



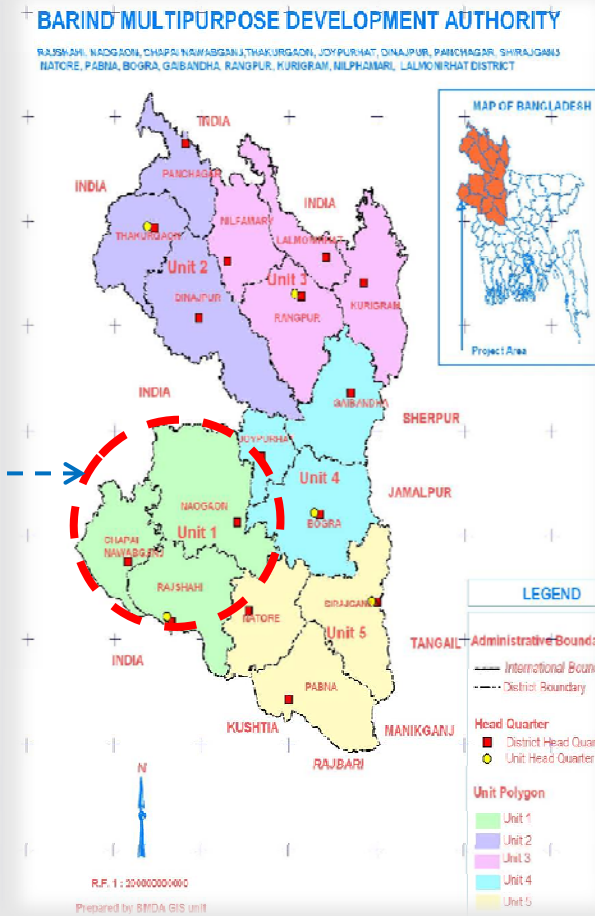
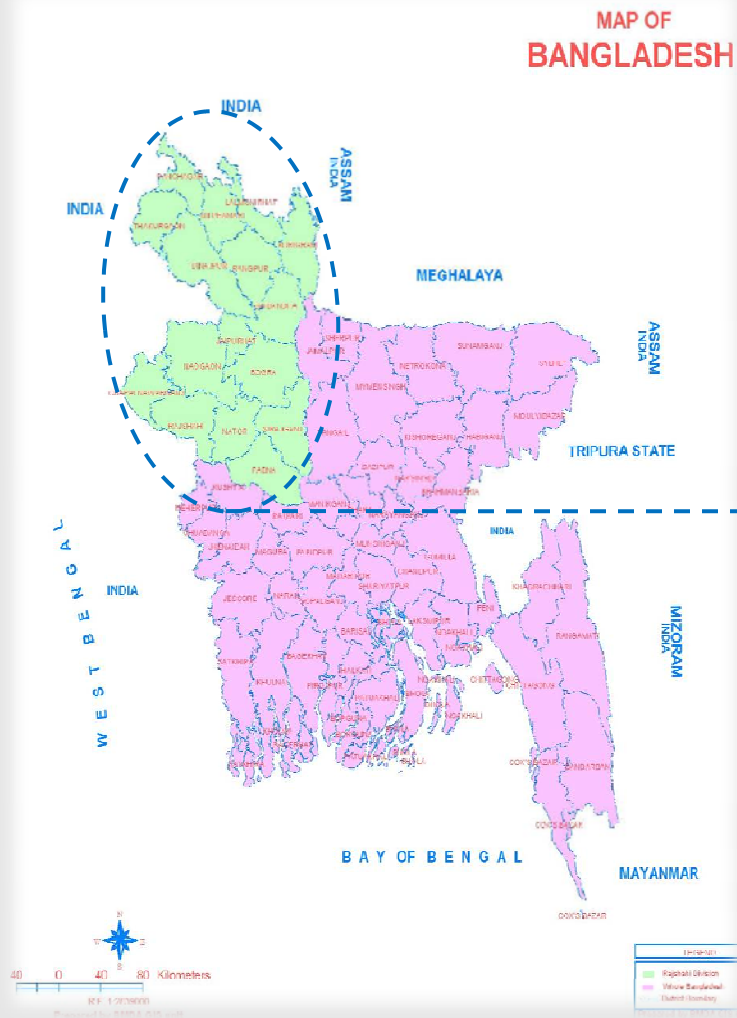
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Barind: A Paradigm of Sustainable Irrigation Management for Bangladesh and Beyond

Dr. Asaduz Zaman

Barind Operational Overview



Barind Before 1985



History of Barind

BADC

Bangladesh Agriculture Dev. Corp.
(Pre 1971 - Then the East Pakistan
Agriculture Development
Corporation)

BMDA

**Barind Multipurpose Development
Authority**

New organization was created by BD
Govt.—with its own Board and project
and financial independence

1961 - 1985

1985 - 1992

1992 - 2002

2002 - Onwards

Timeline

BIADP

**Barind Integrated Area Development
Project**— was approved by Bangladesh
Govt. Execution was under parent
BADC

BMDA - Expansion & Replication

Expanded and took over O&M
responsibility



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Challenges Faced by BADC

Institutional

- Closed -Fertilizer Wing
- Irrigation Wing Down Sized
- Govt. Job Cut, 27,000>9000
- Farmers Lost Faith

Financial

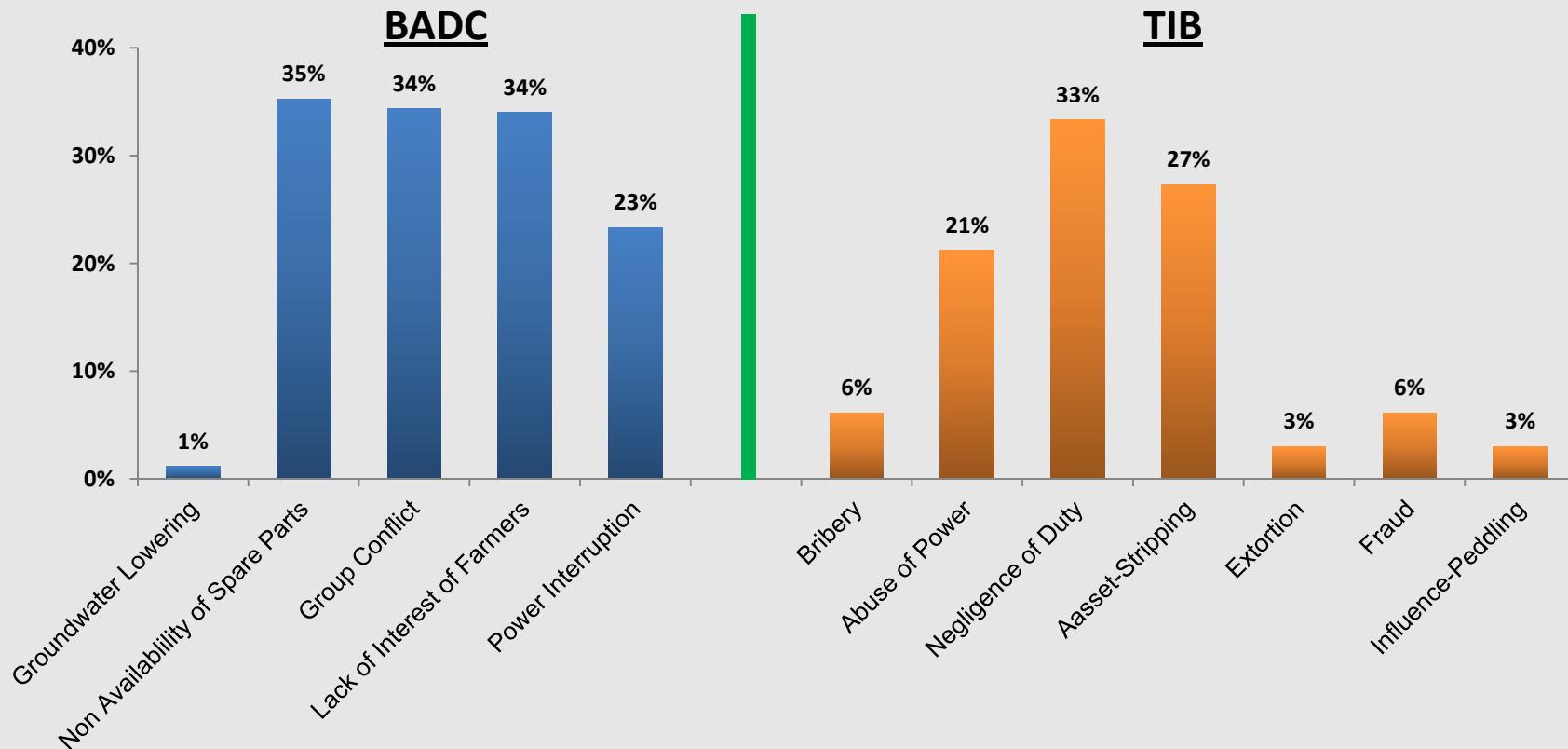
- Govt. Imposed debt Service Liability
- Insufficient Fund for New Project
- Struggle with Employee Salary

Technical

- Lack of Expert Technicians
- Lack of Sincerity among Senior Policy makers
- Unguided Field Officers

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Conflict and Corruption Percentile



“Poor collection rates are more a function of irrigation departments’ unwillingness to collect than of farmers’ unwillingness to pay.”
-Svendsen



Actions Taken

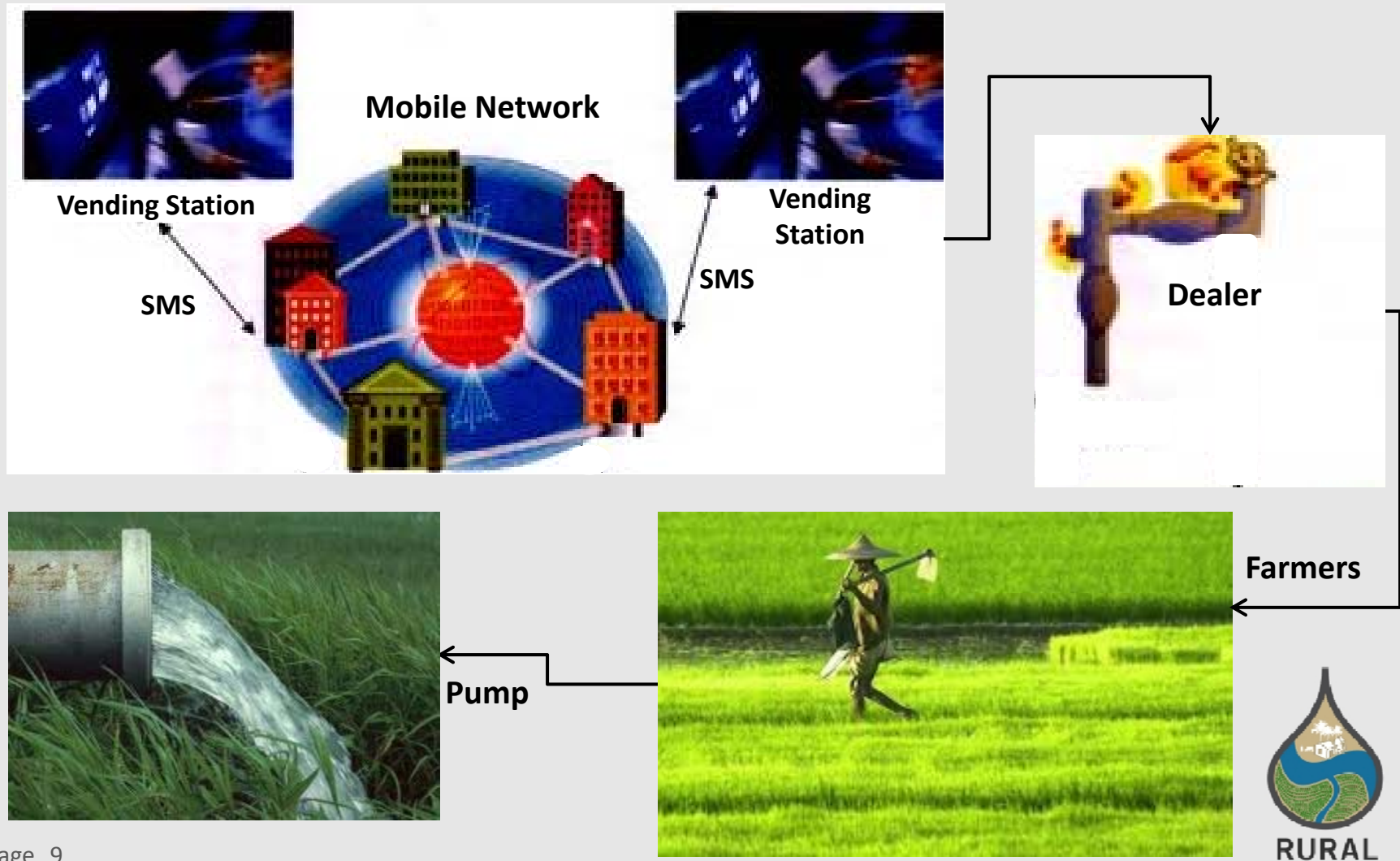
- Adopting appropriate localized policies to meet the need of the project
- Development of innovative “Inverted Well” and surface water supply
- Underground plastic pipe water distribution system for surface channel
- Replacement of cash transaction “ Pre-Paid meter with Sim Card
- Provide best possible services for most reasonable and affordable fees
- Introduction of crop credit



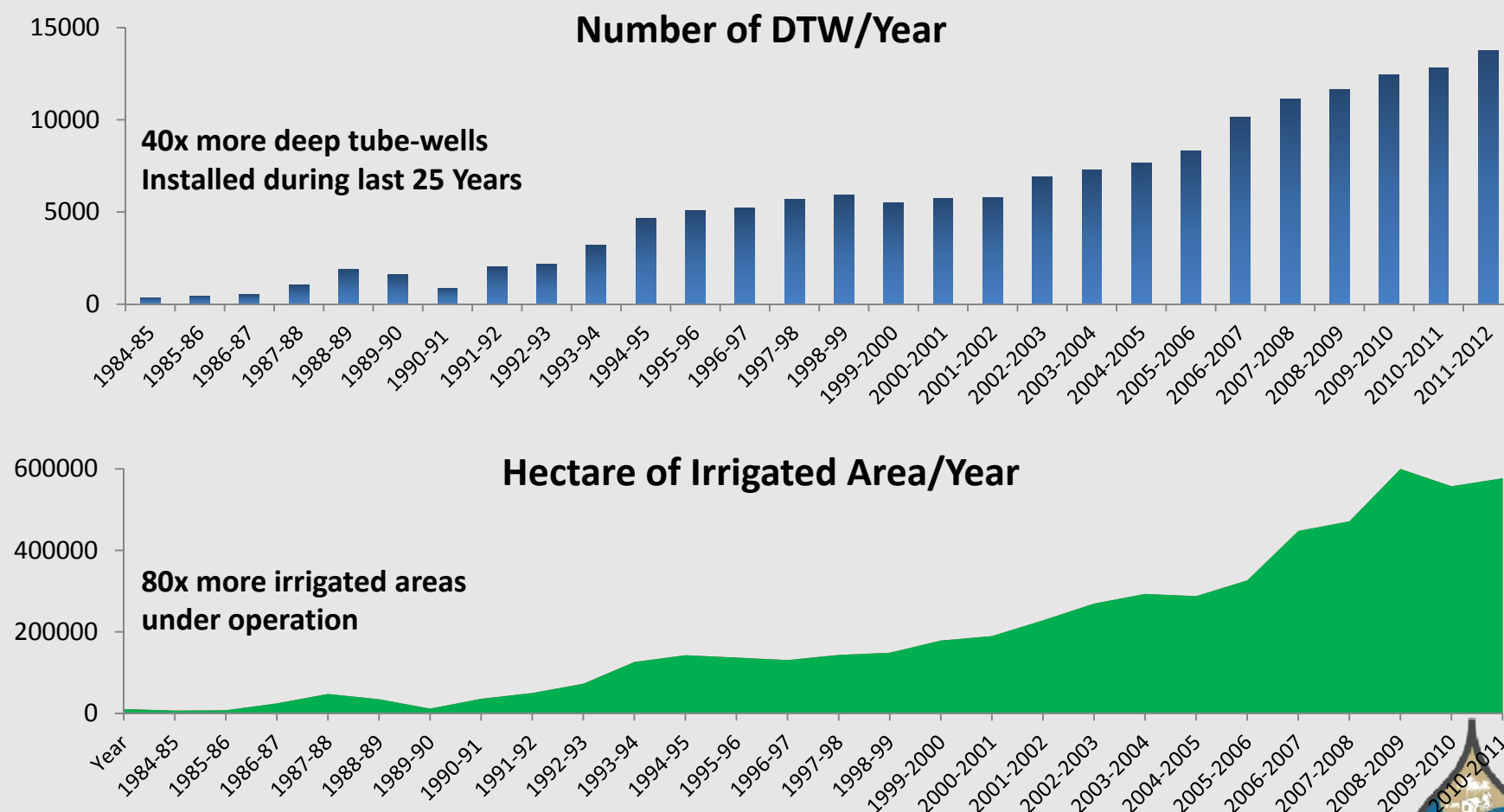
A revolutionary Change: “Pre-Paid Meter”



Diagram of Electric Meter for Irrigation to The Farmers

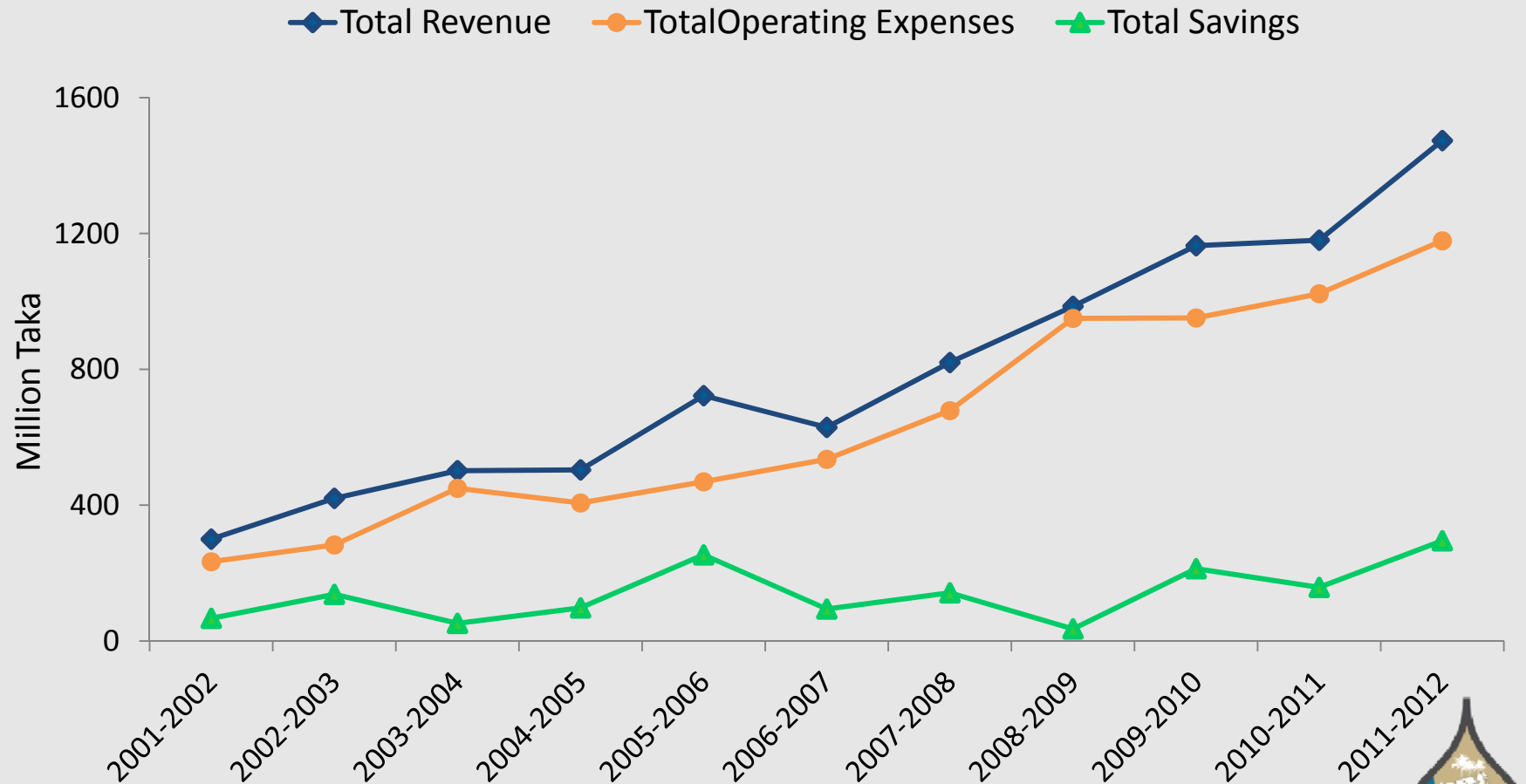


By Year DTW Operation & Irrigated Areas



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Financial Independence and Sustainability

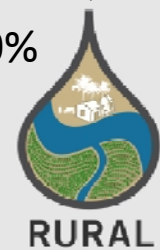
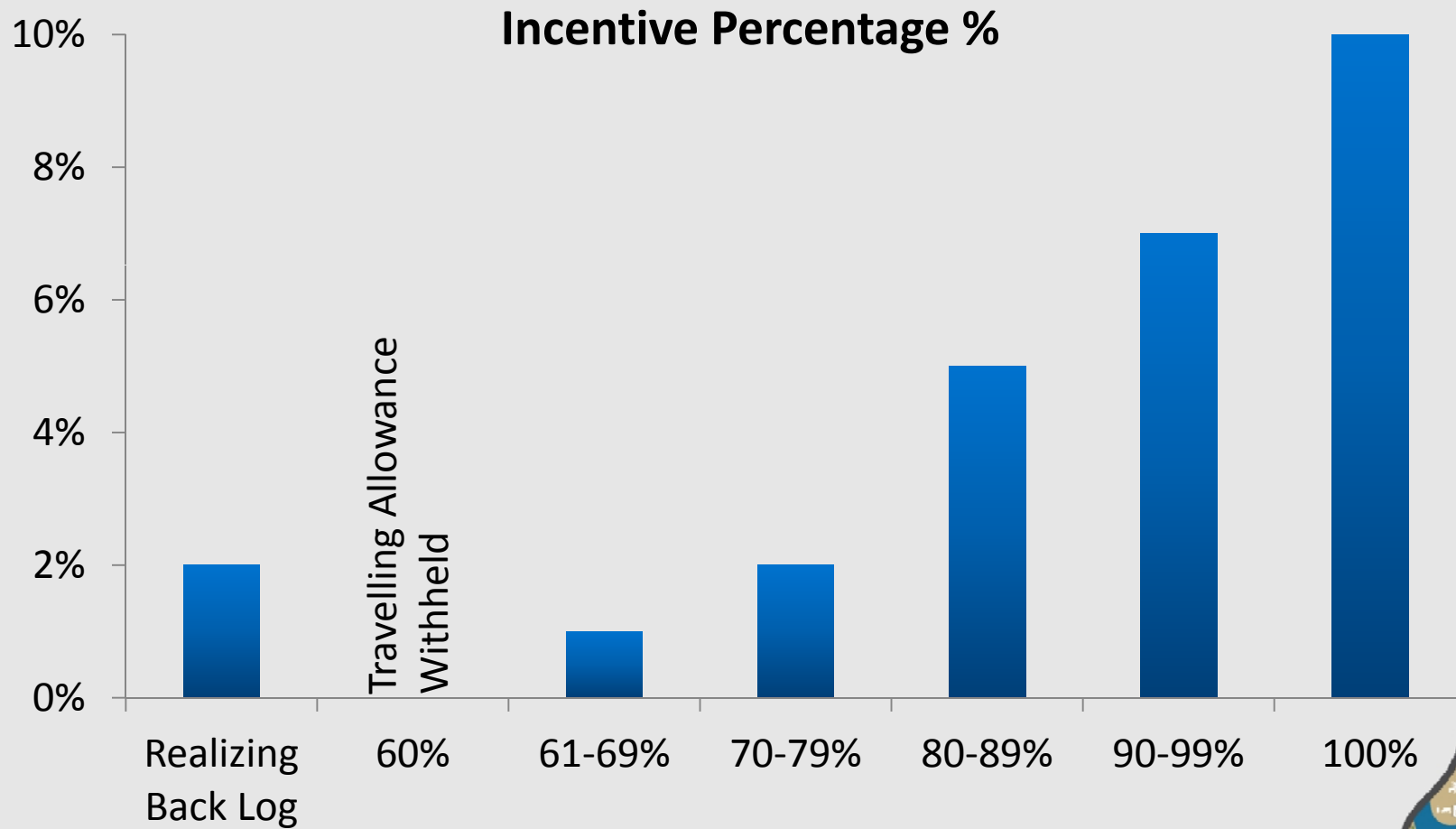


Transformation After Installing Pre-Paid Meter

	Before Pre-Paid Meter	After Pre-Paid Meter	Comparison
Irrigated Area (in hectare)	41	50 ↑	22% Increased
Nos. Of Beneficiary	75	85 ↑	13% Increased
Irrigation Charge (BDT)	3,60,130	3,91,657 ↑	9% Increased
Electric Bill (BDT)	1,90,552	1,78,990 ↓	7% Decreased



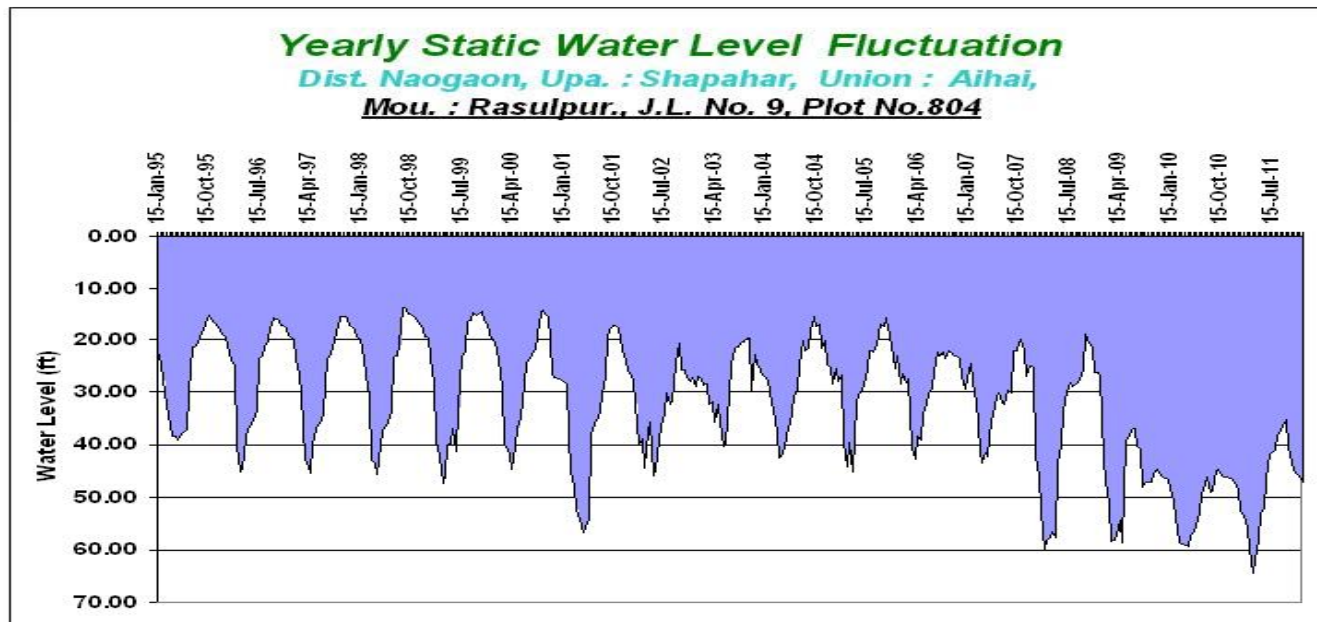
Provision of Incentive at BMDA



Buried Pipe System



Controlled ground water extraction



District	Year	No of DTW	No of STW	Total	Irrigated Area (ha)
Naogaon	1995	2664	28816	31480	129016
	2011	4098	63223	67321	240094
	2012	4524	65773	70297	279565



Lessons Learned

Motto

**Best Possible Service
for Most Affordable
Service Charge**

Must Have

- **Reliable Irrigation System**
- **Electrification**
- **Underground Plastic Pipe**
- **Prepaid Meter**
- **Supervised Crop Credit**

Quality Management

- **Independent management**
- **Staff incentive based on performance**
- **Engaging Women**
- **Transparency**
- **Ensure financial viability**

Each of These Steps Must Be Mastered with Equal Importance. Lacking in any One of The Steps Will Hinder The Process of Reaching Optimum Yield

Knowledge Transfer

How Barind Model Could be Replicated in Other Parts of The Country and Beyond?

- ✓ **Policy Makers Should Decide if They Want a Sustainable Irrigation Project**
- ✓ **If Yes, Exchange Programs Between Different Levels of a Successful Program and a New Program Should be Accommodated**
- ✓ **Experienced Personnel from Barind can be Hired on Lien/Deputation for Expansion and Replication**
- ✓ **Scope of Sufficient Flexibility Should be provisioned in The Irrigation Projects Within Bangladesh and Outside**

Today's Barind Dreams of Past – Reality of Present



Questions and Answers

धन्यवाद

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