

## **Floodplain in Bangladesh**

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### **Concept**

- An area (land) prone to flood
- Low lying area inundated by flood water for a period of 4-5 months during monsoon is called floodplain
- Total floodplain area is 28.33 lakh ha (66% of total inland water)
- Potential ecosystem both for agriculture and Fisheries
- Intensive rice based farming and fishing supports the livelihood of the millions of people in floodplain
- In past (1960-70s) floodplain contributed 70% of the total inland fish production
- Fish production is decreasing due to modifications

### **Potential uses of floodplain**

1. Used for rice and other crop production since the floodplain is found dry for most of the time in a year
2. Floodplain acts as an important nursery and breeding ground for fishes
  - Good fertility of soil and water of floodplain favours the production of sufficient natural food useful for fishes for nursery ground
  - Suitable water depth, comparatively lower water current and sufficient DO content favours the fishes for breeding
  - Availability of natural food and overall environment creates a good habitat for fishes and almost all the freshwater fishes are found in floodplain

### **Floodplain modifications**

- It is the changes in size, depth and community structure
- Changes are due to man-made and natural causes

### **Causes of floodplain modifications**

1. Intensive fishing pressure (over fishing) due to dense population growth
2. Use of illegal gears causing reduction in small fish to vulnerable size and brood fish to spawn production
3. Reduction in water area due to siltation
4. Use of water for irrigation purpose
5. Unplanned dam construction to the river mouth/bank causing disturbance in fish migratory route
6. Use of insecticides in rice land resulting the destruction of floodplain ecosystem through runoff
7. Water pollution through industrial waste
8. Poor implementation of fisheries act due to lack of people;s participation and coordination with other agencies concern

9. Lack of appropriate policy for management of floodplain causing overfishing by the operator or unplanned aquaculture operation under short term leasing by the land ministry (owner)
10. Lack of biological management to enhance fish production

### **Recommendations**

1. *Beel* nursery operation
2. Establishment of fish sanctuary
3. Remodelling of waterbody to remove the silt and to increase the water area
4. Provision of fish pass under flood control and irrigation project
5. Discharge of industrial waste through proper treatment
6. Control the use of insecticides and pesticides
7. Proper management of the floodplain towards fish production increase
8. Registration of the original fishers and access them to waterbody providing with sufficient training and credit facilities
9. Provision of long term arrangement in case of lease
10. Proper implementation of fisheries act