



# NARRI Flood Resistant Shelter Program in SW Bangladesh



















### What is NARRI?



To discover more please visit narri-bd.org

















# 2011 Flooding and water-logging

- July and Aug 2011, heavier than average rains, coupled with drainage congestion
- Waters didn't recede for 3-4 months
- 184,388 HHs/ 921,940 individuals affected
- Population displacement













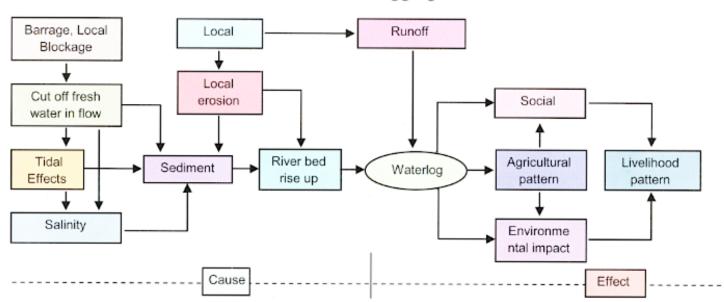






### Causes

#### Flow-Chart of Waterlogging Problem



Rahman, M.S., (2011), Analysis of Physical changes and Socio-economic Impact due to Siltation of the Kopotaksha River and its Adaptive Measures, Unpublished M.Sc thesis paper, IWFM, BUET.

















### **Impacts**

- Water supply, sanitation, shelter, food security challenges
- 23% houses damaged or destroyed: 19,534 houses destroyed, 25,283 partially damaged
- Houses sitting in water for long time
- Usual coping mechanisms stretched



















### FRESH - Project overview

### 3 main components:

- Shelter
- WASH
- Advocacy



- 11,092 shelters and latrines
- 6 INGOs, 5 local NGO partners
- Strong community level engagement
- Accountability mechanisms built into program





















### Shelter and latrine design

### Approach:

- Design developed jointly and same design used by all agencies
- Main risks are flooding and waterlogging, not strong winds
- Increased resilience to expected future flooding and waterlogging



















# Shelter and latrine design

### Key aspects:

- Plinth raising and strengthening for shelter and latrine
- Potential for shelter to be expanded
- Fully maintainable by owners - locally available materials used



















# Reducing vulnerability to future flooding and waterlogging while

Mitigating/reducing potential negative environmental impacts caused by the program

















# Key considerations

- Materials Source? Type?
  Maturity?
- Transportation damage to roads caused by heavy transportation?
- Sourcing of earth for plinth raising:
  - Pressure on earth collection
  - Must not use top soil
  - Avoid other negative impacts of earth removal



















### What not to do...





















# Efforts towards reducing the risk of future water logging

















# Advocacy component within FRESH

### **Objective**

- To contribute towards the reduction of people's vulnerability to water-logging in a sustainable manner
- Contributing to addressing root causes of water logging

### Defining focus and activities, including:

- The improvement of water management systems
- Reduction in the number of illegal occupations of rivers & canals
- Including communities and involving all stakeholders
- Combination of field level and central level activities

















# Risk reduction – coordinated approach





















### Conclusion

- Disaster resistant shelter and WASH interventions reducing vulnerability
- Minimising negative environmental impacts of project environmental accountability
- Efforts towards longer term risk reduction

BUT .....its early days... report back with lessons learnt at a later date?

















# Questions?











