



NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

16 SEPTEMBER 2020 (WEDNESDAY)
[FOR THE PERIOD 16.09.2020 – 20.09.2020]



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

Special Agromet Advisories for CORONA virus (COVID-19) transmission in Bangladesh

Farmers and all other farm managements are advised to follow the guidelines of Government of Bangladesh to avoid infection and social transmission of CORONA virus (COVID-19). Precautions and safety measures should be taken up to prevent the Carona virus spread. Simple measures include social distancing, maintaining personal hygiene by washing hands with soap, wearing of face mask, drink hot water, stay at home and cleaning of implements and machinery. Farmers should not work in a group; consult with a doctor in case of any symptom. Please stay at home does not visit the field until it is very necessary.

Salient Agromet Advisories

Salient Weather Conditions

The well-marked low over West Central Bay and adjoining North Andhra coast weakened and became unimportant. The axis of monsoon trough runs through Rajasthan, Hariyana, Uttar Pradesh, Bihar, West Bengal to Assam across Northern part of Bangladesh. One of it's associated troughs extends up to North Bay. Monsoon is fairly active over Bangladesh and moderate elsewhere over North Bay. As per the weather forecast received from the Bangladesh Meteorological Department (BMD) during next 24 hours, light to moderate rain/thunder showers accompanied by temporary gusty wind is likely to occur at many places over Rangpur, Mymensingh & Sylhet divisions and at a few places over Dhaka, Rajshahi, Khulna, Barishal and Chattogram divisions with moderately heavy to heavy falls at places over the country. Day and night temperature may remain nearly unchanged over the country. As per the outlook issued by BMD for next 72 hours, rainfall activity may continue.

As per the medium range weather forecast the monsoon is likely to be fairly active over the country during next 5 days and light to heavy rainfall is likely in different districts in the country. Moreover, spatially and temporarily well distributed rainfall over the different districts is expected and this is very conducive for growing of standing *kharif* crops. Salient agromet advisories issued for different crops in various districts are as follows.

Salient Agromet Advisories

Aus Paddy:

- If excess water is there then immediate drain out the excess water by cutting the bund. This will help in good aeration which will reduce the incidence of pest and disease.
- Maintain 2-5 cm water level from flowering to hard dough stage
- Maintain 2-3 cm water level at grain hardening stage.
- To control of insects like steam borer gall midge and white & brown hopper apply Corbofuron 3 G@33 kg or phorat 10G @ 10 kg per /hectare and for cut worm Clorpyrifos or Daiclorovash.
- Since cloudy weather is prevailed, there is a chance of leaf folder attack in Paddy. It can be controlled by using Trichogramma cards.
- To save the rice crop from sheath blight, keep the bunds of the field clean by removing grasses.
- To control infestation of leaf blast & leaf spot in Aus rice, spray Carbendazim @2g/litre of water.

- There is chance of Gandhi bug and Brown plant hopper attack. For Gandhi bug spray Carbaryl 50 WP@2g/liter of water. Avoid excess irrigation in the field otherwise base will be rotten. Where early transplanted paddy found 80% maturity, harvest and transfer it to safe place immediately. Spray Buprofezin 25% SC@106ml/bigha for BPH attack. Maintain proper distance within the farmers during spraying.
- Drain out water from crop field 15 days before harvesting.
- Harvest the matured crop in sunny weather while 80% rice ripen.
- Harvest and dry well the grains in sunny weather (12% moisture contain e.g teeth testing) and keep it shady condition for cooling and finally store it air tight container
- Due to large diurnal temperature, there is chance of blast disease. If noticed, adopt appropriate plant protection measures.
- Arrange proper solarisation within the row by stirring the plants after each 2 rows.
- Spraying should be done during afternoon hours or at morning hours from 10:00 a.m. to 11:00a.m
- All the plant protection measure should be taken after the current spell of rainfall.

Aman Paddy

- If excess water is there then immediate drain out the excess water by cutting the bund. This will help in good aeration which will reduce the incidence of pest and disease.
- Maintain 5-7 cm standing water up to maximum tillering stage.
- **Keep the rice land up to 3-4 inches water from panicle initiation stage to hard dough stage.**
- Looking into the forecast of rainfall in coming day farmers are advised that impounding condition should not be of more than 5 cm. Due to excess impounding condition number of tillers in rice crop are affected. Surplus water should be drained out from the field.
- Second weeding should be done 30-35 days after transplanting. Weeding may be done either by hand or using weedicides. 2-4 D Amine or Butachlor may be used for weeding.
- All the intercultural operations should be done after the current spells of rainfall.
- Taking the advantage of the presence of sufficient amount of soil moisture, .apply 1/3rd nitrogen as top dressing 15-20 days after transplanting. Last 1/3 nitrogen as top dressing should be applied 5-7 days before panicle initiation. Before the top-dress of Nitrogenous fertilizer in the field farmers are advised to weeding their rice plot by manually or using herbicide
- Due to substantial decrease in sunshine hours with occasional rain there is chance of attack of Yellow stem borer in Aman rice; to manage the attack, spray Carbofuran @10kg per ha.
- Where luxurious growth of plants, at tillering stage, is found ,there is chance of sheath blight attack may take place due humid weather and water stagnation. Spray Hexaconazol @ 1ml//litre water, or Tebuconazol @ 1ml/litre water. Regular inspection should be continued for disease attack observation
- Farmers are informed that after cessation of flash flood, there is a chance of outbreak of diseases like bacterial blight in rice crop. To control the same provide suitable disease management
- For control of ;wilting, after drain out of water spray Streptocyclene and additional potasic fertilizer to the plants
- Where tillers were affected due to water stagnation, apply urea and potash fertilizer through puddling with the remaining plants for removing the gas inside the soil otherwise plants will turn reddish

- Where Tillering is complete and panicle has started, apply one hand weeding inside the field and also in the bund area, to make ensure proper solarisation inside the row.
- Where Tillering is complete and panicle has started there is chance of attack of leaf roller
- Spray Malathion @ 2ml. per litre water or Chlorpyrifos@2ml/liter of water or Endosulfun@1.5ml/liter of water.
- Light trap should be used for control of insects. 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.
- The farmers are advised to continue monitoring field if they found symptom then should go for spray of herbicides / insecticides only in clear weather and when there is no forecasting of rains.

Vegetables

- Drain out excess water.
- There is chance of Phomopsis disease in Brinjal, Spray Bavistin @ 1g/liter of water
- Off season vegetable cultivation is always profitable and challenging. These crops are very much moisture sensitive, both moisture stress and surplus will have impact on production. The land free from water logging and well drained may be selected for cultivation of Cole crops such as Cabbage, Cauliflower, etc.
- Maintain good drainage in vegetable field. Due to attack of shoot and fruit borer in brinjal, withering of terminal shoots, drooping of leaves and shedding of flower buds may be observed. To manage the pest, remove the affected terminal shoot showing bore holes and the affected fruits. To manage this insect, pheromone trap having Leucin Lure may be installed. Chemical control may be adopted if there is 4% withering of terminal shoot or 14% fruits infested with borers. For chemical control spray Spinosad 45 % SC or Emamectin Benzoate 5% SG @ 25 to 30 ml/kani twice at 15-days interval
- In Ladies finger, there is chance of Fruit borer/ Collect and destroy the affected fruits. Spray Neem oil @ 50ml/l at clear weather condition.
- All the plant protection measure should be taken after the current spell of rainfall.

Horticultural crops

- Farmers are advised to go for inter cultural operations in mango orchard.
- The farmers are advised to take up plant protection measures carefully in horticultural crops like, pomegranate for bacterial blight and lime for leaf minor.
- Plantation of banana crop should be done.
- Intercultural operation should be done in banana orchard.
- Due to deluge with rainy days farmers are advised not to apply fertilizer to the banana plant. Moreover, ensure to harvest the mature banana at proper stage.
- Provide mechanical support to banana, to prevent the crops from lodging due to strong winds.
- Due to monsoon showers, there is a chance of Sigatoka disease in banana. As a precaution, spray Pseudomonas 20g/litre. In case of severe attack, spray 2 ml hexaconazole or 1 ml propiconazole per one litre of water by mixing it with a sticker and spray on both the surface of the leaf.

- Drain out excess water from the banana land, as rainfall is expected. Besides, control Banana beetle, panama and others diseases-pests including continue intercultural operations and also inspect the field regularly
- Besides, to control Banana beetle, panama and others diseases-pests including continue intercultural operations it is advised to inspect the field regularly.
- Though possibilities of rain, application of fertilizer at 2 months after planting in papaya may be performed.
- Attack of Papaya mealy bug on papaya fruit can be controlled by dusting of Chlorpyriphos 1.5% dust or Malathion 5% dust around the healthy plants; also destruct ant colonies with drenching of Chlorpyriphos 20 EC @ 2 ml/litre.

Beetle vine:

- In this time and under the prevailing weather, foot rot and stem rot diseases affected plants start to die. So, affected plants and its branches have to deposit in particular hole or burning and never deposit beetle vine waste in irrigated water sources like channel /pond. Otherwise, unaffected vine land will be contaminated. In this case, all vine growers collectively have to take this initiative (deposit all vine waste in particular hole away from the vine growing area) and as a result all vine land will be disease free condition.
- All the plant protection measure should be taken after the current spell of rainfall.

Sugarcane:

- During the month, sugarcane plant. in grand growth stage
- In this time, stem rot and stem borer and others disease-pest may infest the crop and so inspect the land regularly and take appropriate plant protection measure.
- All the plant protection measure should be taken after the current spell of rainfall.

Cotton

- Complete seed sowing at tilth conditioned land considering seed rate 2 kg/33 decimal.
- Maintain row to row distance 25-35 inches and seed to seed distance 10-15 inches.
- High yielding varieties like CB-12, DM-2, Rupali and Suvro may be chosen for sowing.

Livestock

- It is very important to provide a particular amount of dewormers for both roundworm and tapeworm to any cattle, goats,
- Vaccinate the livestock for Black Quarter and foot and mouth diseases.
- Consented feed has to keep airtight condition and above the ground for avoiding fungal infestation
- Livestock may be affected by foot and mouth disease due to rainy weather. Following measures may be taken up.
- Feed them only dry food
- Keep the shed clean and dry
- If wound found at foot and mouth wash the wound with potassium per manganate solution.
- For control of biting fly, hang the alovera plant in the animal shed.

- If any malady symptom is shown in the animal then immediately consult with the veterinary doctor for proper treatments.
- Feed the milk bearing cow boiled broad leaf fodder for better milk production for indigenous cow for preventing worm infection.
- Always allow them to graze in dry land area.

Poultry

- There is chance of fungal attack due to high humidity, keep the poultry house dry and clean and apply lime with litter
- In poultry farms, appropriate space should be kept @ 1 sq. ft. per broiler and 2-2.5 sq. ft./ layer.
- Never allow chickens or ducks to eat wet or damp feed during this rainy season. It is very important to provide a particular amount of dewormers for both roundworm and tapeworm to poultry at this time.
- Apply lime bleaching powder and copper sulphet solution spray before placing them in farm
- Follow proper vaccination at proper interval
- Apply dry food and clean tap water for drinking purpose.
- For breathing problem in hen, give multivitamin syrup @ 200 to 250 ml / 50 liters of water for 200 to 300 hens or Enflox vet BC @ 0.5 ml/lit. water for 2 to 3 days.
- There is chance of Raniket, gumbra diseases in poultry; provide antibiotic drugs through water or through feed. Protect the birds from wet weather and wet floor.
- Spray water on poultry shade during hot weather condition. Viral ganboro disease infection may be high due to high temperature and humidity. Early cautionary and vaccination are prevented measures.

Fishery

- Apply lime for cleaning the water.
- Sufficient water accumulated in the pond. Start new stocking of quality fingerlings/ yearlings. Feeding may be done properly with quality and floating feed containing 20 percent crude protein. There is chance of oxygen deficiency due to increase in temperature. To maintain the dissolve oxygen regular aeration may be done using hand or bamboo splashing or using mechanical aerator
- To avoid insect infestation in nursery ponds, apply soap oil emulsion (a mixture of cheap soap @ 2.5 kg and kerosene oil @ 13 litter per bigha of pond) and apply gently in nursery ponds
- Remove the unwanted fishes and predator by repeated netting before leaving the new fingerling in the fish pond.
- Select healthy, diseases free breeds of fishes from authentic sources after consulting with fishery officials. Before releasing, the fingerlings should be treated with Potassium permanganate (@ 3-5%.
- To keep in touch with local fisheries office for more information.

Realized Weather at different locations in the country

Rainfall for last 24 hours (till 09 AM on 16 September 2020) and maximum temperature on 15 September, minimum temperature on 16 September 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	34.0	27.8	Rajshahi	Rajshahi	01	<u>35.7</u>	27.1	
	Tangail	01	35.0	25.6		Ishurdi	03	34.8	27.0	
	Faridpur	Trace	34.0	26.7		Bogura	01	34.3	27.3	
	Madaripur	07	33.5	26.5		Badalgachhi	00	34.0	26.8	
	Gopalganj	02	32.3	26.6		Tarash	02	34.5	27.5	
	Nikli	06	32.5	26.0		Rangpur	Rangpur	25	30.0	26.0
Mymensingh	Mymensingh	Trace	33.7	27.0	Dinajpur		28	32.0	25.0	
	Netrokona	Trace	33.2	27.0	Sayedpur		27	31.4	25.6	
Chattogram	Chattogram	30	33.2	<u>24.5</u>	Khulna		Tetulia	48	27.0	24.7
	Sandwip	72	30.7	24.9			Dimla	31	29.5	25.2
	Sitakunda	39	xx	25.0			Rajarhat	06	29.5	26.0
	Rangamati	55	32.5	25.0		Barishal	Khulna	01	33.6	27.5
	Cumilla	00	30.5	25.9			Mongla	02	33.0	27.0
	Chandpur	05	31.8	26.2			Satkhira	09	33.0	27.0
	M.Court	10	29.5	25.7	Jashore		09	35.0	26.6	
	Feni	03	31.0	25.0	Chuadanga	07	35.0	26.7		
	Hatiya	<u>117</u>	29.9	24.8	Kumarkhali	03	31.8	26.0		
	Cox's Bazar	19	31.7	25.3	Barishal	Barishal	Trace	30.9	26.7	
Kutubdia	06	33.2	25.0	Patuakhali		23	29.9	26.5		
Teknaf	02	31.8	25.0	Khepupara		09	32.8	27.6		
Sylhet	Sylhet	05	33.5	25.5	Bhola	08	30.4	26.4		
	Srimangal	43	32.8	25.6						

Highlights:

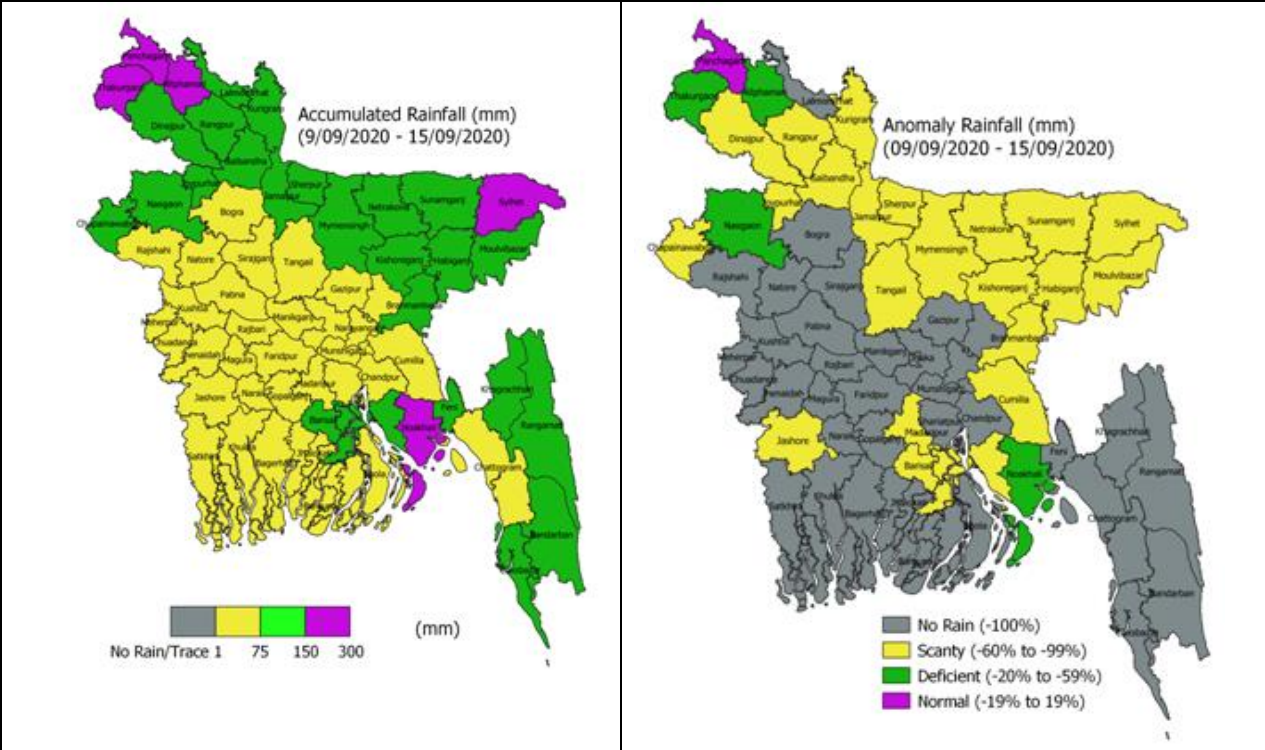
- Country average bright sunshine hour was 3.91 hours per day during last week.
- Country average free water loss during the previous week was 3.07 mm per day.

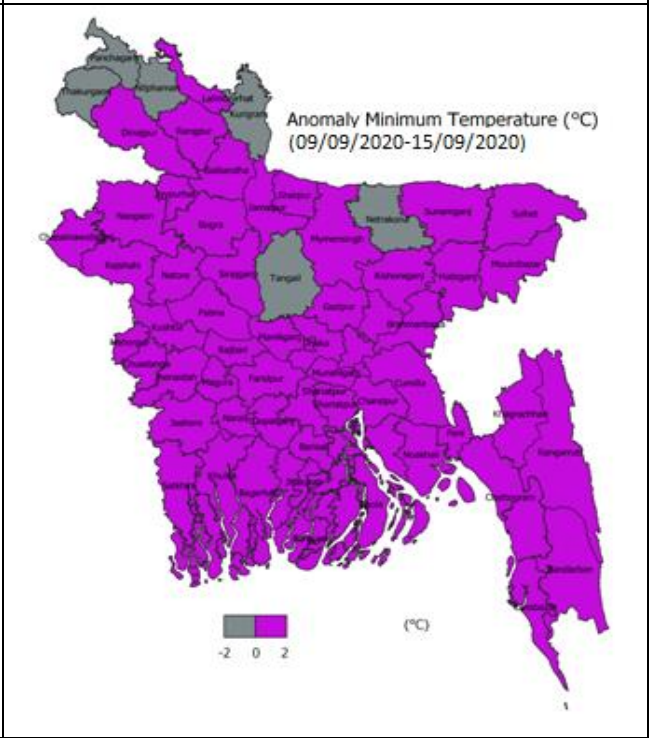
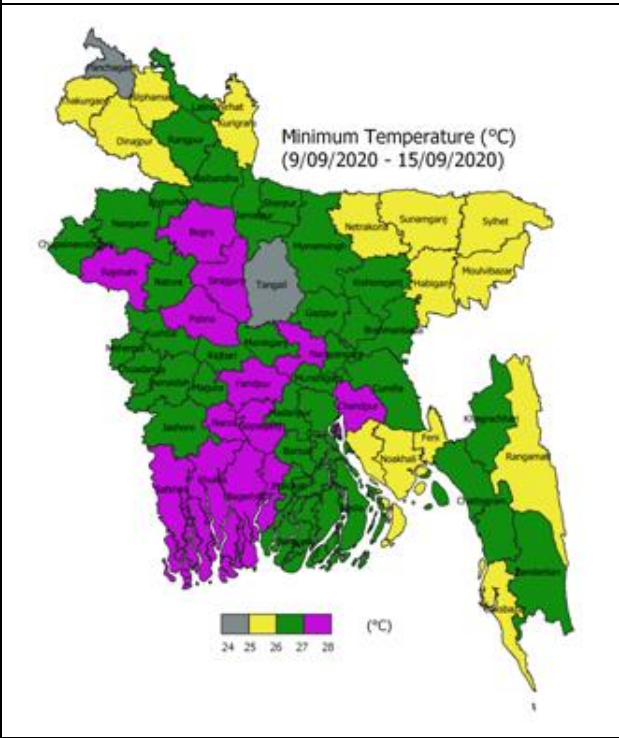
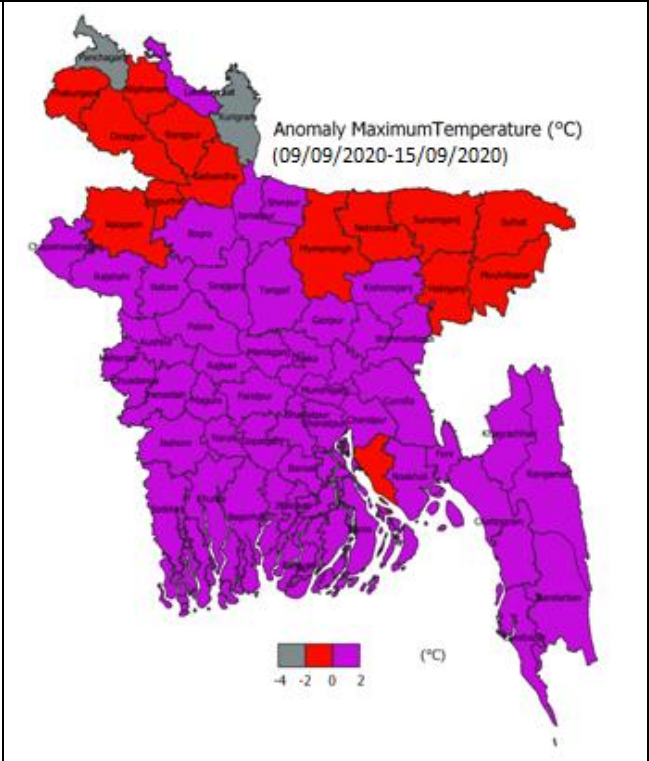
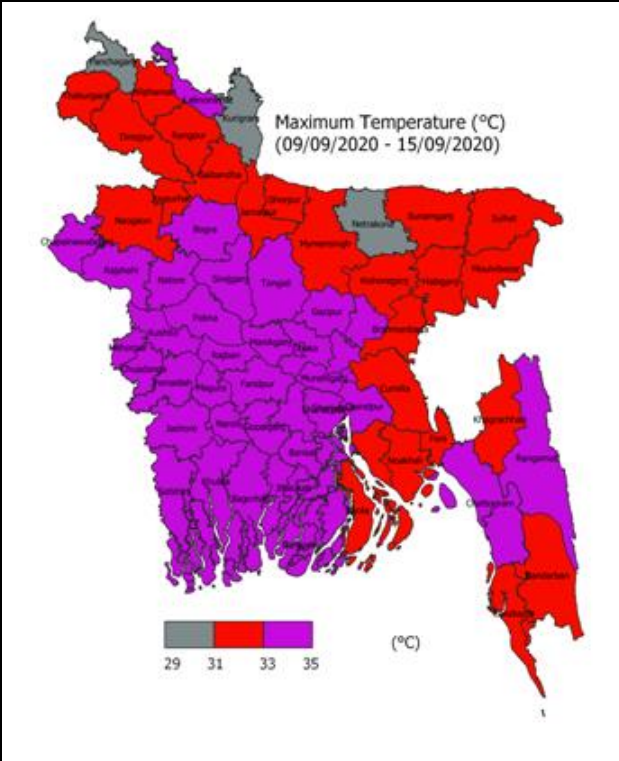
Weather Forecast Valid for 24 Hours commencing 06 PM Today:

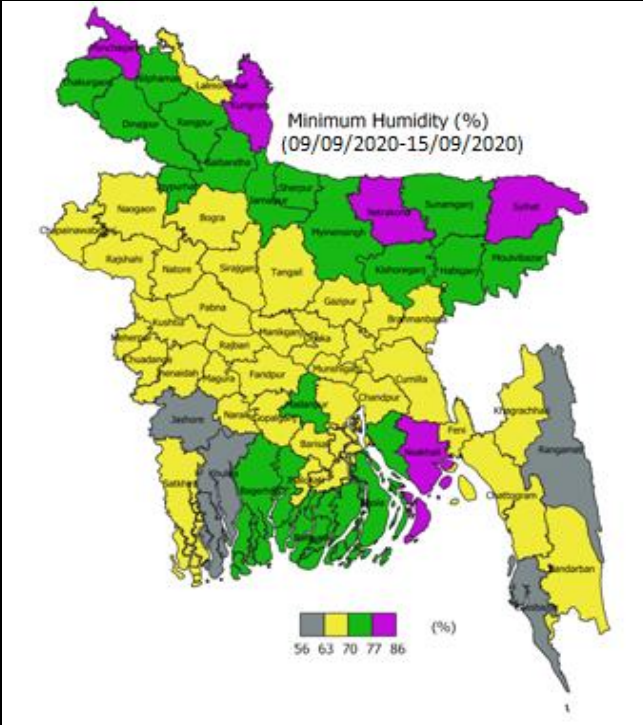
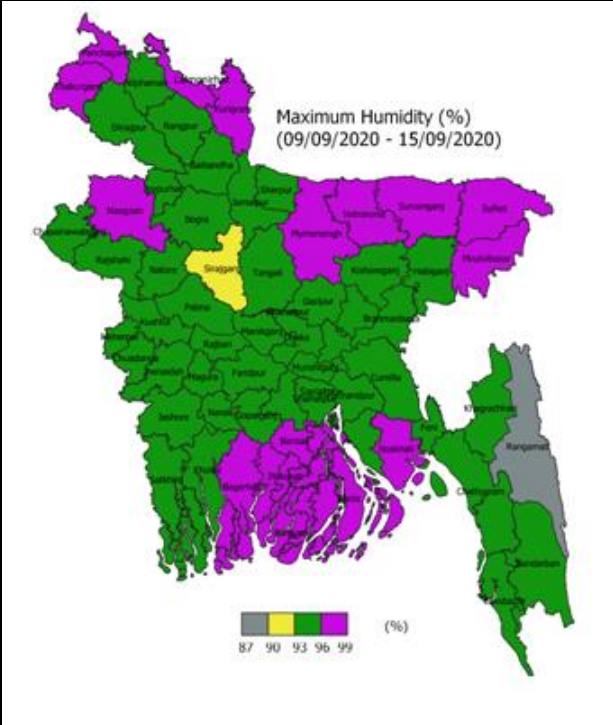
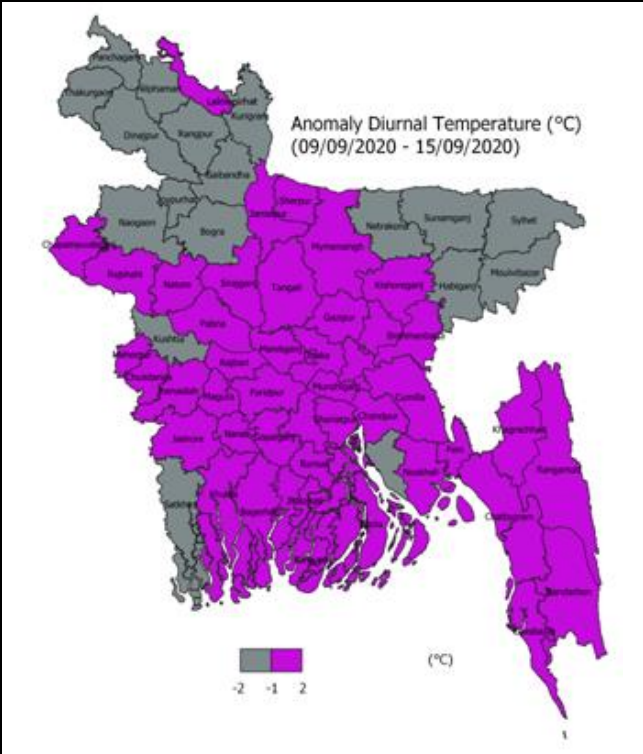
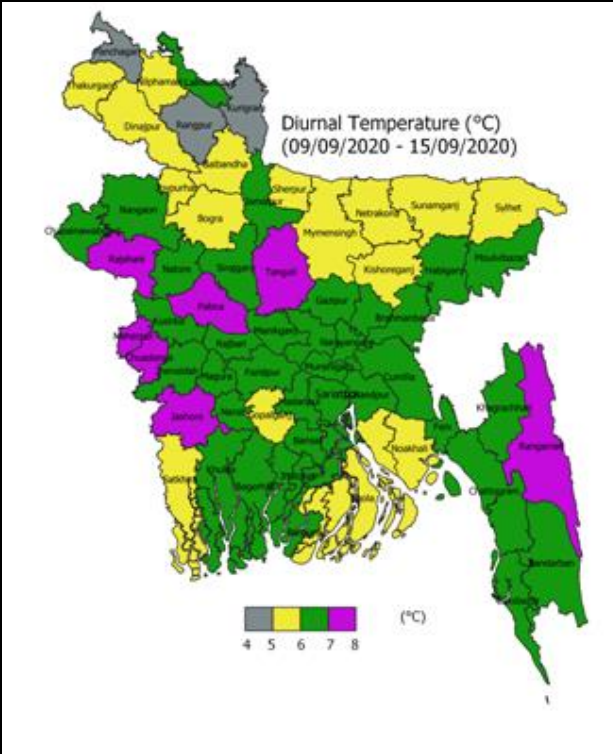
Forecast: Light to moderate rain/thunder showers accompanied by temporary gusty wind is likely to occur at many places over Rangpur, Mymensingh & Sylhet divisions and at a few places over Dhaka, Rajshahi, Khulna, Barishal and Chattogram divisions with moderately heavy to heavy falls at places over the country.

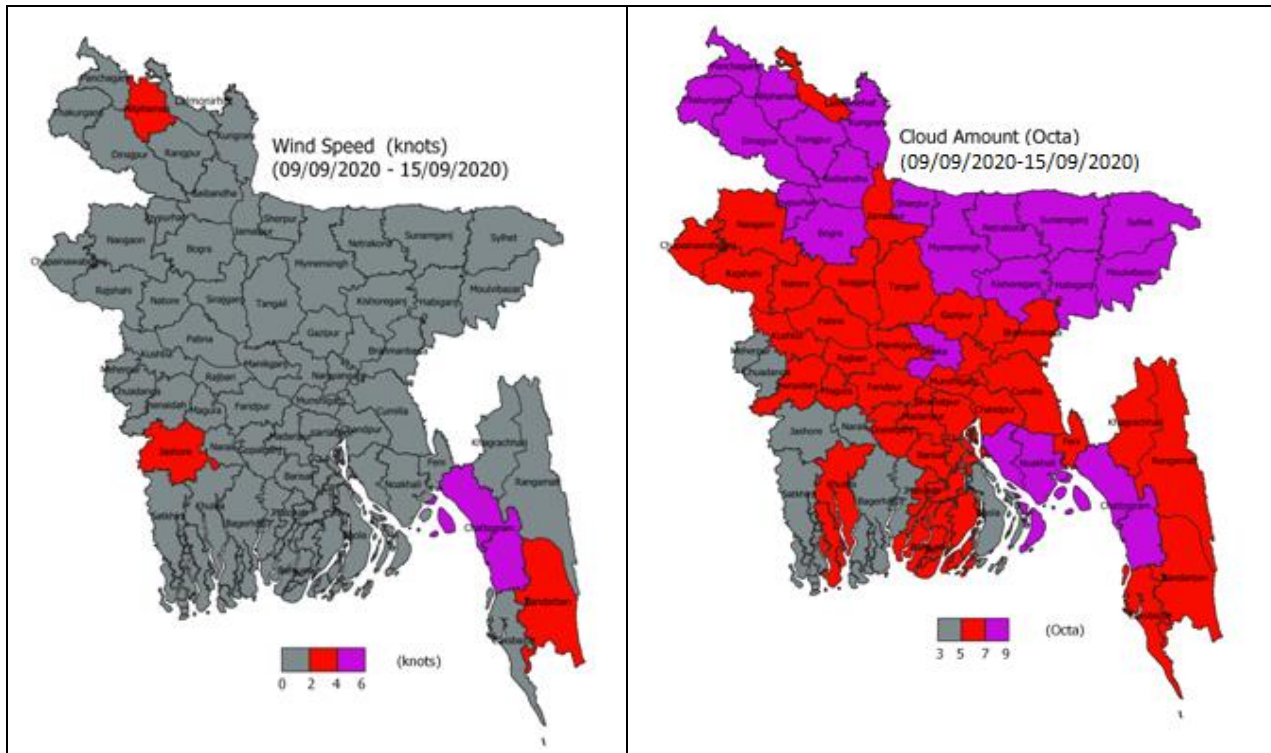
Temperature: Day and night temperature may remain nearly unchanged over the country.

Spatial Distribution of weather parameters for the Week ending 15 September 2020







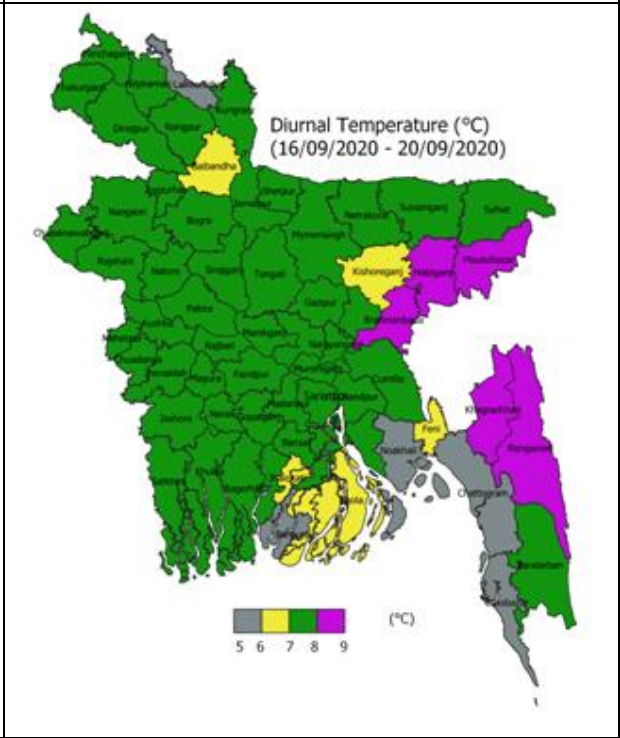
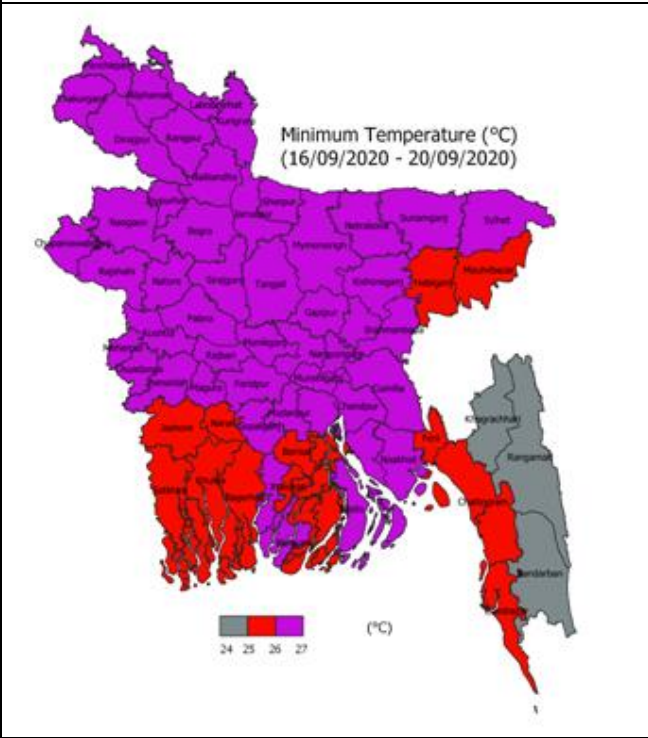
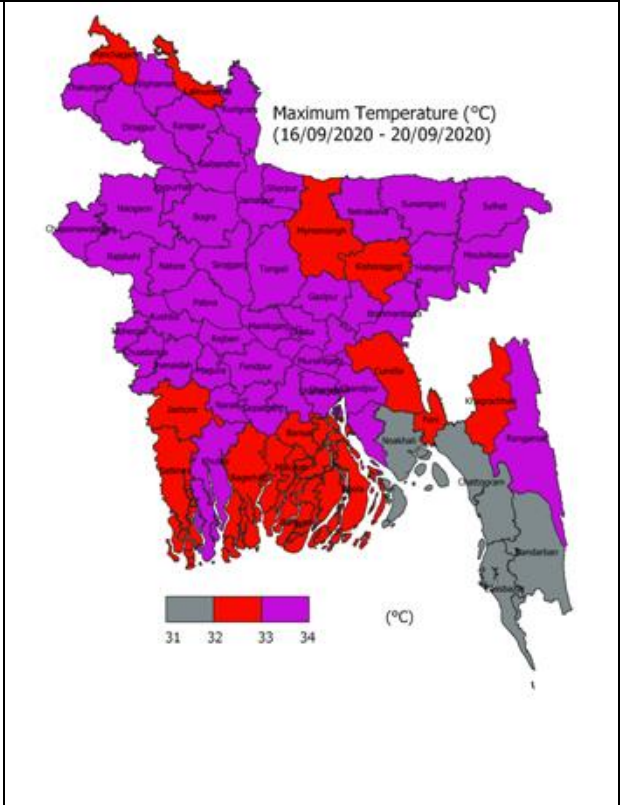
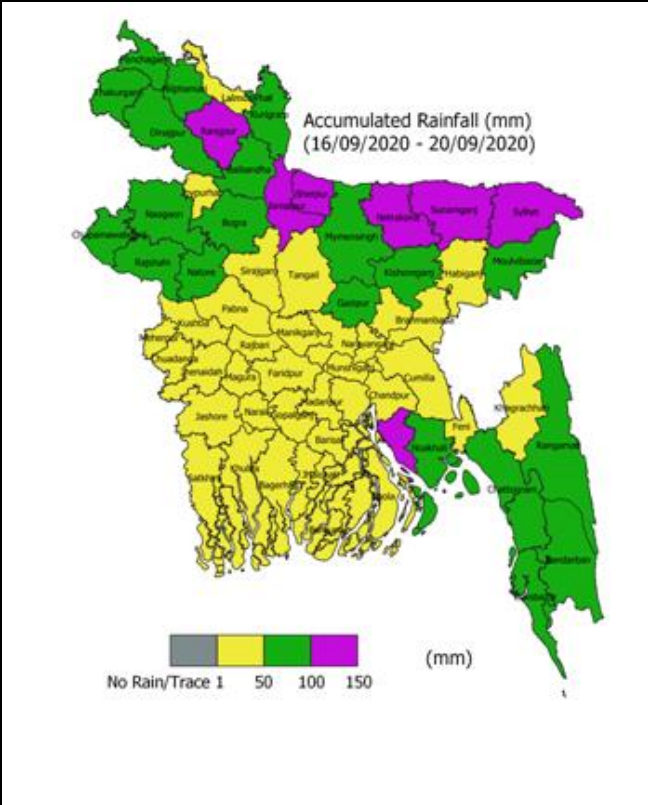


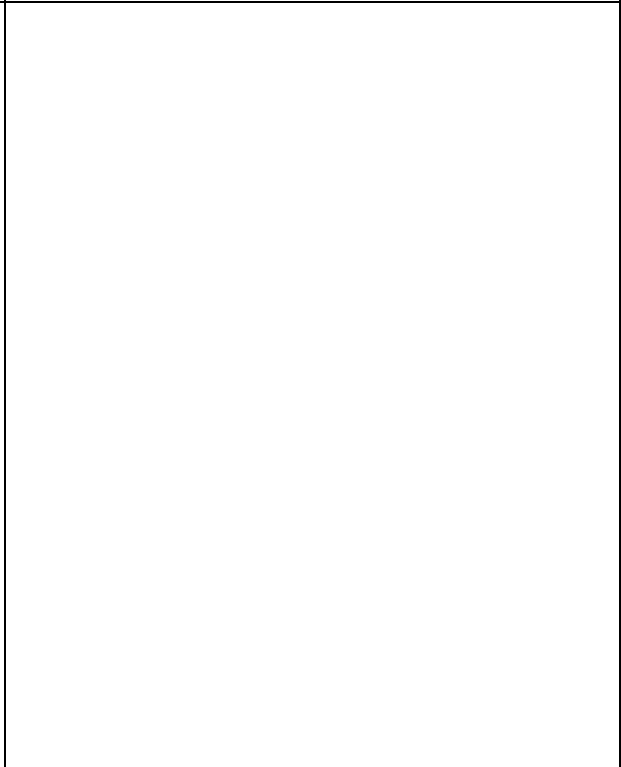
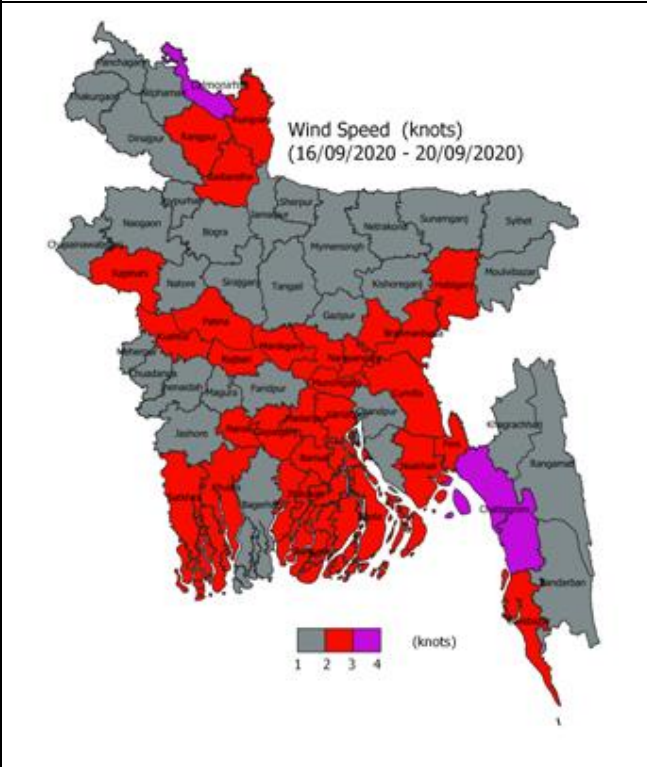
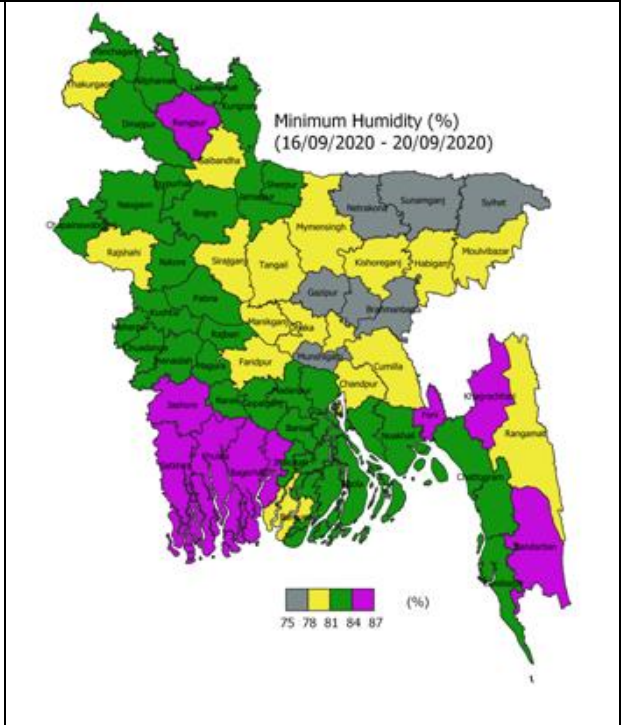
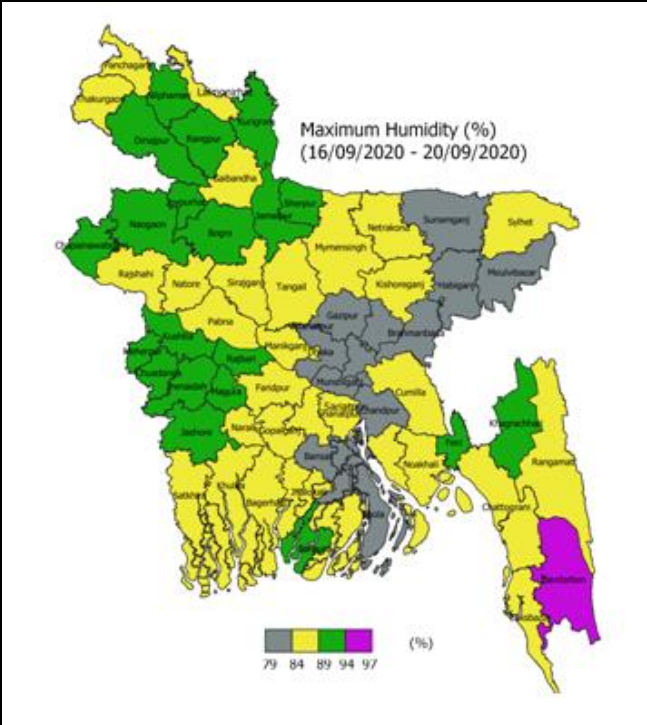
Weather Forecast and Advisory for the Period of 15.09.2020 to 21.09.2020

Bright sunshine hour is likely to be from 4.00 to 5.00 hours per day during this week. Average free water loss is likely to be from 3.00 to 4.00 mm per day during this week.

- Light (04-10mm/day) to moderate(11-22 mm/day) rain/thunder showers accompanied by temporary gusty wind is likely to occur at many places over Rangpur, Mymensingh, Dhaka, Chattogram and Sylhet divisions and at a few places over Khulna, Barishal and Rajshahi divisions with heavy (44-88 mm/day) falls at places over of the country during this period.
- Day and night temperature may fall slightly over the country during this period.

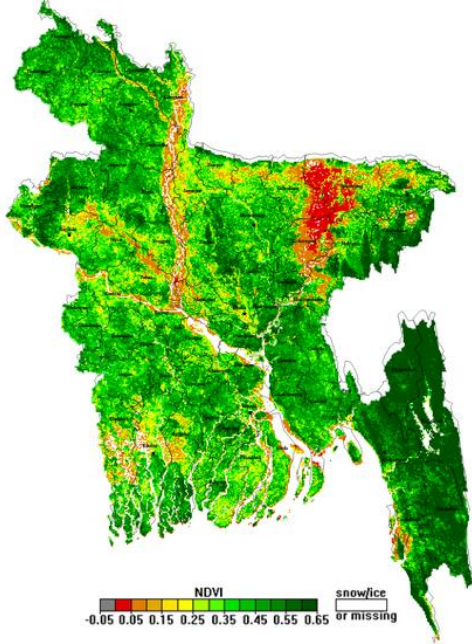
District Wise Quantitative Weather Forecast for next Five days from 16 Sep. -20 September'2020



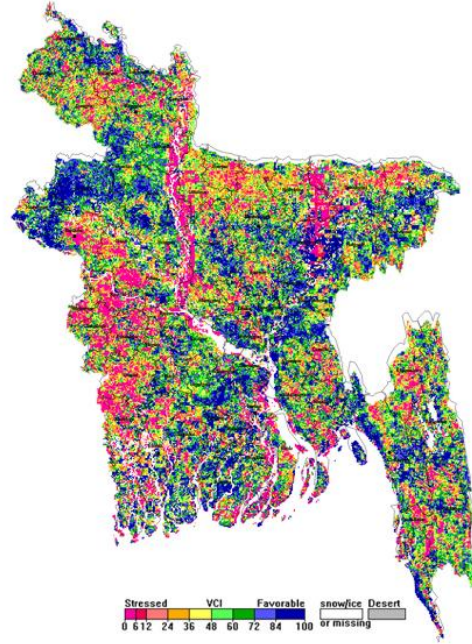


Different Satellite Products over Bangladesh

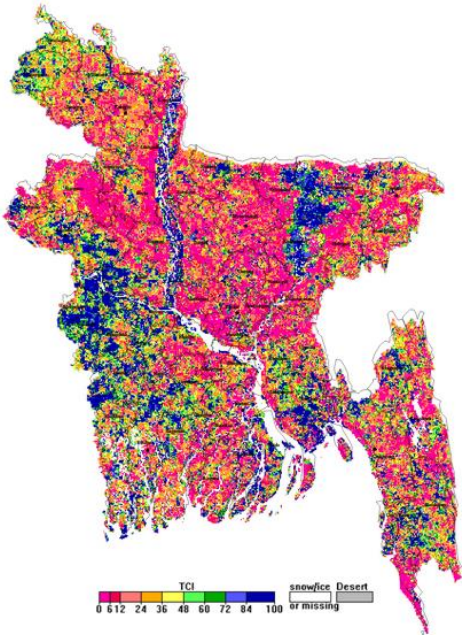
NOAA/VIIRS BLENDED NDVI composite for the week No. 36 (01 September -07 September) over Agricultural regions of Bangladesh



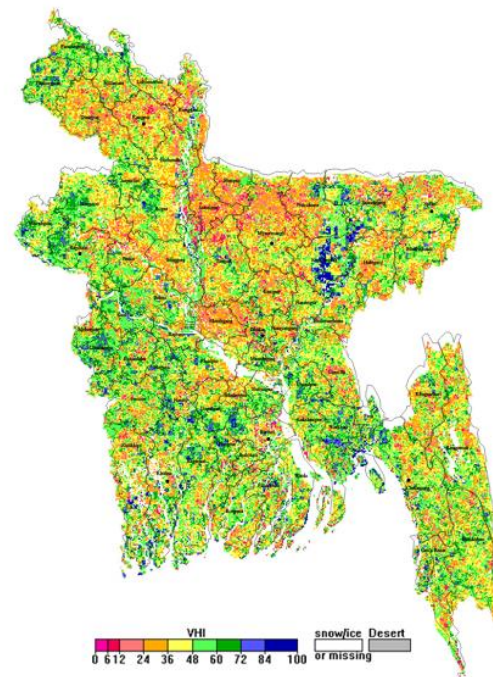
NOAA/AVHRR BLENDED VCI composite for the week No. 36 (01 September -07 September) over Agricultural regions of Bangladesh



NOAA/AVHRR BLENDED TCI composite for the week No. 36 (01 September -07 September) over Agricultural regions of Bangladesh



NOAA/AVHRR BLENDED VHI composite for the week No. 36 (01 September -07 September) over Agricultural regions of Bangladesh



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

It has been observed that during last four weeks (in August 2020) severe to extremely wet conditions prevails in districts located northeastern part and mild dry condition prevails in central parts of Bangladesh and southeastern part (Rangamati) was prevailed severe dry condition for last four weeks.

