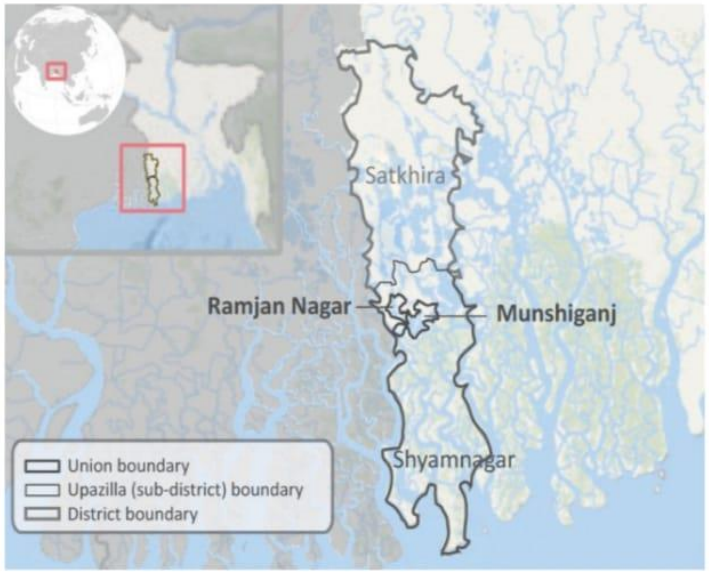
Salinity–induced loss and damage of farming households in coastal Bangladesh

Roll : 11

Batch : 46

Introduction



- Rice are the principal crops of Satkhira District Agriculture is a major sector of Bangladesh's economy and the coastal area of Bangladesh is very fertile for growing rice.
- Agriculture, fishing, pisci culture, and other related industries provide the most frequent livelihoods (Banglapedia, 2003). Rice (aus, 2 aman3, and boro4), wheat, jute, sugarcane, and vegetables .

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- People of the study area are converting their agricultural land to shrimp farming because of salinity impact.
- The impact of salinity on crop production is already visible in the study area

Causes of Salinity Problem

- ❑Critical Geographical Location of the Country
- ❑Sedimentation
- ❑Sea Level Rise
- ❑Cyclone and Storm Surge
- ❑Tidal Flooding

Statement of the problem

- Loss and damage associated with climate change and variability.
- Severe impact on agricultural productivity caused by salinity intrusion.
- Salinity intrusion in fresh water.
- Salinity intrusion into the agricultural field.
- Salinity intrusion into soil.

Objective of the study

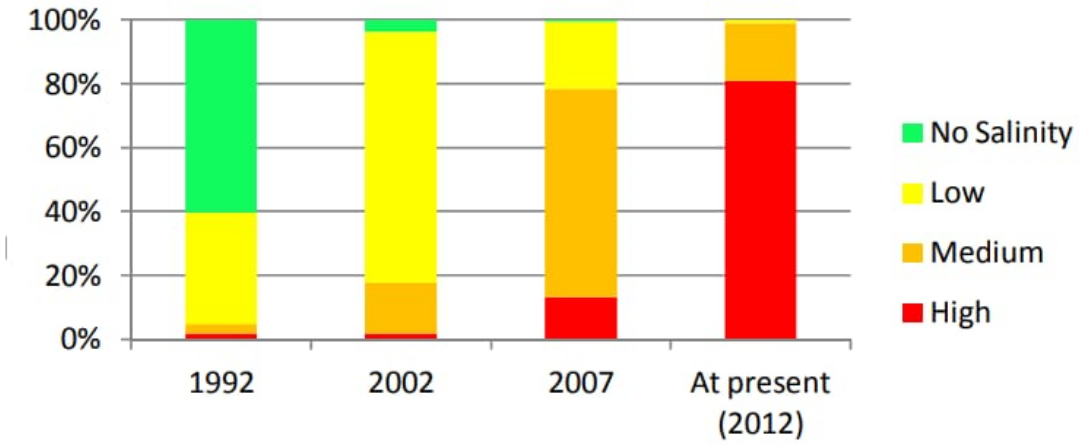
- ❑Understanding the interaction of salinity intrusion and rice production.
- ❑Understanding, how the people are adapting and whether adaptation measures enough to avoid adverse climate-change impacts.
- ❑Understanding estimated the loss and damage in rice production caused by salinity intrusion.
- ❑Understanding the arable land affected by salinity intrusion.
- ❑Understanding the cultivated agricultural rice field affected by the salinity intrusion.

Impact

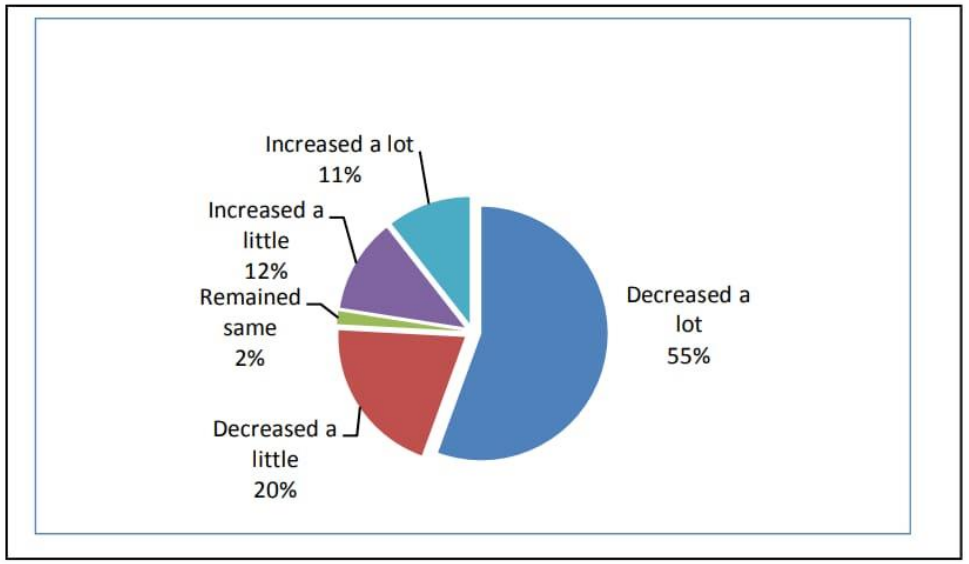
- ❑Soil Salinity
- ❑Water quality
- ❑Farming practices
- ❑Tree production
- ❑Food safety
- ❑Cropping system
- ❑Environmental adversities

Results and Discussions

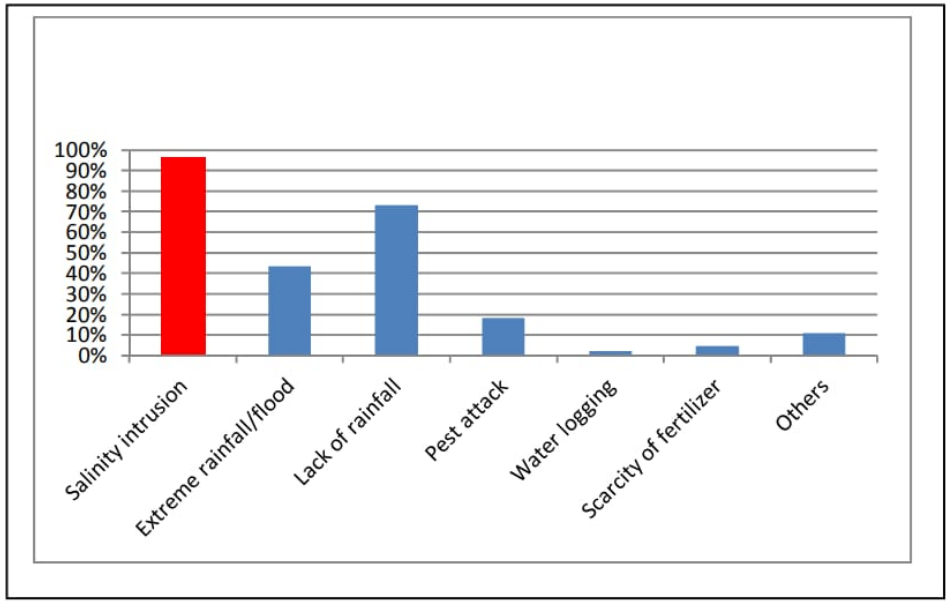
Trend of salinity in last 20 years



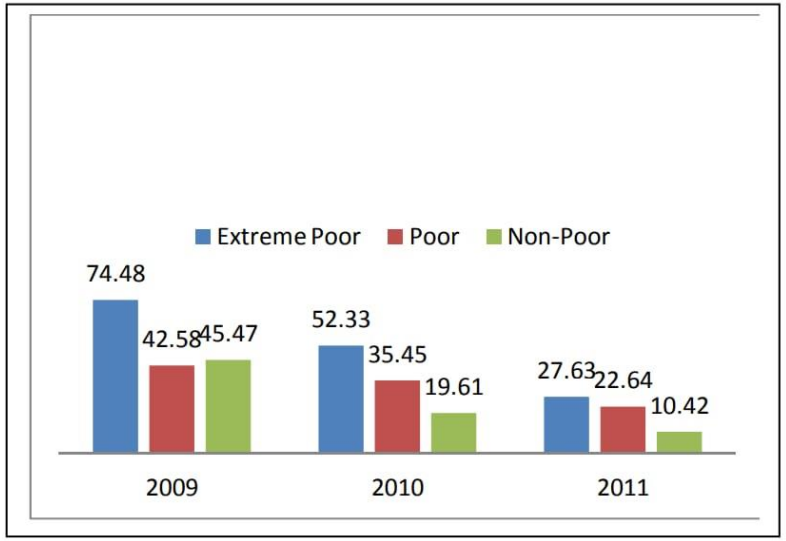
Change of rice production in last 20years



Percentage of respondents on causes of reduction in rice production



Value of loss (as % of household annual income) due to decrease in rice production caused by cyclone Aila induced saline intrusion



Recommendations

- ❑along the coast. Conjunctive use of fresh and saline water
- ❑Shallow water table management
- ❑Selection of salt tolerant crops
- ❑Massive awareness at the local level regarding water resource, its use and management.
- ❑Construction/repair/redesign of embankments