



NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

30 SEPTEMBER 2020 (WEDNESDAY)
[FOR THE PERIOD 30.09.2020 – 04.10.2020]



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 axis of monsoon trough runs through Uttar Pradesh, Bihar, West Bengal to Assam across central part of Bangladesh. One of its associated troughs extends up to North Bay. Monsoon is fairly active over Bangladesh and moderate over North Bay. A low pressure area is likely to form over North Bay during next 24 hours. 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 Khulna, Barishal, Chattogram & Sylhet divisions; at a few places over Dhaka & Mymensingh divisions and at one or two places over Rangpur & Rajshahi divisions with moderately 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, little change is likely.

As Monsoon is fairly active over Bangladesh, good amount of rainfall is likely during next five days in different districts in the country. Some of the districts in the country are even likely to receive heavy to very heavy rainfall. Broadly the realized rainfall during last four days and likely rainfall during next five days are very conducive for growth of all standing crops in the country. Based on rainfall situation and other meteorological parameters, advisories are prepared crop-wise & district-wise . Salient agromet advisories issued for different crops in various districts are as follows.

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 soft 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 after the current spell of rainfall and during afternoon hours or at morning hours from 10:00 a.m. to 11:00a.m

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 flowering stage.
- 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.
- 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
- There is chance of attack of leaf folder /rice hispa in seedling and tillering stage. If there is one damage leaf per hill due to attack of leaf folder or appearance of one adult hispa per hill is observed, the farmers are advised to spray Chloropyriphos 20EC or Monocrotophos 40EC @ 1.5ml per litre of water.
- Due to persistence of high humidity and cloudy weather. false smut may appear in rice, spray with Kocide 46 DF (Chopper hydroxide) @ 500 g in 200 litres of water per acre to control false smut and after 10 days of its application spray Tilt 200 ml in 200 litres of water.
- For control of ;wilting, after drain out of water spray Streptocyclene and additional potasic fertilizer to the plants
- There is chance of considerable BLB attack due to high temperature and humidity, As the spore spread by air and water , drain out all the water and apply potash fertilizer. Follow community spraying otherwise infection cannot be controlled.-To control the disease it is advised to make fertilizer management and spray Thiovit+Potash. Avoid excess urea application.

- 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.
- All the intercultural operations & plant protection measures should be done after the current spells of rainfall.

Vegetables

- Drain out water from the crop field.
- **Cucumber:** Apply 18 kgs Urea/bigha at around 20-25 days after sowing of the plants. If you notice Irregular brown spots on the leaves, sometimes with yellow edges, it may be Alternaria Leaf Blight. Spray Tricyclazole 75WP @ 0.6 ml per liter of water at clear weather condition
- There is chance of fungal wilting due to heavy rain and high humidity in early winter vegetables. Drain out water from field. During clear weather drenching the soil around the base with [Streptocyclin@0.1g/liter](#) of water.
- **Brinjal:** Bacterial wilting- Wilting starts at the top when the plant starts flowering and fruit setting and eventually the whole plant shows wilt symptoms Cure: Infected plants must be eradicated. Roots of the seedlings must be treated (2.5gm carbendazim + 2 ml Teramycin capsule/litre water) before planting. Bleaching powder (3kg/acre) can be applied with irrigation water
- **Tomato: Late Blight:** Water-soaked lesion is seen in edges of leaves. Later on, leaves dries up. Nowadays late blight is first seen in the stem then it spreads to the leaves. Cure 1) Precaution must be taken during the initial infection stage. 2) Spray 2.5-gram Metalaxyl + Mancozeb/lit of water 3) Mix 3 gram Trichoderma with per kg of seed during seed treatment. 4) Avoid excess nitrogen fertilizer and close spacing of plants
- **Cabbage/Cauliflower:** Downy mildew: First brown spot appear in the lower side of the leaves, and the upper side of the infected portion becomes yellowish. Later on, the spots enlarged and destroy the whole leaf. This disease is present in seeds and other parts of the leaves. Cure: 1) Mix 3-gram Thiram with per kg of seed during seed treatment. 2) Spray 2.5 gram Metalaxyl + Mancozeb/lit of water
- **Winter/Rabi vegetables:** Good drainage for seedbed and direct-seeded plots, 2) Adapting raised seedbed practice, 3) Use systemic fungicide Thiophanate methyl 70 % WP @2 gram/lit with a sticker to avoid fungal diseases
- All the plant protection measures should be done after the current spells 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.

- Attack of Papaya mealy bug on papaya fruit can be controlled by dusting of Chlorpyrifos 1.5% dust or Malathion 5% dust around the healthy plants; also destruct ant colonies with drenching of Chlorpyrifos 20 EC @ 2 ml/litre.

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Banana

- • Rake up the accumulated mud from the root zone of banana for better aeration.
- • Plantation of banana crop should be done
- • Due to monsoon showers, there is a chance of Sigatoka disease in banana. Cut and burn all severely affected leaves. Spray 1% Bordeaux mixture with sticker soon after the appearance of symptoms (5 to 6 sprays at fortnightly intervals). Spray 1% petroleum based mineral oils. Spray 0.1% carbendazim or 0.2% Mancozeb alternatively @ fortnightly intervals. Spray Azoxystrobin, Tebuconazole, Difenconazole (0.1%).
- • There is a chance of erwinia rot in banana due to heavy rainfall in this season. As a precaution, apply lime in the banana basin or bleaching powder in the irrigation channels. To enhance the disease resistance, drench the basin with Pseudomonas @ 20g per litre of water. Affected plants can be protected by drenching the basin with 5 g bleaching powder or 3 g Copper oxychloride or 2g Copper hydroxide per one litre of water
- • Severely affected plants should be cut and removed to prevent the spread of disease

Beetle vine:

- • Strengthen the fencing of boundary of betel vine so that the boundary cannot be broken due to strong wind and thunderstorm.
- • No spraying of copper fungicide for control of foot and root rot should be given until all the water will removed
- • Keep the drainage channels clean and arrange proper aeration in the betel vine gardens.
- • Pluck muddy leaves from the lower parts of betel nut plants.
- • Farmers can continue to plant the cuttings of betel vine in the main field. Select disease free cuttings and before planting treat them with Bordeaux mixture 0.5% and Streptocycline 500 ppm for half an hour. Before planting, drenching of soil with Mancozeb 75 WP (2.5 gram per litre of water) is advocated.
- 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.

Sugarcane:

- During the month, sugarcane plant. in grand growth stage
- All the plant protection measures should be done after the current spells of rainfall.
- • Need based inter-cultural operations and earthing should be done.
- • Irrigation can be given at weekly interval (for medium type of soil). In heavy soils, 10-15 days interval. • If water scarcity is the there irrigate the crop in alternate row, to save the water. Drip irrigation can save the water up 40 per cent per cent.
- • Application of sulphur in the form of Gypsum @ 500 kg /ha to sulphur deficient soils to increase the cane yield and juice quality.

- • There is a chance to whitefly infestation in water stagnated fields of sugarcane. To control, spray monocrotophos @1.6 ml/litre of water or dimethoate @ 1.7 ml/ litre of water for two times in 10 days intervals and while spraying ensure that entire the plant should get wet.
- • Proper drainage system in the sugarcane fields should be maintained to minimize outbreaks of Pycnia pests
- There is a chance for early shoot borer incidence in sugarcane, farmers are advised to spray Chlorpyrifos@2.5ml/L or Monocrotophos@1.6ml/L for control.
- • To control red rot disease in sugarcane, avoid water stagnation in the field and removing of the affected plants should be practiced.
- • To minimize infestation of top shoot borer in sugarcane, spray Lambda cyhalothrin @2ml/litre of water. • All the above mentioned plant protection measure should be taken up

Cotton

- Continue sowing of cotton
- Complete seed sowing at tilled 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.
- • As there is a forecast of humid weather conditions, there may be increase in population of insect pest of cotton. Farmers are advised to install pest specific pheromone traps in the fields for monitoring the insect. If sucking pest's population is above ETL, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 litre or Trizophos 40 EC @ 1.0 ml/litre of water is advised against all type of borers after the current spell of rainfall.
- • Due to variable weather conditions, high humidity and favourable temperature for the chances or infestation of white fly. Farmers are advised to keep vigil on leafhopper, thrips white fly infestation. If infestation of white fly above to the economical threshold level (ETL) than 400 ml dimethoate (rogor) 30 E.C. or 500 ml oxydemeton-methyl 25 E.C. (metasystox) spray of 1 liter Nimbecidine mixed with 250 liter water per acre, when sky remain clear.
- For control of leafhopper infestation the spray 40 ml imidacloprid (Confidor) 200SL mixed with 120-150 liter water per acre, during clear weather.
- All the plant protection measures should be done after the current spells of rainfall.
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Livestock

- Hygiene should be maintained around cattle shed. Avoid water logging in cattle shed.
- •. Protect cattle from sun.
- • Vaccinate the livestock for Black Quarter and foot and mouth diseases.
- It is very important to provide a particular amount of dewormers for both roundworm and tapeworm to any cattle, goats,
- •,To prevent the livestock from worm infestations, it is advised to give Piperzine or Mebendazole at recommended dose after proper consultation with veterinary doctor.
- •, Goats may be affected with viral enteritis. As and when diarrhoea is noticed, immediate treatment should be done at the veterinary dispensary and do not allow the goats to graze outside.
- 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.
- Protect poultry houses from extreme rain/wind by covering with polythene sheets on the sheds. Provide vitamin B complex @ 7ml/litre in drinking water daily in broiler for healthy growth. Litter should be change periodically and provide clean drinking water and changed the water every day.
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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 30 September 2020) and maximum temperature on 29 September, minimum temperature on 30 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	Trace	33.4	26.8	Rajshahi	Rajshahi	00	33.6	27.5	
	Tangail	00	34.2	25.5		Ishurdi	02	33.2	27.3	
	Faridpur	00	34.1	27.3		Bogura	00	34.0	27.7	
	Madaripur	00	33.3	26.8		Badalgachhi	00	33.2	27.0	
	Gopalganj	00	33.9	26.6		Tarash	01	33.8	28.2	
	Nikli	00	33.0	25.0						
Mymensingh	Mymensingh	00	34.0	27.4	Rangpur	Rangpur	00	35.0	27.1	
	Netrokona	00	32.5	27.0		Dinajpur	00	33.5	26.4	
						Sayedpur	00	34.2	26.0	
Chattogram	Chattogram	18	34.3	26.5			Tetulia	00	33.6	24.9
	Sandwip	02	34.7	27.0			Dimla	00	34.0	25.5
	Sitakunda	00	xx	26.5			Rajarhat	00	34.0	24.8
	Rangamati	47	34.0	26.8	Khulna	Khulna	00	34.0	27.0	
	Cumilla	00	33.0	27.0		Mongla	00	34.0	27.0	
	Chandpur	00	33.4	27.4		Satkhira	01	34.6	27.4	
	M.Court	00	33.4	27.5		Jashore	00	35.0	27.0	
	Feni	00	34.3	26.2		Chuadanga	08	35.2	25.2	
	Hatiya	00	32.7	27.0		Kumarkhali	13	34.0	27.2	
		Cox's Bazar	Trace	33.5	26.0	Barishal	Barishal	00	33.2	26.3
	Kutubdia	01	33.6	26.5	Patuakhali		Trace	34.7	27.3	
	Teknaf	xx	33.0	27.4	Khepupara		00	34.1	27.2	
Sylhet	Sylhet	00	33.8	25.5		Bhola	00	33.0	26.5	
	Srimangal	00	33.4	25.8						

Highlights:

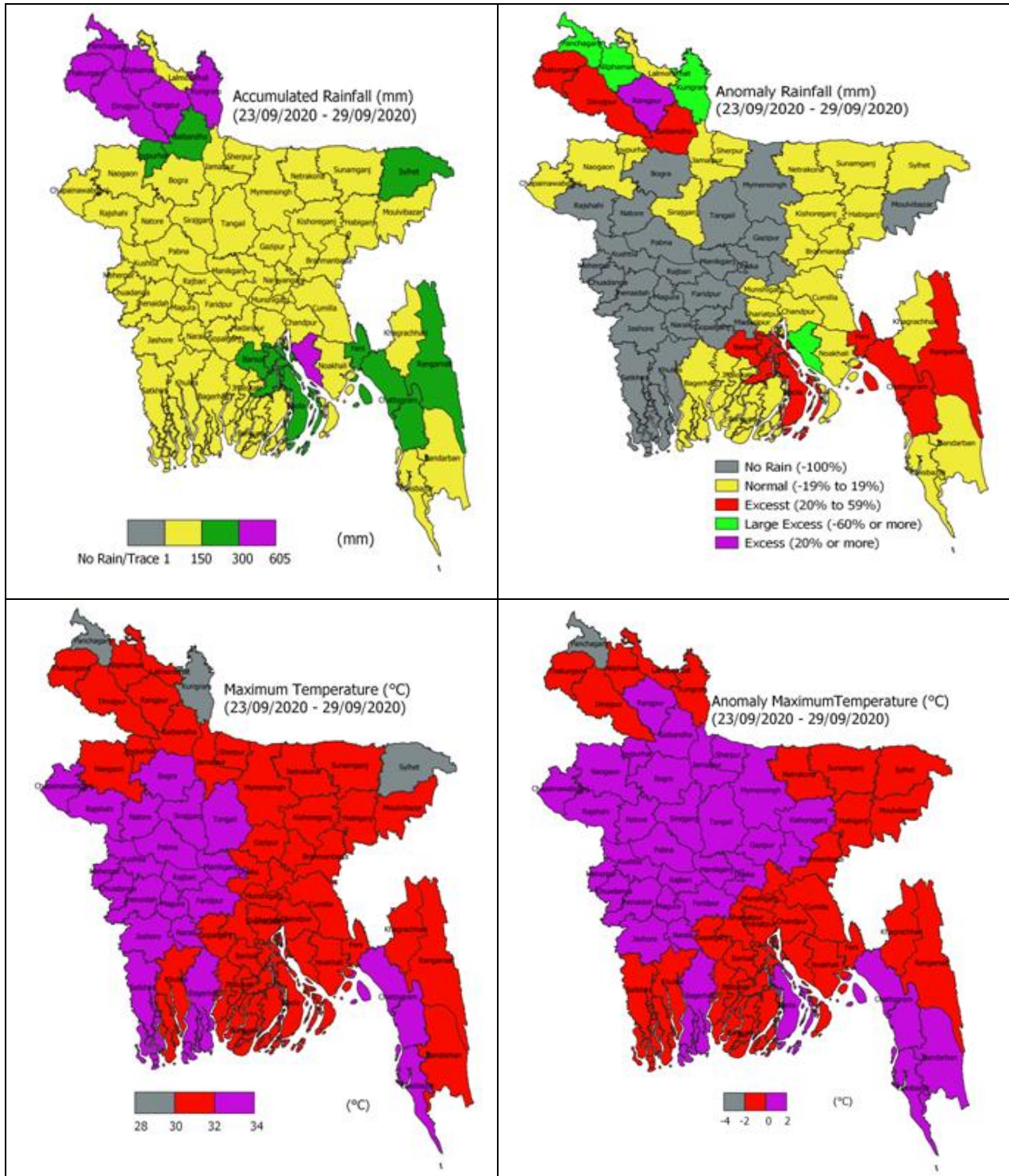
- Country average bright sunshine hour was 4.40 hours per day during last week.
- Country average free water loss during the previous week was 3.13 mm per day.

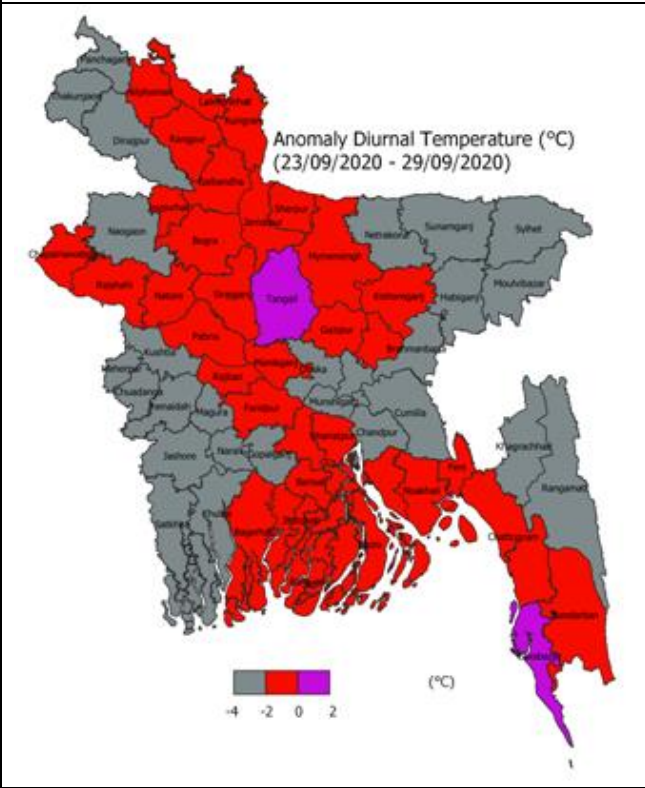
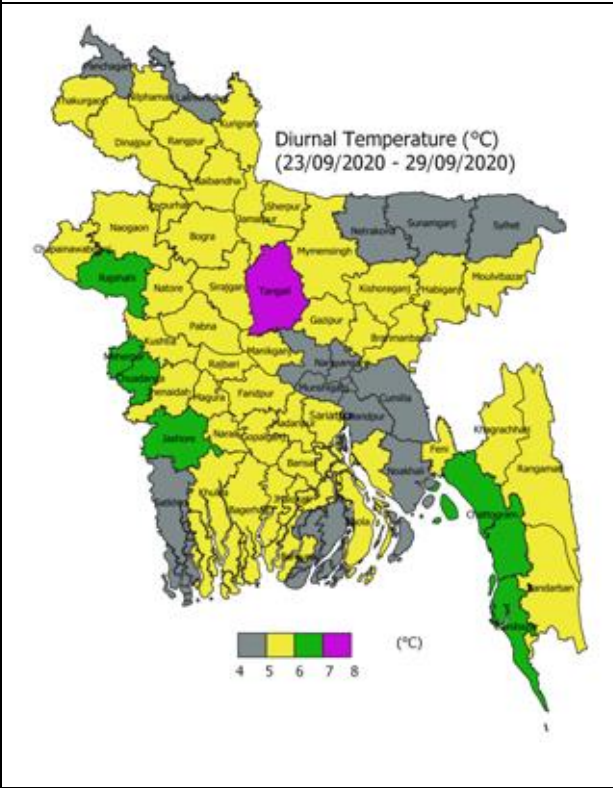
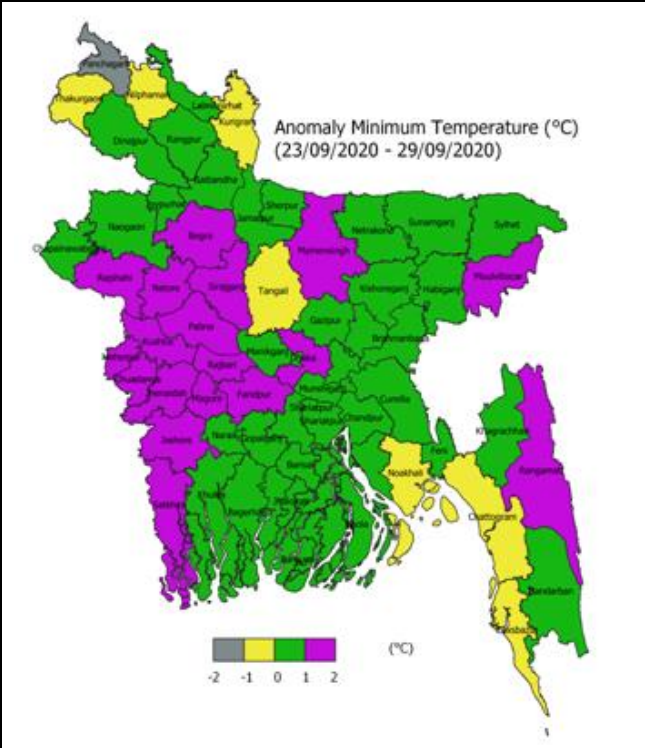
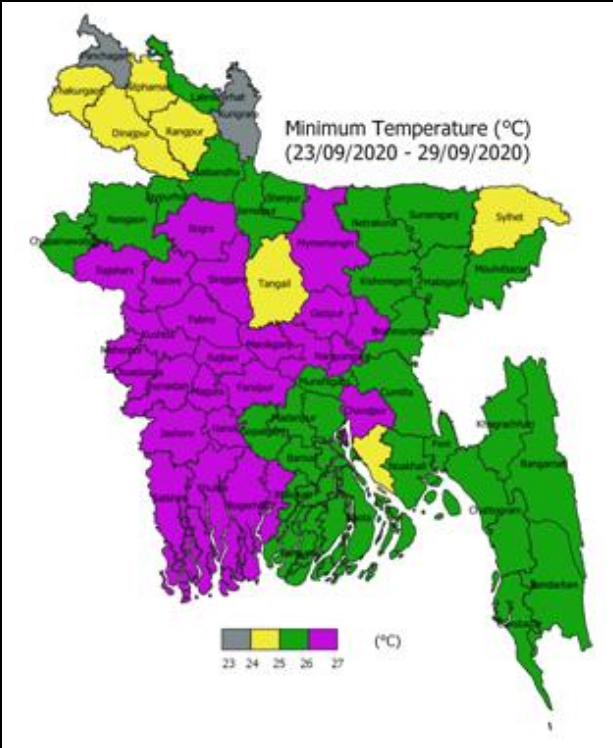
Weather Forecast Valid for 24 Hours commencing 06 PM Today:

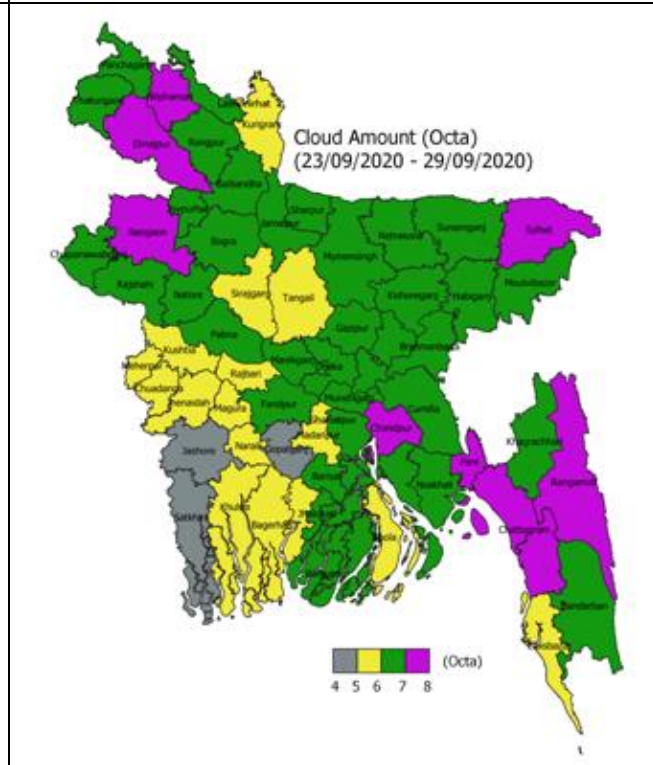
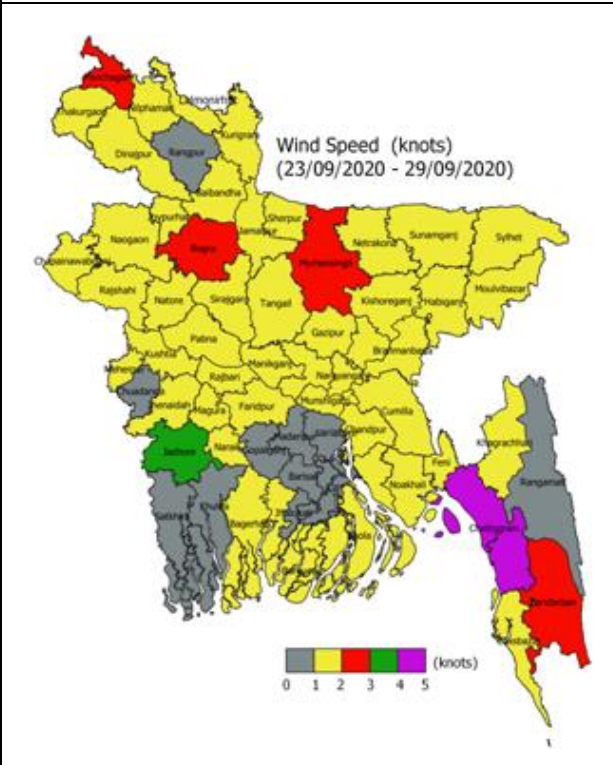
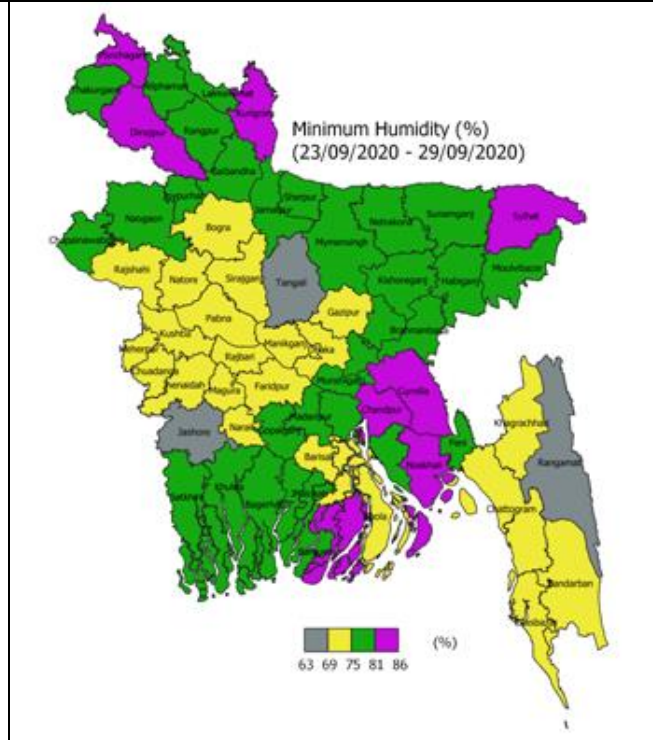
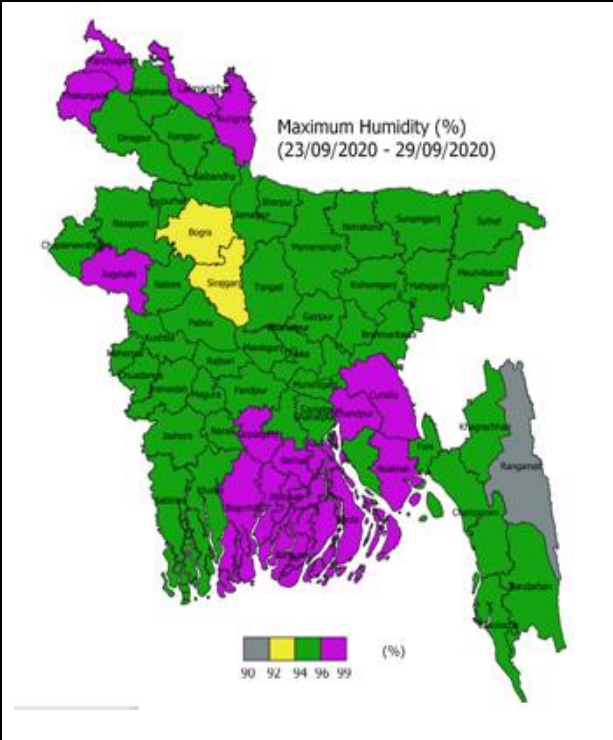
Forecast: Light to moderate rain/thunder showers accompanied by temporary gusty wind is likely to occur at many places over Khulna, Barishal, Chattogram & Sylhet divisions; at a few places over Dhaka & Mymensingh divisions and at one or two places over Rangpur & Rajshahi divisions with moderately heavy 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 29 September 2020





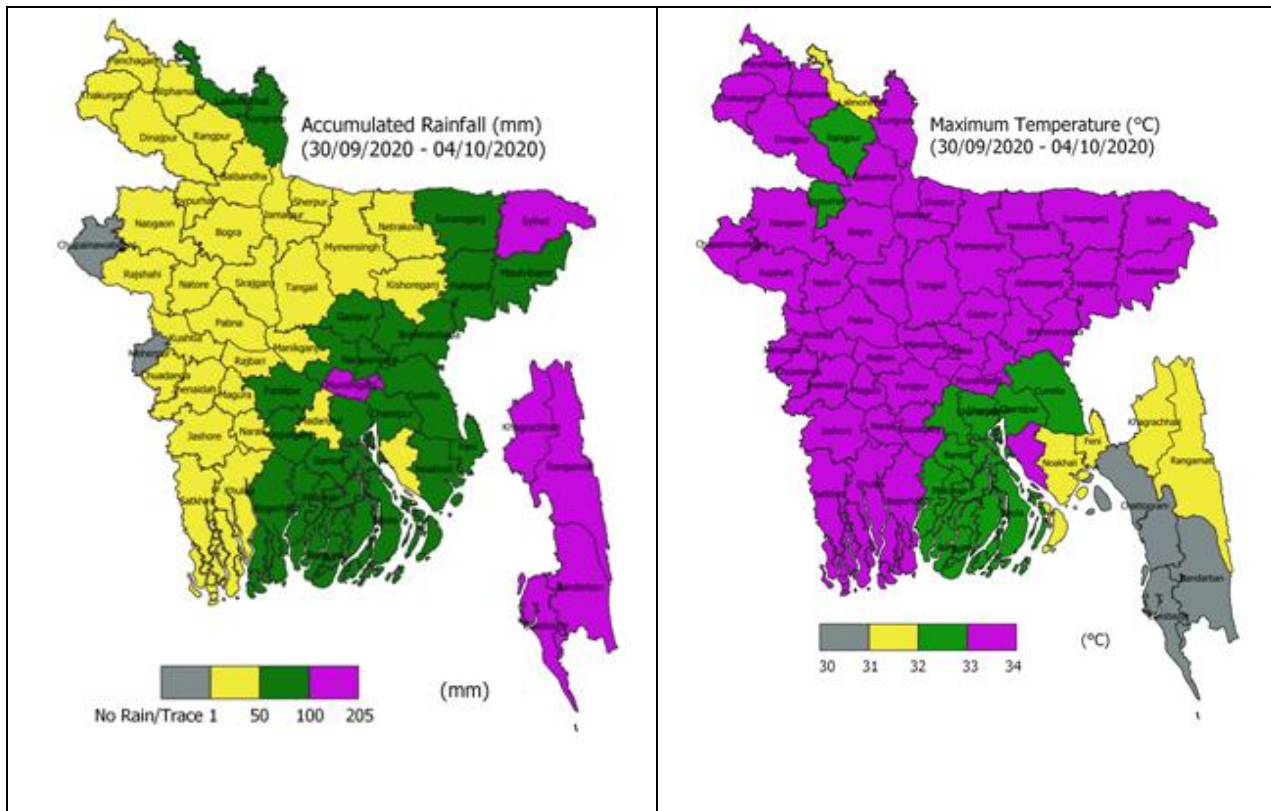


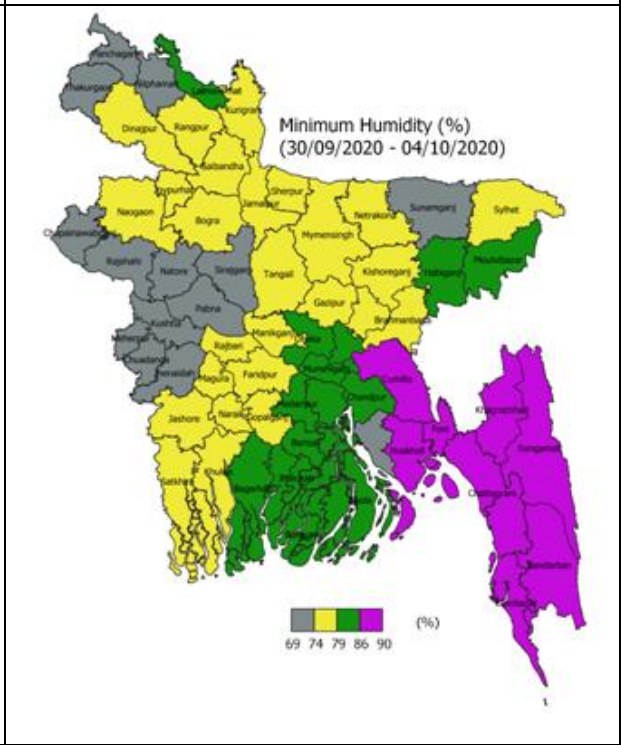
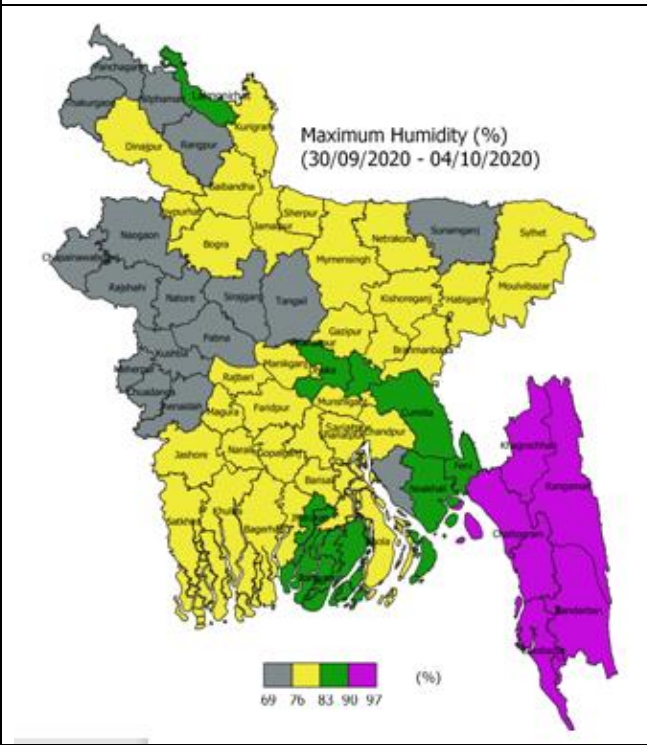
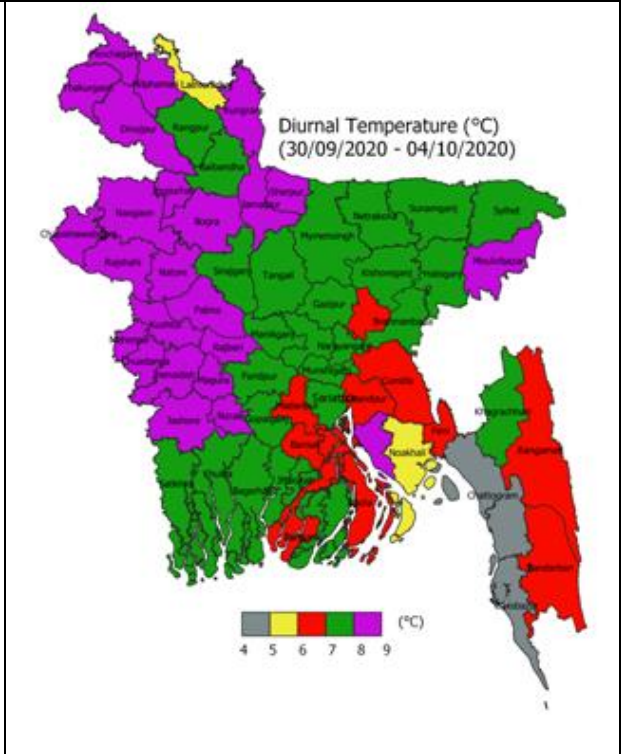
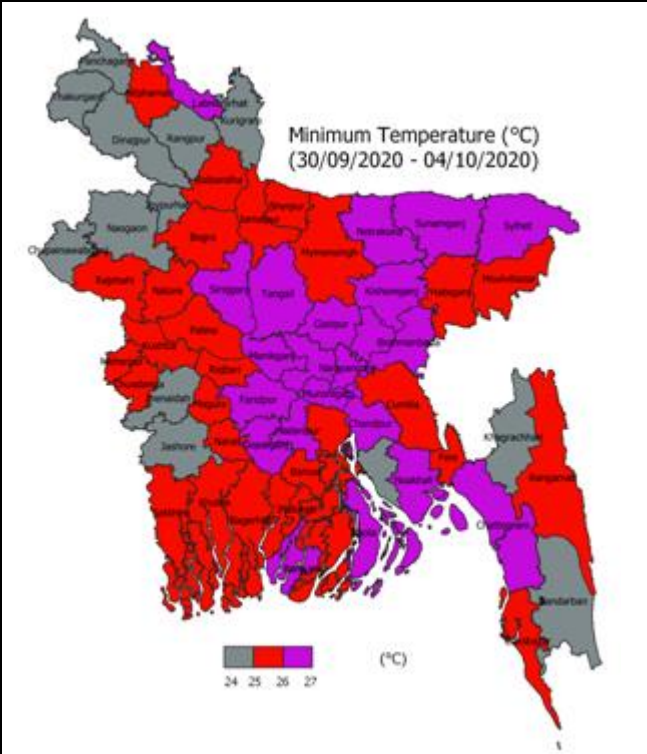
Weather Forecast and Advisory for the Period of 22.09.2020 to 30.09.2020

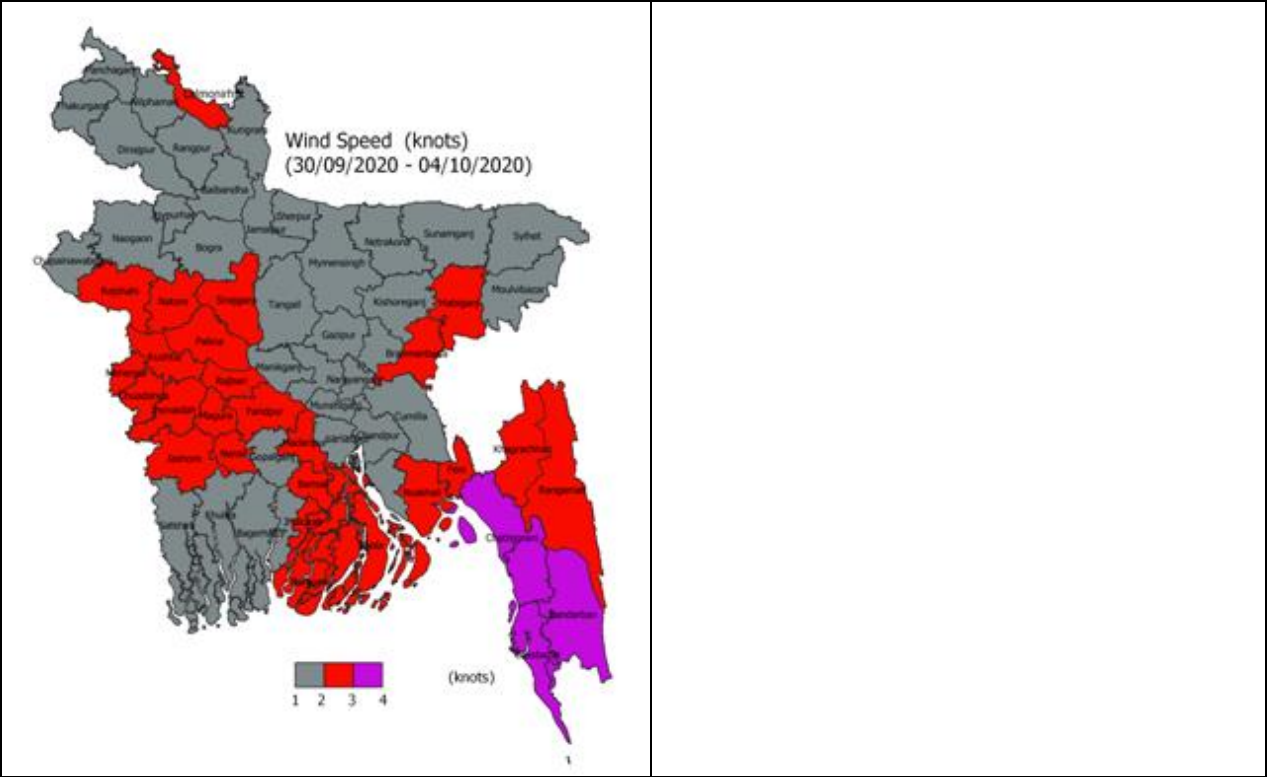
Bright sunshine hour is likely to be from 3.50 to 4.50 hours per day during this week. Average free water loss is likely to be from 3.00 to 4.00 mm per day during this week.

- Light (04-10mm/day) to moderate(11-22 mm/day) rain/thunder showers accompanied by temporary gusty wind is likely to occur at most places over Khulna, Barishal, Sylhet, Chattogram, Mymensingh and Dhaka divisions and at many places over Rangpur and Rajshahi divisions with moderately heavy (23-43 mm/day) to heavy (44-88 mm/day) falls at places over the country during this period.
- Day and night temperature may fall 1-2°C over the country during this period

District Wise Quantitative Weather Forecast for next Five days from 30 Sep. -04 October'2020

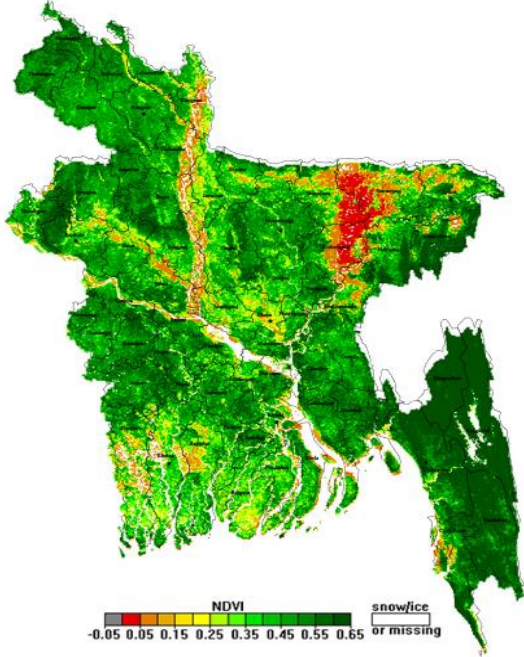




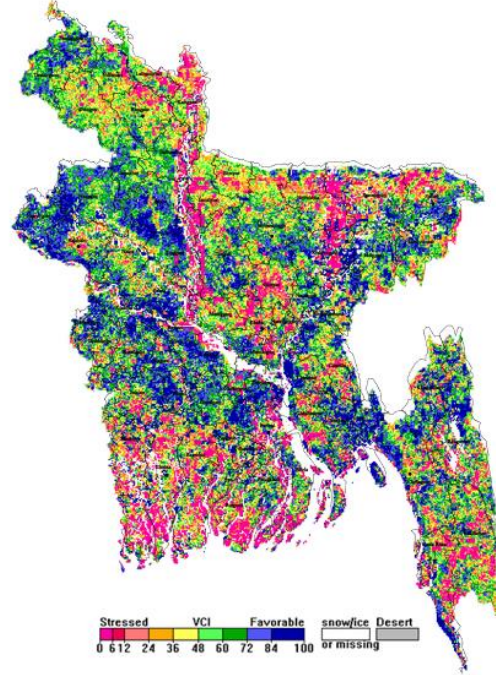


Different Satellite Products over Bangladesh

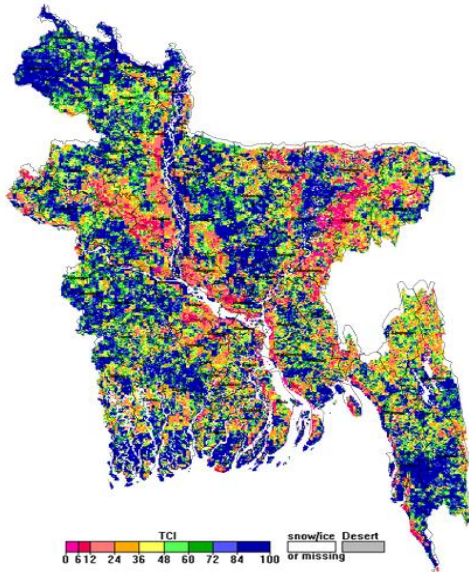
NOAA/VIIRS BLENDED NDVI composite for the week No. 38 (15 September -21 September) over Agricultural regions of Bangladesh



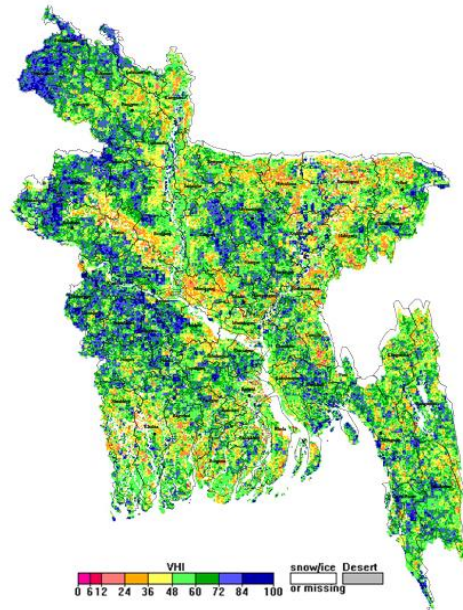
NOAA/ AVHRR BLENDED VCI composite for the week No. 38 (15 September -21 September) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED TCI composite for the week No. 38 (15 September -21 September) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED VHI composite for the week No. 38 (15 September -21 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 severe dry conditions prevails in districts located southwest part (Satkkhira) and mild wet and dry condition prevails in central to western parts of Bangladesh and northwestern part was prevailed severe wet condition for last four weeks.

