



NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

29 July 2020 (WEDNESDAY)
[FOR THE PERIOD 29.07.2020 – 02.08.2020]



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.

Please Contact: Farhana Hoque, Sabuj Roy | E-mail: pdamisdh@dae.gov.bd
Phone No.: 02-55'028414, 02-55028418

ISSUED BY

Agro-Meteorological Information Systems
Development Project
Department of Agricultural Extension (DAE)
Ministry of Agriculture
In collaboration with Bangladesh
Meteorological Department

Salient Agromet Advisories

Salient Weather Conditions

The axis of monsoon trough runs through Punjab, Haryana, Uttar Pradesh, Bihar, Sub-Himalayan West Bengal to Assam across Northern part of Bangladesh. One of its associated troughs extends up to North Bay. Monsoon is fairly active over Bangladesh and weak to 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 most places over Rangpur, Mymensingh & Sylhet divisions; at many places over Rajshahi, Dhaka & Chattogram divisions and at a few places over Khulna & Barishal divisions with moderately heavy to heavy falls at places over the country. Day temperature may fall slightly over Rajshahi, Rangpur, Mymensingh & Sylhet divisions and it may remain nearly unchanged over Dhaka, Chattogram, Barishal and Khulna divisions. 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 per the medium range weather forecast, all the districts are likely to receive relatively less rainfall during next five days, compared to last week. As per the Flood Situation Bulletin and Summary issued by the Flood Forecasting & Warning Centre, Bangladesh Water Development Board as on 29.07.2020, flood condition may improve in the low lying areas of the Kurigram, Gaibandha, Bogura, Jamalpur, Natore, Sirajganj, Tangail, Naogaon, Brahmanbaria districts and flood condition may remain steady in the low lying areas of the Manikganj, Munshiganj, Faridpur, Madaripur, Chandpur, Rajbari, Shariatpur, Dhaka, Narayanganj district during next 24 hours. . As per the medium range flood forecast (28.7.2020), flood situation in Kurigram, Bogra, Gaibandha, Jamalpur, Sirajganj, Tangail and Manikganj districts is likely to remain steady during the next 3 days. As a result, the ongoing flood in the above-mentioned districts may continue towards the end of July but likely to improve during first week of August. However, flood condition may remain steady in Rajbari, Munshiganj, Shariatpur districts till 31st July. Special Agromet Advisories for the districts have been issued.

Special Agromet Advisories for the districts due to Flood Condition

1. Under the flood condition in 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. The practice of double transplanting is advocated. In this method, the seedlings of traditional or improved long duration varieties (150 days or more) should initially be transplanted in upland or medium land areas with closer spacing of 20 × 10 cm. After recession of flood, about one month old hills are uprooted and required number of tillers may be finally re-transplanted in the main field.

4. If there is stagnant water in the jute field due to flood and there is no scope to drain out the water within 2-3 days, it is advised for immediate harvest the matured crop and put in water for retting.
5. Hold on all agricultural operations like transplanting, application of irrigation, fertilisers, pesticides etc.
6. Postpone harvesting of the matured vegetables and horticultural crops.
7. Community based Aman rice seed bed may be raised on higher places to avoid heavy rainfall & flooding.
8. Select high land for Aman rice seedbed. Raise seedlings by using floating or Dapog seedbed technology where raised land is not available.
9. To prevent water stagnation in aman seedbed, construct channels around the seed bed for drainage.
10. Made suitable arrangements for draining out excess water from the crop field.
11. Clean the irrigation channel for draining out extra water from the field.
12. Keep all the farm produce in safe and dry place.
13. Maintain elevated bunding around and inside the crop field so that heavy rainfall may not affect the standing crops
14. 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.
15. 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.
16. Construct proper drainage system in and around the cow shed to avoid water logging. Keep the floor dry. Provide clean drinking water
17. 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.
18. 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.
19. Arrange boats for migration of essential food items and others from low to high land.
20. Collect Maskali and winter vegetable seed

Salient Agromet Advisories for Remaining Districts

Aus Paddy:

- Maintain 5-7 cm water level from panicle initiation stage.
- To control infestation of leaf blast & leaf spot in Aus rice, spray Carbendazim @2g/litre of water.

- Due to high humidity (warm and humid weather) possibility of pest and disease build up is more in crop. Take prophylactic measures accordingly.
- To control of insects like stem borer gall midge and white & brown hopper apply Carbofuron 3 G@33 kg or phorat 10G @ 10 kg per /hectare and for cut worm Chlorpyrifos 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.
- 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.

Aman Paddy

- If the rice seedbed is underwater, it is expected to be damaged and advised for preparation seedbed in trays (if possible) in some raised structure. The farmers who had already completed their transplanting are advised to maintain drainage.
- Complete transplanting of rice seedlings at the earliest as sufficient water is there in the field; maintain proper drainage in field/nursery to avoid flooding due to continuous rain.
- Ensure weed free seed bed.
- Farmers may start the preparation of main land for transplanting after getting sufficient rainfall.
- 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.
- 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.
- Transplanting of 25-30 days old nursery in the main after getting sufficient rainfall.
- Arrange the bunding tightly so that no drainage can take place after light rain or moderate rain
- 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.
- Apply 1/3rd nitrogen as top dressing 15-20 days after transplanting and after the current spells of heavy rainfall.
- After reduction of rainfall activity mechanical weeding can be started to control the weed at initial stage. For chemical control (only if the sky is clear and no rainfall 7 to 8 hours after application) you can spray Pretilachlor 50% EC @500 gm per acre within 2-5 days after transplanting. Due to stagnation of water in the field and high relative humidity Sheath blight - Fungal disease is common. Excess Nitrogen fertilizer application can accelerate this disease. August to October is the high time for this disease attack. Control: 1) Drainout excess water from infected field. 2)

Reduce the dose of Nitrogen fertilizer. 3) Bio fungicide like Trichoderma, Pseudomonas Fluorescens is also good. 4) Spray Propiconazol+ Difenconazole 1ml/liter of water or Carbendazim + Flusilazole 1.5 ml/lit or Carbendazim (Bavistin) 1 gram/liter of water

-
- Under congenial condition, following aman variety may be sown.
- BRR1 DHAN 30, BRR1 DHAN 32, BRR1 DHAN 39, BRR1 DHAN 49, BRR1 DHAN 62 BRR1 DHAN 71, BRR1 DHAN 72, BRR1 DHAN 75, BRR1 DHAN 80, BRR1 DHAN 87, BRR1 DHAN 90, BRR1 DHAN 93, BRR1 DHAN 94, BRR1 DHAN 95, BINA DHAN 11, BINA DHAN 16, BINA DHAN 22
- 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.

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.

Vegetables

- Due to continuous heavy rainfall and water stagnation the vegetable crops like Brinjal, Pointed gourd, Bottle gourd, Ridge gourd, Chili, etc suffer from rotting. Make proper drainage channels to drain out water. Avoid spraying and application of fertilizer till the clear sky.
- 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.
- Weed management should be done in brinjal, tomato, lady finger and cauliflower.
- Need based intercultural operations should be done in tomato, brinjal, okra and other vegetable crops.
- Undertake nursery sowing of Tomato, Brinjal and Chillies and direct sowing of Gourds, Beans and Bhendi.
- Collect Maskali and winter vegetable seed

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.
- 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.

Jute:

- 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.
- If there is stagnant water in the jute field and there is no scope to drain out the water within 2-3 days, it is advised for immediate harvest the matured crop and put in water for retting.

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.

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.

Livestock

- Do not allow animals to get wet during rainy season. Apply sufficient amount of Calcium Carbonate or bleaching powder to avoid germs. Never let a cow or goat graze in a place where there is standing water. It should be noted that cows or goats should not take paddy in any way at this time. If it takes a lot of paddy and the stomach starts to swell, then feed a spoonful of mustard oil. It will stop the production of gas in the stomach. In addition, blotocil or blotonil should be given in certain doses. If necessary, take the advice of a nearby veterinarian.
- It is very important to provide a particular amount of dewormers for both roundworm and tapeworm to any cattle, goats,.
- 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.
- Farmers who have not vaccinated their goat against Enterotoxaemia last month should vaccinate the goats strictly this month.
- If any malady symptom is shown in the animal then immediately consult with the veterinary doctor for proper treatments

Poultry

- 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
- Keep the chicks thin layer of litter
- Follow proper vaccination at proper interval
- Apply dry food and clean tap water for drinking purpose
- Prevailing hot and humid weather condition may lead to gastrointestinal parasites infection to the poultry. Clean sanitary conditions of poultry sheds are very much important

Fishery

- Apply the required quantity of calcium carbonate or lime in the submerged ponds. Check the overflow of water, fishes may drain out with overflowed water, for this Use fishing net in the possible exit points. Don't use excess feed to avoid water pollution.
- 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.
- 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 29 July 2020) and maximum temperature on 28 July, minimum temperature on 29 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	42	33.0	25.5	Rajshahi	Rajshahi	33	34.3	26.4
	Tangail	17	33.0	24.9		Ishurdi	02	33.7	26.5
	Faridpur	46	33.0	25.5		Bogura	02	31.7	26.8
	Madaripur	00	33.2	26.8		Badalgachhi	00	32.5	26.8
	Gopalganj	15	31.7	25.7		Tarash	74	33.9	27.5
	Nikli	09	33.8	25.5		Rangpur	Rangpur	02	32.0
Mymensingh	Mymensingh	54	33.2	26.0	Dinajpur		00	31.9	26.7
	Netrokona	14	32.0	26.0	Sayedpur		01	31.6	26.0
Chattogram	Chattogram	35	33.3	25.4	Tetulia		14	28.5	24.7
	Sandwip	06	32.6	25.2	Dimla	13	29.7	25.5	
	Sitakunda	18	33.5	25.5	Rajarhat	00	32.6	27.0	
	Rangamati	01	33.0	26.0	Khulna	Khulna	39	33.0	25.8
	Cumilla	33	32.5	25.4		Mongla	28	32.6	25.0
	Chandpur	30	32.0	26.3		Satkhira	02	33.3	27.0
	M.Court	27	34.2	26.0		Jashore	03	34.8	26.0
	Feni	89	33.5	26.0		Chuadanga	46	33.5	25.6
	Hatiya	31	32.1	25.7		Kumarkhali	17	32.4	25.6
	Sylhet	Cox's Bazar	13	32.2	25.5	Barishal	Barishal	31	32.5
Kutubdia		26	33.0	25.2	Patuakhali		09	32.4	26.3
Teknaf		11	32.2	25.6	Khepupara		06	32.2	26.9
Sylhet		52	33.4	25.5	Bhola		11	33.4	26.0
	Srimangal	12	34.0	25.9					

Highlights:

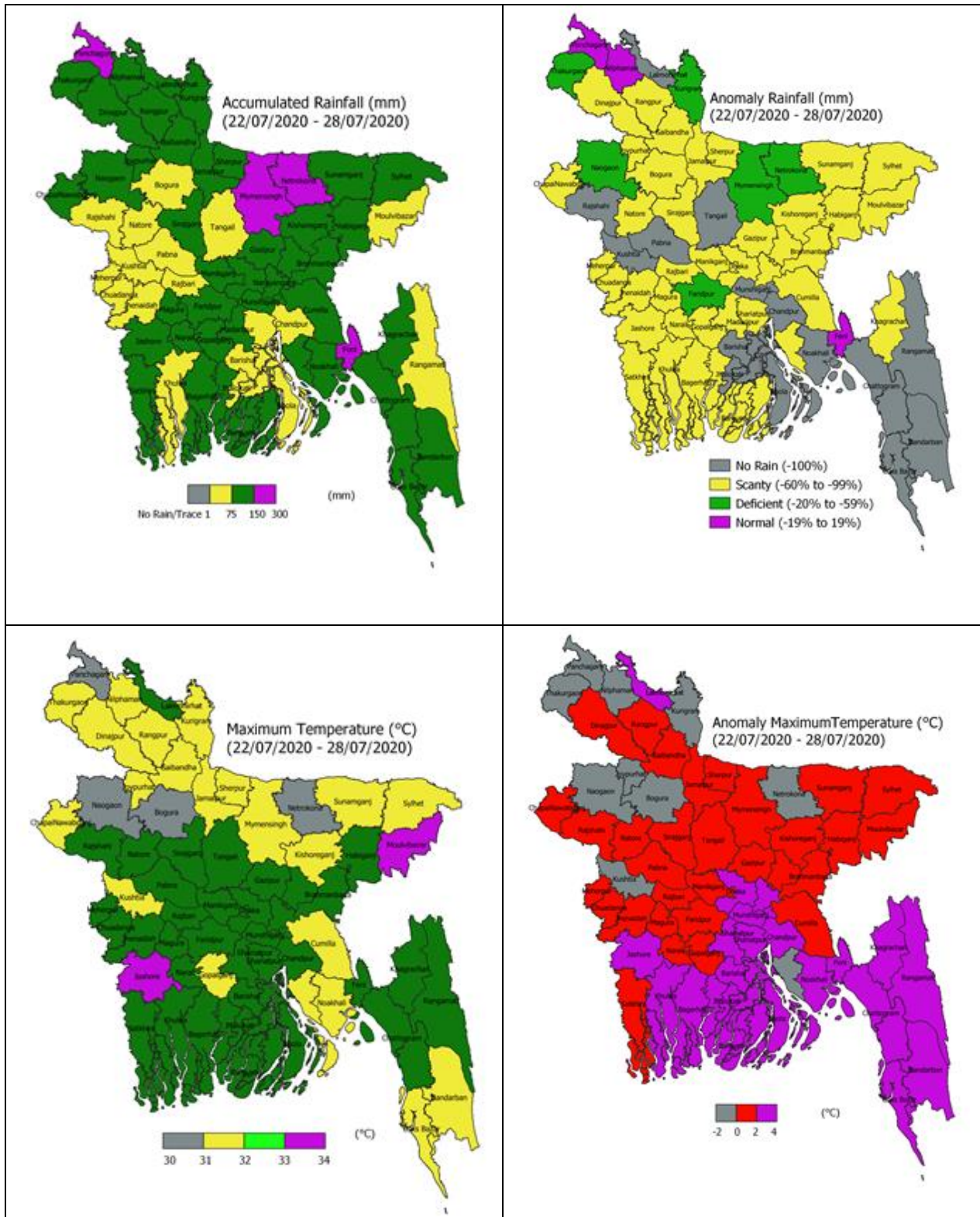
- Country average bright sunshine hour was 3.84 hours per day during last week.
- Country average free water loss during the previous week was 2.67 mm per day.

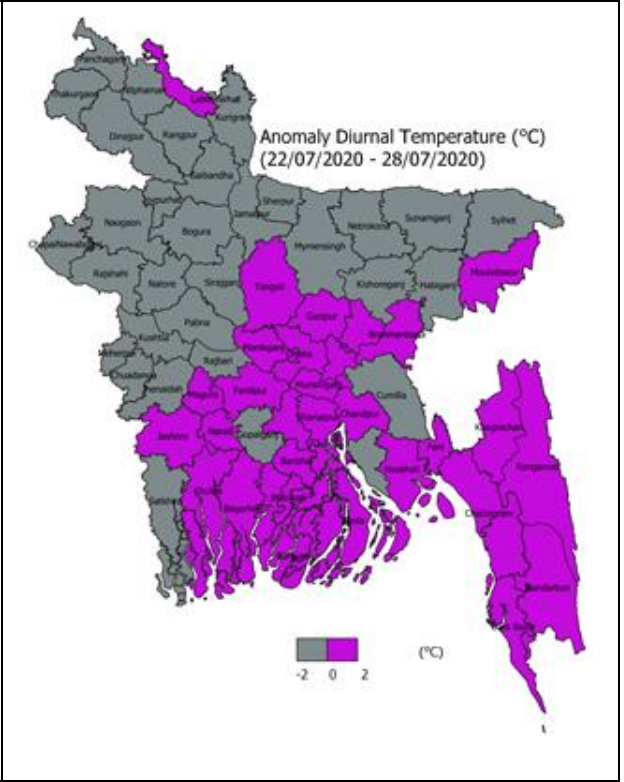
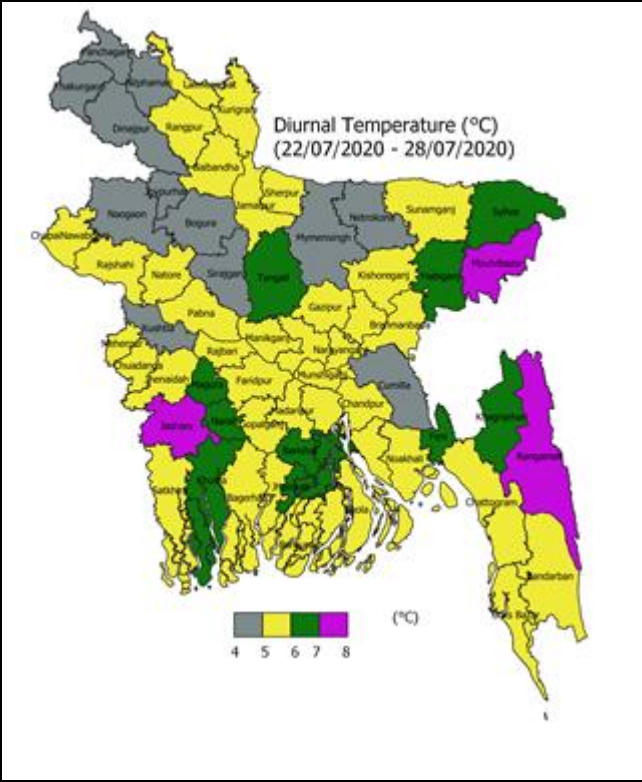
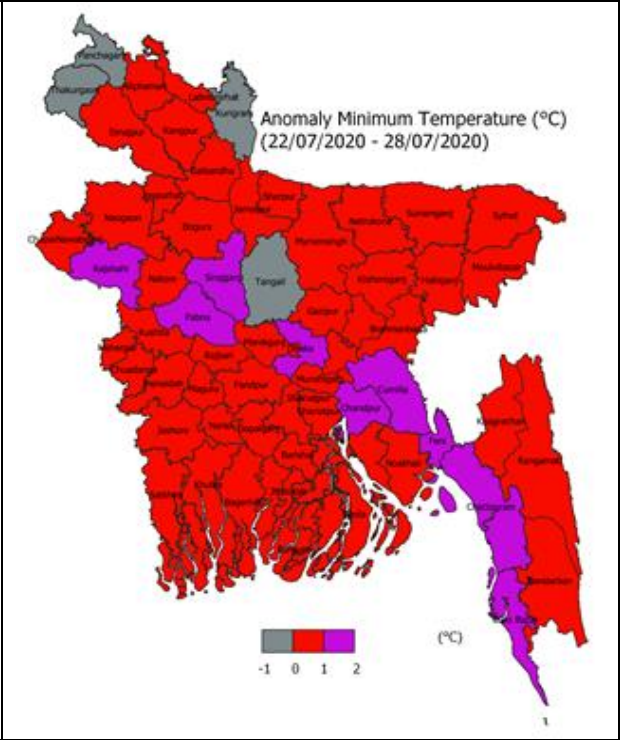
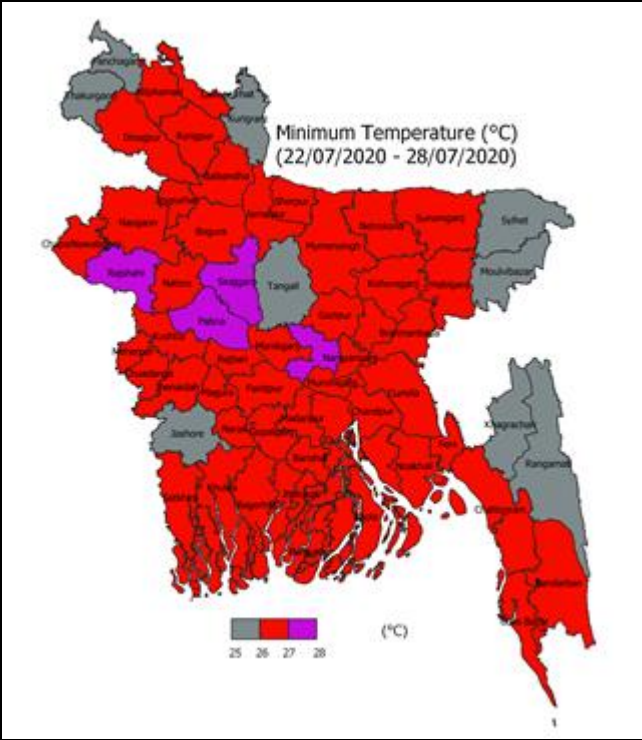
Weather Forecast Valid for 24 Hours commencing 06 PM Today:

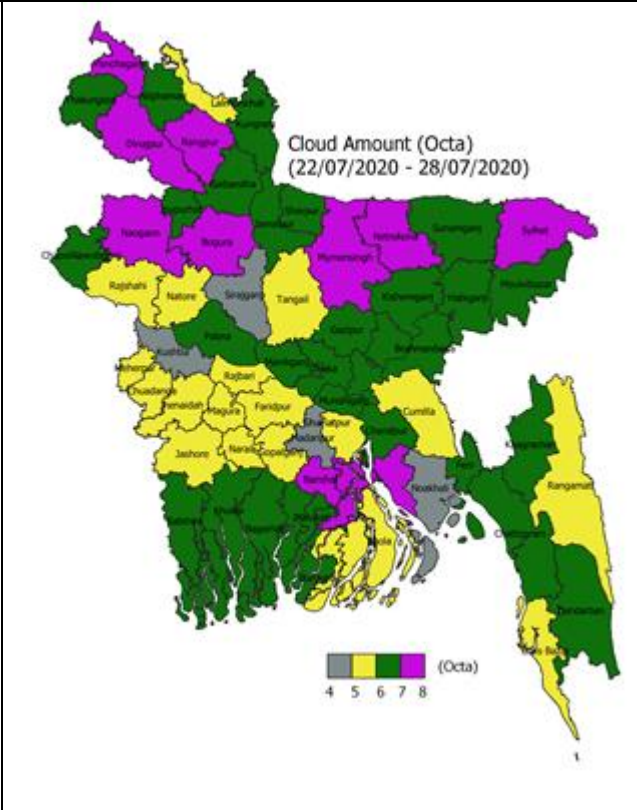
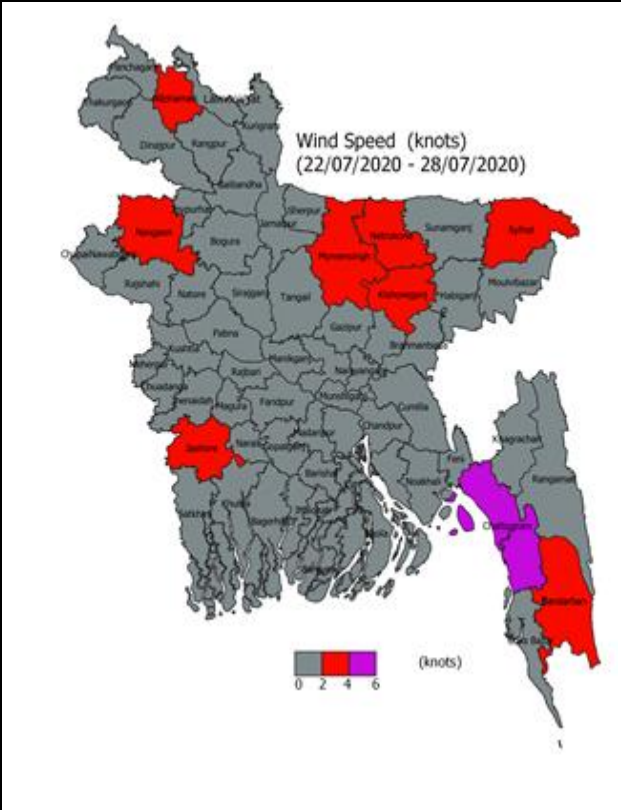
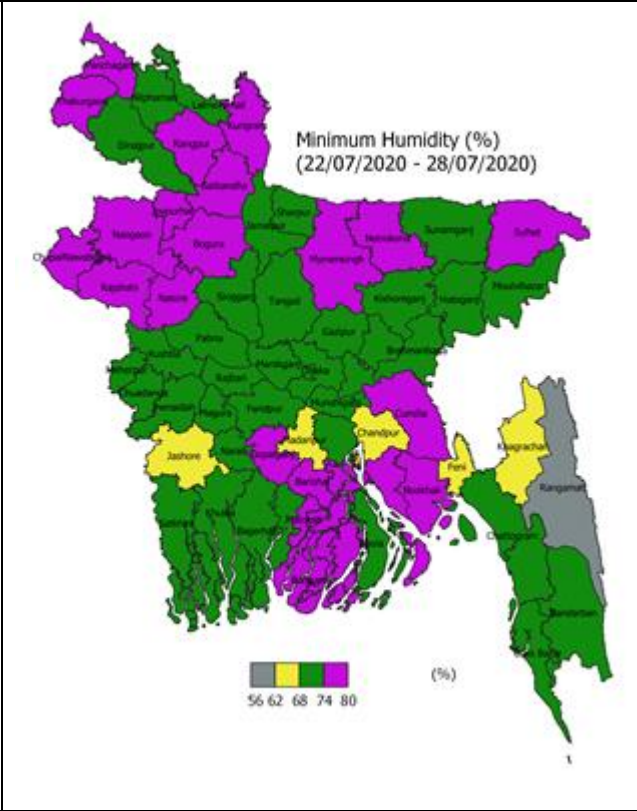
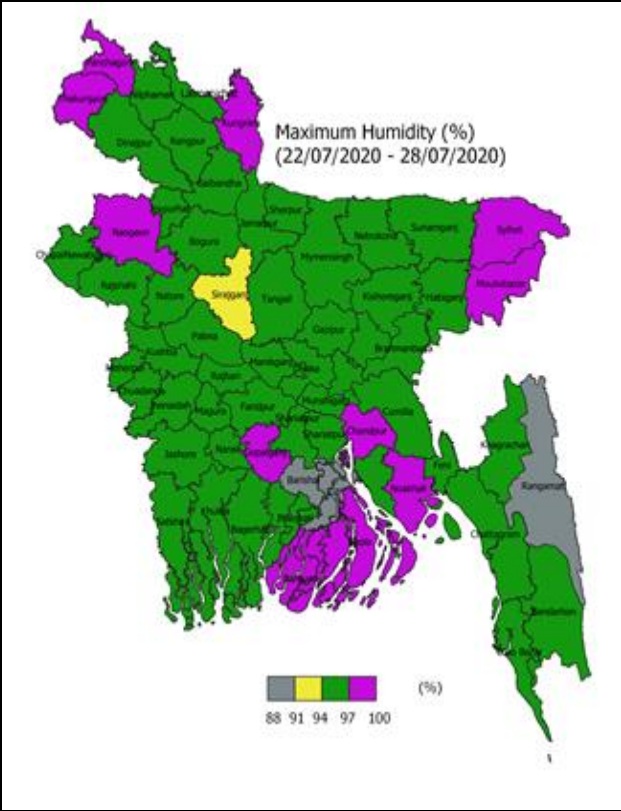
Forecast: Light to moderate rain/thunder showers accompanied by temporary gusty wind is likely to occur at most places over Rangpur, Mymensingh & Sylhet divisions; at many places over Rajshahi, Dhaka & Chattogram divisions and at a few places over Khulna & Barishal divisions with moderately heavy to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

Temperature: Day temperature may fall slightly over Rajshahi, Rangpur, Mymensingh & Sylhet divisions and it may remain nearly unchanged over Dhaka, Chattogram, Barishal and Khulna divisions. Night temperature may remain nearly unchanged over the country.

Spatial Distribution of weather parameters for the Week ending 28 July 2020





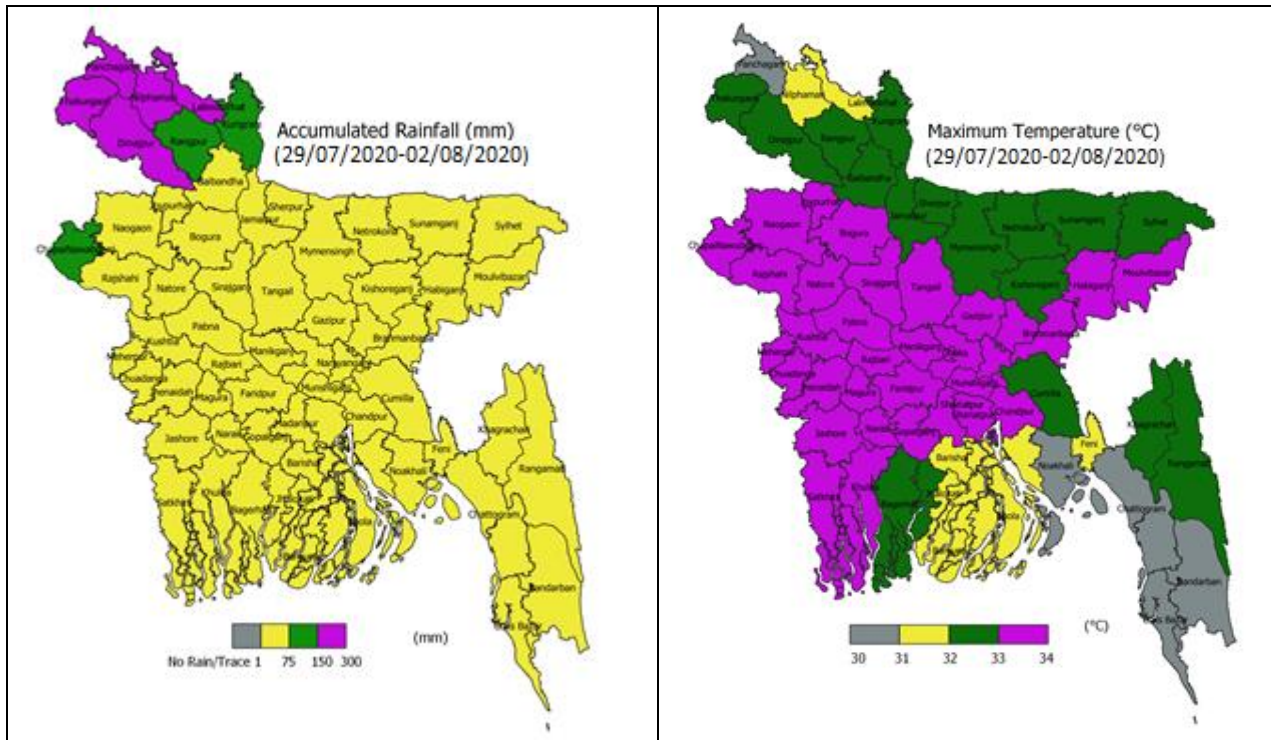


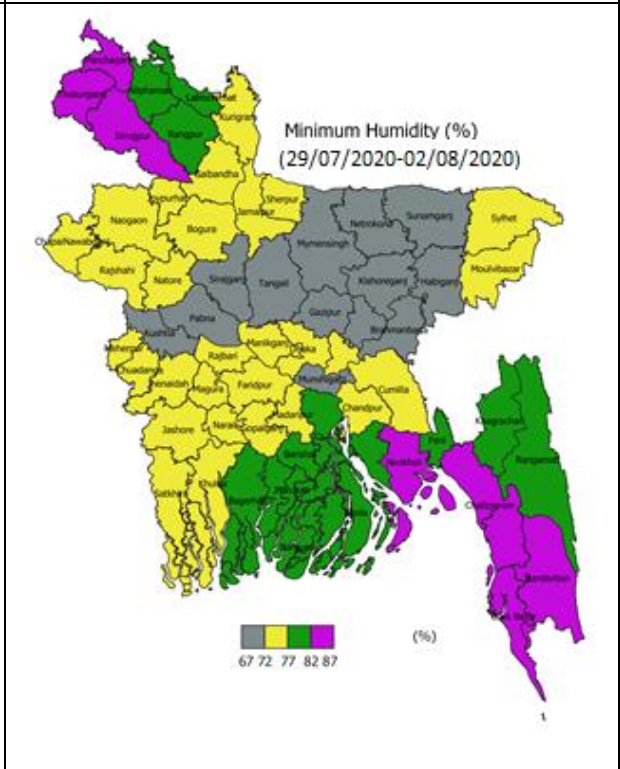
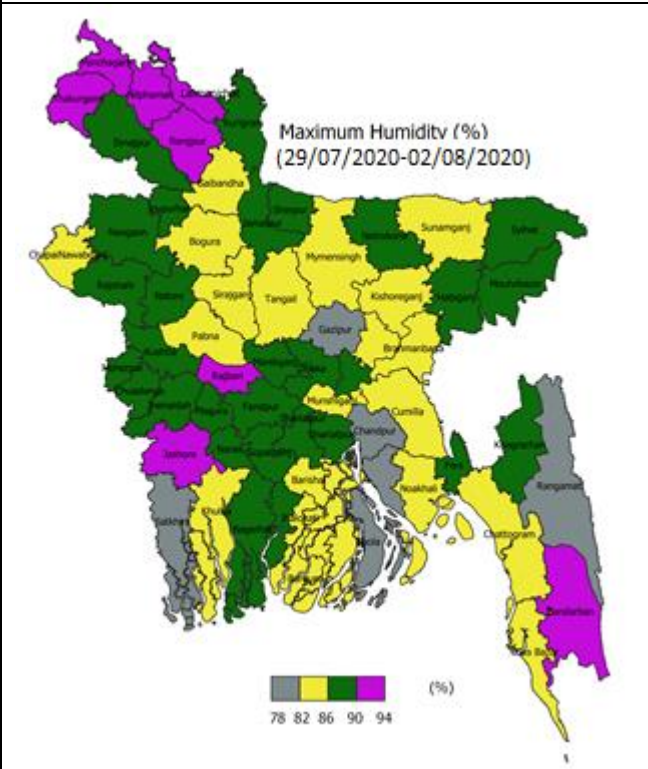
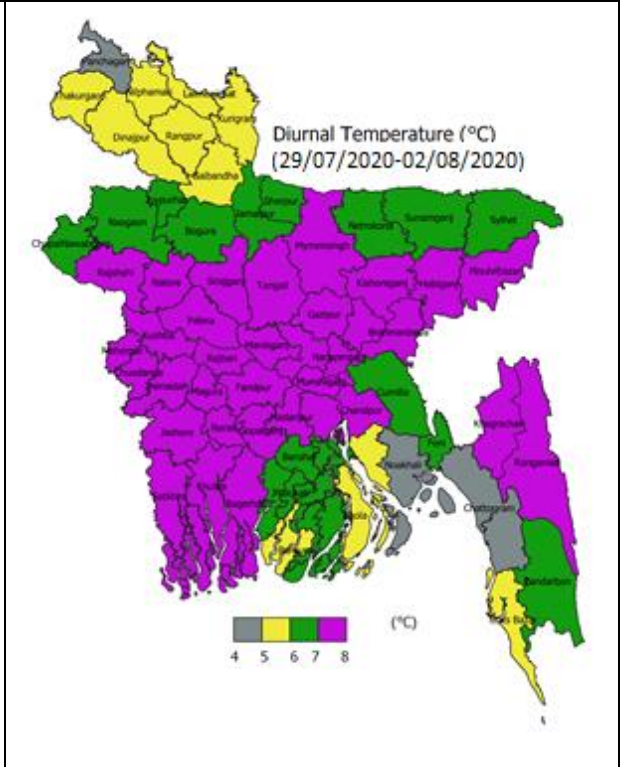
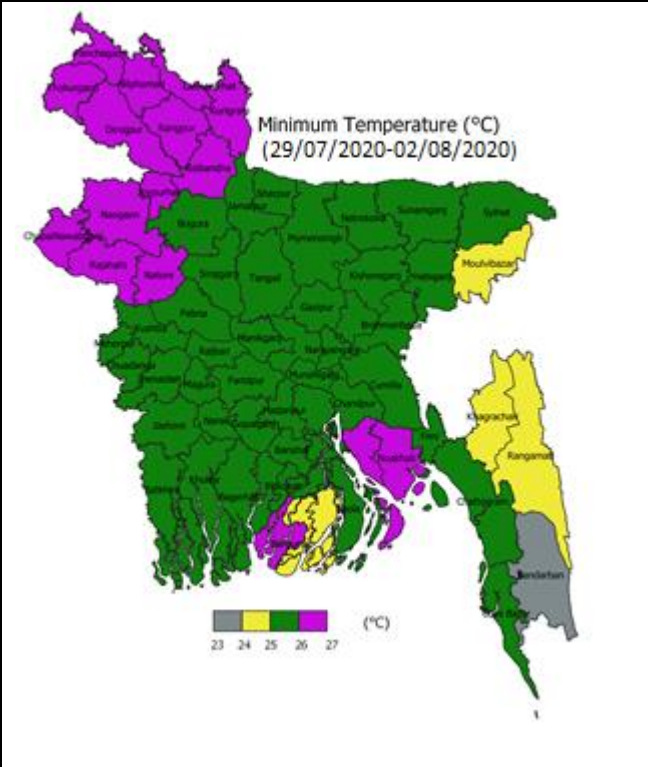
Weather Forecast and Advisory for the Period of 22.07.2020 to 30.07.2020

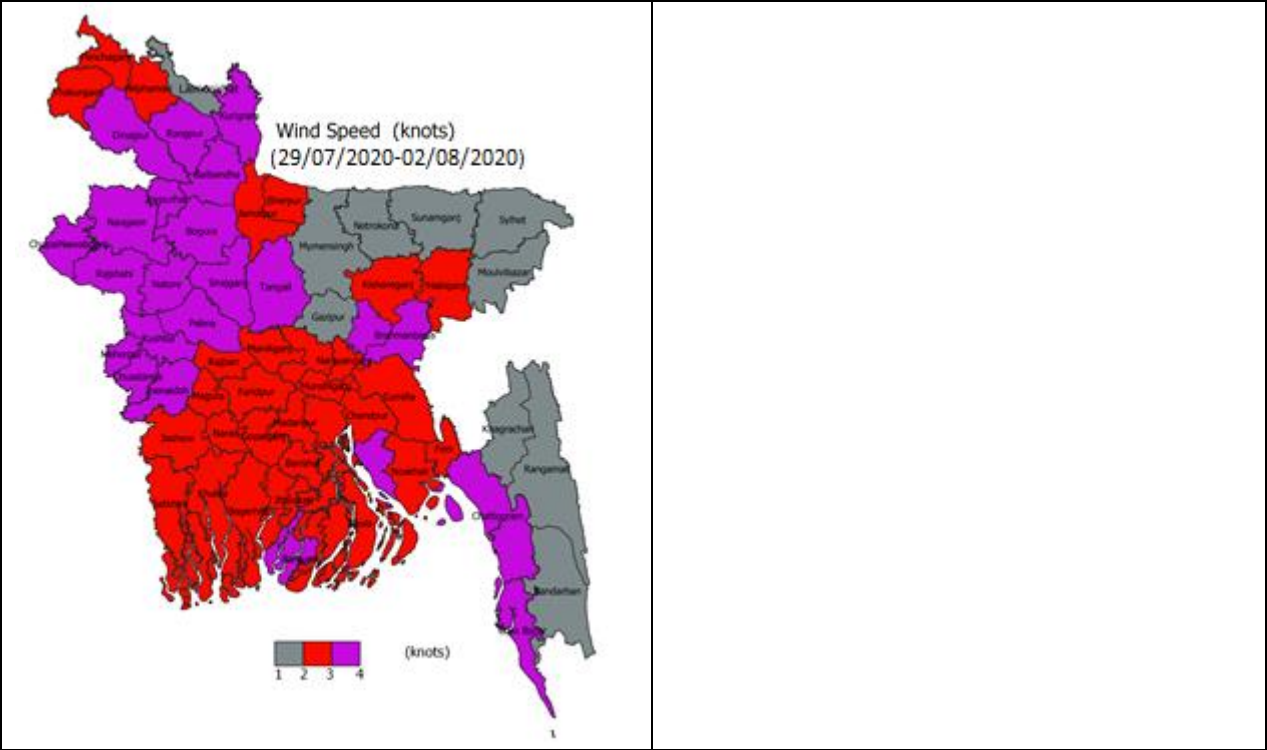
Bright sunshine hour is likely to be from 4.00 to 5.00 hours per day during this week. Average free water loss is likely to be from 2.50 to 3.50 mm per day during this week.

- Moderate (11-22 mm/day) to moderately heavy (23-43 mm/day) rain/thunder showers accompanied by temporary gusty wind is likely to occur at most places over Rajshahi, Rangpur, Sylhet and Mymensingh Divisions and at many places over Dhaka, Chattogram, Khulna and Barishal Divisions and heavy (44-88 mm/day) to very heavy (>88 mm/day) falls at places over the country during this period.
- Day and night temperature may fall slightly during the 1st half and slight rise is expected over the second half of this period.

District Wise Quantitative Weather Forecast for next Five days from 29 July -02 August'2020

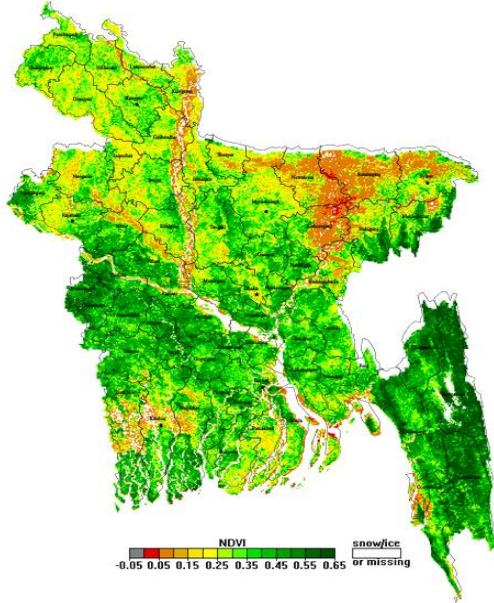




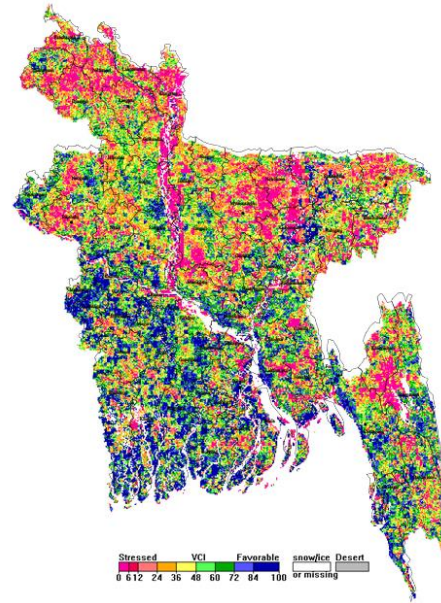


Different Satellite Products over Bangladesh

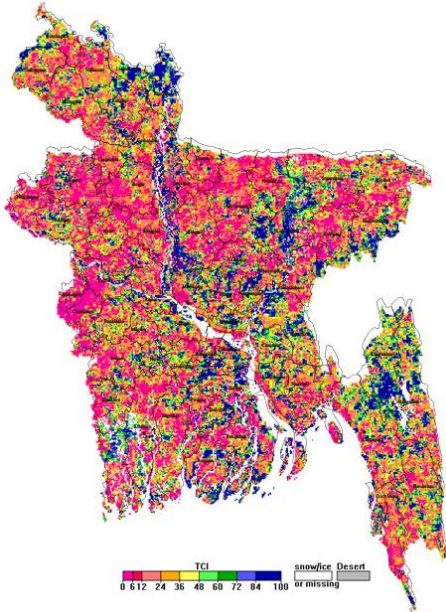
NOAA/VIIRS BLENDED NDVI composite for the week No. 29 (14 July-20 July 2020) over Agricultural regions of Bangladesh



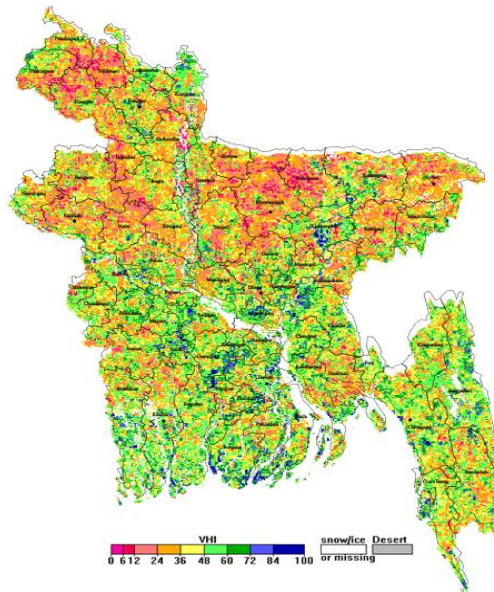
NOAA/AVHRR BLENDED VCI composite for the week No. 29 (14 July-20 July 2020) over Agricultural regions of Bangladesh



NOAA/AVHRR BLENDED TCI composite for the week No. 29 (14 July-20 July 2020) over Agricultural regions of Bangladesh

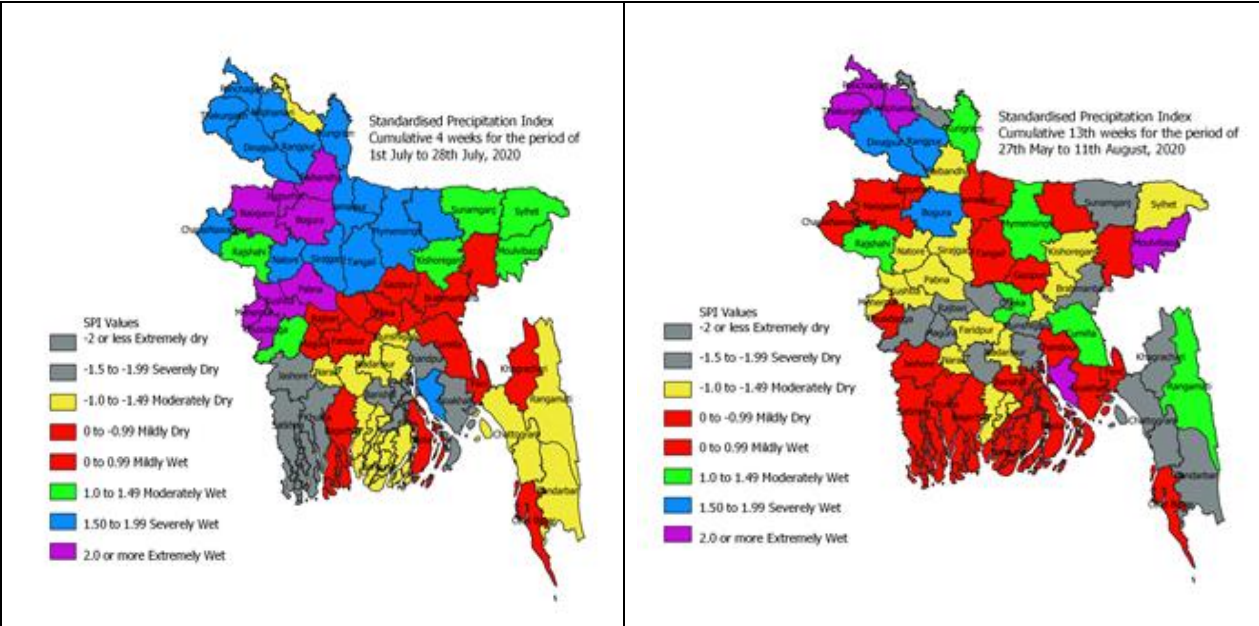


NOAA/AVHRR BLENDED VHI composite for the week No. 29 (14 July-20 July 2020) over Agricultural regions of Bangladesh



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

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



Data source: Bangladesh Meteorological Department