

All India Coordinated Research Project on Agrometeorology

CRIDA, Santoshnagar, Hyderabad – 500 059

Daily Crop Weather Information as on 29 November 2021

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- A fresh active Western Disturbance is likely to affect Northwest & adjoining Central India from the night of 30th November, 2021. Under the influence of this trough in mid-latitude westerlies at mid & upper tropospheric levels and its likely interaction with lower level trough in easterlies causing high moisture incursion:
- Scattered to fairly widespread rain/thunderstorm likely over Gujarat, north Maharashtra and adjoining areas of southwest Madhya Pradesh and south Rajasthan during 30th November-02nd December with peak rainfall activity on 01st Dec.
- Isolated heavy to very heavy rainfall likely over Gujarat State on 01st December and isolated heavy rainfall over Gujarat Region on 02nd December. Isolated heavy rainfall also likely over north Konkan on 01st December.
- Isolated to scattered rainfall accompanied with thunderstorm/lightning likely over West Madhya Pradesh, East Rajasthan, Haryana, West Uttar Pradesh during 01st-02nd with maximum activity on 02nd December.
- Scattered to fairly widespread rainfall/snowfall accompanied with isolated thunderstorm/lightning likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan Muzaffarabad, Uttarakhand and Himachal Pradesh during 01st-02nd with maximum activity on 02nd December.
- A cyclonic circulation lies over Comorin Area & adjoining Sri Lanka coasts in the lower levels and strong northeasterly winds are prevailing over Tamilnadu coast & south Coastal Andhra Pradesh at lower levels to the north of the circulation. The circulation is likely to emerge in the Arabian Sea on 29th November and move north-northwestwards thereafter. Under its influence:
- Light to moderate fairly widespread/widespread rainfall very likely over Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep area and Scattered to fairly widespread rainfall over south Coastal Andhra Pradesh & Yanam, Rayalaseema during next 24 hours and significant decrease thereafter.

- Isolated heavy to very heavy rainfall very likely over Tamilnadu, Puducherry & Karaikal and Isolated heavy rainfall very likely over Coastal Andhra Pradesh & Yanam and Kerala & Mahe on 29th November.
- A Low Pressure Area is likely to form over south Andaman Sea around 30th November, 2021. It is likely to become more marked and move westnorthwestwards during subsequent 48 hours.
- Under its influence, isolated heavy rainfall likely over Andaman & Nicobar Islands during 30th November–02nd December and isolated very heavy rainfall on 01st December.
- Under its influence, rainfall likely to increase over North Coastal Andhra Pradesh and Odisha from the night of 03rd Dec 2021
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rainfall/Thundershowers observed (from 0830-1730 hours IST of yesterday): at most places over Rayalaseema; at many places over Tamilnadu, Puducherry & Karaikal and Coastal Andhra Pradesh & Yanam; at a few places over Kerala & Mahe and at isolated places over Lakshadweep.
- Thunderstorm observed (from 0830 IST of yesterday to 0530 hours IST today): at isolated places over Kerala & Mahe, Rayalaseema and Tamilnadu, Puducherry & Karaikal.
- Fog observed (at 0530 hrs IST today): shallow to moderate in isolated pockets over Delhi, Tripura and Bihar.
- Minimum Temperature Departures (as on 28-11-2021): Minimum temperatures were appreciably above normal (3.1°C to 5.0°C) at many places over Punjab, West Rajasthan, Haryana, Chandigarh & Delhi, Coastal Andhra Pradesh & Yanam and Rayalaseema; at a few places over Bihar, Gujarat State and South Interior Karnataka and at isolated places over East Rajasthan; above normal (1.6°C to 3.0°C) at many places over Andaman & Nicobar Islands, Coastal Karnataka and Telangana; at a few places over Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Odisha, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal and at isolated places over Gangetic West Bengal, Lakshadweep; They were below normal (-1.6°C to -3.0°C) at a few places over Vidarbha and at isolated places over Assam & Meghalaya and near normal over rest parts of the country. Yesterday, the Lowest minimum temperature of 8.9°C was reported at Amritsar (Punjab) over the plains of the country.

- Maximum Temperature Departures (as on 28-11-2021): Maximum temperatures were appreciably above normal (3.1°C to 5.0°C) at a few places over Assam & Meghalaya and at isolated places over West Rajasthan and Gujarat Region; above normal (1.6°C to 3.0°C) at many places over East Rajasthan and Saurashtra & Kutch; at a few places over Vidarbha, Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and at isolated places over Jammu & Kashmir, Konkan & Goa and Madhya Pradesh. They were appreciably below normal (-3.1°C to -5.0°C) at many places over South Interior Karnataka, Rayalaseema, Tamilnadu, Puducherry & Karaikal and Coastal Andhra Pradesh & Yanam; below normal (-1.6°C to -3.0°C) at a few places over East Uttar Pradesh and at isolated places over Sub-Himalayan West Bengal & Sikkim, Odisha and Kerala & Mahe and near normal at rest parts of the country. Yesterday, the highest maximum temperature 35.0°C was reported at Surendranagar (Saurashtra & Kutch) over the country.

Weather Warning during the next 5 days (IMD)

- 29 November (Day 1): Heavy to very heavy rainfall very likely at isolated places over Tamil Nadu, Puducherry & Karaikal and Heavy rainfall at isolated places over south Coastal Andhra Pradesh, Rayalaseema and Kerala & Mahe. Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph) very likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. Squally winds (speed reaching 40-50 kmph gusting to 60 kmph) very likely over South Andaman Sea & neighbourhood. Fishermen are advised not to venture into these areas. Squally winds (speed reaching 40-50 kmph gusting to 60 kmph) very likely over Southeast and Eastcentral Arabian Sea and along & off Kerala-Karnataka coasts. Fishermen are advised not to venture into these areas.
- 30 November (Day 2): Heavy rainfall very likely at isolated places over Andaman & Nicobar Islands and Tamil Nadu, Puducherry & Karaikal. Thunderstorm accompanied with lightning & gusty winds (speed reaching 30-40 kmph) very likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Gujarat state, Madhya Maharashtra, Konkan & Goa, Marathwada and Tamil Nadu, Puducherry & Karaikal. Squally winds (speed reaching 40-50 kmph gusting to 60 kmph) very likely over South Andaman Sea & adjoining Southeast Bay of Bengal. Fishermen are advised not to venture into these areas. Squally winds (speed reaching 40-50 kmph gusting to 60 kmph) very likely over Eastcentral & adjoining Northeast Arabian Sea and along & off

Karnataka-Maharashtra-Gujarat coasts. Fishermen are advised not to venture into these areas.

- 01 December (Day 3): Heavy to very heavy rainfall likely at isolated places over Andaman & Nicobar Islands and Gujarat state and heavy rainfall at isolated places over north Konkan. Thunderstorm accompanied with lightning & squall (50-60 kmph gusting to 70 kmph) likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over West Madhya Pradesh, Gujarat state, north Madhya Maharashtra, Konkan & Goa and Marathawada. Squally winds (speed reaching 45-55 kmph gusting to 65 kmph) likely over Southeast and adjoining Eastcentral Bay of Bengal & Andaman Sea. Fishermen are advised not to venture into these areas. Squally winds (speed reaching 40-50 kmph gusting to 60 kmph) likely over Northeast & adjoining Eastcentral Arabian Sea and along & off Gujarat-north Maharashtra coasts. Fishermen are advised not to venture into these areas.
- 02 December (Day 4): Heavy rainfall likely at isolated places over Andaman & Nicobar Islands and Gujarat Region. Thunderstorm accompanied with lightning & squall (50-60 kmph gusting to 70 kmph) likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over Himachal Pradesh, Uttarakhand, West Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Gujarat state, Madhya Maharashtra, Konkan & Goa and Marathawada. Squally winds (speed reaching 50-60 kmph gusting to 70 kmph) likely over Central and adjoining Southeast Bay of Bengal. Fishermen are advised not to venture into these areas. Squally winds (speed reaching 40-50 kmph gusting to 60 kmph) likely over Northeast & adjoining Eastcentral Arabian Sea and along & off Gujarat-north Maharashtra coasts. Fishermen are advised not to venture into these areas.
- 03 December (Day 5): Heavy to very heavy rainfall likely at isolated places over Odisha and Heavy rainfall likely at isolated places over Andaman & Nicobar Islands and north Coastal Andhra Pradesh. Thunderstorm accompanied with lightning & gusty winds (40-50 kmph gusting to 60 kmph) likely at isolated places over Andaman & Nicobar Islands and with lightning at isolated places over East Uttar Pradesh, Bihar, Jharkhand, Gangetic west Bengal, Chhattisgarh, Odisha, North Coastal Andhra Pradesh, Assam Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal. Squally weather (speed reaching 50-60 kmph gusting to 70 kmph) likely over west-central and adjoining north-west Bay of Bengal and along and off north Andhra Pradesh-Odisha coast. Fishermen are advised not to venture into these areas.

- The weather outlook for seven days i.e., 29 Nov to 07 Dec 2021 forecasted (Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>) rain/thundershower may occur over Some parts of Extreme northern parts of India. (Fig. 2).

Agricultural activities (AICRPAM-CRIDA)

Punjab

Weather condition:

The maximum temperature during the week ranged between 25.0-27.0°C and minimum temperature ranged between 7.6-10.0 °C. The morning and evening relative humidity during the week varied between 91-94 and 24-36 %, respectively. The sunshine hours during the week ranged between 8.1-8.8 hrs/day. The evaporation rate ranged between 1.2-1.8 mm day⁻¹. Daily average wind speed varied from 1.0-3.9 kmhr⁻¹.

Contingency measure:

- Weather based Advisories:
- Field Crops Field Crops: Farmers are advised not to burn paddy straw but plough it in the field.
- Wheat: Farmers are advised to complete sowing of long duration varieties of wheat like PBW 869, PBW 824, PBW 803, Sunehri (PBW 766), PBW 1 Chapati, DBW 222, DBW 187, HD 3226, Unnat PBW 343, Unnat PBW 550, PBW 1 Zinc, PBW 725, PBW 677, HD 3086, WH 1105, HD 2967 and durum wheat WHD 943 and PDW 291 under irrigated conditions. Prefer to use happy seeder or super seeder for the sowing of wheat crop. Treat 40 Kg seed with Raxil easy/ orius @13 ml (dissolve in 400 ml of water) or Tebuseed or Seedex or Exzole @ 40 g Or vitavax power @120 g or vitavax @ 80g. In termite infested fields, treat the seed with 1 g Cruiser 70 WS or 2 ml Neonix 20 FS or 4 ml Dursban/Ruban/Durmet 20 EC per kg seed and dry in shade. Seed treated with Neonix also controls smuts of wheat. Farmers of sub-mountainous areas can sow yellow rust resistant varieties like PBW 725, Unnat PBW 550, PBW 752 and PBW 660 during this time.
- Oilseeds: Transplanting of gobhi sarson is more profitable during the period than direct sowing. Use 60 days old seedlings of gobhi sarson (GSL-1) but for gobhi sarson hybrid hyola PAC 401 use 30 days old seedlings. To early sown raya, apply 45 kg urea per acre with first irrigation. In rainfed conditions, apply 35 kg urea and 50 kg single superphosphate per acre by drilling at the time of sowing.
- Vegetables: It is the time for transplanting of late season varieties of cauliflower. It is best time for sowing of spinach, fenugreek, coriander, radish, turnip and

main season varieties of pea i.e. Punjab 89 and Mithi Phali. This time is accurate for transplanting of tomato, brinjal, chilli and capsicum for early and higher yield. Sowing of nursery of onion should be done @ 4 to 5 kg seed to raise seedlings for transplanting in an acre. Use healthy disease free potato seed for planting. Disinfect the tuber with Emesto Prime @ 83 ml or Monceren @ 250 ml in 100 litres of water for 10 minutes to check black Scurf. To protect the potato crop from viral disease, regularly survey the crop. If virus infected plants observed in the field, rogue out them along with mother tuber and destroy them.

- Fruits: Regularly remove the suckers arising from the rootstock portion of the newly planted fruit plants and these plants should be supported with sticks to keep them erect post rainy season. For management of canker in citrus, spray streptomycin 50 g + 25 g copper sulphate in 500 litres of water per acre or Bordeaux mixture (2:2:250) during this month. The incidence of mango malformation can be reduced with spray of NAA (Naphthalene acetic acid) @ 100 in 500 litres of water per acre. Dissolve NAA in 200 ml of alcohol first. Powdery mildew in ber can be managed with spray of wettable sulphur @ 2.5 g per litre of water and black spot disease in ber can be managed with spray of Bordeaux mixture (2:2:250) during this month. For weed suppression, to reduce fruit drop and for better fruit yield, apply paddy straw mulch (5.0 ton per acre) after application of second split of urea in ber orchards. Juvenile orchards can be inter-cropped with rabi season crops such as wheat, barley, gram, peas etc.
- Animal Husbandary: Animals should be protected from cold weather in winter because low temperature is not only harmful for health of animals but also impacts the milk production in animals. In winter, animals must be allowed to sit in sunlight and during day time, windows of animal sheds should be opened to allow proper passage of air which will also expel excess of moisture from the sheds. More quantity of daily ration for feeding animals is also must in winter to fight cold and prevent disease. Energy rich feed ingredients like grains must be added in compounded feeds to be given to animals in winter.

SAT : INSAT-3D IMG
IMG_TIR1 10.8 um
L1C Mercator

29-11-2021/(0800 to 0826) GMT
29-11-2021/(1330 to 1356) IST

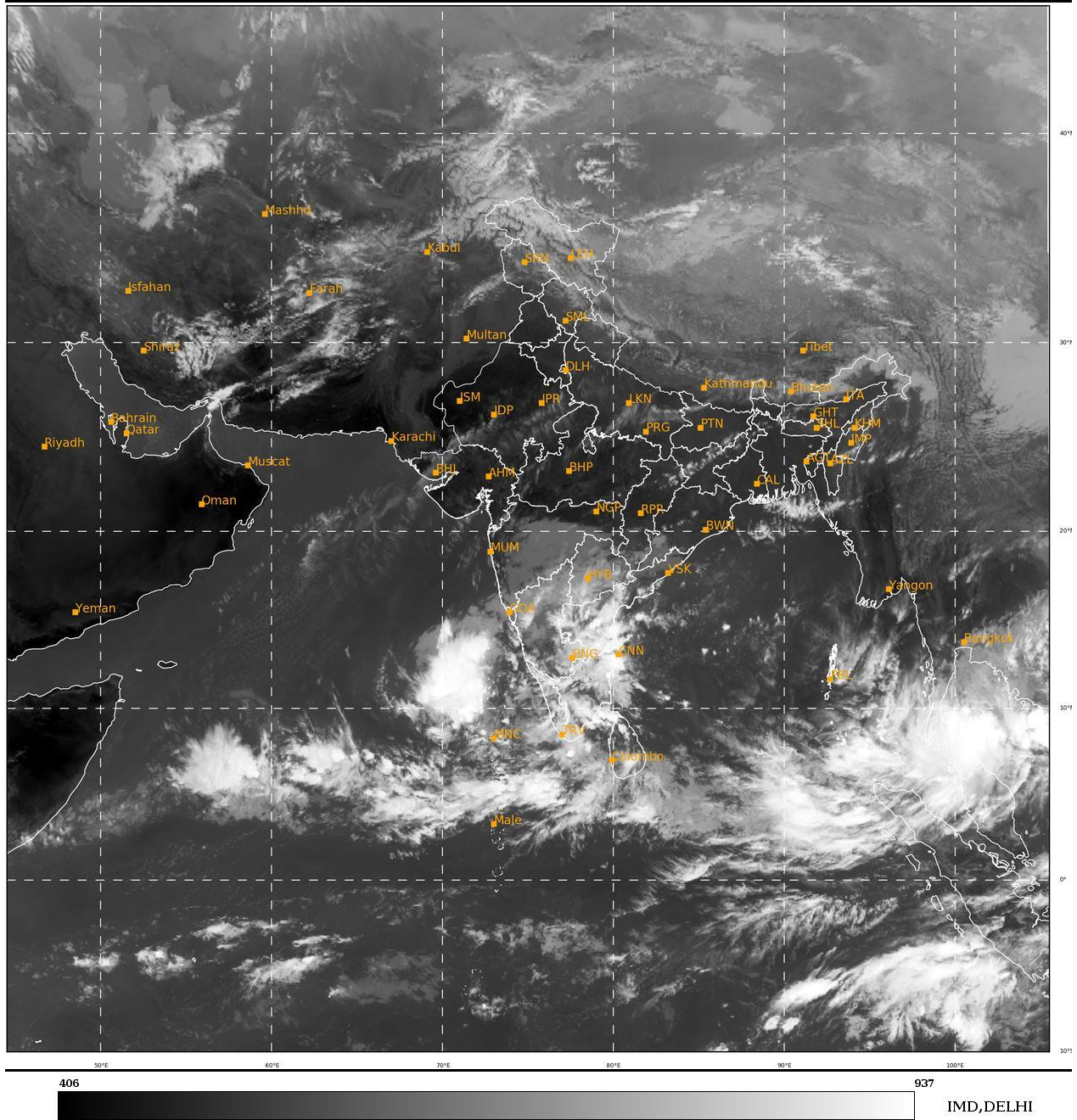


Figure: 1. Latest available satellite picture as on 29 Nov 2021 at 1356 Hrs (IST). (Source: IMD).

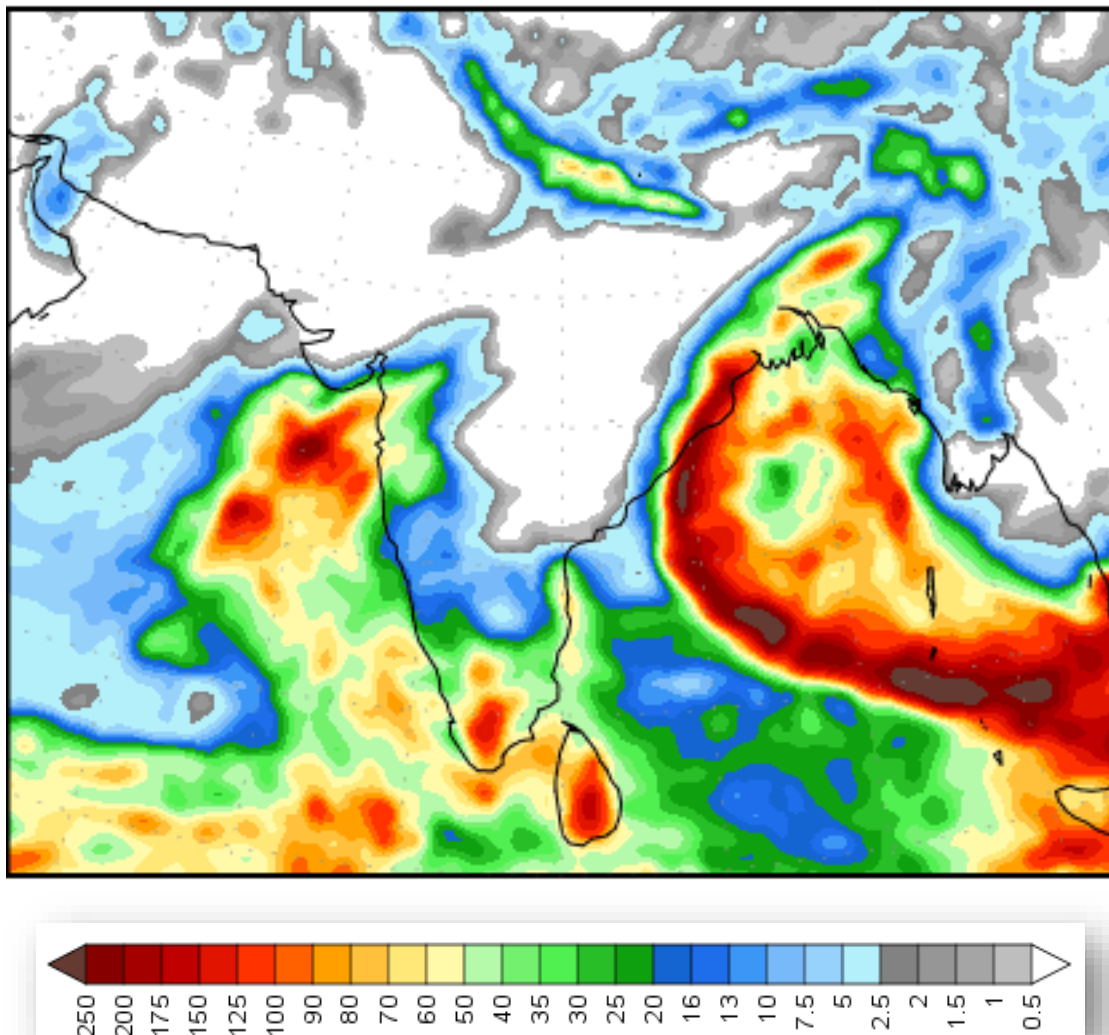


Figure:2. Precipitation forecast for 29 Nov to 07 Dec 2021 (Source: NOAA NCEP).

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