
Integrated Approach Towards
Crop Diversification and Water Conservation
From Mera Pani Meri Virasat to Water-Secure Agriculture
Right Crop • Right Water • Right Technology • Right Incentive
Right Crop
Right Water
Right Technology
Right Incentive
23.09.2026

Haryana’s Water Agriculture Challenge

Agricultural Prosperity vs. Water Sustainability

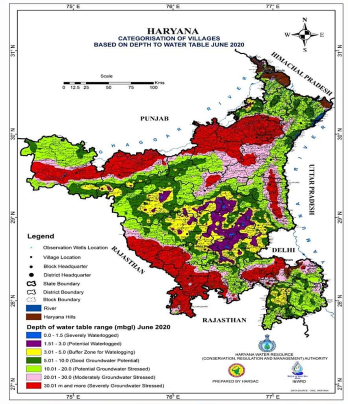
Agriculture is the backbone of Haryana's rural economy.

Assured irrigation has enabled high agricultural productivity.

However, water-intensive cropping has created pressure on groundwater resources.

Spatial variation exists: some areas face **groundwater depletion**, while others face **waterlogging/salinity**.

Climate variability further increases uncertainty in agricultural water availability.





The challenge

How do we sustain farmer income and agricultural productivity while reducing pressure on water resources?

Mera Pani Meri Virasat (MPMV): Haryana's Flagship Crop-Diversification Initiative

A policy shift from water-intensive paddy toward diversified, water-efficient agriculture

WHAT IS MPMV?

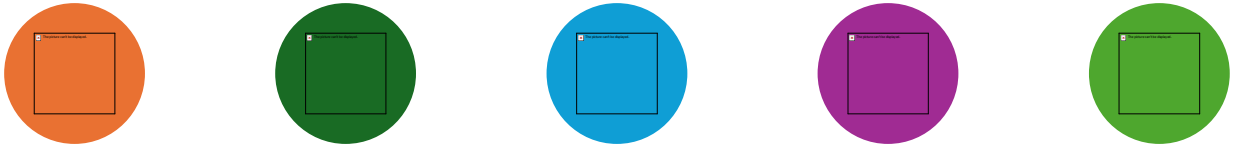
- Launched by the Government of Haryana in **2020**.
- Flagship **crop-diversification initiative** to reduce dependence on water-intensive paddy.
- Encourages farmers to shift to **less water-consuming alternative crops**.
- Focuses particularly on **groundwater-stressed areas**.
- Aims to **conserve groundwater and promote sustainable agriculture**.
- Supports a transition towards **water-efficient and climate-resilient cropping systems**.

Key Features

Parameter	MPMV
Launch	Kharif 2020
Nodal Department	Agriculture & Farmers Welfare Department, Haryana
Primary objective	Crop diversification + groundwater conservation
Core intervention	Shift from paddy to alternative crops
Current incentive	₹8,000/acre
Additional incentive	₹2,000/acre for specified crops such as pulses, oilseeds & cotton
Annual Target	1.00 lakh acres
Target under Water Secure Haryana Program (WSHP)	1.12 lakh acres
Alternative crops	Maize, cotton, pulses, oilseeds, fodder, vegetables/horticulture, agroforestry, etc.

MPMV: Haryana's Strategic Beginning

- **The first major step towards aligning crop choice with water sustainability.**
- **MPMV →**



ENCOURAGE DIVERSIFICATION FROM WATER-INTENSIVE CROPS

PROMOTE ALTERNATIVE CROPS

REDUCE GROUNDWATER DEPENDENCE

INCENTIVISE FARMERS

CREATE AWARENESS AROUND WATER CONSERVATION

- **Key transition: From "Paddy as the default crop" → "Crop choice based on water sustainability."**
- MPMV should be viewed as the **foundation**, not the endpoint, of Haryana's water-security strategy.

The Next Step: From Crop Switching to Integrated Water Management

Crop Diversification Alone is Not Enough

Traditional approach



Paddy



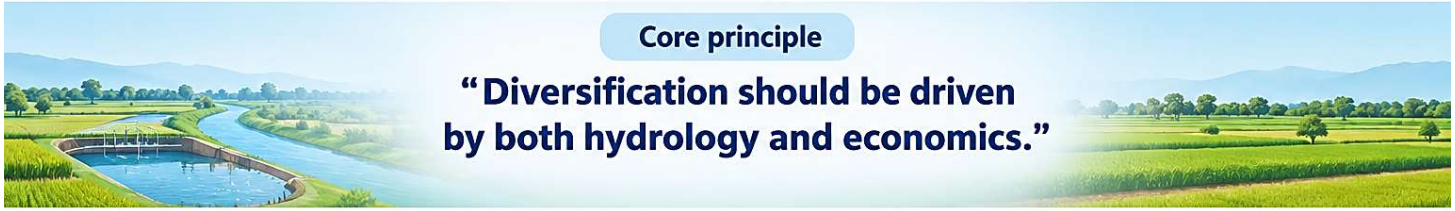
Alternative Crop

Integrated approach

Water Availability

- Groundwater Status
- Soil & Agro-climatic Suitability
- Crop Water Requirement
- Irrigation Infrastructure
- Market & Farmer Income

Right Crop in the Right Place



Core principle

"Diversification should be driven by both hydrology and economics."

The Water-Crop Economy Nexus

Five Interconnected Dimensions to promote Sustainable Farmer Prosperity

WATER
Surface water + Groundwater + Rainfall

↓

CROP
Crop suitability + Water requirement

↓

SOIL
Soil health + Waterlogging + Salinity

↓

TECHNOLOGY
DSR + Micro-irrigation + Precision irrigation

↓

ECONOMY
Market + Procurement + Farmer income

Water Budgeting for Crop Planning

From "How Much Water Does the Crop Need?" to "How Much Water is Sustainably Available?"

Water Availability
(Rainfall + Canal Water + Sustainable Groundwater)

→

Water Demand
(Crop Area × Crop Water Requirement × Irrigation Efficiency)

→

Water Gap

→

Deficit Water
(~14 BCM)

Better Water Planning = Stronger Food Security

Crop Planning

Water-stressed areas
→ Accelerate diversification

Water-balanced areas
→ Optimise crop portfolio

Waterlogged areas
→ Drainage + reclamation + suitable cropping



Crop diversification should be spatially targeted— not one-size-fits-all.

Right Water for the Right Crop | Higher Productivity | Improved Farmer Income | Sustainable Use of Resources

Two Pathways: Diversify Where Possible, Save Water Where Paddy Continues

1 PATHWAY 1 — CROP DIVERSIFICATION



Maize | Pulses | Oilseeds | Cotton | Fodder | Horticulture | Agroforestry

Reduced crop water demand

2 PATHWAY 2 — WATER-EFFICIENT PADDY



DSR + improved irrigation practices

Reduced irrigation requirement

Diversify where possible; conserve water where paddy continues.

Integrating Demand and Supply Side Interventions with Water Conservation

Demand-Side + Supply-Side Water Management

DEMAND SIDE

- MPMV / Crop diversification
- DSR
- Micro-irrigation
- Laser land levelling
- Water-efficient crops



SUPPLY SIDE

- Canal rehabilitation
- Watercourse rehabilitation
- Rainwater harvesting
- Village water bodies / water storages
- Groundwater recharge
- Conjunctive use of Water

Reduced Pressure on Groundwater

Water Conservation Beyond the Farm

Create → **Store** → **Recharge** → **Reuse**

Create

- Farm ponds
- Village ponds
- Rainwater Harvesting Structures, Check Dams etc.



Farm Ponds



Village Ponds



Rainwater Harvesting Structures / Check Dams

Store

- Creating new Water Bodies



Recharge

- Appropriate recharge structures
- Aquifer recharge



Reuse



Outcome :
More water retained within the landscape + reduced dependence on groundwater

"Every drop captured today strengthens tomorrow's agricultural resilience."

From MPMV to Water Secure Haryana Program (WSHP)

Building on Existing Initiatives	• MPMV (Crop Diversification)
DSR	• Water-efficient Paddy
Micro-Irrigation	• Efficient Water Application
IWRAP	• Integrated Water-Resource Planning
Canal / Watercourse Improvements	• Efficient Surface-Water Delivery
Reclamation of Waterlogged/Saline Land	• Restore Agricultural Potential
WSHP	• Haryana is moving from individual water-saving interventions towards an integrated water-security architecture.

From Multiple Initiatives to a Unified Vision

INTEGRATED | SUSTAINABLE | WATER SECURE

HARYANA



Practices Adopted under ABY

- Farmers are given an incentive amount of Rs. 7000/acre under Mera Paani Meri Virasat (MPMV) scheme of Haryana Govt.
- IEC strategy was prepared and executed to promote awareness among the community about ‘MPMV’
- Around 550 Quintal of Bajra Seeds has been recently distributed among 15000 farmers under Atal Bhujal Yojana
- Technical assistance for bajra cultivation is being done by National Seeds Corporation (NSC), Chandigarh
- State Govt. has fixed the MSP for Bajra (Millet) for Rs. 2350/- per quintal regarding promotion of Millets





Effectiveness of the Practices

- Crop diversification is being encouraged and promoted by State Government to address the challenges of soil degradation and declining water table
- Adoption of crop diversification technique through ‘MPMV’ has resulted in numerous benefits like conserving ground water and improving soil health
- Government aims to achieve sustainable agricultural growth, improve farmers' income, and mitigate the risks associated with mono-cropping (paddy-wheat)
- Initiatives have been taken to encourage farmers to adopt alternative crops like millets, pulses, oilseeds, and horticultural crops (fruits, vegetables)



Experience Sharing by Farmer



Experience Sharing by Farmer



Vision & Roadmap

PLAN
- Water-crop baseline
- Hydro-agro zoning
- Water budgeting
- Identify priority areas

IMPLEMENT
- Scale MPMV diversification
- DSR & water-efficient practices
- Micro-irrigation
- Canal/watercourse efficiency
- Rainwater conservation
- Market/value-chain support

SCALE & INTEGRATE
- Digital monitoring
- Outcome-based incentives
- Conjunctive water management
- Cluster-based crop planning

2026-2027 | 2027-2029 | 2029-2032

Thank You !

Do you have any questions?

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The objective is not simply to grow a different crop; it is to create more value from every drop of water.