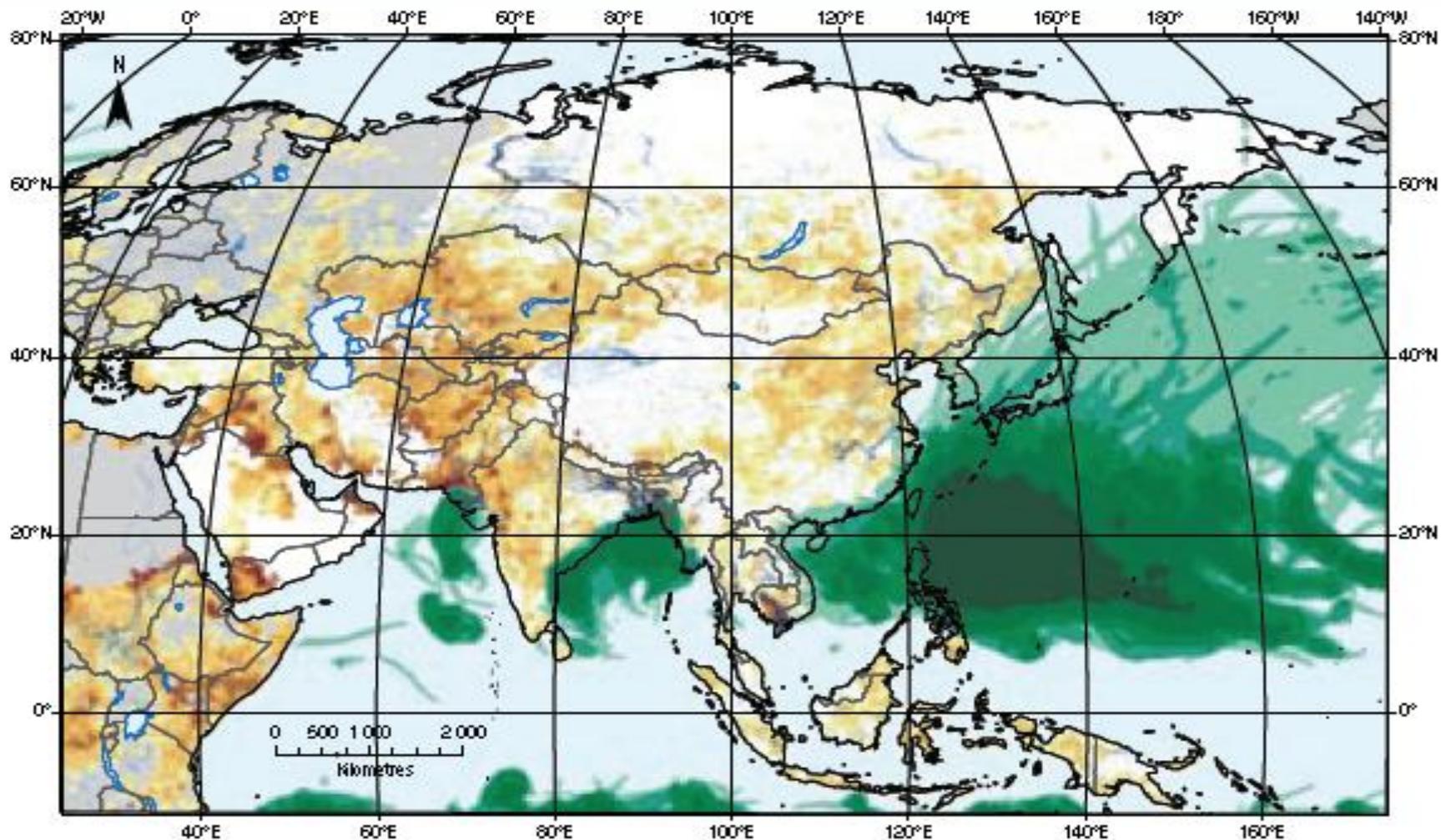




**WATER AND HUMAN DEVELOPMENT : CHALLENGES IN THE
CONTEXT OF DISASTER**

Santosh Kumar
Director,

**SAARC DISASTER MANAGEMENT CENTRE
NEW DELHI**

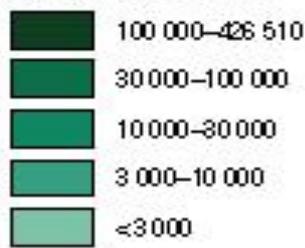


Weather-related hazards

Droughts index
(frequency and intensity)

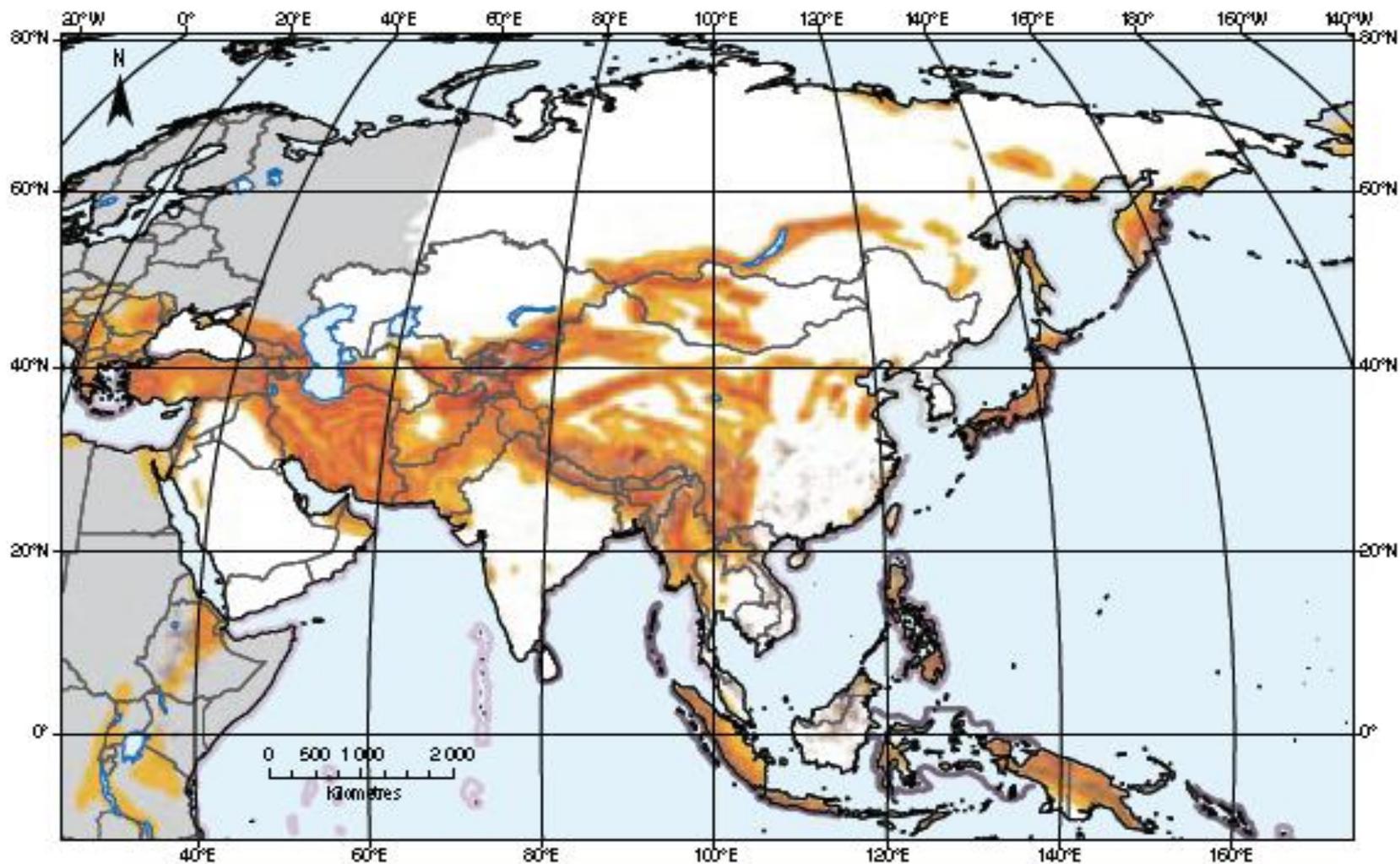


Tropical cyclones
(sum of winds in km/year)



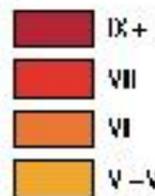
Floods
(average annual frequency)





Tectonic hazards

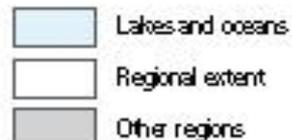
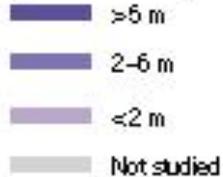
Earthquakes
(MMI for 10% in 50 years)



Landslides
(intensity and frequency)



Tsunami height
(coasts covered by the model)



Human vulnerability in South Asia

- Home of one of the oldest civilizations of world
- Self-sufficiency in agriculture, progress in industry, infrastructure, science and technology etc
- One of the poorest regions of globe
- With 22% of world population, it produces only 1.3% of world income
- South Asia is home of
 - 40% of world poor (500 mill)
 - 46% of world illiterates
 - 50% of malnourished child
 - Lowest sex ratio in the world



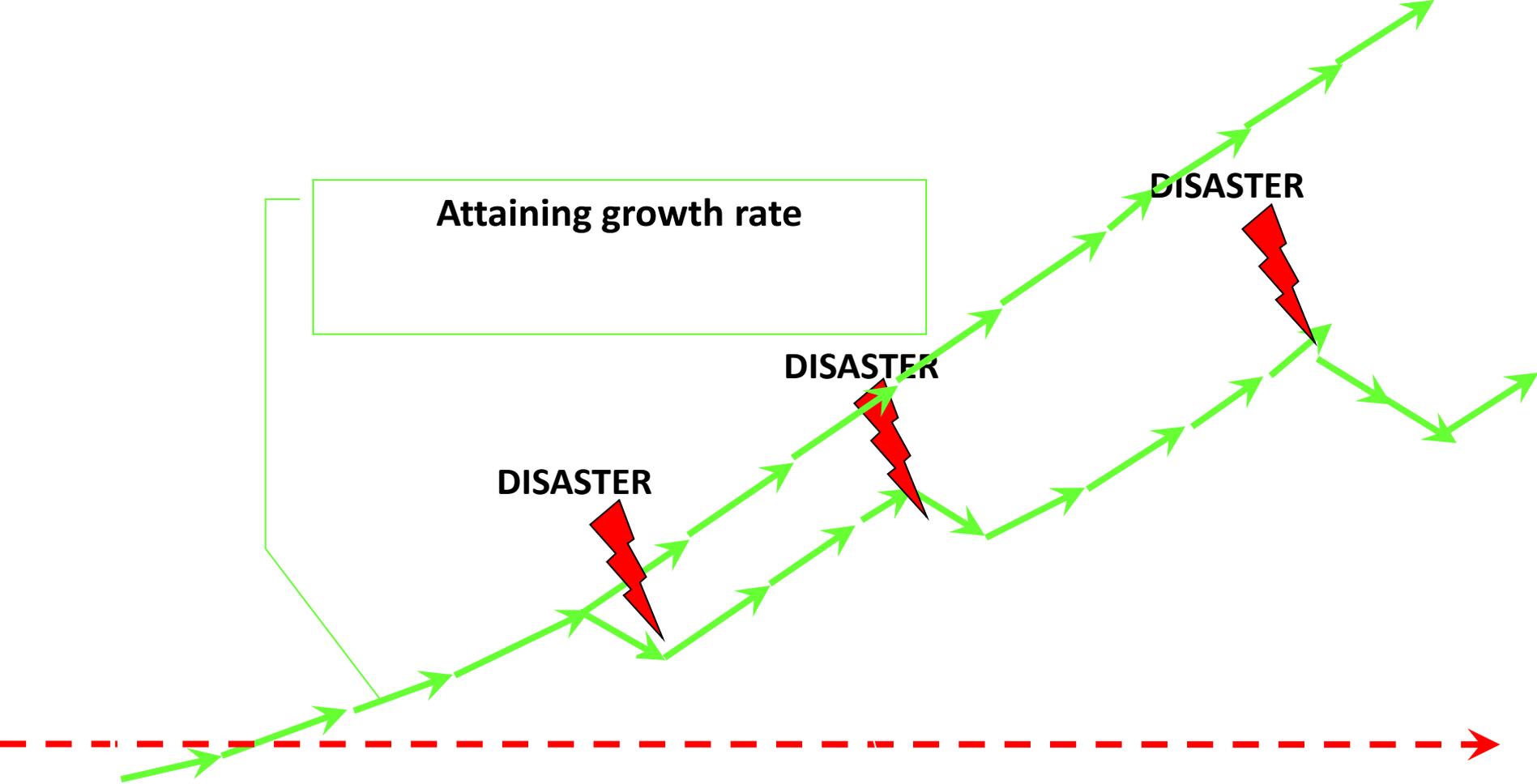
Regional dimension of disasters

- Natural disasters of South Asia do not remain confined to national frontiers; every disaster has a regional impact
- Earthquake of Bhuj sent tremors as far deep as Karachi
- Floods of Bihar and West Bengal as well as Bangladesh and Bhutan have their origin in Nepal
- Cyclones of Bay of Bengal affect coastal regions of India and Bangladesh
- Cyclones of Arabian Sea hit both the coasts of Gujrat in India and Sindh in Pakistan
- Indian Ocean Tsunami caused devastation in four out of seven South Asian countries.
- Recent quake in Pakistan devastated parts of Kashmir

Impact of disasters

- **Disasters and economic growth:** GDP loss range between 2 to 20% - revenue loss 12 to 66%
- **Social and psychological stress:** Non quantifiable
- **Disaster and development:** Disasters erode gains of development and further siphons resources
- **Disasters and poverty:** Disasters aggravate poverty; Socially vulnerable: women-children-aged suffer
- **Disasters and environment:** Disasters are both cause and consequence of environmental degradation, every disaster aggravates the fragile eco-system of the region

- The reported number of disaster has been increasing 100 in 1975 to more than 400 in 2005.
- Cost of disaster has also exploded ;
Maldives Tsunami losses
- amounted to 66 percent of GDP
- Pakistan earthquake 2005 estimated damage of \$ 5 billion



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_6073

