



# NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

15 July 2020 (WEDNESDAY)  
[FOR THE PERIOD 15.07.2020 – 19.07.2020]



## 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

## **Salient Agromet Advisories**

### **Salient Weather Conditions**

The axis of monsoon trough runs through Rajasthan, Uttar Pradesh, East Madhya Pradesh, Bihar, Gangetic West Bengal thence north-eastwards to Assam across central part of Bangladesh. One of its associated trough extends up to North Bay. Monsoon is fairly active over Bangladesh and moderate 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 & Sylhet divisions and at a few places over Dhaka, Mymensingh, Rajshahi, Khulna, Barishal & Chattogram divisions with moderately heavy falls at places over the country. Day and night temperature may rise slightly over the district. As per the outlook issued by BMD for next 72 hours, rainfall activity is likely to decrease.

As per the medium range weather forecast, though a number of districts is likely to receive rainfall during next five days, intensity of rainfall is likely to decrease compared to last week. As per the Flood Forecasting & Warning Centre, Bangladesh Water Development Board (Date of Issue 15.07.2020), a number of districts ( Kurigram, Gaaibandha, Bogura, Jamalpur, Siranjanj, Tangail, Manikganj Natore, Naogaon, Munshiganj, Faridpur, Madaripur, Shariatpur, Rajbari, Dhaka, Chandpur, Sylhet, Netrakona, Sunamganj) are already in flood condition and it is projected that flood condition will deteriorate in coming days and also this flood condition will stay upto end of July. It is also mentioned that some new low lying areas of some districts may witness flood condition shortly. Special Agromet Advisories for the districts have been issued.

### **Special Agromet Advisories for the districts due to heavy to very heavy rainfall and Flood Condition)**

1. Second wave of flood may hit the most of the parts of low land areas and as consequence of this seedling of normal variety rice ravage in the nursery bed in some areas. Therefore, it is urgent and most important task now before the farmers is to collect the BINA DHAN 11, BINA DHAN 12 (tolerant to water logging), BR 22, BR 23, BRRI 34, BRRI 46, BRRI54, BINASHAYIL, NIGERSAYIL, GAINJA, MALSIRA ( location specific ) , where flood occur recurring and transplant the seedling in the main field after recede the flood water, so that the field will not be abandon. Spray Carbendazim @ 1g/lit or Ediphenphos @ 1ml/lit of water, if one or two blast spot appears in the seedlings at nursery bed on fair weather condition. During field preparation apply FYM or compost @ 1.3t/bigha of land and mixed thoroughly.
2. Farmers of flood affected areas whose existing paddy nursery is completely damaged by the flood are advised to collect short duration rice varieties.
3. Hold on all agricultural operations like transplanting, application of irrigation, fertilisers, pesticides etc.
4. Postpone harvesting of the matured vegetables and horticultural crops.
5. Community based Aman rice seed bed may be raised on higher places to avoid heavy rainfall & flooding.
6. Select high land for Aman rice seedbed. Raise seedlings by using floating or Dapog seedbed technology where raised land is not available.
7. To prevent water stagnation in aman sed bed, construct channels around the seed bed for drainage.
8. Made suitable arrangements for draining out excess water from the crop field.

9. Clean the irrigation channel for draining out extra water from the field.
10. Keep all the farm produce in safe and dry place.
11. Maintain elevated bunding around and inside the crop field so that heavy rainfall may not affect the standing crops
12. Provide mechanical support like popping of sugarcane crops (tying of three to four plants together), support of horticultural crops particularly banana with three to four bamboos support to fruit plants and stacking of vegetables.
13. Due to ongoing flood condition, the special care should be taken for the domestic animal such as cow, buffalo, goat, pig etc. Therefore, immediate task now is to be shifting the animal in the high land or elevated area for the safety measure. Grazing land is limited now due to submerge with flood water, hence farmers are advised to may feed their animal with twigs and leaves of Mango, Jackfruit, Banana, Bombax plant, Sacred fig plant, Country fig etc after proper washing. Meanwhile, vigilance is needed of the hour so that animal may not feed any poisonous weed. Moreover, if any malady symptom is shown then immediately consult with the veterinary doctor for proper treatments.
14. Construct proper drainage system in and around the cow s hed to avoid water logging. Keep the floor dry. Provide clean drinking water
15. Due to flood water, fish pond may be submerged or going to be submerge so, farmers are advised to surrounding the fish pond with the nylon net immediately so that the growing fishes can not be run away from the fish pond. If fingerlings escaped from the pond due to occurrence of flood which were released earlier, farmers are advised to release fingerlings again and are ask to follow the given numbers fingerling such as @ Rahu 108 nos., Silver carp 136 nos., Catla 108 nos., Grass carp 70 nos, Mrigal 136 nos., and Common carp 136 nos. per bigha of fish pond.
16. Maintain a good height of embankment around the pond. If possible, provide net or bamboo chatai around the pond to protect from flowing out with flash flood.
17. Arrange boats for migration of essential food items and others from low to high land.

### **Salient Agromet Advisories for Remaining Districts**

#### **Aus Paddy:**

- Maintain in 3-4inches water level. Maontain water level 5-7 cm from panicle initiation stage. Maintain 2-3 cm water level at grain hardening stage.
- Inspect & monitor disease-pest e.g. blast, rice bug, stem borers and others and take appropriate plant protection measures.
- To control infestation of leaf blast & leaf spot in Aus rice, spray Carbendazim @2g/litre of water.
- If the population of Thrips and Green Leaf Hopper exceeds 25%, apply Malathion group insecticide at the rate of 1ml/1 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.
- Harvest the matured crop after the current spell of rainfall or on non-rainy days.
- Drain out water from crop field 15 days before harvesting.

- 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
- As boro cultivation is going on full swing, it is advised to monitor the incidences of other pests and diseases and take appropriate plant protection measures as advised by the upazila Agriculture Office or Sub-Assistant Agriculture Officer.

#### **Aman Paddy**

- Complete the sowing operations of aman paddy as soon as possible. Ensure weed free seed bed.
- Farmers may start the preparation of main land for transplanting as sufficient rainfall has been received.
- At the last stage of land preparation of field for transplanting of Aman paddy, apply per hectare 90 kg TSP, 70 kg MOP, 11 kg Zinc, and 60 kg gypsum.
- Transplanting of 25-30 days old nursery in the main after getting sufficient rainfall.
- Transplanting of aman paddy in the main field is going on due to sufficient amount of water present in the field. Thereby, it is recommended that before transplanting the seedling in the main field, farmers are advised to uprooted seedlings are washed and then the root portion is dipped in 0.02% solution of chlorpyrifos (1ml/lit of water) along with 1% urea (10gm/lit of water) for three hours as protective measure against stem borer, gall midge and hopper
- Avoid deep planting for better crop establishment and fill up the gaps within a week. Maintain 5-7 cm standing water up to maximum tillering stage. Keep the rice nursery and field bunds free from weeds either by hand weeding or by application of herbicide. Apply recommended herbicide as per recommendation within 1-3 days of transplanting.
- Under congenial condition, following aman variety may be sown
- BRRI DHAN 30, BRRI DHAN 32, BRRI DHAN 39, BRRI DHAN 49, BRRI DHAN 62 BRRI DHAN 71, BRRI DHAN 72, BRRI DHAN 75, BRRI DHAN 80, BRRI DHAN 87, BRRI DHAN 90, BRRI DHAN 93, BRRI DHAN 94, BRRI DHAN 95, BINA DHAN 11, BINA DHAN 16, BINA DHAN 22

#### **Maize: (Kharif 1)**

- This is the time when comb matures.
- When 70-80% of maize combs become straw color and leaves are yellowish colour, then harvest the combs in sunny weather.
- Dry the harvested combs in house corridor and hang on bamboo in home yard as well.
- At the time of grain filling and maturity stage birds damage the maize cobs. Hence, set up a scarecrow dressed in light flowing clothes that may help in avoiding birds attack in maize crop. Also attach strips of aluminum foil to the scarecrow to increase the reflection of sunlight so as to restrict the bird infestation
- To control Fall of Army worm in maize, manual destruction of egg masses and caterpillars may be done. Pheromone traps @ 4/ha for monitoring and 10/ ha for mass trapping of adult insects may be done. Spray Emamectin Benzoate 5% SG @6/15 litre water if infestation is above ETL.
- All the plant protection measure should be taken after the current spell of rainfall.

## Groundnut

- Flowering and fruit setting start.
- Drain out excess water, if any, from the land.
- Harvest the matured crop on rainy days.
- Monitor the incidences of pests (hairy caterpillar, jassid, thrips, leaf miner, spodoptera & termite) & diseases (leaf spot/tikka disease, leaf rust, foot rot/stem rot, collar rot, bud necrosis) and if noticed, take appropriate preventive measure.
- Clear the irrigation channel for draining out excess water from the crop field
- Prevailing weather condition are favorable for tikka leafspot in groundnut. To control spray with hexaconazol @2ml. or carbendazim @1 g. per litre of water.
- All the plant protection measure should be taken after the current spell of rainfall.

## Vegetables

- Drain out excess water.
- Make arrangement to avoid plant damage (particularly staked creeper) from anticipated gusty winds. Make arrangement to raise new orchard during monsoon season.
- If seedlings of brinjal are ready for transplanting, transplant the seedlings on ridges and furrow with spacing of 60 x 60 cm. Sowing of kharif vegetables such as lady's finger, pumpkin, cucumber, sponge gourd, bottle gourd.
- In pumpkin, ridge-gourd, pointed gourd and cucumber, there is a chance of attack of Red-Pumpkin Beetle during current weather condition. To control, apply Dimecron or rogor (1ml per litre of water).
- The prevailing weather conditions are congenial for incidence sucking pests in vegetables. To control, spray Dimethoate @ 2 ml or Acephate @ 1.5 g per litre of water. Undertake nursery sowing of Tomato, Brinjal and Chillies and direct sowing of Gourds, Beans and Bhendi with assured irrigation.
- At flowering to fruiting stag of bitter gourd, there is chance of Rotting at the base of flower, apply SAF @2g/liter of water.
- 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.
- For the orchards of the guava, add 20-25 kg cow dung and 50 gms of heptachlor in the soil extracted from the pit and fill it again. For mango, amla and berry orchards add 30 kg of cow dung, 250 grams of single super phosphate and 50-100 g heptachlor in the soil extracted from the pit and fill it again. These operations may be done.
- Farmers are advised to start digging of pit of appropriate size and distance for new orchard establishment. Prepare pit for plantation of saplings of mango, guava and coconut as sufficient rainfall has been received.

- Plantation of banana crop should be done after getting sufficient amount of rainfall. 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.

**Jute:**

- Foot rot, stem rot, and others diseases-pests may be infested and so has inspect the field regularly.
- Keep the jute land weed free by weeding and uproot comparatively under growth plant during the time.
- To protect capsularis jute crop (>4 ft tall) from lodging due high wind speed, the peripheral jute plants (round the field) need to be tied together by taking 4-5 jute plants in a consecutive manner.
- Harvesting and retting of jute may be done preferably at pre-flowering stage (120 days after sowing) to get better quality fibre. At present the water temperature in the retting tanks/ nalas may ideal for retting of jute. Early and timely sown capsularis jute may be harvested during this week and kept in the field in standing position for 3-4 days before retting for proper defoliation.
- Prevailing weather conditions are favourable for incidences of Hairy Caterpillar & Semiloper in Jute. Monitor the incidences of these pests. If observed, apply Spray Imidocholoprid/Chlorocyryn/ Nitro @ 1ml/litre of water for Hairy Caterpillar & Imidocholoprid/Chlorocyryn/ Nitro @ 1ml/litre of water for Semiloper.
- There may be incidences of stem weevil in jute. To control, apply Dichlorvos @ 3 ml per 4 litre of water or Endosulphan 2 ml per litre of water.
- All the plant protection measure should be taken after the current spell of rainfall.

**Betel vine:**

- There is chance of incidences of Phytophthora root rot and chital disease. For Phytophthora root rot apply 1% Bordeaux mixture at the base at 1-month interval. For Chitla apply 0.5% Bordeaux mixture at 15-20 days' interval.
- Maintain free air movement inside the garden.
- 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 field and so inspect the land regularly.

- Cultivated summer pulse crops, leafy vegetables need to be harvested in the sugarcane field as relay/inters cropping.
- 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.

### **Livestock**

- 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.
- Disinfect the shed with bleaching powder.
- Don't allow to graze the cattle in submerged field.
- If wound found at foot and mouth wash the wound with potassium per manganate solution.

### **Poultry**

Apply lime bleaching powder and copper sulphet solution spray before placing them in farm

- --Keep the chicks thin layer of litter
- --Follow proper vaccination at proper interval
- --Apply dry food and clean tap water for drinking purpose

### **Fishery**

- Repair damaged dykes of fisheries ponds and take care so that fishes do not escape. Maintain outlet pipe from the pond so that excess water pass away and the water level is maintaining.
- Fish grower framers are advised to collect the healthy fingerlings from the authentic sources as there is enough water in the fish pond.
- Remove the unwanted fishes and predator by repeated netting before leaving the new fingerling in the fish pond.
- This is time for release of new batches of fishes in fish ponds.
- 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%.

## Realized Weather at different locations in the country

Rainfall for last 24 hours (till 06 AM on 15 July 2020) and maximum temperature on 14 July, minimum temperature on 15 July 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	04	31.2	26.0	Rajshahi	Rajshahi	22	32.8	26.6
	Tangail	04	32.4	25.5		Ishurdi	00	33.5	26.8
	Faridpur	03	31.4	26.4		Bogura	00	33.2	27.1
	Madaripur	04	32.0	25.8		Badalgachhi	17	33.2	26.7
	Gopalganj	02	32.5	27.0		Tarash	Trace	31.7	27.7
	Nikli	00	33.0	<b>23.4</b>		Rangpur	Rangpur	00	<b>34.2</b>
Mymensingh	Mymensingh	02	32.5	27.4	Dinajpur		04	33.5	26.9
	Netrokona	22	30.6	26.3	Sayedpur		00	34.0	27.5
Chattogram	Chattogram	09	32.2	26.0	Tetulia		13	29.7	26.2
	Sandwip	04	31.6	26.4	Dimla		<b>41</b>	31.5	27.4
	Sitakunda	03	32.6	25.9	Rajarhat		40	32.0	26.0
	Rangamati	13	33.0	25.5	Khulna	Khulna	Trace	32.6	27.0
	Cumilla	03	31.1	26.0		Mongla	01	32.5	26.5
	Chandpur	27	31.0	25.8		Satkhira	02	33.5	26.5
	M.Court	07	31.7	26.5		Jashore	01	33.2	26.8
	Feni	02	31.7	25.9		Chuadanga	00	33.7	26.9
	Hatiya	12	30.7	26.0		Kumarkhali	06	31.0	26.6
	Sylhet	Cox's Bazar	10	30.8	25.5	Barishal	Barishal	Trace	32.4
Kutubdia		01	32.0	26.2	Patuakhali		04	32.0	26.5
Teknaf		33	31.2	24.6	Khepupara		08	31.9	26.5
Sylhet		17	32.4	25.8	Bhola		09	32.2	26.0
	Srimangal	01	34.0	25.5					

### Highlights:

- Country average bright sunshine hour was 2.26 hours per day during last week.
- Country average free water loss during the previous week was 2.41 mm per day.

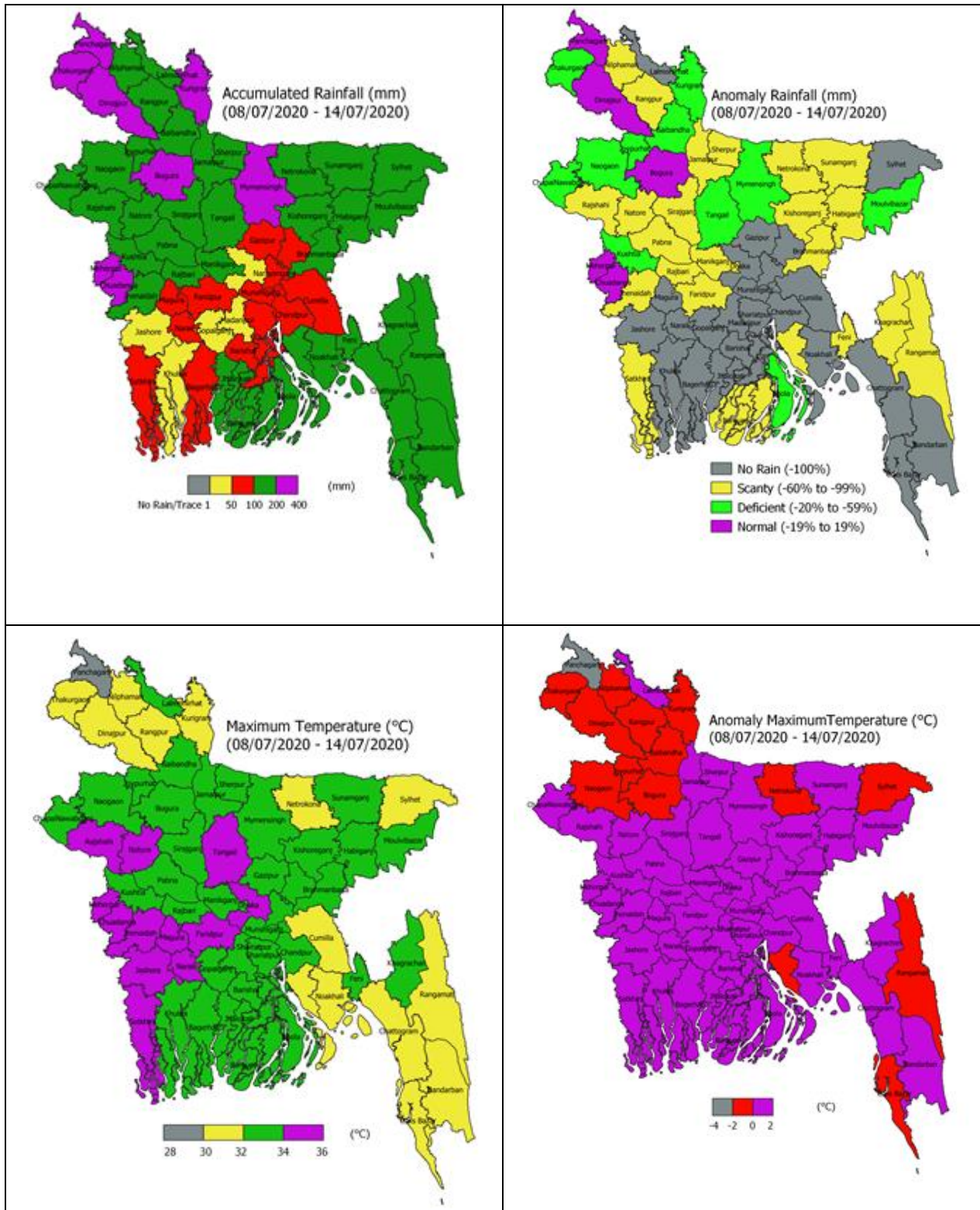
### Weather Forecast Valid for 24 Hours commencing 06 PM Today:

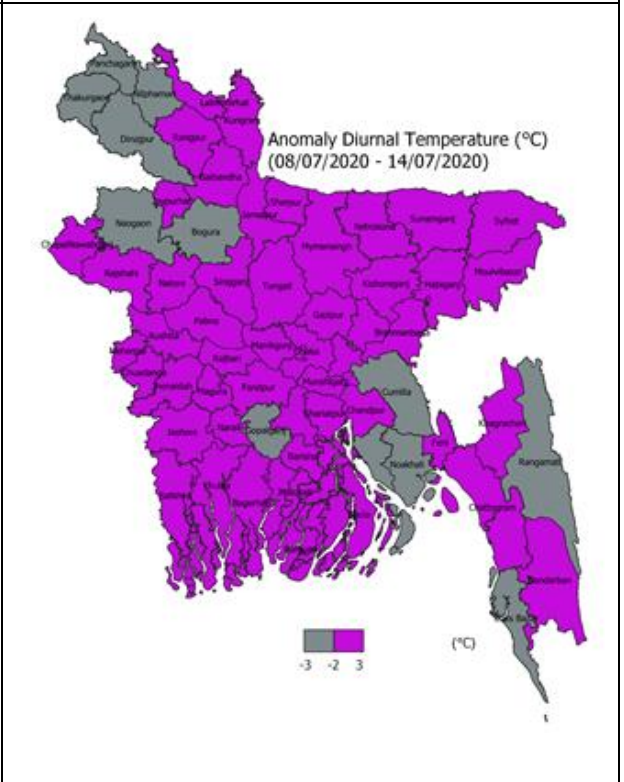
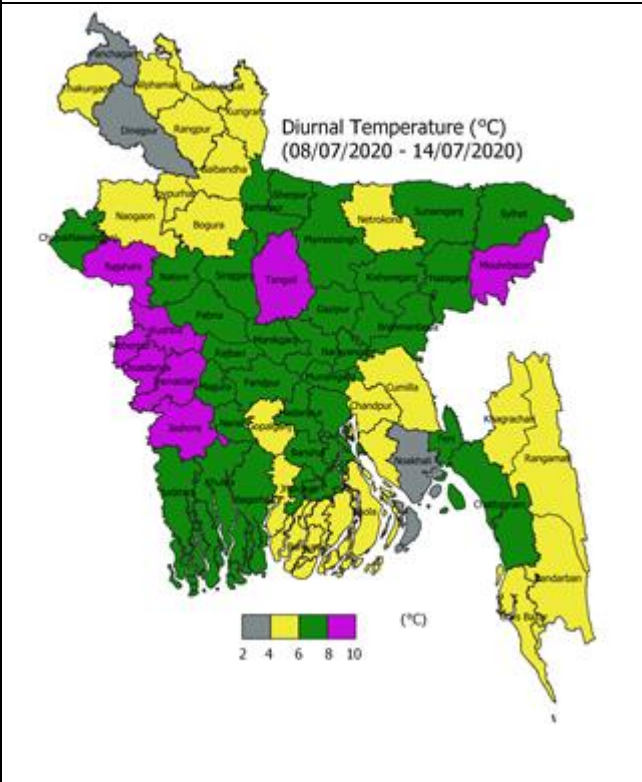
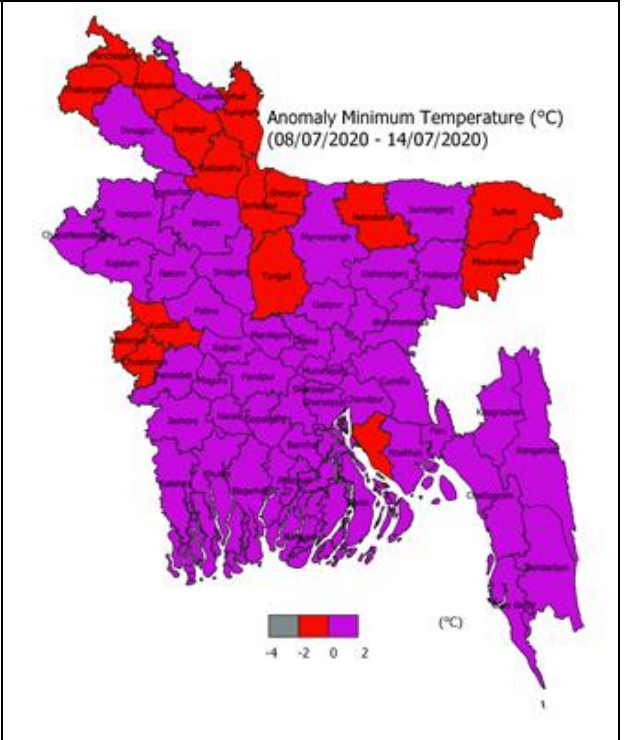
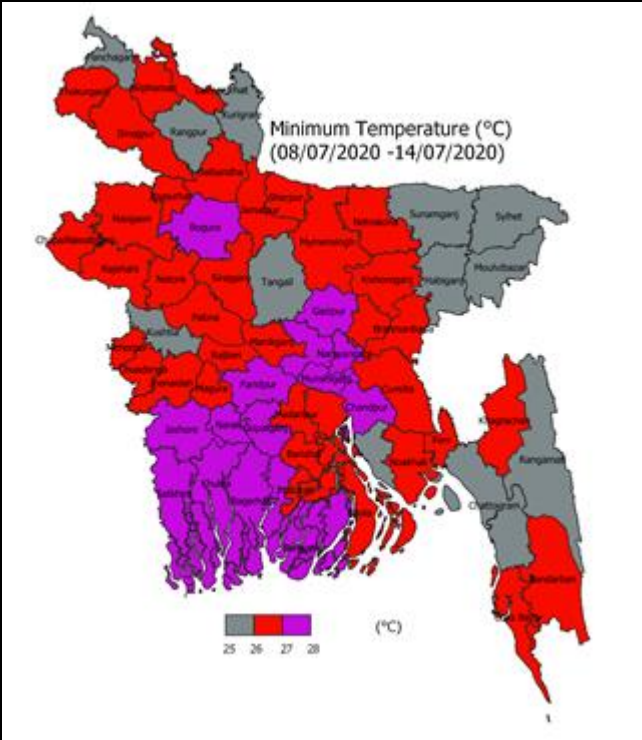
**Forecast:** Light to moderate rain/thunder showers accompanied by temporary gusty wind is likely to occur at many places over Rangpur & Sylhet divisions and at a few places over Dhaka, Mymensingh, Rajshahi, Khulna, Barishal & Chattogram divisions with moderately heavy falls at places over the country.

**Temperature:** Day and night temperature may rise slightly over the country.

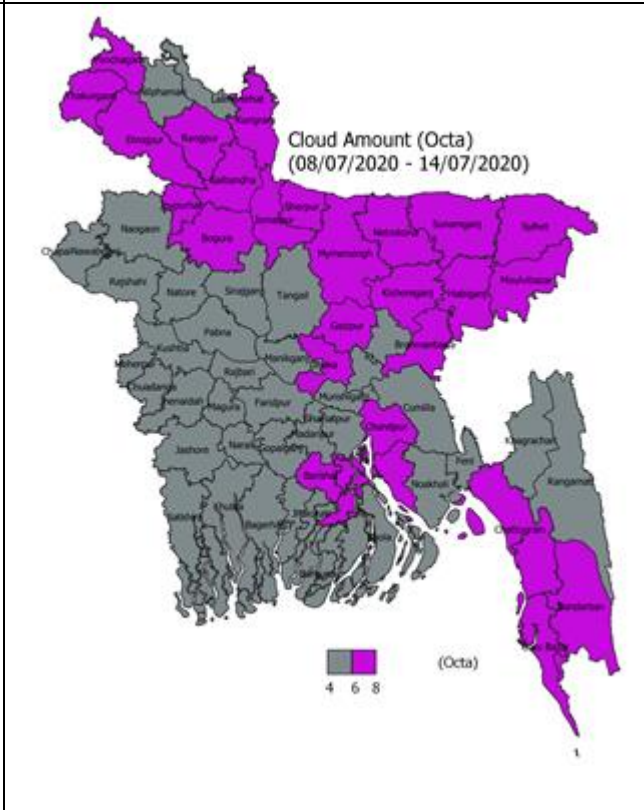
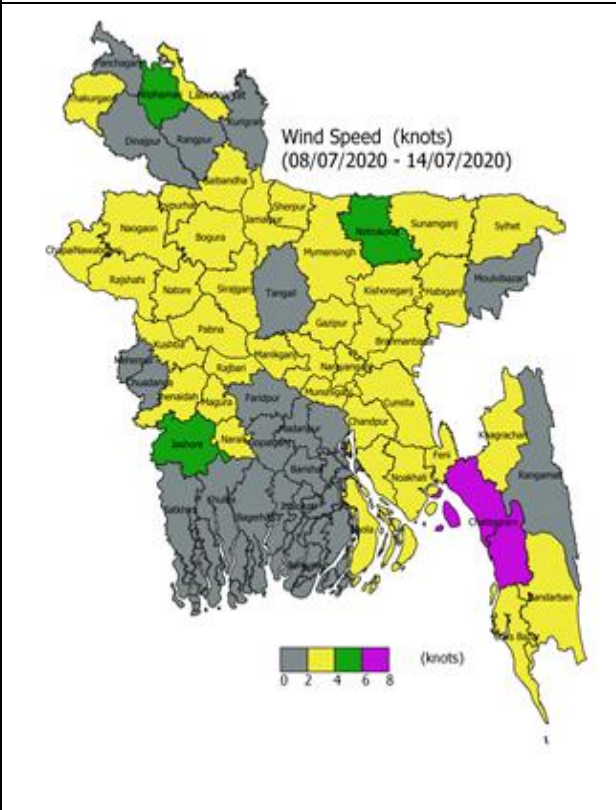
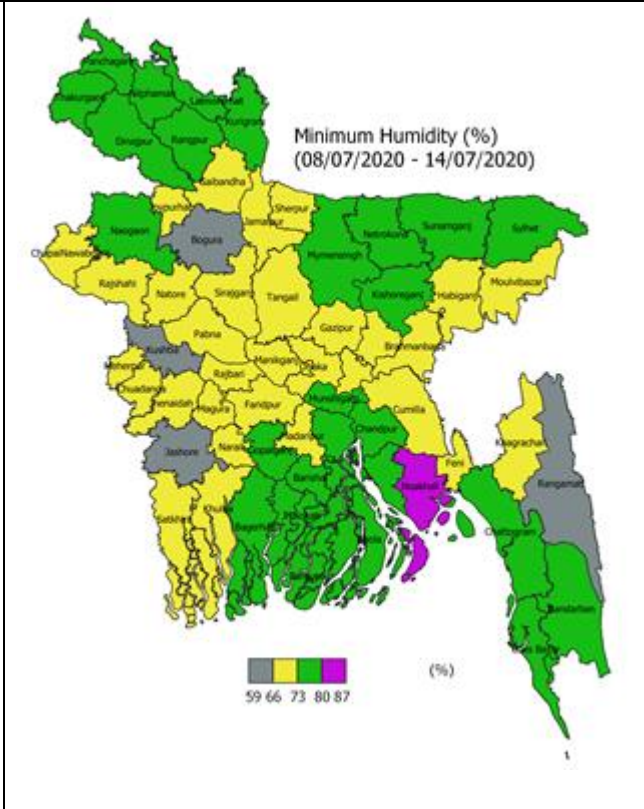
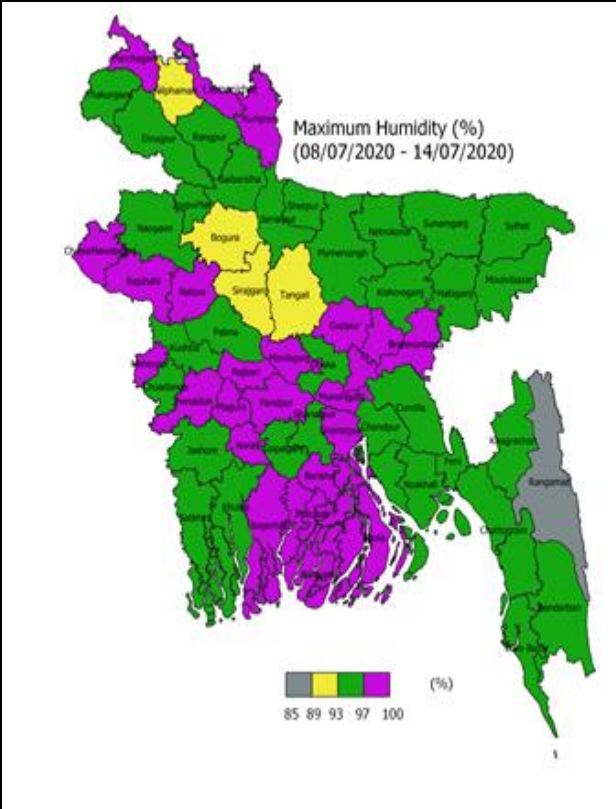


### Spatial Distribution of weather parameters for the Week ending 14 July 2020







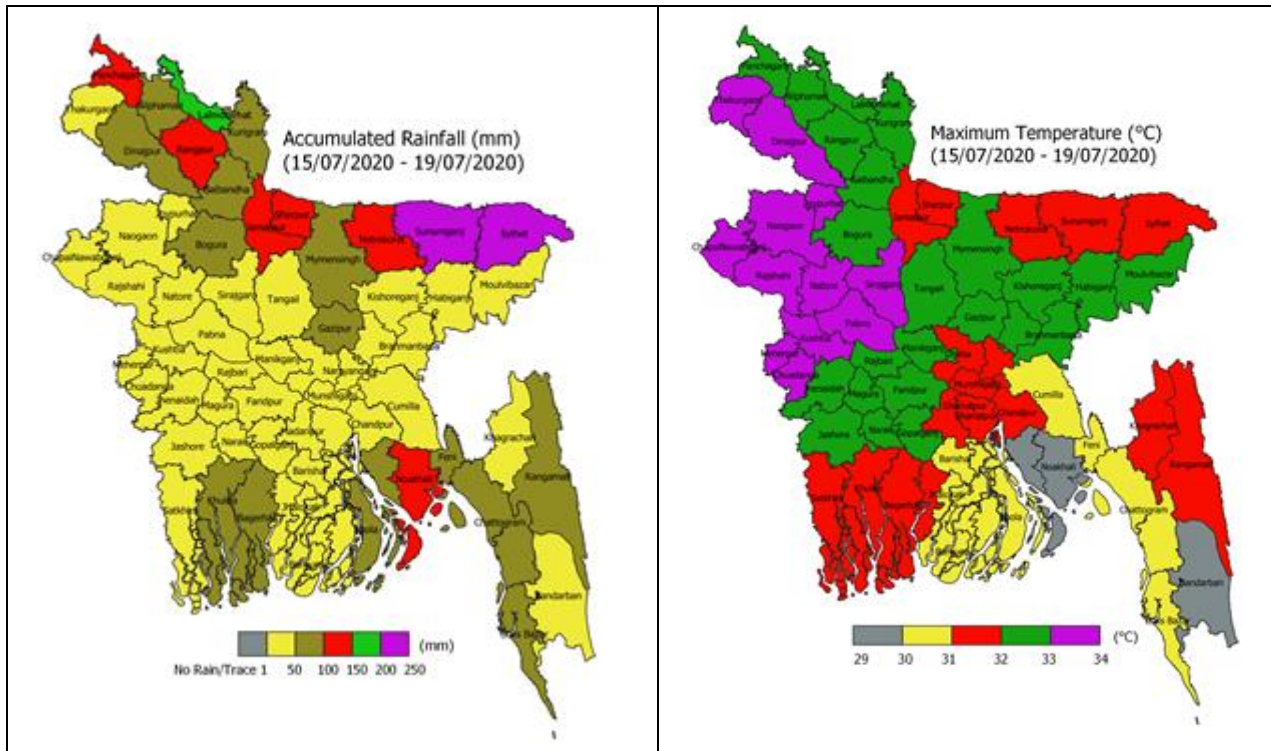


## Weather Forecast and Advisory for the Period of 15.07.2020 to 21.07.2020

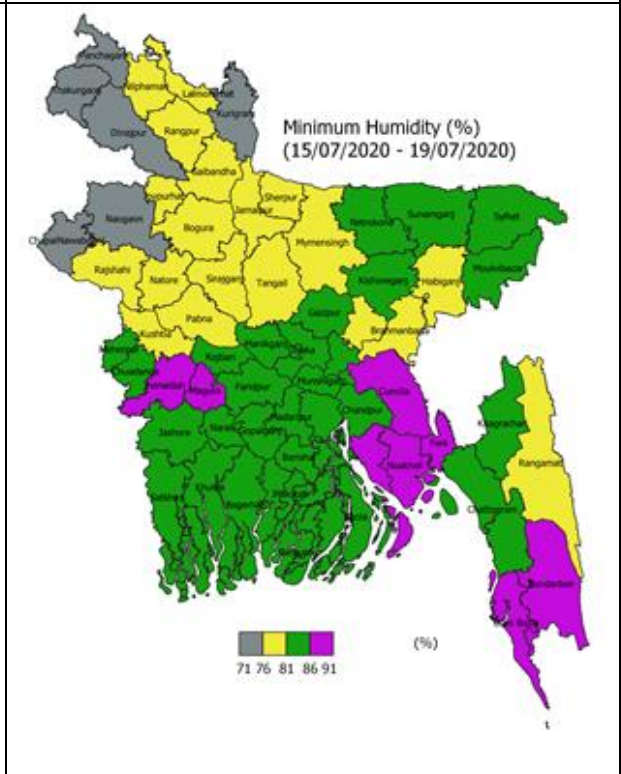
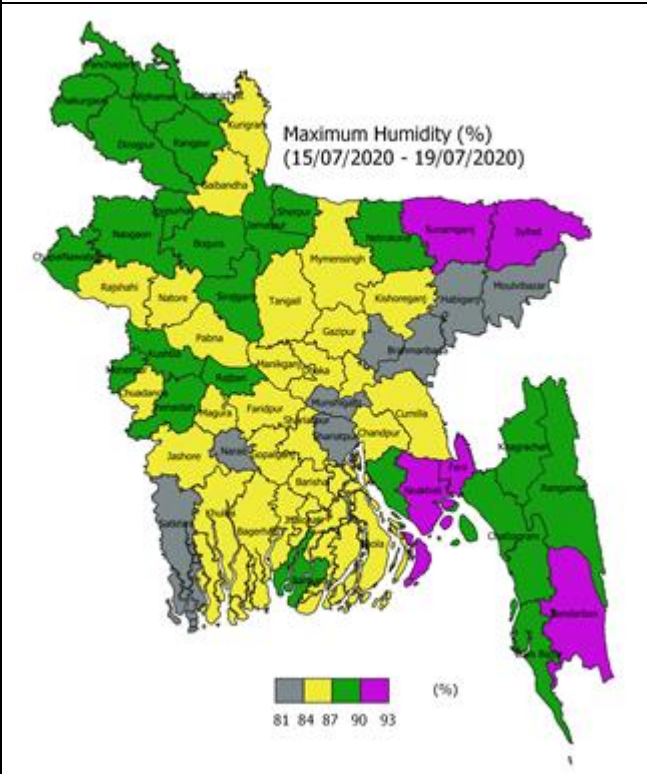
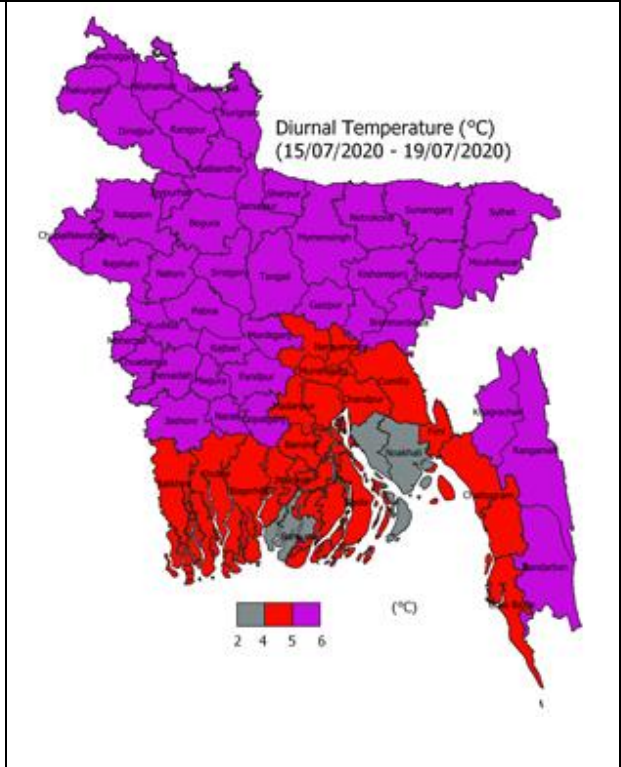
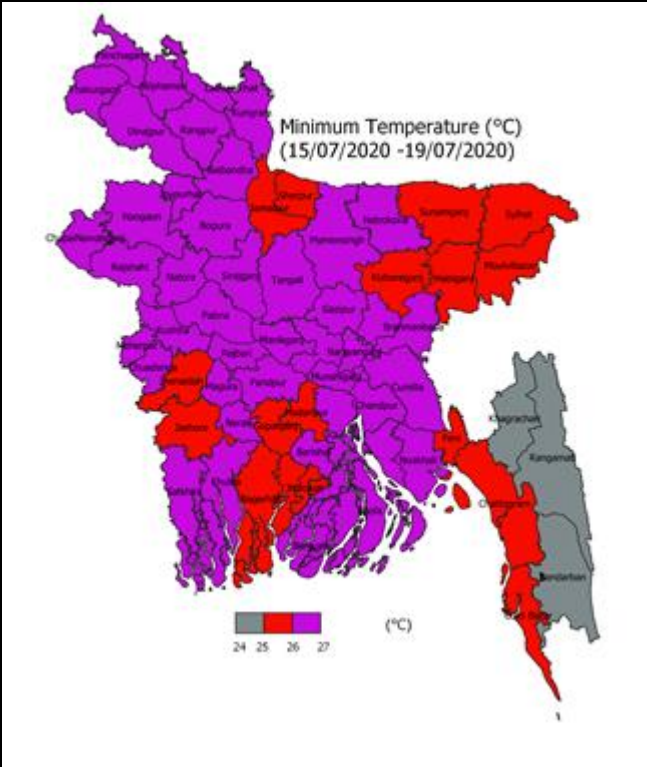
Bright sunshine hour is likely to be from 4.00 to 5.00 hours per day during this week. Average free water loss is likely to be from 2.50 to 3.50 mm per day during this week.

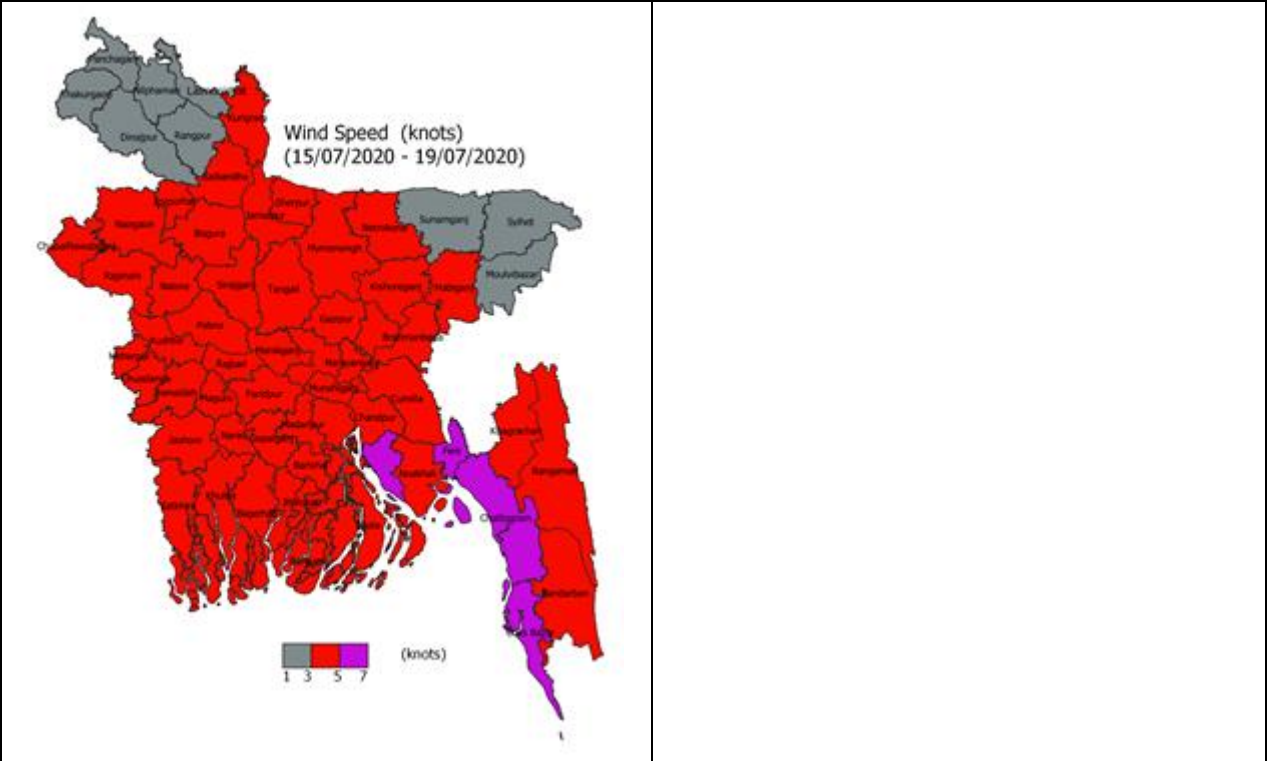
- Light (04-10mm/day) to moderate (11-22 mm/day) rain/thunder showers accompanied by temporary gusty wind is likely to occur at many places over Rangpur, Rajshahi, Sylhet and Mymensingh Divisions and at a few places over Dhaka, Chattogram, Khulna and Barishal Divisions and moderately heavy (23-43 mm/day) to heavy (44-88 mm/day) falls at places over the northern and eastern part (especially hilly area) of the country during this period.
- Rainfall actives may increase during the second half of this period.
- Day and night temperature may rise slightly during the 1st half and slight fall is expected over the second half of this period.

### District Wise Quantitative Weather Forecast for next Five days from 15 July -19 July'2020



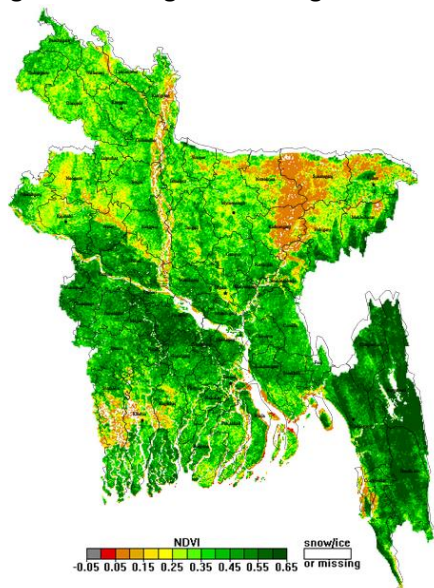




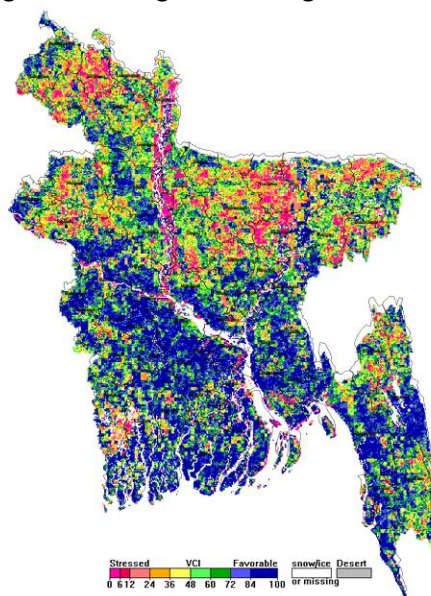


## Different Satellite Products over Bangladesh

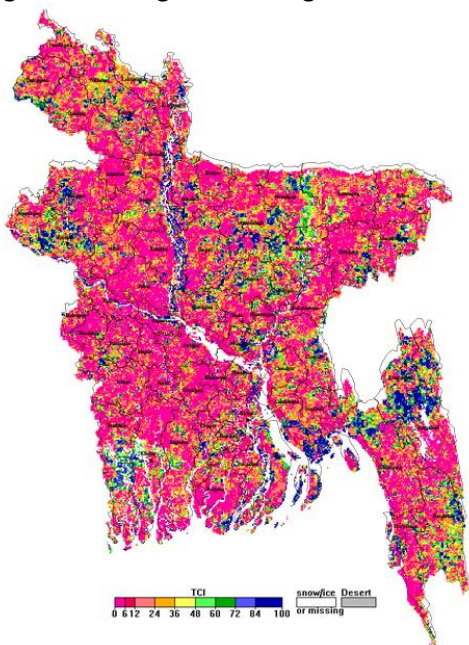
NOAA/VIIRS BLENDED NDVI composite for the week No. 27 (30 June-06 July 2020) over Agricultural regions of Bangladesh



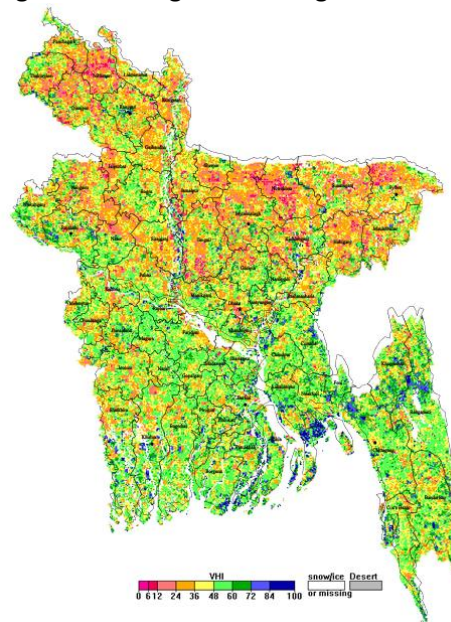
NOAA/AVHRR BLENDED VCI composite for the week No. 27 (30 June-06 July 2020) over Agricultural regions of Bangladesh



NOAA/AVHRR BLENDED TCI composite for the week No. 27 (30 June-06 July 2020) over Agricultural regions of Bangladesh



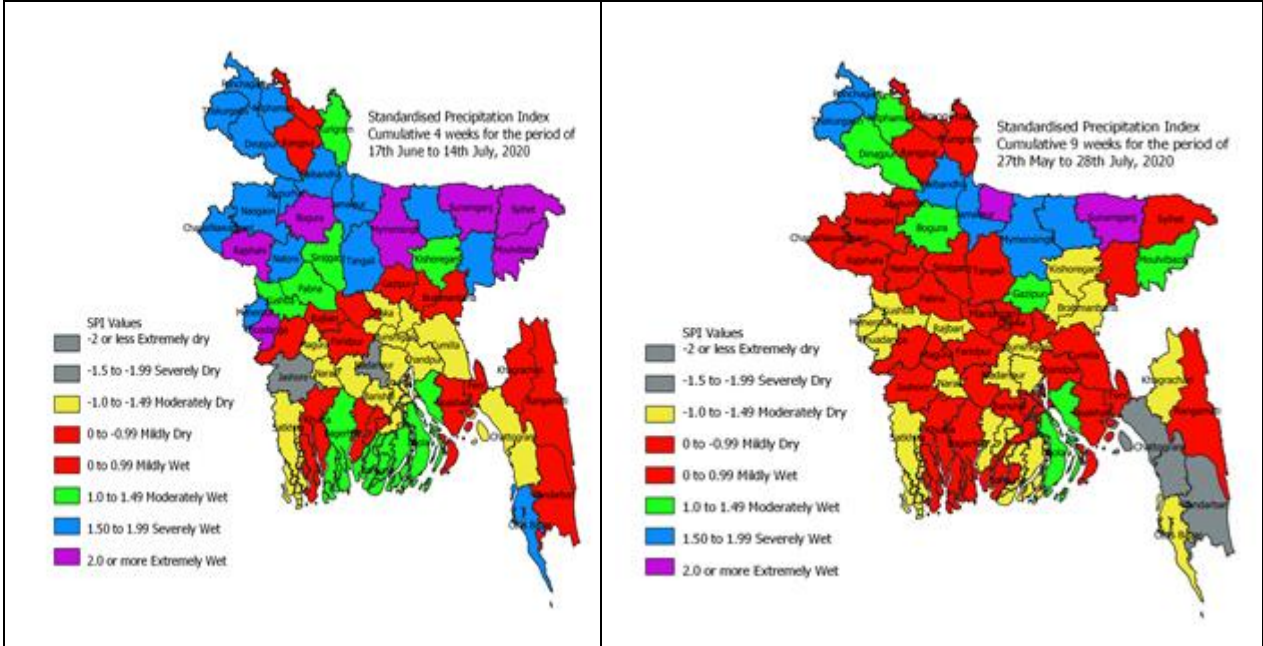
NOAA/AVHRR BLENDED VHI composite for the week No. 27 (30 June-06 July 2020) over Agricultural regions of Bangladesh





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

It has been observed that during last four weeks (in June 2020) mild to moderately wet conditions prevails in districts located northern parts and mild to moderately wet condition prevails in southern and central parts of Bangladesh and southeastern part was prevailed dry conditions for last four weeks.



Data source: Bangladesh Meteorological Department