



NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

22 January 2020 (WEDNESDAY)
[FOR THE PERIOD 22.01.2020 - 26.01.2020]



DISCLAIMER

Under the Agro-meteorological Information System Development Project, Agromet Advisory Service Bulletins at National & Sixty Four (64) districts have been prepared on experimental basis. These bulletins are being displayed through the website of Department of Agricultural Extension for valuable comments/ suggestions from all concerned.

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ISSUED BY

Agro-Meteorological Information Systems
Development Project
Department of Agricultural Extension (DAE)
Ministry of Agriculture
In collaboration with Bangladesh
Meteorological Department

Salient Agromet Advisories

As per the weather forecast received from the Bangladesh Meteorological Department (BMD), during next 24 hours, weather may remain dry with temporary partly cloudy sky over the country. Moderate to thick fog may occur at places over the country during midnight to morning. Mild to moderate cold wave is sweeping over Rangpur, Mymensingh & Sylhet divisions and the regions of Rajshahi, Pabna, Naogaon, Jashore, Chudanga, Barishal, Tangail, Gopalganj, Faridpur, Madaripur, Nikli & Sitakunda and it may continue at some places. Night temperature may rise slightly over the country. Day temperature may remain nearly unchanged over the country. As per the outlook issued by BMD for next 72 hrs., night temperature may fall at the end period. During last four days, dry condition prevailed and as per the quantitative medium range weather forecast, dry condition is likely over the district. Under the present weather conditions & forecast, it is advised to take special care against cold waves on standing crops, livestock, poultry and fishery in Rangpur, Mymensingh & Sylhet divisions and the regions of Rajshahi, Pabna, Naogaon, Jashore, Chudanga, Barishal, Tangail, Gopalganj, Faridpur, Madaripur, Nikli & Sitakunda and also apply irrigation, fertilisers and take plant protection measures along with need based weeding, earthing and thinning operations. Detail Agromet advisories are given below.

Vegetables

- In order to get more production of the vegetables like cauliflower, cabbage, tomato, brinjal, cucumber, green peas etc proper care and management is required.
- As dry conditions prevailed during last four days and also dry condition is likely during next five days, apply irrigation in the vegetable field.
- In perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature
- On the occurrence of yellowish brown spot in tomato, spray mancozeb 2.5-3g/litres of water Carry out weeding and hoeing operation in cauliflower and cabbage
- Monitoring is advised for infestation of fruit borers in brinjal, tomato, chilli. If infestation occurs, installation of pheromone traps @ 3-4 traps per acre is advised.
- Weather is congenial for sucking pests in vegetables; spray recommended pesticides.
- Weather conditions are favourable for harvesting of fully matured tomato.

Boro Paddy:

- Continue seedbed preparation with assured irrigation. Remove the dew deposited in the morning hours on seedlings.
- If the seedbed becomes yellow, apply urea at the rate of 283 gm urea per decimal.
- Apply 400 gm gypsum per decimal if the seedlings are still not recovered after application of urea.
- Also spread ash over the seedbed for better germination.
- Cover the entire nursery bed in the day time with polythene sheets and remove in the evening to avoid the effect of cool temperatures on germination and growth of nursery. Irrigate the nursery with water in night time and remove water in early morning to speed up nursery growth in cold weather conditions. Keep 2-3 cm water level on seed bed.
- The main field should be prepared for transplanting of boro paddy with 3-4 times ploughing followed by laddering and Levelling should be done properly to retain water uniformity.

- Apply 13 kg urea (1/3 of total urea) as first basal dose and also 13 kg TSP, 20 kg MOP, 15kg gypsum and 15 kg zinc per bigha after complete preparation of field.

Seedbed to Transplanting

- Seedling of 35 to 45 days old may be transplanted. Transplanting should be done @ 2 - 3 seedlings per hill. Plant to plant distance should be 15-20 cm and 20-25 cm between the two rows.
- Maintain thin layer of water (1 - 2 cm) in the main field up to 15 days after transplanting

Boro Paddy (Haor Rrgion: Brahmanbaria, Habiganj, Moulvibazar, Nerakona, Sunamganj & Sylhet)

- The main field should be prepared with 3-4 times ploughing followed by laddering and Levelling should be done properly to retain water uniformity.
- Transplanting of seedling of 35 to 45 days old may be completed. Transplanting should be done @ 2 - 3 seedlings per hill. Plant to plant distance should be 15-20 cm and 20-25 cm between the two rows.
- Apply 13 kg urea (1/3 of total urea) as first basal dose and also 13 kg TSP, 20 kg MOP, 15kg gypsum and 15 kg zinc per bigha after complete preparation of field.
- Maintain thin layer of water (1 - 2 cm) in the main field up to 15 days after transplanting.

Wheat

- As dry conditions prevailed during last four days and also dry condition is likely during next five days, apply irrigation to 50-55 days old crop.
- Monitoring of zinc deficiency is advised in normal sown wheat crop. If deficiency occurs, spray zinc sulphate monohydrate at the rate of 36 decimals and one supplementary dose of nitrogenous fertilizer.
- If symptoms of Sulphur deficiency noticed, broadcast one quintal gypsum/acre.
- Monitor the incidences of pests (stem borer, aphid, jassid and rat) & diseases ((blast, leaf rust, , leaf blight, , brown spot, foot rot and powdery mildew) and if noticed, take appropriate preventive measure
- Special monitoring of blast disease is required as there is chance of the disease due to likely incidence of fog over the district during late night till morning. If noticed, apply Nativo 75 WG 6 gm/decimal to control the disease.
- For the treatment of rust disease of wheat apply zinc carbonate 2kg dissolved in 1000 liters water and spray twice at 10 days interval. To prevent crops from frost/ fog, timely irrigation should be applied in the wheat field.
- If rats are noticed, arrange net to catch the same or apply zinc phosphide or laminate to control the attack of rats.

Mustard

- As dry conditions prevailed during last four days and also dry condition is likely during next five days, apply first irrigation (20-25 days after sowing) in the mustard field at the time of flowering for late sown crop and second irrigation (50-55 days after sowing) at pod initiation for early sown or normal sown crop and also advise for weeding in mustard field.
- During flowering stage advise for weeding two times.

- If the mustard crop is at pod formation stage; go for intercultural operations followed by irrigation.
- Monitor the incidences of pests (aphid, saw fly, leaf eating caterpillar & painted bug) & diseases (alternaria blight, leaf blight & stem rot) and if noticed, take appropriate preventive measure.
- Occurrence of saw fly may be seen in the mustard crops under the present environment conditions. To control this pest spray Chlorpyrifos 20 EC @ 5 ml/litre of water on fair weather.
- Alternaria blight may infect the mustard plant under the present weather condition. It is advised to spray Rovral-5- WP @ 2% (mix 2gm in 1 litre water) three to four times at an interval of 10-12days.
- Be watchful for aphid in mustard crop. If seen, spray Chlorpyrifos 20% EC @ 1.0 litre/ha or Monocrotophos 36 % S.L. @ 500 ml/ha with 500-600 litre of water solution.

Maize

- As dry conditions prevailed during last four days and also dry condition is likely during next five days, apply second irrigation between 30-35 days after sowing Apply second dose of urea at the rate 350 gm per decimal between 40-50 days after sowing followed by light irrigation. Third irrigation should be given between 60-70 days after sowing of the crop
- Cover maize crop field surface with legume crops and vegetable crops like pumpkin and cucumber for conserving soil moisture. Provide irrigation at regular interval. Use straw mulch where irrigation is not possible.
- Carry out thinning operation in rabi maize upto one month after sowing in the late sown crop
- Remove all the weeds within one month after sowing in the late sown crop.
- Monitor the incidences of pests (fall army worm, cut worm, leaf hopper & jassid) & diseases (stalk rot, leaf blight) and if noticed, take appropriate preventive measure.
- If symptoms of fall army worm incidence are noticed, spray any one of the following insecticide to control. Chloropyrephos @1ml./litre water, Lambda- Cypermethrin @1ml./litre water.

Lentil

- As dry conditions prevailed during last four days and also dry condition is likely during next five days, apply light irrigation.
- These are in vegetative to flowering stage. Apply intercultural operation by removing weeds from the field when the plants within 30-35 days after sowing.
- Monitor the incidences of pests (aphid & pod borer) & diseases (stemphylium blight, foot rot, rust, fusarium wilt) and if noticed, take appropriate preventive measure.
- There is chance of incidence of Stemphylium blight under the present weather condition. If noticed, spray Rovral 50 WP or Phalikul 250 EC or mix both the fungicides and mix with water @ 2% three to four times after 7 days' interval under light sunny condition in the morning hours between 9-10 am and.
- Present weather is conducive for the occurrence of wilt disease in lentil. Hence, spraying of Carbendazim @ 1 g/ litre water twice at weekly interval is recommended.

Potato

- As dry conditions prevailed during last four days and also dry condition is likely during next five days, apply second irrigation.

- One weeding followed by one earthing up in potato crop is advocated during this time. Earthing up is to be done if the crop has attained stolon formation stage (25 days after planting and attained a height of 15-22 cm. If required, second weeding followed earthing may be taken up after 55-60 days. Do proper earthing up with friable soil. Apply light irrigation 2-3 days before the earthing up operation.
- Those who have already planted the crop should adopt mulching by using water hyacinth, straw etc. to enhance the tuber quality and yield.
- Monitor the incidences of pests (termite) & diseases (late blight, bacterial wilt, fusarium wilt, leaf roll virus) and if noticed, take appropriate preventive measure.
- Smoking around the field is the preventive measures against the attack of disease pathogens.
- As there is chance of the late blight disease due to likely incidence of light to moderate fog over the district during late night till morning. If noticed, prophylactic spraying of Krilaksil or Ridomil MZ chemical @ 1.5 g / liter water is recommended.
- Due to favourable weather conditions attack of red ant may be observed in the potato field. Farmers are advised to apply Phorate 10% granules @ 2kg/bigha or Malathion 5% dust @ 5kg/bigha in the soil at the time of earthing up.

Groundnut

- As dry conditions prevailed during last four days and also dry condition is likely during next five days, apply light irrigation 50-55 days after sowing.
- Under present weather condition, apply next dose of urea 40-50 days after sowing when flowers start coming.
- Second weeding should be done after 35-40 days after sowing.
- Monitor the incidences of pests (hairy caterpillar, jassid, thrips, leaf miner, spodoptera & termite) & diseases (leaf spot/tikka disease, leaf rust, foot rot/stem rot, collar rot, bud necrosis) and if noticed, take appropriate preventive measure.
- Present weather conditions are favourable for leaf miner and thrips incidence in early sown groundnut. For control of leaf minor to spray chloripyriophos 2.5 ml/l or quinalphos 2 ml/l of water sowing.
- Present weather conditions are favourable for leaf minor, spodoptera, jassid and tikka leaf spot in groundnut. To control leaf minor and spodoptera, spray Chloripyriophos @ 2.5 ml (or) Quinalphos @ 2 ml or Thiodicarb 1 g per litre of water; for sucking pest, spray Monochrotophos @ 1.6 ml (or) Imidacloprid @ 0.3 ml (or) Dimethoate @ 2 ml per litre of water and for tikka leaf spot, spray Mancozeb @ 400 g + Carbendazim @ 200 g (or) Hexaconazole @ 400 g per acre.
- There is a chance of infestation of collar rot disease in early sown rabi groundnut crop. Spray of Thiophanatemethyl 1.5 g/liter water is advised.

Horticultural crops

- Protect young plants of horticulture crops from low temperature.
- It is advised to cover the small horticulture plants with grass to avoid cold paralysis.
- Apply light and frequent irrigation /sprinkler irrigation in the evening to protect the crops from frost / cold injury. To protect young fruit plants from chilly winds, cover young fruit plants with straw/polythene sheets/ gunny bags.

- In fruit crops, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.
- Young banana plants of 3-4 months' age are prone to attack of pseudostem weevil; spray Chlorpyrifos 2 ml/litres of water.
- Weather is congenial for bud rot disease in coconut; spray Bordeaux mixture 1% on spindle leaves and crown of disease affected as well as neighbouring palms.
- Apply irrigation to coconut plants at 15 days' interval.
- Due to high relative humidity and low minimum temperature, sooty mould disease may occur in mango. Spray Phosphamidon @ 2ml/ litre + 5% maida.

Livestock

- Possibility of fall in night temperature, keep the animal under sheds and clean the surroundings to control fly and mosquito in cattle shade. Provide the cattle /animals 50 grams iodized salt 15 and 50 to 100 grams' mineral mixture daily along with animal feed/fodder, green fodder to keep them healthy.
- Due to fall in night temperature and cloudy weather keep the animals under shed. Provide 50 g iodized salt and 50 to 100 g mineral mixture daily with animal feed/fodder to keep them healthy.
- Vaccinate and de-worm farm animals at regular intervals in winter season.
- Farmers are advised to give protein enriched diets to the animals. Avoid feeding of paddy straw to prevent liver fluke infection in dairy animals.

Poultry

- Suggested to go for routine vaccination for poultry against the dreaded diseases /virus Vaccination (RDF1) of the one week old chicks against Raniket disease, darkplague and against Gamboro disease in two weeks old chicks may be carried out after consultation with local veterinarian.
- Farmers are advised to protect the poultry from cold injury by keeping the coop clean and dry and use dry paddy straw as litter material and cover the sides of the coop with thick cloths during night.
- Provide artificial brooding to chicks to maintain adequate temperature. Provide artificial brooding to chicks to maintain adequate temperature.
- Arrange light from Bulb 1-2 hours after evening and not to cover the cage by polythene. It favours more production of eggs and reduce the chance of incidences of diseases.
- It is advised to align the long axis of poultry shed in east-west direction. This will prevent the direct sunshine over the birds.

Fishery

- Protect the fish population against various bacterial diseases prevalent in winter season; apply Potash @ 4-5 mg/litre of water or Sukrena WS @ 1 litre per bigha of water.
- During winter months, fish are under stress and may show symptoms like erratic swimming 11 behaviour, not eating, gasping at the surface and others including mortalities. If such symptoms are observed, immediately stop feeding, liming and manuring. Consult an expert for remedial measures.

- Keep pisciculture farm ponds clean. During winter, reduce the amount of food for fishes and provide feed between 2-3PM.
- It is advised to maintain good amount of water in pond to save fishes from low temperature.

Realized Weather at different locations in the country

Rainfall for last 24 hours (till 06 AM on 22 January'2020) and maximum temperature on 21 January, minimum temperature on 22 January'2020 is given below:

Name of Divisions	Name of Stations	Rain fall (mm)	Max. Temp (°C)	Min. Temp (°C)	Name of Divisions	Name of Stations	Rain fall (mm)	Max. Temp (°C)	Min. Temp (°C)
Dhaka	Dhaka	00	24.4	14.1	Rajshahi	Rajshahi	00	23.6	09.3
	Tangail	00	23.0	08.5		Ishurdi	00	23.8	09.8
	Faridpur	00	24.7	09.8		Bogura	00	22.6	10.6
	Madaripur	00	24.7	10.0		Badalgachhi	00	21.0	09.5
	Gopalganj	00	25.0	09.3		Tarash	00	21.0	11.3
	Nikli	00	23.5	10.0					
Mymensingh	Mymensingh	00	23.3	09.5	Rangpur	Rangpur	00	20.5	09.0
	Netrokona	00	23.5	09.6		Dinajpur	00	21.5	09.0
Chattogram						Sayedpur	00	21.3	08.8
	Chattogram	00	25.2	12.8		Tetulia	00	20.5	07.4
	Sandwip	00	25.7	11.5		Dimla	00	18.6	07.8
	Sitakunda	00	27.0	09.0		Rajarhat	00	19.7	07.2
	Rangamati	00	26.0	14.3	Khulna	Khulna	00	24.5	11.8
	Cumilla	00	25.5	10.5		Mongla	00	25.2	12.6
	Chandpur	00	25.2	13.0		Satkhira	00	25.4	11.4
	M.Court	00	25.0	13.5		Jashore	00	25.8	08.6
	Feni	00	25.8	10.8		Chuadanga	00	24.6	08.5
	Hatiya	00	26.0	12.8		Kumarkhali	00	24.4	10.8
Cox's Bazar	00	26.4	14.4	Barishal	Barishal	00	25.8	09.7	
Kutubdia	00	25.0	13.5		Patuakhali	00	26.0	11.3	
Teknaf	00	<u>29.8</u>	14.6		Khepupara	00	26.1	11.2	
Sylhet	Sylhet	00	25.5	09.9		Bhola	00	24.8	10.6
	Srimangal	00	24.6	<u>06.3</u>					

Highlights:

- Country average bright sunshine hour was 6.47 hours per day during last week.
- Country average free water loss during the previous week was 2.57 mm per day.

Weather Forecast Valid for 24 Hours commencing 06 PM Today:

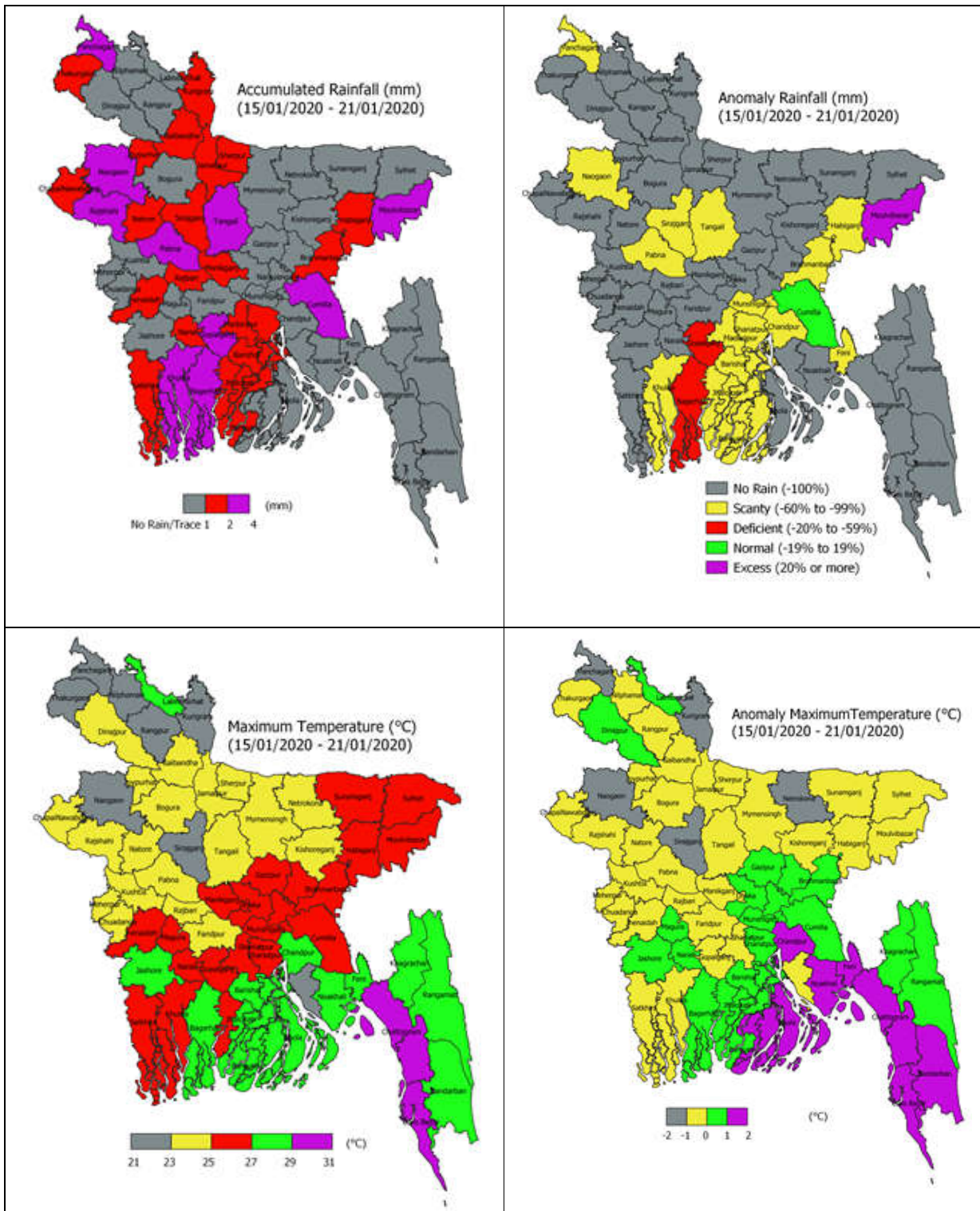
Forecast: Weather may remain dry with temporary partly cloudy sky over the country.

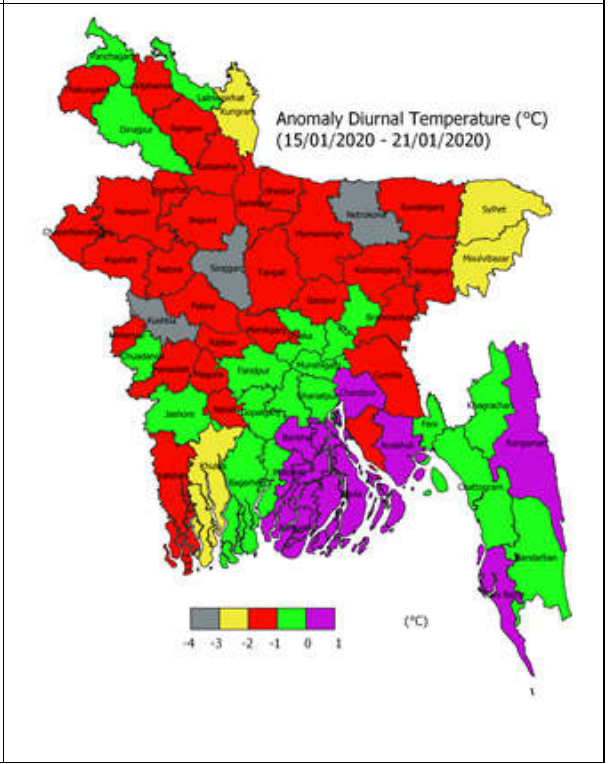
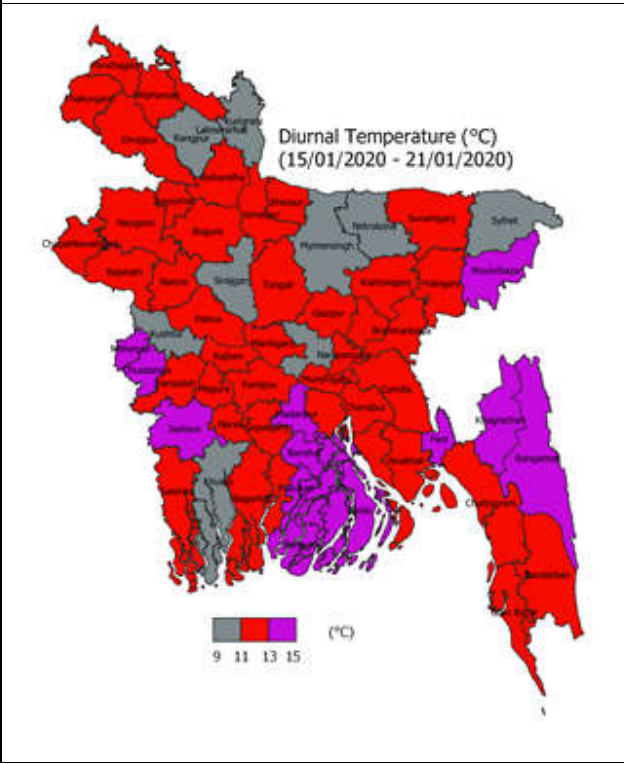
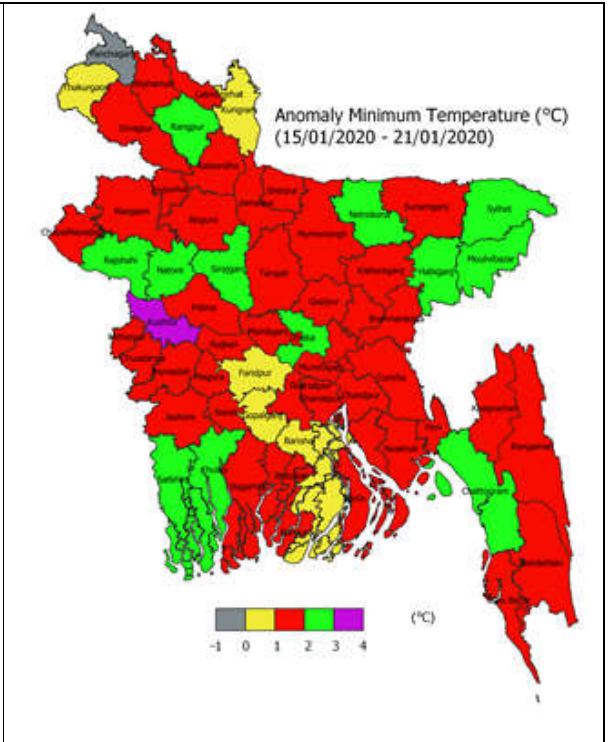
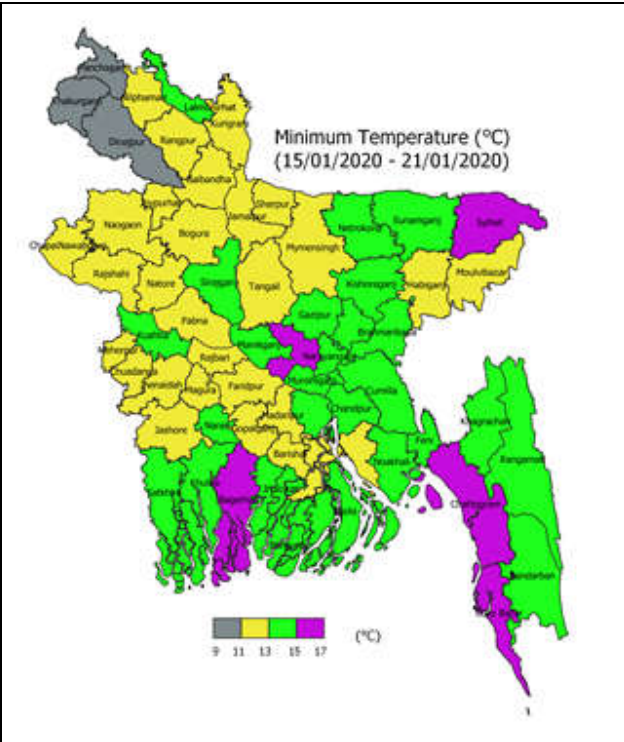
Fog: Moderate to thick fog may occur at places over the country during midnight to morning.

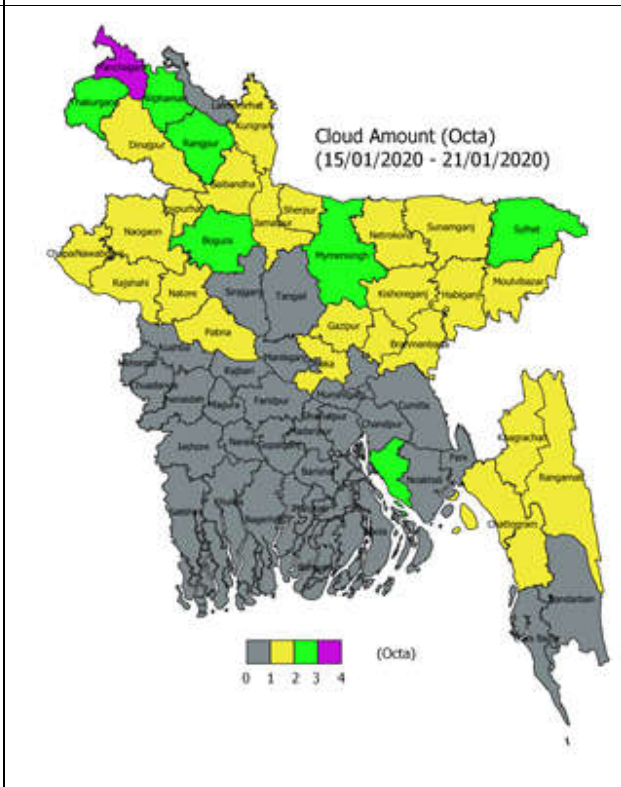
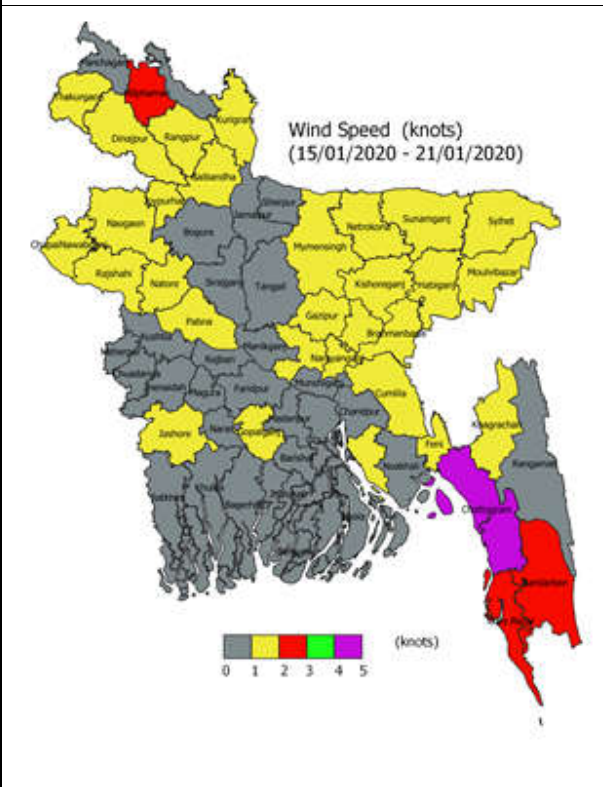
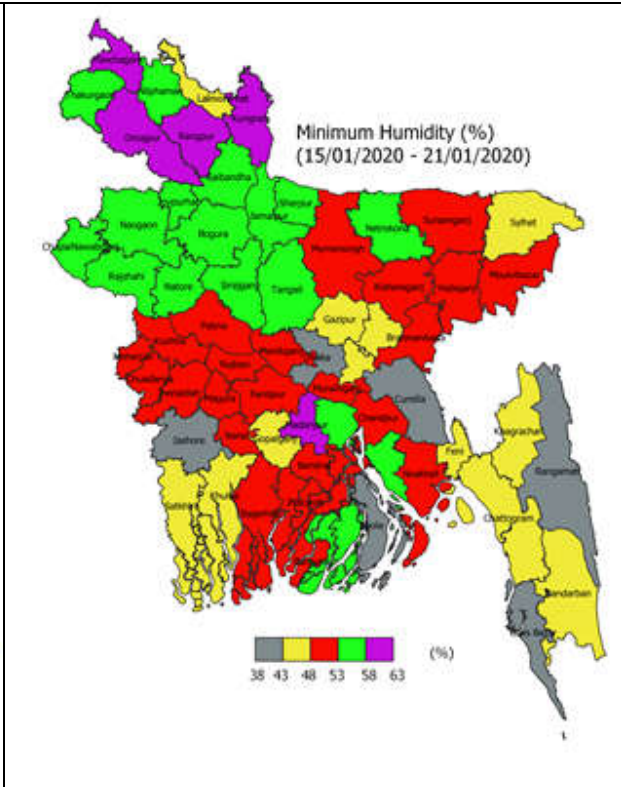
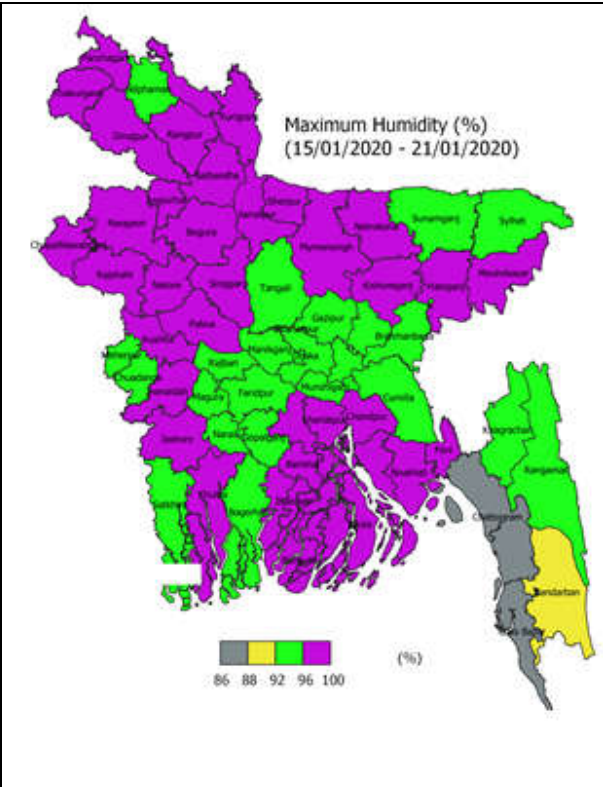
Cold wave: Mild to moderate cold wave is sweeping over Rangpur, Mymensingh & Sylhet divisions and the regions of Tangail, Gopalganj, Faridpur, Madaripur, Nikli, Sitakunda, Rajshahi, Pabna, Naogaon, Jashore, Chuadanga & Barishal and it may continue.

Temperature: Night temperature may rise slightly and day temperature may remain nearly unchanged over the country.

Spatial Distribution of weather parameters for the Week ending 21 January 2020





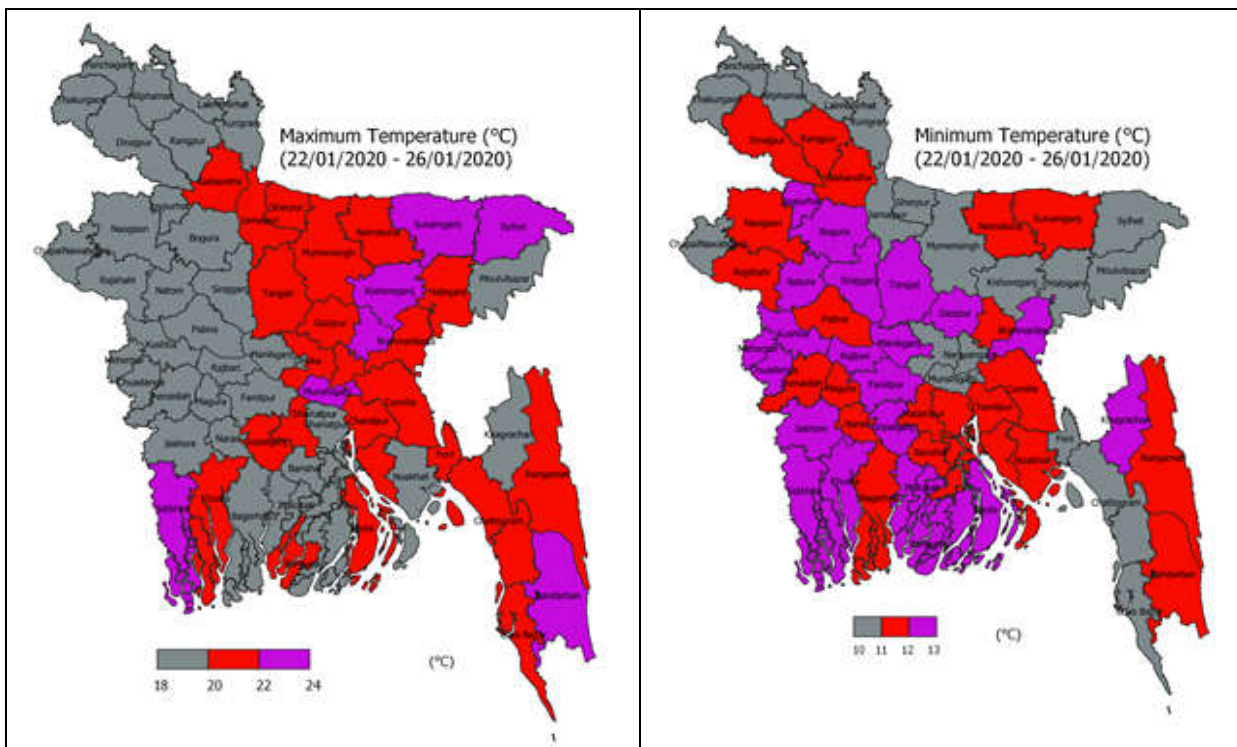


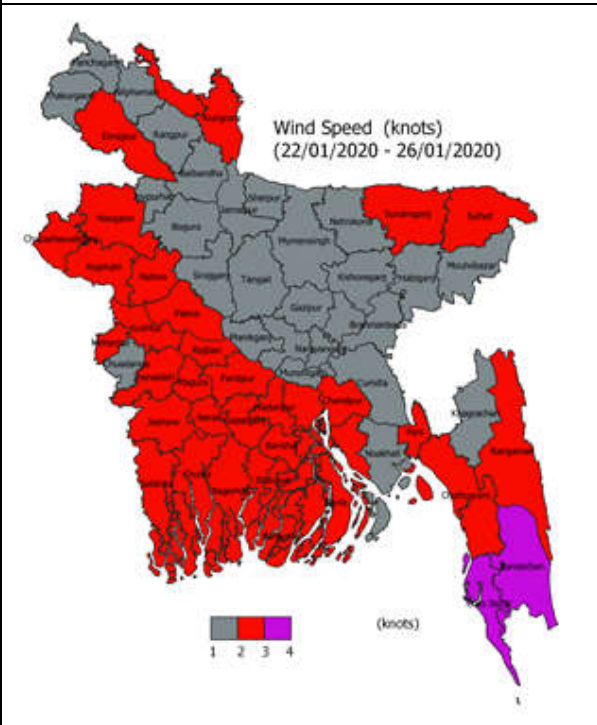
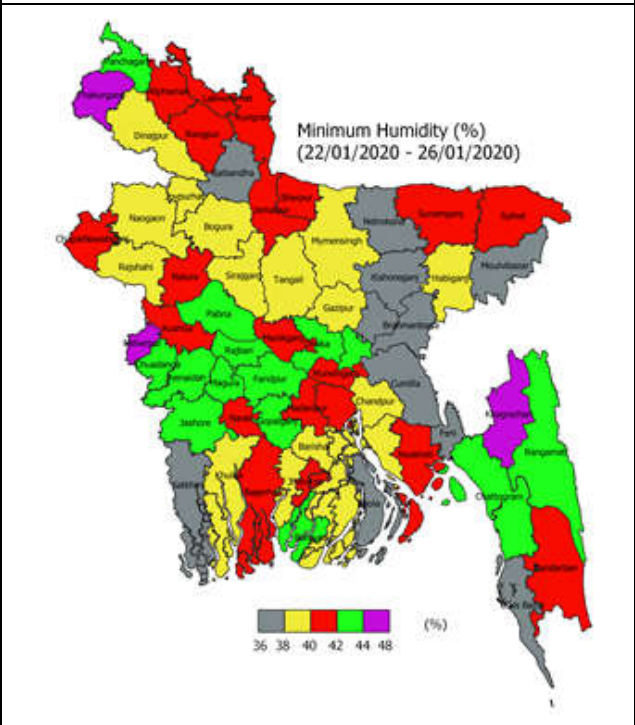
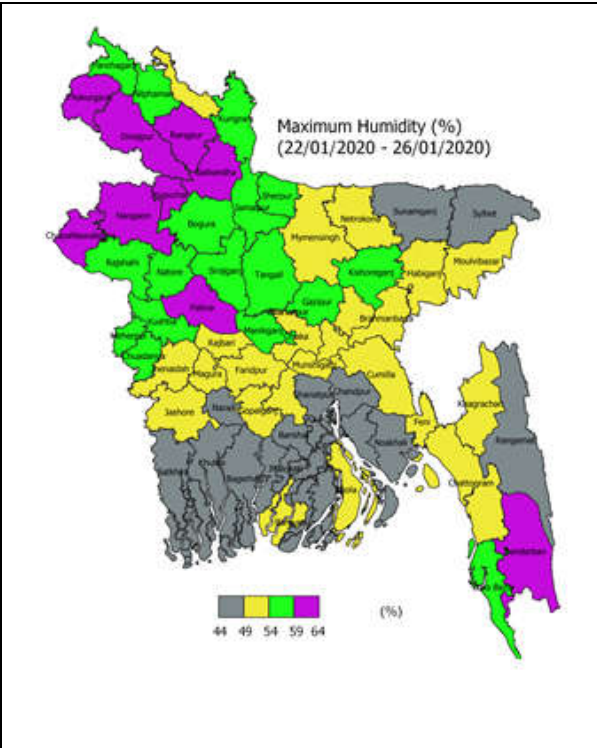
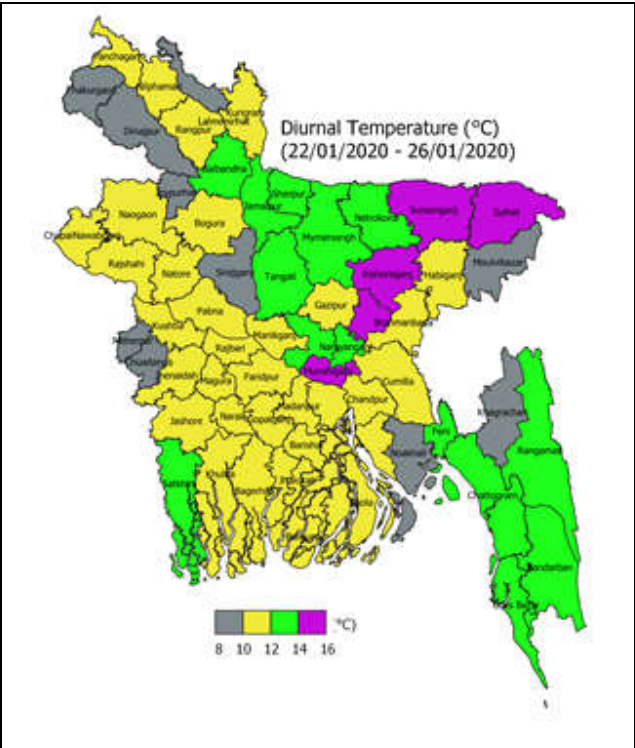
Weather Forecast and Advisory for the Period of 22.01.2020 to 01.02.2020

Bright sunshine hour is likely to be from 6.00 to 7.00 hours per day during this week. Average free water loss is likely to be from 2.00 to 3.00 mm per day during this week.

- Weather may remain dry over the country during the first half of this period and Light (0410mm/day) rain or drizzle may occur at few places over Dhaka, Rajshahi, Mymensingh, Sylhet, Khulna and Barishal divisions (one or two days) during the second half of this period.
- Light to moderate fog may occur at places over the country during late night to morning.
- Day and night temperature may fall slightly during the 1st half of this period and slight rise is expected over the second half of this period.

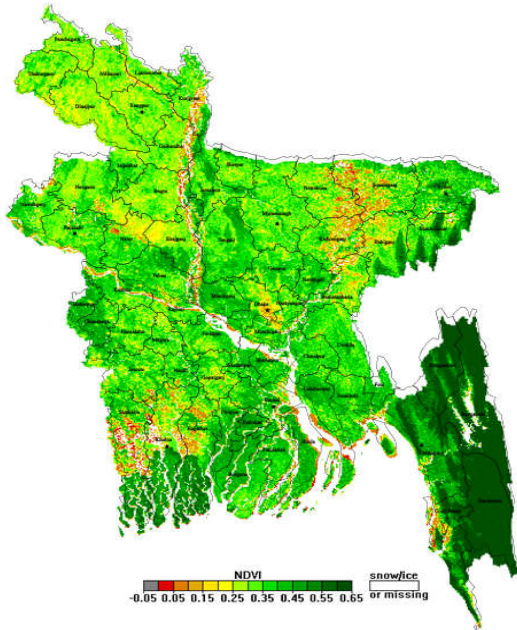
District Wise Quantitative Weather Forecast for next Five days from 15 Jan. -19 January'2020



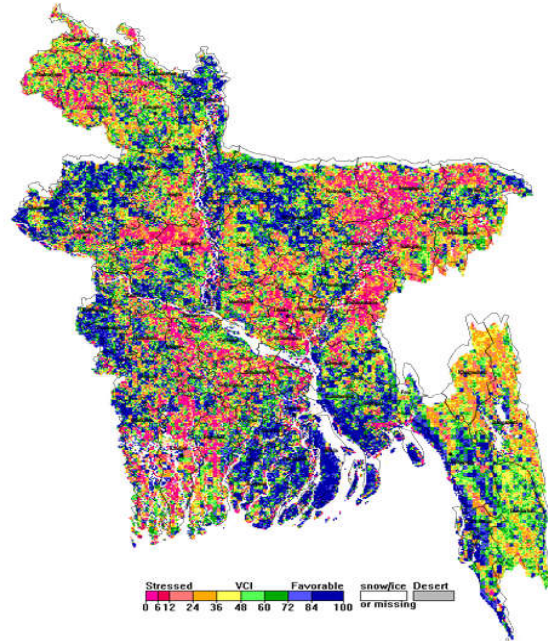


Different Satellite Products over Bangladesh

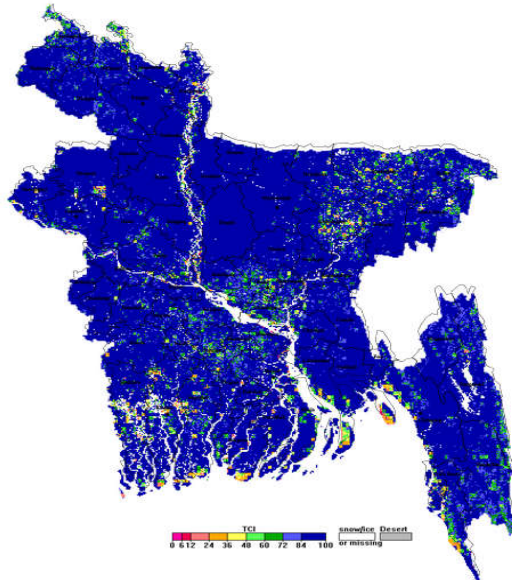
NOAA/VIIRS BLENDED NDVI composite for the week No. 02 (08 January-14 January 2020) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED VCI composite for the week No. 02 (08 January-14 January 2020) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED TCI composite for the week No. 02 (08 January-14 January 2020) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED VHI composite for the week No. 02 (08 January-14 January 2020) over Agricultural regions of Bangladesh

