

Contingent advisory to the district KVKs to be observed during the post flood situation in the North Eastern Region

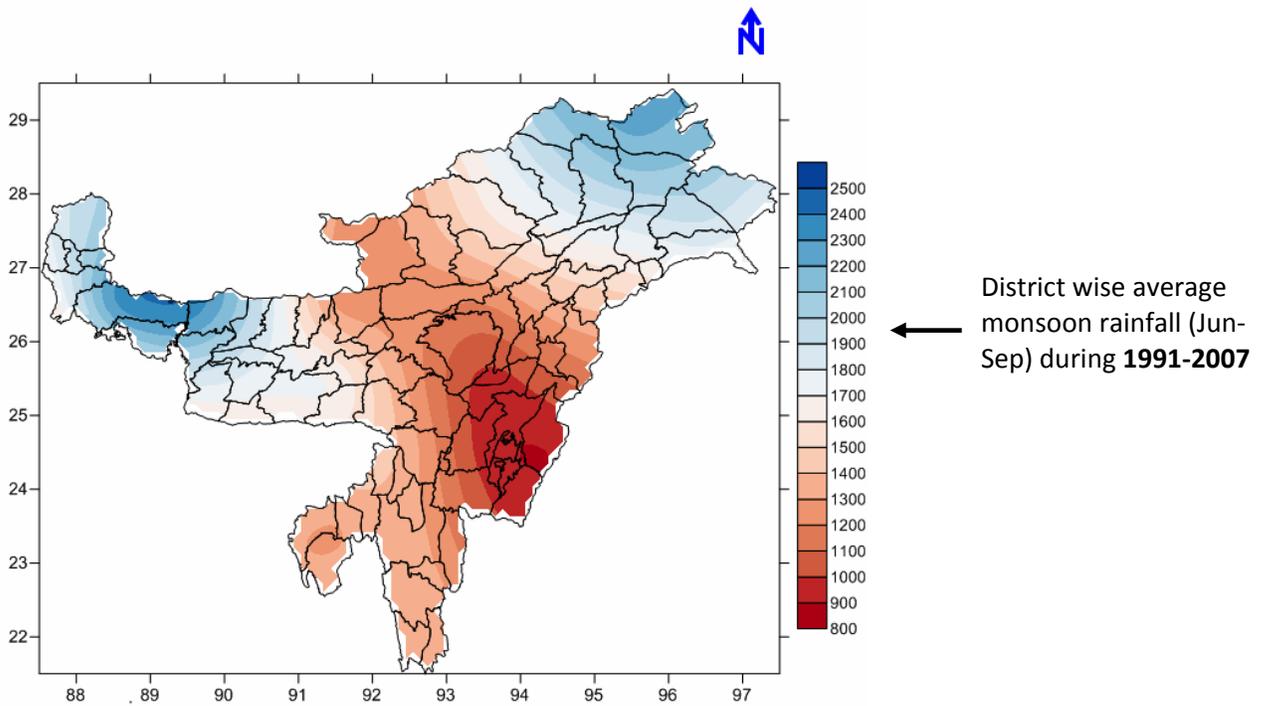
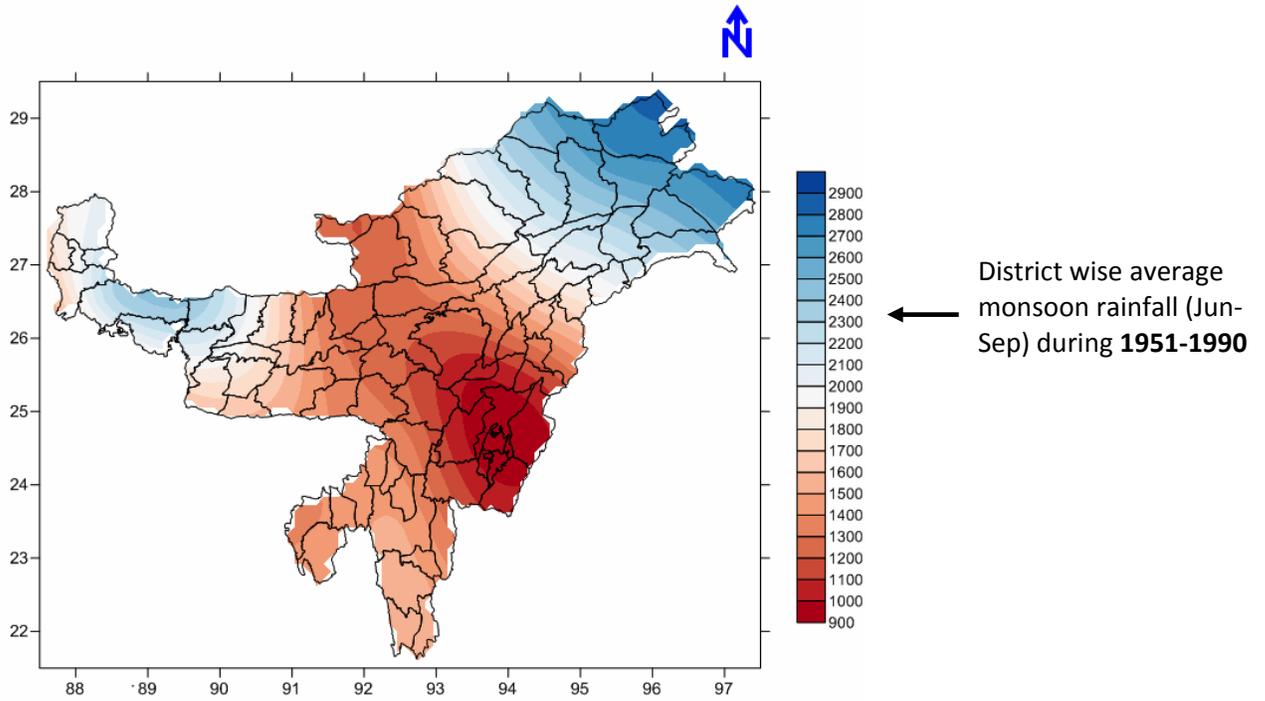
The causes of extreme weather (floods/droughts) in the North Eastern region

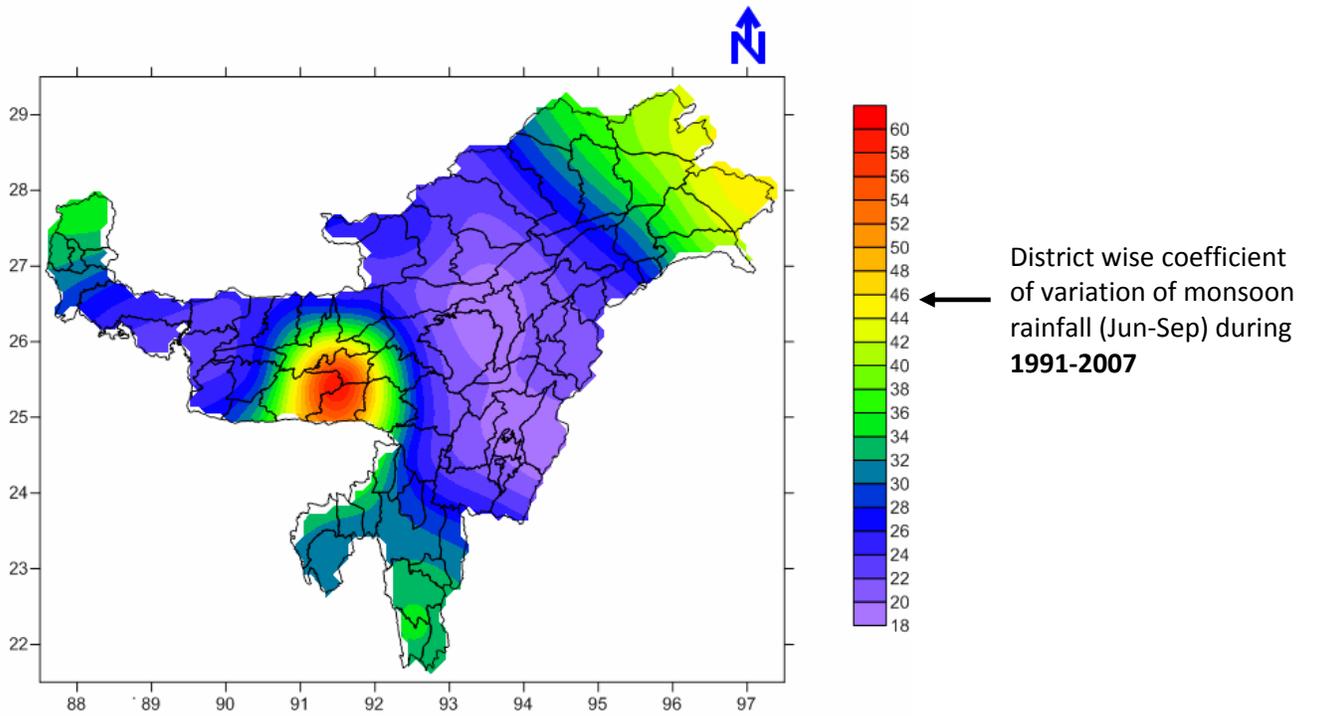
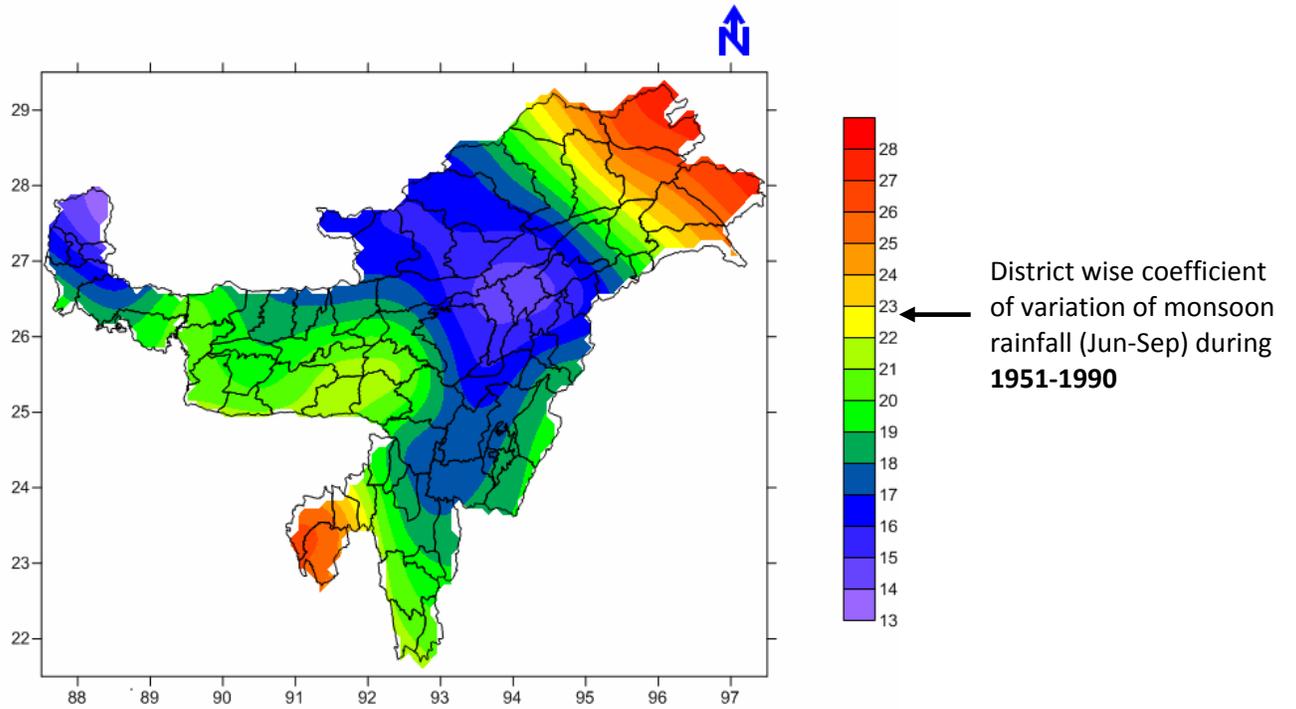
The NE region is entirely rainfed and agriculture/farm activities are highly dependent on the mercy of rainfall received mainly during the monsoon season, spreading from the months of June to September. The situation is same irrespective of the kind of terrain. The contribution of rainfall was about 65-70% during the monsoon season till late 80's. The region used to get sufficient amount of rainfall during post monsoon (Oct-Nov) under the influence of north east monsoon winds; during winter (Dec-Feb) due to invasion of western disturbances and during summer (Mar-May) due to heavy localized low pressure systems. Apart from that, the low pressure systems/cyclones developed over the Bay of Bengal used to bring lot of moisture to this region enabling the farmers to grow crops to various extents.

But, starting from the last decade of 20th century the year to year rainfall variability has increased to a great extent in the North Eastern region, which is attributed to the impact of global climate change by many noted researchers. Further, irrational destruction of forests and hills, increasing pressure of human settlements, industrialization etc. started exerting lot of pressure on the sensitive ecological/environmental system of the region locally and that has contributed significantly to acceleration of weather abnormalities. The region has started experiencing dry winter in almost every year. The extreme weather like long dry spell or torrential rainfall leading to flash flood has become a normal feature of this region. As degree of temperature is inversely related to cloud cover or rainfall, the region has started experiencing unbearable temperature during most of the year, even the winter is also not as cool as it was earlier.

From our own analysis of long term rainfall data (data source: IMD), it has been found that during the monsoon months (Jun-Sep) the region is receiving considerably less rainfall in post 1990 period compared to 1951-1990. This reduction is applicable irrespective of location in the North Eastern region. Similarly, the co-efficient of variation (CV) of rainfall, which is measure of variability of rainfall amount and distribution, has increased considerably during the same period. High CV indicates high vulnerability to extreme weather conditions. The indications are not optimistic as far as rainfed agriculture is concerned and the result of same has been experiencing by people of the region.

Hence, to make aware of our KVK staff about the general rainfall behaviour of their respective districts, we have brought forward our analysis in the form of GIS-maps with districts overlapped on it. The information is believed to be of immense use to formulate medium and long term strategies with respect to crop production, natural resource management, livestock and other secondary agricultural practices for the district of their jurisdiction.





Contingent advisories issued to the KVKs to be observed during post flood situation (the advisories must be percolated down to the farmers)

A. Crop Production

1. Go for raising community nurseries of late transplanted cultivars
2. promote cultivation of submergence/flood tolerant rice varieties
3. Promote adoption of staggered planting of long duration rice cultivars in the flood prone areas
4. Direct seeding of sprouted seeds of short duration rice cultivars may be done
5. Go for sowing of kharif pulses where rice cultivation is no more possible during this season
6. Plan for early sowing of rabi vegetables/oil seed crops utilizing residual soil moisture
7. Promote effective nutrient application techniques based on soil test values
8. Keep a check on crop pest and diseases and advise suitable management options
9. Intercultural operations with readily available tools and implements to minimize weed problem should be advised to reduce further reduction in economic yield
10. Facilitate with information on availability of seeds/fertilizers/chemicals in the market or from other sources

B. Natural resource management

1. Drainage systems should be repaired to drain out excess water under post flood situation
2. Promote raised and sunken bed techniques
3. Promote tillage management techniques and tools for better establishment of the crop
4. Ask farmers for repairing of bore well and pump sets for timely utilization of ground/surface water

C. Livestock/fishery

1. Proper removal and destruction of dead animal bodies to prevent spread of human and animal diseases
2. Advise handy methods to clean water for drinking purposes of human and animals
3. Cleaning of ponds and repairing of bunds and other structures
4. Advocate proper vaccination schedules to livestock
5. Keep a check on out break of disease epidemic and aware the farmers through awareness campaigns
6. Intimate superior authorities in the time of exigencies
7. Information on availability of animal/fish feeds in the district is to be intimated to the farmers.

Besides, the KVKs may take up measures based on the 'district contingency plan' as well as what ever they find suitable at this moment. But keep record of all of your activities.

Further, do proper assessment of damage to crop, livestock and crop area in your respective district and same may be reported back to the ZPD at the earliest.