Background

The state of Bihar, due to its geographical and topographical situation, is highly prone to several natural and man-made hazards. Flood, Earthquake, drought, fire incidents, cyclone, and boat accidents are few major hazards among all, which make Bihar one of the most vulnerable states of the country.

- 73% of its land area and 74% of population are vulnerable to recurrent flood.
- 30 districts are in most sensitive seismic zone V and IV.
- Scantly Rainfall once in 3-4 years. Precipitation in rainy season is not so consistent, hence once in every 3-4 years 17 southern districts of Bihar have to face drought like situation.
- Whole of Bihar is susceptible to Cyclone, hailstorm, fire and boat accidents.





Name of 15 most flood prone districts:

Darbhanga, E.Champaran, Katihar, Khagaria, Madhepura, Supaul, Madhubani, Samastipur, Shivhar, Vaishali, Saharsa, Sitamarhi, Begusarai, Bhagalpur, Muzaffarpur.

Name of 13 flood prone districts:

Saran, Nalanda, Purnea, W.Champaran, Patna, Siwan, Gopalganj, Buxar, Araria, Shekhpura, Kisanganj, Bhojpur, Lakhisarai Any rainfall occurring in Tibet and Nepal, during Monsoon Season, affects the flow in the river system of north Bihar. However if there is absence of rainfall at the proper time either defers from commencement of agriculture operation or affect the yield of crops. Precisely, State agriculture development lies at the mercy of the proper monsoon rainfall. Similarly in summer season fire accidents are serious problem in slums and rural areas. This is mostly because of peculiars housing pattern adopted in making a rural house – generally it is built of mud walls with country tiles roofs suppressed by timber and bamboo battens and spring up in clusters. Boat Capsizing is another major manmade disaster in Bihar, which occurs mainly due to overloading of country boats.

Drought Prone Districts of Bihar

Kaimur, Rohtas, Aurangabad, Jehanabab, Nawada, Jamui, Banka, Arwal, Gaya, Patna, Nalanda, Mungher, Buxer, Bhojpur, Lukhisarai, Seikhpura and saran **Districts in seismic zone V** - Saharsa, Madhubani, Supaul, Madhepura, Sitamarhi, Darbhanga, Araria and north west part of Kishanganj.

Districts in seismic zone IV-E.Champaran, W.Champaran, Muzaffarpur, Gopalganj, Siwan, Saran, Vaishali, Samastipur, Patna, Nawada, Begusarai, Munger, Purnea, Katihar, Kishanganj, Banka, Jamui, Shekhpura, Nalanda, Lakhisarai

Seismologically, the entire State of Bihar is sitting on a live bomb. The state has a history of moderate to severe earthquakes and its area is covered in seismic zone IV and V with possible magnitude up to 8.4. Increased demographic pressure, deteriorating environmental conditions, poverty, poor living condition, unplanned urbanization in urban areas with narrow lanes and crucial traffic congestion problems, lack of information all these factors are responsible for making cities of Bihar more at risk to EQ tremors. If Patna were the epicenter of an earthquake measuring 6.7 or 6.8, thousands of building would collapse and consequently lakhs of Citizen would loose their lives. An earthquake of magnitude greater than 8 will could destroy house,

building and other structures which are not built with proper design. Structure built on soft ground and slopes may collapse due to elevation, depression, tilting or violent shaking of the ground.

New Pattern (due to Climate change)

From last three - four years, it has been 'disturbing monsoon' in Bihar. Though we cannot directly co-relate the disturbing monsoon with climate change but the impact of climate change is very much visible in monsoon season in Bihar. While IMD forecast for normal rainfall is more or less right for rest of the country, it became totally false for Bihar and Jharkhand this year. Bihar has been observing increased climatic variability over shorter time spans and increased occurrence and intensity of extreme climatic events such as intense heat wave across the area and more intense early precipitation. Current year scenario in Bihar illustrates an interesting case study for identifying linkages between disturb monsoon and climate change.

The Parading shift



In the background of above circumstances, Disaster Management has emerged as a subject of high priority for the State, going beyond the historical focus on relief and rehabilitation after any event. Following the enactment of DM Act 2005, the concept of DM in Bihar, therefore,

has undergone paradigm shift towards prevention, reduction or mitigation, preparedness, quick response, rescue and relief and reconstruction to reduce the negative impact of disasters. Accordingly the goal of DM in Bihar could be said as following:-

- People safety and security giving utmost importance to protect human life against disaster.
- Development of life saving system.
- Improvement of multi layers response combining multiple measures.
- Improvement of people resilience to disaster-
 - ➤ **Self help** improving in idea that everyone should protect life by oneself.
 - ➤ Mutual help Providing people in community protect themselves
 - ➤ **Public Help** The administration protects people.