



NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

22 July 2020 (WEDNESDAY)
[FOR THE PERIOD 22.07.2020 – 26.07.2020]



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.

Please Contact: Farhana Hoque, Sabuj Roy | E-mail: adamisd@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 Rajasthan, Haryana, Uttar Pradesh, Bihar, West Bengal to Assam across northern part of Bangladesh. One of its associated troughs extends up to North Bay. Monsoon is active over Bangladesh and strong 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, Rajshahi, Mymensingh, Sylhet, Dhaka, Khulna, Barishal & Chattogram divisions with moderately heavy to very 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, rain/thunder showers activity is likely to continue

As per the medium range weather forecast, all the districts are likely to receive rainfall during next five days, though intensity of rainfall is likely to vary. As per the Flood Forecasting & Warning Centre, Bangladesh Water Development Board (Date of Issue 22.07.2020), flood condition will remain steady in low lying areas in number of districts (Bogura, Jamalpur, Siranjanj, Tangail, Manikganj Natore, Munshiganj, Faridpur, Madaripur, Shariatpur, Rajbari) and it is likely deteriorate in a few districts (Kurigram, Gaaibandha, Sylhet, Netrakona, Sunamganj) during next 24 hours. It is also mentioned that a number of districts are already in flood condition and it is projected that flood condition will deteriorate in coming days in some of the districts and also this flood condition is likely to stay upto end of July. 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. Farmers of flood affected areas whose existing paddy nursery is completely damaged by the flood are advised to collect short duration rice varieties.
2. Hold on all agricultural operations like transplanting, application of irrigation, fertilisers, pesticides etc.
3. Postpone harvesting of the matured vegetables and horticultural crops.
4. Community based Aman rice seed bed may be raised on higher places to avoid heavy rainfall & flooding.
5. Select high land for Aman rice seedbed. Raise seedlings by using floating or Dapog seedbed technology where raised land is not available.
6. To prevent water stagnation in aman sed bed, construct channels around the seed bed for drainage.
7. Made suitable arrangements for draining out excess water from the crop field.
8. Clean the irrigation channel for draining out extra water from the field.
9. Keep all the farm produce in safe and dry place.
10. Maintain elevated bunding around and inside the crop field so that heavy rainfall may not affect the standing crops
11. 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.

12. 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.
13. Construct proper drainage system in and around the cow s shed to avoid water logging. Keep the floor dry. Provide clean drinking water
14. 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.
15. 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 upto panicle initiation stage. Maintain water level 5-7 cm from panicle initiation to hard dough 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
- BRRRI DHAN 30, BRRRI DHAN 32, BRRRI DHAN 39, BRRRI DHAN 49, BRRRI DHAN 62 BRRRI DHAN 71, BRRRI DHAN 72, BRRRI DHAN 75, BRRRI DHAN 80, BRRRI DHAN 87, BRRRI DHAN 90, BRRRI DHAN 93, BRRRI DHAN 94, BRRRI 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.

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 stage of bitter melon, there is a chance of rotting at the base of the flower, apply SAF @ 2g/liter of water.
- All the plant protection measures 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 miner.
- 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.
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- 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 other 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 to 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 be 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 & Semilooper in Jute. Monitor the incidences of these pests. If observed, apply Spray Imidochloroprid/Chlorocyrin/ Nitro @ 1ml/litre of water for Hairy Caterpillar & Imidochloroprid/Chlorocyrin/ Nitro @ 1ml/litre of water for Semilooper.

- 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 22 July 2020) and maximum temperature on 21 July, minimum temperature on 22 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	43	28.5	25.0	Rajshahi	Rajshahi	09	32.6	26.4
	Tangail	26	29.0	24.5		Ishurdi	31	31.3	26.2
	Faridpur	31	28.6	25.0		Bogura	44	31.0	26.4
	Madaripur	10	30.2	25.8		Badalgachhi	24	31.5	26.0
	Gopalganj	19	31.0	25.3		Tarash	20	29.6	26.6
	Nikli	45	30.0	25.2		Rangpur	Rangpur	19	32.5
Mymensingh	Mymensingh	43	27.5	25.5	Dinajpur		09	32.5	26.5
	Netrokona	24	27.0	25.0	Sayedpur		02	32.4	26.0
Chattogram	Chattogram	50	31.0	24.8	Tetulia		77	31.9	25.0
	Sandwip	55	30.1	24.5	Dimla		17	32.0	26.0
	Sitakunda	49	30.4	25.2	Rajarhat		00	31.5	25.4
	Rangamati	35	29.5	24.6	Khulna	Khulna	33	31.0	25.5
	Cumilla	<u>156</u>	29.3	25.0		Mongla	20	31.5	25.5
	Chandpur	29	31.8	25.5		Satkhira	03	31.0	25.5
	M.Court	79	30.1	25.5		Jashore	14	31.2	25.8
	Feni	50	29.8	25.4		Chuadanga	11	32.0	25.8
	Hatiya	99	30.0	24.7		Kumarkhali	32	30.2	25.5
		Cox's Bazar	139	28.5	25.0	Barishal	Barishal	31	31.2
Kutubdia		154	29.4	25.1	Patuakhali		46	30.3	25.2
Teknaf		73	xx	<u>23.8</u>	Khepupara		69	32.0	25.9
Sylhet	Sylhet	78	28.5	24.5	Bhola		27	<u>33.0</u>	25.4
	Srimangal	39	31.2	24.7					

Highlights:

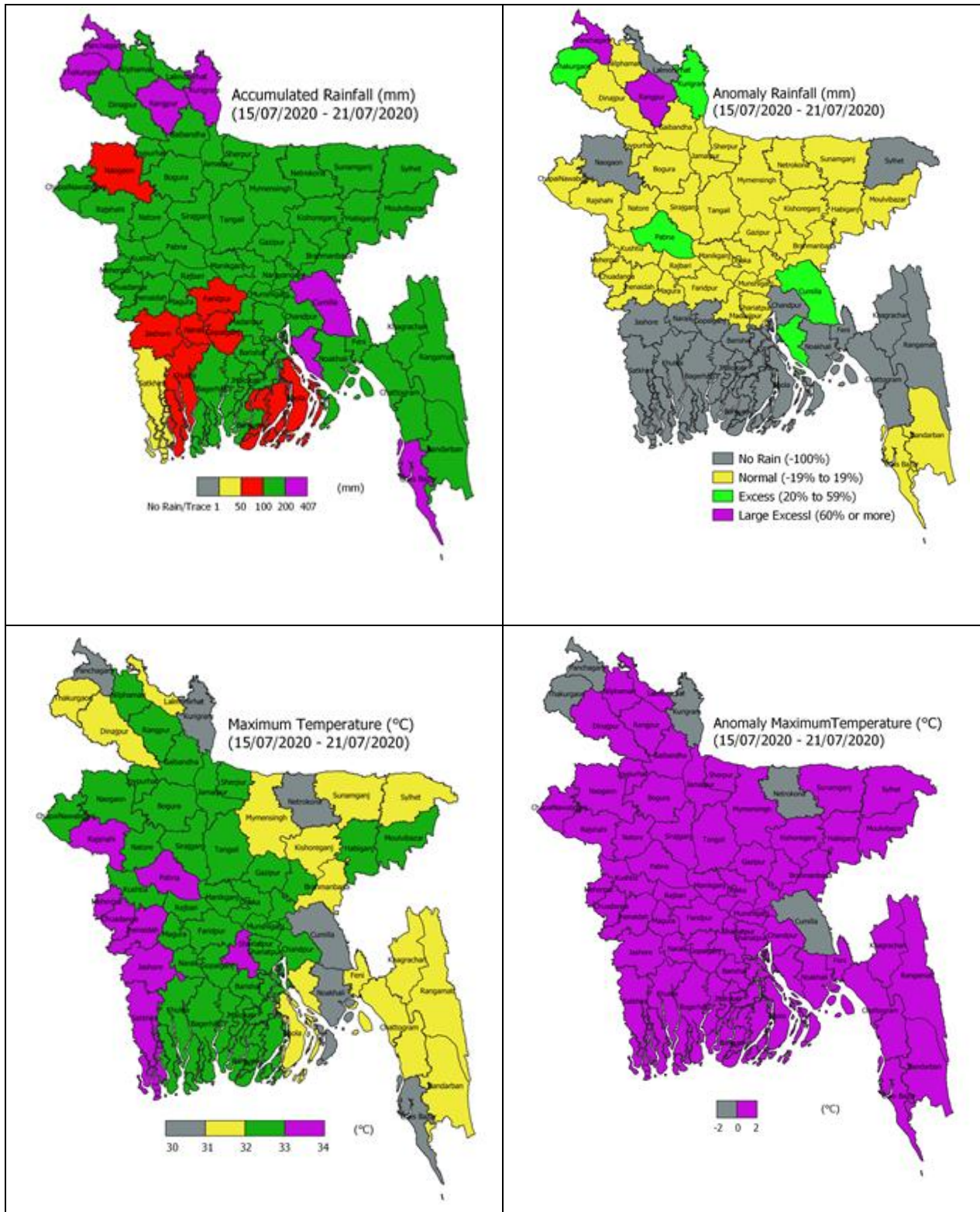
- Country average bright sunshine hour was 3.84 hours per day during last week.
- Country average free water loss during the previous week was 2.67 mm per day.

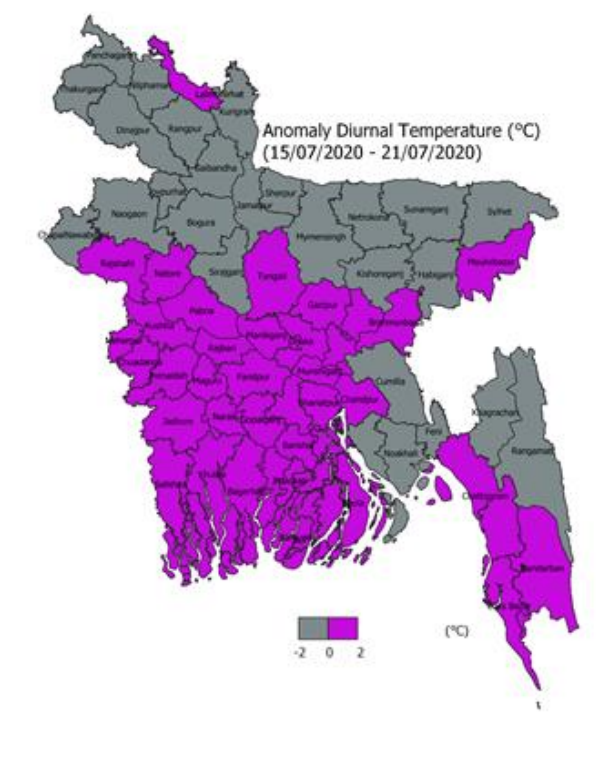
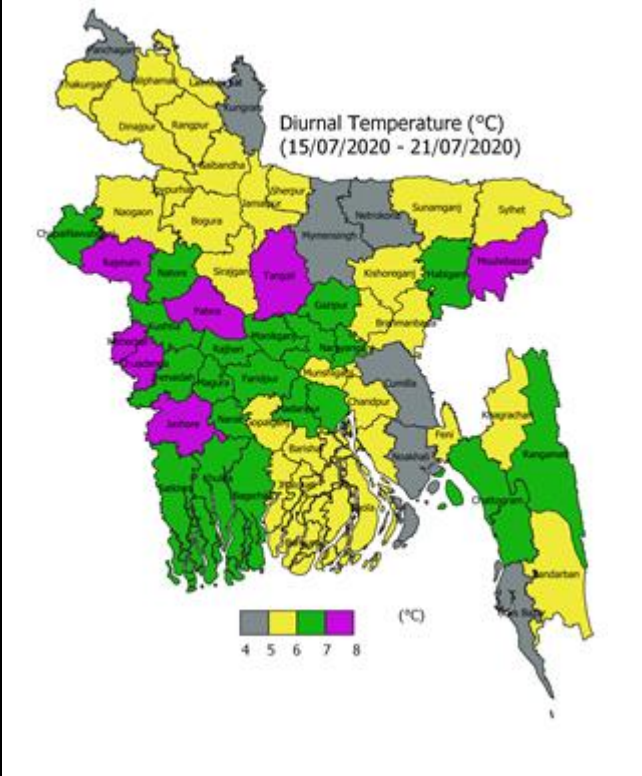
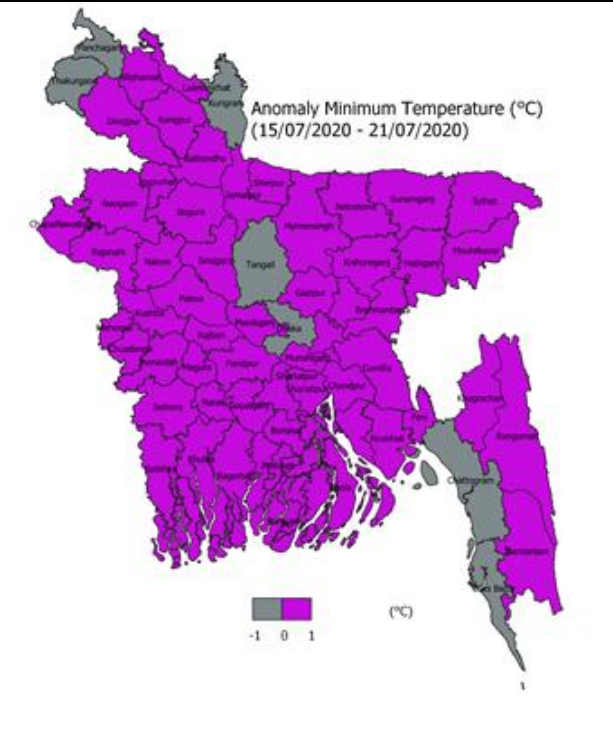
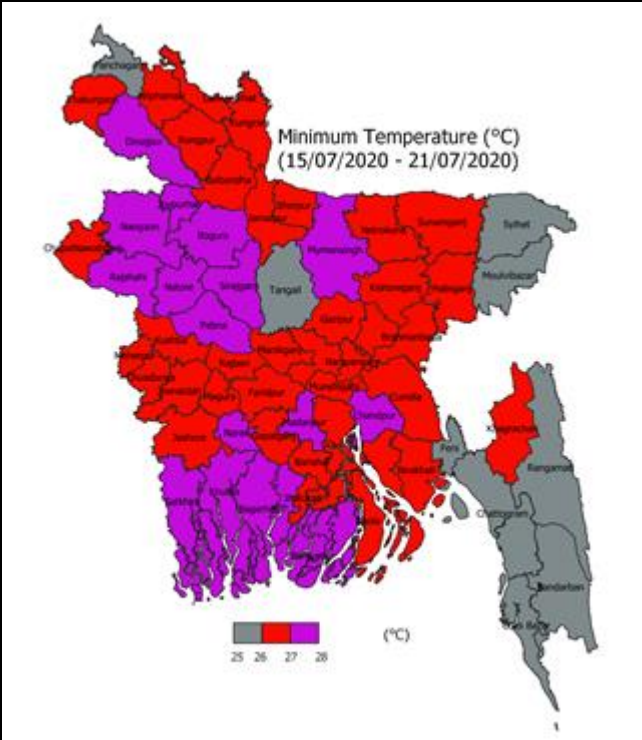
Weather Forecast Valid for 24 Hours commencing 06 PM Today:

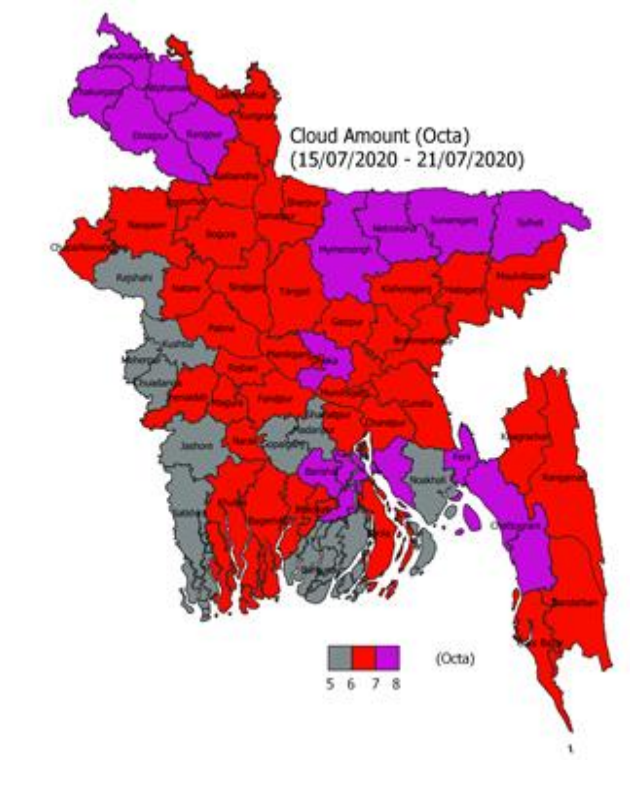
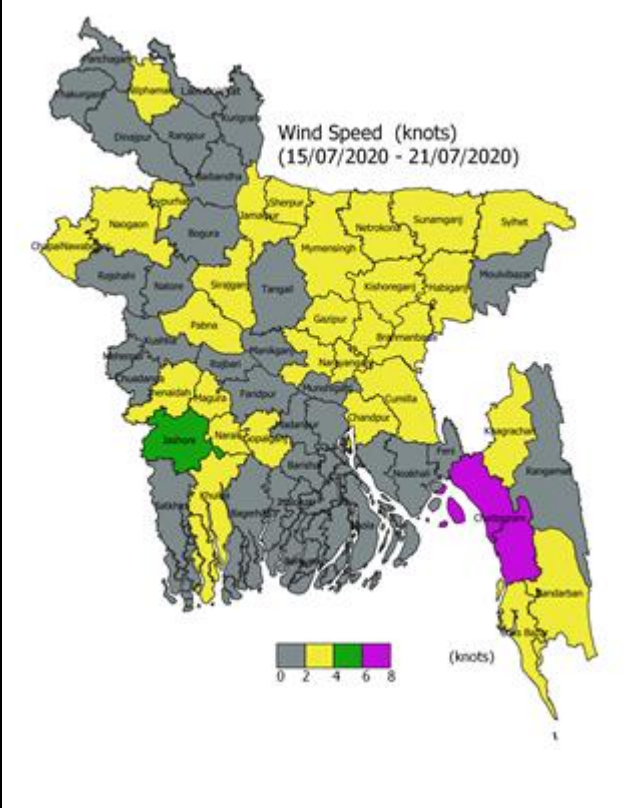
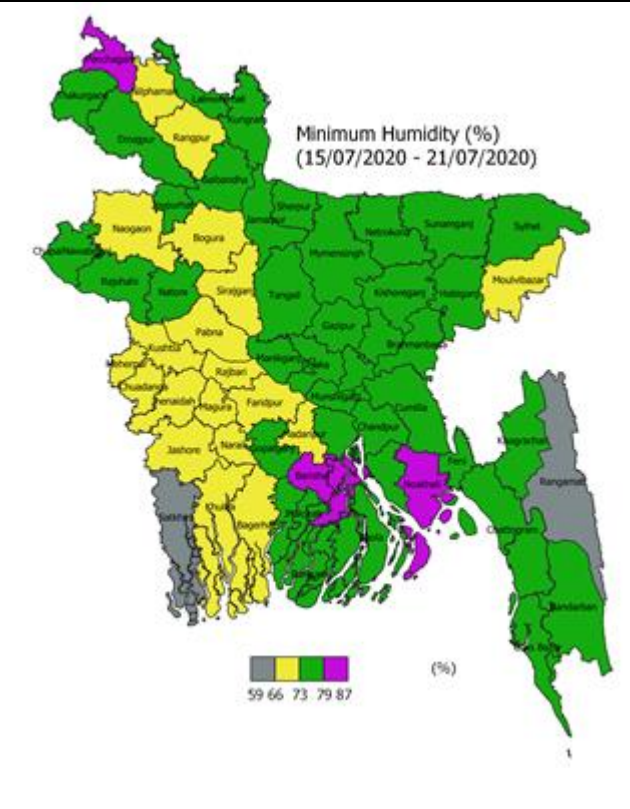
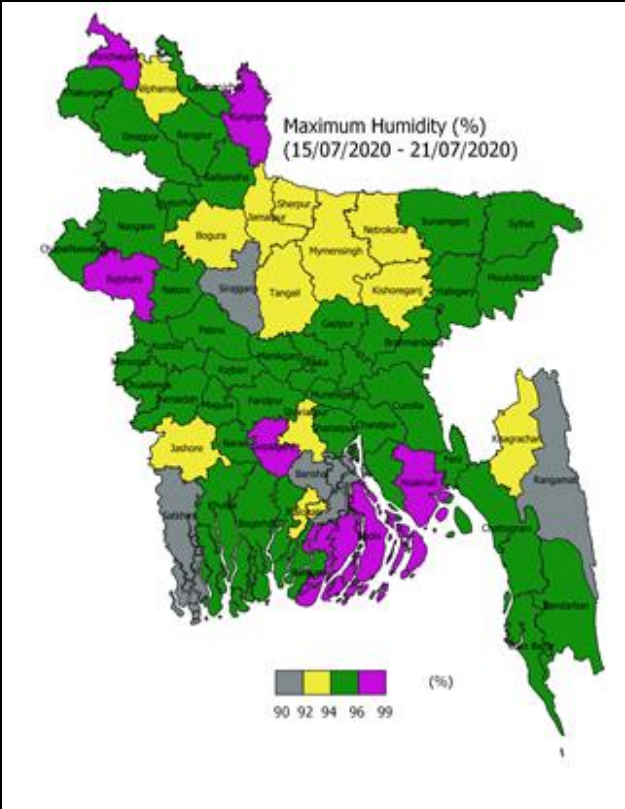
Forecast: Light to moderate rain/thunder showers accompanied by temporary gusty wind is likely to occur at most places over Rangpur, Rajshahi, Mymensingh, Sylhet, Dhaka, Khulna, Barishal & Chattogram divisions with moderately heavy to very heavy falls at places over the country.

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

Spatial Distribution of weather parameters for the Week ending 21 July 2020





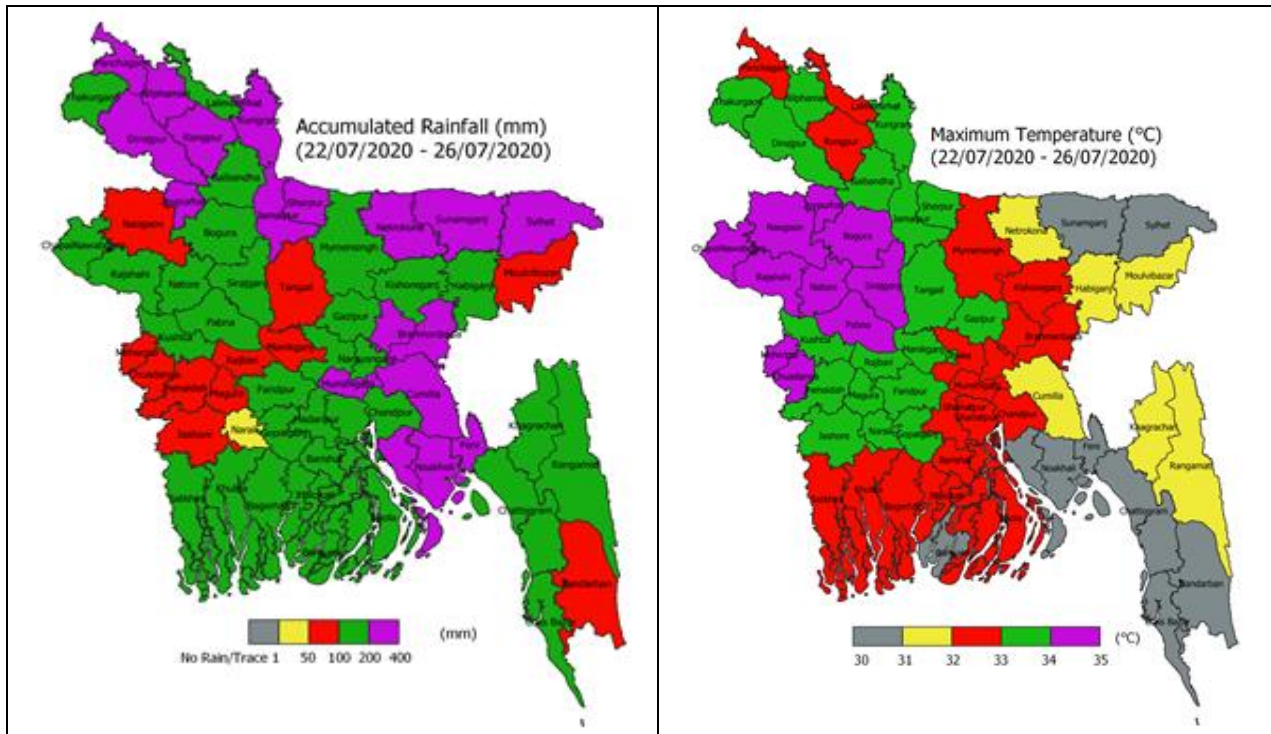


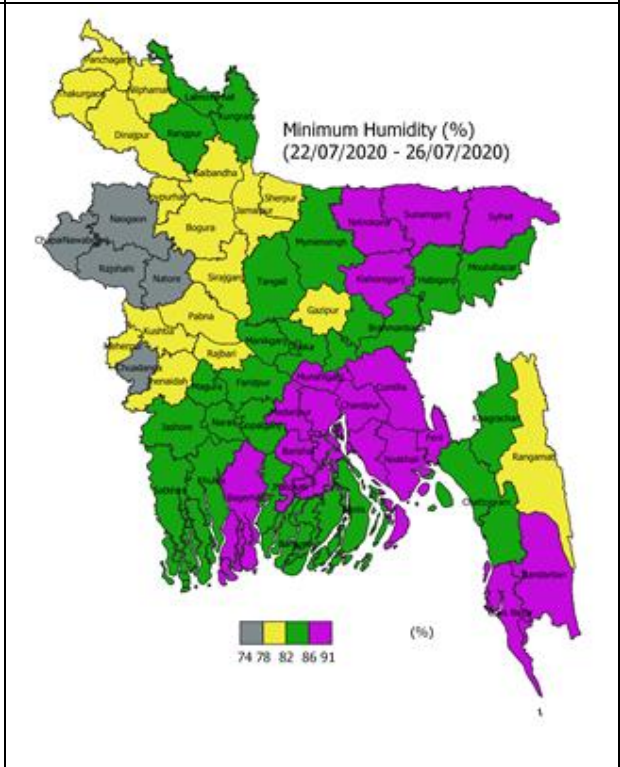
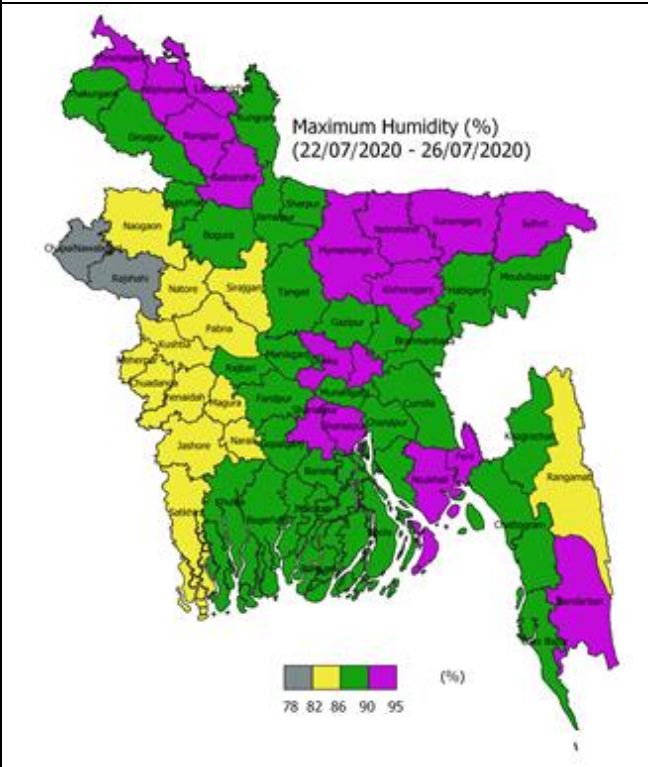
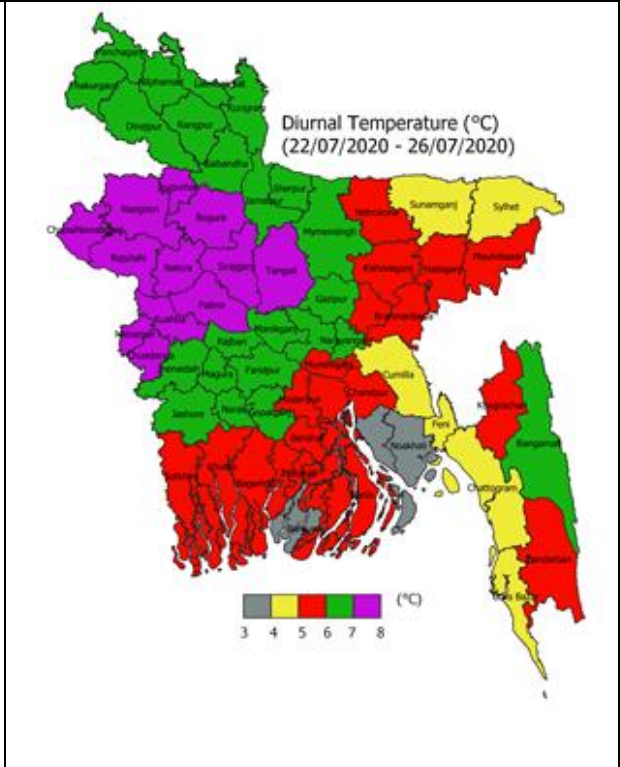
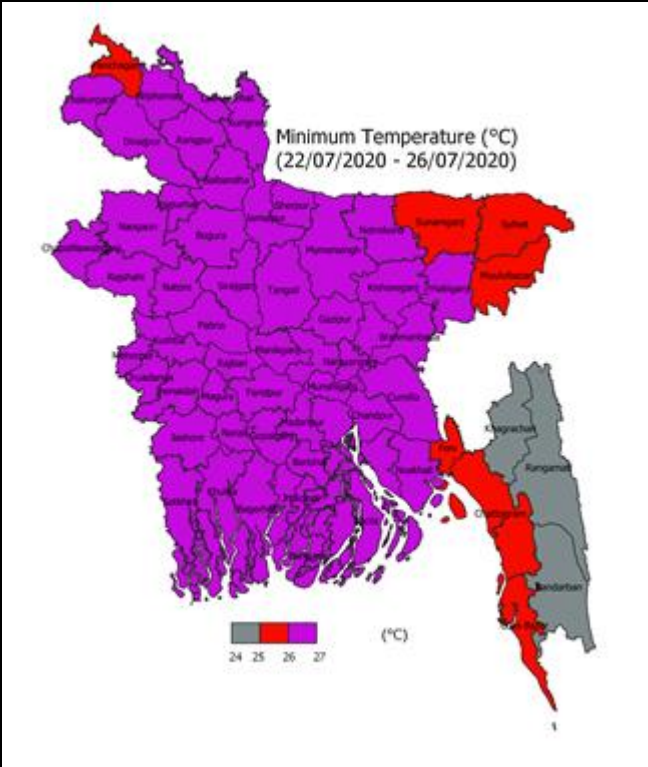
Weather Forecast and Advisory for the Period of 22.07.2020 to 30.07.2020

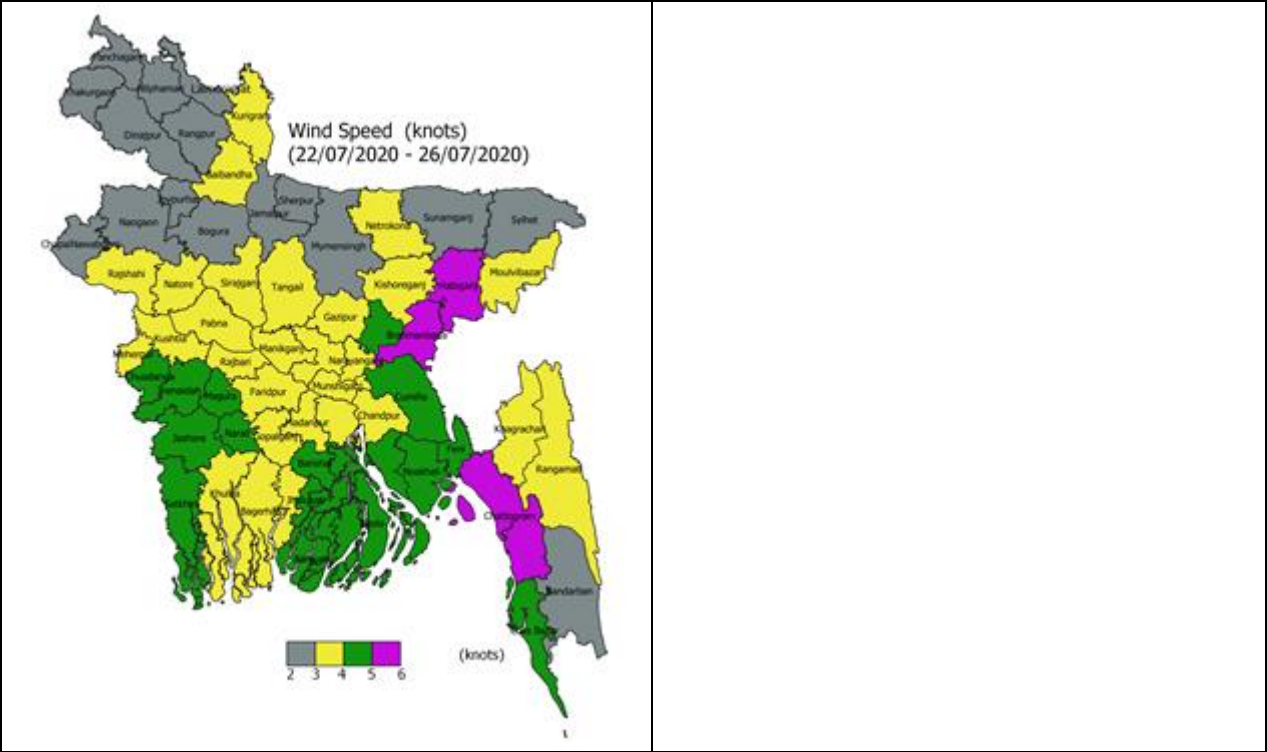
Bright sunshine hour is likely to be from 4.00 to 5.00 hours per day during this week. Average free water loss is likely to be from 2.50 to 3.50 mm per day during this week.

- 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 22 July -26 July'2020

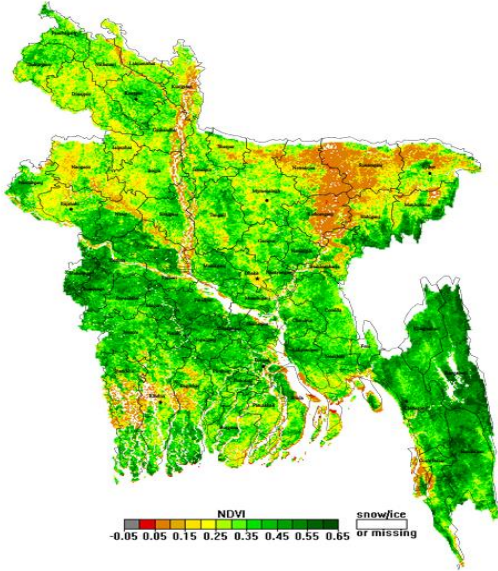




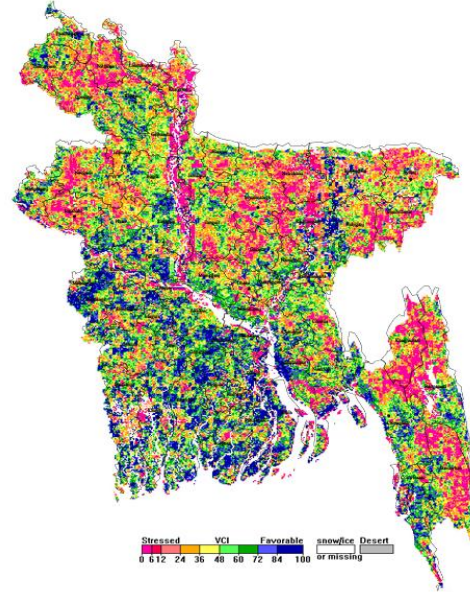


Different Satellite Products over Bangladesh

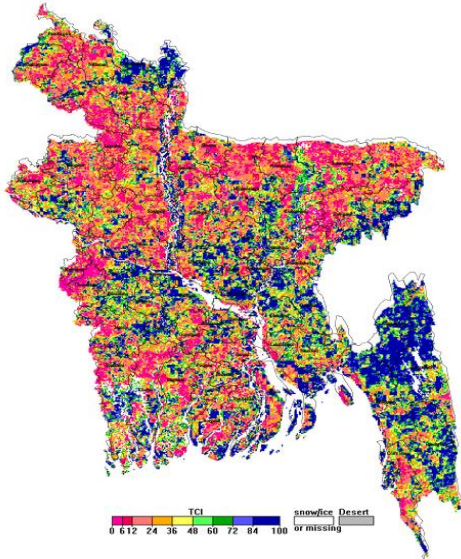
NOAA/VIIRS BLENDED NDVI composite for the week No. 28 (07 July-13 July 2020) over Agricultural regions of Bangladesh



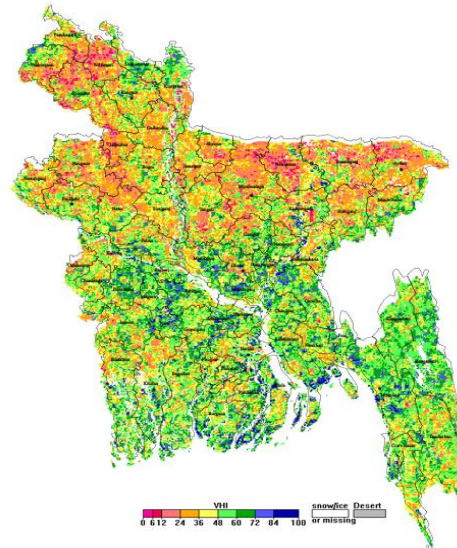
NOAA/AVHRR BLENDED VCI composite for the week No. 28 (07 July-13 July 2020) over Agricultural regions of Bangladesh



NOAA/AVHRR BLENDED TCI composite for the week No. 28 (07 July-13 July 2020) over Agricultural regions of Bangladesh

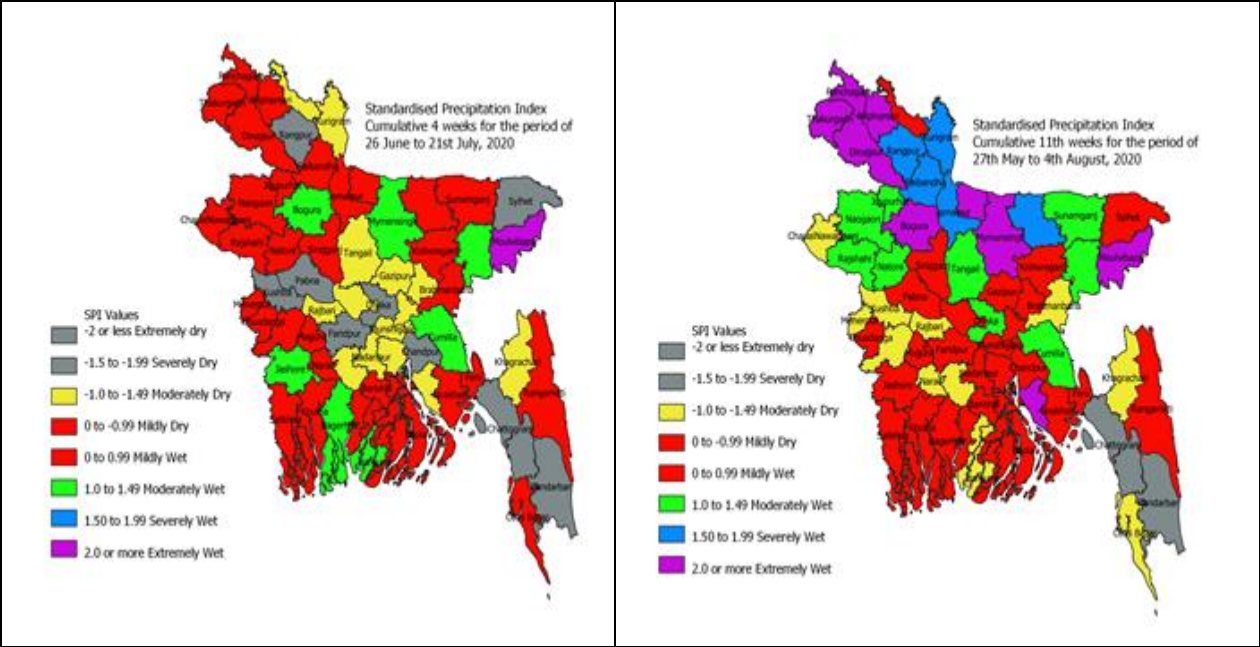


NOAA/AVHRR BLENDED VHI composite for the week No. 28 (07 July-13 July 2020) over Agricultural regions of Bangladesh



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