

Validation Workshop Roads To The Rescue Polder 32

BUET, MetaMeta
9th November 2017
Khulna



24/SEP/2017

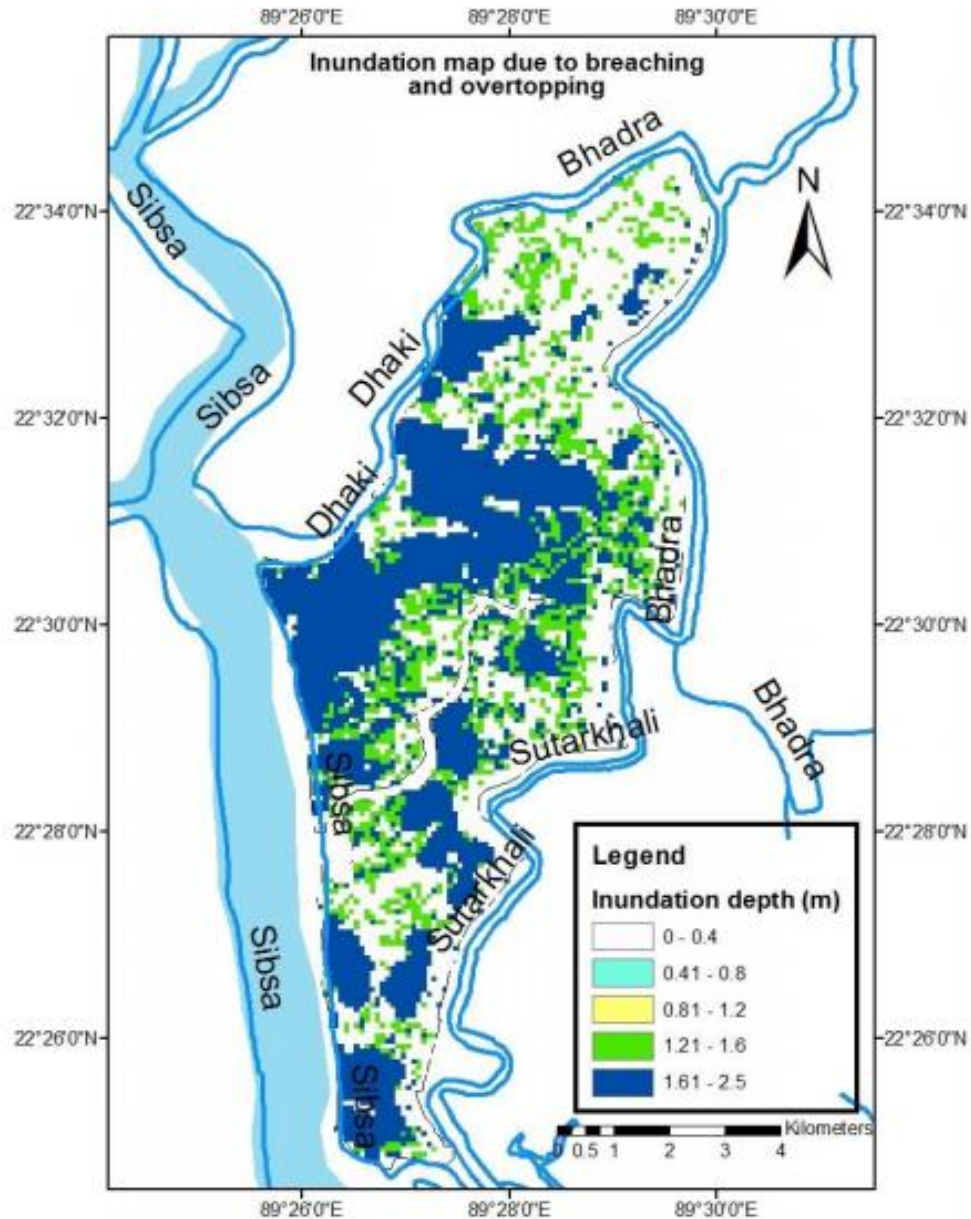
Objectives

- Share the findings of field Survey among the stakeholders
- Validate/integrate key findings of problems, causes and impacts
- Discuss possible solutions
- Ranking of solutions

Location of Polder 32 (Dacope Upazila)



Inundation Map of Polder 32



Field work

- Household and physical survey conducted last week of August 2017 by Ashroy Foundation
- Extra survey during 21-24th September 2017 by Ashroy Foundation and BUET
- Total area: 8097 ha, Cultivated Land 6500 ha
- Total population 38000 Shutakhali Union and 16000 Kamakola Union
- 2 Unions: Kamarkhola and Sutarkhali

Household survey

- 60 HH along the roads: 87% men and rest women and children, average age: 40-60 years old, 52% fishing, 41% farming (60% owners, 36% landless)
- 40 HH along embankments 92% men, age 40-60%, 35% fishing, 52% farmers (76% owners, 24% landless)
- Interactions between WM and roads, flood protection with pictures

Part I: Validation of Findings

- Problems
- Causes
- Impacts
- Solution

Key Findings From Household Survey



USE OF ROADS

- Transportation
- Market
- Communication
- Access to villages
- Dry paddy
- Cattle shed

Impacts on farming



Crop yield: 2 tonnes/year/per HH
Max income: 50,000 BDT
(Yearly)

Problems with water:

- Water logging
- Water scarcity
- Water salinity



Loss due to Previous Cyclones in terms of goods and property (BDT)

Impact costs	1988	2007 (Sidor)	2009 (Ayla)
Livestock	--		
Fishing	50.000 BDT/year		
Property	2000	4400	10.000
Storage facilities	600	2800	5700
Repair	450	3800	5700



Use of Embankments



Flood protection and flood shelter for people and cattle, transport, vegetation, permanent settlement

Physical survey

- Internal roads
- Internal crossing structures: 16 bridges and 10 culverts
- 20 embankments: 10 sluice gates and 13 outlets/inlets

Status of internal roads



Water logging, no proper bridges/culverts

Status of internal roads



Muddy earthen roads

Status of internal roads



Brick collapse, unstable Side slope
muddy and slippery earth
section



Status of internal roads structures



Inaccessible / no approach road

Internal roads structures



Partially damaged structures

Impact on internal roads structures



Completely damaged structures

Internal roads structures



Inadequate culvert size

Impacts on embankments



Water logging

Impacts on embankments



River erosion, tidal effect

Embankment breaching



Status of embankment's structures



Inadequate sluice gates



Can work but needs repair

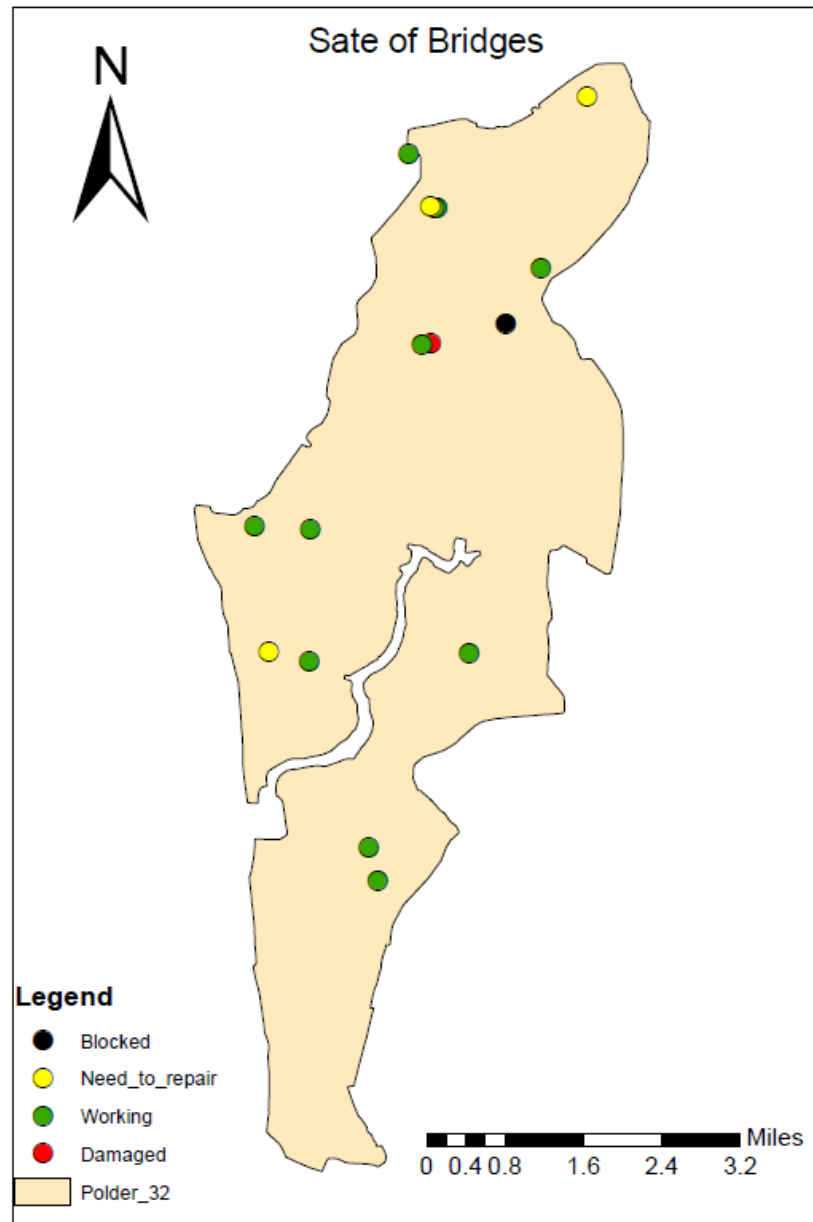


Heavy rainfall

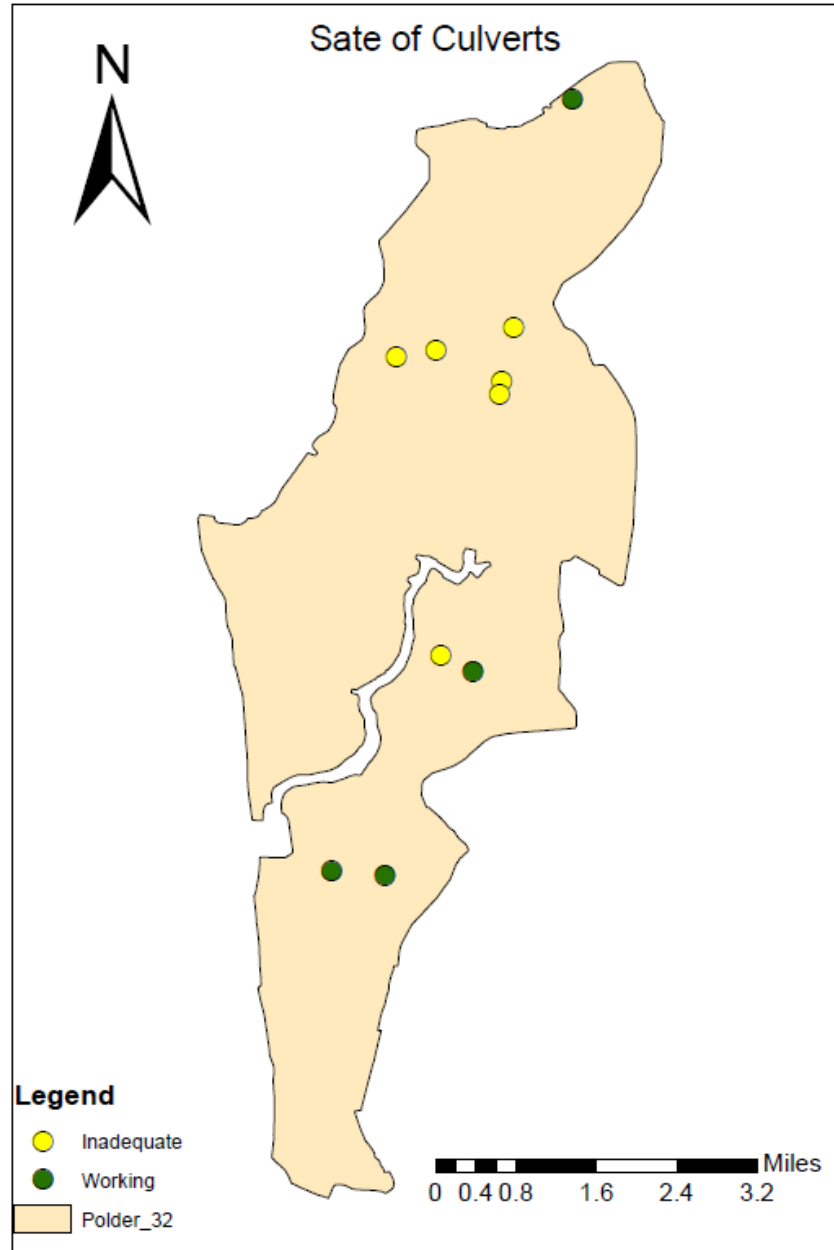


Silted sluice gates

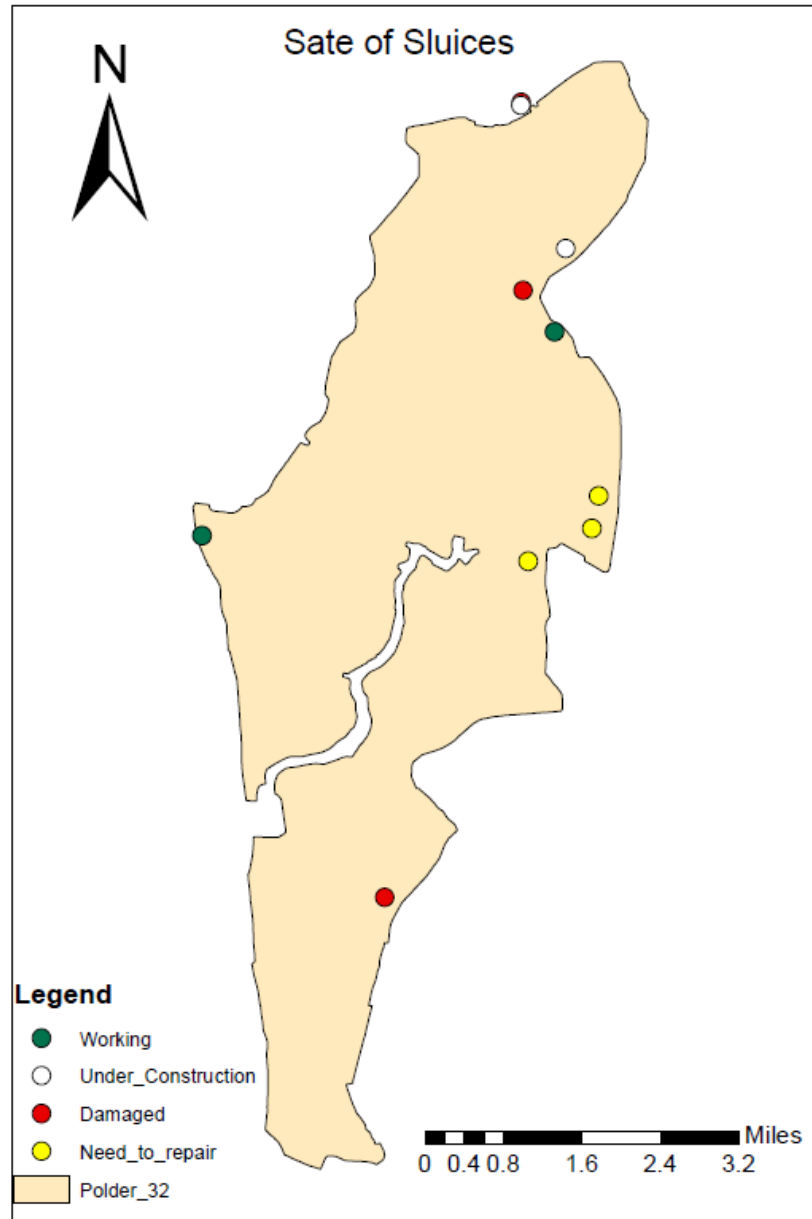
Maps



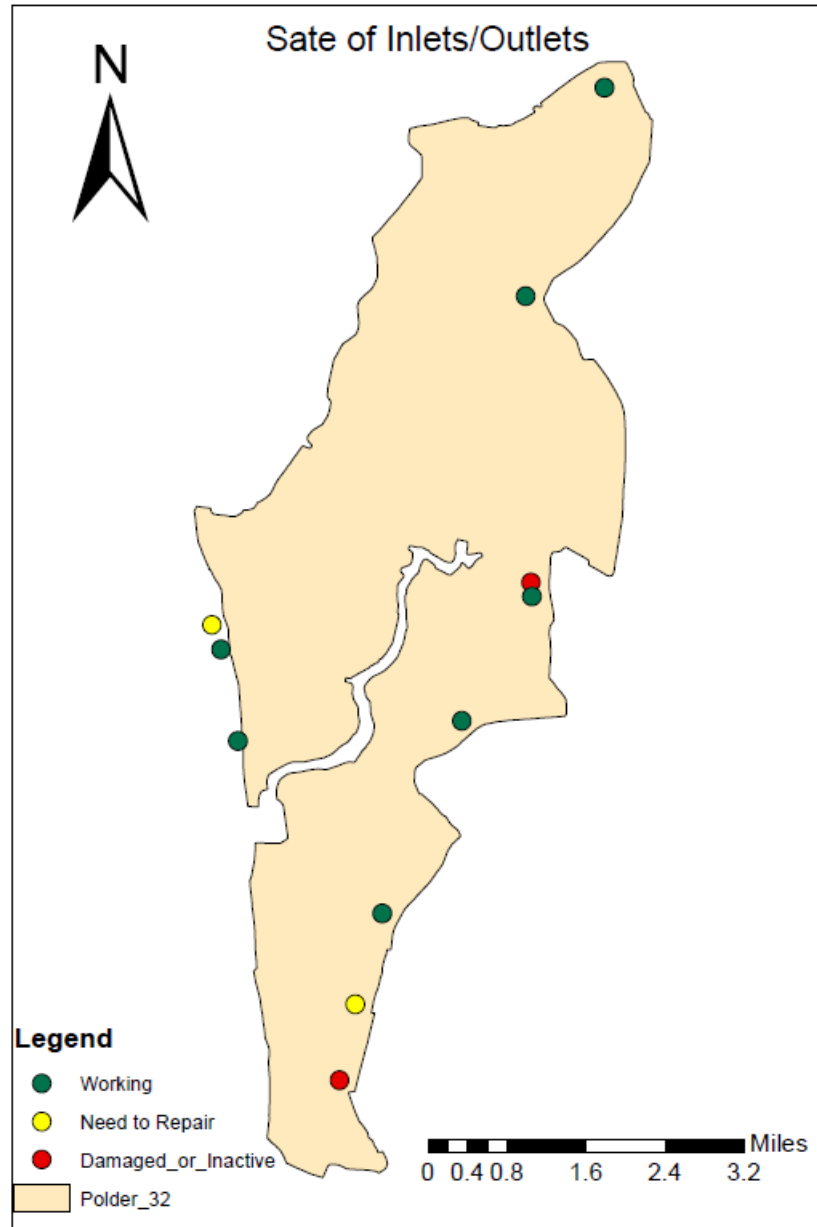
Map



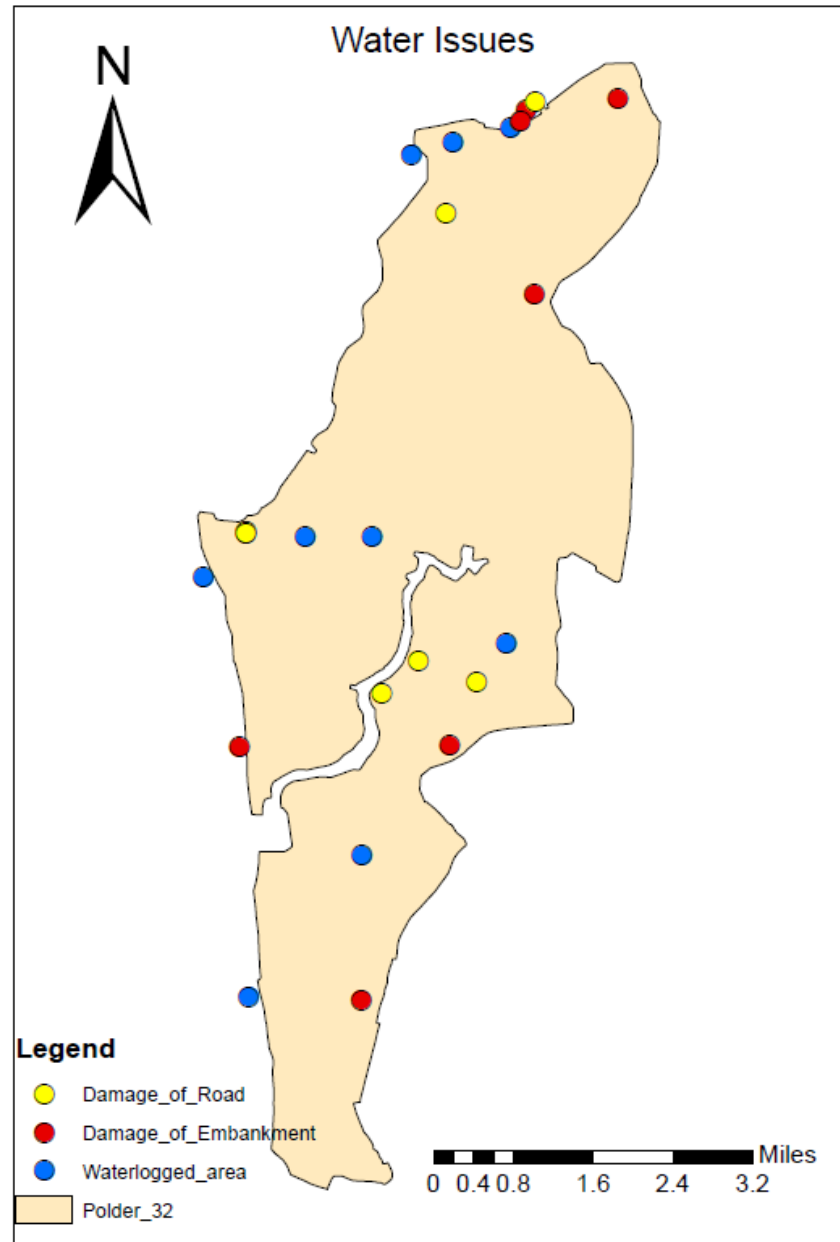
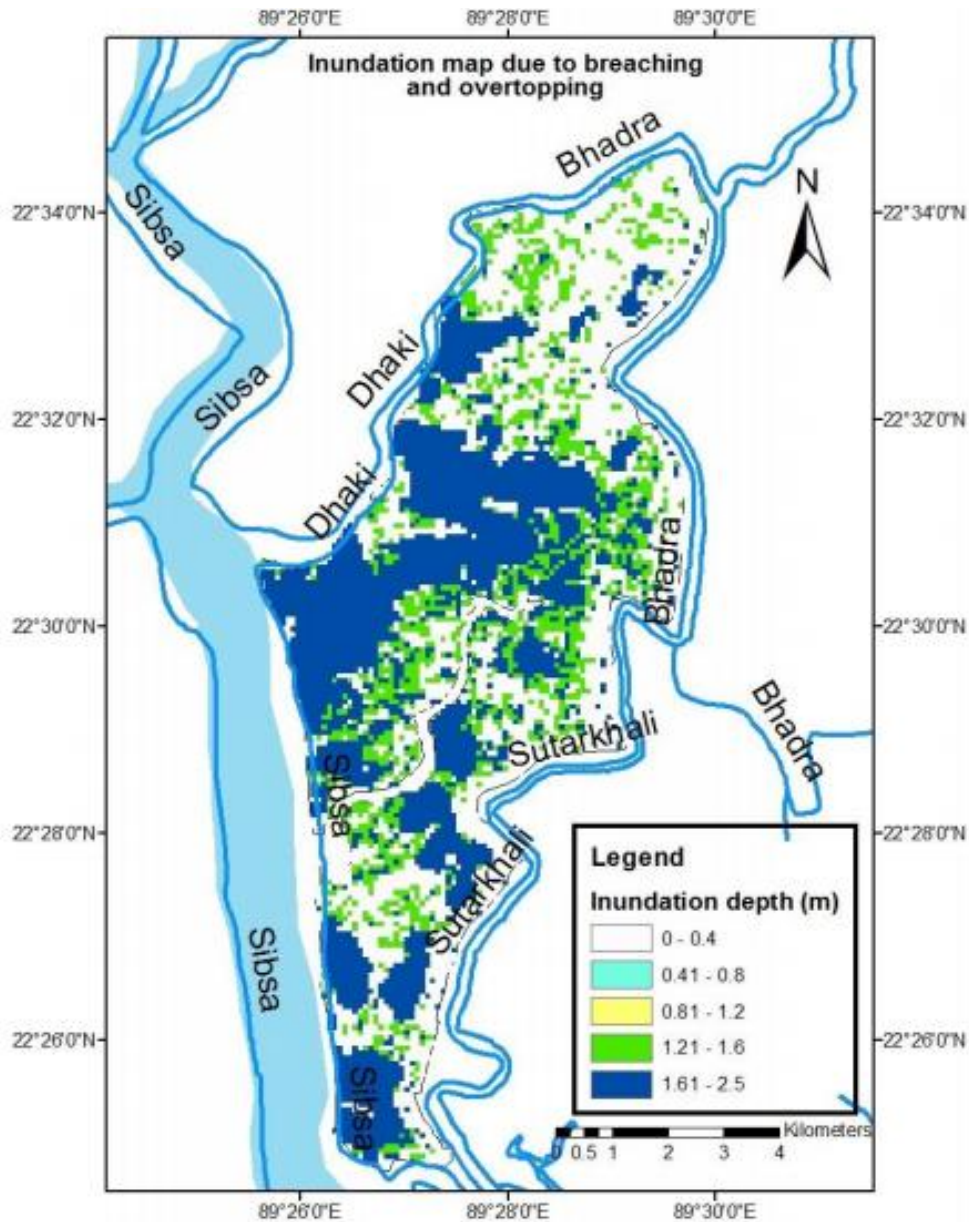
Maps



Map



Maps



Part II: Discussion on Solutions

What and where?

- New/Larger culverts?
- Gated culverts/bridge?
- Re-excavation of khals?
- Cross drainage ?
- Improving roads?
- Water storage?
- Embankment improvement?

Model Culvert (Gated)



Ranking of Solutions

- Prioritise the solution considering
 - Relevance/Impact
 - Feasibility and
 - Cost

- **Any other issues/problems?**
 - **From different stakeholders**
 - **CEIP/BWDB**
 - **LGED**
 - **UP**

Thank you All