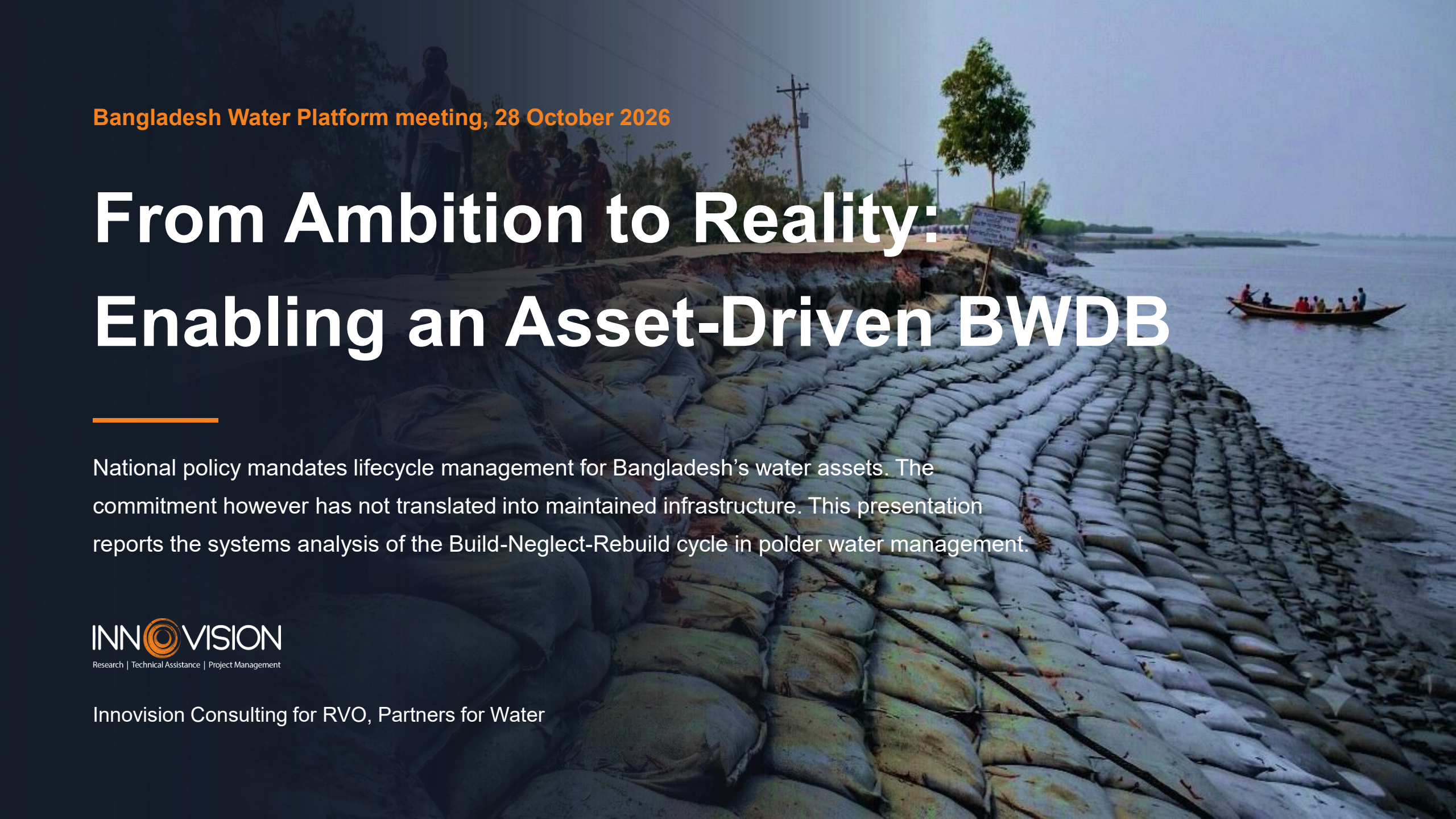


Bangladesh Water Platform meeting, 28 October 2026

From Ambition to Reality: Enabling an Asset-Driven BWDB

National policy mandates lifecycle management for Bangladesh’s water assets. The commitment however has not translated into maintained infrastructure. This presentation reports the systems analysis of the Build-Neglect-Rebuild cycle in polder water management.

INNOVISION
Research | Technical Assistance | Project Management

Innovision Consulting for RVO, Partners for Water

The question

What constrains BWDB from maintaining its assets?

Lifecycle management has been national policy since the National Water Policy of 1999. This has been carried forward by The Bangladesh Delta Plan 2100. Despite the policy mandate, the operational rules of procurement, budget classification and performance measurement fail to ensure asset maintenance. What constrains the maintenance?

Objectives of this presentation

This presentation responds to the following objectives:

01	**Defining the systemic constraints**	Identify the constraint on an asset-driven BWDB, either institutional or internal or within the interconnected systems that are critical for O&M
02	**Explain the mechanism**	Set out the mechanism by which the financing and contracting arrangements hold the Build-Neglect-Rebuild cycle in place.
03	**Identify the conditions**	Define the conditions required for transition from Build Neglect Rebuild to asset maintenance and management

Context, Scope and Methodology

The findings rest on 38 key informant interviews across seven stakeholder categories.

Innovision carried out the study for RVO under the Partners for Water Programme.

We mapped the root causes of the Build-Neglect-Rebuild cycle in polder-level water management.

The Market Systems Development framework was applied to four functional markets.

Each market system was examined through its demand, supply, support functions and governing rules.

Interviews	**38 key informant interviews**
Categories	**Seven stakeholder categories**
Field sites	**Dacope and Batiaghata upazilas, Khulna**
Framework	**Market Systems Development**
Markets	**Construction, operation and maintenance, asset management, financing**

The four market systems

The constraint is distributed across four market systems. It is not held in one organisation.

In every one of the four markets the failure is structural rather than behavioural.

Market system failures and the rules that hold them

Market system	Demand	Supply	Support functions	Governing rules
Infrastructure construction Build	BWDB is judged on projects started and money spent, not on asset life.	Maintenance margins are too thin to sustain a business.	Donor finance is offered for capital works only.	Tenders go to the cheapest compliant bid. Lifecycle cost is excluded.
Operation and maintenance Neglect	A field office cannot approve a minor repair without central clearance.	Routine maintenance contracts are not commercially viable.	No asset information system feeds maintenance decisions.	No rule obliges BWDB to spend a minimum on maintenance.
Asset management Neglect, invisible	No one in BWDB is obliged to act on a condition report.	Assets are surveyed only when a project pays for the survey.	Bangladesh has no national register of water assets or condition score.	No rule requires asset condition to inform a budget decision.
Financing All phases	BWDB asks for maintenance funds without evidence of deterioration.	Approval routes exist for construction, not for upkeep.	The budget framework does not ring-fence maintenance money.	Construction and maintenance are funded from two unconnected budgets.

Figure 1 The four functional markets, after Table 5 of the report

Market interdependency

The four failures operate as a closed loop.

The financing market cannot substantiate an O&M request without verified condition data. The asset management market never records or aggregates that data. The construction market rewards reconstruction volume over lifecycle performance. The operation and maintenance market activates only in emergency.

The four markets and their condition

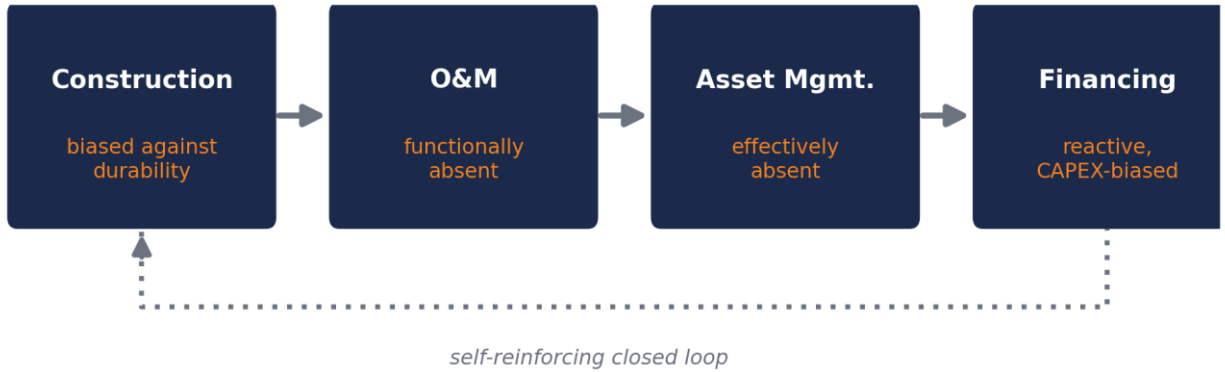


Figure 2 Functional markets in polder water infrastructure

Condition of the assets in Dumuria

54 of the 75 sluice gates across 11 rivers in one upazila are not operational.

Sedimentation in the river channels raises the riverbeds. Hydraulic pressure on the embankments rises and sluice gate operability falls. The communities depending on the gates carry the consequence through disrupted drainage, waterlogging and agricultural loss.

The study documents the same pattern in three cases: sluice gate mismanagement in Polder 31, embankment breaching in Dacope upazila in October 2025, and recurring canal siltation following major reconstruction works. No national condition baseline exists for comparison.

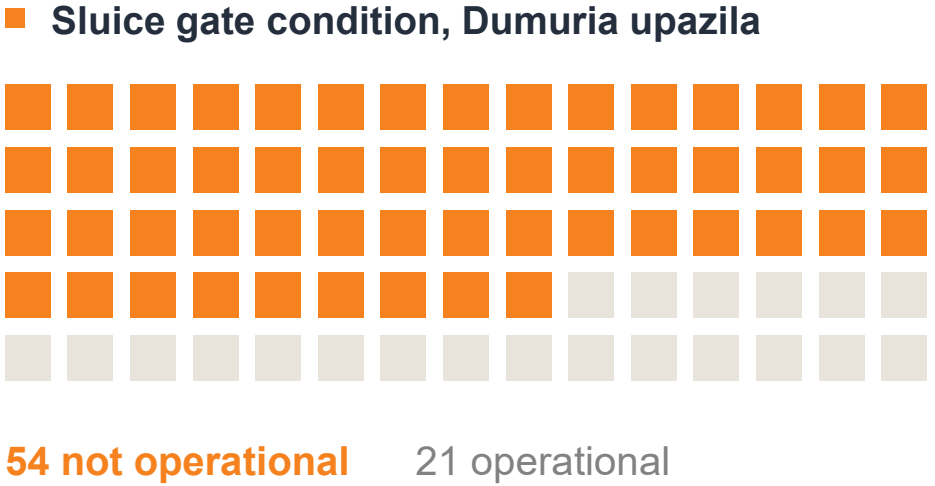


Figure 3 75 gates across 11 rivers

The financing thread

Maintenance runs at about 0.1% of GDP against the 0.5% the Delta Plan set.

Although the Delta Plan set the target, the allocation has not moved. The World Bank's CEIP-1 committed USD 375 million of capital investment with no structured O&M provision at the approval stage.

Nine tenths of the maintenance allocation goes to emergency repair. Resources are released only after catastrophic failure. The study calls this a failure reward dynamic.

No fiscal trigger responds to asset condition decline. The Medium-Term Budget Framework does not ring-fence operation and maintenance allocations.



Figure 4 O&M allocation as a share of GDP, against the Delta Plan 2100 target

Objective two, explain the mechanism

The maintenance contracting thread

Contractors consistently prioritise reconstruction over maintenance.

Contractors told us so directly. Tier-1 firms and BWDB-enlisted local contractors gave the same account independently. The study finds no effective commercial market for routine maintenance services.

01 **Routine O&M contracts are fragmented.** Maintenance is tendered as small separate lots rather than bundled across assets or across years.

02 **Margins are too low for the major firms.** Reconstruction packages carry higher contract values and more predictable cash flows. Tier-1 contractors optimise for large reconstruction tenders.

03 **Payment delays exceed twelve months.** Working capital is tied up well beyond what the contract value justifies.

PPR 2008 awards the contract to the lowest compliant bidder, without a lifecycle test.

The asset data thread

BWDB cannot evidence the maintenance need. The need is therefore not funded.

BWDB does not hold an asset register linked to location, a standardised condition assessment protocol or a systematic record of preventive maintenance. Deterioration therefore stays administratively invisible until the asset fails.

The Ministry of Finance cites that absence of verified evidence when it declines to raise the allocation. The declined allocation then removes the resources that would have built the evidence.

The asset data loop



Figure 5 Condition data, allocation and evidence

The coordination thread

No agency is accountable for the cumulative outcome.

Four agencies operate on the same embankments, sluice gates, drainage canals and river channels. Each plans on its own cycle and against its own mandate.

Agencies on shared hydraulic infrastructure

BWDB	LGED	DAE	BIWTA
Embankments, regulators and drainage infrastructure	Rural roads and local water infrastructure	Agricultural calendars and irrigation demand	River channels and inland water transport

Figure 6 Mandates of the four operating agencies

Failures concentrate at the boundaries between the mandates. A road built on an embankment crest without a hydraulic assessment, or a sluice operated against the crop calendar, belongs to no single agency once it goes wrong.

Objective two, explain the mechanism

Every actor earns more from reconstruction than from prevention.

Careers advance on large projects and emergency responses. Routine maintenance carries no comparable institutional reward.

Contractors earn more from rebuilding than from maintaining. Financing bodies retain discretion while condition data is absent.

Political visibility follows disaster response. The costs fall on farmers, water management committees and the national budget.

No step in the Build-Neglect-Rebuild cycle is irrational for the actor taking the decision. The cycle holds for that reason.

Conditions for the transition

Breaking the cycle requires simultaneous action, not isolated policy fixes.

These are the conditions for a transition to asset-driven management, not an action plan. The analysis produced them and they remain open. The validation workshop will settle sequencing and ownership with BWDB and the partners.

The six conditions

01 Financing

No new project approval without a ten-year O&M commitment

02 Livelihood

Enforceable no-net-breach mechanisms and sluice operation coordinated with agricultural calendars

03 Market

Bundled, multi-year performance-based O&M contracts

04 Morphology

Integrated river basin sediment management for upstream siltation

05 Dredging

Performance-based river functionality indicators in place of volume-based excavation targets

06 Coordination

A unified hydraulic planning framework across BWDB, LGED, DAE and BIWTA

Figure 7 Conditions identified in the systems analysis

Order of the steps

The roadmap places condition data in the first horizon.

One respondent put the financing problem plainly: BWDB cannot prove where the money goes, and the Ministry of Finance uses that absence of data to justify continued underfunding of O&M. The roadmap therefore opens with a baseline asset condition survey in three pilot polders, inside the first three months.

Contracting follows the same order. The study rates weak monitoring capacity as a high risk to performance-based contracts, and phases their introduction behind the condition data systems that would monitor them.

Order of operations

01
Build the condition evidence

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02
Pilot in three polders

>

03
Embed O&M in project approval

>

04
Scale performance contracts

Figure 8 Sequence for the transition

Summary

The analysis answers each of the three objectives as follows.

Objective one, defining the systemic constraints

The constraint is distributed across four market systems. Each fails on its own terms, in demand, in supply, in support functions and in the governing rules. The four failures then close a loop. Single-point reform does not hold.

Objective two, explain the mechanism

Every actor earns more from reconstruction than from prevention. Maintenance runs at 0.1% of GDP. Nine tenths of that goes to emergency repair. Routine O&M contracts are fragmented, low margin and paid late beyond twelve months.

Objective three, identify the conditions

Six conditions have to move together, in a sequence the roadmap sets. Condition data opens the first horizon. Performance-based contracting is phased behind the monitoring capacity it needs. Sequencing and ownership remain for the validation workshop.