

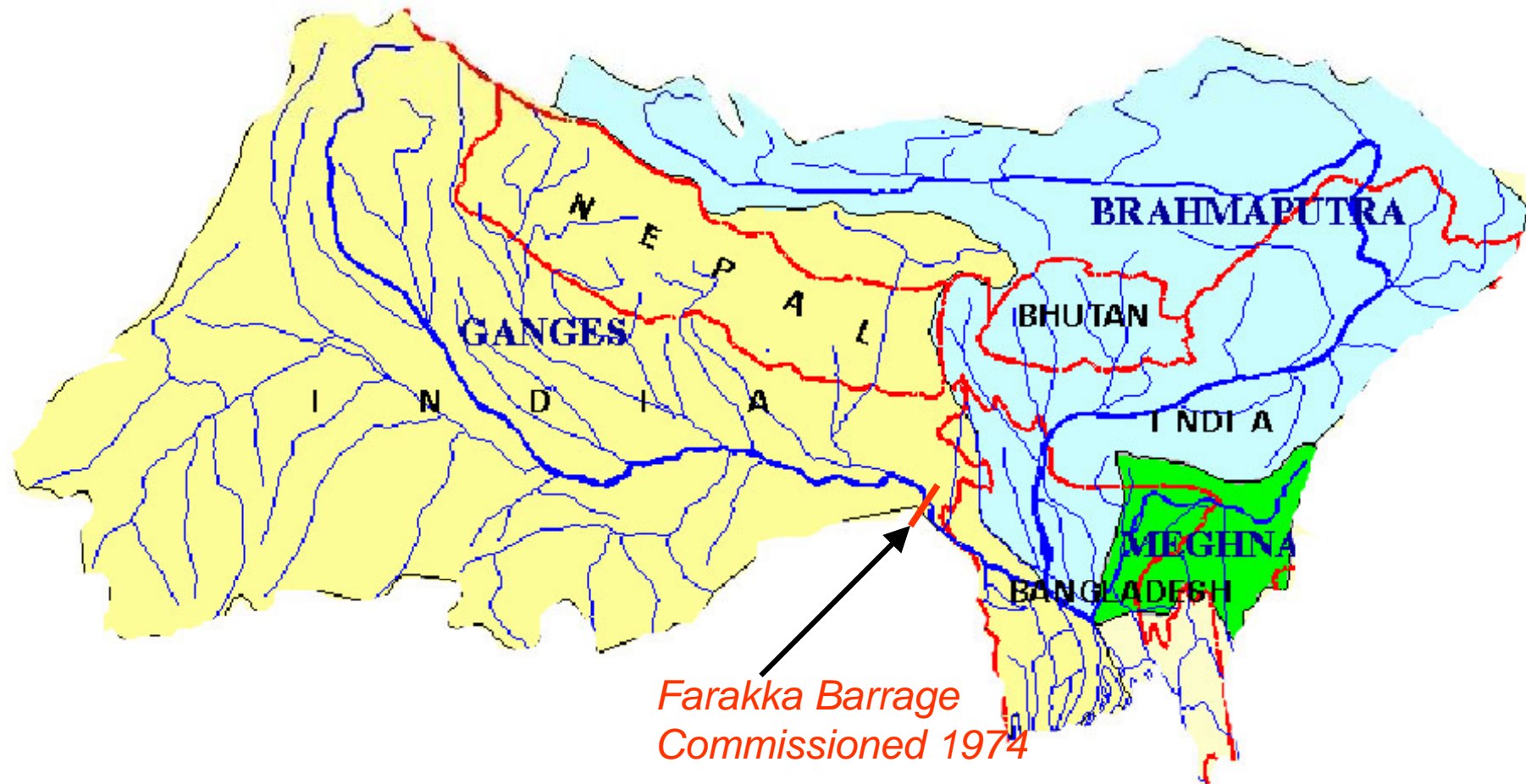
**Welcome to the presentation Session
on
Community Based Low-cost Safe Water
Supply Model Coping up Disaster Risk
Management (An Experience of Bangladesh)**

*M. Nazrul Islam Khan, Deputy Director ,RDA, Bogra Bangladesh
and Ronpaku PhD Fellow (Email : ciwrd2001@yahoo.com)*

*Tomoharu HORI, Professor ,Water Resources Research Centre
Disaster Prevention Research Institute, Kyoto University, Japan
(E mail: tomo@mbox.kudpc.kyoto-u.ac.jp)*



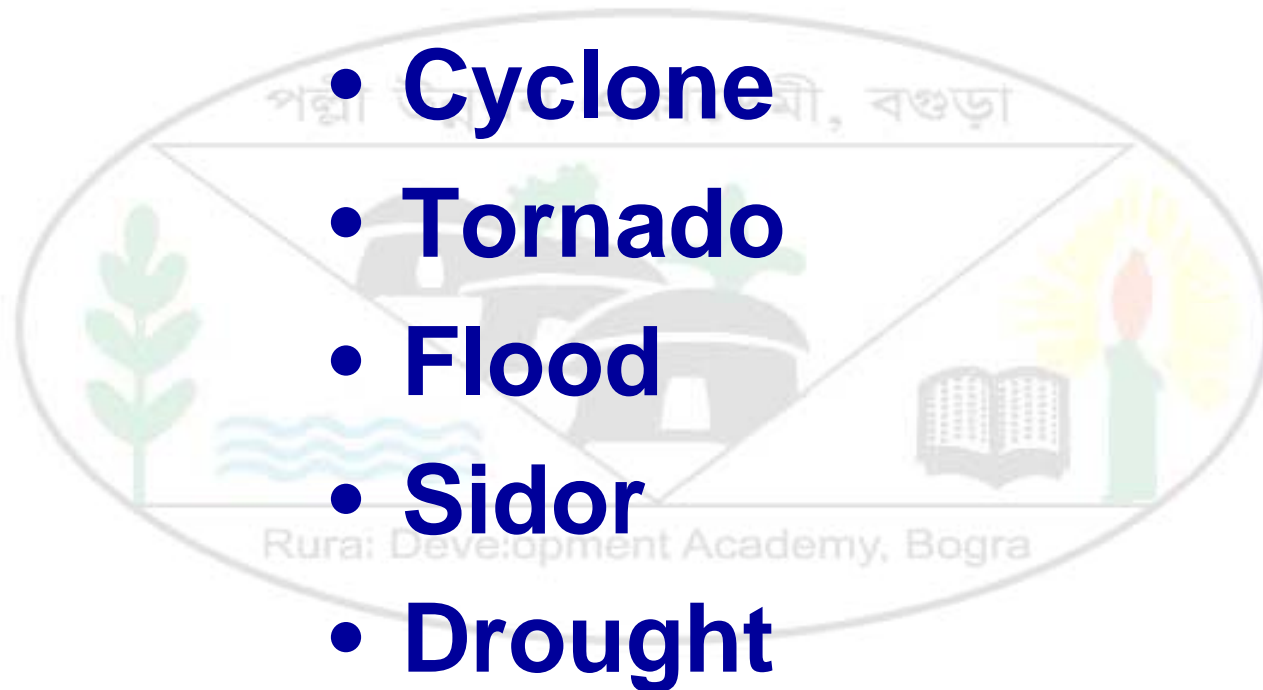
Runoff contribution from Ganga, Bhromputra, Meghna Basins



Around 93% of catchments area is outside Bangladesh, 7% area is in the country.

Disasters in Bangladesh

- **Cyclone**
- **Tornado**
- **Flood**
- **Sidor**
- **Drought**





Cyclone & Sidor



Floods



একাডেমী, বগুড়া



Drinking water supply in the disaster prone area



একাডেমী, বগুড়া



Effects of Disaster's in Bangladesh

- **Increased water borne diseases in the epidemics form due to using unsafe water from ponds, lake, river and so on.**
- **Hand Tube wells become submerged and chemically and biologically contaminated.**
- **Sudden death of people as well as animal.**
- **Un-employment problem and less scope of job.**
- **Shortage of water resources, food, shelter, medicine, cloth and so on.**

Strategy for Mitigation and Sustainability

Mitigation:

- Installed low-cost higher depth demand based bore hole (50000 to 200000 liter/hr)
- Construction of multiple use of over head tank (20000 to 30000 liter) with other water supply network facility
- Training matched RDA credit Income Generating Activities (IGAs) like irrigation, Homestead Gardening, Poultry and Livestock rearing, Horticulture and nursery development, Aquaculture and so on

Multiple Use of Low Cost Water Supply Model



Ensure productive use water for livelihood improvement

Training-matched IGAs



FFS (IGAs) Identification



On-farm Water Management



DTW Drilling Technique



Livestock

Improvement of
Socio-
Economic Level
for Rural Poor



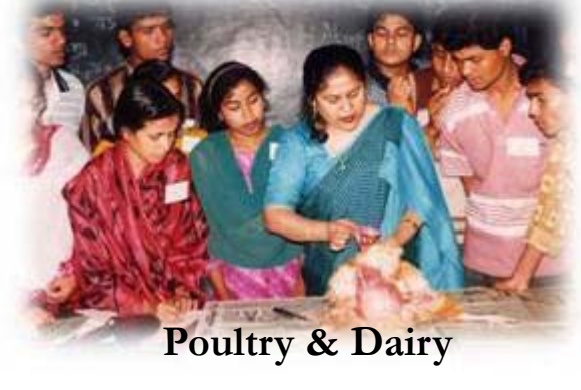
Plumbing & Electric



Horticulture & Nursery Development



Fisheries



Poultry & Dairy

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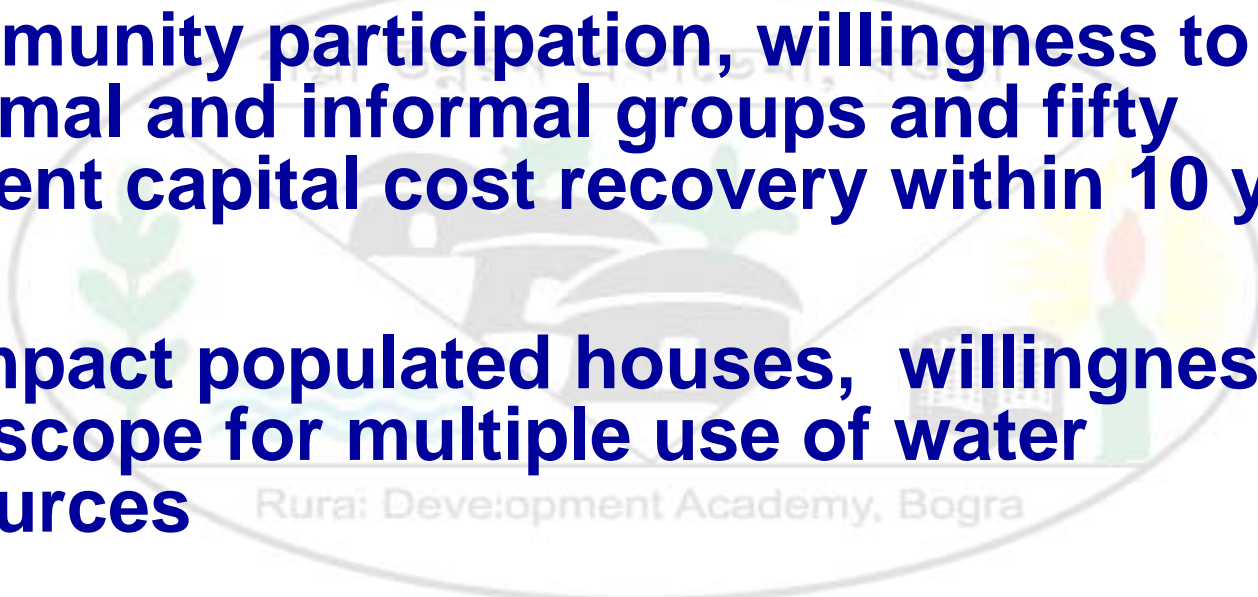

Strategy for Mitigation and Sustainability

Sustainability:

- **Community Participation in development process and cost sharing of the project**
- **Increasing ability to pay water charge and capital cost recovery within 10 years (maximum 50 percent)**
- **Total capital cost 20000- 35000 USD serving at least 1000- 1500 people for drinking and other productive use of water resources.**
- **Considering economic life of the Project 20 years and follow-up the project up to 10 yrs**




Criteria for selecting project

- **Community participation, willingness to form a formal and informal groups and fifty percent capital cost recovery within 10 years**
 - **Compact populated houses, willingness and scope for multiple use of water resources**
 - **Un-safe water supply system**
 - **Availability of ground water resources**
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- Rural Development Academy, Bogra
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Study Area and Methodology

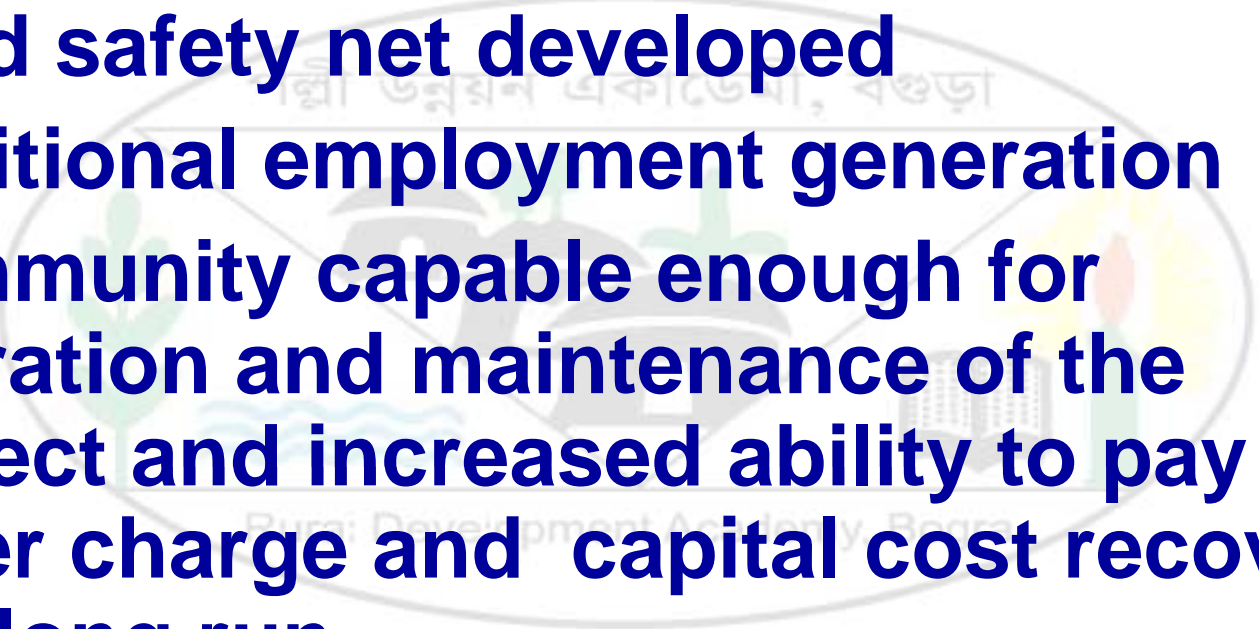

- **Data on the relevant aspect has been collected through structured questionnaire, discussion with the all segment of the stakeholders and consulting the relevant documents for the last 3 years in 5 disaster prone areas of Bangladesh purposively**
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Key Findings of the Study

- **Higher depth bore hole (DTW) contamination free**
- **Bore hole used for multipurpose way like irrigation, drinking, homestead gardening, aquaculture, poultry and livestock rearing and so on**
- **Per capita water use increased in drinking, bathing, cooking, washing and so on**
- **Water acts as a nucleus of development**



Key Findings of the Study

- **Food safety net developed**
 - **Additional employment generation**
 - **Community capable enough for operation and maintenance of the project and increased ability to pay water charge and capital cost recovery in a long run**
 - **Socio-economic and overall quality of life improved**
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Conclusion and Recommendations

- To save our people and improving quality of life in the disaster prone areas of Bangladesh there is no other alternative for introducing higher depth demand based low-cost borehole having overhead tank with main water supply network
- Subsidy might have to be given by GOs and NGOs for disaster affected people of Bangladesh.
- GO and NGO as well as private entrepreneur may come forward to replicate this model in disaster prone areas of Bangladesh as well as similar problem and facility found in all over the Globe.



Thank you

See you again