



NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

25 December 2019 (WEDNESDAY)
[FOR THE PERIOD 25.12.2019 - 29.12.2019]



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), weather may remain mainly dry with partly cloudy sky over the country. Moderate to thick fog may occur over the country during midnight to morning. Mild to moderate cold wave is sweeping over Rangpur and Rajshahi divisions and the regions of Tangail & Kushtia and it may continue. Night temperature may remain nearly unchanged and day temperature may rise slightly over. As per the Outlook for next 72 hrs. issued from BMD, temperature may fall further over the country. As per the medium range quantitative district level weather forecast issued by BMD, trace to light rainfall will prevail over some of the district in the country for next five days especially on 26th & 27th December. These may be congenial conditions for incidences of disease infestation in rabi crops specially to tomato for early blight. Under this circumstance, monitor the standing crops for incidence and spread of diseases. If symptoms are noticed, undertake plant protection measures. Light irrigation 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 as night temperature is likely to below normal and also there is a chance fall of minimum temperature during next five days. 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 dry condition prevailed during last four days & dry condition will also likely during next five days. Salient Agromet Advisories for livestock, poultry and fishery are also mentioned.

Agromet Advisories

Vegetables

- As there was no rainfall relatively for extended period and there is no chance of significant rainfall for next five days, apply adequate irrigation to moist the soil in the vegetable field.
- Protect young plants of vegetable from low temperature.
- 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
- 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.
- Protect young plants from low temperature. Remove the stock sprout, suckers and water sprout from budded/grafted vegetable plants.

Boro Paddy:

- Continue seedbed preparation with assured irrigation.
- Remove the dew deposited in the morning hours on seedlings.
- Apply light irrigation as there was no rainfall during past few weeks and there is no chance of significant rainfall during next five days.
- If the seedbed becomes yellow, apply urea at the rate of 283 gm urea per decimal.

- 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.

Wheat

- It is advised to give first & light irrigation to wheat crops which are already 17-21 days as there was no rainfall and also there is no chance of significant rainfall next one week. 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
- Besides during day time when the soil is in moist condition, it is advised to apply 300-400 gm Urea per decimal to the 17-21old crop as there is no chance of rainfall and wind will be calm for next seven days.
- Farmers are advised to do intercultural operations for conserving the moisture and removing weeds within 25-30 days after sowing.
- 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 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.

Mustard:

- It is advised to see the presence of required soil moisture which help in germination of seeds. If there is less moisture during sowing, apply light irrigation after 10-15 days after sowing.
- As there was no rainfall and there is no chance of significant rainfall during next few days, 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.
- Due to possibility of dry weather farmers are advised to do thinning to maintain proper plant count in timely sown 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.
- 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.

Maize:

- As there was no rainfall and there is no chance of significant rainfall during next few day, apply first irrigation after 15-20 days plant. Second irrigation 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.

Lentil

- Apply light irrigation
- Intercultural operation i.e. weeding should be done once within 30-35 days after sowing of seeds.
- 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.

Potato

- Apply light irrigation as there was no rainfall during past few weeks and there is no chance of significant rainfall during next five days. In potato field, three irrigations are recommended. First at 25 days, second at 60 days and third at 80 days after planting of the tubers.
- Farmers are advised to do intercultural operations for conserving the moisture and removing weeds.
- 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.
- Those who have already planted the crop should adopt mulching by using water hyacinth, straw etc. to enhance the tuber quality and yield.
- 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).
- 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.

Groundnut

- Undertake intercultural operations after 14-20 days after sowing.
- As there is no chance of significant rainfall during next 5 days and soil is almost dry, apply irrigation to the plants which are sown 18-20 days back.
- 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 water.

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.

Sugarcane:

- Irrigation can be given at weekly interval (for medium type of soil). In heavy soils, 10-15 days' interval.
- If water scarcity is the irrigate the crop in alternate row, to save the water. Drip irrigation can save the water up 40 per cent per cent.
- To control early shoot borer in sugarcane, spray 2.5 ml Monocrotophos in each litre water. Spray 2 g Bentan or Crilton per litre of water to control red rot and release required quantity of Epiricania sps to control pyrilla infestation.
- To control stem borer in sugarcane, spray Chlorpyriphos 20 % @ 30 ml per 10 liter of water
- To prevent lodging of matured sugarcane crops, it is advised to provide mechanical support to the crops by using bamboo sticks or tying 4 to 5 canes together with their leaves.

Beetle vine

- Keep the old fencing tight
- Cover the beetle vine field with straw and other materials like cotton cloths like sari so that cold & strong Northern wind should not enter and affect the growth of the plant.
- Remove Kochu crop if it grown around the beetelvine crop as it may be infested by gora pancha and kanda pancha disease.
- Start harvesting of the crop as sunny weather will prevail during next five days

Cotton: Sowing stage

- Continue picking up cotton bolls.

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.

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.

- 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 25 December'19) and maximum temperature on 24 December, minimum temperature on 25 December'19 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	22.2	13.0	Rajshahi	Rajshahi	00	22.3	08.7	
	Tangail	00	18.2	09.2		Ishurdi	00	21.7	08.8	
	Faridpur	00	22.0	11.2		Bogura	00	22.3	10.0	
	Madaripur	00	23.2	11.3		Badalgachhi	00	21.7	07.4	
	Gopalganj	00	20.5	10.2		Tarash	00	18.4	08.0	
	Nikli	00	21.0	11.5						
Mymensingh	Mymensingh	00	17.5	11.5	Rangpur	Rangpur	00	22.5	08.3	
	Netrokona	00	20.4	12.5		Dinajpur	00	21.8	06.8	
						Sayedpur	00	22.7	08.8	
						Tetulia	00	22.9	<u>06.2</u>	
Chattogram	Chattogram	00	26.5	13.8		Dimla	00	20.6	07.5	
	Sandwip	00	25.6	13.6		Rajarhat	00	22.0	07.7	
	Sitakunda	00	27.0	12.8	Khulna	Khulna	00	21.0	12.3	
	Rangamati	00	26.3	13.0		Mongla	00	23.8	13.2	
	Cumilla	00	22.2	14.0		Satkhira	00	22.7	12.3	
	Chandpur	00	23.2	13.5		Jashore	00	23.8	11.0	
	M.Court	00	23.5	14.5		Chuadanga	00	22.3	09.6	
	Feni	00	24.0	13.2		Kumarkhali	00	21.2	10.6	
	Hatiya	00	25.2	14.0						
	Cox's Bazar	00	27.8	15.7		Barishal	Barishal	00	23.8	10.8
Kutubdia	00	27.0	13.8	Patuakhali			00	25.5	13.5	
Teknaf	00	<u>28.2</u>	xx	Khepupara			00	26.1	13.2	
				Bhola	00		24.0	12.2		
Sylhet	Sylhet	00	24.8	15.5						
	Srimangal	00	23.0	14.4						

Highlights:

- Country average bright sunshine hour was 4.13 hours per day during last week.
- Country average free water loss during the previous week was 2.34 mm per day.

Weather Forecast Valid for 24 Hours commencing 06 PM Today:

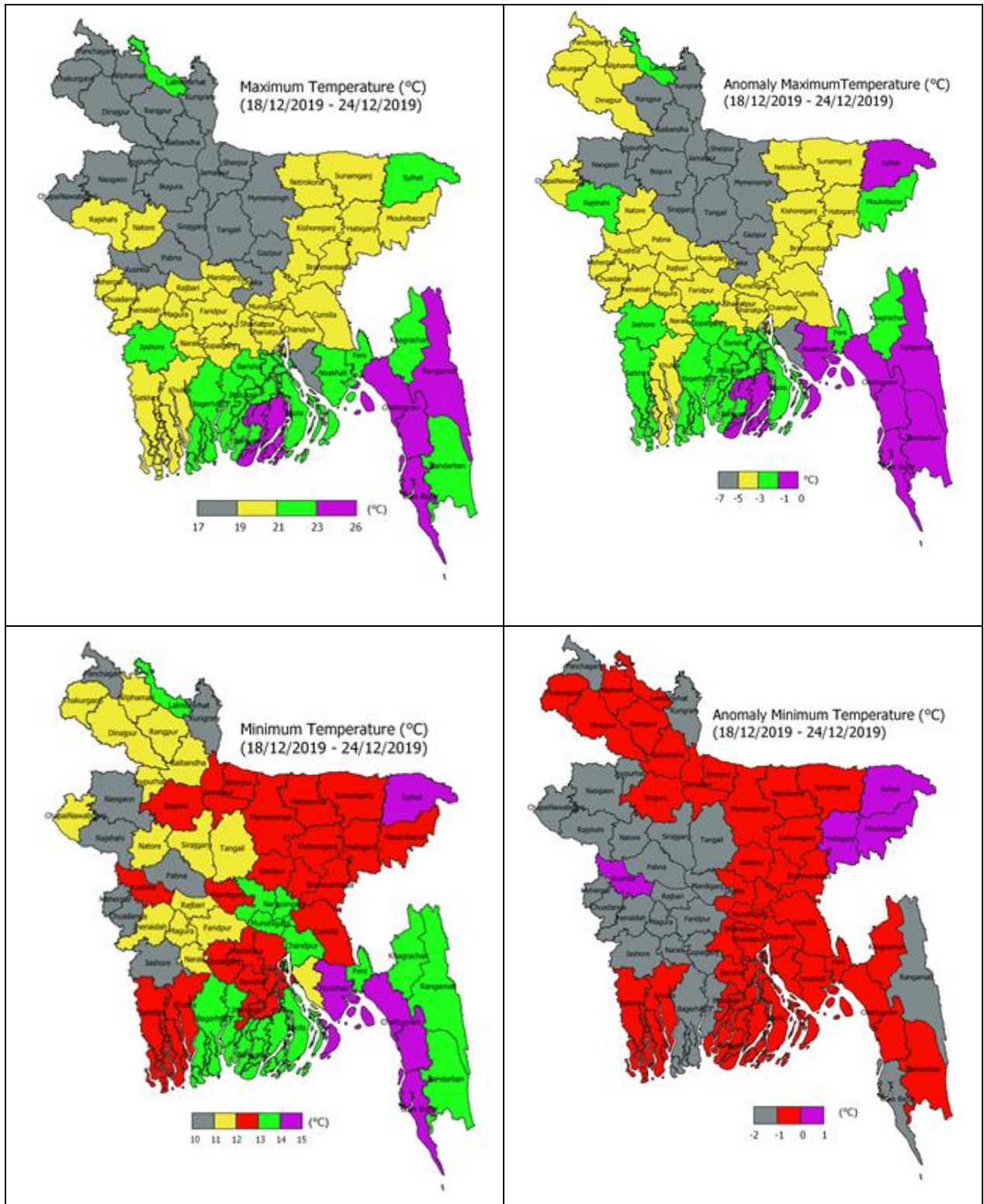
Forecast: Weather may remain mainly dry with partly cloudy sky over the country.

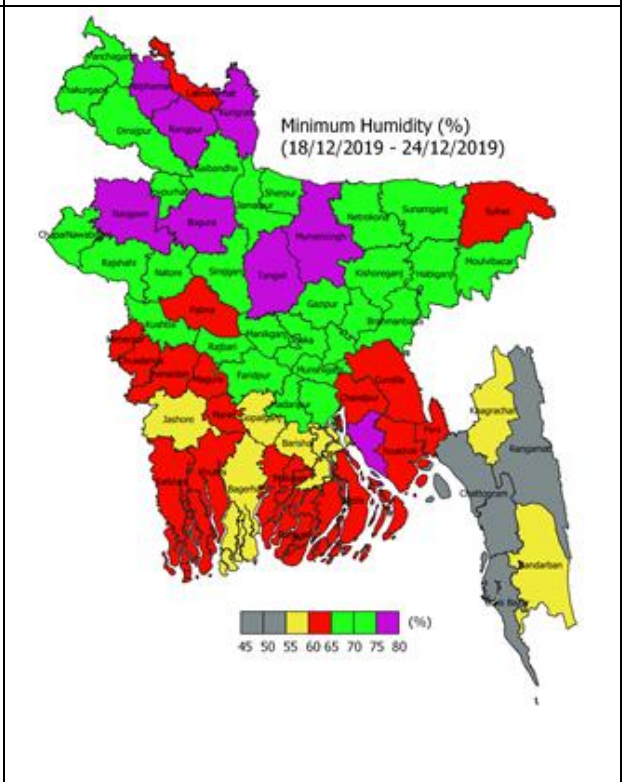
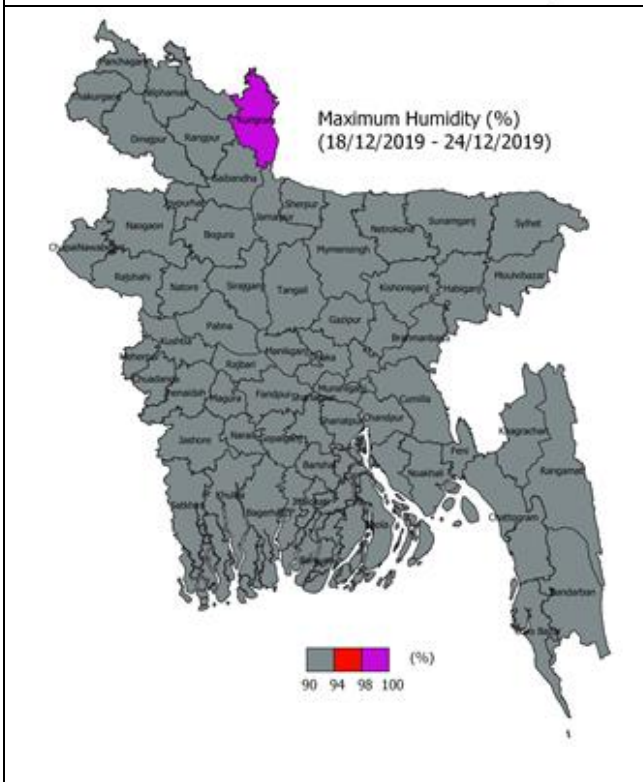
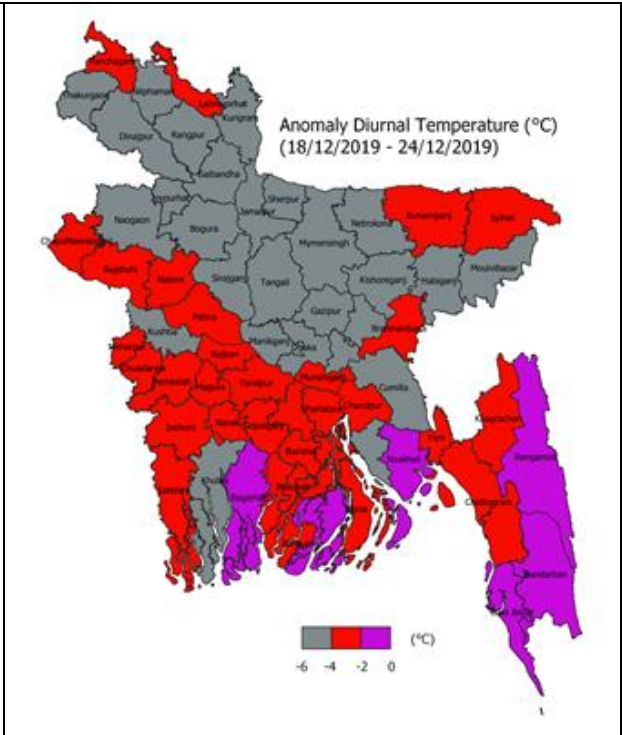
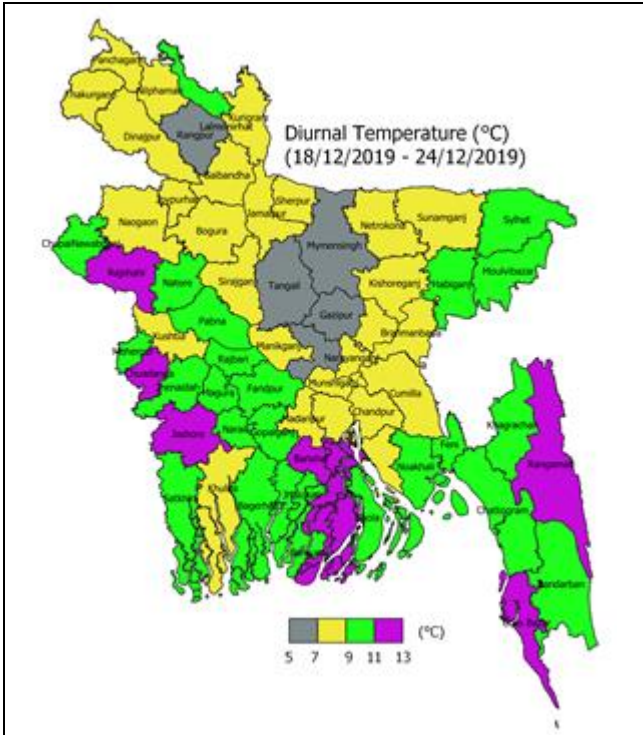
Fog: Moderate to thick fog may occur over the country during midnight to morning.

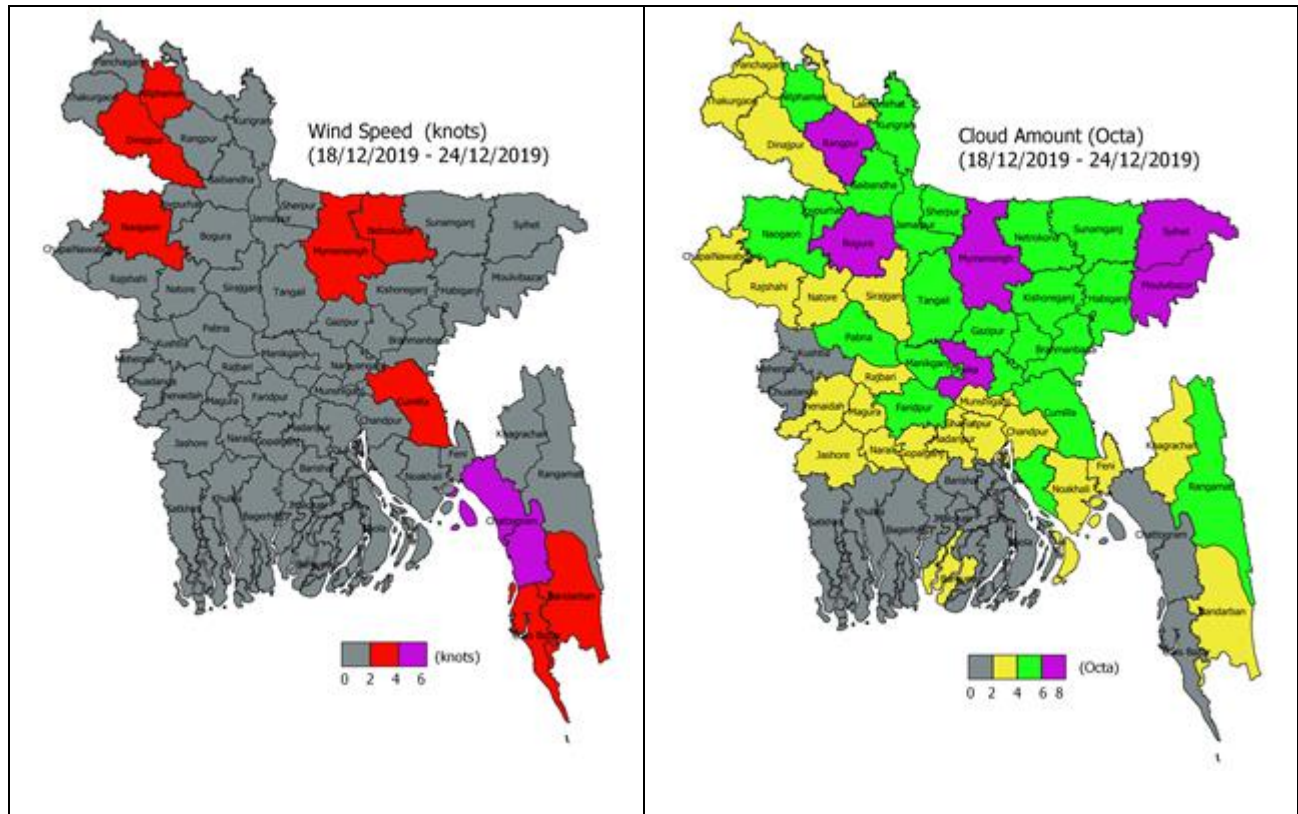
Cold Wave: Mild to moderate cold wave is sweeping over Rangpur and Rajshahi divisions and the regions of Tangail & Kushtia and it may continue.

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

Spatial Distribution of weather parameters for the Week ending 24 December 2019





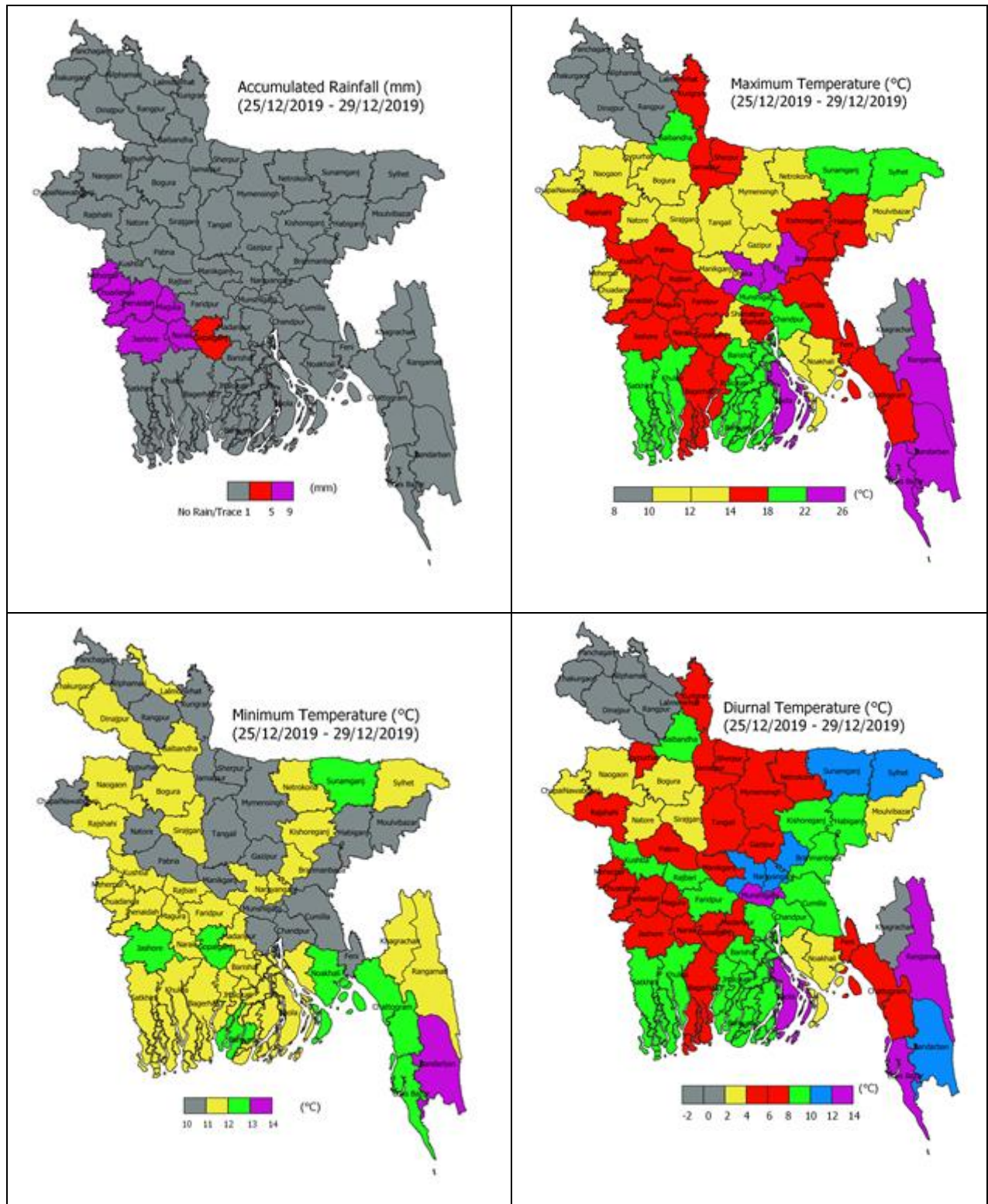


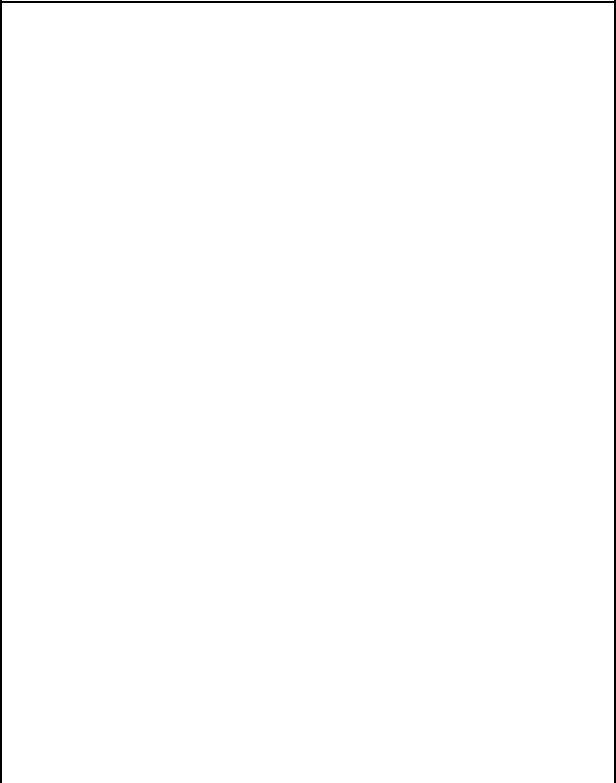
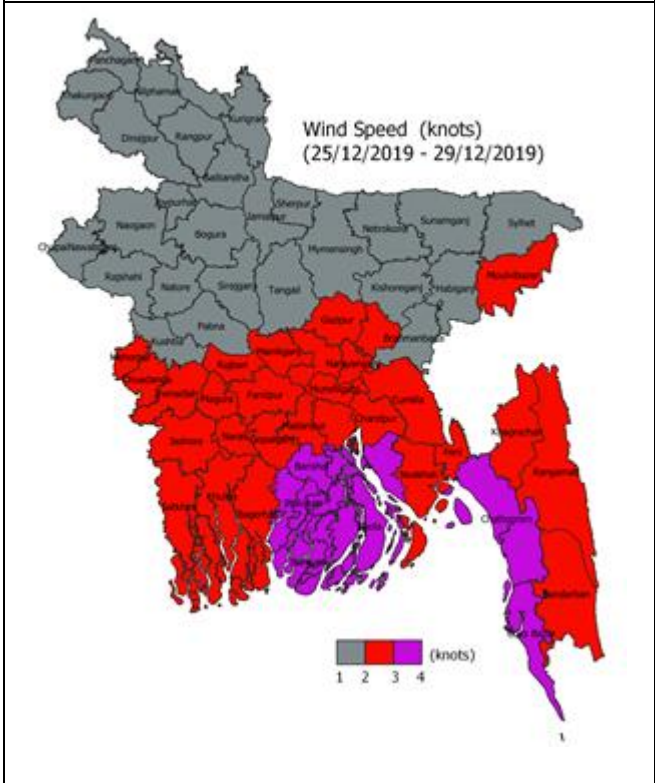
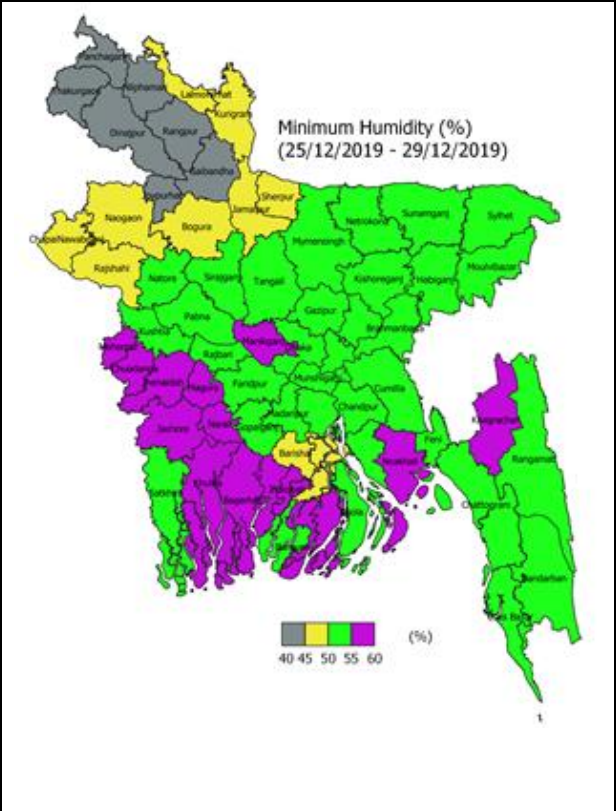
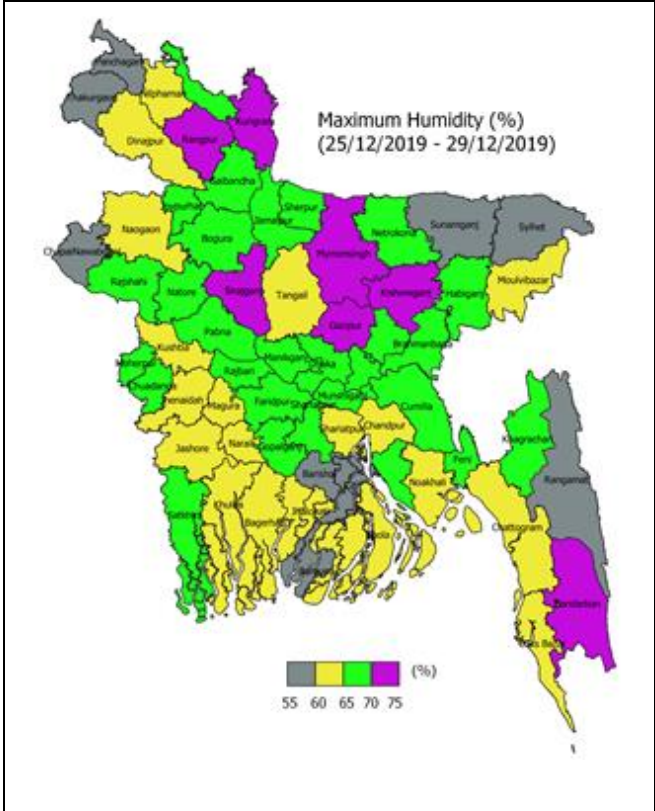
Weather Forecast and Advisory for the Period of 22.12.2019 to 31.12.2019

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

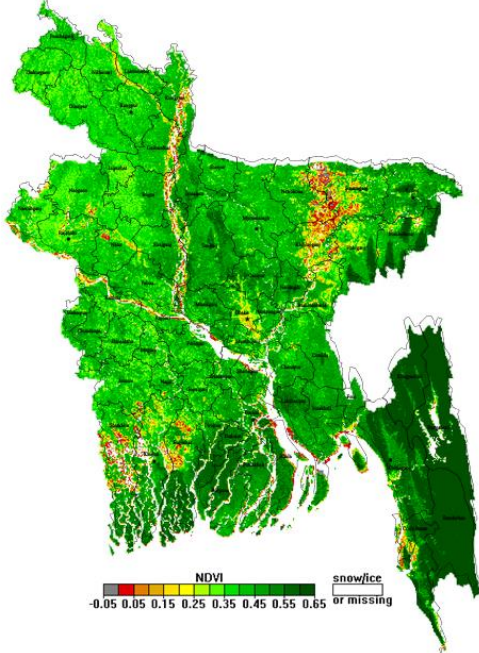
District Wise Quantitative Weather Forecast for next Five days from 25 Dec. -29 December'19



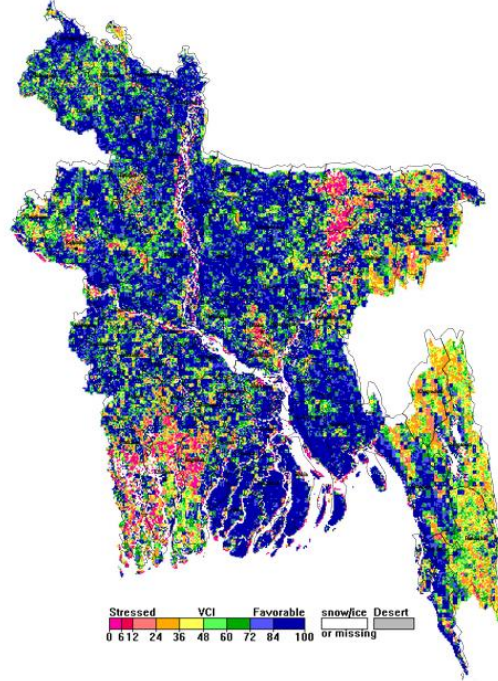


Different Satellite Products over Bangladesh

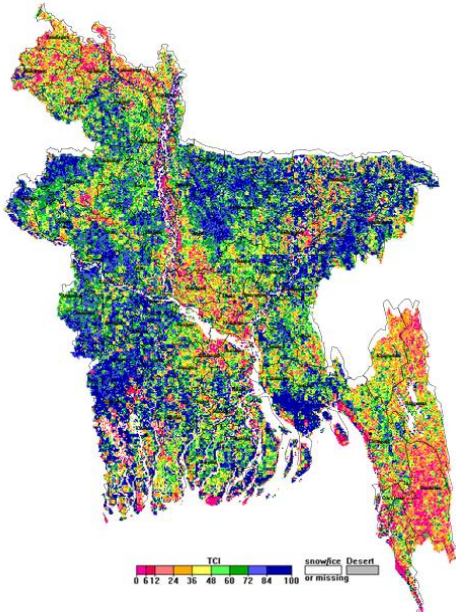
NOAA/VIIRS BLENDED NDVI composite for the week No. 50 (10 December-16 December) over Agricultural regions of Bangladesh



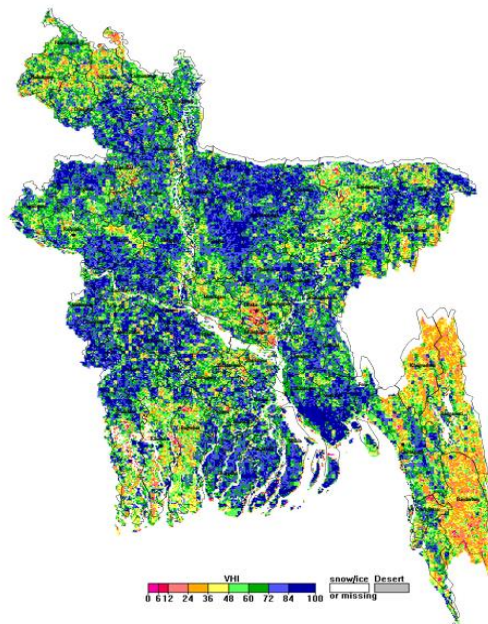
NOAA/ AVHRR BLENDED VCI composite for the week No. 50 (10 December-16 December) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED TCI composite for the week No. 50 (10 December-16 December) over Agricultural regions of Bangladesh

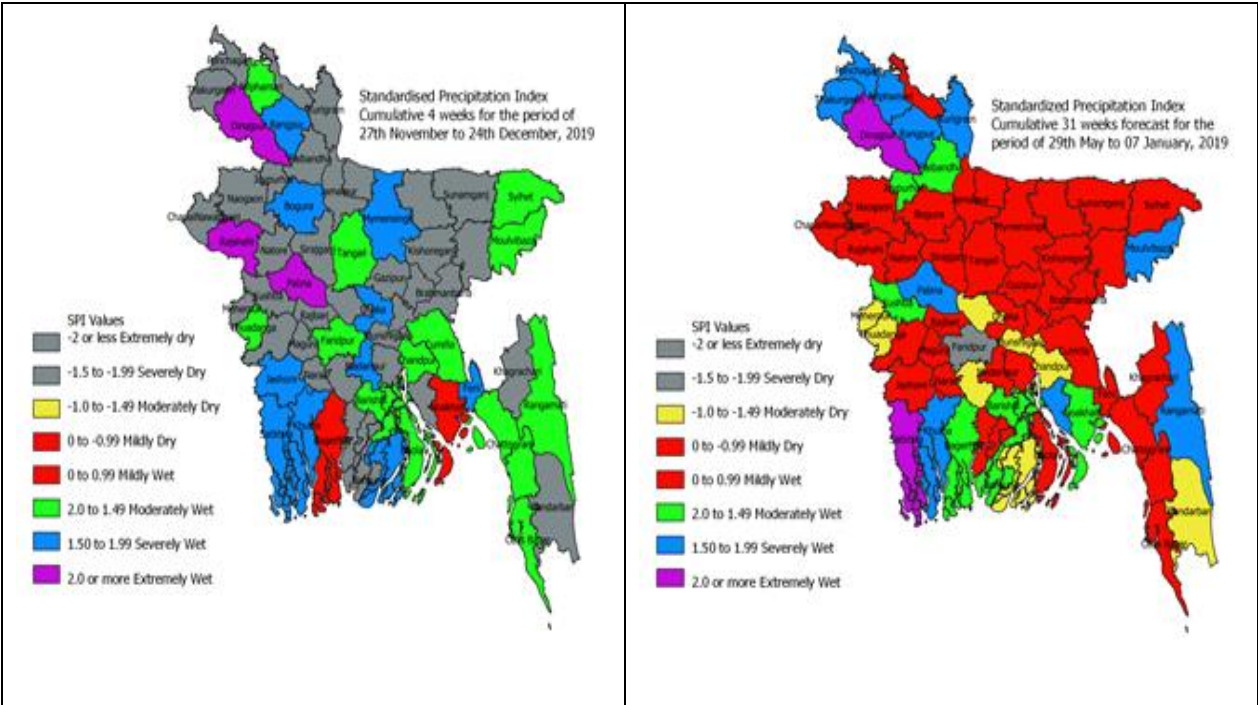


NOAA/ AVHRR BLENDED VHI composite for the week No. 50 (10 December-16 December) over Agricultural regions of Bangladesh



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