INDIA [JHARKHAND, BIHAR, ODISHA, WEST BENGAL & SIKKIM, ANDAMAN & NICOBAR ISLANDS]

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman and Nicobar Islands, Araria, Banka, Darbhanga, East Champaran, Gaya, Kishanganj, Madhepura, Madhubani, Nawada, Sheohr, Sitamarhi, Supaul and West Champaran districts of Bihar, all districts of Jharkhand except Chatra, Garhwa, Khunti, Koderma and Sahebganj, in all districts of Odisha except Bolangir, Boudh, Gajapati, Ganjam, Jharsuguda, Kandhamal, Koraput, Nawarangpur, Nayagarh, Sambalpur and Sonepur, in all district of Gangetic West Bengal except Hooghly and Murshidabad and in all districts of Sub-Himalayan West Bengal except Malda, North Dinajpur and South Dinajpur during the week. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at most places over Sub-Himalayan West Bengal & Sikkim and at many places over Andaman & Nicobar islands during the period, at many places over Gangetic West Bengal, Odisha and Jharkhand on 29th June, 2nd and 3rd and at most/many places over Bihar from 1st to 3rd July along with heavy/heavy to very heavy rain very likely at isolated places over Sub-Himalayan West Bengal & Sikkim during the period, heavy rain very likely at isolated places over Odisha on 29th June and 3rd July, over Bihar from 1st to 3rd and over Gangetic West Bengal on 3rd July, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields in Sub-Himalayan West Bengal & Sikkim and Bihar to avoid water stagnation.
 - **Odisha:**
 - Continue sowing of non-paddy crops like pulses (Arhar- UPAS 120, Mahak, Asha, Mung- TARM-1, TARM-2, Biri- PU-31, PU-19), groundnut (vari.Smruiti, Devi, JL 24, Kadri, AK 12-24) and *kharif* vegetables in upland areas. Undertake sowing of ragi and maize.
 - Undertake nursery sowing of rice for medium land. Nursery sowing should be done with varieties not more than 145 days duration. For preparation of wet nursery bed, puddle the land thoroughly; apply 8-10qFYM, 12kg SSP and 2kg MOP in 10 cent nursery area during final land preparation. Beds of 1.25-1.5m width, 10 cm height and convenient length should be prepared. A drain of 30 cm width should be kept between 2 beds. Before sowing, the seeds should be treated with Carbendazim @ 2g or Carboxin+Thiram @ 1.5g/kg of seed.
 - This is ideal time for planting of fruit trees and medicinal plants, so land may be prepared accordingly.
 - For control of Alternaria Blight in Bitter gourd and Pumpkin, spray Carbendazim + Mancozeb @ 0.15%.
 - **Bihar:**
 - Continue nursery raising of long duration and medium paddy varieties. Long duration varieties like Rajshree, Rajendra Mansuri, MTU 7029, Suwrna Sub-1, Aries 6444 and medium duration varieties like Kanak, Sita, Rajendra Sweta, BPT 5204, MTU- 1001 are recommended for this area. Method for preparation of nursery bed – Well treated and sprouted rice seed is used. For sprouting and treating, the seed is wetted for 12 hours in a jute bag treated with 2g/kg of Carbendazim 50 WP. Spread the treated rice seed over hard surface covered with wetted jute bag. Sprinkle water 2-3 times during daytime. Seed starts sprouting after 24 hours and can be broadcasted in puddled area for raising rice seedlings.
 - The present weather conditions is congenial for sowing of Kharif Maize with suitable high yielding varieties and short duration like-Suwan, Deoki, Shaktiman-1, 2, DHM117, Pusa agath hybrid makka -3 etc . Before sowing of seeds in prepared field, seed treatment by Bavistin @ 2g /kg of seed should be done. Continue preparation of nursery for Kharif onion, chilli and brinjal. Continue sowing of fodder crops like Jowar (PC 6, PC 23, MP chari, SSG 998, 898, 555), Maize (African Tall, Vijay, Moti, Jawahar), Lobia (UPC 4200,5286, 287), Bajra (L 72,74, Giant bajra), Guar (Bundel guar1, 2, 3).
 - Monitoring is advised for infestation of fruit borer in tomato crop. If infestation of fruit borer is found, installation of bird perches in tomato crop is advised. Hand picking of damaged fruit and burying are also advised. Spraying of Spinosad 48EC @1ml/4 litres of water, if pest population reaches ETL after current spells of rain.
 - **Jharkhand:**
 - Complete sowing of direct seeded upland rice. Undertake land preparation and sowing of maize, groundnut, pigeon pea, urdbean and moong.
 - In Central and North Eastern Plateau Zone, continue land preparation and sowing of sesame and soybean

(vari.Birsa Soya bean-1 , Birsa safed soya bean etc) before sowing treat the seed with Thiram, Captain or Carbendazim. Continue land preparation for sowing of pigeon pea and maize in South Eastern Plateau Zone.

- For plantation of different fruit seedlings and prepare/dig the pit and maintain the distance between pit as per requirement of fruit tree.
- **West Bengal:**
- In the Sub-Himalayan West Bengal, provide proper drainage facility in soybean, round chilli, ginger and turmeric fields. Undertake land preparation for new plantation of large cardamom and carry out weeding in large cardamom field after current spells of heavy rain. Start seedbed preparation for kharif paddy @ 5kg/bigha seeds. Treat seeds with Thiram or Carbendazim @ 2,5 to 3 g per kg seeds. Continue harvesting of mature cobs of maize.
- In Gangetic West Bengal, continue land preparation and nursery sowing of Aman paddy varieties like MTU 1010, PD 12,Pratiksha, Bidhan 1 etc. (short duration); MTU-7029, MTU1001, Pratiksha etc. (medium duration) and CR1017, CR1018, CR1019, Sabita etc.(long duration). Make proper drainage arrangement in the field. Drain our water from betel nut garden. Continue sowing of Sweta, Churni, Jagriti, Probhat varieties of arhar during next week after seed treatment with Mancozeb, Thairam or Captan. Prepare pit for plantation of saplings of mango, guava and coconut. Select varieties like Himsagar, Mallicka, Langra for Mango; Safeda, L-49 for guava and East Coastal, Hazari for coconut. Before planting, the pits should be filled by 20kg compost, 500g SSP and 25g MOP. Planting should be done after proper rain. Undertake land preparation for bhindi and carry out sowing of brinjal varieties like Muktokeshi, Bhangar, etc.
- In Sub-Himalayan West Bengal, for the management of cucurbitaceous fruit fly population, use pheromone traps along with bait spray of Molasses 200 ml + 20 ml Malathion 50% EC mixture as spot spray after current spell of rain. For management of brinjal fruit & shoot borer, spray Coragen 18.5% E.C @ 0.5 ml/liter of water after clipping off all the infested twigs, flowers, buds, fruits etc. For white fly and jassid in bhindi crop, apply Acetamiprid 20% SP@1g/litre or Thiomithoxam 0.3 SG 1g/3 litres of water after current spell of rain.
- In Gangetic West Bengal, in case of rotting of stem and spots on leaves in jute crop, apply Carbendazim 50 WP @ 1g/litre of water or Copper-Hydroxide 75 WP@ 2g/litre of water after current spells of rain.
- **Andaman & Nicobar Islands:**
- Avoid overland flow of rain water in agricultural hilly/elevated terrain and keep the channel clean to drain runoff water. Keep open the bunds in vegetable field to drain out excess rain water. In Nicobar Islands, make the channels in the community field of vegetable to avoid stagnation of water.
- **Animal Husbandry**
- In West Bengal, vaccinate/treat cattle against HS and black quarter. Avoid grazing animals during mid noon and after noon hours. Keep less number of bird per cage. Arrange electric fans in the cage. Provide more number of fresh water pots and avoid pond water for drinking purpose. Mix electrolyte and vitamin C with drinking water.Vaccinate goats against Peste des Petits Ruminants (PPR) before onset of monsoon.
- In Andaman & Nicobar Islands, provide clean and hygienic water treated with potassium permanganate (1 ppm) to the poultry and local chickens to avoid gastrointestinal infection.
- In Jharkhand, deworm the animals and give mineral mixture along with salt regularly and wheat grains, jaggery etc. may be provided @ 10%-20% in the daily ration to meet the energy requirement of the animals.
- **Fisheries**
- In West Bengal, apply cow dung @ 1000-1500 kg/bigha-m in the fish culture pond.
- In Odisha, maintain 6 ft water depth with pH 6.8-7.5, turbidity 20-30 cm and plankton growth of 2.5/50 liter water. Avoid over crowding. The fishes should be fed daily with oil cake bran mixture at the rate of 2-3 % of their total biomass.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Rainfall occurred in all districts of Konkan & Goa, all districts of Madhya Maharashtra except Sangli, all districts of Marathwada, all districts of Vidarbha except Bhandara, Chandrapur, Gondia and Nagpur, all district of Gujarat Region except Ahmedabad, Banaskantha, Gandhinagar, Mehsana and Patan, in Botad district of Saurashtra Kutch & Diu Region during the week. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at most places over Konkan & Goa during the period, along with heavy to very heavy rain at isolated places over Konkan & Goa on 29th June and 3rd July, heavy rain at isolated places over Konkan & Goa on 2nd July, over north Gujarat Region on 29th June, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.
 - **Maharashtra:**
 - In Konkan, continue transplanting of 22 – 25 days old rice seedling. Farmers are advised to adopt 4 way planting method for rice. In South Konkan, continue land preparation for sowing of groundnut (varieties: Konkan Gaurav, Trombay Konkan (Tapura), TAG-26, TAG-24 and TPG-41). Continue grafting in the

mango nursery. Undertake transplanting of chilli and brinjal in well drained soil. In North Konkan, Complete the mango grafting before 10-12th July for getting higher grafting success. Drain out excess water from orchards and vegetable fields.

- In Madhya Maharashtra, continue sowing of *kharif* crops such as soybean, black gram, pearl millet, cotton, pigeon pea, maize, groundnut etc. by selecting improved varieties and with seed treatment and biofertilizers application. Sowing should be done after receipt of sufficient rain in some pockets of Jalgaon district (Muktainagar, Raver) and Pune district (Shirur, Daund and Indapur). Undertake puddling operation in the rice field. Also undertake transplanting of 21 -25 days old seedling. Continue transplanting of *kharif* vegetable such as chilli, tomato, brinjal etc. In North Madhya Maharashtra, continue sowing of *kharif* crops like cotton, soybean, groundnut and tur etc in the region except in Navapur block in Nandurbar district where sufficient rainfall not received for sowing. Continue nursery sowing of vegetable crops like chilli, brinjal, tomato and onion.
- In Marathwada, undertake sowing of *kharif* crops like rainfed Bt cotton, pigeonpea, black gram/green gram, groundnut, maize, also undertake seed treatment before sowing of crops. Farmers are advised to wait for sowing in the areas where sufficient amount of rainfall was not received (Aurangabad district: Paithan, Vijapur Beed district: Gevarai, Majlgaon, Kej, Parli, Dharur, Shirurkasar, Hingoli district: Basmat, Jalna district : Bhokardan, Jafraabad, Jalna, Ambad, Partur, Badnapur, Ghansangavi, Mantha, Latur district: Devani and Ausa, Nanded district: Nanded, Bhokar, Deglur, Kinwat, Umari, Ardhapur, Naigaon(Kh), Biloli, Osmanabad district: Osmanabad, Tuljapur, Paranda, Lohara, Parbhani district: Gangakhed, Pathri, Jintur, Sonpeth, Manwat, Palam, Selu & some parts of Parbhani district).
- In West Vidarbha, undertake sowing of *kharif* crops like cotton, tur, maize and soybean except in some pockets of Buldhana district (Nandura, Shegaon, Kamgaon). In East Vidarbha, continue nursery sowing for rice on raised beds. Undertake seed treatment with 3% brine solution before sowing. Undertake sowing of *kharif* crops like pigeon pea [varieties-AKT-8811, PKV-TARA, BSMR-853, BSMR-736 and ICPL-87119(Aasha)]. Before sowing seeds should be treated with crop specific *Rhizobium* culture and Phosphate Solubilizing Bacteria.
- **Gujarat:**
 - In Middle Gujarat, undertake sowing of pearl millet, cotton and groundnut utilizing realized rainfall. Undertake main land preparation for transplanting of rice.
 - In South Gujarat, undertake sowing of pigeon pea, green gram and black gram crops with realized rainfall, main field preparation for transplanting of rice and plantation of horticultural crops. Continue cultivation of amaranth, fenugreek, coriander, spinach and green garlic and nursery raising for capsicum. Drain out excess water from crop fields in Navsari, Valsad and Dangs districts.
 - In North Gujarat, continue land preparation for sowing of groundnut, pearl millet, sesame, maize, green gram, sorghum; undertake sowing of these crops and transplanting of vegetable crops after receipt of sufficient rainfall. Carry out gap filling in hybrid cotton under sufficient moisture condition. Continue nursery preparation of fennel. Carry out budding in mango, aola and ber.
 - In Saurashtra & Kutch, continue land preparation for sowing of *kharif* groundnut, sesame, pearl millet, green gram, black gram, cowpea, pigeon pea, maize, sorghum and undertake sowing after receipt of sufficient rainfall. Adopt cotton-sesame, cotton-groundnut and cotton-maize inter cropping system as risk management. In Kutch, intercropping of green gram, pigeon pea, guar in pearl millet is suggested for getting more income. Continue nursery preparation for tomato, chili, brinjal and early cauliflower; undertake transplanting where seedlings are ready. Carry out gap filling in already sown hybrid/Bt. cotton to maintain plant population. Undertake intercultural operations in early sown irrigated groundnut.
- **Animal Husbandry**
 - In Gujarat, protect animals from rain and wind. Take care of cattle and stored dry fodder during rainy days.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Rainfall occurred in Annupur, Chhindwara, Damoh, Rewa, Sagar, Satna, Shadhol and Umaria districts of East Madhya Pradesh, all districts of West Madhya Pradesh except Agar, Ashok nagar, Bhind, Bhopal, Datia, Gwailor, Harda, Hoshangabad, Raisen, Sehore, Sheopur Kalani, Shivpuri and Vidisha, all districts of Chhattisgarh except Balrampur, Bijapur, Kabirdham, Kondagaon, Korba, Koriya, Mahasmund, Raigarh, Raipur, Sukma, Surajpur and Surguja during the week. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at many places over West Madhya Pradesh along with heavy rain at isolated places on 29th June, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - **Madhya Pradesh:**
 - In West Madhya Pradesh, undertake sowing of red gram, maize, green gram, black gram, pearl millet and soybean. Undertake field preparation and transplanting of brinjal, chilli, tomato, early cauliflower and *kharif*

- onion. Continue nursery preparation for rice. Continue sowing of ginger and turmeric.
- In East Madhya Pradesh, undertake sowing of *kharif* crops like maize, soybean and groundnut. Undertake sowing of okra and cucurbits. Continue nursery preparation for rainy season vegetables. Continue direct sowing of rice in areas where irrigation facilities are available in Kymore Plateau and Satpura Hill Zone. Continue nursery preparation for rice. Continue seed bed preparation for onion.
- **Chhattisgarh:**
- Undertake sowing of *kharif* crops like soybean, til maize, groundnut. Undertake sowing of cucurbits. Continue nursery preparation for rice. Undertake transplanting of vegetables. Continue line sowing of rice. Undertake planting of banana. In Bastar Plateau Zone, continue planting of tuber crops and nursery preparation for papaya and custard apple.
- **Animal Husbandry**
- In Madhya Pradesh, dairy farmers are advised to vaccinate the animals against mouth and jahari fever disease and to develop the immunity power.
- In Chhattisgarh, carry out vaccination of animals against Black Quarter, Anthrax and other disease.

NORTH INDIA [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UTTAR PRADESH & RAJASTHAN]

- **Realised Rainfall:** Rainfall occurred in Basti, Gazipur, Gorakhpur, Kheri, Sidarthnagar and Varanasi districts of East Uttar Pradesh, Nainital district of Uttarakhand, Banswara, Bhilwara, Chittorgarh, Dungarpur, Jhalwar, Kota, Pratapgarh, Rajasmand, Sikar, Sirohi and Udaipur districts of East Rajasthan, Churu district of West Rajasthan during the week. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at most places over Uttarakhand during the period, at most/many places over Himachal Pradesh during the period, over Uttar Pradesh from 30th June to 3rd July, over Jammu & Kashmir on 29th and 30th June, at many places over Haryana, Chandigarh & Delhi on 29th, 30th June and 1st July, over Punjab on 29th, 30th June, 2nd and 3rd July, along with heavy rain at a few places with very heavy rain at isolated places very likely over Uttarakhand and East Uttar Pradesh on 1st July, heavy to very heavy rain at isolated places over East Rajasthan on 29th, over Uttarakhand on 30th June and 2nd July, over West Uttar Pradesh on 1st and over Uttar Pradesh on 2nd July, heavy rain at isolated places over Uttarakhand on 29th, over Himachal Pradesh on 29th June, 1st and 2nd July, over Jammu & Kashmir on 29th June and 3rd July, over West Rajasthan on 29th, over Uttar Pradesh on 30th, over Punjab on 30th June, 2nd and 3rd July, over Haryana, Chandigarh & Delhi on 1st July, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.
 - **Jammu & Kashmir:**
 - Continue transplanting of rice. Apply the basal dose of fertilizer at time of transplanting. Undertake sowing of maize varieties (Vivek-25, Vivek QOM-9 HM-5 and HQPM-1) with seed rate of 20-30 kg/ha at vattar condition. Undertake transplanting of rainy seasonal annuals (gaillardia, balsam, cosmos, portulaca, kochia, sunflower, morning glory, gomphrena, celosia etc.). Sowing of fodder crops such as jowar mixed with cowpea can be taken up. Postpone irrigation in vegetable crops.
 - **Uttarakhand:**
 - Continue transplanting of early sown paddy nurseries. In mid hilly regions, raise the nursery/transplanting of short duration varieties of cabbage, cauliflower, broccoli and knol-khol etc. If proper moisture is available in the fields then sowing of radish, rai, coriander, carrot etc. should be done. Continue transplanting of capsicum and brinjal in the polyhouse in mid and high hills and planting of turmeric, ginger and arbi in mid hills. Undertake plucking of early varieties of apple after current spells of rain. Prepare the field for sowing of maize and pigeon pea crops.
 - **Himachal Pradesh:**
 - In middle areas, continue transplanting of ready nursery of summer vegetables like tomato, capsicum, gourd, chilli etc. in the well prepared fields. Continue sowing of bhindi, arvi etc. may be done in prepared fields. Complete nursery sowing of rice. In lower regions, start sowing of cucurbit crops. Continue sowing of cucurbit crops. Continue sowing of spinach, coriander, fenugreek in present weather conditions. Continue transplanting of vegetables like tomato, capsicum, gourd, chilli etc. in the well prepared fields.
 - **Punjab, Haryana & Delhi:**
 - In Punjab, continue transplanting of rice. Continue sowing of rainy season vegetables like okra, cucurbits and cowpea. Continue sowing of maize.
 - In Haryana, continue sowing of Lobia, moth and pigeon pea. Continue transplanting of 30 days old seedlings of rice. Undertake weeding and hoeing in cotton after current spells of rain.
 - In Delhi, continue sowing of red gram. Undertake transplanting of rice. Continue transplanting of chilli, brinjal and cauliflower. Undertake sowing of cucurbits. Undertake sowing of maize. Undertake sowing of

- guar, bajra, cluster bean, spinach, amaranths and lady finger.
- In Punjab, to prevent the incidence of mealy bug in cotton, remove all the weeds growing around the crop fields.
 - **Uttar Pradesh:**
 - Continue nursery preparation for onion, cauliflower, brinjal, chilli and tomato. Continue nursery preparation for rice. Continue sowing of pigeon pea. Continue sowing of ginger and turmeric. Continue sowing of cucurbits. Continue sowing of *kharif* maize, jowar, soybean and groundnut. Undertake sowing of barley and planting of banana.
 - **Rajasthan:**
 - In East Rajasthan, undertake sowing of crops like red gram, green gram, cowpea, moth, pearl millet, sorghum, maize & cluster bean. Continue preparation of nursery of *kharif* fennel. Continue sowing of rainy season cucurbits like khira, bottle gourd, ridge gourd, bitter gourd & cucumber. Continue sowing of groundnut. Continue nursery preparation of early cauliflower, chilli and brinjal. Continue nursery sowing of rice in Irrig North Western Plain Zone.
 - In West Rajasthan, undertake land preparation and sowing of pearl millet, cluster bean, mung bean, moth crops.
 - **Animal Husbandry**
 - In Jammu & Kashmir, mineral mixture should be supplemented in diet. Give vaccination against FMD. Provide adequate amount of fresh cool and clean drinking water. Increase protein content in animal ration by 2%.
 - **Apiculture:**
 - In Himachal Pradesh in this time bee collects extra honey and stores it, so farmers are advised to give extra frames to the colony for more honey accumulation. Save the colony from insects. The colony may be divided to increase the numbers.

The Agromet Products in this Bulletin are generated by Agrimet Division, weather forecast issued by NWFC, New Delhi and Agromet Advisories are prepared based on the DAAS Bulletins issued by different Agrometeorological Field Units.