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# **Bridging the Gap**

## **Innovative Financing Arrangements for Irrigation Tech Adoption: The Karnataka Case**

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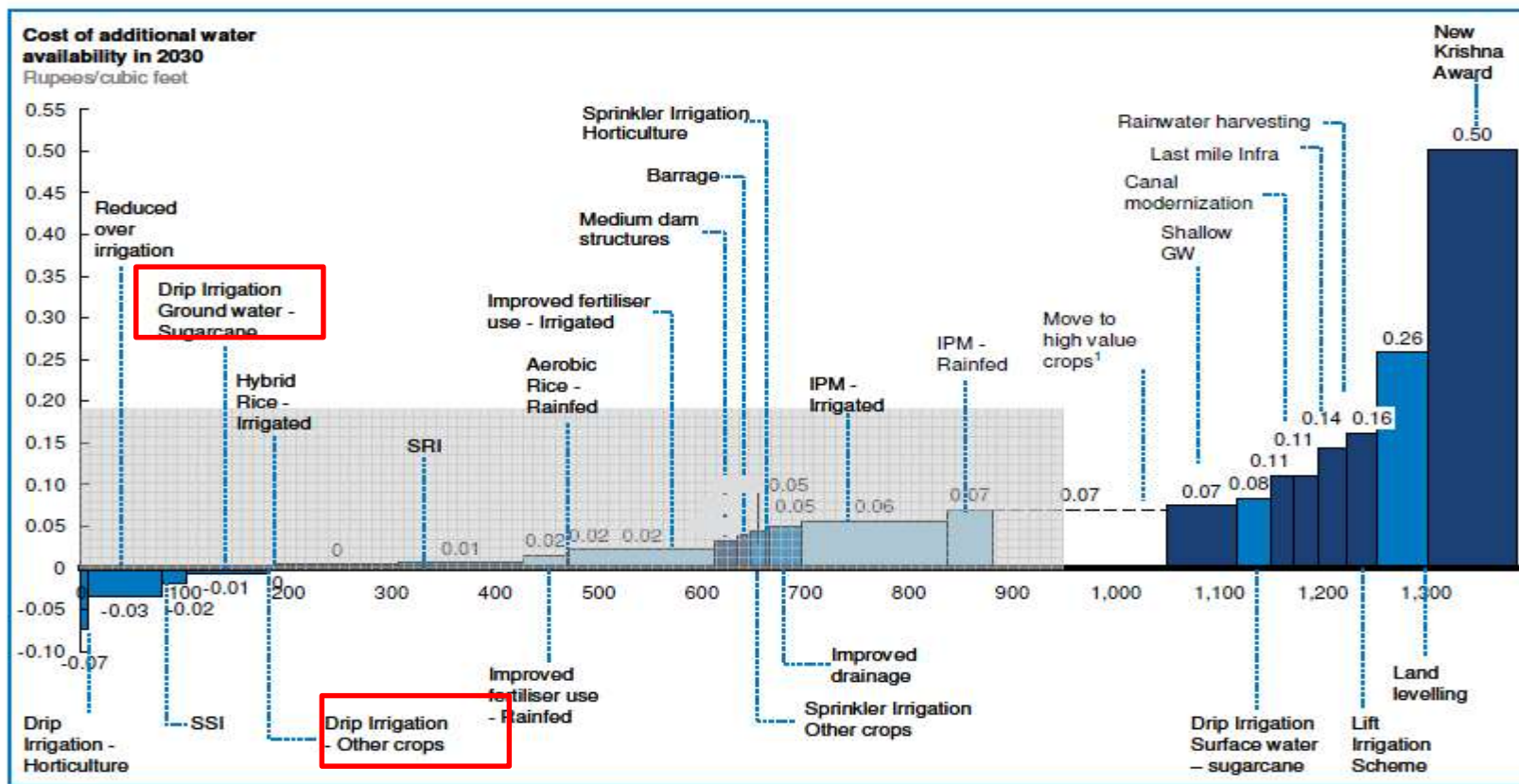
# Karnataka Engagement Initiation

Proposed engagement builds on the recommendations emerging from 2030 WRG's Agricultural Analytical Phase

Recommendations of the Analytical Phase

## Water availability cost curve for Karnataka

- Crop mix change
- Irrigation efficiency
- Agriculture productivity
- Supply augmentation



# Karnataka Sugarcane Drip Concept

Proposed initiative aims to introduce drip irrigation for all sugarcane farmers in Karnataka

## Current Concept

**Objective:** Water use efficiency in sugarcane through drip irrigation for all sugarcane farmers in Karnataka

### Identified Stakeholders:

- **Farmers** - drip adoption
- **Financial Institutions – commercial/state** finance for drip
- **Sugar Mills** (extension/ farmer outreach, access to finance, repayment mechanism for farmers)
- **Drip companies** (technology provision, after sales support)
- **Department of Water Resources, CADA** (outreach and implementation, smart subsidy)

# Sugarcane Farmers –  
700,000

Area coverage – 434,000  
hectares



# Sugarcane MIS in Karnataka - Financing

Cost of drip irrigation will be extended as a loan from banks to farmers, whereas infrastructure requirements will be paid by government

## Infrastructure Requirements

Cost of Infra ~\$1,270/ acre

100% Government Financed

### Civil Works

Collection Sump, pump house, Filter station,  
Pipe distribution network (bulk feeder, mains & sub mains)

### Electro-Mechanical Works

Pumping machinery, Electrical substation, Transformer

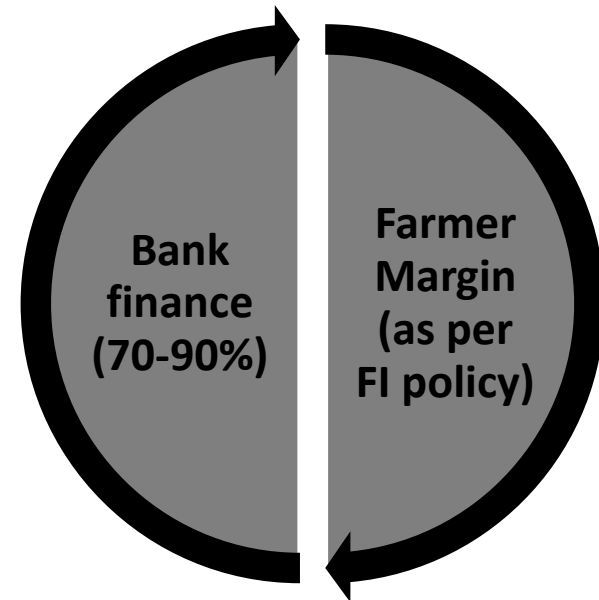
### SCADA & Automation System

Irrigation Controllers, Solenoid valves, Remote terminal Units

## On-Farm Drip Irrigation

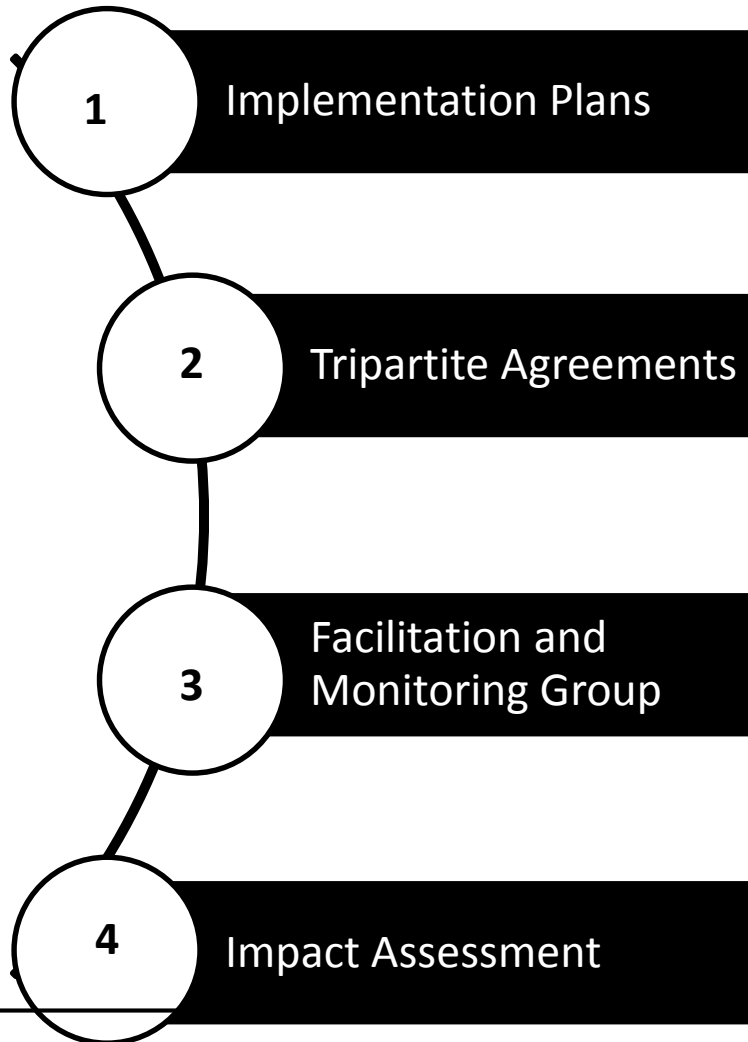
Cost of Drip ~\$990/ acre

Private Sector-Financed  
(Banks + Beneficiaries)



# 2030 WRG Sugarcane MIS in Karnataka – Stakeholder Engagement Model

Program centers around sugar mill and financial institutions' participation



- **Sugar mills'** accountability for **coverage** of all farmers in command areas (key facilitator)
- Government **Water Resources Dept** as nodal agency
- Facilitation of **bank credit** through tripartite agreements
  - Farmer
  - Sugar Mill
  - Financial Institution
- Mills to deduct loan amount from farmer dues
- **Multi-Stakeholder Group** – Implementation Improvements and Progress Monitoring
  - Government/ Nigams
  - Financial institutions
  - Sugar mills
  - Domain Experts
  - Enablers/ 2030 WRG
- **External agency** to assess productivity gains and water savings **at farmer-, canal-, and basin levels**

# Stakeholders and Partners

## Key Institutions

### Financial Institutions

- SBI
- Syndicate Bank
- Canara Bank
- Ratnakar
- SBM
- Corporation Bank
- HDFC
- ICICI
- NABARD

### Sugar Mills

- State's 58 sugar mills
- EID Parry
- Renuka Sugars
- Ugar Sugars
- Shree Doodhganga Krishna

### Government

- Water Resources Department
- Krishna Bhagya Jal Nigam Limited
- Command Area Development Authorities

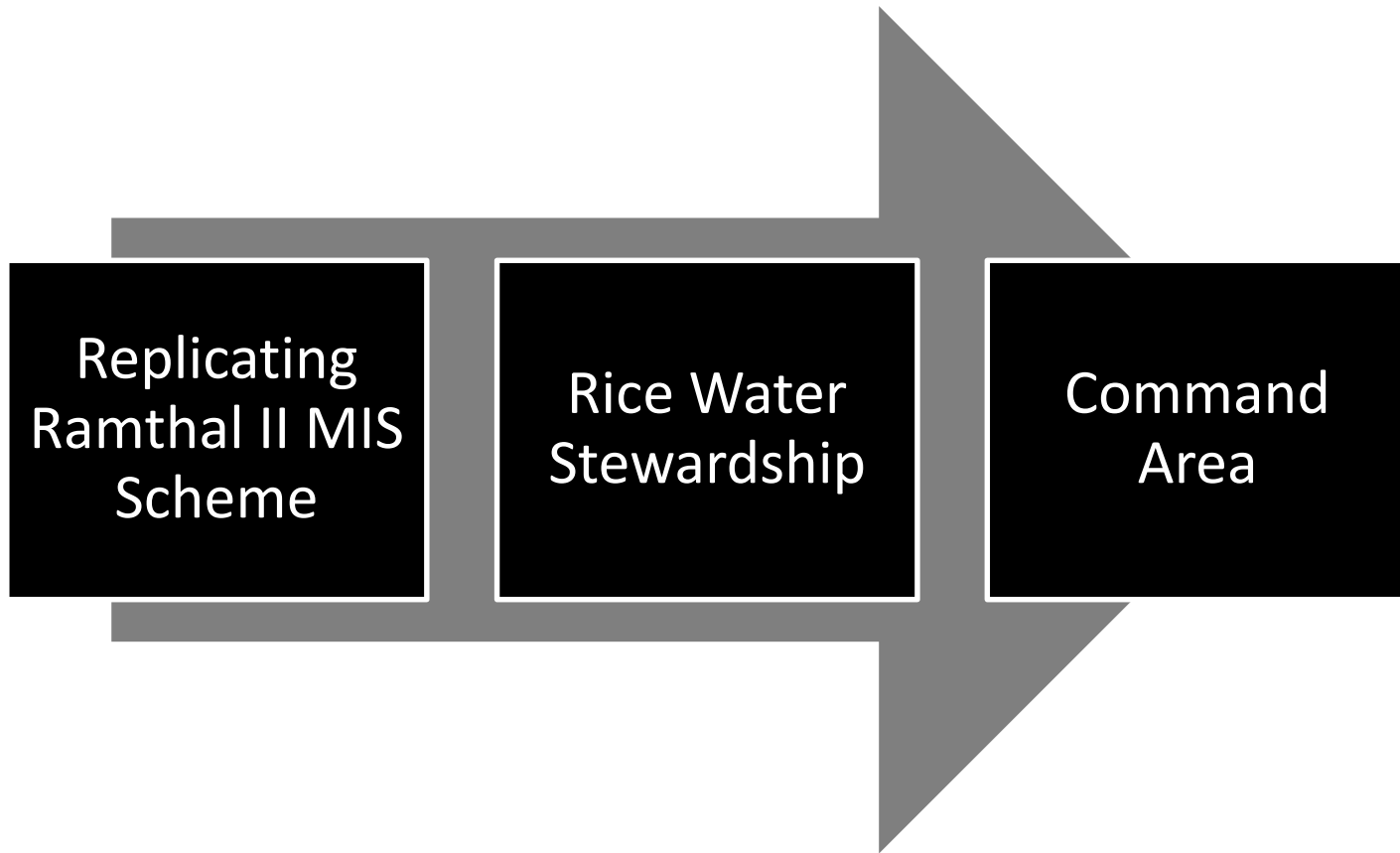
### Others

- CRISIL
- Jain
- Netafim
- Indian Institute of Science
- University of Agri Sciences



# Next Wave

Area and Crop-Based Approaches



Replicating  
Ramthal II MIS  
Scheme

Rice Water  
Stewardship

Command  
Area





# Thank you

