Validation Workshop on Roads To The Rescue Khajuriya (LGED SubPolder)

BUET and MetaMeta

15th November 2017
Objectives

• Share the findings of field survey
• Validate/integrate key findings of problems, causes and impacts
• Discuss possible solutions
• Ranking of solutions
Location of LGED Polder
Field work

- Household and physical survey conducted by BUET
- Total area: 719 ha
- Total population
- 3 Unions: Lota, Biddyanandapur and Chonkhola
- 3 rivers: Naya Bhangani to the North, Lata to the East, Chilmari to the West and South-west
- 26-28 October, 2017
Household and Physical survey

• 20 HH along the roads: 17/20 men, average age: 40-60 years old, 12/20 farmers
• 20 HH along embankments: 17/20 men, age 40-60%, 11/20 farmers and 5/20 business
• Physical survey on road structures: 8 internal roads, 9 bridges and 7 culverts
• Physical survey embankment structures: 8 embankments, 3 sluices, 8 culverts and 8 bridges
Part I: Validation of Findings

• Problems
• Causes
• Impacts
• Solution
Key Findings From Household and Physical Surveys
Embankments

- Use of Embankments: Flood protection, flood shelter access, communication, transport of goods and cattle shed
Status of Embankments
Status of Embankments

[Images of embankment situations]
Status of Embankment
Effects of Damaged/Breached Embankments

Damage to cultivated areas
Status of embankments structures

Partially damaged structures

1V sluice gate
Status of Sluices
Road Network Map
Use of Roads

- Transportation
- Communication
- Access to villages
- Cattle shed
- Shops
Road Condition

Road damage
Status of internal roads

Broken sections of the road due to water erosion
Status of internal roads

Road collapse, NO maintenance since 17 years

Narrow and low roads

Road collapse, NO access
Map of Culverts
Status of internal roads structures

Old bridge needs repair/replacement
Key Findings

- Embankment is not designed as roads but is used as roads
- Construction of road and embankment is of poor quality, resulting in damage, collapse, slope failure etc.
- Insufficient water crossing structures (culverts, bridges) and drainage canals
- Water pressure damages embankment and roads
Impacts

• People’s lives and properties are at risk
• Economic losses
• Water scarcity during dry season for irrigation
Part II: Discussion on Solutions
Suggested Measures

- Proper, adequate design of embankment
- Increased number of culverts and bridges to improve drainage
- Repair bridges and culverts
- Repair embankment
- Repair roads
- Provision of Gated culverts to control/store water for irrigation
- Excavation of drainage canals
Ideal situation: Model (Gated) Culvert
Few Questions

• Is there any overtopping of the embankments?
• What is the height of the embankment?
• If so, is it due to tidal effect or due to flood, cyclone, storm?
• Do you grow rice in dry season?
• Do you have water logging?
• Do you have water scarcity for irrigation?
Ranking of Solutions

• Prioritise the solution considering
  – Relevance/Impact
  – Feasibility and
  – Cost
Any other issues/problems?
Thank you All