



NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

04 December 2019 (WEDNESDAY)
[FOR THE PERIOD 04.12.2019 - 08.12.2019]



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.

Please Contact: Farhana Hoque, Sabuj Roy | E-mail: bdamids@das.gov.bd
Phone No.: 02-55`028414, 02-55028418

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), weather may remain dry with temporary partly cloudy sky over the country during next 24 hours and light to moderate fog may occur at places over the country during late night to morning. Night and day temperature may remain nearly unchanged over the country. As per the medium range quantitative district level weather forecast issued by BMD, dry condition will prevail over the country for next five days. Besides, there was no rainfall during extended period in this month. As a result, it is advised to apply irrigation, pesticides and fertilizers and intercultural operation in all the districts in the country. Under foggy condition, monitor the standing crops for incidence and spread of pest & diseases and monitor tomato and potato crops for early blight disease. If symptoms are noticed, undertake plant protection measures. In some districts, minimum temperature is around 15-16 degree Centigrade, thus proper care should be taken to reduce the impacts of cold temperature on livestock and poultry.

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

General Advisory under Foggy Condition & Drop in Minimum Temperature

Under persistent light to moderate fog condition, monitor the standing crops for incidence and spread of pest & diseases and monitor tomato and potato crops for early blight disease. If symptoms are noticed, undertake plant protection measures. Under drop in minimum temperature, proper care should be taken to reduce the cold temperature on livestock and poultry.

Aman Paddy

Harvesting

- Remove water from the field completely 15 days before harvesting.
- Where 80% grain found mature harvest the crop after draining water as sunny weather will prevail. At the time of harvesting, pick the black earhead (affected earhead with false smut disease) and destroy them by burning.
- Sundry the harvested paddy and carry out threshing and store it in safe place.
- To protect the matured grains of aman rice from the attack of rodents, prepare dry poison baits by mixing atta/wheat bran/maize crush 80g, gur 10g, dry fish 5g & Zinc Pohosphide 5g; & apply alongside the bunds for controlling field rat.
- Sowing of khesari can be done as relay crop in upland area before harvest of aman paddy.

Flowering/Soft Dough/Hard Dough to Ripening Stage

- As there was no rainfall relatively for extended period and there is no chance of rainfall for next five days, apply irrigation & maintain 2-5 cm water level at flowering/soft dough/hard dough to hardening of grain stages.
- Continuous monitoring of the economically harmful insects like stem borer, leaf roller, sheath blight, blast, brown spot, leaf blight, Gandhi bug, Brown Plant Hopper (BPH) should be done. Monitoring at

2-3 days' interval is advised. For this light trap should be used. Light trap should be placed at some distance from the crop and bulb should be lightened from evening 06.30 PM to 10.30 PM and collected insects should be destroyed in the morning hours. Since fair weather is predicted in the coming 5 days, farmers can continue spraying of insecticides/ fungicides in the field.

- For management of blast disease in paddy, carry out alternative wetting and drying without cracking of the soil. Spray Nativo 75wg/ Trooper@ 0.6g/litre of water or Amister top 325 sp@ 1ml/litre of water. Spraying should be done after 3 PM so that disease can be effectively controlled. The spray should be repeated after 10-12 days as per intensity of the disease.
- As there is no possibility of getting rainfall in the coming 5 days during dough to milky stage, there is chance of incidences of Gandhi bug & BPH. For BPH Spray Isoprocarb @ 2.5g per litre water or Imidachloprid @ 2.5g per litre water. For Gandhi bug Spray Malathion @ 2ml. per litre water or Chlorpyrifos @ 2ml. per litre water. Holding fires around the field in the night hours also reduce Gandhi bug population.

Vegetables

- As there was no rainfall relatively for extended period and there is no chance of rainfall for next five days, apply adequate irrigation to moist the soil in the vegetable field.
- Prevailing weather condition, there is a chance of attack of black-rot of crucifers in the cabbage and cauliflower, this causes rotting of leaves and blackening of head. Apply 1 gm Streptocycline in 10 lt of water and spray thoroughly and also apply top-dressing to cauliflower field
- Use Pheromone Traps @ 20 Nos/ha. to control attack of fruit borer in brinjal, tomato and bhindi crops
- Chilli, tomato, brinjal Vegetative to flowering --Use staking for seedlings --Apply mustard cake with mixed up soil and stirring at the base of plants.
- For control of aphids and jassids in cabbage and cauliflower, install 2-3 yellow sticky cards per bigha. 12 Alternately, paint a cardboard with yellow colour, smear grease over it and install in the field. Spray Neem oil at the rate of 5 ml per litre of water along with liquid detergent at a dose of 0.5-1.0 ml.
- Since there is no possibility of getting rainfall in the coming 5 days spray Captan 50 WP 0.2% (@ 2 g/lit. of water) to control Fruit rot or anthracnose disease in the chilli crops.

Boro Paddy:

- Continue seedbed preparation.
- Apply light irrigation as there was no rainfall during past few weeks and there is no chance of rainfall during next five days.
- If the seedbed becomes yellow, apply urea at the rate of 283 gm urea per decimal.
- Arrangement for polythene may be made as this may be required to cover the seedbed during sudden drop in temperature during this season.

Wheat

- Those who have not sown the crop, it is advised to immediately sow the crop with the recommended varieties under favourable temperature conditions. Sowing should be preferably completed by mid-December and before significant drop in temperature which will hinder germination of seeds.

- 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 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

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 rainfall during next few days, first irrigation should be given after 20-25 days after sowing.
- Farmers are advised to do intercultural operations 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.

Maize:

- Start land preparation and sowing of boro maize. Make arrangement for draining out of water from the crop field. During last stage of land preparation, for hybrid maize apply per hectare 166.6-183.3- kg Urea, 240-260 kg TSP,180-200 kg MOP, 4-ton Gobar. As rainfall is unlikely, application fertilisers may be carried out.
- As there was no rainfall and there is no chance of 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

- During last stage of land preparation, for hybrid maize apply per hectare 40-45- kg Urea, 80-90 kg TSP,30-40 kg MOP. As rainfall is unlikely, application fertilisers may be carried out.
- Continue sowing of seeds.
- Intercultural operation i.e. weeding should be done once within 30-35 days after sowing of seeds.

Potato

- Apply light irrigation as there was no rainfall during past few weeks and there is no chance of rainfall during next five days.
- Farmers are advised to do intercultural operations for conserving the moisture and removing weeds.

- Monitor the incidences of late blight disease, if not noticed, it is advised not to use any fungicide on crop at present. . If foggy condition prolongs, weather is conducive for blight disease in potato; 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.

Groundnut

- Continue sowing of rabi groundnut with assured irrigation. Undertake sowing preferably upto December 15. Select high yielding varieties and sow them at a distance of 22.5 X 10 cm after seed treatment with Thiamethoxam @ 2 ml. + 4 ml. water per kg of seeds.
- Undertake intercultural operations after 14-20 days after sowing.
- As there is no chance of rainfall during next 5 days and soil is almost dry, apply irrigation to the plants which are sown 18-20 days back.

Horticultural crops

- Present weather conditions are favorable for the planting of horticultural crops viz, papaya, mango, Banana, guava etc, farmers are advised for the planting the same at the earliest.
- As there was no rainfall relatively for extended period and there is no chance of rainfall for next five days, apply adequate irrigation to young fruit plants.
- Farmers are advised to go for bagging of the banana bunches with muslin cloth or polyethylene before fruit set in order to protect the fruits from the attack of banana fruit and leaf scarring beetle.
- As dry condition will prevail during next five days, apply irrigation to banana plants 15-20 days interval.

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

- In cotton fields at boll development stage install pheromone traps @5/ha to monitor pink bollworm moth. For control of initial infestation spray of 5% NSKE OR Azadirachtin 1500 ppm @ 25 ml/10 litres of water. Above ETL level spray Cypermethrin 10% EC @ 10 ml or lambda cyhalothrin 5% EC @ 10 ml/10 litres of water.
- Prevailing weather condition is favorable for thrip incidence in cotton. It is advised to spray any one of the insecticides (500 l spray fluid /ha), Imidacloprid 200 SL @ 100 ml or Methyl demeton 25 EC 500ml/ha or Dimethoate 30 EC 500 ml/ha or NSKE 5% @ 2 kg/ha.
- Prevailing weather condition is favorable for sucking pest - bean aphids and leaf hopper incidence in pulses. To control the incidence, spray any one of the insecticides (Spray fluid 500 l/ha) Emamectin benzoate 5%SG 220 g/ha or Indoxacarb 15.8%SC 333 ml/ha or NSKE 5% twice followed by triazophos 0.05%
- For management of fungal disease on bolls of cotton crop take a spray of Carbendazim (50% WP) @ 1 gm or Pyraclostrobin (20 % WG) @ 1 gm per liter of water during clear weather condition
- In cotton, foliar spray of 2% DAP (200 g DAP +10 litre water) mixed with 4 ml Planofix at boll development stage is advisable to reduce boll shedding and improve boll growth.

Livestock

- Night temperature has started falling/ will fall in the district; farmers should make proper arrangements to protect their milch animals and their young ones from morning/evening cold by covering them with gunny bags during night and ample exposure to sunlight during day time to avoid pneumonia.
- Suggested to go for routine vaccination for livestock against the dreaded virus like tarka, khura and PPR.
- The floor and dairy shed should be cleaned with suitable antiseptic solution and maintain a proper sanitation.
- Keep animal shed clean and de-worm domestic animals. For Foot and Mouth disease, wash the wound with potassium permanganate solution.

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.
- Clean poultry shed twice in a week.
- Prevent the chicks from chilled wind directly by use of gunny bag or plastic curtains hanging in the side walls
- 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 04 December'19) and maximum temperature on 03 December, minimum temperature on 04 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	27.0	16.7	Rajshahi	Rajshahi	00	27.4	13.8
	Tangail	00	27.0	14.6		Ishurdi	00	26.4	13.0
	Faridpur	00	27.4	16.1		Bogura	00	27.5	15.7
	Madaripur	00	28.0	14.7		Badalgachhi	00	27.0	13.5
	Gopalganj	00	27.8	13.6		Tarash	00	26.2	15.8
	Nikli	00	26.5	15.5					
Mymensingh	Mymensingh	00	27.1	15.0	Rangpur	Rangpur	00	26.0	14.8
	Netrokona	00	26.6	14.5		Dinajpur	00	27.2	13.4
						Sayedpur	00	27.3	14.0
Chattogram	Chattogram	00	27.5	16.5		Tetulia	00	25.6	13.2
	Sandwip	00	27.6	14.4		Dimla	00	26.5	14.0
	Sitakunda	00	27.4	13.0		Rajarhat	00	26.6	12.8
	Rangamati	00	26.2	13.0	Khulna	Khulna	00	27.0	14.8
	Cumilla	00	26.6	13.5		Mongla	00	27.5	16.6
	Chandpur	00	28.2	16.6		Satkhira	00	27.5	14.5
	M. Court	00	26.8	17.2		Jashore	00	27.8	12.8
	Feni	00	27.0	14.5		Chuadanga	00	26.7	12.3
		Hatiya	00	27.0	15.8	Kumarkhali	00	26.2	15.0
		Cox's Bazar	00	28.0	17.5	Barishal	Barishal	00	28.0
	Kutubdia	00	29.5	17.0	Patuakhali		00	27.4	15.5
	Teknaf	00	<u>30.6</u>	15.5	Khepupara		00	27.5	14.7
Sylhet	Sylhet	00	27.0	16.0		Bhola	00	27.5	15.0
	Srimangal	00	27.0	<u>11.4</u>					

Highlights:

- Country average bright sunshine hour was 7.45 hours per day during last week.
- Country average free water loss during the previous week was 2.49 mm per day.

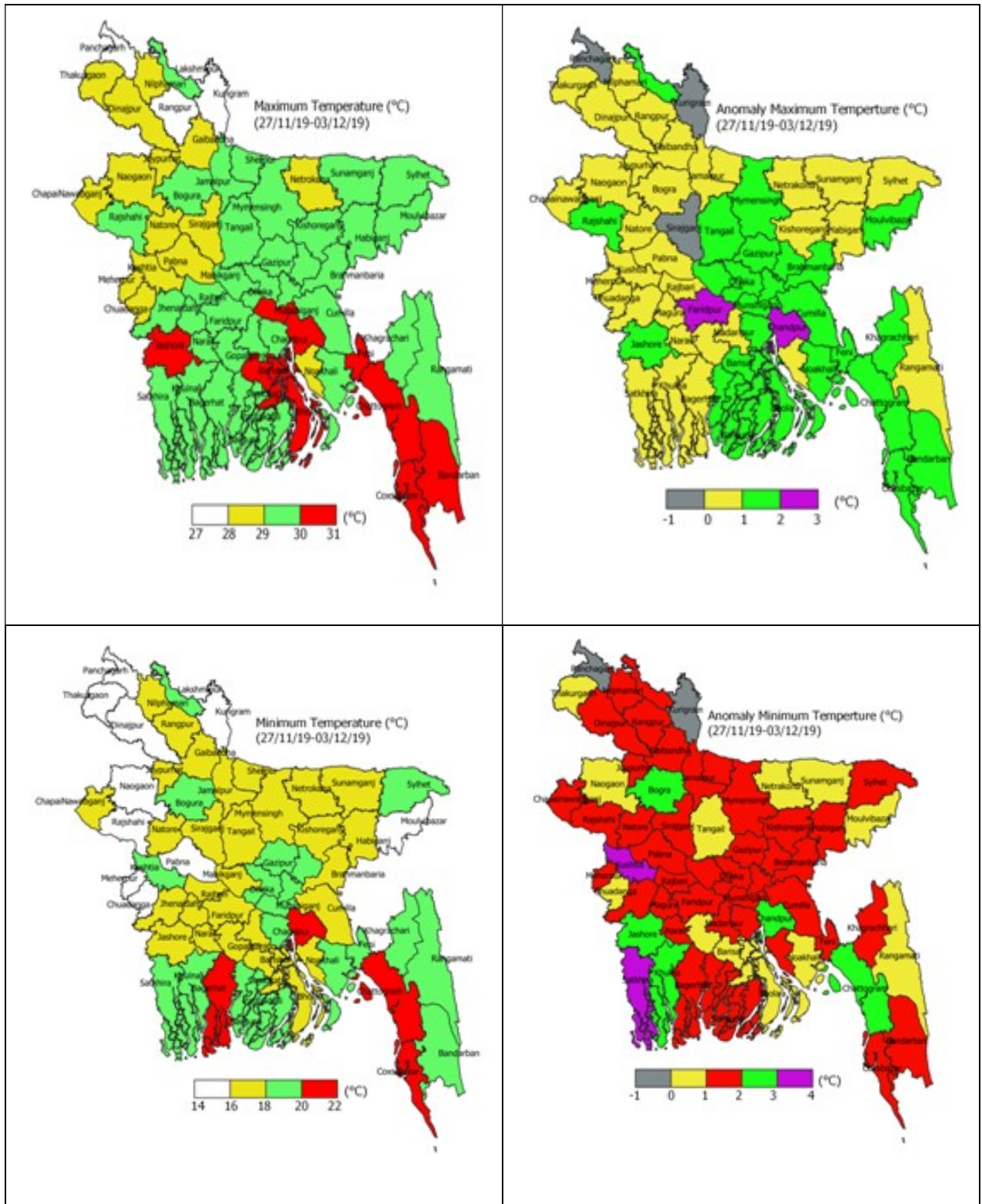
Weather Forecast Valid for 24 Hours commencing 06 PM Today:

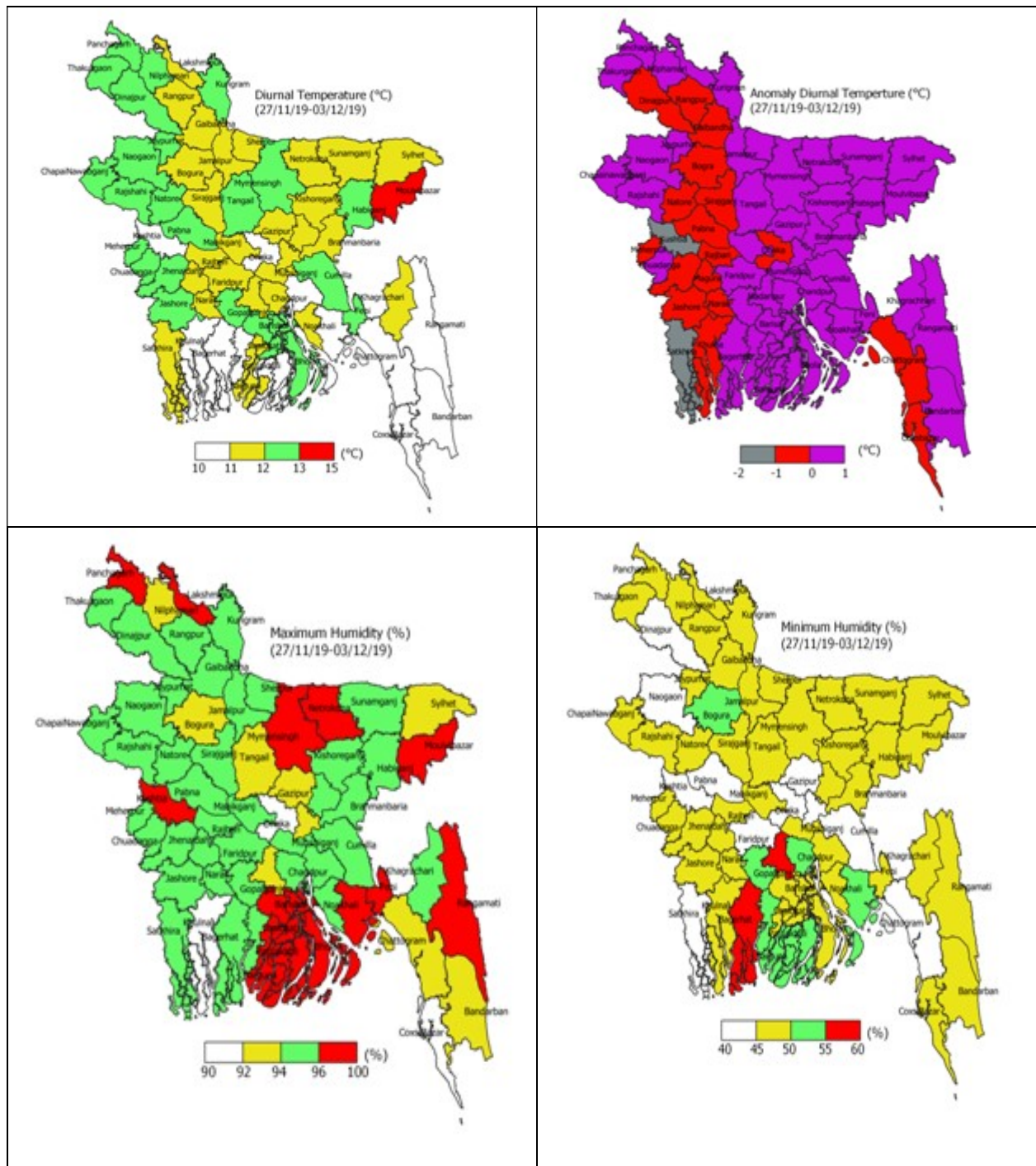
Forecast: Weather may remain dry with temporary partly cloudy sky over the country.

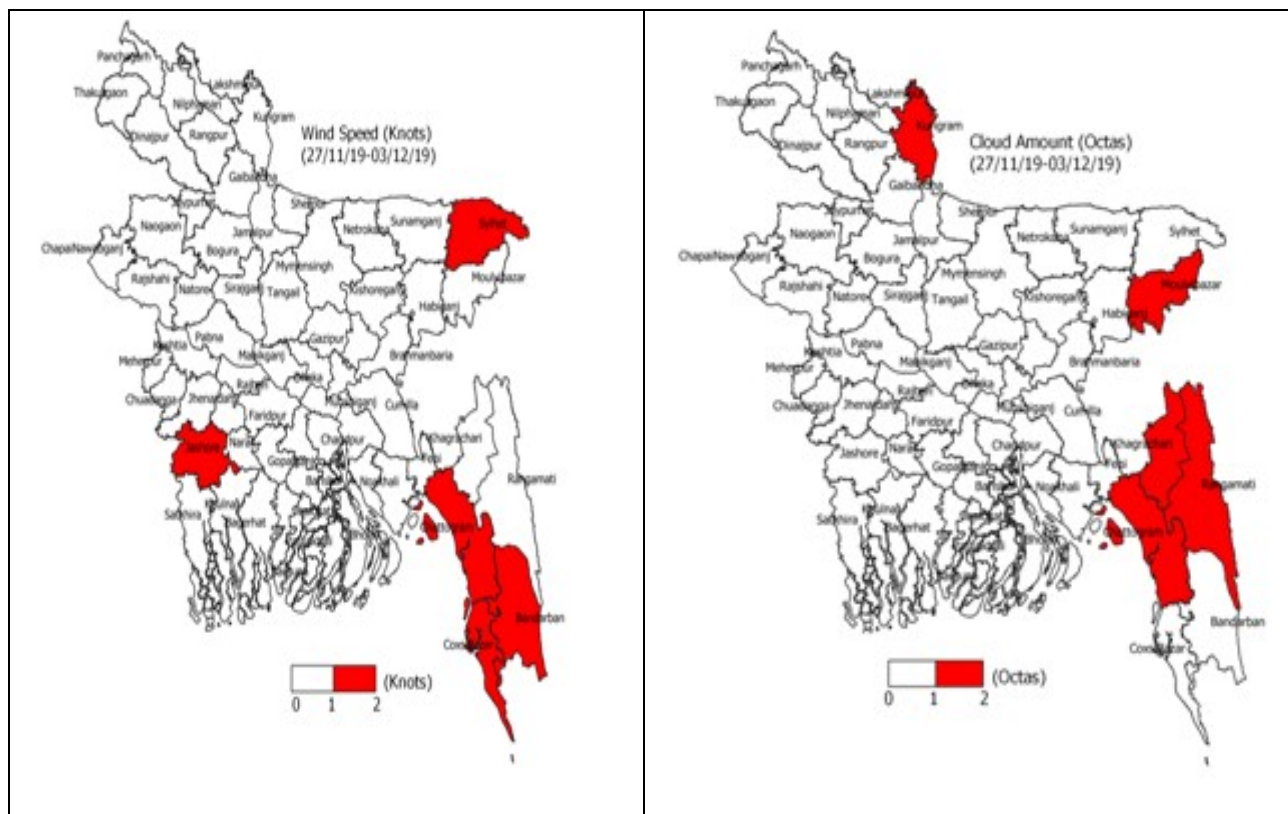
Fog: Light to moderate fog may to occur at places over the country during late night till morning.

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

Spatial Distribution of weather parameters for the Week ending 03 December 2019







Weather Forecast and Advisory for the Period of 01.12.2019 to 07.12.2019

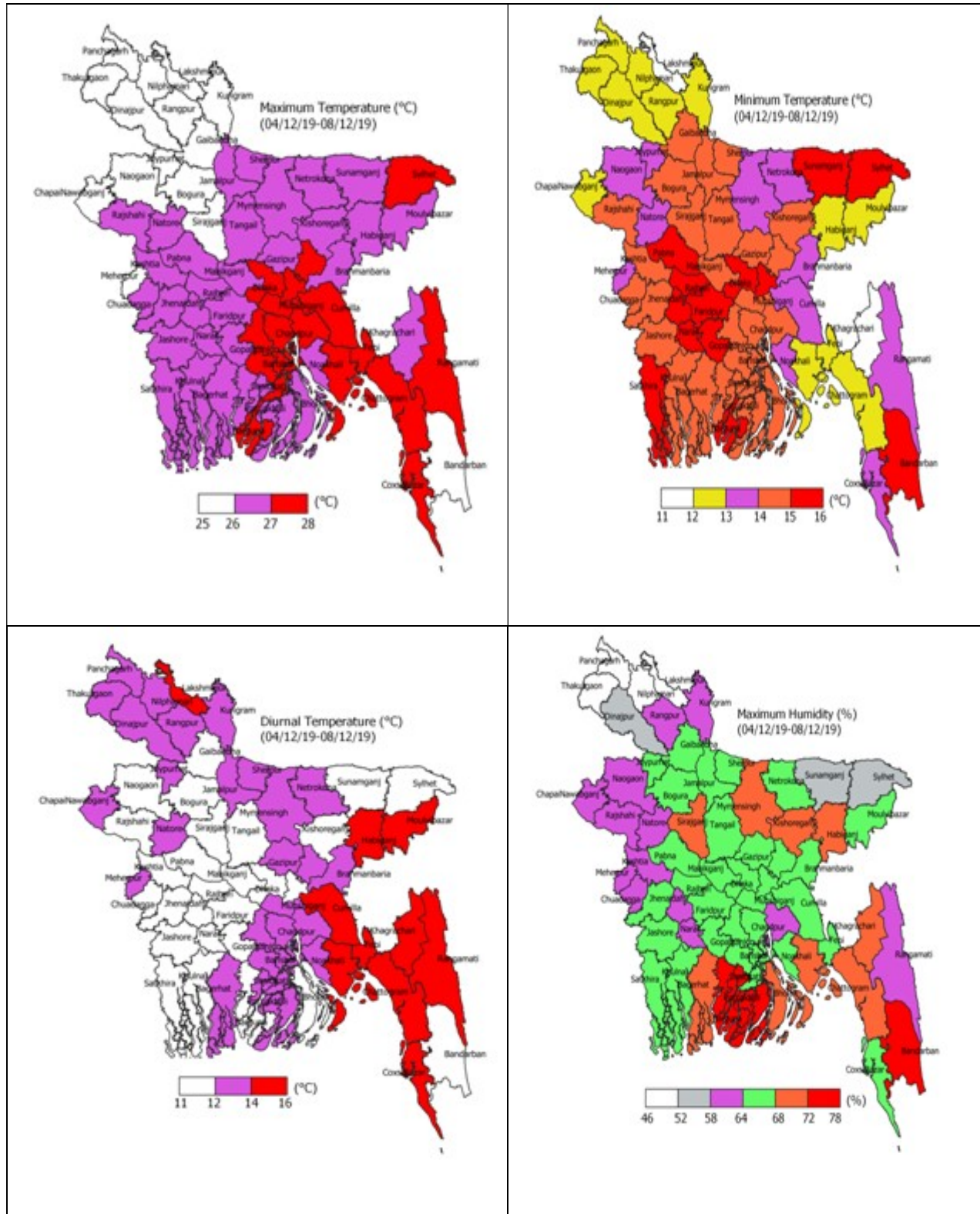
Bright sunshine hour is likely to be from 6.25 to 7.25 hours per day during this week. Average free water loss is likely to be from 2.75 to 3.75 mm per day during this week.

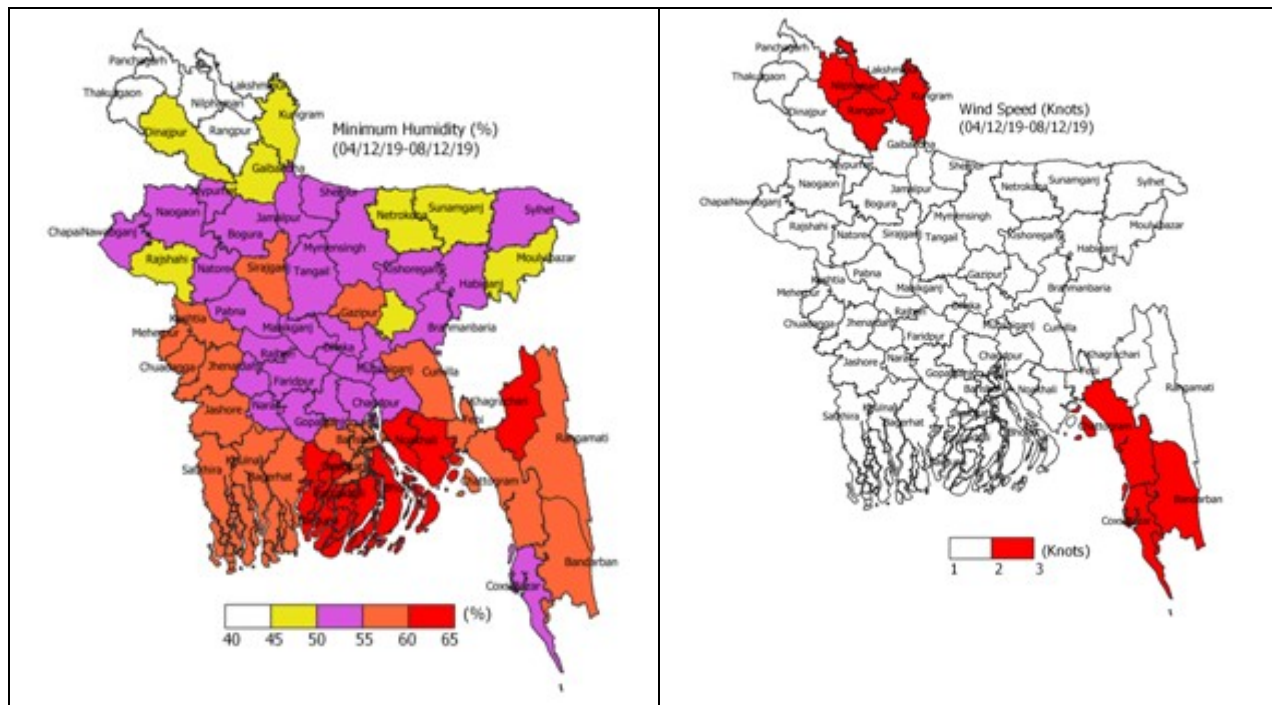
Weather may remain mainly dry with temporary partly cloudy sky over the country during this period.

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

Day temperature may remain nearly unchanged and night temperature may fall slightly over the country during this period.

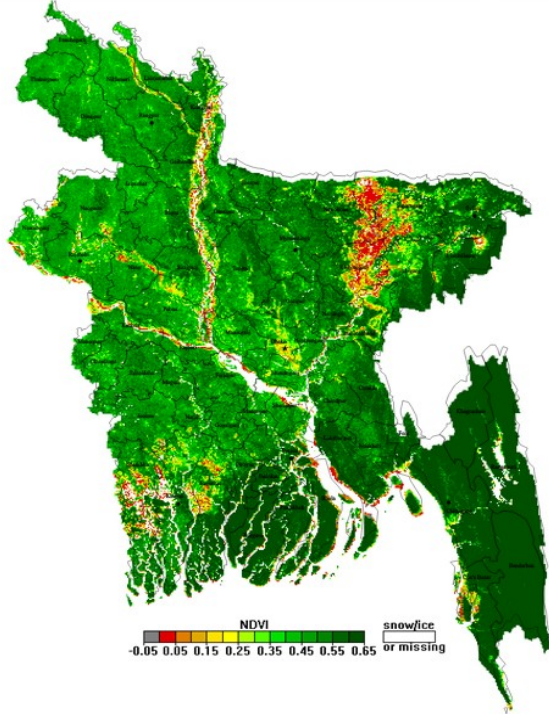
District Wise Quantitative Weather Forecast for next Five days from 04 Dec. -08 December'19



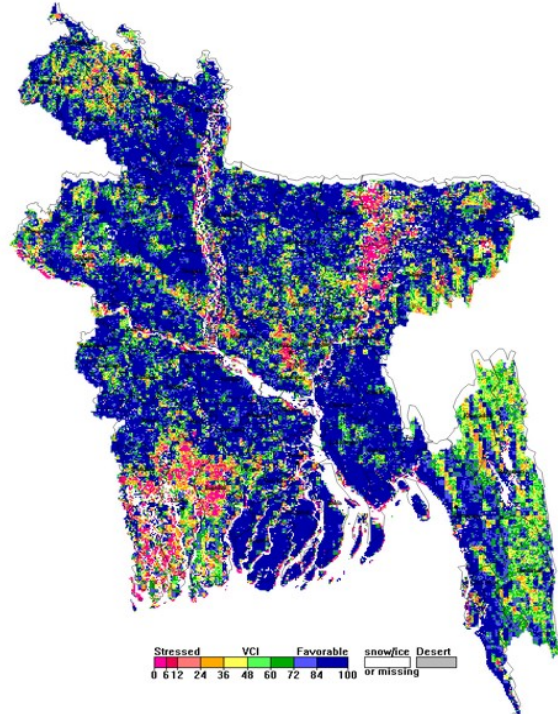


Different Satellite Products over Bangladesh

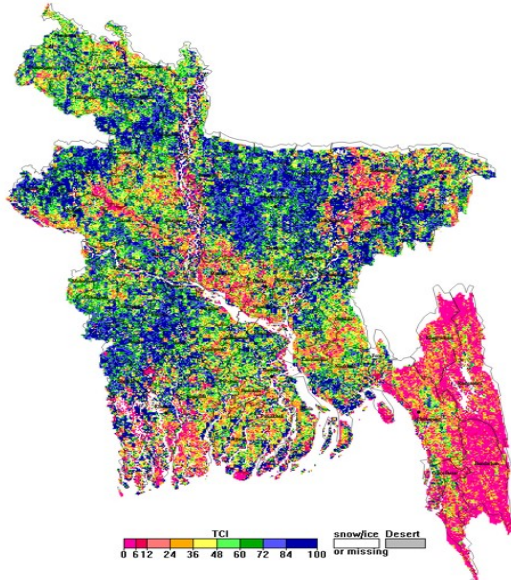
NOAA/VIIRS BLENDED NDVI composite for the week No. 47 (19 November-25 November) over Agricultural regions of Bangladesh



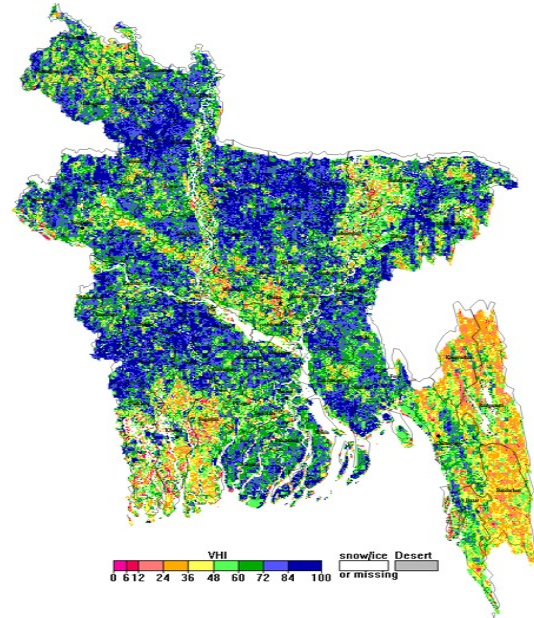
NOAA/ AVHRR BLENDED VCI composite for the week No. 47 (19 November-25 November) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED TCI composite for the week No. 47 (19 November-25 November) over Agricultural regions of Bangladesh

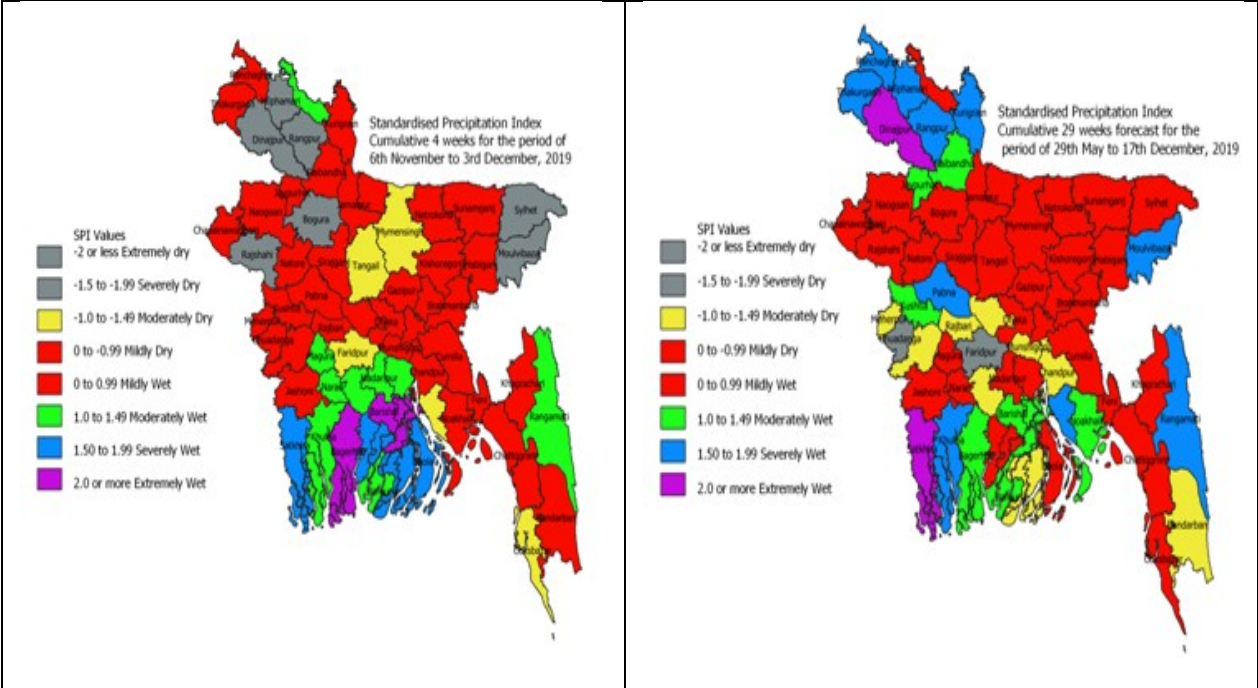


NOAA/ AVHRR BLENDED VHI composite for the week No. 47 (19 November-25 November) over Agricultural regions of Bangladesh



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

It has been observed that during last four weeks as well as in December extremely wet conditions prevails in districts located in southwest and mild wet condition prevails in southeast and central parts as well as other parts of Bangladesh.



Data source: Bangladesh Meteorological Department