



# NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

22 MAY 2019 (WEDNESDAY)  
[FOR THE PERIOD 22.05.2019-26.05.2019]



#### 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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Development Project  
Department of Agricultural Extension (DAE)  
Ministry of Agriculture  
In collaboration with Bangladesh  
Meteorological Department

## Salient Agromet Advisories

According to the today's synoptic situation, trough of low lies over West Bengal to North Bay across South-western part of Bangladesh. And as per the short range weather forecast issued by Bangladesh Meteorological Department ( BMD), rain/thunder showers accompanied by temporary gusty/squally wind is likely to occur at many places over **Rangpur, Dhaka, Mymensingh & Sylhet divisions**, at a few over **Rajshahi division** and at one or two places over **Khulna, Barishal & Chattogram** divisions. Thus it is expected good amount of rainfall in the districts namely Bogura Gaibandha, Habiganj, Jamalpur, Kurigram, Lakshmipur, Moulvibazar, Mymensingh, Netrokon, Panchagarh, Rangpur, Sherpur, Sunamgan, Sylhet. On the contrary, relatively high temperature is expected over the districts **Chapai Nawabganj, Chuadanga, Faridpur, Gopalganj, Jashore, Jhenaidah, Khulna, Kushtia, Magura, Meherpur, Naogaon, Narail, Natore, Pabna, Rajbari, Rajshahi**. Besides, mild heat wave will be sweeping over **Khulna & Dhaka** divisions and the regions of **Rajshahi, Pabna, Chandpur, Feni, Noakhali, Rangamati and Patuakhali** and it may abate from some places. Based on the realized weather during last few days and expected weather next five days along with the sensitivities of weather parameters on crops and package of practices, advisories for major standing crops in the country were issued. Some of the salient advisories for the districts where temperature is relatively high and no rainfall is expected are mentioned below.

**General Advisory:** It is advised for deep ploughing of fields after harvesting of Rabi crops. It helps in destroying the eggs and pupating stages of insects and weed seeds. After the harvest of the rabi crops, incorporation of crop residues @ 5t./ha improves the soil physical, property, infiltration rate and soil water holding capacity moisture around root zone.

### **Paddy:**

#### **Boro Paddy: Maturity stage/Harvesting**

Remove the water from the field 10-15 days before harvesting.

As there is chance of no rainfall next one week, harvest the matured crop.

Deep summer ploughing should be done in harvested boro paddy field to destroy eggs and pupa of insects –Sow green manuring crop like cluster bean, daincha etc after harvesting of boro paddy in order to fertilize the field and conserve moisture in soil.

#### **Aus Paddy: Seedbed**

If the nurseries in the seedbed become yellowish, apply 7 gram urea per sq. meter.

If the nurseries in the seedbed are not green in color, apply 10 gm gypsum per sq. meter.

Remove weeds by hand.

If the population of Thrips and Green Leaf Hopper exceeds 25%, apply Malathion group insecticide at the rate of 1ml/1 litre of water.

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

- Apply irrigation as there will be more evaporation due to increased temperature.
- Weeding and earthing up operations may be continued.
- Arrange thinning operations if the plants are in densely populated.
- If rabi maize could not be harvested, harvest the crop as there is no chance of significant rainfall during next few days.

### **Jute: Sowing to Growing**

Following advisories are given where sowing operations are still going on.

- Apply 100kg urea along with 50 kg TSP, 60 kg MOP, 95 kg Gypsum and 11 kg Zinc Sulphate per hectare at the time of sowing of crop.
- Following are the advisories where crops have already been sown.
- Apply light irrigation.
- Weeding may be done.
- After weeding, apply rest of the urea's (100kg/hectare) urea as top dressing.
- Farmers are advised to carry out thinning operation in early sowing jute crop.

There is a chance of incidences of Hairy Caterpillar. Following control measures is advised.

1. Collect the egg mass and destroy.
2. Use light traps.
3. Spray Imidocholoprid/Chlorocyryn/ Nitro @ 1ml/litre of water.

There is a chance of incidences of Semilooper. Spray Imidocholoprid/Chlorocyryn/ Nitro @ 1ml/litre of water.

### **Green Gram: Maturity to Harvesting**

Due to occurrence of rainfall for a prolonged period in last few weeks preceded by gradual increase in temperature and relative humidity, incidence of blight may be observed in the green gram crops. To control this disease apply Carbendazim 0.05% @ 300-500 g in 600-700 lit of water at an interval of 12-15 days. Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50EC@2.0ml/liter or Chlorpyriphos 20 EC@2.5ml/liter of water is advised. Preceded by gradual increase in temperature and relative humidity, incidence of blight may be observed in the green gram crops. To control this disease apply Carbendazim 0.05% @ 300-500 g in 600-700 lit of water at an interval of 12-15 days.

### **Livestock**

There is forecast for increase in temperature, hence protect animals from heat by covering roof of the shed with insulating materials such as paddy straw, dry coconut leaves and make arrangement for sprinkle cold water on the roof of shed during afternoon time.

- Use wet gunny bags asside curtains to protect animals from direct hot winds.
- Provide sufficient watering facility to the animals in shed for control respiration rate.

- Protect the animals against direct warm air flow with hanging gunny bags in open ventilated animal shed.
- Buffalo should be kept in the water-filled pond for at least half an hour every day.
- If possible arrange the fogger in animal shed and sprinkling should be done at an interval of every four to five hours.
- If animal suffering from heat stroke it is advised to move the animal in shady place and whole body mop should be done frequently with wet cloth.

Farmers are advised to cover animal and poultry sheds with wet gunny bags.

1. Provide clean, hygienic and plenty amount of drinking water to farm animals and poultry birds. To reduce the stress of heat in farm animals, provide rough ages by mixing with solution of 1% gaggery and 0.5% salt separately.
2. Vaccination against foot and mouth disease in farm animals under supervision of veterinary officers is advocated.

### **Poultry**

To avoid heat stress in poultry birds:

- Feeding should be done during early morning and late evening,
- Avoid overcrowding and maintain proper ventilation inside the shed.
- Cover the cage with gunny bags and sprinkle water to main the cage relatively cold.

**Districts where rainfall is expected, it is advised also not to irrigate and apply any fertilizer for next five days.**

**\*\* Detail District level bulletin is available in DAE website**

## Realized Weather at different locations in the country

Rainfall for last 24 hours (till 06 AM on 22 May'19) and maximum temperature on 21 May, minimum temperature on 22 May' 2019 are given below:

| Name of Divisions | Name of Stations | Rain fall (mm) | Max. Temp (°C) | Min. Temp (°C) | Name of Divisions | Name of Stations | Rain fall (mm) | Max. Temp (°C) | Min. Temp (°C) |
|-------------------|------------------|----------------|----------------|----------------|-------------------|------------------|----------------|----------------|----------------|
| Dhaka             | Dhaka            | Trace          | 36.2           | 28.4           | Rajshahi          | Rajshahi         | 00             | 36.6           | 28.0           |
|                   | Tangail          | 00             | 36.5           | 24.0           |                   | Ishurdi          | 00             | 36.7           | 28.2           |
|                   | Faridpur         | 00             | 36.0           | 26.7           |                   | Bogura           | 00             | 35.2           | 25.3           |
|                   | Madaripur        | 00             | 36.3           | 26.8           |                   | Badalgachhi      | 00             | 34.5           | 27.3           |
|                   | Gopalganj        | 00             | 35.9           | 28.0           |                   | Tarash           | 00             | 35.5           | 27.0           |
|                   | Nikli            | 00             | 35.4           | 21.5           |                   |                  |                |                |                |
| Mymensingh        | Mymensingh       | 00             | 34.8           | 21.5           | Rangpur           | Rangpur          | 03             | 30.5           | 23.0           |
|                   | Netrokona        | 00             | 34.2           | 20.4           |                   | Dinajpur         | 17             | 32.9           | 21.4           |
|                   |                  |                |                |                |                   | Sayedpur         | 24             | 32.5           | 22.0           |
| Chattogram        | Chattogram       | 00             | 34.6           | 28.4           |                   | Tetulia          | 00             | 30.0           | 25.2           |
|                   | Sandwip          | 00             | 34.7           | 28.0           |                   | Dimla            | 31             | 30.0           | 23.2           |
|                   | Sitakunda        | 00             | 34.8           | 28.0           |                   | Rajarhat         | 10             | 30.3           | 23.2           |
|                   | Rangamati        | 00             | 37.0           | 26.8           | Khulna            | Khulna           | 00             | 37.3           | 28.5           |
|                   | Cumilla          | 00             | 35.4           | 27.5           |                   | Mongla           | 00             | 37.6           | 28.4           |
|                   | Chandpur         | 00             | 36.4           | 27.7           |                   | Satkhira         | 00             | 36.7           | 29.4           |
|                   | M.Court          | 00             | 36.5           | 27.5           |                   | Jashore          | 00             | 38.0           | 27.8           |
|                   | Feni             | 00             | 36.2           | 28.2           |                   | Chuadanga        | 00             | 37.2           | 28.0           |
|                   | Hatiya           | 00             | 35.3           | 26.6           |                   | Kumarkhali       | 00             | 36.7           | 28.0           |
|                   | Cox's Bazar      | 00             | 35.7           | 28.0           | Barishal          | Barishal         | 00             | 35.8           | 27.5           |
|                   | Kutubdia         | 00             | 35.0           | 28.5           |                   | Patuakhali       | 00             | 36.0           | 27.3           |
| Teknaf            | 00               | 35.3           | 28.0           | Khepupara      |                   | 00               | 35.5           | 28.4           |                |
| Sylhet            | Sylhet           | 58             | 35.7           | 23.8           |                   | Bhola            | 00             | 35.9           | 27.7           |
|                   | Srimangal        | 00             | 36.5           | 22.0           |                   |                  |                |                |                |

### Highlights:

- Country average of bright sunshine hour was 7.23 hours per day during last week.
- Country average of free water loss during the previous week was 4.28 mm per day.

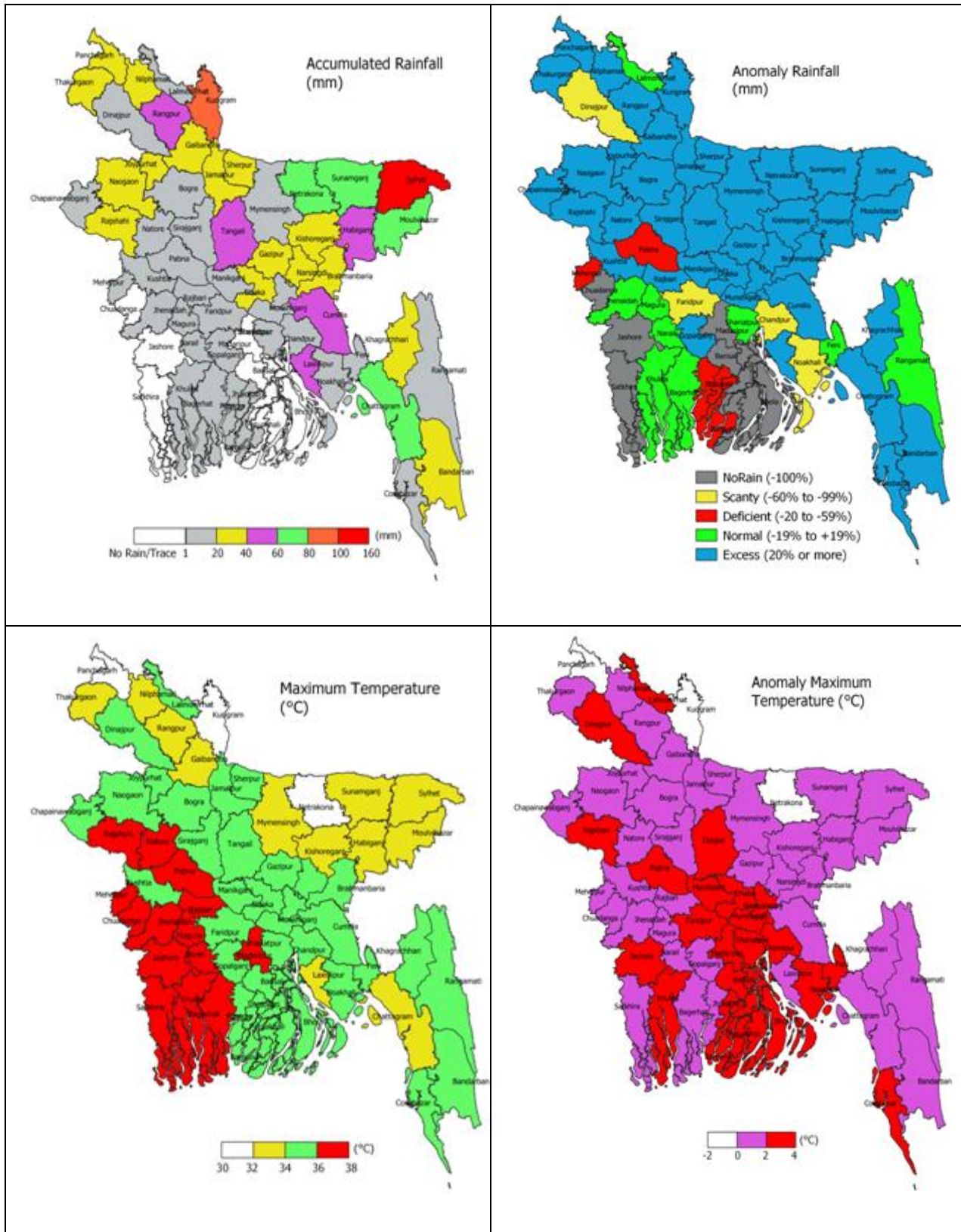
### Weather Forecast Valid for 24 Hours commencing 06 PM Today:

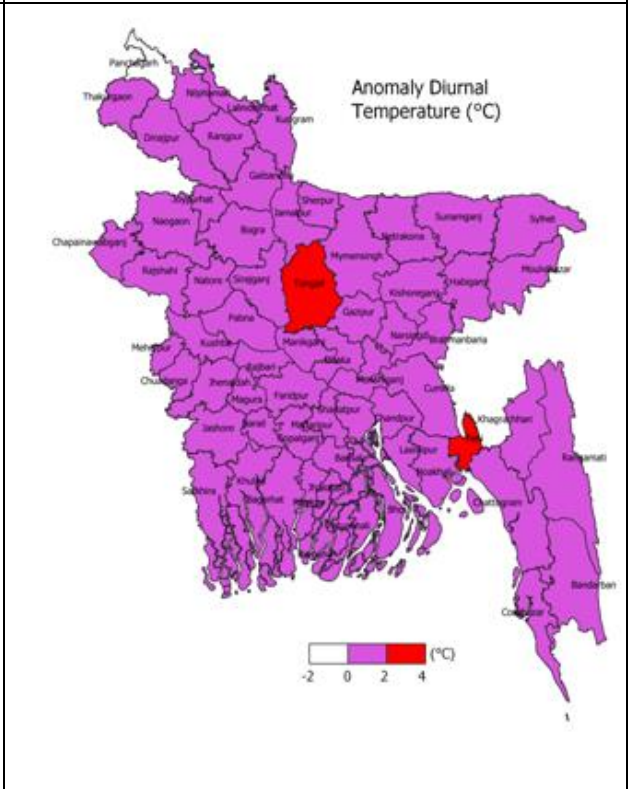
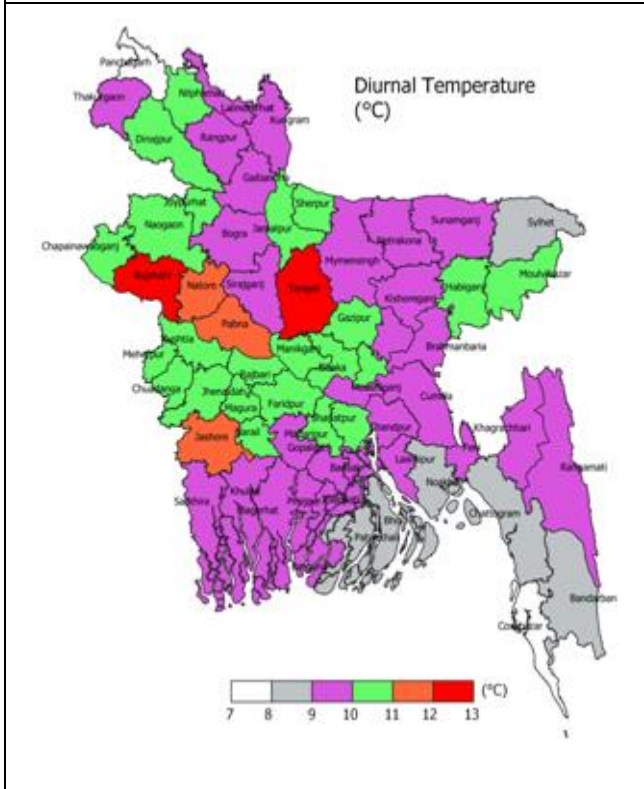
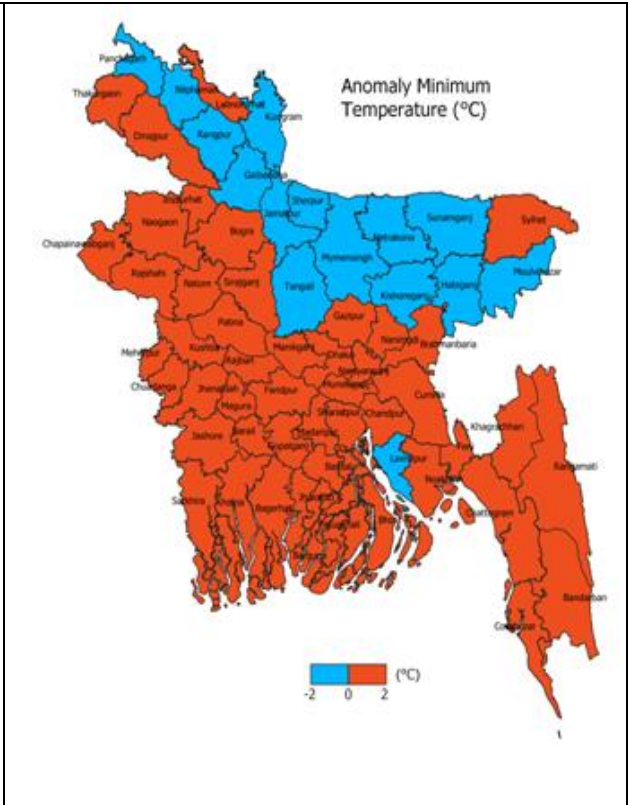
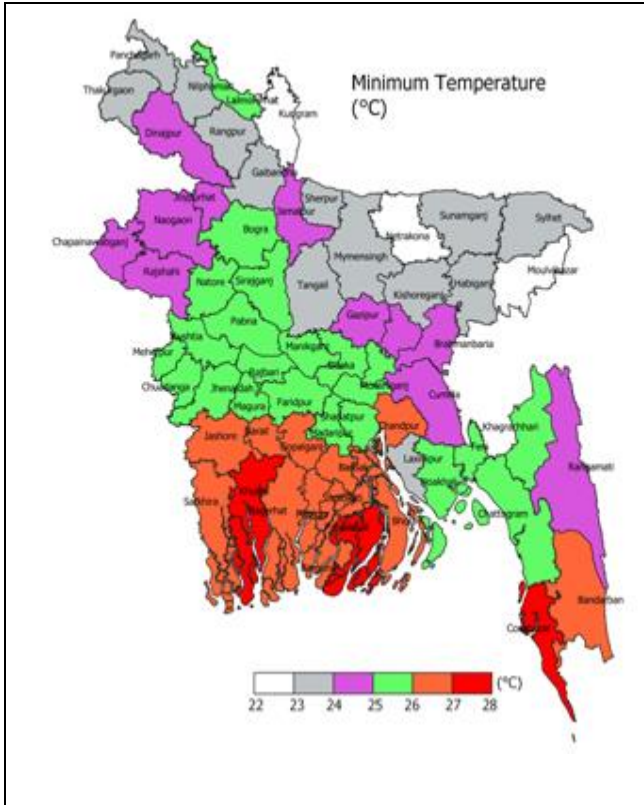
**Forecast:** Rain/thunder showers accompanied by temporary gusty/squally wind is likely to occur at many places over Rangpur, Dhaka, Mymensingh & Sylhet divisions, at a few over Rajshahi division and at one or two places over Khulna, Barishal & Chattogram divisions.

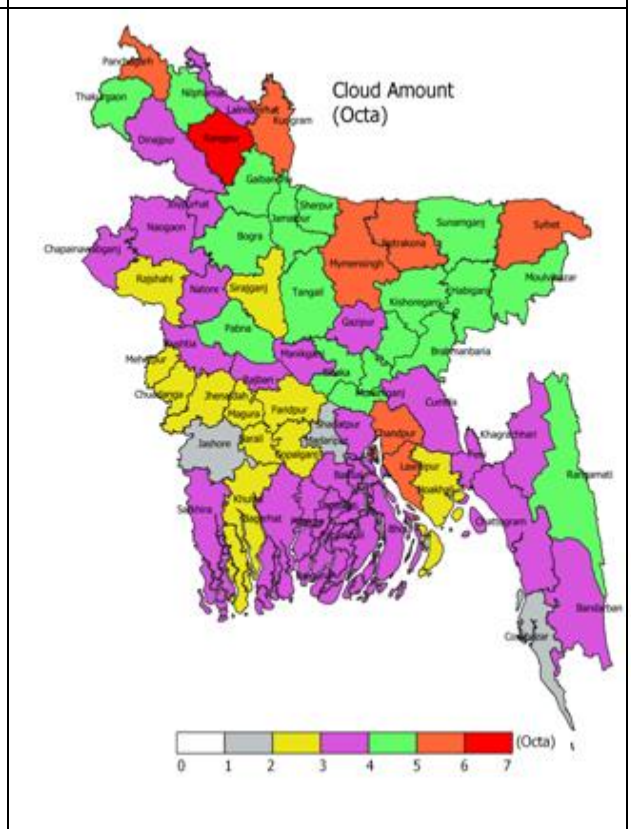
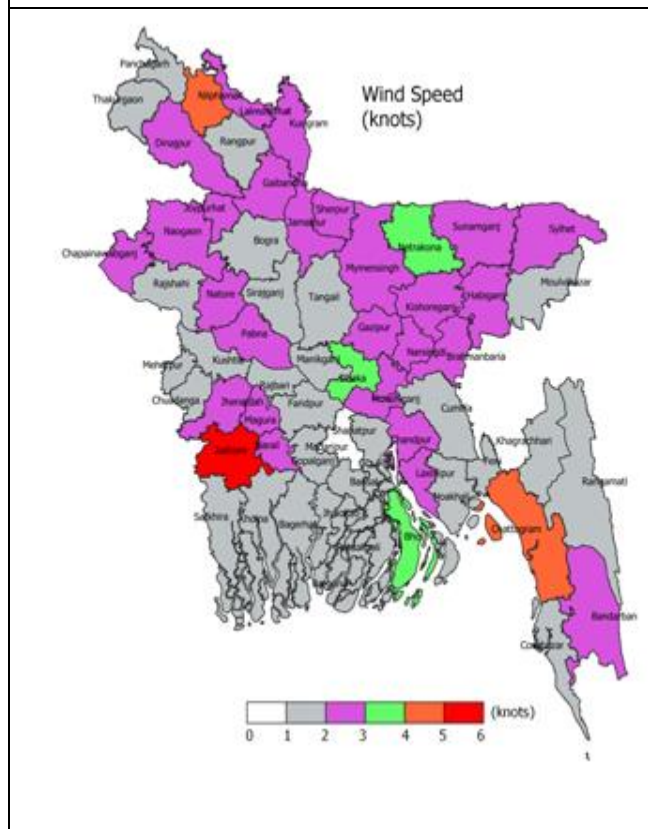
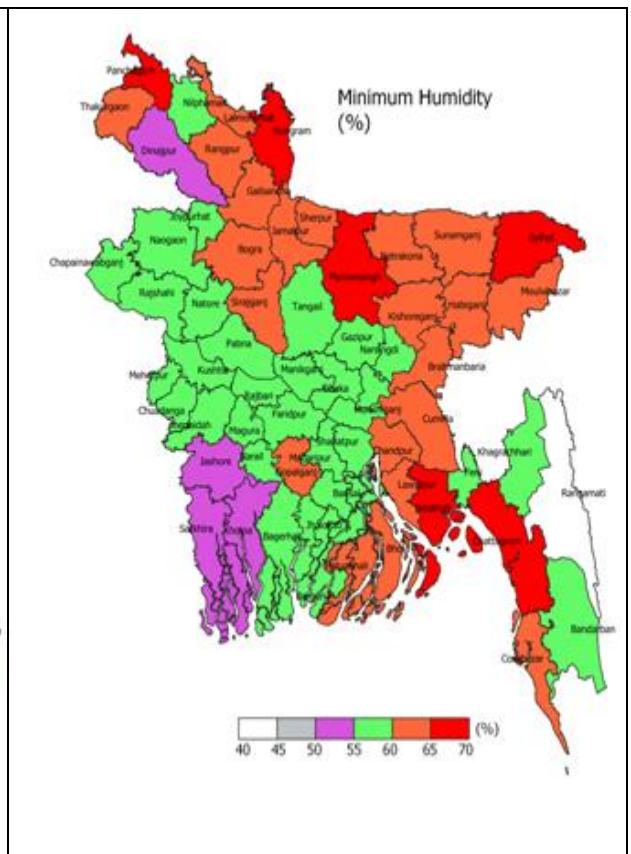
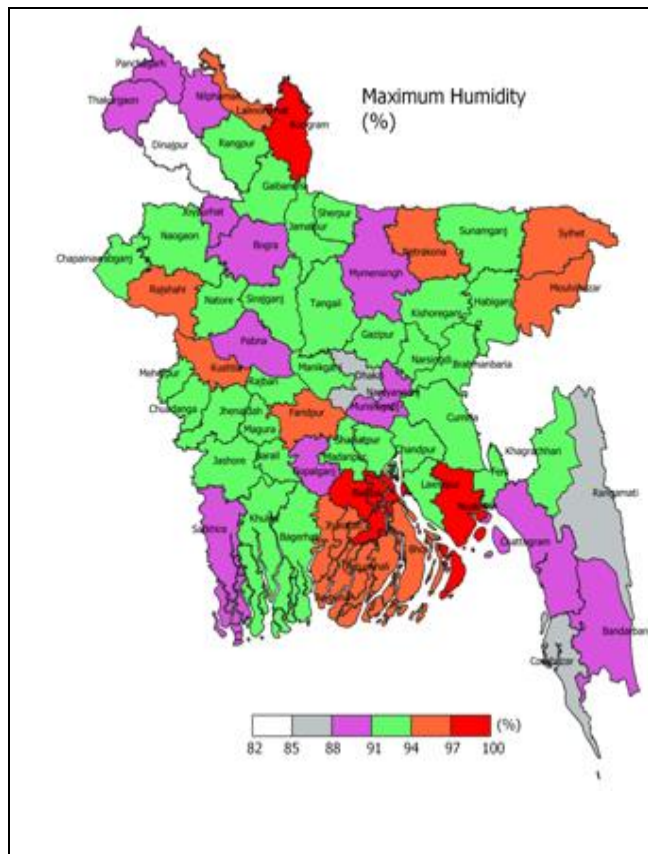
**Heat wave:** Mild heat wave is sweeping over Khulna & Dhaka divisions and the regions of Rajshahi, Pabna, Chandpur, Feni, Noakhali, Rangamati and Patuakhali and it may abate from some places.

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

## Spatial Distribution of weather parameters for the Week ending 21<sup>th</sup> May 2019







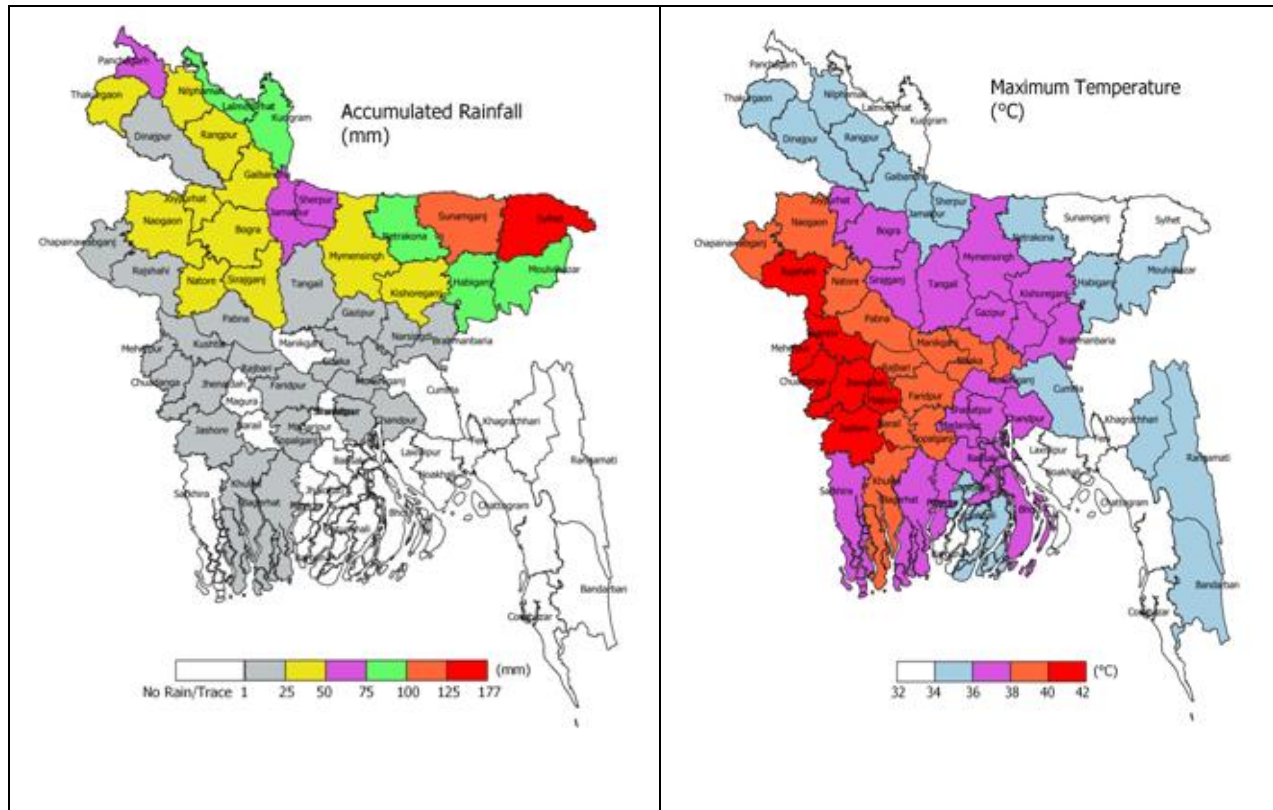


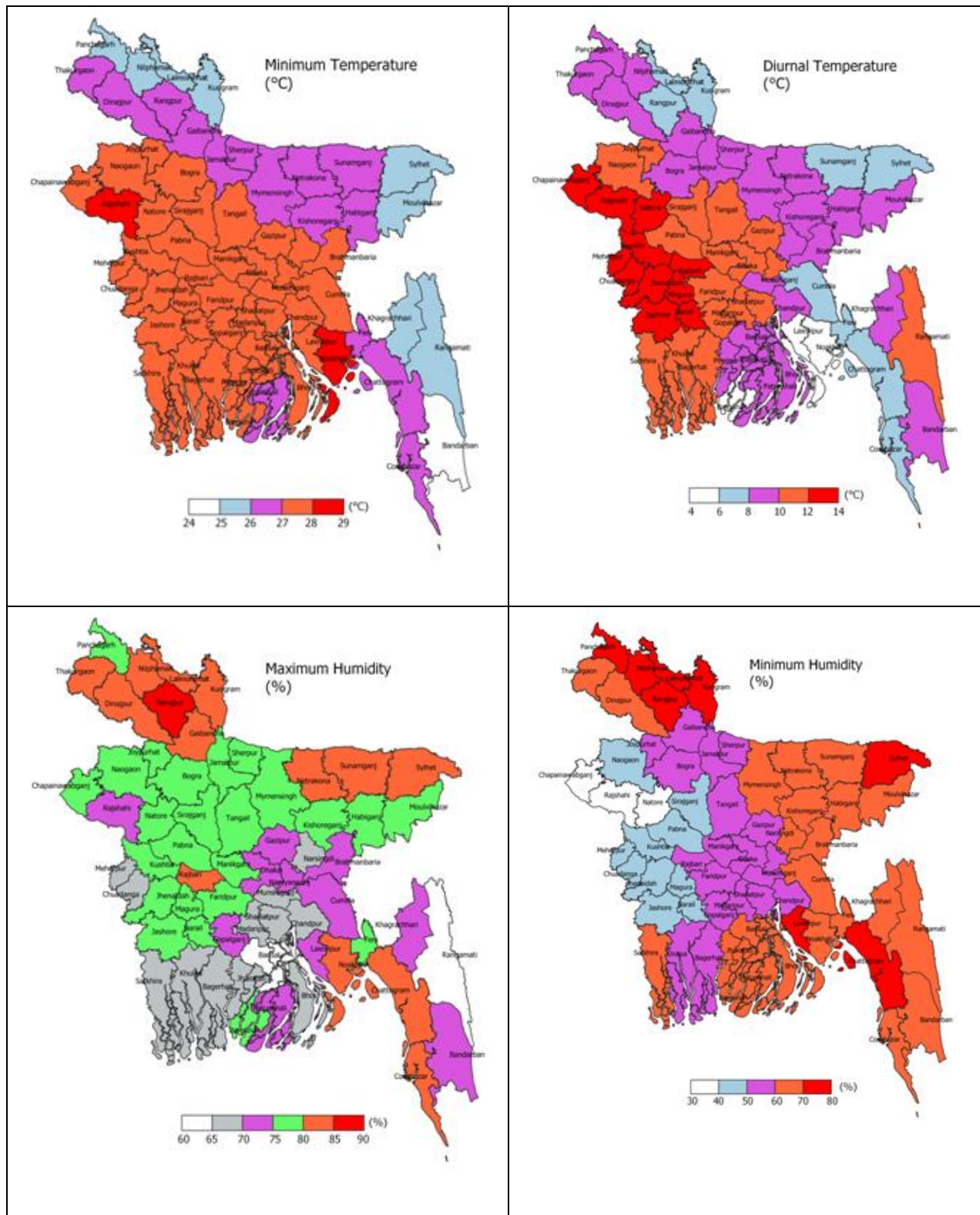
**Weather Forecast and Advisory for the Period of 22.05.2019 to 29.05.2019**

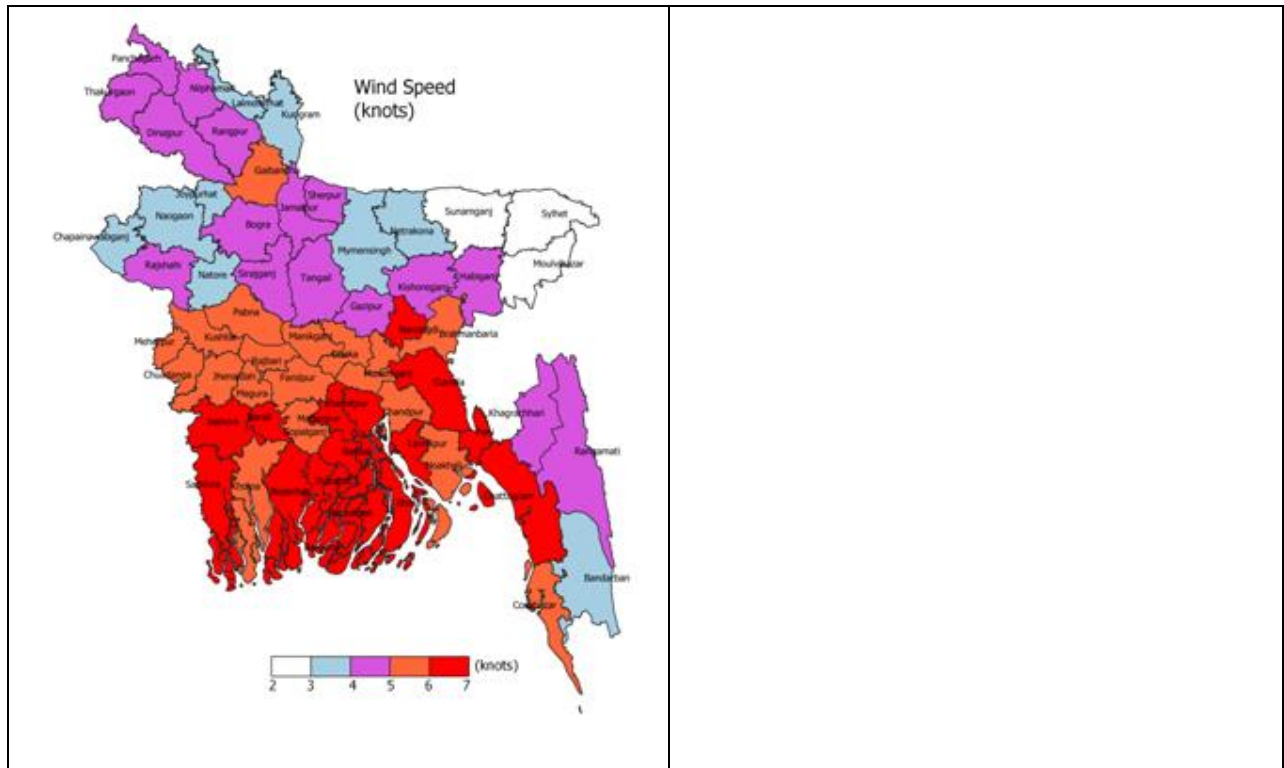
Bright sunshine hour is likely to be from 6.50 to 8.00 hours per day during this week. Average of free water loss during the next week is likely to be from 3.75 to 4.75 mm per day.

- Light (04-10 mm/d) to moderate (11-22 mm/d) rain/thunder showers with hail is likely to occur two or three days at many places over Dhaka, Mymensingh, Sylhet and Rangpur divisions, few places over Rajshahi and Chattogram divisions and one or two places elsewhere over the country, With a chance of moderately heavy (23-43 mm/d) falls at places over the country during this period.
- Day and Night temperature may remain nearly unchanged during this period.

**District Wise Quantitative Weather Forecast for next Five days from 22 May -26 May'19**

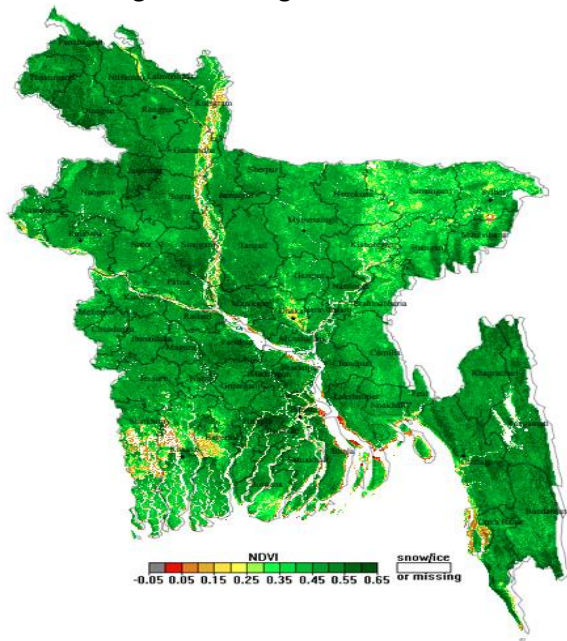




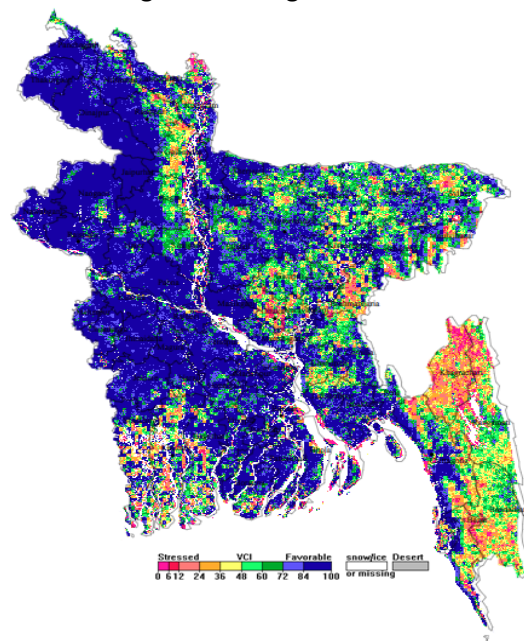


## Different Satellite Products over Bangladesh

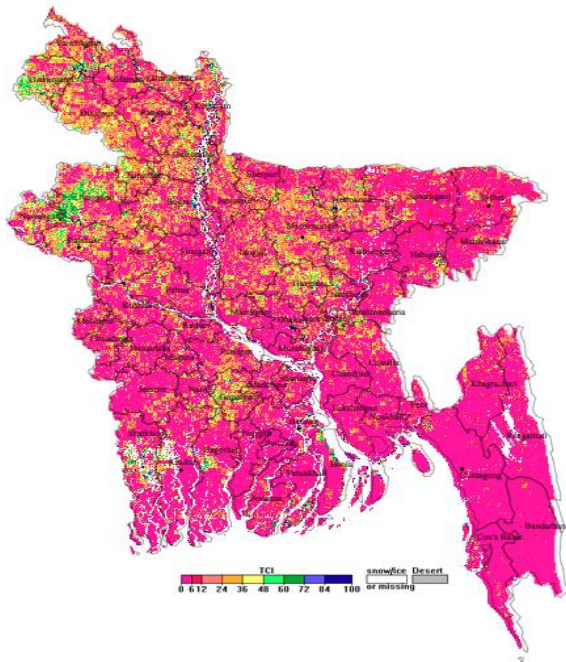
NOAA/VIIRS BLENDED NDVI composite for the week number No. 19 (15 May -21 May) over Agricultural regions of Bangladesh



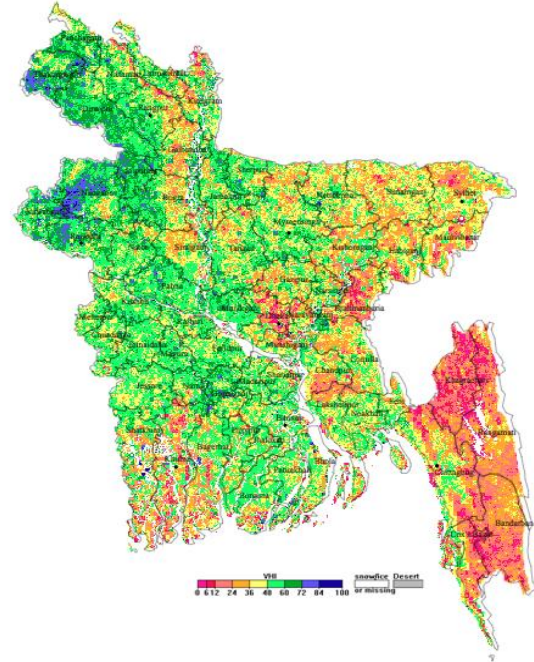
NOAA/ AVHRR BLENDED VCI composite for the week number No. 19 (15 May -21 May) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED TCI composite for the week number No. 19 (15 May -21 may) over Agricultural regions of Bangladesh

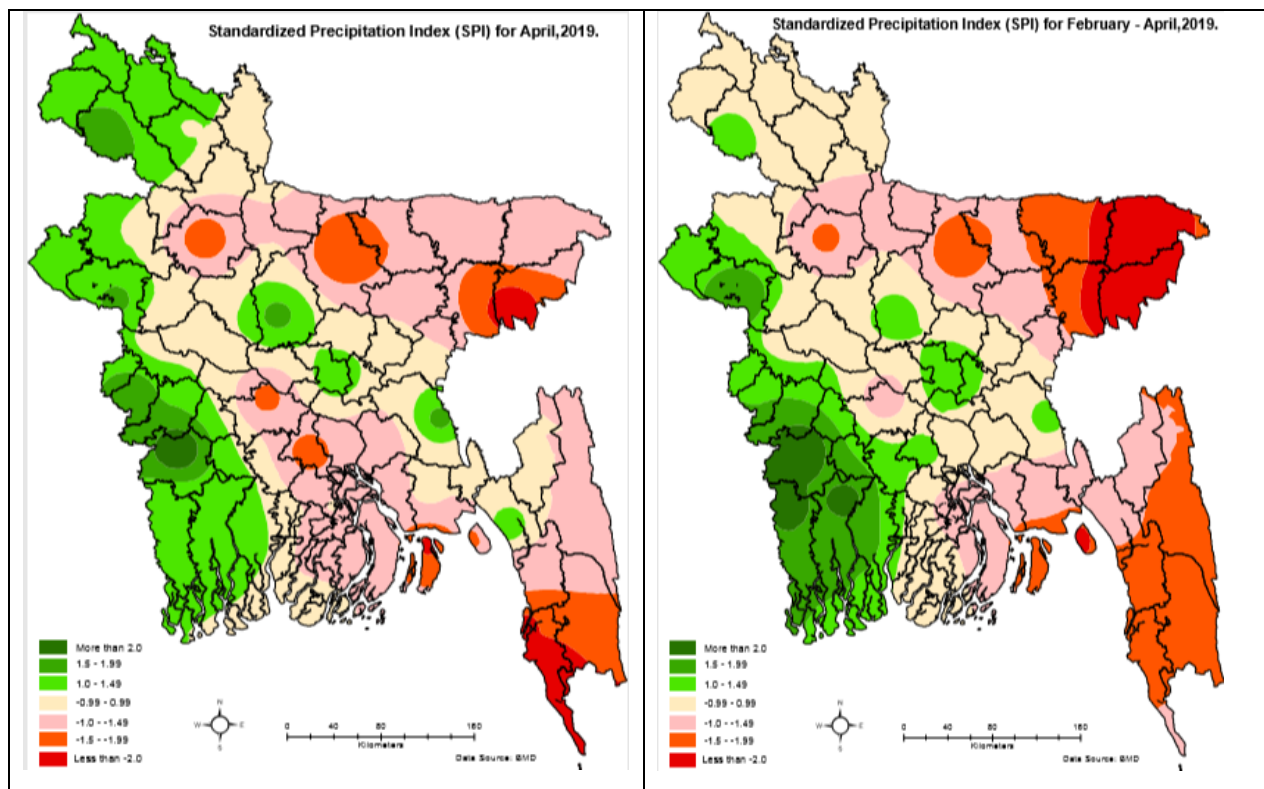


NOAA/ AVHRR BLENDED VHI composite for the week number No. 18 (15 May -21 may) over Agricultural regions of Bangladesh



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

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



Source: Bangladesh Meteorological Department

## Flash Flood Monitoring in Haor Region (Source: Bangladesh Water Development Board)

### RIVER SITUATION SUMMARY AS ON May 22, 2019

- All the major rivers of the country are in falling trend.
- According to the information of Bangladesh Meteorological Department and Indian Meteorological Department, there is chance of medium to heavy rainfall in the North and North-Eastern region of Bangladesh and adjacent Indian regions in next 48 hours.
- The water level of the Brahmaputra-Jamuna & the Ganges-Padma rivers may continue falling while the Surma-Kushiyara rivers may rise in next 24 hours.

### General River Condition

|                               |    |                           |          |
|-------------------------------|----|---------------------------|----------|
| Monitored Water Level Station | 94 | Inactive Gauge            | 02       |
| Rise                          | 21 | Gauge Reading Missing     | 02       |
| Fall                          | 61 | Total Not Reported        | 04       |
| Steady                        | 08 | <b>Above Danger Level</b> | <b>0</b> |