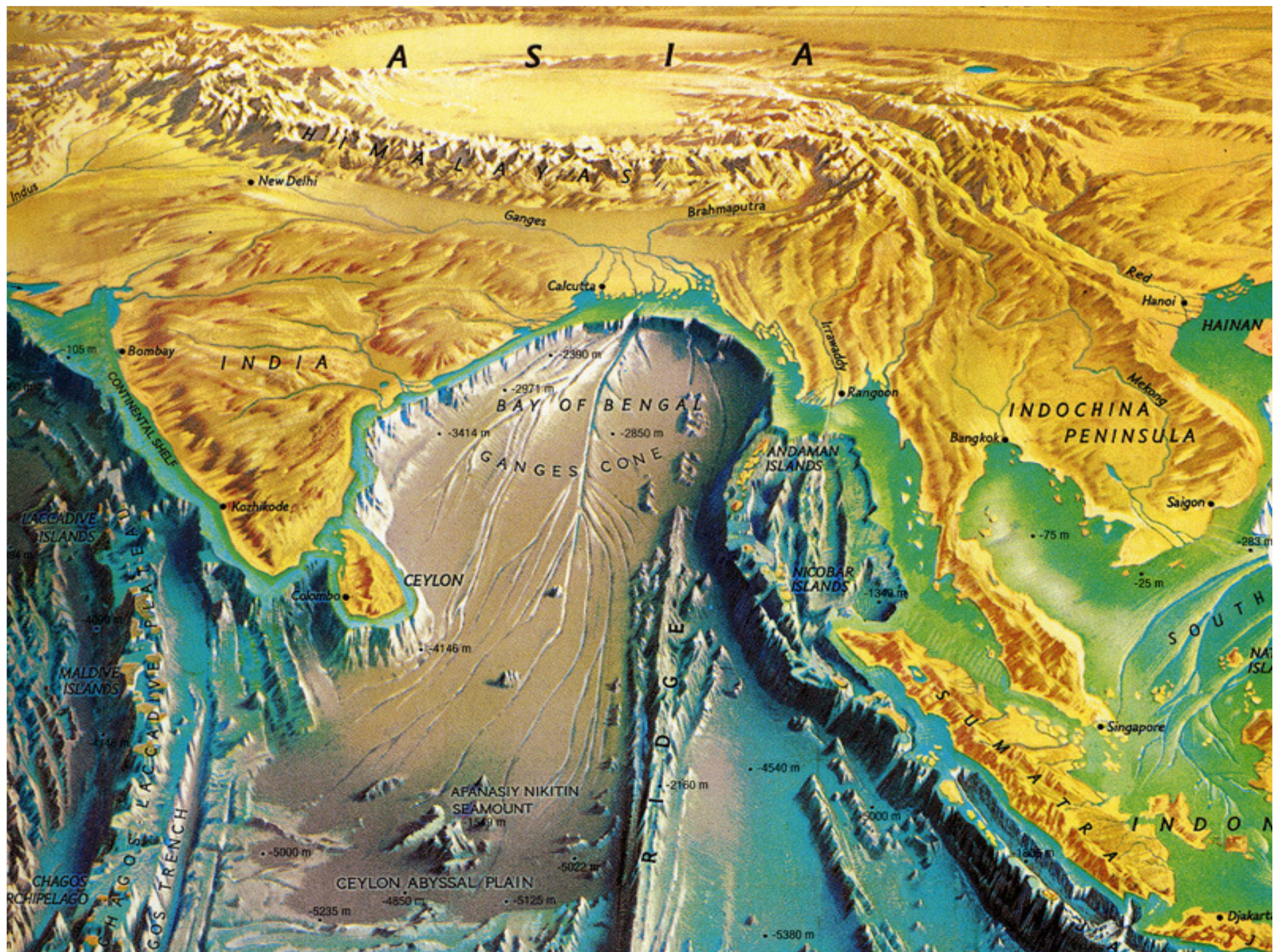
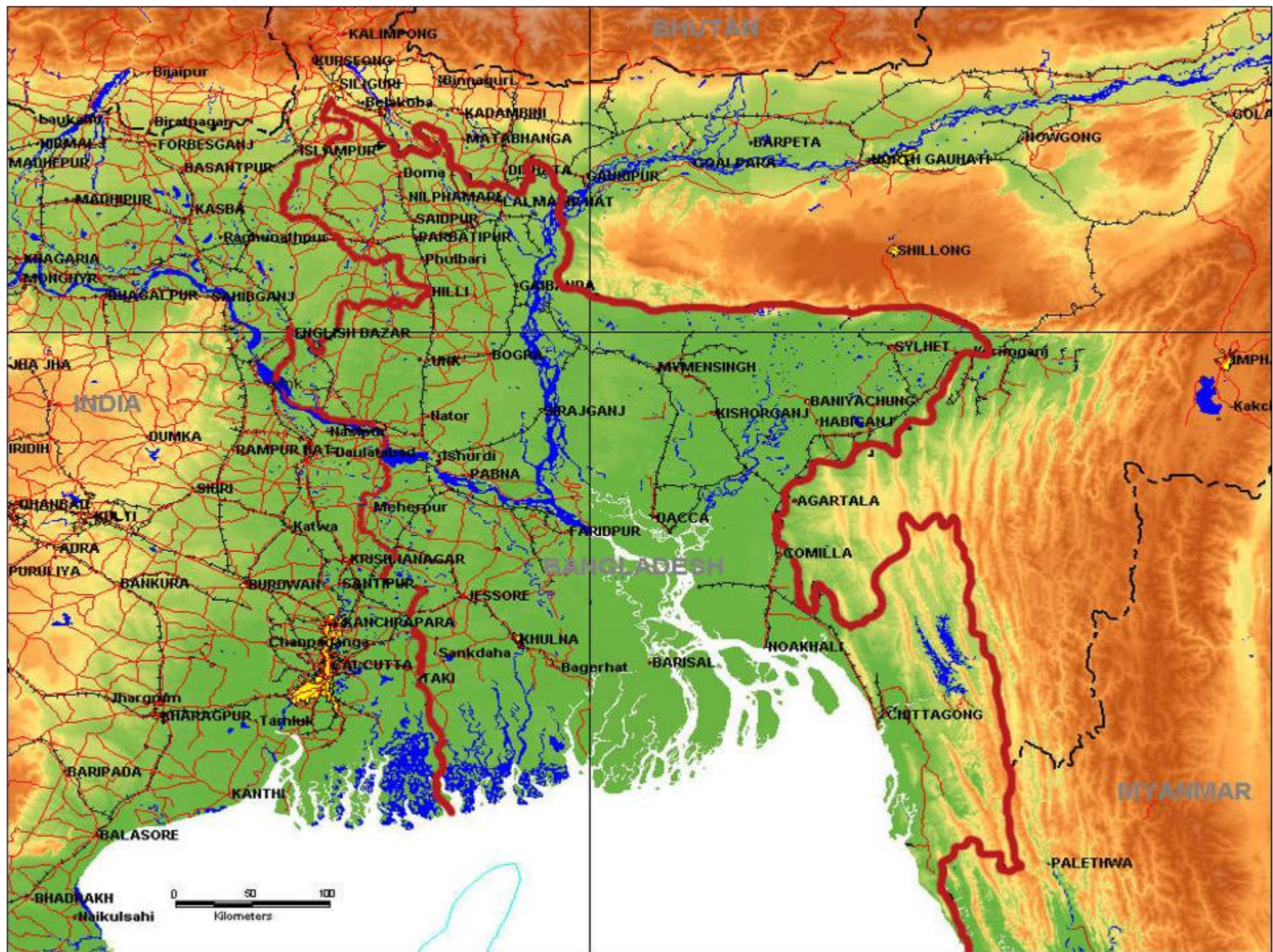




“Use of space based technologies to mitigate sufferings of people in Bangladesh in the event of Disaster due to global climate change and land degradation.”

***SYED NAZMUL HUDA
BANGLADESH***





Introduction

Bangladesh is a highly disaster prone country.

Its geographical location is unique due to the great Himalayan in the north, the mighty Bay of Bengal in the south and the conical configuration of its coastal region.

Due to this geographical location Bangladesh faces Tropical cyclones and associated storm surges, nor'westers, tornadoes, floods, droughts, earthquakes, Tsunami, heavy rainfalls and land slides.

Enormous losses of lives and damages to properties are caused every year due to these natural disasters.

As a result flow of sustainable socio-economic development of Bangladesh are hindered almost every year.

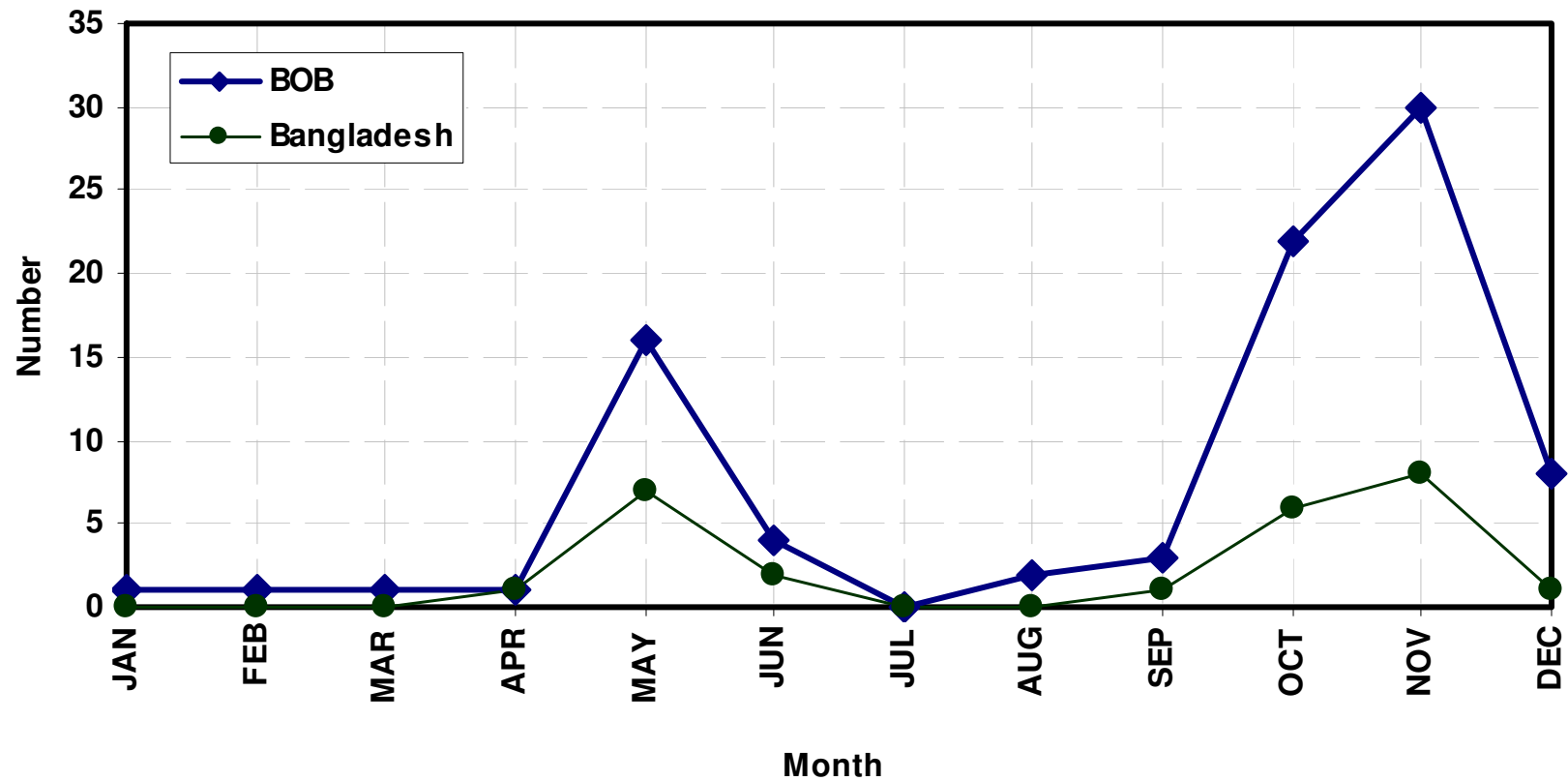
Type of Land Degradation

- Little Degradation
- Medium Degradation
- Extreme Degradation
- Absolute Degradation

Impacts of Global Warming in Bangladesh

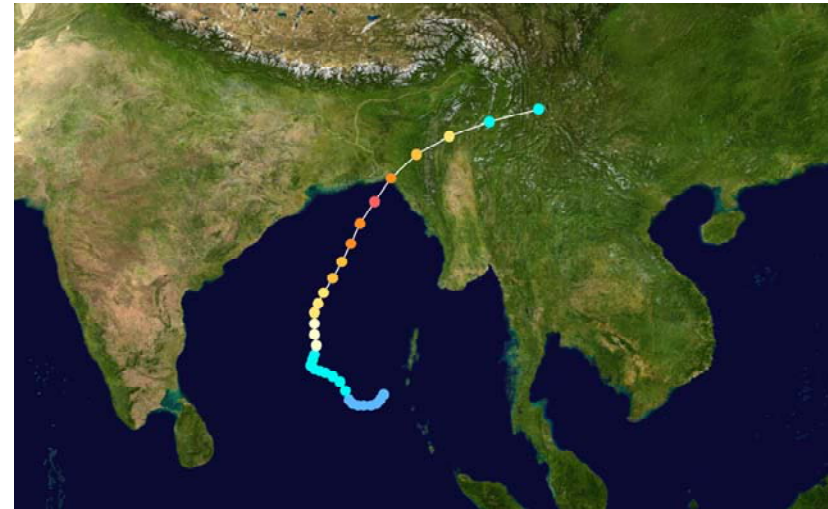
- Climate change
- Rise in sea level
- Changes in pattern of distribution and density of population

Monthly Variation of Tropical Cyclone over Bay of Bengal and Bangladesh during 1974 to 2003





Bhola cyclone Track, 1970



April 29, 1991 Track

Bhola Cyclone, 1970

- **Formed: November 7, 1970**
- **Dissipated: November 13, 1970**
- **Highest Winds (10 min sustained): 185 KPH**
- **Highest winds (1 min sustained): 222 KPH**
- **Lowest Pressure: 966 hPa**
- **Fatalities: 300,000-500,000**
- **Damage: 86.4 Million USD**
- **Affected areas: India & East Pakistan**

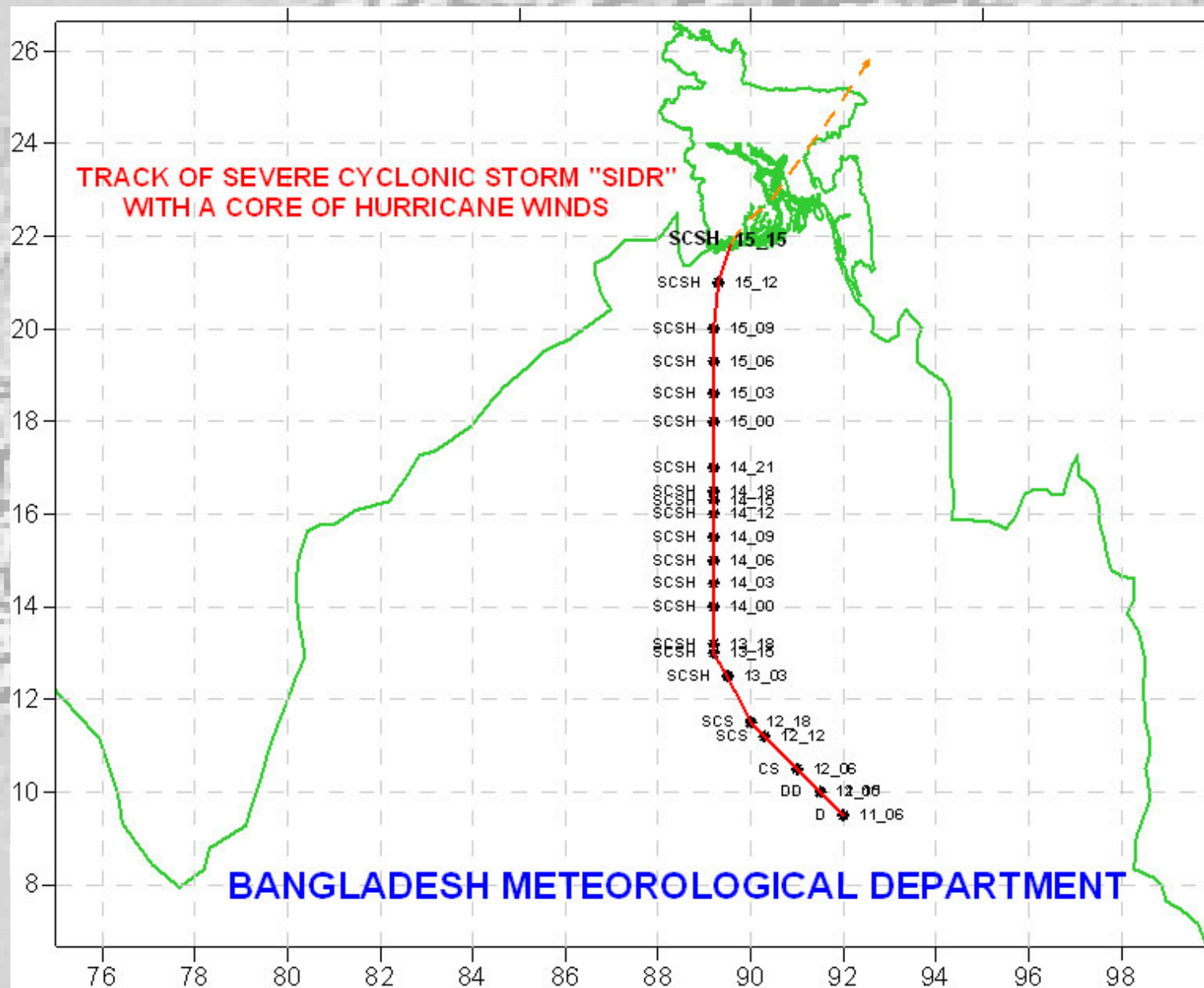
Bangladesh Cyclone, 1991

- **Formed: April 22, 1991**
- **Dissipated: April 30, 1991**
- **Highest winds (1 min sustained): 225 KPH**
- **Lowest Pressure: 898 hPa**
- **Fatalities: 138, 000**
- **Damage: 1.5 billion USD**
- **Affected areas: Bangladesh**

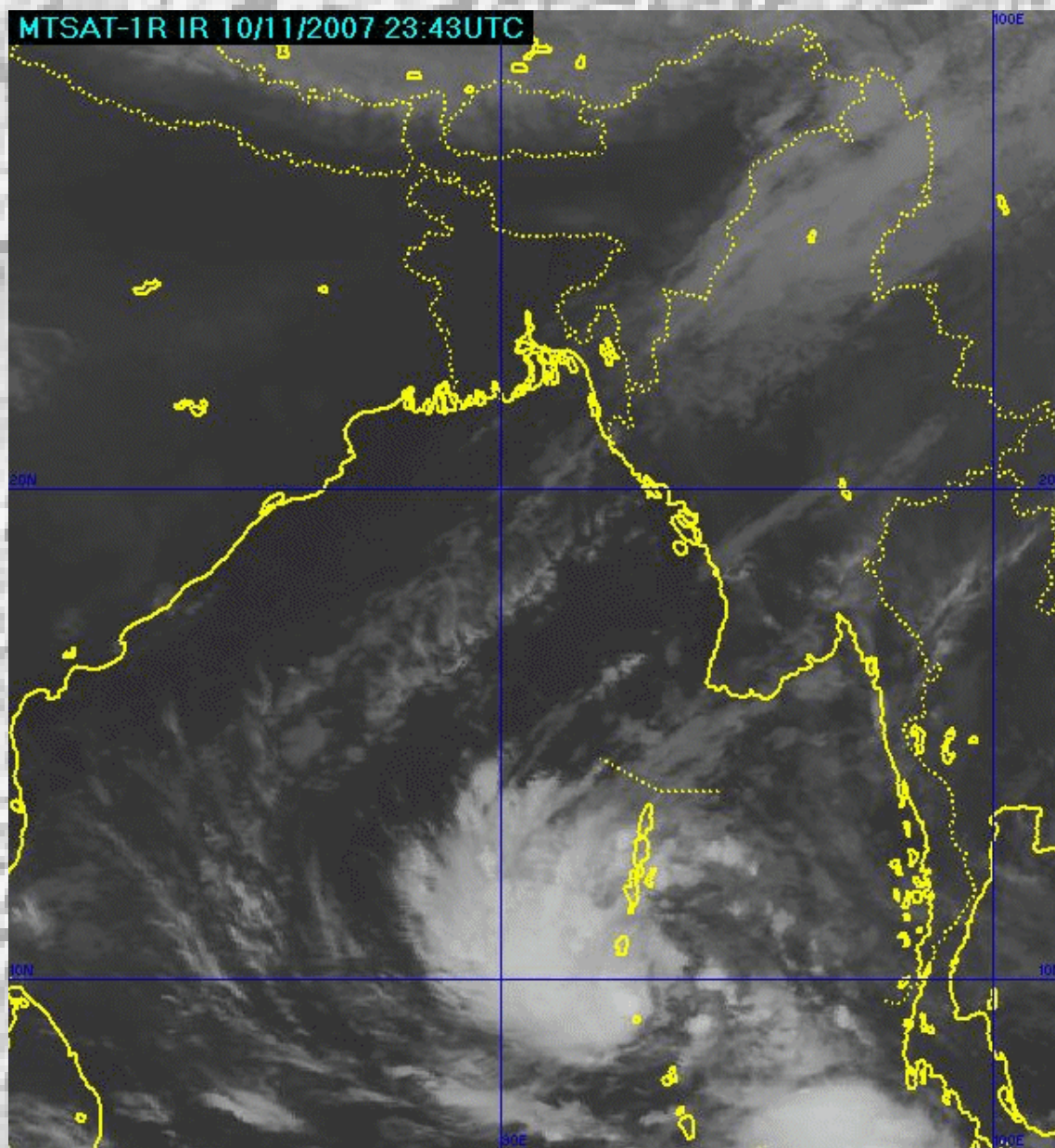


SIDR (15 Nov 2008)

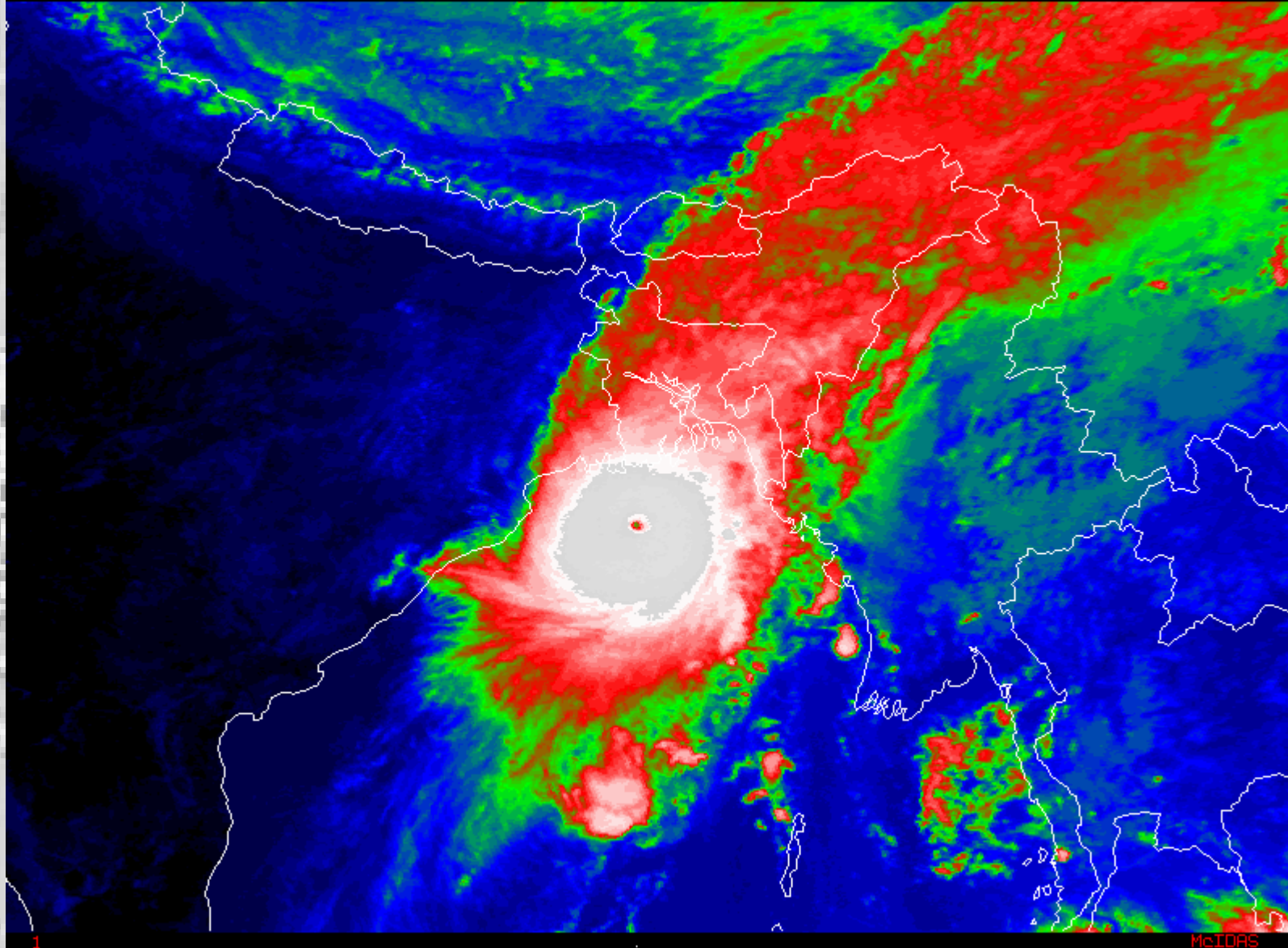
**A Devastating Severe Cyclonic Storm
with a core of Hurricane Winds**



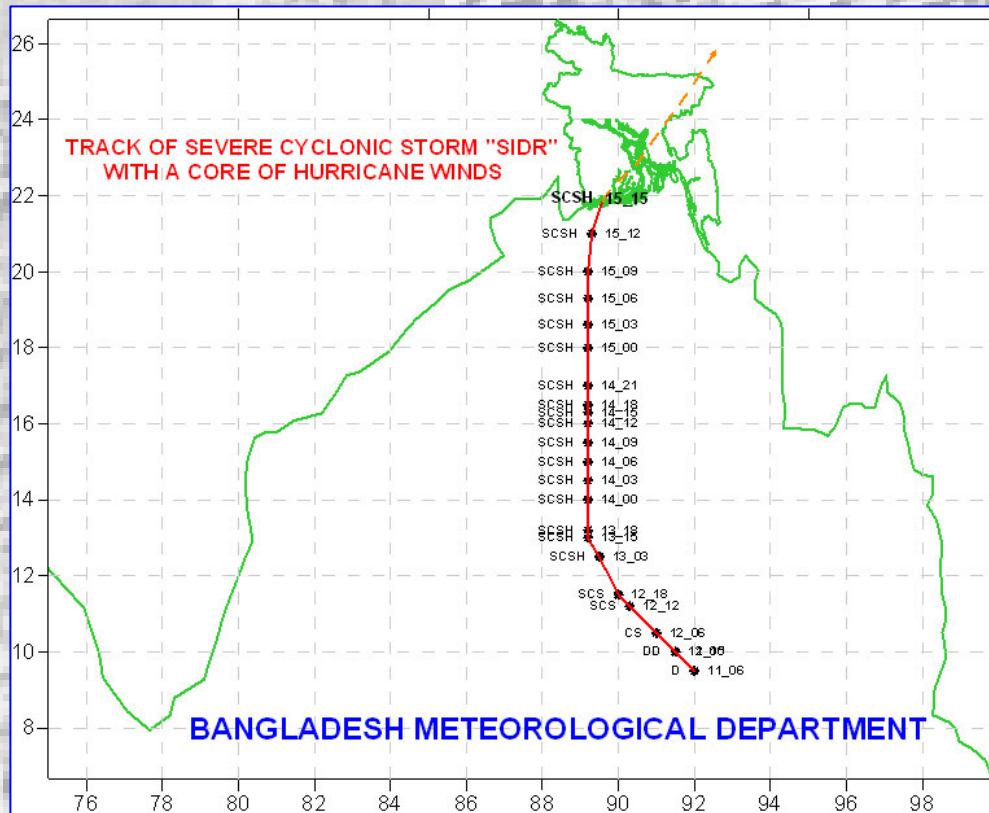
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Causalities in Cyclone SIDR in Bangladesh



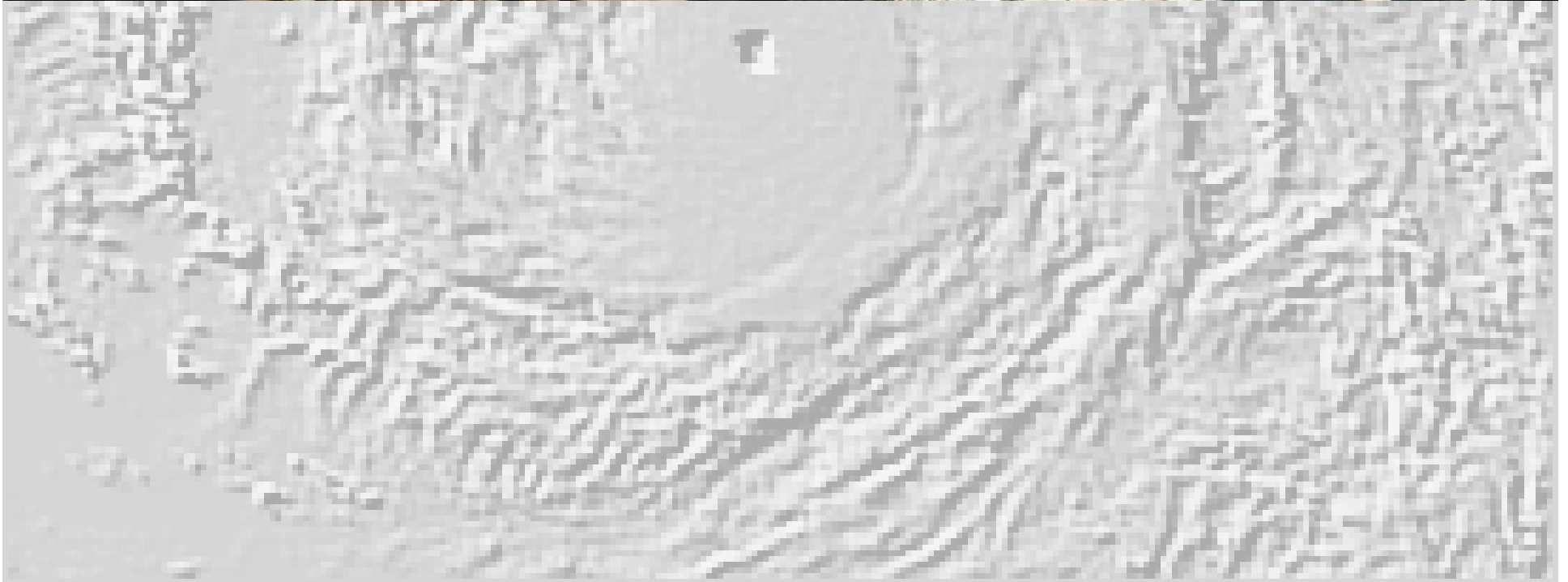
1	Total Death	3,406
2	People missed	871
3	Family affected	1,928,265
4	People affected	8,545,470
5	Houses damaged	1,449,157
6	Crop damaged	2,077,226
7	Trees destroyed	4,065,316



RFP









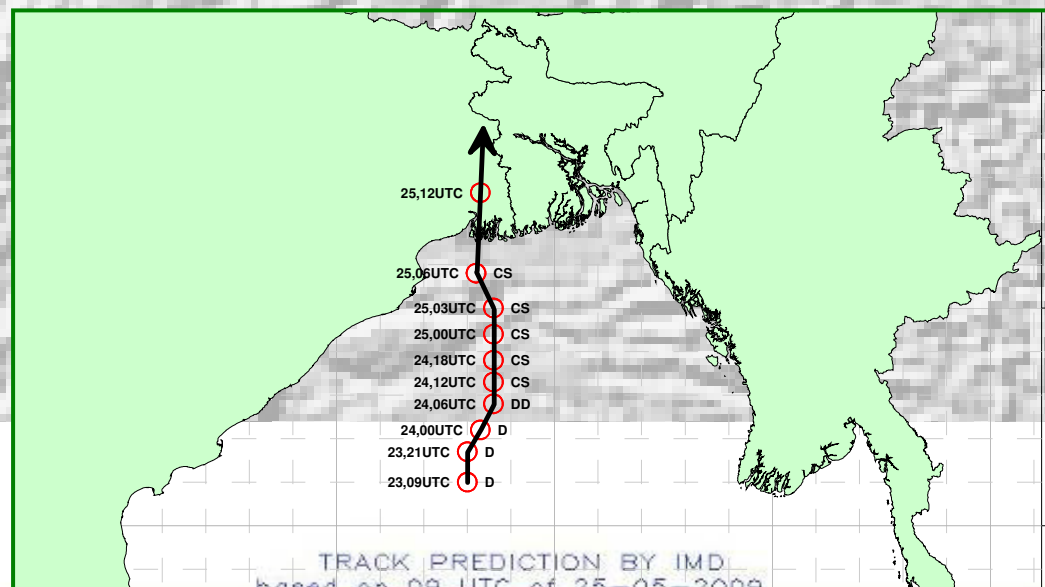
Rescuers employed the strength of an elephant to help remove a stranded bus and a toppled tree in efforts to clear a road in Barisal, Bangladesh yesterday. Tropical Cyclone SIDR slammed into Bangladesh's coast leveling homes and forcing the evacuation of 650,000 villagers before heading inland, officials said. (Pavel Rahman/Associated Press)



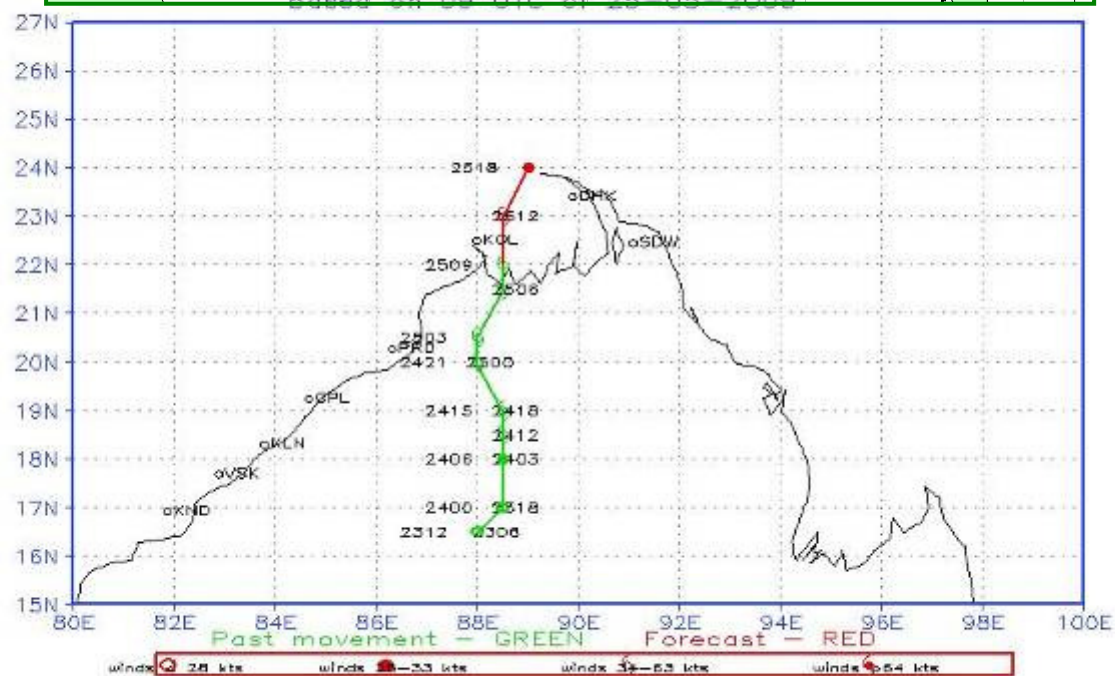
AILA (25 May 2009)

**A Devastating Severe Cyclonic Storm
with a core of Hurricane Winds took
life of 190 people**

Observed Track of Cyclonic Storm “AILA”_BMD



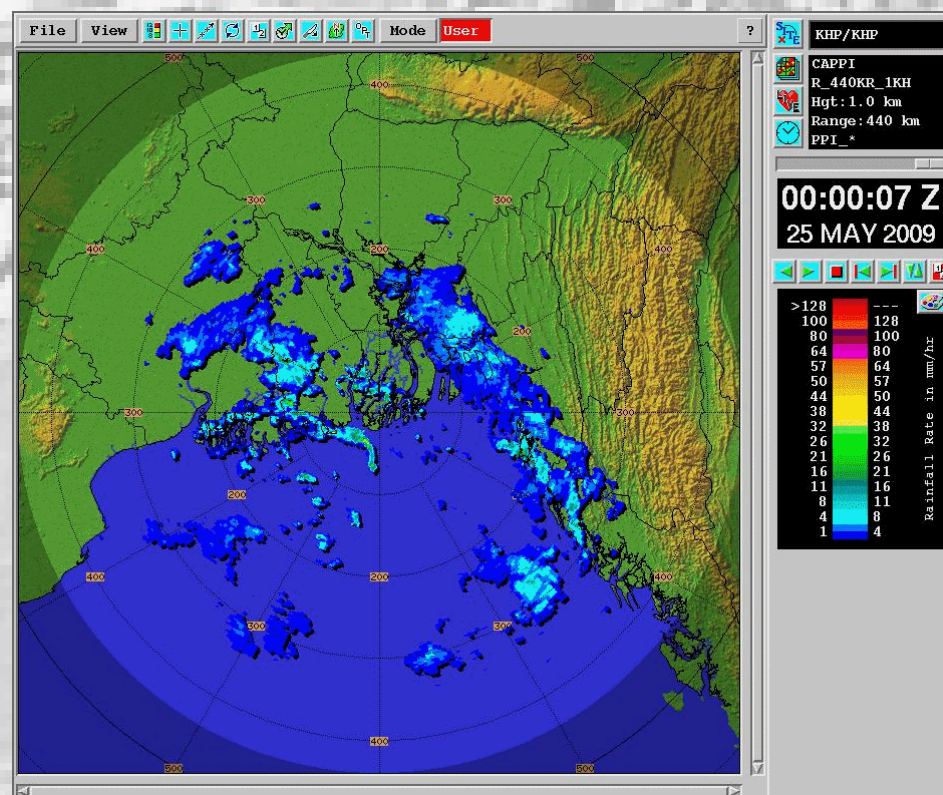
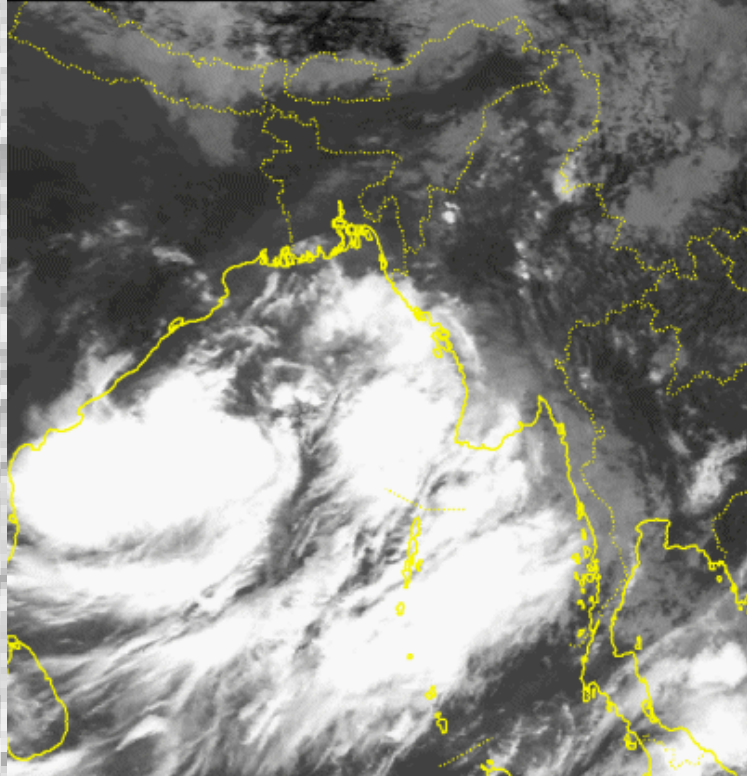
Observed Track of Cyclonic Storm “AILA”_IMD



Recorded wind speed in different observatories of BMD during the passage of Cyclone 'Aila'

Station	Date	Time (UTC)	Wind Speed (km/hr) & Direction	Storm Surge Ht.
Khepupara	25-05-09	0425	92 kph , SE'ly	
Khulna	25-05-09	0730-0930	74 Kph, E'ly	
Kutubdia	25-05-09	1110	46-56 Kph , SE'ly	
Barisal	25-05-09	0730	60 Kph, E'ly	
Patuakhali	25-05-09	0600-0900	46-56 Kms ,	
Chittagong	25-05-09	1015	62 Kph , S/SE'ly	
Cox's Bazar	26-05-09	2045	43 Kph , S/SE'ly	
Hatiya	25-05-09	1300-1330	59 Kph , S/SE'ly	
M. Court	25-05-09	0900	37 Kph, E'ly	
Rangpur	25-05-09		65 Kph, E/SE'ly	
Sayedpur	25-05-09	1710-1718	65 Kph,	

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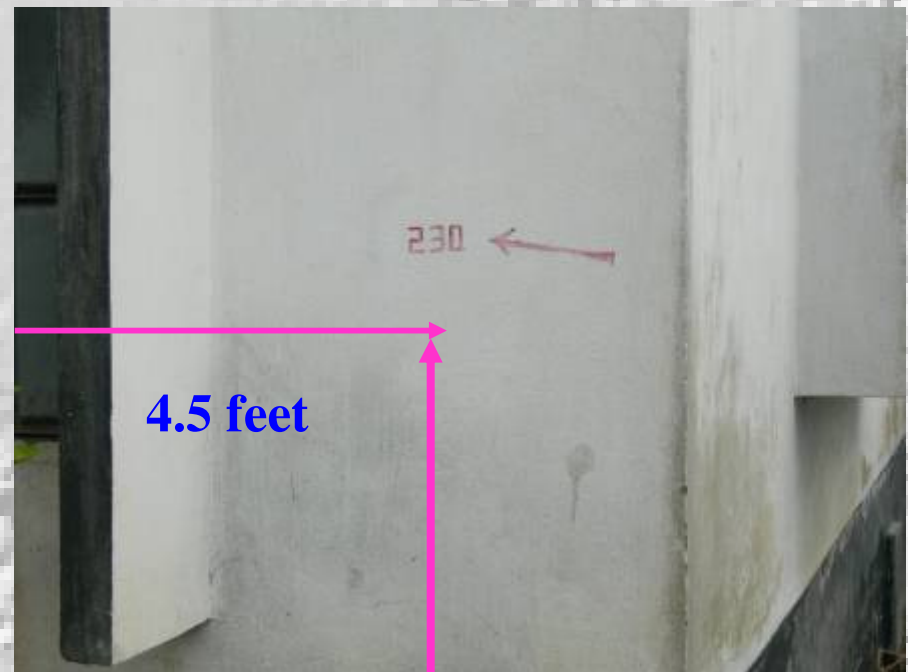












Conclusion

- Bangladesh is trying its level best to cope up with the natural disaster with the limited space based technology and resources
- The developed countries that are causing the global warming should extend their hand and provide fund so that Bangladesh can combat natural disaster by developing its space based technologies that would mitigate the sufferings of the poor people after disaster.



Thanks for your time, patience and co-operation