



NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

18 September 2019 (WEDNESDAY)
[FOR THE PERIOD 18.09.2019 - 22.09.2019]



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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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), the axis of monsoon trough runs through Rajasthan, Uttar Pradesh, Madhya Pradesh, Bihar, West Bengal to Assam across central part of Bangladesh. One of its associated troughs extends up to North Bay. Monsoon is active over Bangladesh and moderate over North Bay. During next 24 hours light to moderate rain/thunder showers accompanied by temporary gusty wind is likely to occur at most places over Khulna, Barishal, Chattogram & Sylhet divisions and at many places over Rajshahi, Rangpur, Dhaka & Mymensingh divisions with moderately heavy to very heavy falls at places over the country. As per the medium range quantitative district level weather forecast issued by BMD, a few districts like Rangamati, Patuakhali, Noakhali, Banderban, Barguna & Chattogram is likely to receive relatively more rainfall (more than 50mm) during next five days compared to other districts in the country. As a result, it is advised to apply irrigation, pesticides and fertilisers and also carry out intercultural operation in these districts where less amount of rainfall is expected during next few days. Day and night temperature may remain nearly unchanged over the country. As per the information received from Bangladesh Water Development Board (BWDB), all the major rivers are in rising trend of the country except the Surma-Kushiyara; however the Brahmaputra-Jumana and the Ganges-Padma rivers may continue rising, while the Surma-Kushiyara rivers may fall in next 24 hours. According to BWDB, there is no indication of flood situation during next five days and a result no advisories under flood like situation is issued for next five days. Considering the realized weather along with weather forecast and information received on water level on major rivers in the country, following salient agromet advisories are issued for different districts, where less amount of rainfall is likely for next five days, in the country on the standing crops, livestock, poultry and fishery.

Aus Paddy

Maturity to Harvesting

- Drain out water completely 15 days before harvesting
- Harvest the crop immediately on sunny days and keep it in dry and safe place

Aman Paddy

- Apply irrigation & maintain 5-7 cm standing water up to maximum tillering stage. At panicle initiation stage, 2-5 cm water level should be maintained.
- All the intercultural operations should be done
- First weeding should be done 10-15 days after transplanting. 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
- 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.
- Continuous monitoring of the economically harmful insects like stem borer, rice hispa, rice caseworm, gall midge should be done. 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.
- 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.

- In some places, crops are attacked either by stem borer or leaf eating insects. To control broadcast granular insecticides like Carbofuran 3G (at 12 kg per acre) or Phorate 10G (at 4 kg per acre).
- Regularly monitor the rice fields for plant hopper infestation. If 5 or more plant hoppers per hill are observed, spray Chess 50 WG @ 170 g/acre or Confidor 200 SL @ 40 ml/acre.
- 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.
- In low land areas, still there is scope for transplanting the crop after receding water. As there is delay in transplanting, cultivation of BR22, BR23, BRR1 DHAN 38, BRR1 46, Binashail, Nigershal and local varieties may be suitable under such circumstances.

Vegetables

- **Ladies finger** At fruiting stage there is a chance of incidences of leaf spot, Jassid, white fly. In case of spots on leaves with grey and dark margin apply carbendazim 50% WP @ 1 g/lit of water. For managing jassids and white fly Thiomethoxam 1gm/3lit. of water. Cleanliness to be maintained in the field.
- **Cucurbits** : At fruiting stage, there is a chance of incidences of fruit fly, white fly, mosaic. Collection and destruction of fruit fly infested fruits. Installation of pheromone trap @ 2/Bigha. For white fly apply clothianidin 50 WDG@ 3g/10lit. of water. For mosaic uproot the infected plant and spray systemic insecticide. Due to poor pollination fruit setting in such case apply Boron 20% @ 2g/lit. of water to enhance fertilization at fruit setting. Do not use any pesticide and insecticide during flowering and fruit setting.
- **Brinjal**: At vegetative & fruiting stages, there is chance of fruit and shoot borer, nematode, white fly, Jassid, fruit rot. For the management of fruit and shoot borer one application of coragen @ 4 ml/tank. Cleanliness to be maintained. Apply Thiomethoxam 0.3 SG @1g/3lit. of water to manage sucking pests infestation. For nematode problem apply Fipronil 0.3G @1.5 Kg/Bigha followed by a light irrigation or Nimitz 480 EC@ 4-8 lit/ha. could be applied against root knot nematode. For white fly and jassid, apply Acetamiprid 20% SP@1g/3lit or Thiomethoxam 0.3 SG 1g/3lit of water. Avoid touching of fruits with soil to avoid rotting of fruits.
- **Bitter gourd & Pointed gourd**: At vegetative growth and under the present weather condition, attack of Downy mildew may be seen in the field. Mancozeb or Chlorothalonil 2 g/lit twice at 10 days interval may be sprayed to manage the attack.

Horticultural crops

- Planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon is advised. If damaged by heavy rainfall, fill the gaps by replanting.
- The farmers are advised to take up plant protection measures carefully in horticultural crops like, pomegranate for bacterial blight and lime for leaf minor.
- The current weather is congenial for fruit blight and fruit rot disease in pomegranate, To control, spray Mancozeb 600g and Carbendazim 100 g @ 200 litre of water. . To control thrips in pomegranate, spray Spinosad 2.5 SC @ 10 ml per 10 liters of water.
- Use fruit fly trap to control fruit fly damage in guava orchards and cucurbits. Farmers are advised to remove foot rot infected plants from rice field and avoid ponding of water to check further spreading of infection.

- To control fruit blight and fruit rot disease in pomegranate, spray Mancozeb 600g and Carbendazim 100 g @ 200 litre of water.

Sugarcane:

- Need based intercultural 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.
- Proper drainage system in the sugarcane fields should be maintained to minimize outbreaks of Pyrrilla pests
- There is a chance for early shoot borer incidence in sugarcane, farmers are advised to spray Chlorpyrifos@2.5ml/L or Monochrotophos@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.

Turmeric:

- High relative humidity may cause leaf spot in turmeric, spray Mancozeb 1 kg/ha
- To control Rhizome rot disease turmeric, drench the affected area with 0.3% Mencozeb 75 WP @ 2g/l of water

Betelvine:

- Strengthen the fencing of boundary of betel vine so that the boundary cannot be broken due to strong wind and thunderstorm.
- Keep the drainage channels clean and arrange proper aeration in the betel vine gardens.
- No spraying of copper fungicide for control of foot and root rot should be given until all the water will removed.
- 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

Cotton: Sowing stage

- Continue sowing of cotton.
- Under 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.
- 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

Coconut

- Prepare pit for plantation of saplings of coconut
- Due to prolonged rains, there is a chance of bud rot in coconut. Keep three perforated Mancozeb sachets (5 g per packet) around spindle leaves as a prophylactic measure against bud rot
- Collect all the fallen coconuts from the 12 field to avoid sprouting.

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, Difenoconazole (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.

Ginger:

- Allow proper drainage from raised beds of ginger with necessary arrangements. Apply hexaconazole @1ml/lit of water as foliar spray if ash colour spots develop on leaves. Spray with (Melanayl 8%+mancozeb 4) @ 2g/lit of water as soil drenching followed by caoxychloride @ 4g/lit of water
- Weather is congenial for soft rot in ginger, drench the soil with 1% Bordeaux mixture/0.3% Mancozeb and apply green leaf mulching to prevent soil erosion and to increase the organic matter content in the soil
- Under excessive moisture, there is every possibility of rhizome rot in ginger and turmeric. To manage the disease, provide adequate drainage and apply Trichoderma Harzianum @ 50 g/bed along with FYM/ neem cake and undertake mulching.

Livestock & Poultry

- Hygiene should be maintained around cattle shed. Avoid water logging in cattle shed.
- Vaccinate cattle and buffalos against the rainy season diseases. Protect cattle from sun.
- Vaccinate the livestock for Black Quarter and foot and mouth diseases. Sheep/goats must be dewormed for maximum weight gain and good health. There is chance of Raniket, gumbra diseases in poultry; provide antibiotic drugs through water or through feed.
- During the monsoon season, to prevent the livestock from worm infestations, it is advised to give Piperzine or Mebendazole at recommended dose after proper consultation with veterinary doctor.

- During rainy days, 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.
- 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.
- To avoid insect infestation in nursery ponds, apply soap oil emulsion (mixture of cheap soap @ 2.5 kg and kerosene oil @ 13 litre per bigha of pond) and apply gently in nursery ponds.

Detail District-wise Agromet Advisories are available in BAMIS Portal (www. <https://www.bamis.gov.bd/>)

Realized Weather at different locations in the country

Rainfall for last 24 hours (till 06 AM on 18 September'19) and maximum temperature on 17 September, minimum temperature on 18 September'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	36.0	27.2	Rajshahi	Rajshahi	00	<u>36.5</u>	27.1
	Tangail	35	35.0	26.5		Ishurdi	20	35.3	26.5
	Faridpur	00	35.8	25.8		Bogura	12	34.0	25.8
	Madaripur	00	34.7	26.3		Badalgachhi	00	34.7	25.6
	Gopalganj	00	34.5	25.0		Tarash	00	35.0	27.0
	Nikli	00	35.0	27.7					
Mymensingh	Mymensingh	00	33.8	25.9	Rangpur	Rangpur	00	33.4	24.8
	Netrokona	00	34.2	25.8		Dinajpur	00	33.4	24.5
						Sayedpur	00	33.4	<u>24.0</u>
Chattogram	Chattogram	00	35.1	27.0		Tetulia	00	32.3	24.4
	Sandwip	00	35.2	26.6		Dimla	00	33.0	24.5
	Sitakunda	Trace	35.0	25.8		Rajarhat	00	33.1	24.3
	Rangamati	<u>51</u>	35.5	24.8	Khulna	Khulna	22	34.5	26.5
	Cumilla	00	33.8	25.8		Mongla	Trace	34.6	26.5
	Chandpur	00	35.4	27.4		Satkhira	06	35.0	27.0
	M.Court	00	34.2	27.6		Jashore	00	36.0	26.0
	Feni	00	34.6	24.6		Chuadanga	14	36.0	25.2
	Hatiya	00	34.5	26.8		Kumarkhali	00	xx	27.0
	Cox's Bazar	14	33.5	25.0	Barishal	Barishal	00	34.3	25.8
Kutubdia	27	33.0	25.0	Patuakhali		00	34.0	26.9	
Teknaf	00	33.1	25.0	Khepupara		00	34.4	26.3	
Sylhet	Sylhet	00	35.3	26.0		Bhola	02	34.4	26.1
	Srimangal	00	34.7	24.5					

Highlights:

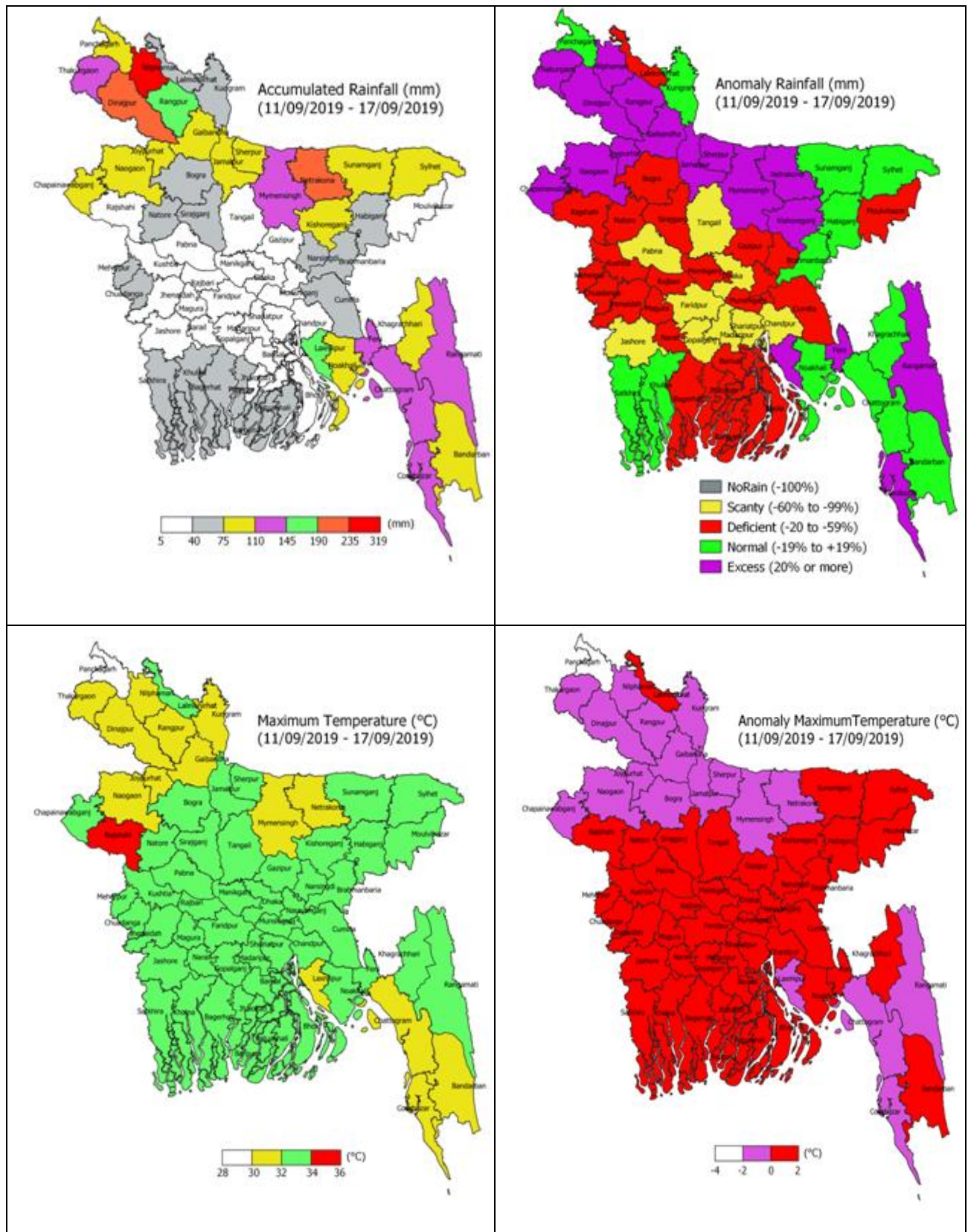
- Country average of bright sunshine hour was 2.83 hours per day during last week.
- Country average of free water loss during the previous week was 2.78 mm per day.

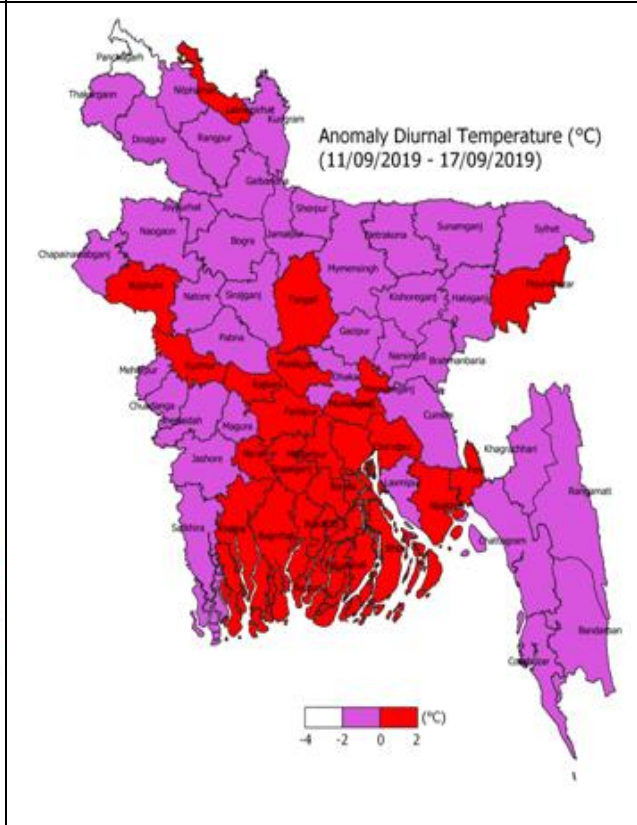
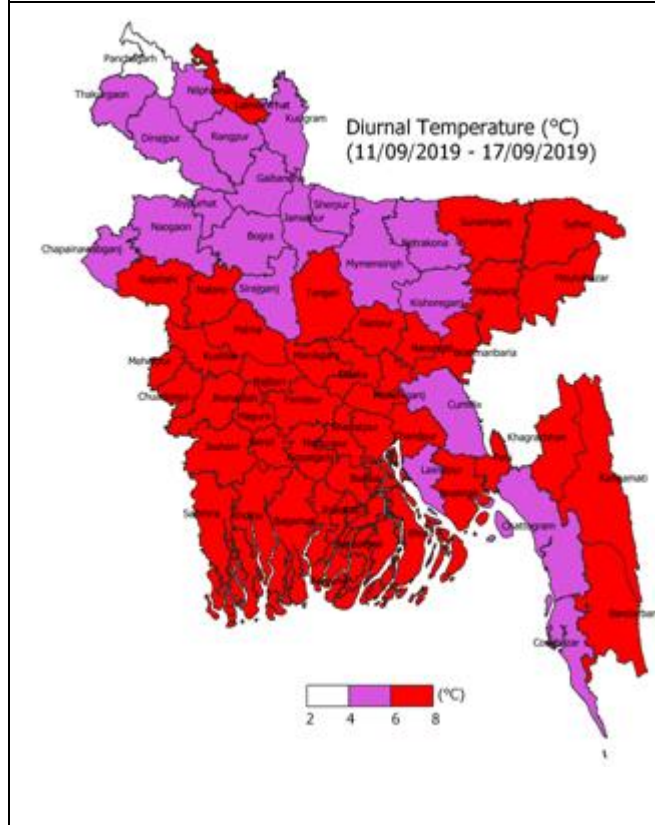
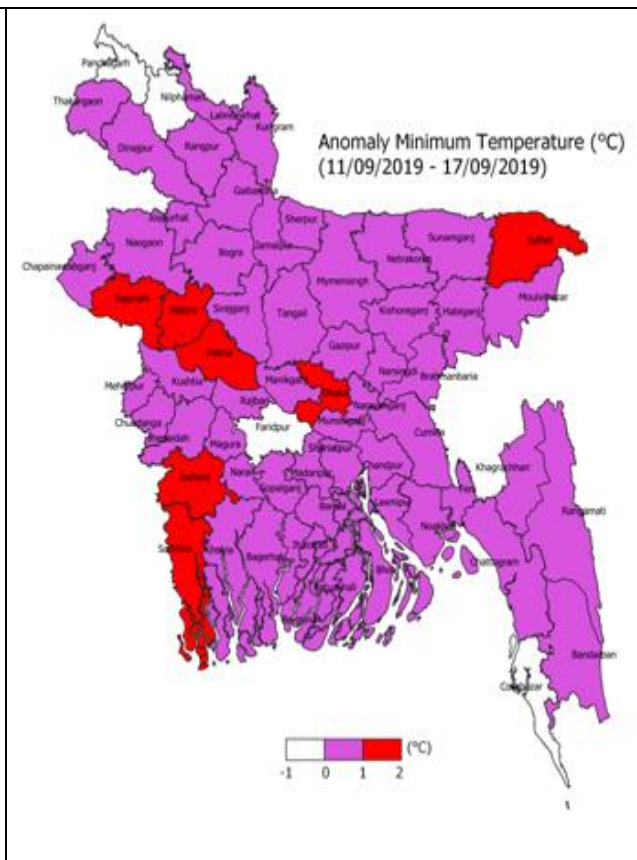
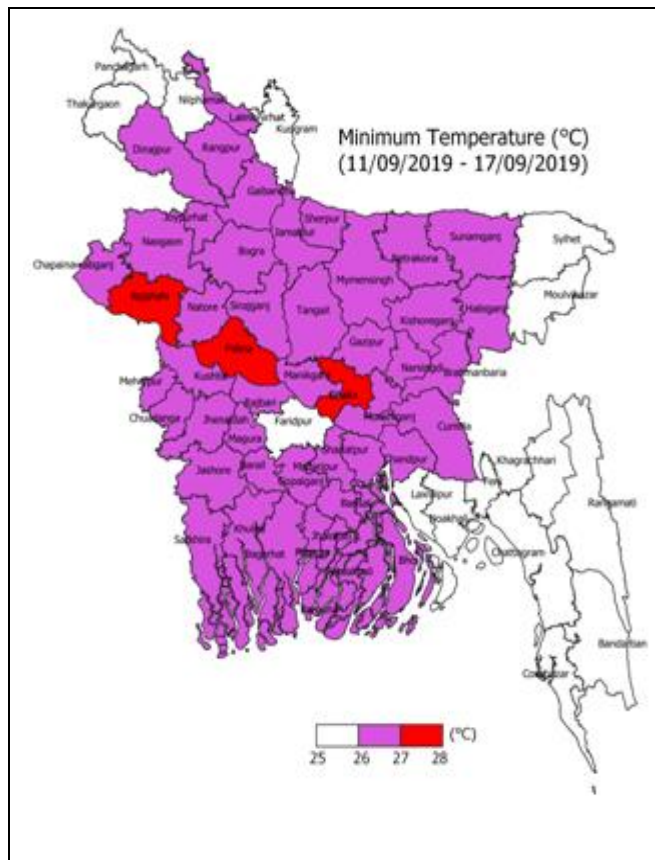
Weather Forecast Valid for 24 Hours commencing 06 PM Today:

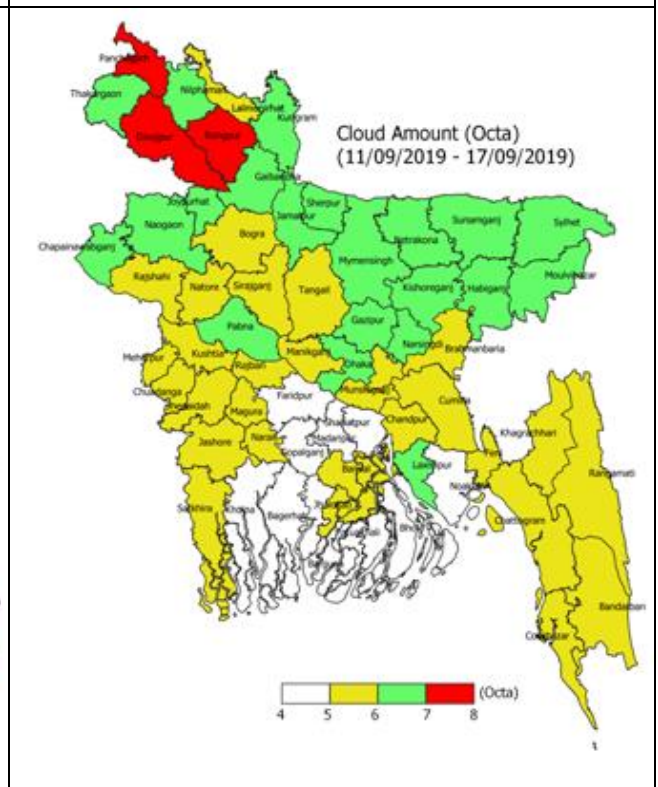
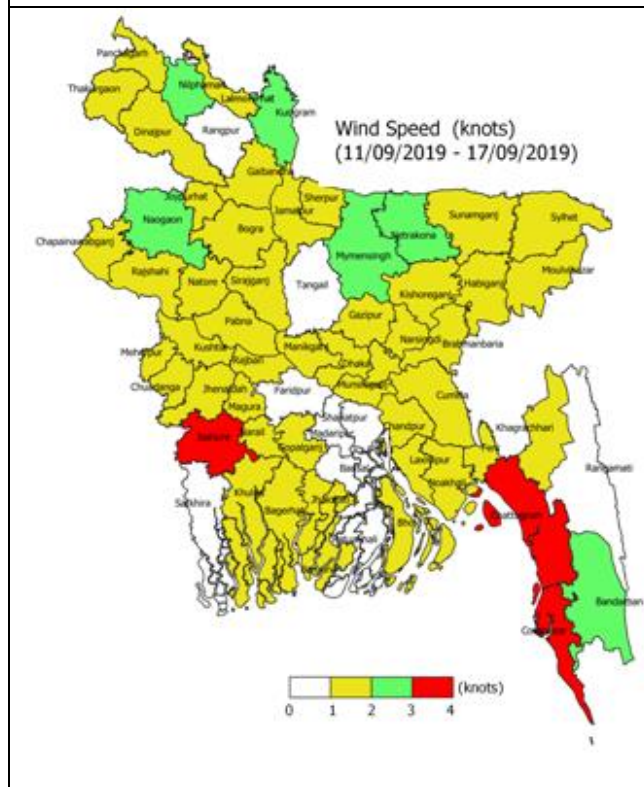
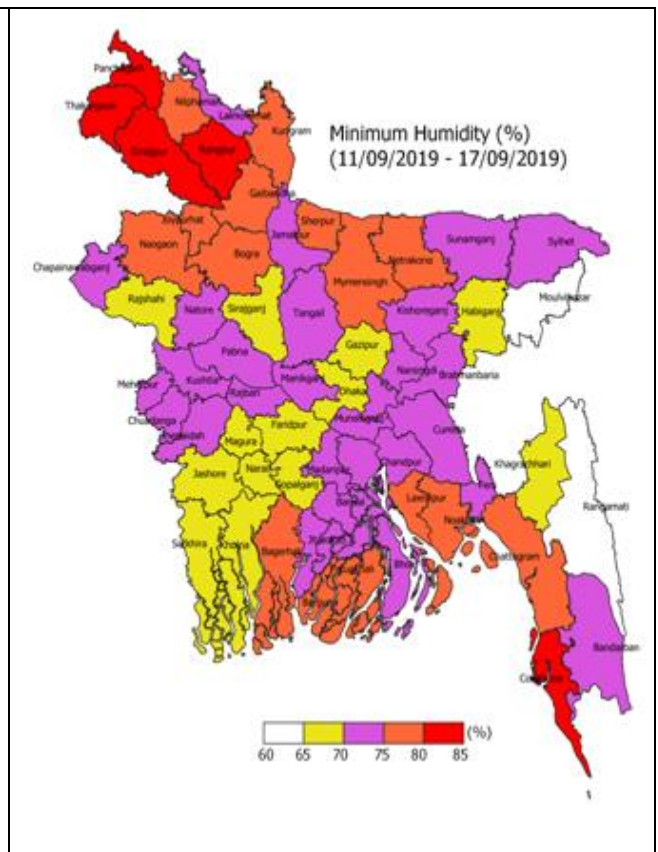
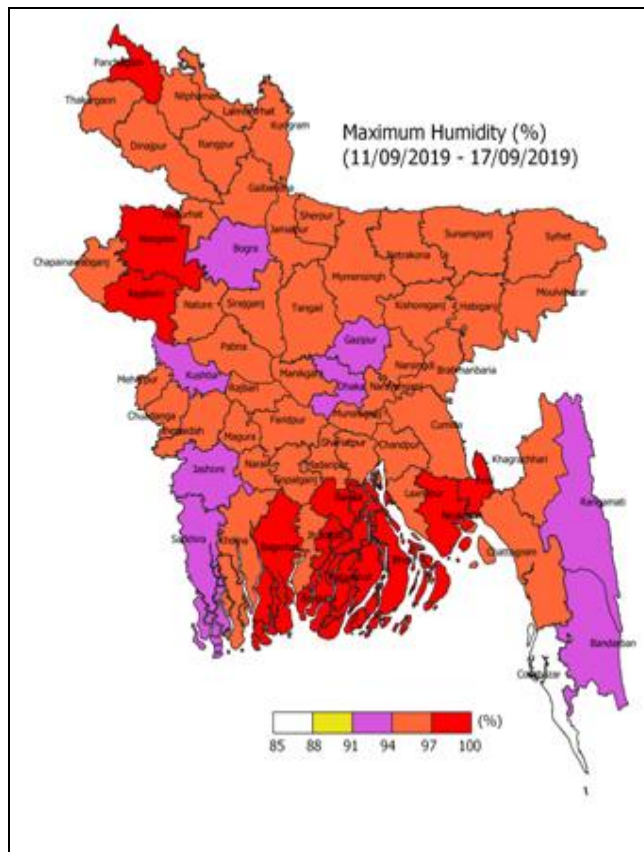
Forecast: Light to moderate rain/thunder showers accompanied by temporary gusty wind is likely to occur at a few places over Chattogram & Sylhet divisions and at one or two places over Dhaka, Mymensingh, Rajshahi, Rangpur, Khulna & Barishal divisions with moderately heavy falls at places over the country.

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

Spatial Distribution of weather parameters for the Week ending 17 September 2019







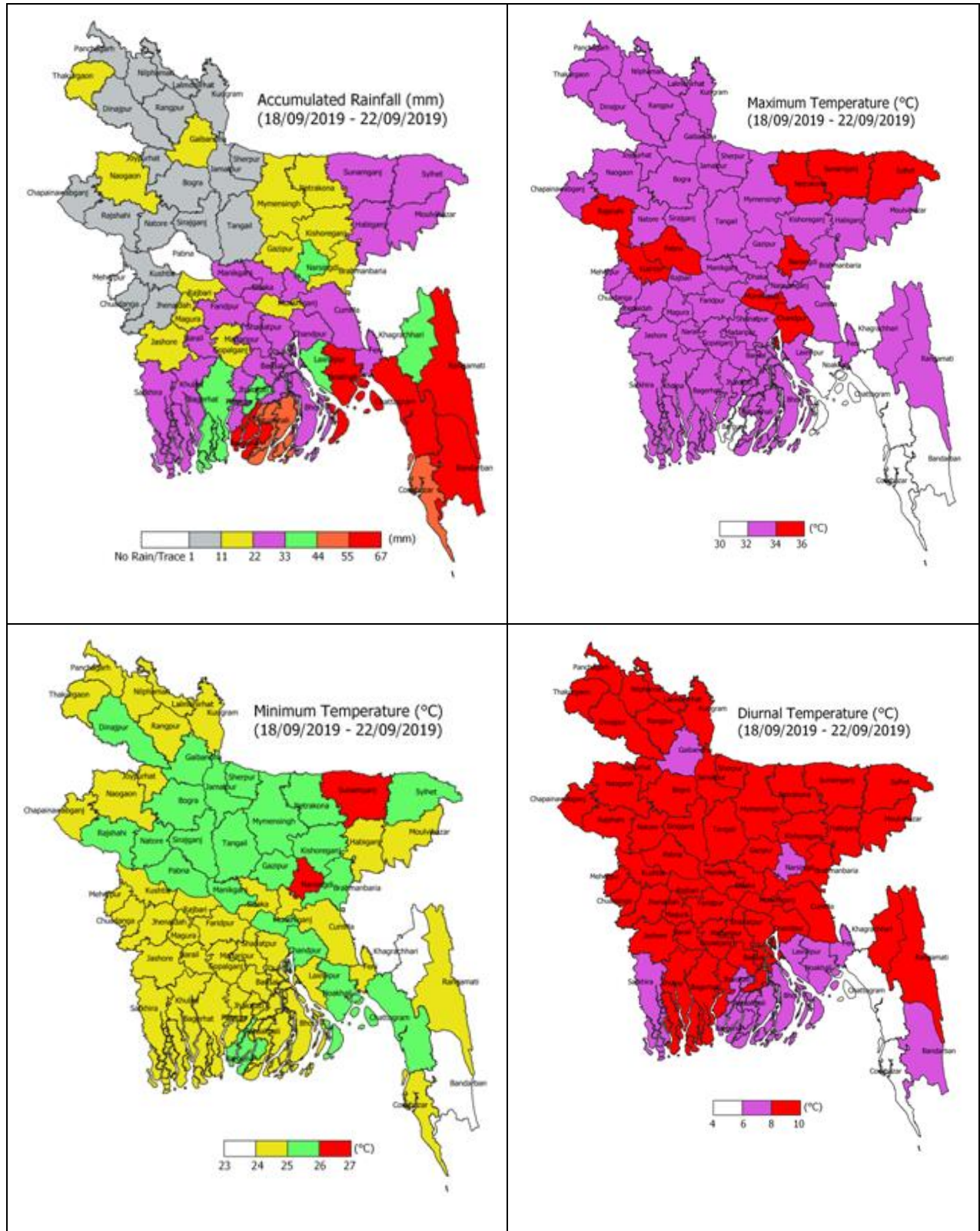
Weather Forecast and Advisory for the Period of 15.09.2019 to 21.09.2019

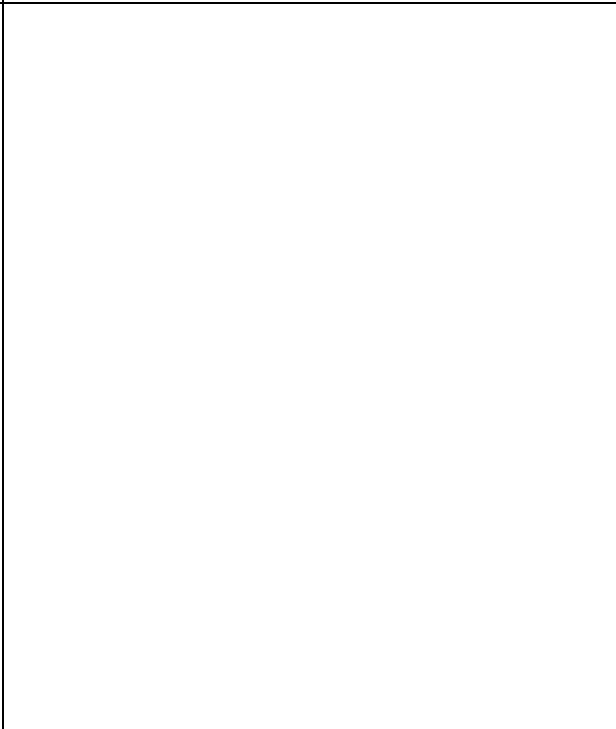
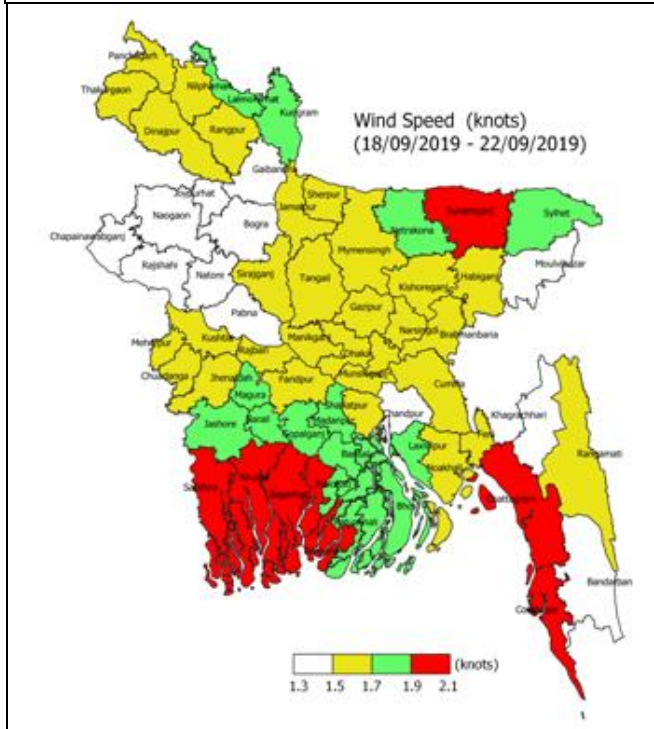
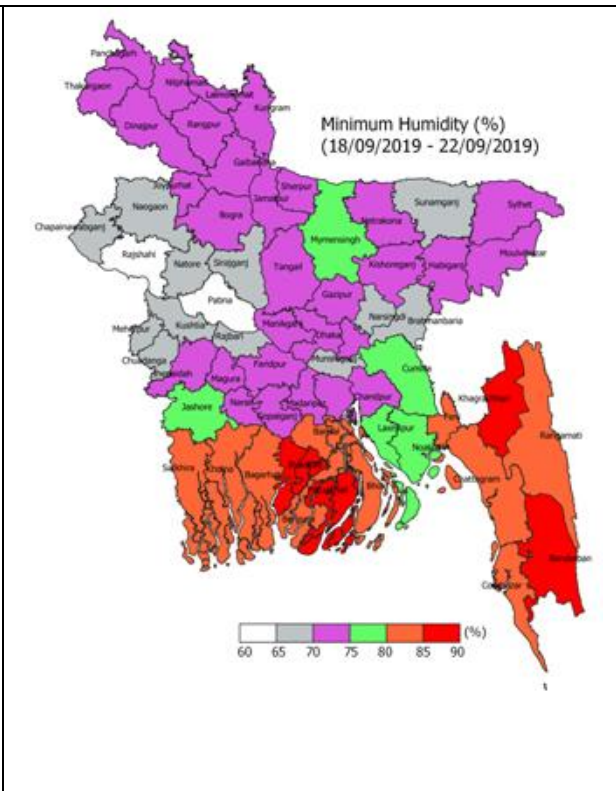
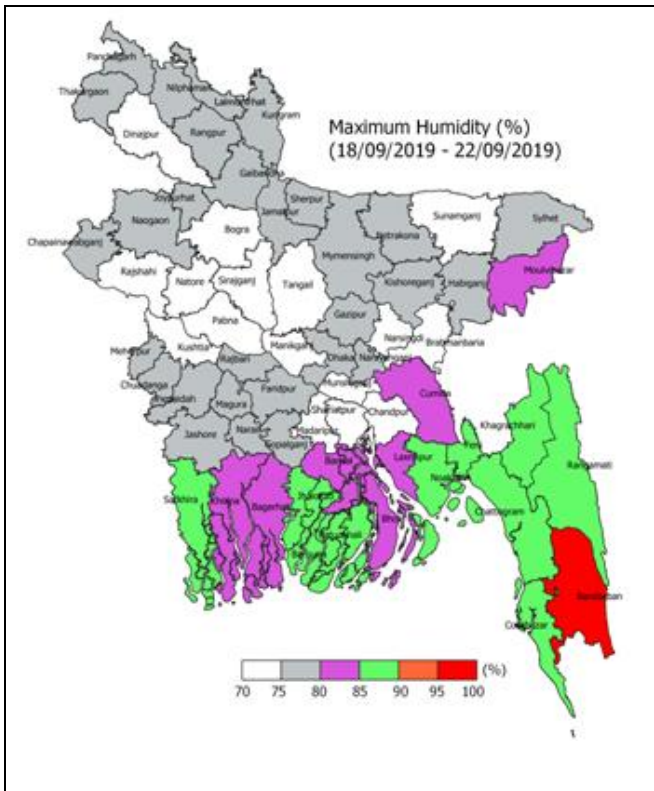
Bright sunshine hour is likely to be from 5.00 to 6.00 hours per day during this week. Average of free water loss during the next week is likely to be from 2.75 to 3.75 mm per day.

Light (04-10 mm/d) to moderate (11-22 mm/d) rain/thunder shower is likely to occur at many places over khulna, Mymensingh, Sylhet and Rangpur divisions during the first two or three days and over Dhaka, Chattogram, Barishal and Rajshahi divisions during the end of this period, with chances of moderately heavy (23-43 mm/d) falls at places over the country during this period.

Day and night temperature may rise slightly over the country during this period.

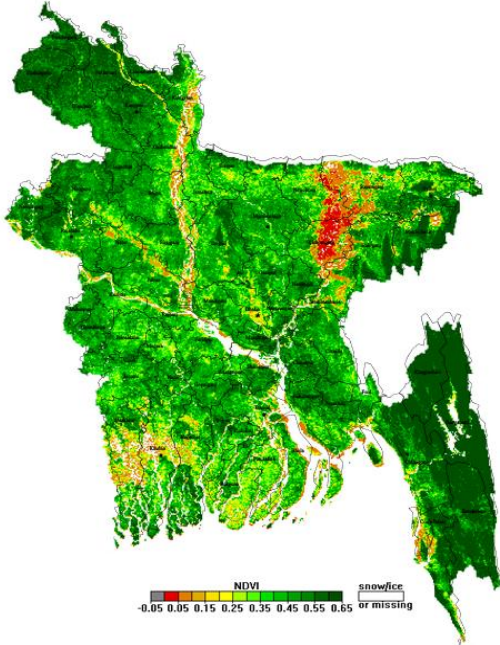
District Wise Quantitative Weather Forecast for next Five days from 18 Sept. -22 September'19



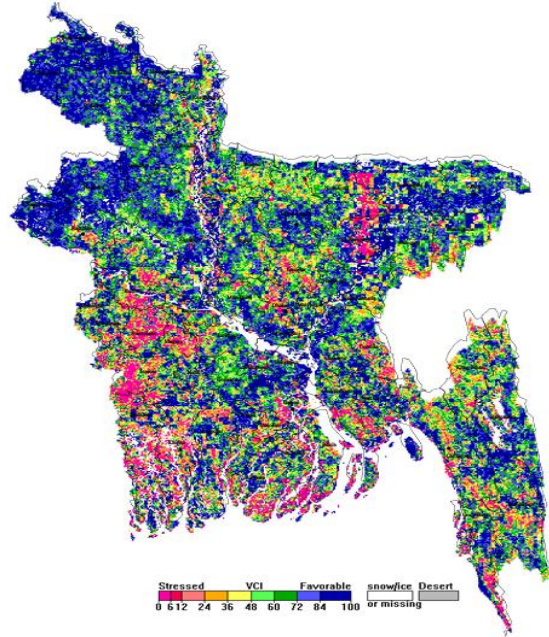


Different Satellite Products over Bangladesh

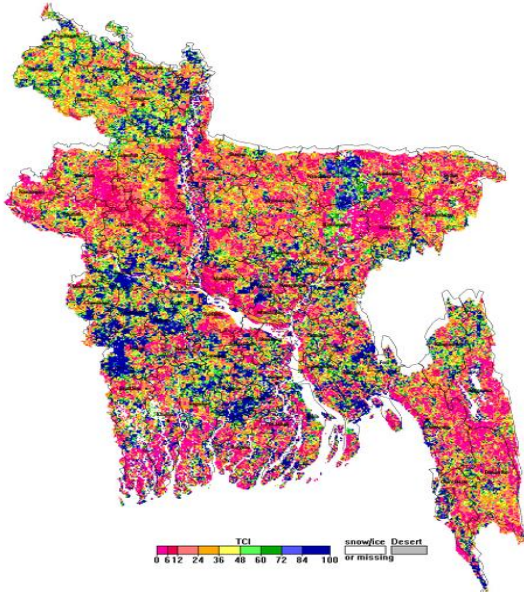
NOAA/VIIRS BLENDED NDVI composite for the week number No. 36 (31 August -6 September) over Agricultural regions of Bangladesh



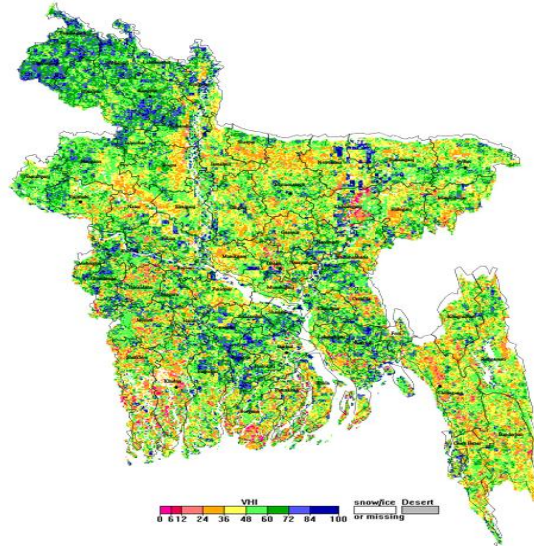
NOAA/ AVHRR BLENDED VCI composite for the week number No. 36 (31 August -6 September) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED TCI composite for the week number No. 36 (31 August -6 September) over Agricultural regions of Bangladesh

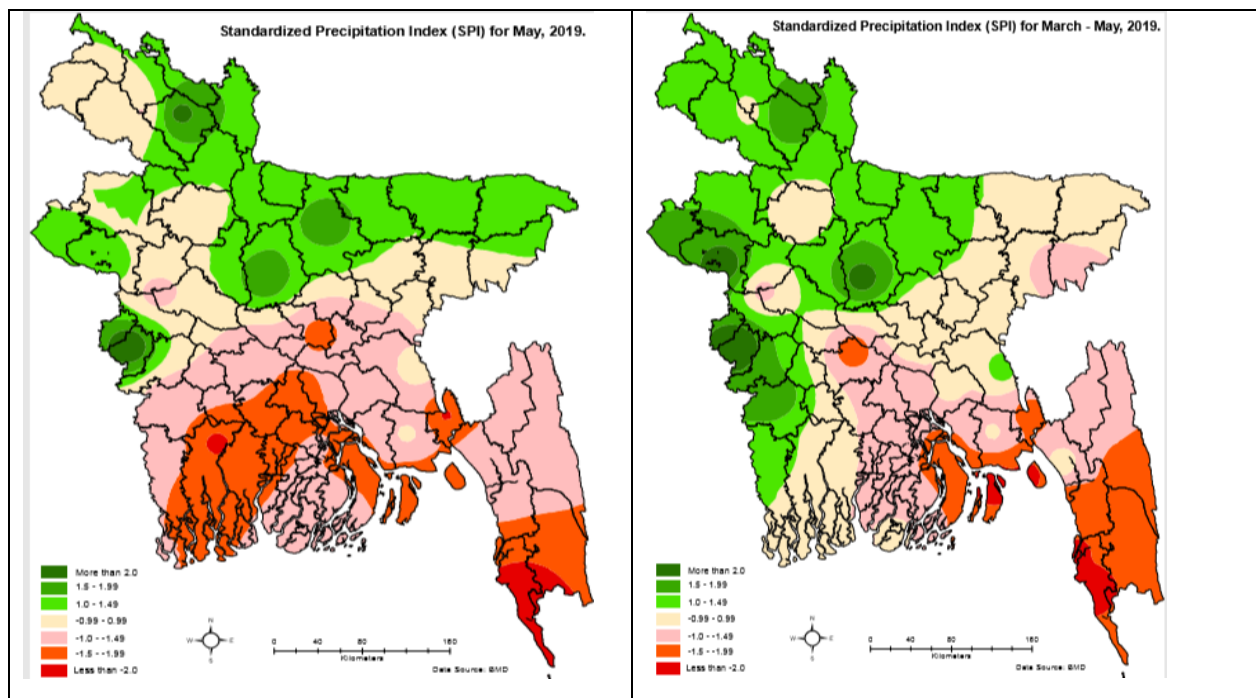


NOAA/ AVHRR BLENDED VHI composite for the week number No. 36 (31 August -6 September) over Agricultural regions of Bangladesh



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

It has been observed that during last three months as well as in May, normal conditions prevails in districts located in northwest, north as well as northeast parts of Bangladesh whereas the districts in south, southeast, southwest and some districts of central parts are under dry condition.



Source: Bangladesh Meteorological Department

RAINFALL AND RIVER SITUATION SUMMARY AS ON SEPTEMBER 18, 2019

(Source: Bangladesh Water Development Board)

Outlook:

- All the major rivers are in rising trend of the country except the Surma-Kushiyara.
- The Brahmaputra-Jumana and the Ganges-Padma rivers may continue rising, while the Surma-Kushiyara rivers may fall in next 24 hours.

General River Condition

Monitoring Water Level Stations	93	Water Level Steady in last 24 hours	02
Water Level Rise in last 24 hours	69	Total not Reported	00
Water Level Fall in last 24 hours	22	Above Danger Level	01