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# **Linking Finance and Water Flows: Innovative Financing for Water Scarcity**

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## 2030 WRG Global: Background



# 2030 WRG's Global Partners

Members include a combination of public, private, and civil society partners

Incubated  
within



Since 2012  
hosted by



Bilateral donors



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra



Development banks



Multinational  
companies



PEPSICO



INGOs and IGOs



Global Water  
Partnership



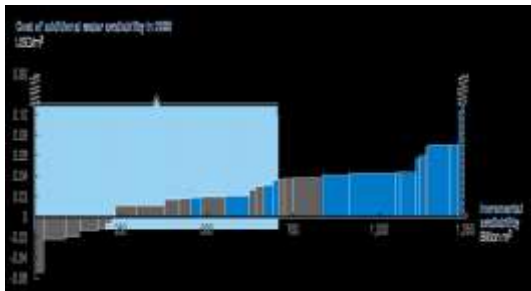
# 2030 WRG Country Engagement Process

Engagements focus on a combination of financing, policy reform, and programmatic approaches through the A-C-T process for fact-based, inclusive, and sustainable outcomes

## Step 1

### ■ Analysis

to support better decisions



- Comprehensive fact base with broad agreement
- Cost, Benefit or Risk analysis depending on countries needs

## Step 2

### ■ Convening

public-private-civil society stakeholders



- Multi-stakeholder dialogue to help government shape and take forward priority programs, plans and actions

## Result

### ■ Transformation

to higher performance and sustainability



- Concrete proposals to ensure lasting change on the ground
- Can be Programs, Plans, but also financing and policy reform



## **Innovative Financing: Karnataka Drip Irrigation**



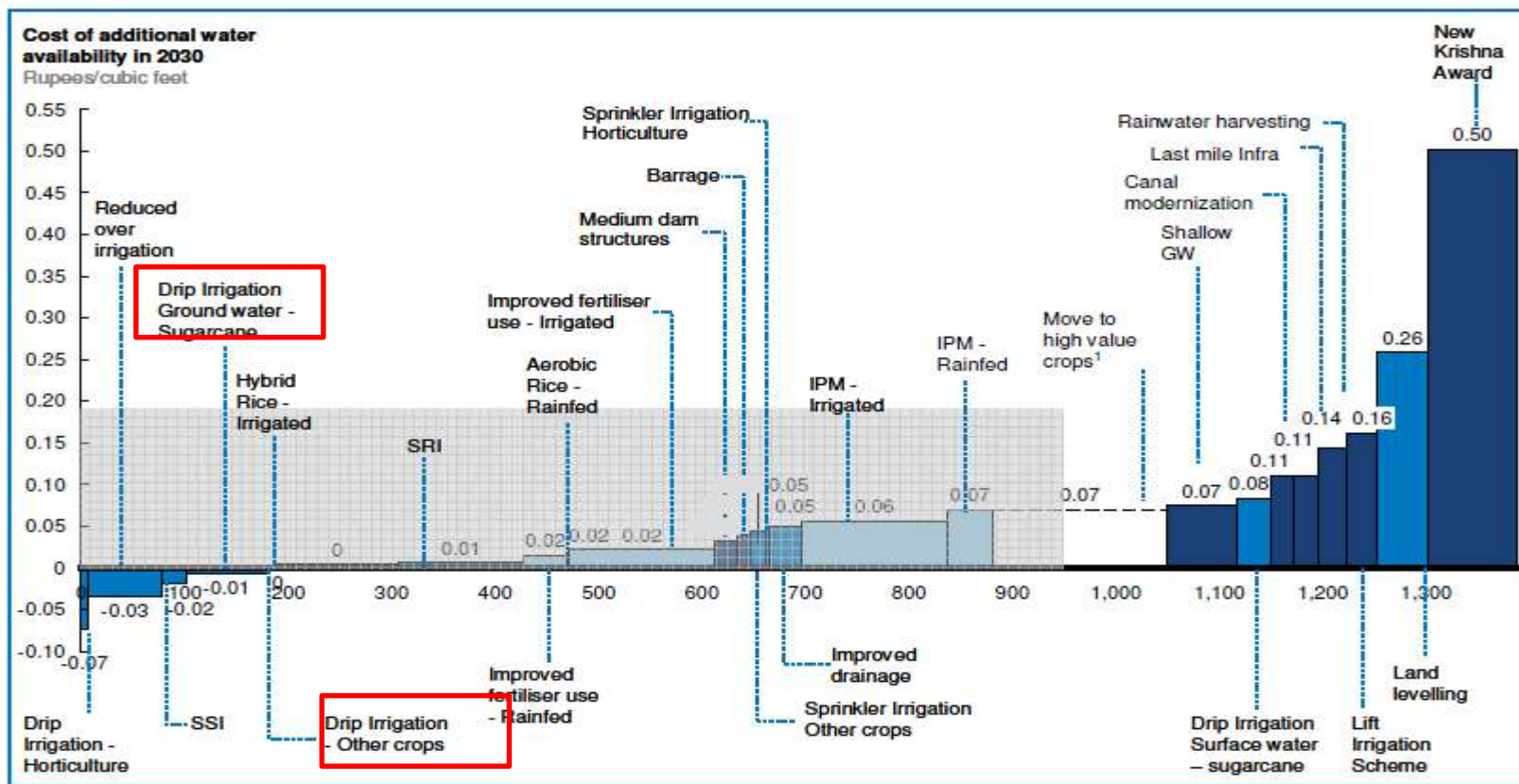
# Karnataka Engagement Initiation

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

Initiative focuses on introducing 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

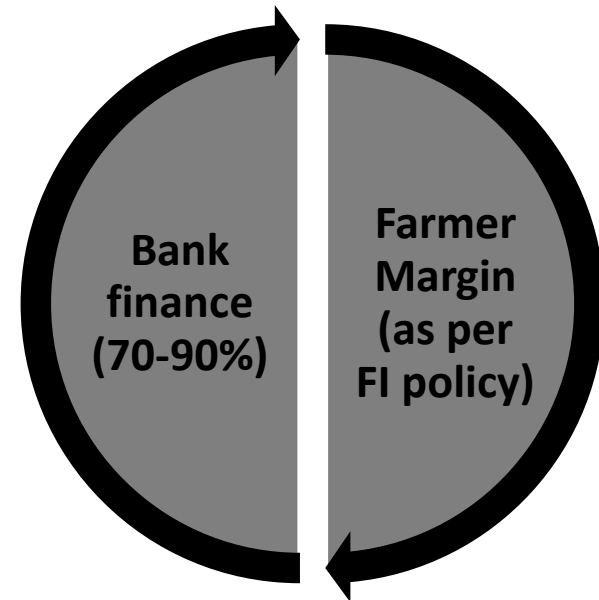
### SCADA & Automation System

Irrigation Controllers, Solenoid valves, Remote terminal Units

## On-Farm Drip Irrigation

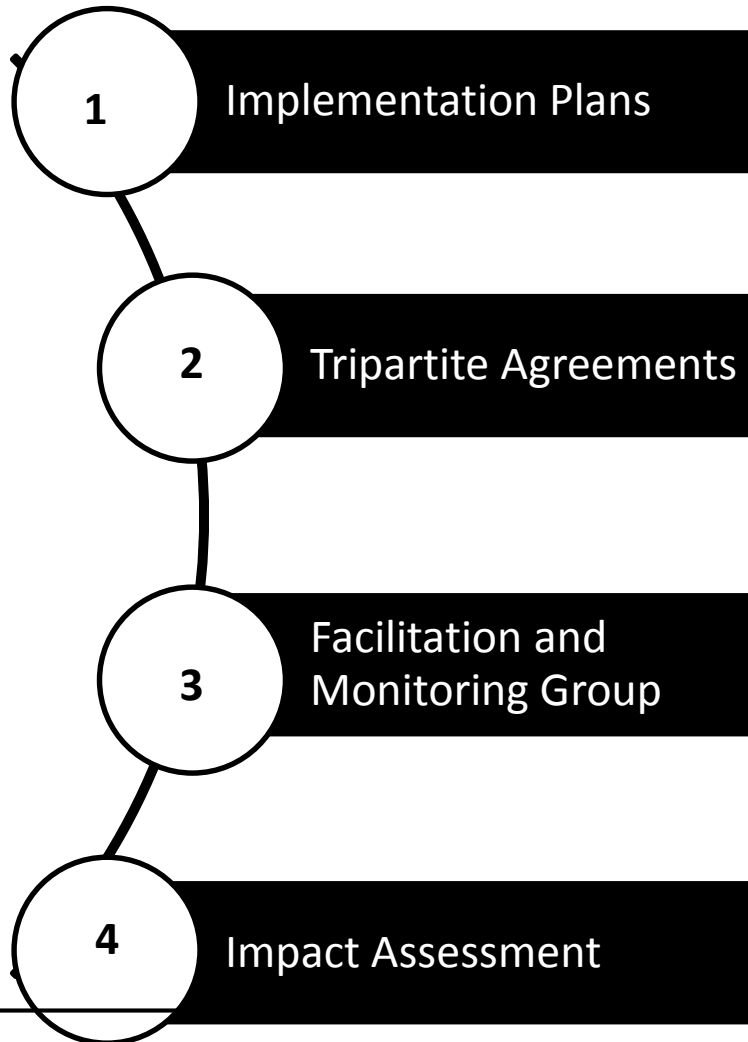
Cost of Drip ~\$990/ acre

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 Improvement 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**

# 2030 WRG Approach: Market-Driven Financing

Program shifts focus from a subsidy-driven engagement to a business case-driven initiative

## Business Case Perspective for Drip Promotion

- **Government Contribution**

Leveraging government contribution towards infrastructure requirements for storage and distribution of canal water

- **Common Principles of Finance Engagement**

Drafting common elements of bank finance for state's 700,000 sugarcane farmers, particularly for reaching small and marginal farmers

- **Sugar Mills Participation**

Structured engagement with sugar mills on payment mechanisms, tripartite agreements, monitoring and evaluation etc



## Funds Flow – Drip Equipment Cost

- **Margin Money**: Farmer/ sugar mill's contribution for margin money transferred to the financial institution providing the loan to the farmer - in an escrow account in the name of the farmer - upon signing of the Tripartite Agreement.
  - The farmer's margin money will be credited towards the last installment of the loan.
- **Loan Amount**: The financial institution shall credit the loan amount to the farmer's account upon credit approval.
- **Payment to MIS company**: The financial institution shall provide:
  - 10% of the cost of equipment as advance to the micro-irrigation company;
  - 80% amount on receipt of
    1. A **Certificate of Installation** duly signed by the farmer, sugar mill, and concerned financial institution, and
    2. **Invoice** for the equipment on the **micro irrigation company's bill book** (to be submitted by the micro-irrigation company to the sugar mill, which shall review and in turn submit it to the financial institution);
  - Balance 10% one year after installation and satisfactory performance.



## **Market Mechanisms: Maharashtra Cotton**





# Maharashtra Cotton Water Platform

Program aims at reaching 500,000 farmers with end-to-end solutions on water availability and market linkages



WATER AUGMENTATION



WATER CONVEYANCE



ON FARM WATER EFFICIENCY



MARKET LINKAGES



Decentralised Water storage Infrastructure – Government Schemes such as JSA, IWMP. Innovative VGF

Innovative infrastructure delivery & finance for water conveyance from storage to fields – PPP-IAD

Technology & finance for innovative & efficient irrigation methods, good agricultural practices, crop diversification, water entrepreneurs

Income enhancement, post harvesting, market connections, product distribution – connections with ginners and other value chain partners

500,000 farmers;  
400,000 small/  
marginal

500,000 ha

10 million m<sup>3</sup>/yr water use avoided

50 Blocks of 10,000 farmers each

1.102 MT/yr GHG emissions reduced



# Maharashtra Cotton: Implementation Modality

Implementation focuses on the formation of Watershed Partnerships for intervention design, financing, and delivery

## Key Implementation Steps

Delineation & Baseline



Formation of Watershed Partnerships

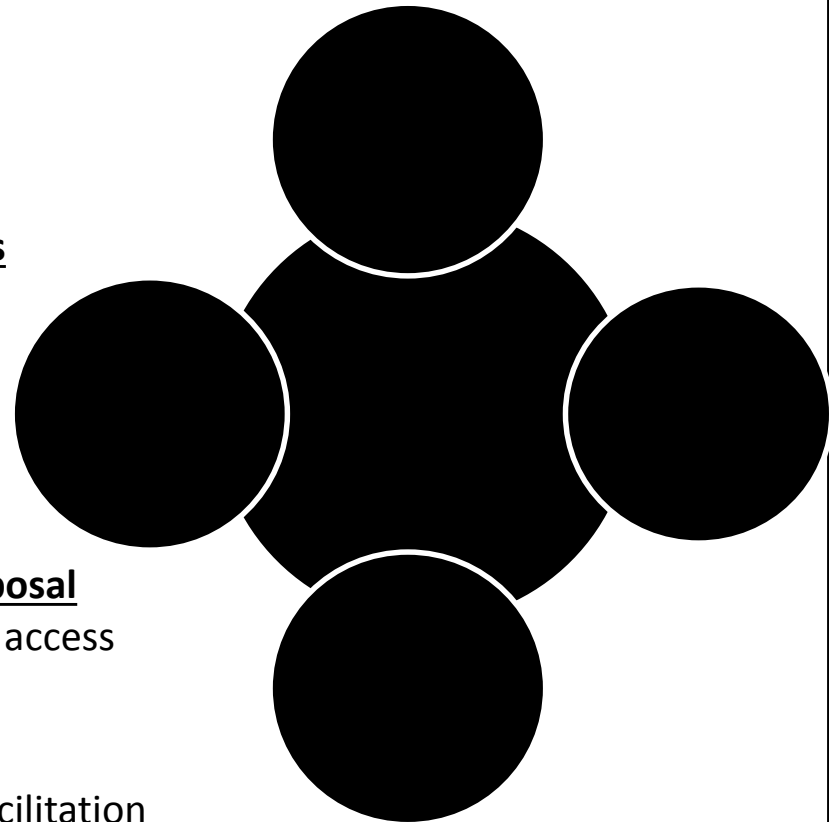


Financing



Monitoring and Evaluation

- Identification of **250 rainfed watersheds**
- **Group of organizations** contractually working together to **deliver services** to farmers
- Convened by a Lead Proponent
- **DPR and financial proposal preparation** by WPs to access blended financing
- **Ongoing support:**
  - Government – Facilitation
  - Private Sector – Market Linkages/ technology
  - CSOs – Community Outreach



# Maharashtra Cotton: Financing

Program moves from 100% subsidy funding to private sector/ financial markets co-funding

## Program Overview

Incentives to  
Unlock Market  
Mechanisms

CSR Funding

PPPs

### Market-based mechanisms for technology use:

- **Credit enhancement via reimbursable grants**, including partial risk guarantees, quasi-equity for water entrepreneurs/ equipment leasing, insurance, and farmer margin contributions
- **Interest rate subvention** for **enhancing affordability** of technology adoption by small and marginal farmers.

### CSR funding leveraged for public good activities (e.g. Watershed harvesting)

- Over and above government interventions
- Focused on **comprehensive watershed treatment**, including bunding, farm tanks etc., for more equitable water access.

### Public-Private Partnerships for Integrated Agricultural Development (“PPP-IAD”)

- Cost sharing on **extension services, diversification and market linkages**
- Collaborative approach





# Maharashtra Partners

Partners include a combination of government agencies, corporates, financial institutions, and civil society

Select Partners – Cotton Water Platform



# Key Lessons for Unlocking Financing

Approach requires upfront, multi-stakeholder engagement

## Finance Mobilization

### Early Dialogue

- Early engagement with **Multilateral Development Banks (“MDBs”) and Development Finance Institutions (“DFIs”)** to integrate funding requirements into Country Strategy

### Business Case and Risk Mitigation

- Articulation of the **business case** to attract commercial funding
- Development of **risk mitigation strategies** for **commercial** funding

### Enabling Environment for PPPs

- Working on the **enabling environment for PPPs**
- **Developing an engine** for systematically identifying and executing PPP transactions, wherein private sector finance can be channeled

### Demonstration of Co-Funding

- Demonstration of **leverage on donor/ government funding** with other sources of funding, particularly private sector

### Multi-Stakeholder Approaches

- Design of **multi-stakeholder approaches** to access funding from different sources – government, financial institutions, private sector, communities, donors

