



NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

01 January 2020 (WEDNESDAY)
[FOR THE PERIOD 01.01.2020 - 05.01.2020]



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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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), night temperature may rise slightly and day temperature may remain nearly unchanged over the country. Light rain/drizzle is likely to occur at one or two places over Rangpur, Rajshahi, Mymensingh, Chattogram and Barisal divisions. Weather may remain mainly dry with temporary partly cloudy sky elsewhere over the country. Mild cold wave is sweeping over the regions of Panchagarah & Jashore and it may abate. Outlook for next 72 hrs indicates that rainfall activity may increase. As per the medium range quantitative district level weather forecast issued by BMD, number of stations will likely to receive rainfall even upto moderate level. Under moderate rainfall condition, postpone the irrigation and drain out the excess water from the crop field. Rainfall, cold temperature along with fog and cloudiness may collectively create congenial conditions for incidences of disease infestation in rabi crops specially to potato for late blight and blast in wheat crop. Under this circumstance, monitor the standing crops for incidence and spread of diseases. If symptoms are noticed, undertake plant protection measures after current spell of rainfall where rainfall is expected. Light irrigation, where dry condition will prevail, during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops. Also smoking is advised in and around the crop field during morning and evening hours. Special care should be taken to protect the livestock, poultry, fishes from the cold. Keep the animals inside the sheds and provide dry bedding and use heaters inside cattle sheds to protect them from cold.

Considering the realized weather along with weather forecast, and state and stage of the crops, agromet advisories are issued for different districts separately. Following are the salient agromet advisories for the districts where good amount of rainfall is expected during next five days. Salient Agromet Advisories for livestock, poultry and fishery are also mentioned.

Agromet Advisories

Vegetables

- Drain out excess water from the crop fields.
- Protect young plants of vegetable from low 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 after the current spell of rainfall.
- In case of cold conditions, there may be infestation of yellow vein mosaic in okra. Farmers are advised to go for spraying of systemic fungicides after the current spell of rainfall.
- Protect young plants from low temperature. Remove the stock sprout, suckers and water sprout from budded/grafted vegetable plants.
- 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.

Boro Paddy:

- Continue seedbed preparation with assured irrigation after the current spell of rainfall.
- 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 after the current spell of rainfall.

- 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. Drain out excess water from the seed bed of boro paddy, Maintain 2-3 cm water level on seed bed.

Potato

- Drain out excess water from the crop fields.
- Farmers are advised to do intercultural operations for conserving the moisture and removing weeds after the current spell of rainfall.
- Smoking around the field is the preventive measures against the attack of disease pathogens.
- Monitor the incidences of late blight disease periodically as there is chance of the 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 after the current spell of rainfall.
- Those who have already planted the crop should adopt mulching by using water hyacinth, straw etc. to enhance the tuber quality and yield after the current spell of rainfall.
- 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 after the current spell of rainfall.
- Due to favourable weather conditions attack of red ant and cut worm 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 after the current spell of rainfall...

Wheat

- Postpone irrigation to wheat crops which are already 17-21 days. Do not allow standing water in the field as this will turn the green leaf to yellow in colour and also may damage the seedlings
- It is advised to apply 300-400 gm Urea per decimal to the 17-21 old crop after the current spell of rainfall.
- Farmers are advised to do intercultural operations for conserving the moisture and removing weeds within 25-30 days after sowing after the current spell of rainfall.
- Monitor the incidences of blast disease periodically as there is chance of the disease due to likely incidence of light to moderate fog over the district during late night till morning. If noticed, apply Navio 75 WG 6 gm/decimal to control the disease after the current spell of rainfall.
- 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 after the current spell of rainfall.
- If symptoms of sulphur deficiency noticed in wheat crop, broadcast one quintal gypsum/acre after the current spell of rainfall.

Maize:

- Postpone first irrigation after 15-20 days' plant. Also postpone second irrigation which should be given after 30-35 days.
- Remove extra seedlings after 30 days of sowing of seeds.

- Remove the weeds upto one month after sowing of seeds.

Mustard:

- Postpone first irrigation should be given after 20-25 days after sowing.
- Farmers are advised to do intercultural operations thinning and weeding in timely sown after 15-20 days of sowing for conserving the moisture and removing weeds in mustard crop.
- Regularly check the mustard crop for pest population. Monitor the crop against attack of leaf eating caterpillars.
- Monitor the crop against attack of painted bug.
- Occurrence of saw fly may be seen in the mustard crops. To control this pest spray Chlorpyrifos 20 EC @ 5 ml/litre of water on fair weather after the current spell of rainfall....
- 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 after the current spell of rainfall.

Groundnut

- Undertake intercultural operations after 14-20 days after sowing after the current spell of rainfall...
- Drain out excess water from the crop fields.
- Present weather conditions are favourable for leaf minor 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 wate sowing after the current spell of rainfall.

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.
- Postpone application of 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.

Livestock

- Do not allow the rainwater to enter inside the cattle shed.
- 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

- Do not allow the rainwater to enter inside the cattle shed.

- 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.
- 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.

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

Realized Weather at different locations in the country

Rainfall for last 24 hours (till 06 AM on 01 January'2020) and maximum temperature on 31 December, minimum temperature on 01 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	28.0	14.6	Rajshahi	Rajshahi	00	25.7	10.2	
	Tangail	00	27.0	12.6		Ishurdi	00	26.0	10.5	
	Faridpur	00	26.2	10.9		Bogura	00	27.6	14.3	
	Madaripur	00	26.0	13.3		Badalgachhi	00	26.0	12.0	
	Gopalganj	00	24.7	10.7		Tarash	00	26.2	12.3	
	Nikli	00	27.0	16.5		Rangpur	Rangpur	00	25.0	16.0
	Mymensingh	Mymensingh	00	26.7			13.4	Dinajpur	00	26.0
Netrokona		00	26.4	14.5	Sayedpur		00	26.0	14.5	
Chattogram	Chattogram	00	26.9	17.5	Tetulia		00	26.7	09.2	
	Sandwip	00	27.9	15.0	Dimla	00	27.0	13.5		
	Sitakunda	00	29.0	13.3	Rajarhat	00	24.9	12.5		
	Rangamati	00	29.0	16.0	Khulna	Khulna	00	24.8	12.2	
	Cumilla	00	28.3	15.3		Mongla	00	25.8	13.9	
	Chandpur	00	28.2	16.1		Satkhira	00	25.3	10.7	
	M. Court	00	27.0	16.0		Jashore	00	25.6	09.6	
	Feni	00	29.0	15.4		Chuadanga	00	24.5	10.3	
	Hatiya	00	26.8	15.4		Kumarkhali	00	24.4	10.4	
	Cox's Bazar	00	29.3	18.2	Barishal	Barishal	00	27.1	13.4	
Kutubdia	00	26.2	16.2	Patuakhali		00	27.6	14.9		
Teknaf	00	28.6	16.5	Khepupara		00	27.6	14.9		
Sylhet	Sylhet	00	28.8	16.4		Bhola	00	27.0	14.0	
	Srimangal	00	28.5	14.3						

Highlights:

- Country average bright sunshine hour was 4.19 hours per day during last week.
- Country average free water loss during the previous week was 2.05 mm per day.

Weather Forecast Valid for 24 Hours commencing 06 PM Today:

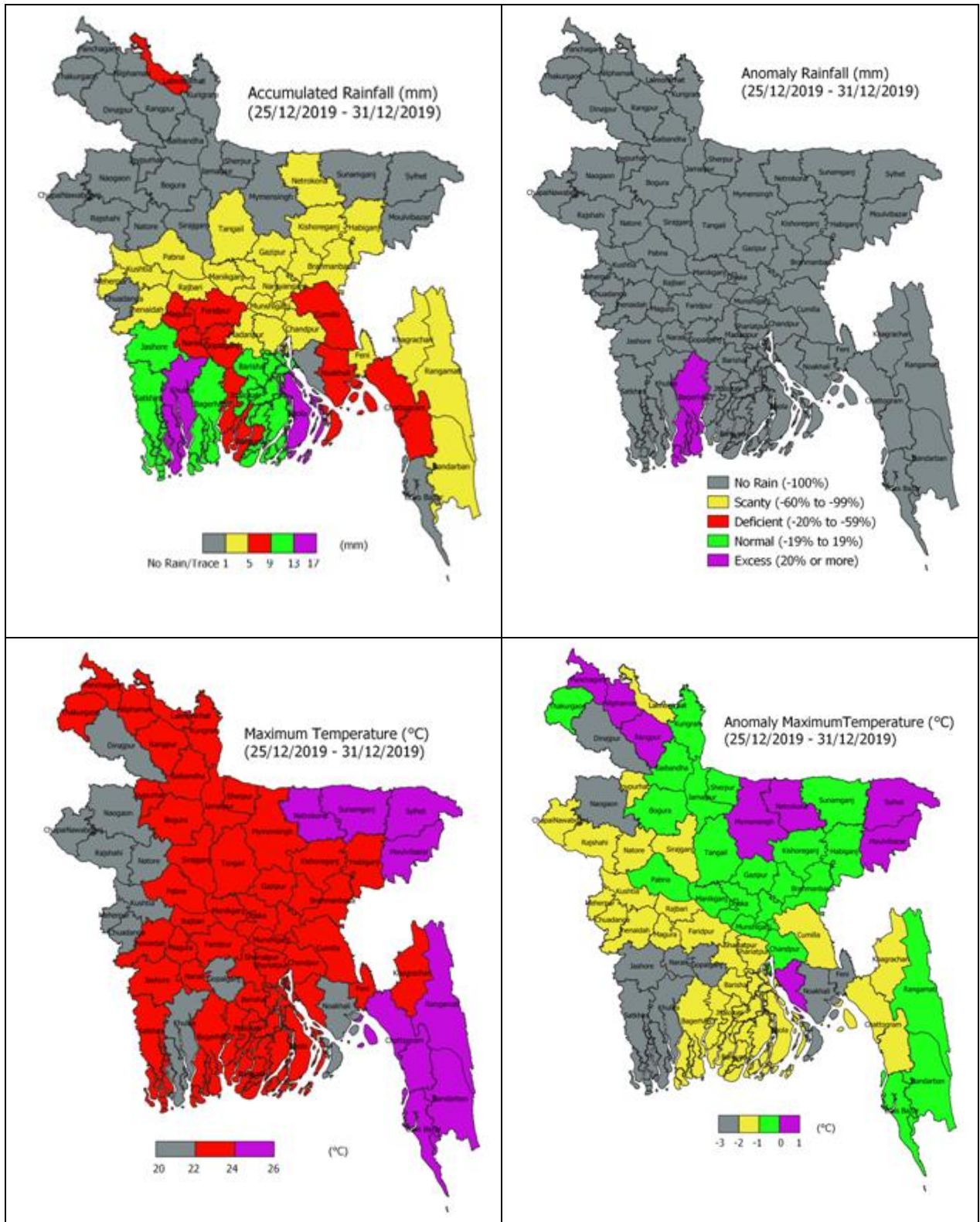
Forecast: Light rain/drizzle is likely to occur at one or two places over Rangpur, Rajshahi, Mymensingh, Chattogram and Barisal divisions. Weather may remain mainly dry with temporary partly cloudy sky elsewhere over the country.

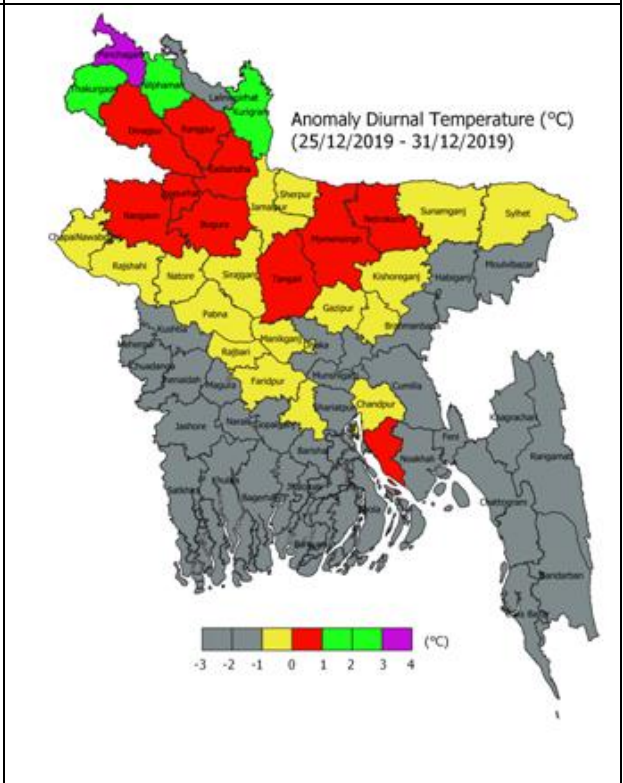
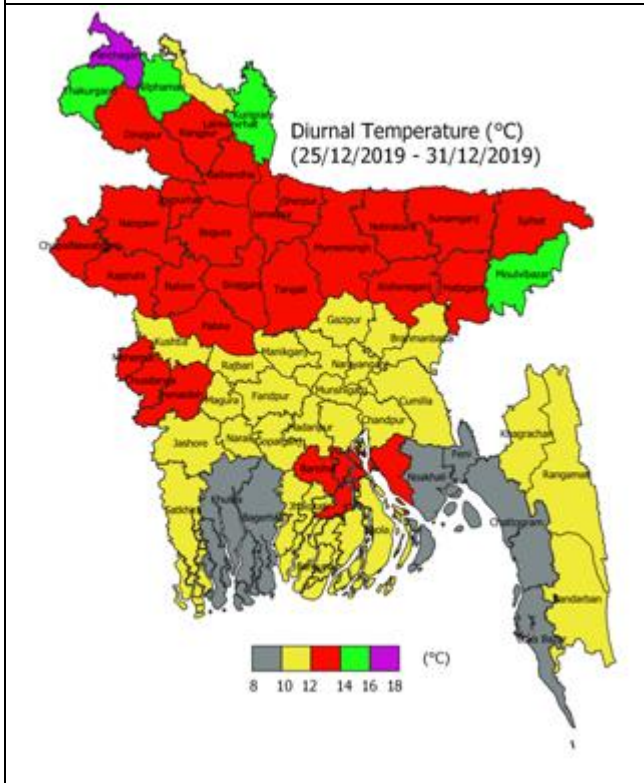
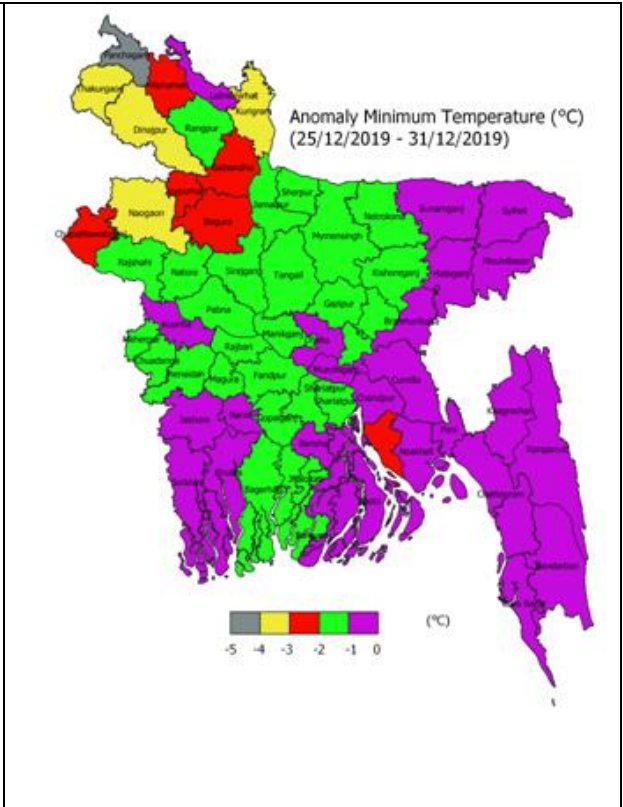
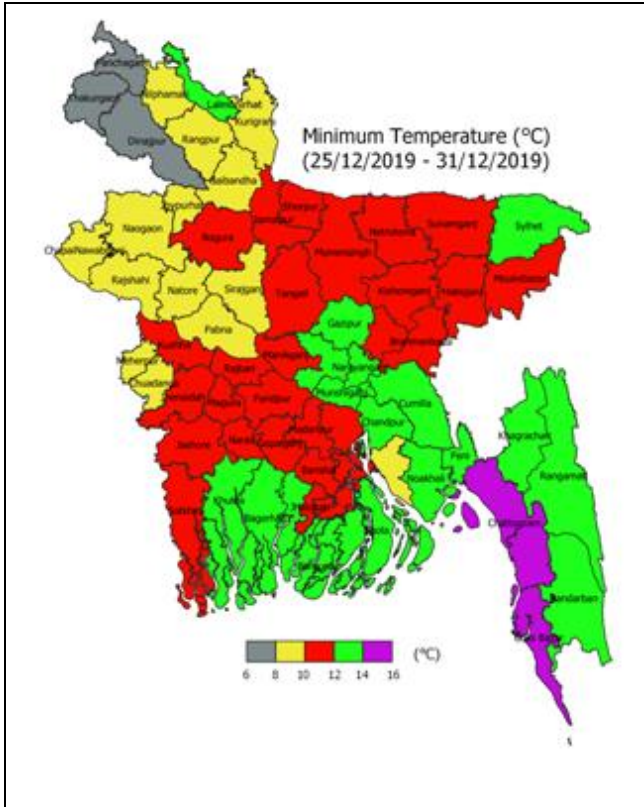
Fog: Light to moderate fog may occur at places over the country during late night to morning.

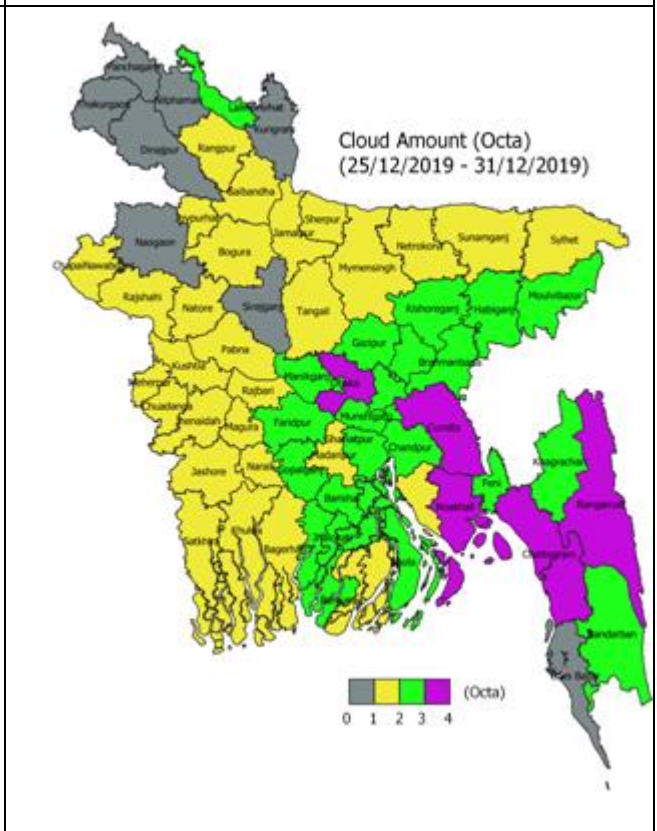
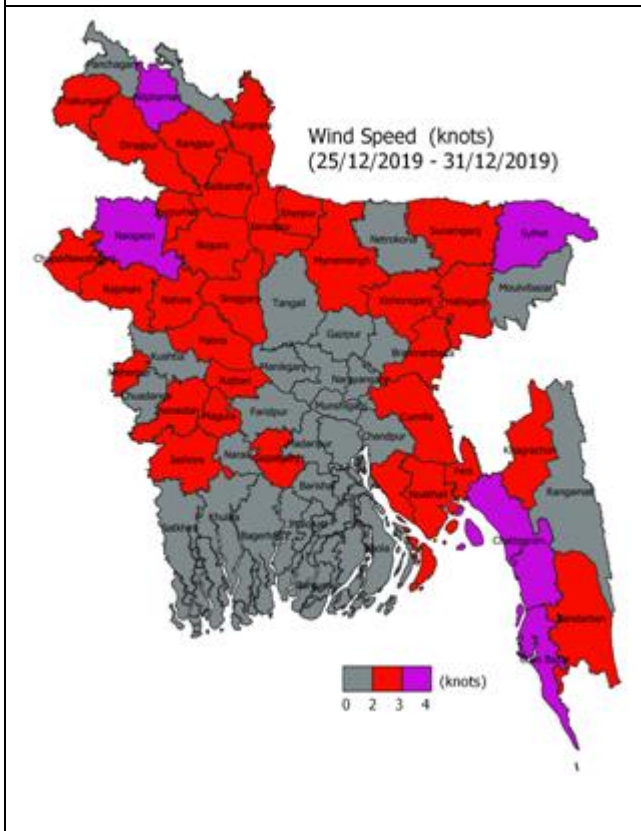
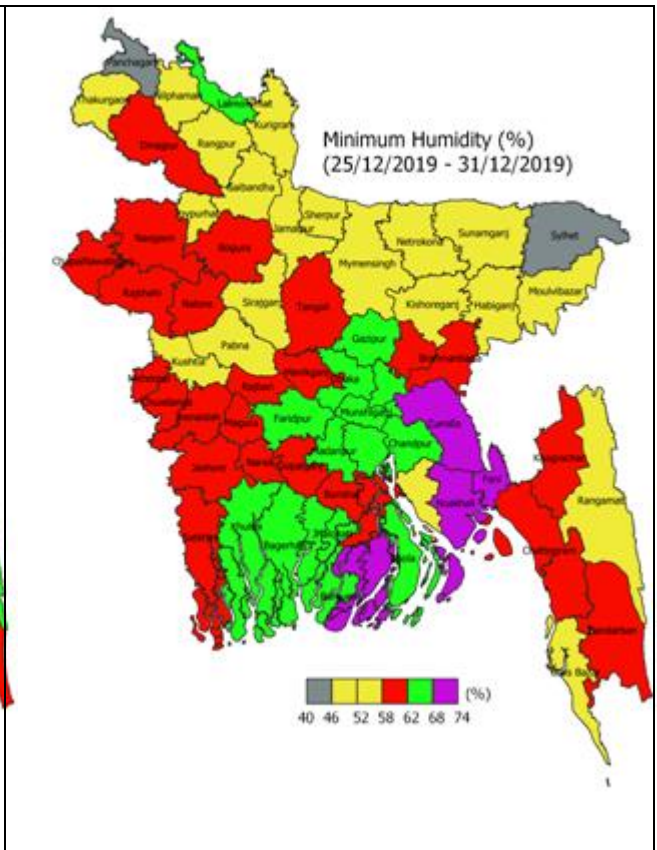
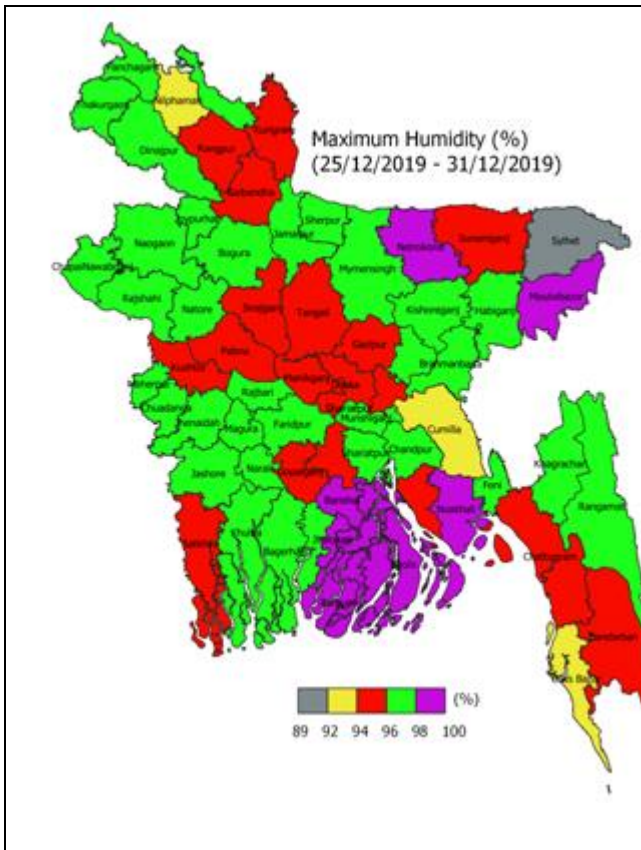
Cold Wave: Mild cold wave is sweeping over the regions of Panchagarah & Jashore and it may abate.

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 31 December 2019





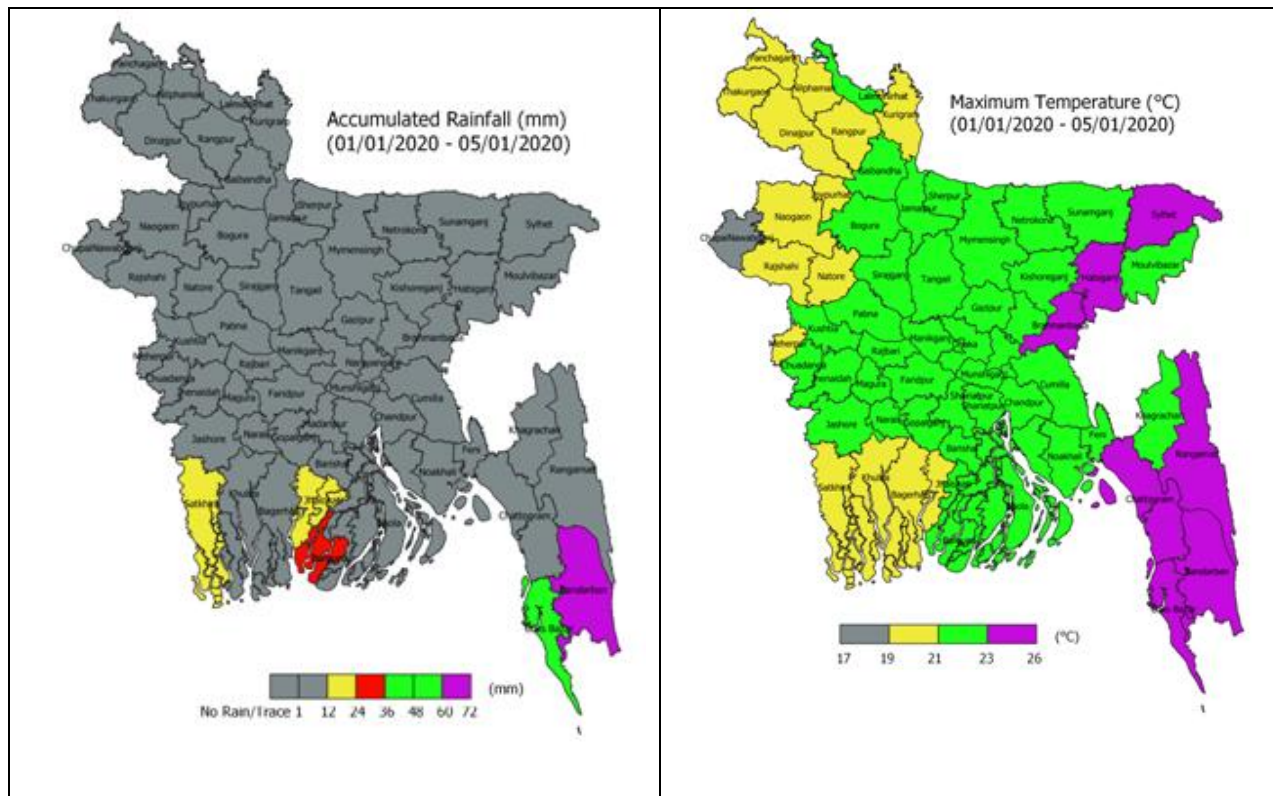


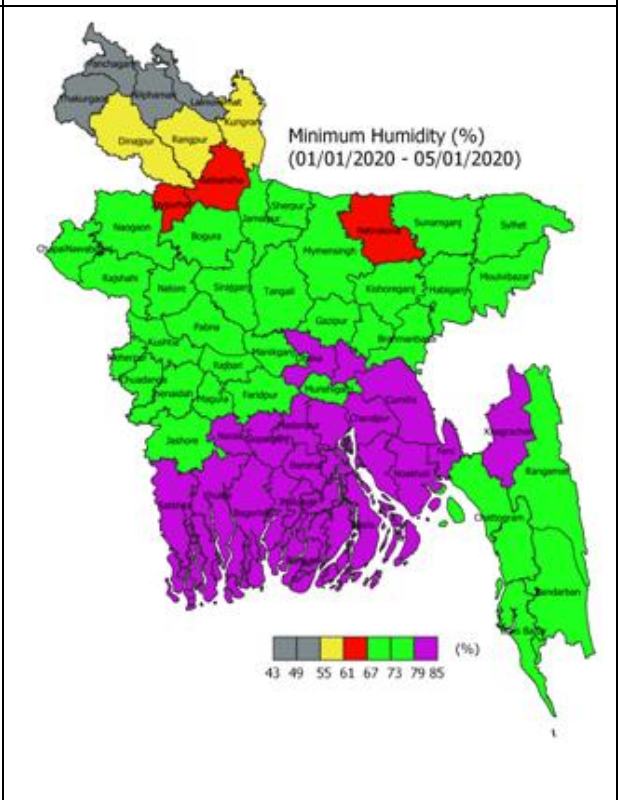
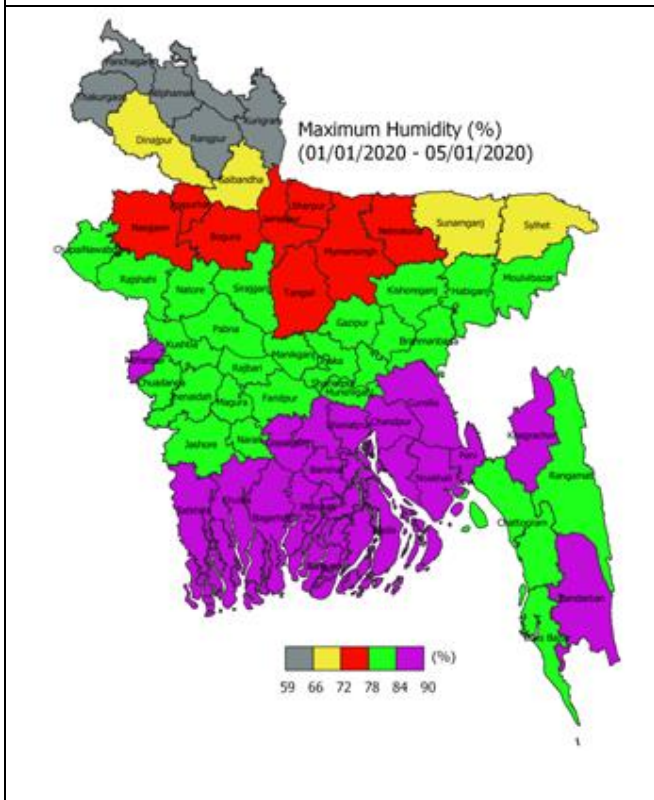
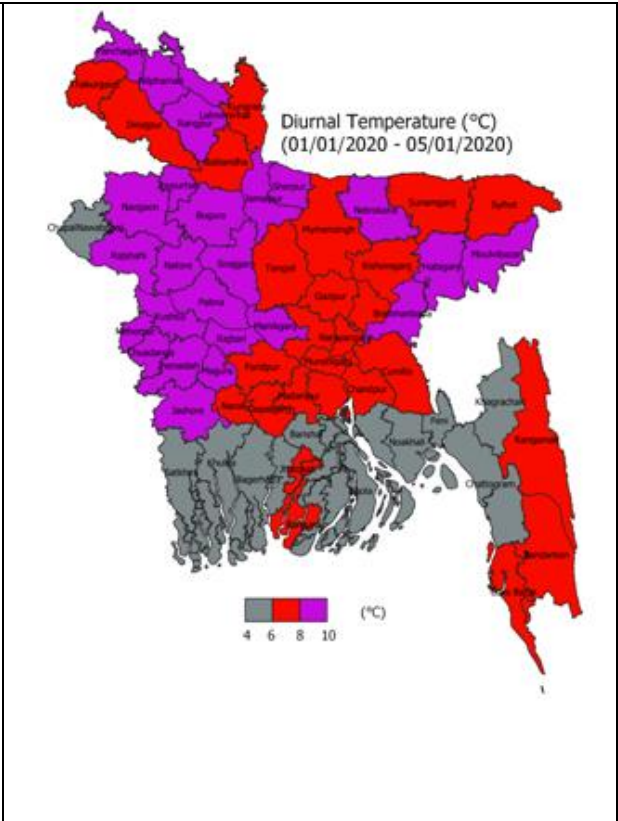
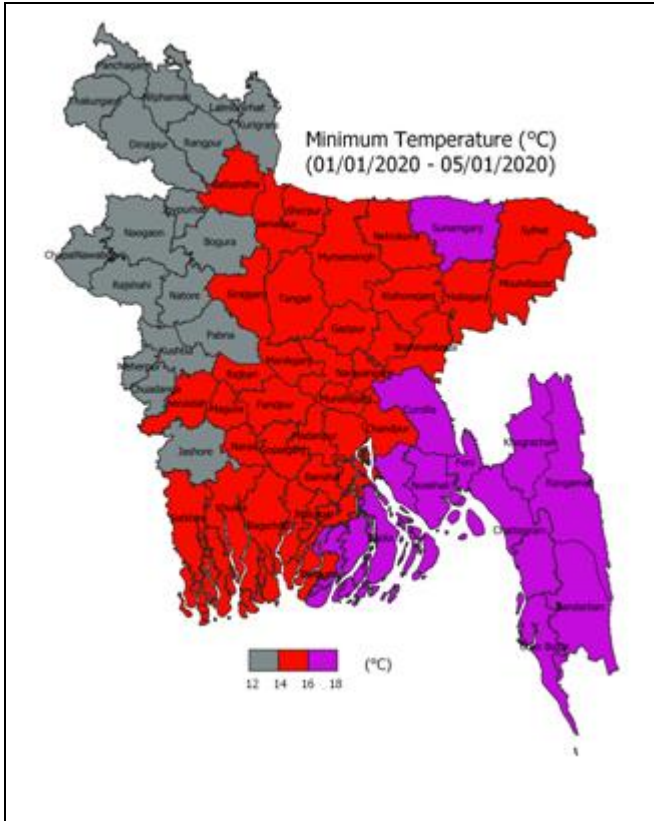
Weather Forecast and Advisory for the Period of 01.01.2020 to 07.01.2020

Bright sunshine hour is likely to be from 4.50 to 5.50 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.

- Light (04-10mm/day) to moderate (11-22 mm/day) rain may occur at few places over the country during this period.
- Light fog may occur at places over the country during late night to morning.
- Night temperature may rise slightly during the 1st half of this period and slight fall is expected over the second half of this period.

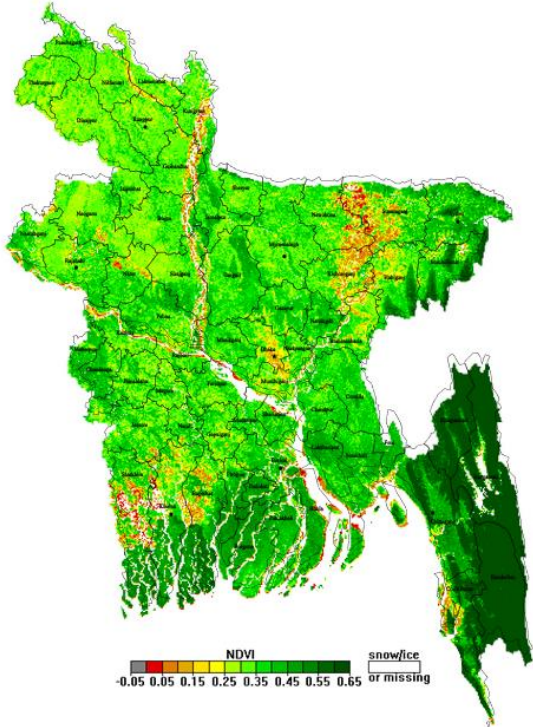
District Wise Quantitative Weather Forecast for next Five days from 01 Jan. -05 January'2020



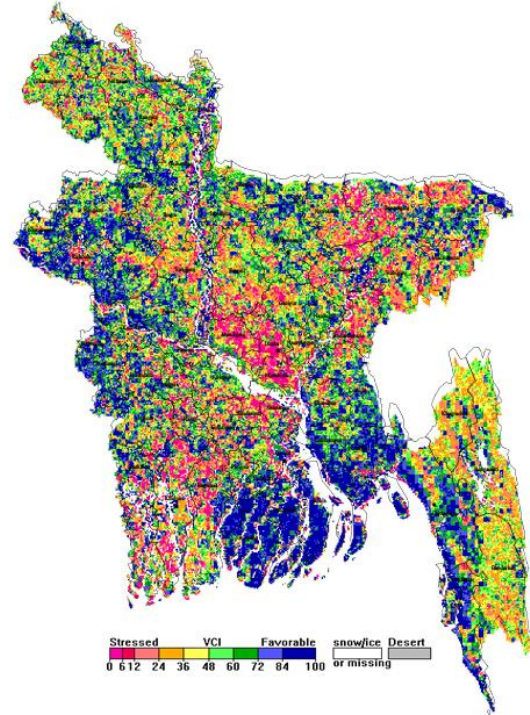


Different Satellite Products over Bangladesh

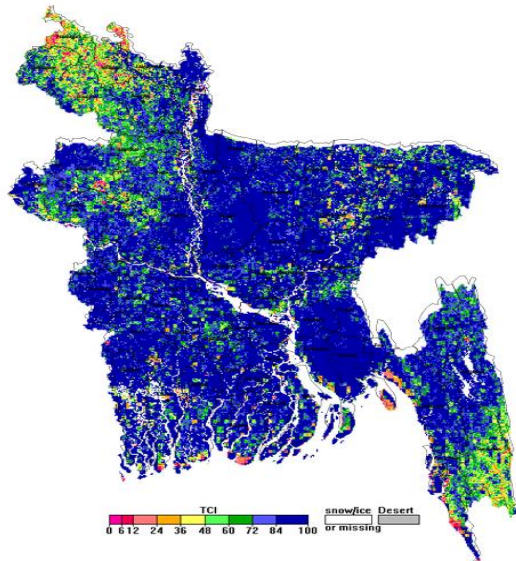
NOAA/VIIRS BLENDED NDVI composite for the week No. 52 (24 December-30 December) over Agricultural regions of Bangladesh



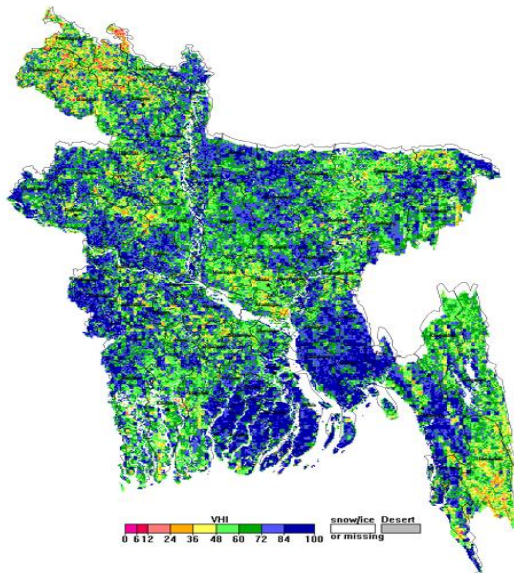
NOAA/ AVHRR BLENDED VCI composite for the week No. 52 (24 December-30 December) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED TCI composite for the week No. 52 (24 December-30 December) over Agricultural regions of Bangladesh

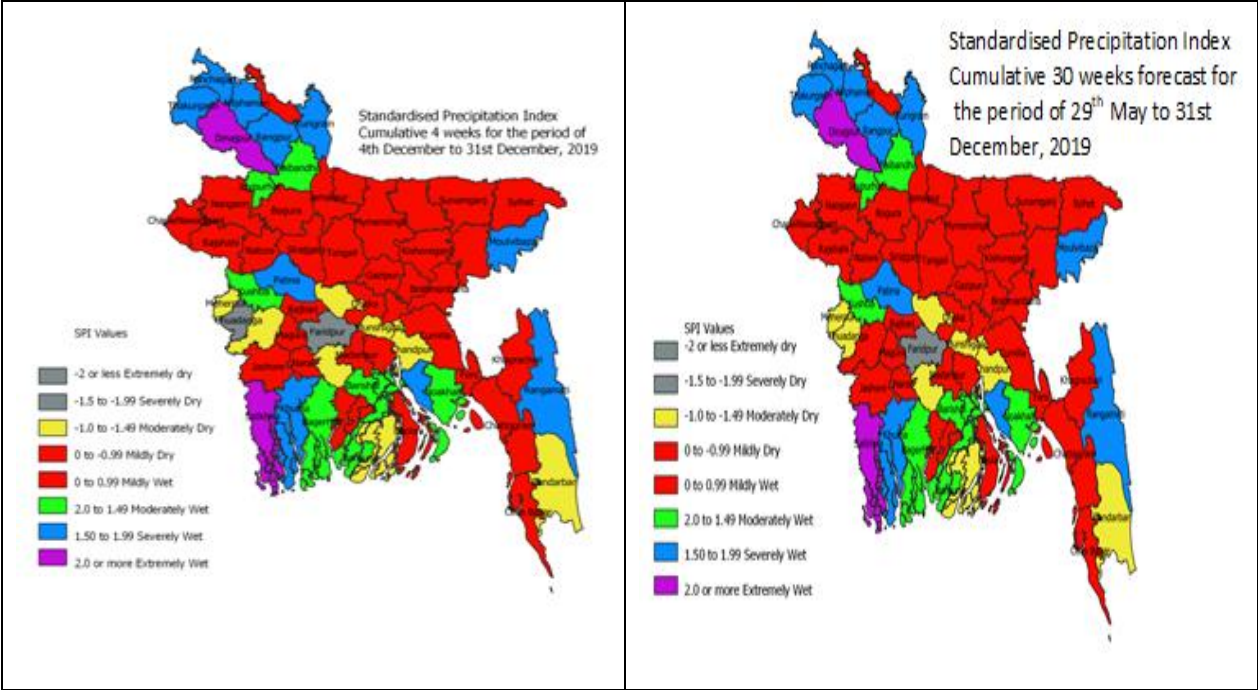


NOAA/ AVHRR BLENDED VHI composite for the week No. 52 (24 December-30 December) over Agricultural regions of Bangladesh



Monitoring Meteorological Drought in Bangladesh using Standardized Precipitation Index (SPI)

It has been observed that during last four weeks including November and December mild wet conditions prevails in whole Bangladesh except some districts and moderate to severe dry condition prevails in some districts of Bangladesh.



Data source: Bangladesh Meteorological Department