RIVER OF RICHES - STUDY OF GREAT FLOOD PLAIN RIVER GANGES

- SUPRIYO NANDY

Introduction

- Response to these catastrophes were more dams to contain rising waters.
- Over the last 40 years billions of dollars have been spent on river containment in India.

- **The paper tries to evaluate how India's biggest challenge in sustainable development will lie in the ways it learn to use the Indo-Gangetic flood plains.**

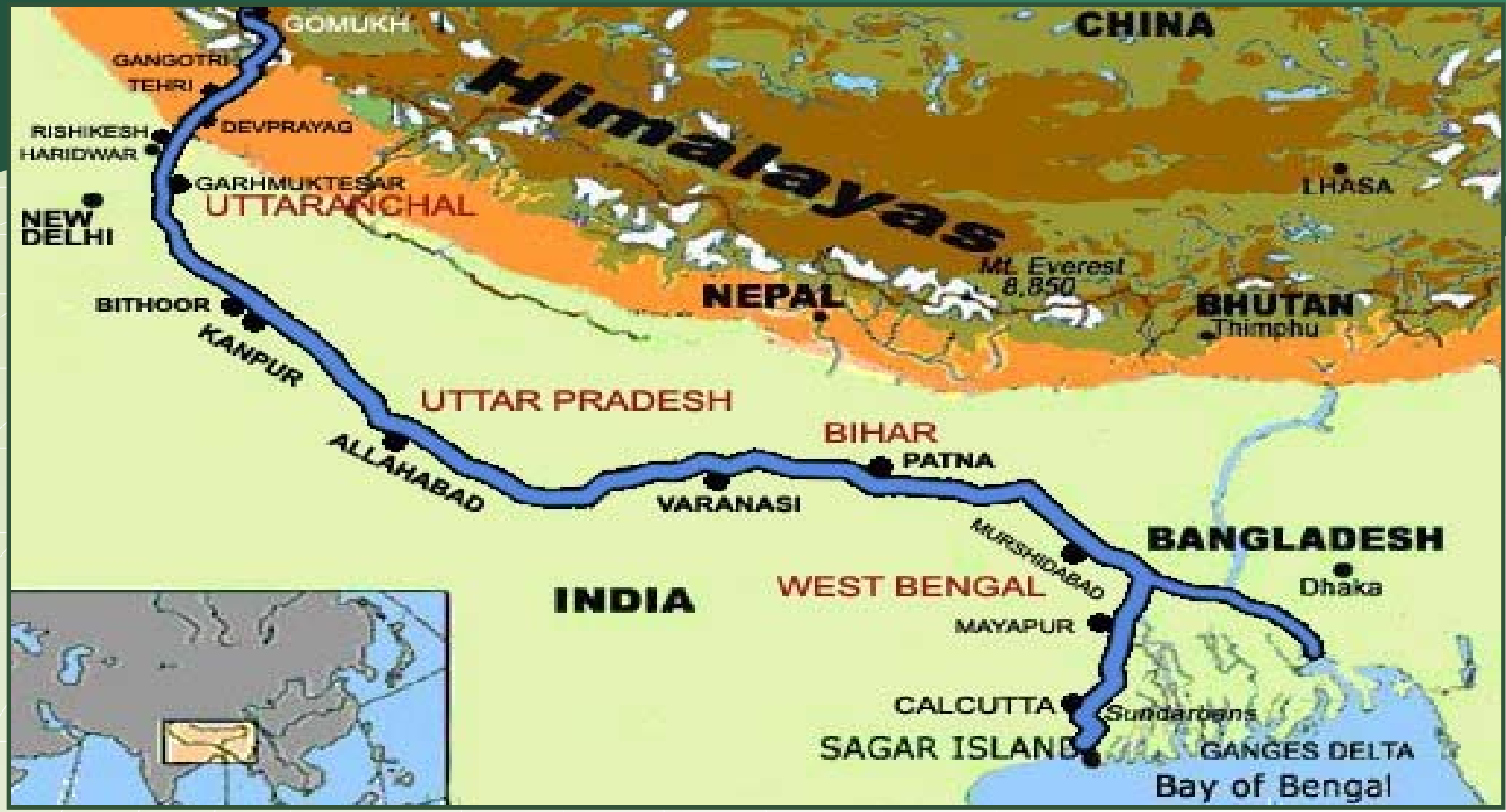
- Dams and embankments have now become an important causes of flood.

- The silt laden Himalayan flood waters not only enriched the soil and provided bumper crops but the fish brought down by it kept malaria down.

- India’s first Prime Minister Jawaharlal Nehru, believed that dams will produce power, irrigation and control flooding and become the “temples” of a modern, secular state. Since then 400 large dams have been built in India, along with thousands smaller levees as well as 16,000 km of river embankments, but the area affected by floods has expanded from 2 million hectares to 9 million due to deforestation, poor urban drainage.

The River of Riches

- Gangetic Rivers erode bulk of the sediments from upstream areas in the Himalayas and deposit part of it in the alluvial plains and a significant part in the Bay of Bengal. The Ganga river annually erodes around 749 million tones of sediments, mostly from the Himalayas, brings about 729 million tones at Farrakka and finally dumps 95 million tones in the Bay of Bengal. Thus the floodplain of the Ganga gets an annual increment of about 65 million tones of sediments.



The river Ganga starts its 2427 km long journey from Gangotri glacier. Ganga basin has an area of about 1,093,400 sq km

- Since 1925 Ganga has shifted from 4-9 km and the shifting channel is quite a problem for large tracts of land between West Bengal and Jharkhand.
- The behavior of Ganges is well known, yet the problem occurs every year. This is because the spurt of population has driven people to occupy the flood pathways of the river. The moment it tries to occupy the flood pathway, over which the river has all the right, people feel the pinch.

Flood Control:

- Modifying the floods in order to keep the flood waters away from developed and populated areas by decreasing runoff, increasing channel capacity, or containing, diverting, or storing flood waters.
- Modifying susceptibility to flood damage by keeping people and developed areas out of flood hazard areas or by insuring that such developed areas are flood-proof.

Flood Control:

- Modifying the loss burden by reducing the financial and social impact of flooding by providing post flood assistance and insurance.

Structural Measures

- Dams and reservoirs
- Embankment and flood walls
- River bank protection and anti-erosion structures
- Natural detention basins
- Channel improvement
- Drainage improvement
- Diversion of flood waters
- Catchments area treatment/aforestation.

Non-Structural Measures

- Flood forecasting and advance warning
- Flood plain zoning
- Flood proofing
- Disaster preparedness and response planning
- Disaster relief
- Flood fighting
- Flood insurance

Conclusion

- The basic problem seems to be the mind set of decision-makers who believe that floods are a nuisance and must be controlled. Little has been done to live with floods or use the water advantageously. The Gangetic flood plains are getting increasingly waterlogged because of indiscipline in land use systems. The embankments can protect people from floods permanently has been proved false.

This is the “climate witness”
story of Jalaluddin Saha
in the Mousuni Island of Sundarbans

Play Movie . . .

Thank You !