



NATIONAL AGROMETEOROLOGICAL ADVISORY SERVICE BULLETIN

11 December 2019 (WEDNESDAY)
[FOR THE PERIOD 11.12.2019 - 15.12.2019]



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.

Please Contact: Farhana Hoque, Sabuj Roy | E-mail: adamisdp@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

As per the weather forecast received from the Bangladesh Meteorological Department (BMD), weather may remain mainly dry with temporary partly cloudy sky over the country and Light to moderate fog may occur at places over the country during late night to morning. Night temperature may rise slightly and day temperature may remain nearly unchanged over the country. As per the medium range quantitative district level weather forecast issued by BMD, dry condition will prevail over the country for next five days. Besides, there was no rainfall during extended period in this month. As a result, it is advised to apply irrigation, pesticides and fertilizers and intercultural operation in all the districts in the country. Under foggy condition, monitor the standing crops for incidence and spread of pest & diseases and monitor tomato and potato crops for early blight disease. If symptoms are noticed, undertake plant protection measures. In some districts, minimum temperature is below 15 degree Centigrade and may decrease further during next five days, thus proper care should be taken to reduce the impacts of cold temperature on livestock and poultry.

Considering the realized weather along with weather forecast, and state and stage of the crops, agromet advisories are issued for different districts separately. Following are the salient agromet advisories for the districts where dry condition prevailed during last four days & dry condition will also likely during next five days. Salient Agromet Advisories for livestock, poultry and fishery are also mentioned.

Agromet Advisories

General Advisory under Foggy Condition & Drop in Minimum Temperature

Under persistent light to moderate fog condition, monitor the standing crops for incidence and spread of pest & diseases and monitor tomato and potato crops for early blight disease. If symptoms are noticed, undertake plant protection measures. Under drop in minimum temperature, proper care should be taken to reduce the cold temperature on livestock and poultry.

Aman Paddy

Harvesting

- Remove water from the field completely 15 days before harvesting.
- Where 80% grain found mature harvest the crop after draining water as sunny weather will prevail. At the time of harvesting, pick the black earhead (affected earhead with false smut disease) and destroy them by burning.
- Sundry the harvested paddy and carry out threshing and store it in safe place.
- To protect the matured grains of aman rice from the attack of rodents, prepare dry poison baits by mixing atta/wheat bran/maize crush 80g, gur 10g, dry fish 5g & Zinc Pohosphide 5g; & apply alongside the bunds for controlling field rat.
- Sowing of khesari can be done as relay crop in upland area before harvest of aman paddy.

Flowering/Soft Dough/Hard Dough to Ripening Stage

- As there was no rainfall relatively for extended period and there is no chance of rainfall for next five days, apply irrigation & maintain 2-5 cm water level at flowering/soft dough/hard dough to hardening of grain stages.

- Continuous monitoring of the economically harmful insects like stem borer, leaf roller, sheath blight, blast, brown spot, leaf blight, Gandhi bug, Brown Plant Hopper (BPH) should be done. Monitoring at 2-3 days' interval is advised. For this light trap should be used. Light trap should be placed at some distance from the crop and bulb should be lightened from evening 06.30 PM to 10.30 PM and collected insects should be destroyed in the morning hours. Since fair weather is predicted in the coming 5 days, farmers can continue spraying of insecticides/ fungicides in the field.
- Weather is congenial for multiplication of brown plant hopper in rice. If noticed, spray Isoprocarb or MIPC@ 175gm/bigha or Pimetrogen 67gm/bigha or Chloropyripho 134ml/bigha at the base of the stem.
- For management of blast disease in paddy, carry out alternative wetting and drying without cracking of the soil. Spray Nativo 75wg/ Trooper@ 0.6g/litre of water or Amister top 325 sp@ 1ml/litre of water. Spraying should be done after 3 PM so that disease can be effectively controlled. The spray should be repeated after 10-12 days as per intensity of the disease.
- As there is no possibility of getting rainfall in the coming 5 days during dough to milky stage, there is chance of incidences of Gandhi bug & BPH. For BPH Spray Isoprocarb @ 2.5g per litre water or Imidachloprid @ 2.5g per litre water. For Gandhi bug Spray Malathion @ 2ml. per litre water or Chlorpyrifos @ 2ml. per litre water. Holding fires around the field in the night hours also reduce Gundi bug population.

Vegetables

- As there was no rainfall relatively for extended period and there is no chance of rainfall for next five days, apply adequate irrigation to moist the soil in the vegetable field.
- Complete transplanting of brinjal, tomato, chilli, late sown cauliflower and cabbage.
- To control leaf curl disease in tamato, spray Rogor @ 1 ml per litre of water to control the leaf curl disease in tomato crop which is transmitted by an insect vector.
- Since there is no possibility of getting rainfall in the coming 5 days spray Captan 50 WP 0.2% (@ 2 g/lit. of water) to control Fruit rot or anthracnose disease in the chilli crops.

Boro Paddy:

- Continue seedbed preparation with assured irrigation.
- Remove the dew deposited in the morning hours on seedlings.
- Apply light irrigation as there was no rainfall during past few weeks and there is no chance of rainfall during next five days.
- If the seedbed becomes yellow, apply urea at the rate of 283 gm urea per decimal.
- Arrangement for polythene may be made as this may be required to cover the seedbed during sudden drop in temperature during this season.

Wheat

- Those who have not sown the crop, it is advised to immediately sow the crop with the recommended varieties under favourable temperature conditions. Sowing should be preferably completed by mid-December and before significant drop in temperature which will hinder germination of seeds.
- It is advised to give first & light irrigation to wheat crops which are already 17-21 days as there was no rainfall and also there is no chance of rainfall next one week. Do not allow

standing water in the field as this will turn the green leaf to yellow in colour and also may damage the seedlings

- Besides during day time when the soil is in moist condition, it is advised to apply 300-400 gm Urea per decimal to the 17-21old crop as there is no chance of rainfall and wind will be calm for next seven days.
- Farmers are advised to do intercultural operations for conserving the moisture and removing weeds within 25-30 days after sowing

Mustard:

- Complete sowing of mustard
- It is advised to see the presence of required soil moisture which help in germination of seeds. If there is less moisture during sowing, apply light irrigation after 10-15 days after sowing.
- As there was no rainfall and there is no chance of rainfall during next few days, first irrigation should be given after 20-25 days after sowing.
- Farmers are advised to do intercultural operations thinning and weeding in timely sown after 15-20 days of sowing for conserving the moisture and removing weeds in mustard crop.
- Due to possibility of dry weather farmers are advised to do thinning to maintain proper plant count in timely sown mustard crop.
- Regularly check the mustard crop for pest population. Monitor the crop against attack of leaf eating caterpillars.
- Monitor the crop against attack of painted bug.
- Occurrence of saw fly may be seen in the mustard crops. To control this pest spray Chlorpyrifos 20 EC @ 5 ml/litre of water on fair weather.
- Alternaria blight may infect the mustard plant under the present weather condition. It is advised to spray Rovral-5- WP @ 2% (mix 2gm in 1 litre water) three to four times at an interval of 10-12days.

Maize:

- Complete sowing
- As there was no rainfall and there is no chance of rainfall during next few day, apply first irrigation after 15-20 days plant. Second irrigation should be given after 30-35 days.
- Remove extra seedlings after 30 days of sowing of seeds.
- Remove the weeds upto one month after sowing of seeds.

Lentil

- Continue sowing of seeds.
- Apply light irrigation
- Intercultural operation i.e. weeding should be done once within 30-35 days after sowing of seeds.
- There is chance of incidence of Stemphylium blight under the present weather condition. If noticed, spray Rovral 50 WP or Phalitur 250 EC or mix both the fungicides and mix with water @ 2% three to four times after 7 days interval under light sunny condition in the morning hours between 9-10 am.

Potato

- Apply light irrigation as there was no rainfall during past few weeks and there is no chance of rainfall during next five days. In potato field, three irrigations are recommended. First at 25 days , Second at 60 days and third at 80 days after planting of the tubers.
- Farmers are advised to do intercultural operations for conserving the moisture and removing weeds.
- Monitor the incidences of late blight disease. If foggy condition prolongs, weather is conducive for blight disease in potato; prophylactic spraying of Krilaksil or Ridomil MZ chemical @ 1.5 g / liter water is recommended.
- Those who have already planted the crop should adopt mulching by using water hyacinth, straw etc. to enhance the tuber quality and yield.
- One weeding followed by one earthing up in potato crop is advocated during this time. Earthing up is to be done if the crop has attained stolon formation stage (25 days after planting and attained a height of 15-22 cm.
- Due to favourable weather conditions attack of red ant and cut worm may be observed in the potato field. Farmers are advised to apply Phorate 10% granules @ 2kg/bigha or Malathion 5% dust @ 5kg/bigha in the soil at the time of earthing up.

Groundnut

- Continue sowing of rabi groundnut with assured irrigation. Undertake intercultural operations after 14-20 days after sowing.
- As there is no chance of rainfall during next 5 days and soil is almost dry, apply irrigation to the plants which are sown 18-20 days back.

Horticultural crops

- As there was no rainfall relatively for extended period and there is no chance of rainfall for next five days, apply adequate irrigation to young fruit plants.
- Farmers are advised to go for bagging of the banana bunches with muslin cloth or polyethylene before fruit set in order to protect the fruits from the attack of banana fruit and leaf scarring beetle.
- As dry condition will prevail during next five days, apply irrigation to banana plants 15-20 days interval. As there was no rainfall relatively for extended period and there is no chance of rainfall for next five days, apply adequate irrigation to young fruit plants.
- Farmers are advised to go for bagging of the banana bunches with muslin cloth or polyethylene before fruit set in order to protect the fruits from the attack of banana fruit and leaf scarring beetle.
- As dry condition will prevail during next five days, apply irrigation to banana plants 15-20 days interval.
- Weather is congenial for sigatoka disease in banana, cut and remove the severely affected leaves and apply Mancozeb (Indofil M 45) @ 2.5 g/lit or Propiconazole 1ml/ litre of water followed by 4 sprays at 30 days interval.

Sugarcane:

- Irrigation can be given at weekly interval (for medium type of soil). In heavy soils, 10-15 days' interval.
- If water scarcity is the irrigate the crop in alternate row, to save the water. Drip irrigation can save the water up 40 per cent per cent.
- To control early shoot borer in sugarcane, spray 2.5 ml Monocrotophos in each litre water. Spray 2 g Bentan or Crilton per litre of water to control red rot and release required quantity of Epiricania sps to control pyrilla infestation.
- To control stem borer in sugarcane, spray Chlorpyriphos 20 % @ 30 ml per 10 liter of water
- To prevent lodging of matured sugarcane crops, it is advised to provide mechanical support to the crops by using bamboo sticks or tying 4 to 5 canes together with their leaves.

Beetle vine

- Keep the old fencing tight
- Cover the beetle vine field with straw and other materials like cotton cloths like sari so that cold & strong Northern wind should not enter and affect the growth of the plant.
- Remove Kochu crop if it grown around the beetelvine crop as it may be infested by gora pancha and kanda pancha disease.
- Start harvesting of the crop as sunny weather will prevail during next five days

Cotton: Sowing stage

- In cotton fields at boll development stage install pheromone traps @5/ha to monitor pink bollworm moth. For control of initial infestation spray of 5% NSKE OR Azadirachtin 1500 ppm @ 25 ml/10 litres of water. Above ETL level spray Cypermethrin 10% EC @ 10 ml or lambda cyhalothrin 5% EC @ 10 ml/10 litres of water.
- Prevailing weather condition is favorable for thrip incidence in cotton. It is advised to spray any one of the insecticides (500 l spray fluid /ha), Imidacloprid 200 SL @ 100 ml or Methyl demeton 25 EC 500ml/ha or Dimethoate 30 EC 500 ml/ha or NSKE 5% @ 2 kg/ha.
- In cotton crop areas where jassid and white fly infestation has crossed ETL, apply Imidachloprid 17.8 SL @ 3 ml/10 litre or Thiamethoxam 25 WG @ 2g/ 10 litre or Acetamiprid 20 SP @ 3g/10 litres of water.
- For management of fungal disease on bolls of cotton crop take a spray of Carbendazim (50% WP) @ 1 gm or Pyraclostrobin (20 % WG) @ 1 gm per liter of water during clear weather condition
- In cotton, foliar spray of 2% DAP (200 g DAP +10 litre water) mixed with 4 ml Planofix at boll development stage is advisable to reduce boll shedding and improve boll growth.

Livestock

- Night temperature has started falling/ will fall in the district; farmers should make proper arrangements to protect their milch animals and their young ones from morning/evening cold by covering them with gunny bags during night and ample exposure to sunlight during day time to avoid pneumonia.
- Suggested to go for routine vaccination for livestock against the dreaded virus like tarka, khura and PPR.
- The floor and dairy shed should be cleaned with suitable antiseptic solution and maintain a proper sanitation.

- Keep animal shed clean and de-worm domestic animals. For Foot and Mouth disease, wash the wound with potassium permanganate solution.

Poultry

- Suggested to go for routine vaccination for poultry against the dreaded diseases /virus Vaccination (RDF1) of the one week old chicks against Raniket disease, darkplague and against Gamboro disease in two weeks old chicks may be carried out after consultation with local veterinarian.
- Clean poultry shed twice in a week.
- Prevent the chicks from chilled wind directly by use of gunny bag or plastic curtains hanging in the side walls
- Arrange light from Bulb 1-2 hours after evening and not to cover the cage by polythene. It favours more production of eggs and reduce the chance of incidences of diseases.

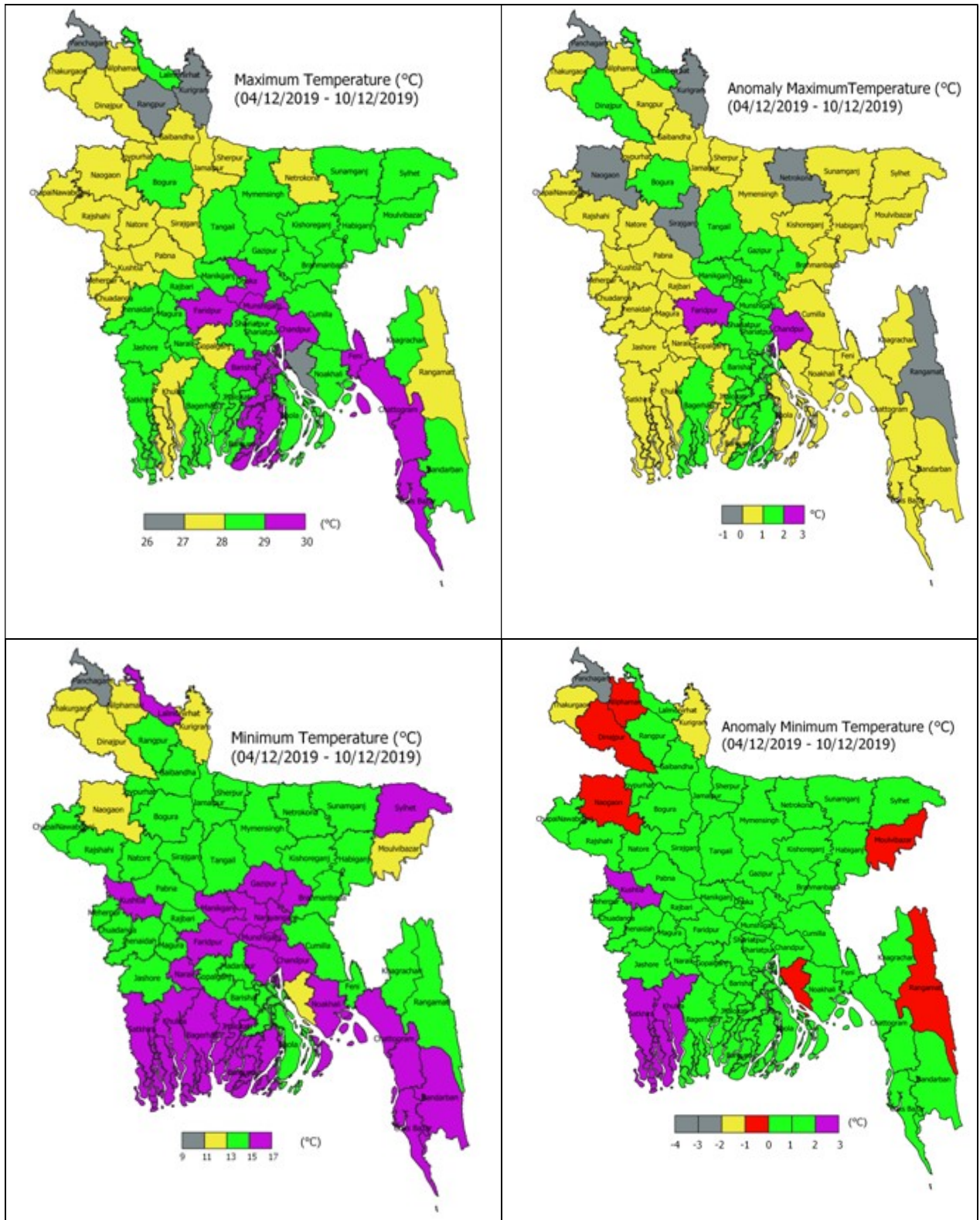
Fishery

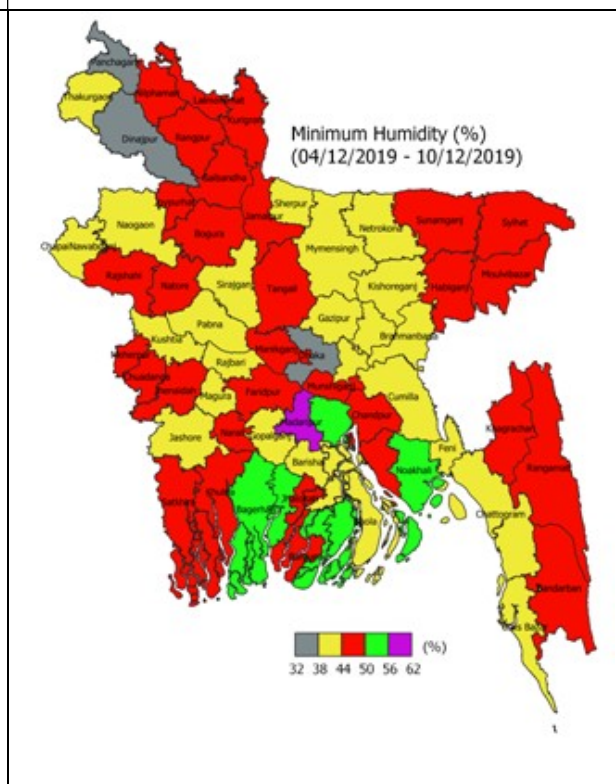
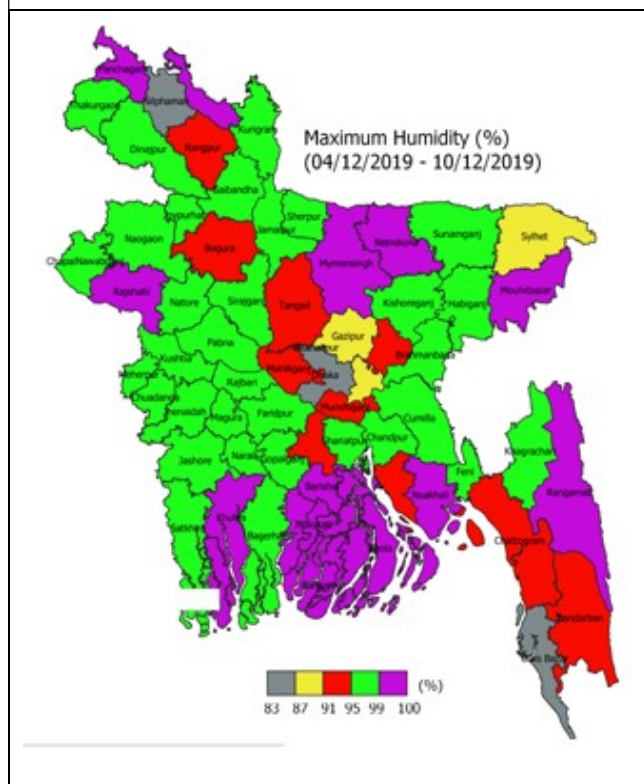
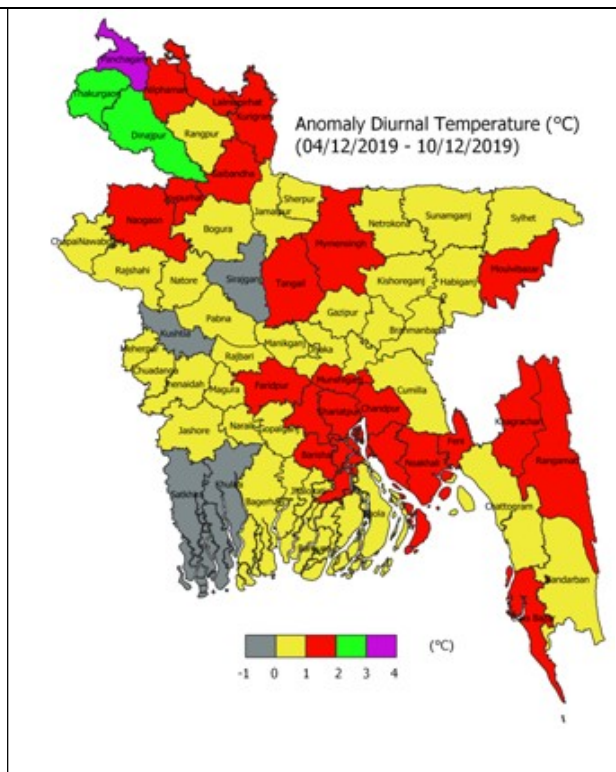
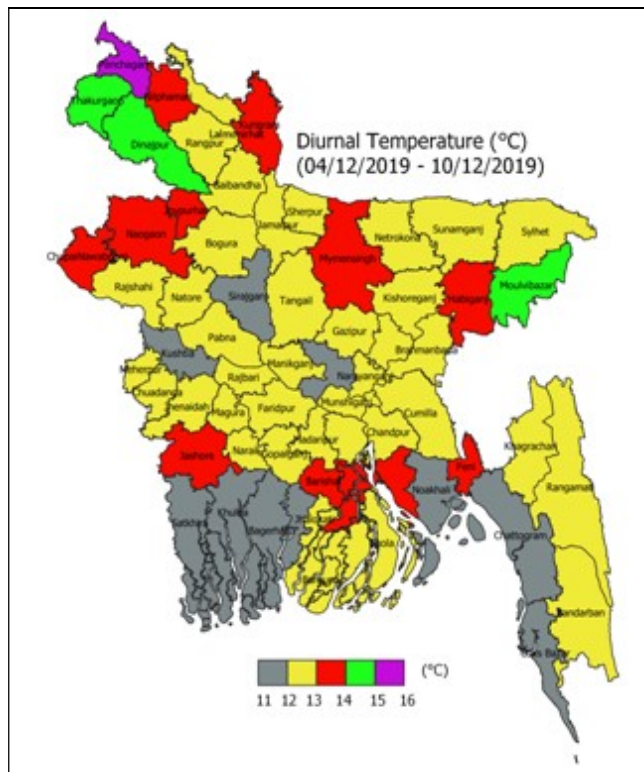
Protect the fish population against various bacterial diseases prevalent in winter season; apply Potash @ 4-5 mg/litre of water or Sukrena WS @ 1 litre per bigha of water.

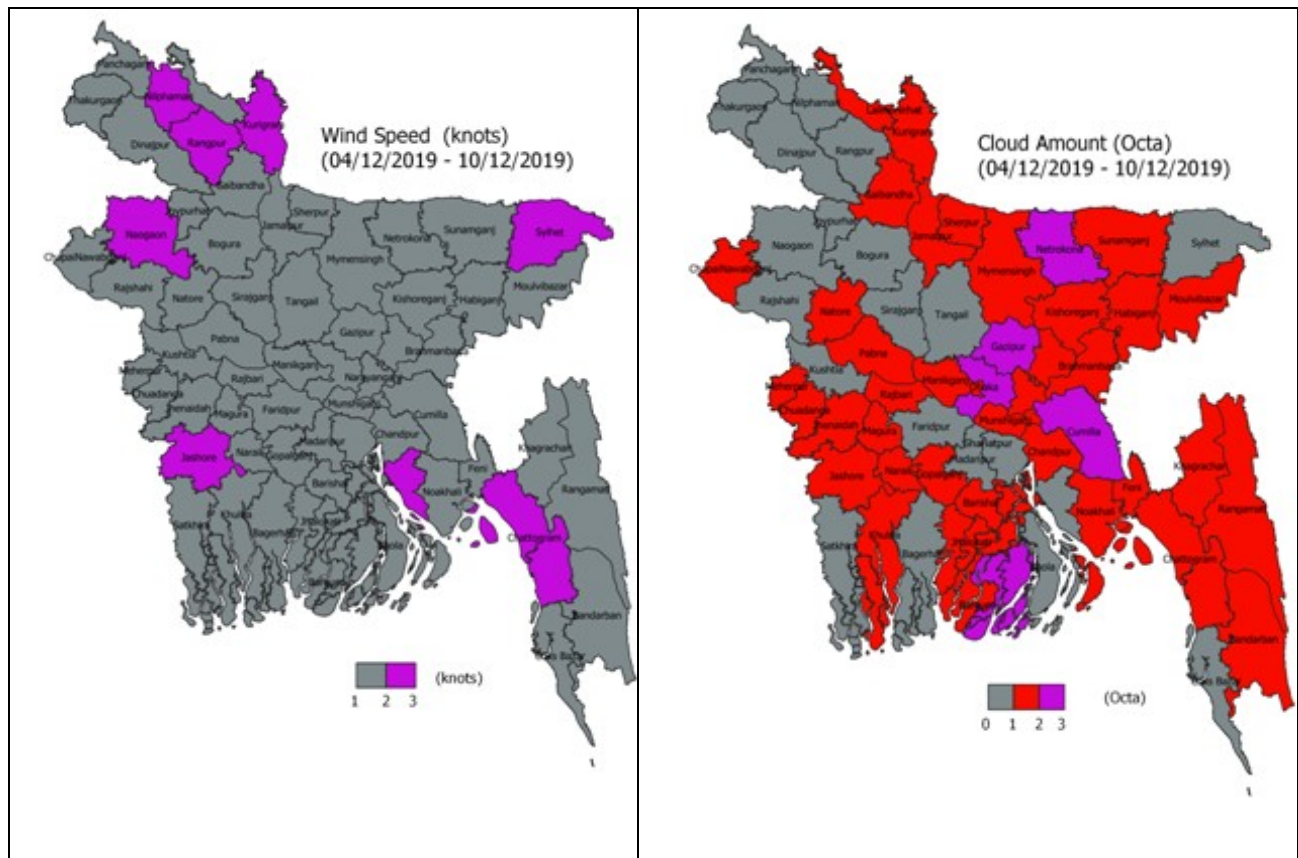
During winter months, fish are under stress and may show symptoms like erratic swimming 11 behaviour, not eating, gasping at the surface and others including mortalities. If such symptoms are observed, immediately stop feeding, liming and manuring. Consult an expert for remedial measures.

Keep pisciculture farm ponds clean. During winter, reduce the amount of food for fishes and provide feed between 2-3PM.

Spatial Distribution of weather parameters for the Week ending 10 December 2019







Weather Forecast and Advisory for the Period of 08.12.2019 to 14.12.2019

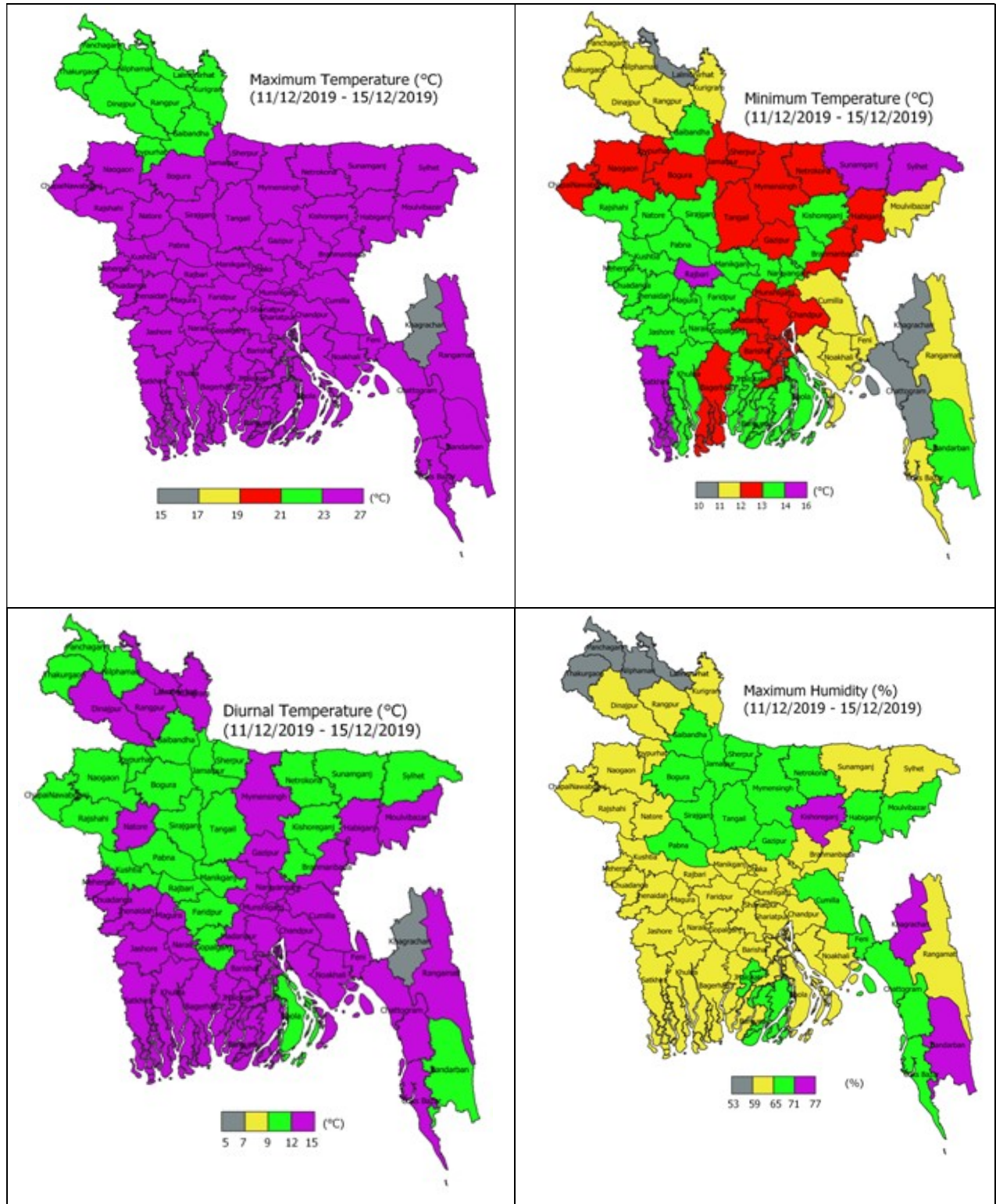
Bright sunshine hour is likely to be from 6.25 to 7.25 hours per day during this week. Average free water loss is likely to be from 2.25 to 3.25 mm per day during this week.

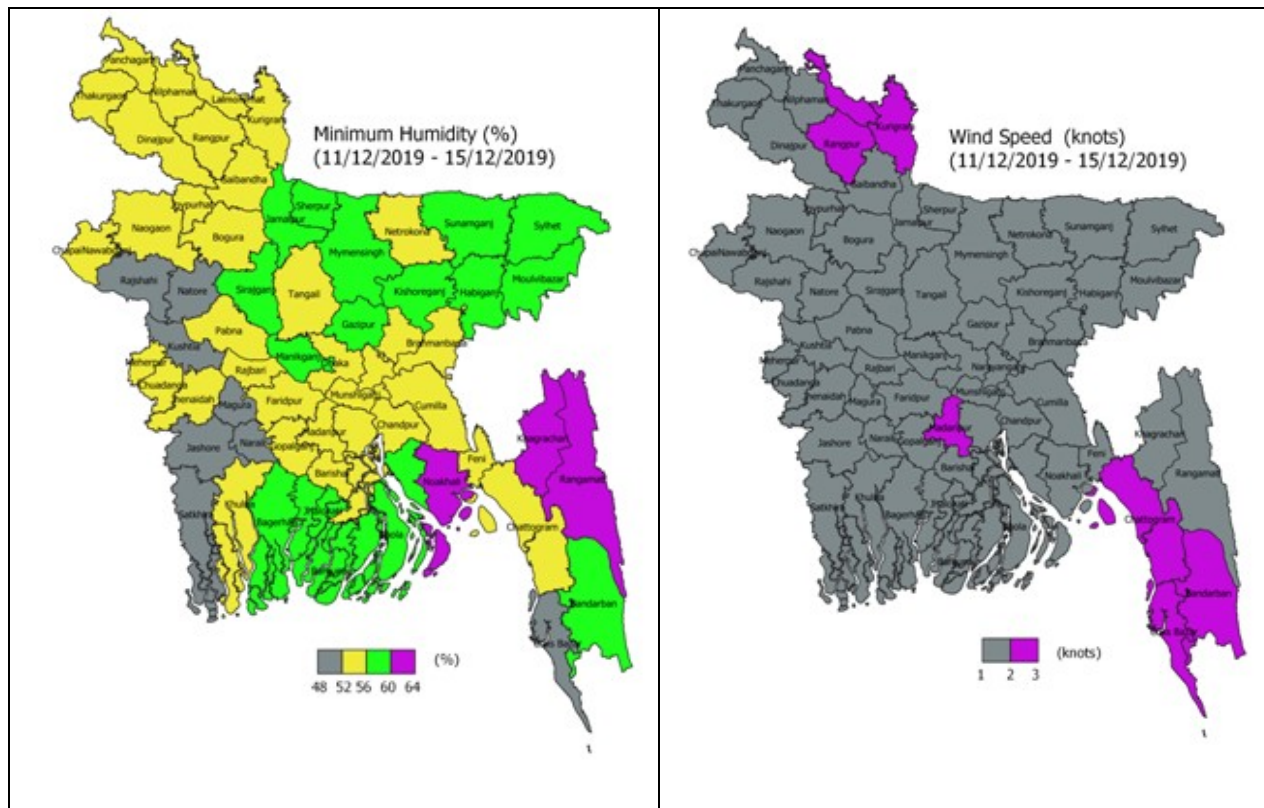
Light rain (04-10mm) may occur at one or two places over khulna and Barishal divisions and weather may remain dry with temporary partly cloudy sky elsewhere over the country during this period.

Light to modatate fog may occur at places over the country during late night to morning.

Slight fall in night temperature is expected over the country during this period.

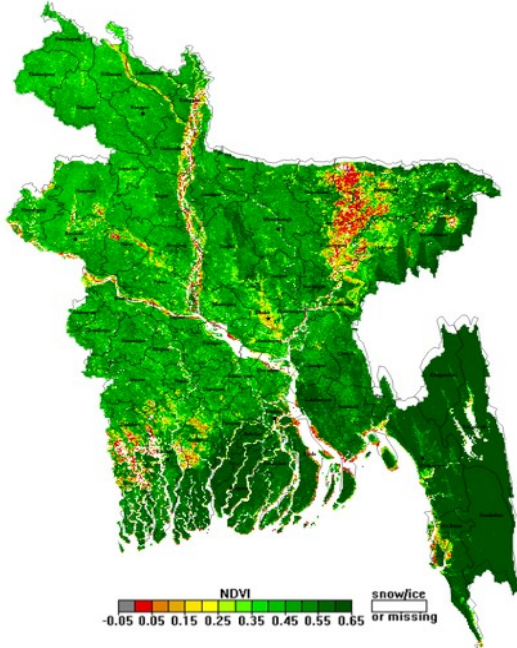
District Wise Quantitative Weather Forecast for next Five days from 11 Dec. -14 December'19



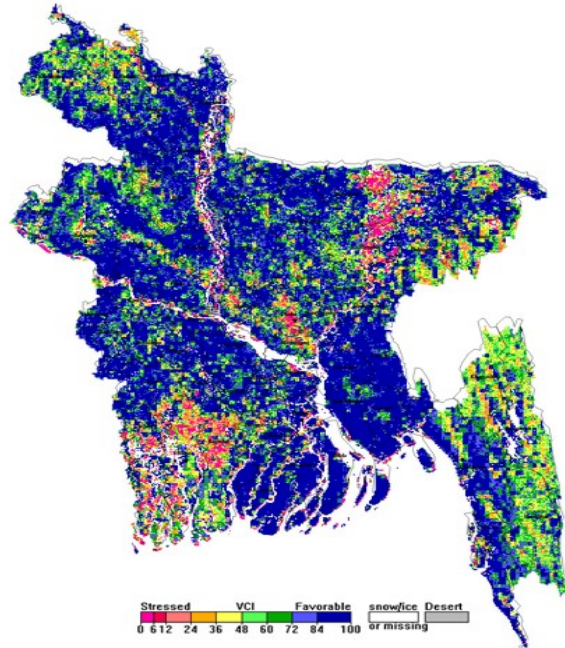


Different Satellite Products over Bangladesh

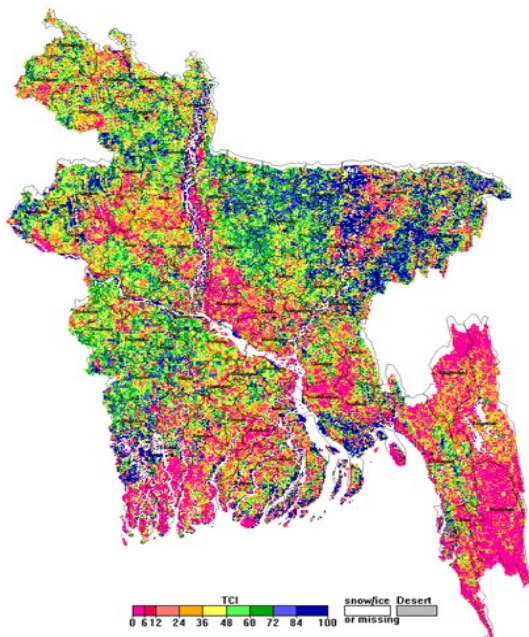
NOAA/VIIRS BLENDED NDVI composite for the week No. 48 (26 November-02 December) over Agricultural regions of Bangladesh



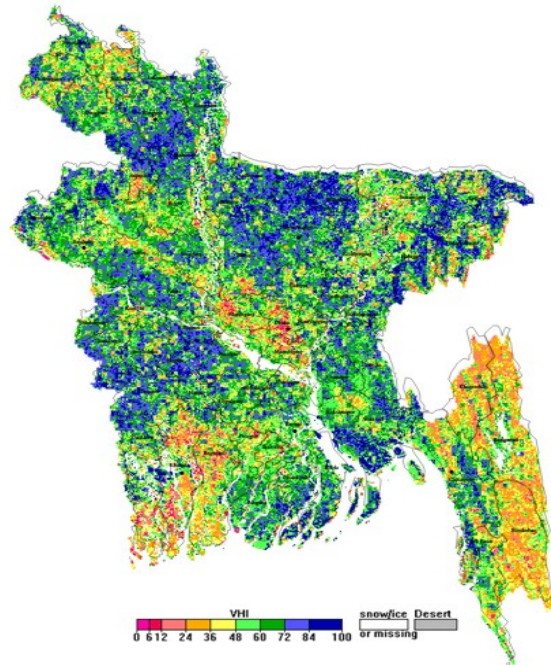
NOAA/ AVHRR BLENDED VCI composite for the week No. 48 (26 November-02 December) over Agricultural regions of Bangladesh



NOAA/ AVHRR BLENDED TCI composite for the week No. 48 (26 November-02 December) over Agricultural regions of Bangladesh

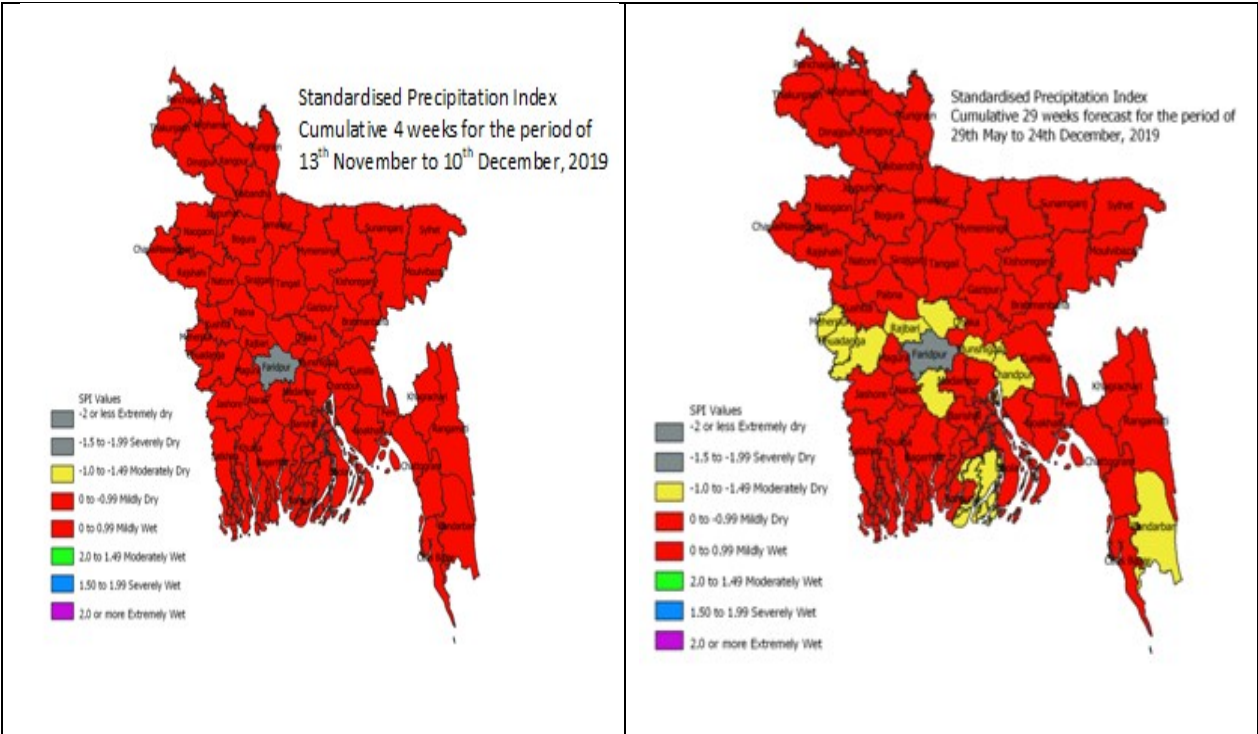


NOAA/ AVHRR BLENDED VHI composite for the week No. 48 (26 November-02 December) over Agricultural regions of Bangladesh



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

It has been observed that during last four weeks as well as in December mild wet conditions prevails in whole Bangladesh except Faridpur and severe dry condition prevails in Faridpur district of Bangladesh.



Data source: Bangladesh Meteorological Department