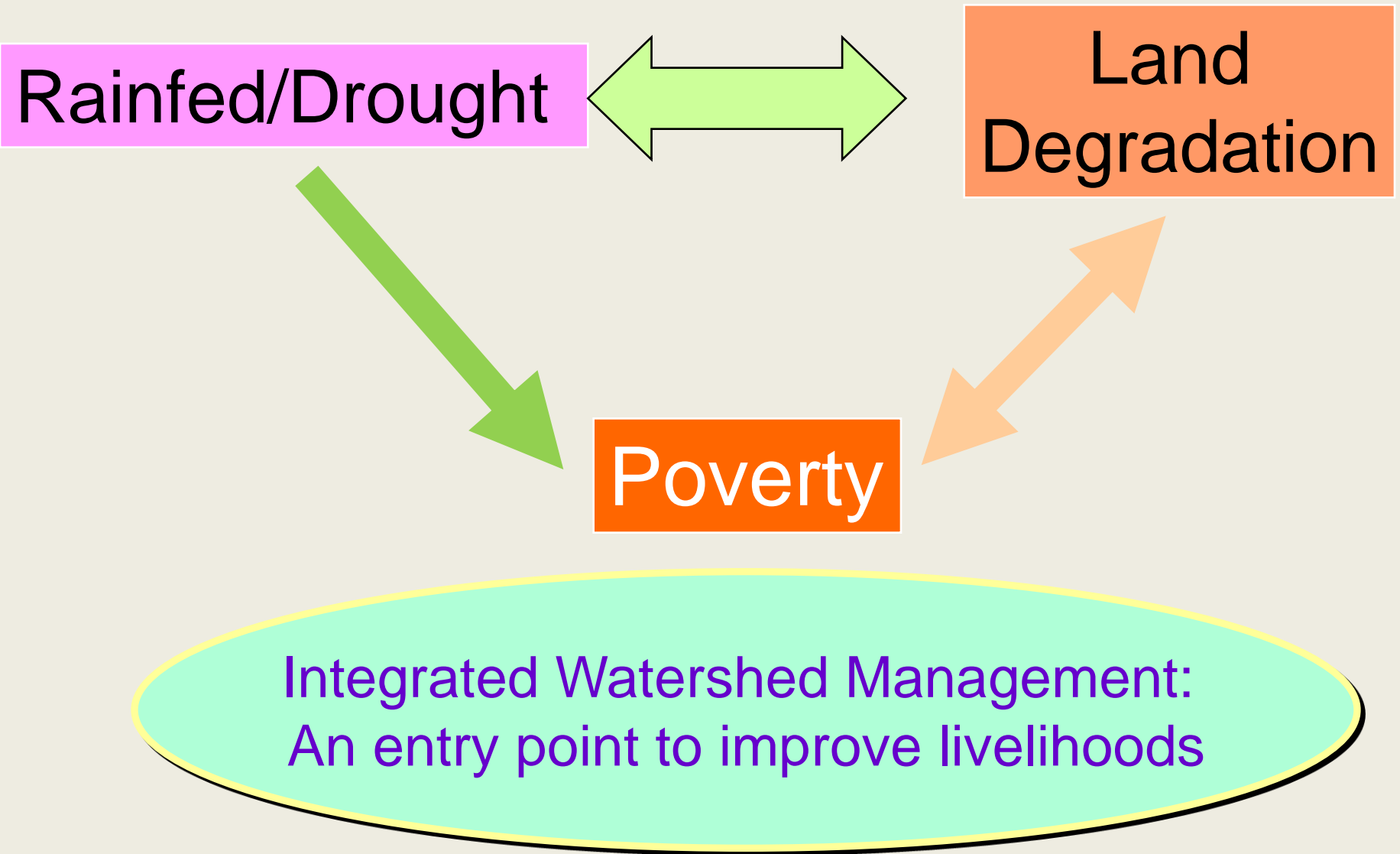


# Watershed Development Component of Pradhan Mantri Krishi Sinchayee Yojana (WDC-PMKSY)

**Dr. C.P.Reddy,  
Sr. Additional Commissioner (WD)  
Department of Land Resources  
Ministry of Rural Development  
Government of India, New Delhi  
E-mail: [drcpreddy@nic.in](mailto:drcpreddy@nic.in)**



# The Nexus



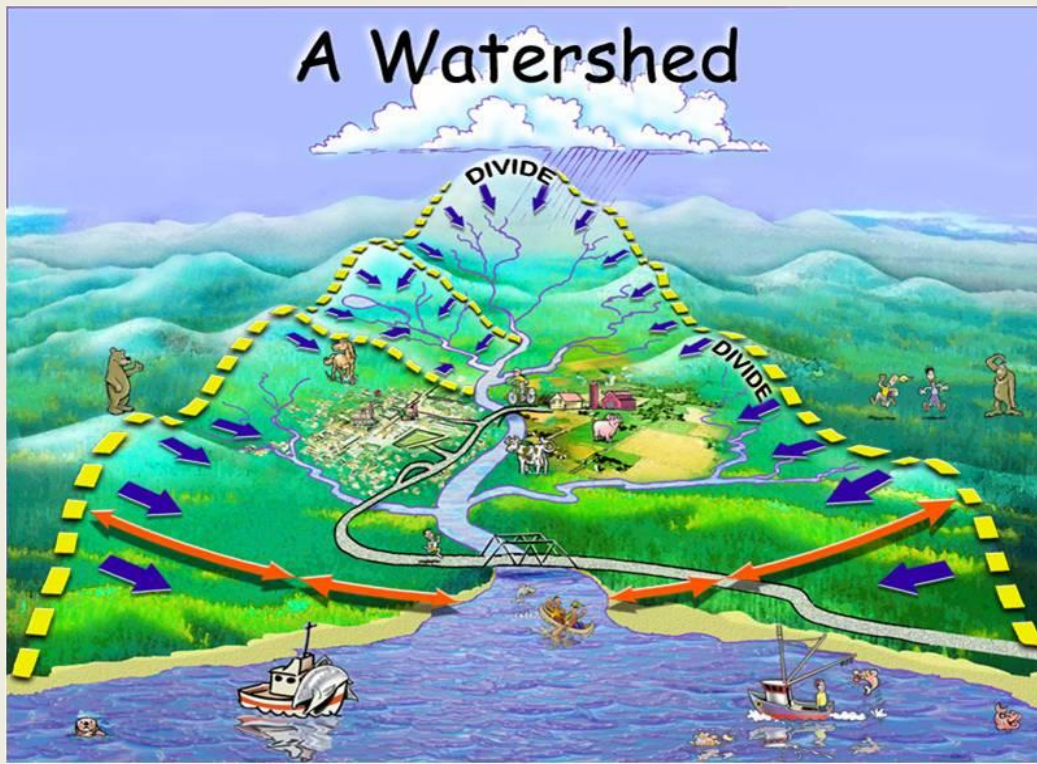
## Rainfed Agriculture in India: The current scenario (½)

- Rainfed agriculture covers **73 mha** of **net sown area** and supports **40%** human population and **2/3rds** of livestock
- India's **84% of rural poor** including majority of tribal population live in rainfed areas
- Contributes about **40% of the food grain production** [90% of all minor millets, 87% major nutri-cereals (sorghum, pearl millet & finger millet) & maize, 85% pulses, 72% oilseeds, 65% cotton and 44% rice]
- **Average per ha yield** in irrigated areas: **3 tonnes** and in rainfed areas: **1.1 tonne only**

# Rainfed Agriculture in India: The current scenario (2/2)

- **Degraded resource base**: low organic matter and low nutrients
- **Diverse climatic conditions**, soil types and cropping systems
- Poor economic status of farmers
- **High climatic risks**: washing away of top soils due to factors like frequent water and wind erosion
- Shallow depth of **soil**, poor water holding capacity, sub-surface hard pans
- **Poor vegetation**
- Poor productivity and inefficient biomass recycle

# A Watershed

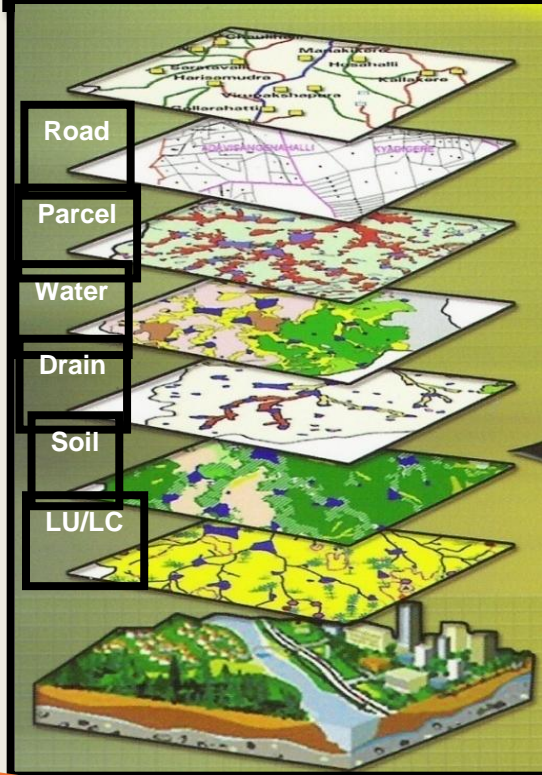


**“A Geo-hydrological unit for an area that drains at a common point.”**

## Watershed Development:



# Salient Features of WDC-PMKSY



- **Institutional Mechanisms** with multi-disciplinary capacity:
  - Central level - Steering Committee
  - State level - State Level Nodal Agency (SLNA)
  - District level - Watershed Cell cum Data Centre (WCDC)
  - Project level - Project Implementing Agency (PIA)
  - Village level - Watershed Committee (WC)
- **Cluster Approach:** Size of project about 5,000 ha.
- **Cost Norms:** Rs.12,000/ha. in plains; Rs.15,000/ ha in difficult/hilly areas and upto Rs.15,000/ha in IAP
- **Funding pattern:** 60:40 between Centre & States; 90:10 for NE and Hill States
- **Project period:** 4-7 years.

## Salient Features of WDC-PMKSY Contd...

- Implementation through Watershed Community
- Participatory Approach
- Emphasis on “**our**” participation in “**their**” plans
- Contributory approach to empower the community
- Transparency in transactions
- Direct funding to the community
- Demand Driven Watershed Dev. Plan
- Linkages with Research Institutions
- Flexibility in technology
- Arrangements for post project maintenance

# Activities under Watershed Projects

- Capacity building and awareness generation
- Encouraging people's participation
- Democratic decentralization in decision making
- Formation of autonomous institution at the village level
- Participatory agricultural water management  
(soil & moisture conservation, rain water harvesting, integrated water management of surface & ground water resources, onfarm water management to enhance water use efficiency, conservation farming etc)
- Afforestation, horticulture and pasture development
- Livelihood activities including production systems & micro-enterprises
- Convergence of activities / schemes

# Community Participation at Institutional Forums

## Watershed Committee

(Registered under Societies Act/Sub-Committee of Gram Panchayat)

(consists of representative members from UG, SHG, *Panchayat* etc.)

## Self Help Groups

(women and land less families)

## User Groups

(Land & Water resource base)

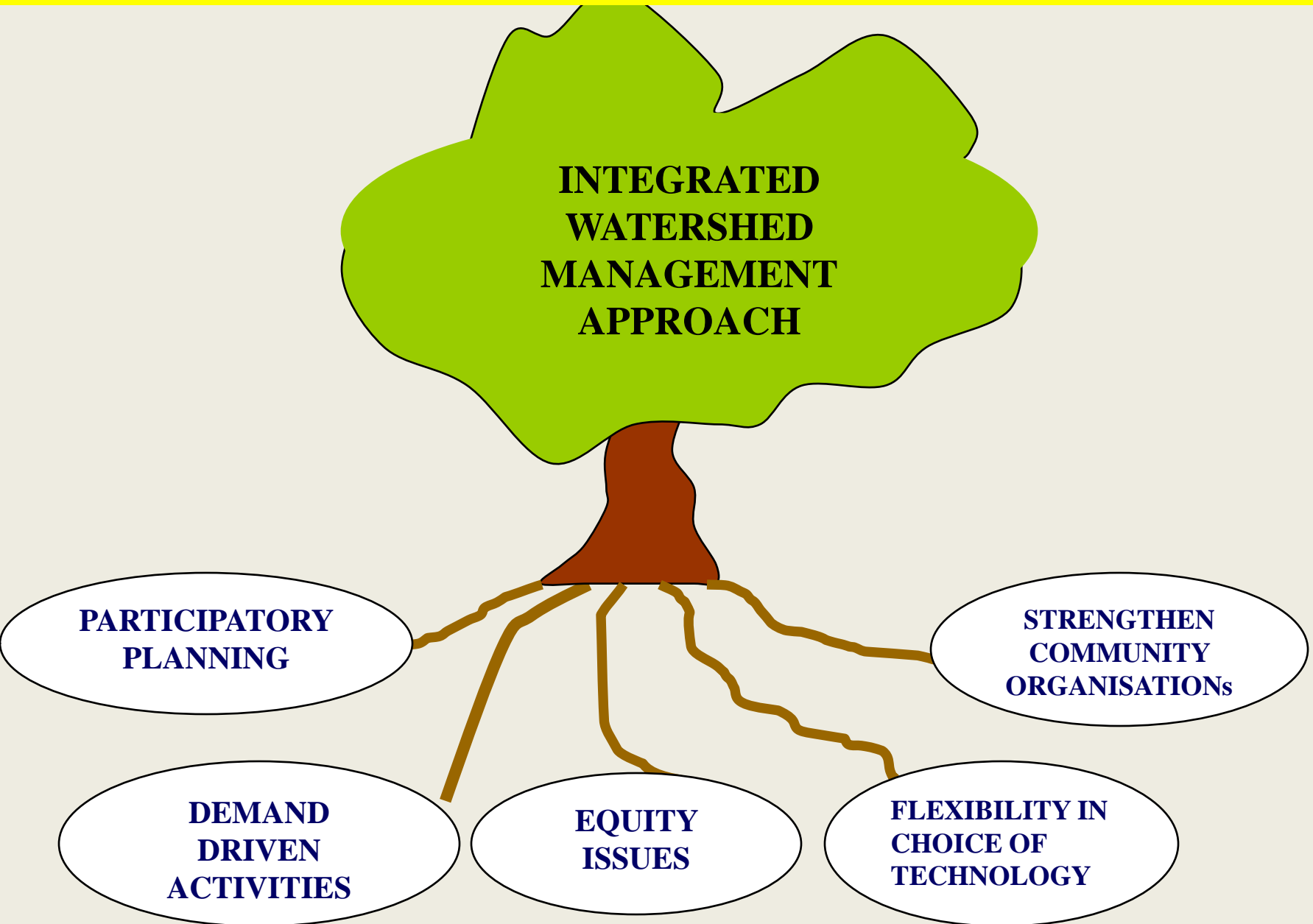
# **Role of Gram Sabha**

- Gram Sabha (GS) constitutes Watershed Committee (WC)
- GS may elect/appoint any suitable person from the village as chairman of WC
- Secretary of WC selected in a meeting of GS
- GS approves DPR
- GS through WC put in place a mechanism for collecting user charges.
- Community organizations are accountable to GS

# **Role of Gram Panchayat**

- Provide office accommodation and other requirements to WC
- Supervise, support and advise WC from time to time
- Authenticate the accounts/ expenditure statements of WC & other institutions
- Facilitate the convergence of various schemes
- Maintain asset registers & post project maintenance
- Allocate usufruct rights to deserving User Groups/ SHGs over the assets created
- Collection of user charges

# Watershed Development - Social Strategy

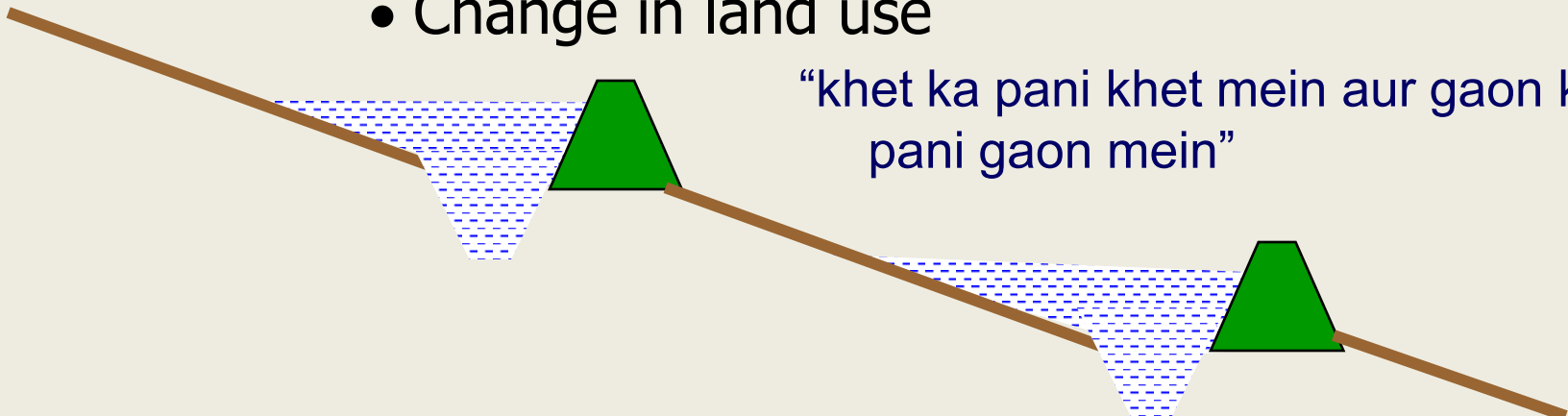


# Watershed Development - Technical Strategy



- Ridge to Valley approach
- *In-situ* moisture conservation
- Reduce Runoff velocity
- Water harvesting structures with the approach of 'Water Budgeting'
- Fortification with vegetation
- Farming Systems Approach
- Change in land use

“khet ka pani khet mein aur gaon ka pani gaon mein”



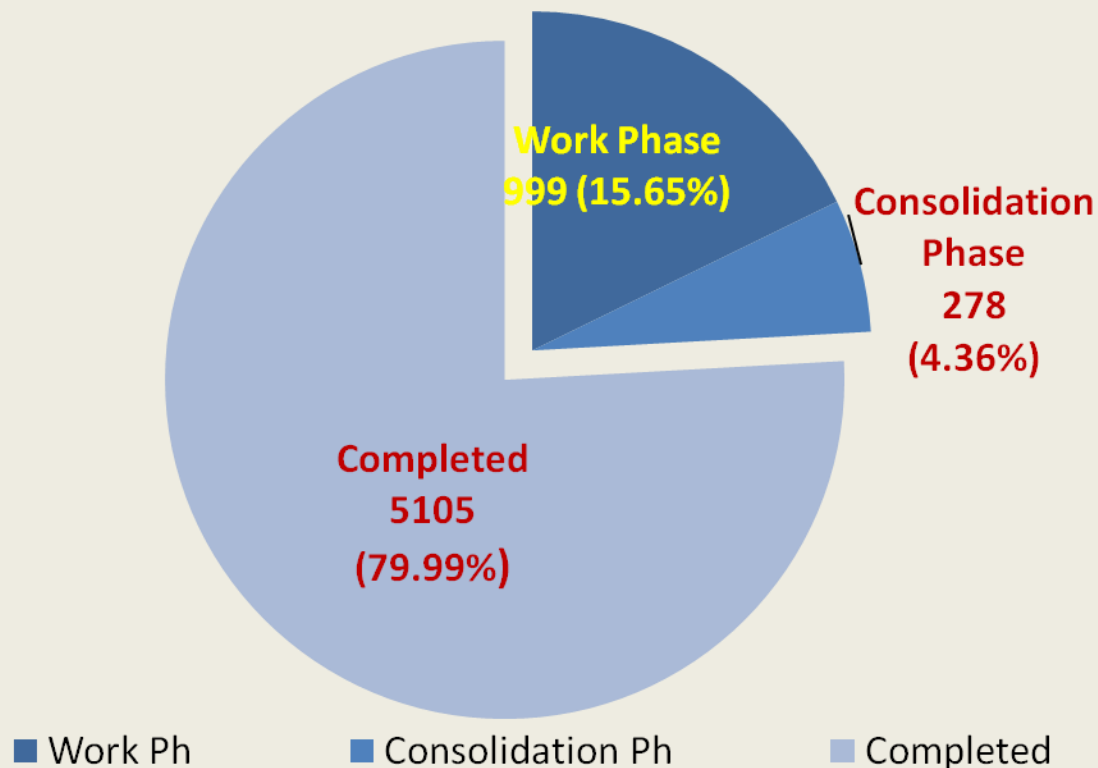
# Convergence – a Policy Decision

- **MoRD issued the Guidelines for convergence of MGNREGS with watershed and other schemes** with the objective of moving from provision of supplementary wage-employment to creation of durable assets and rural livelihood opportunities.
- States have been advised to include the process of convergence right from the watershed planning stage
- Convergence should be an integral part of DPR preparation
- SLNA advised to ensure convergence matrix to be included in DPR at the time of approval

# Present Status of the Scheme

- **8214** projects sanctioned during **2009-10 to 2014-15** in **28** States (including erstwhile J&K)
- **39.07 million ha.** (approx.)
- Projects transferred to States: 345 uninitiated and 1487 projects in Preparatory Phase (Total 1832).
- No new watershed projects sanctioned since FY 2015-16.

## Out of 6382 Projects



# Watershed Management

- Watershed management - an effective scientifically proven approach for development of rainfed and degraded areas. End line third party evaluation reports of various states reveal remarkable increase in water table, area brought under irrigation, crop productivity, livelihood opportunities and farmers' annual income.



**Check Dam**



**Gully Plug**



**Farm Pond**



**Staggered Trenches**

**Total area developed 24.87 mha**

## Physical Progress

2014-15 to 2021-22 Q1

7.50 lakh Water Harvesting Structures created / Rejuvenated

16.02 lakh ha. additional area brought under protective irrigation

34.34 lakh farmers benefitted

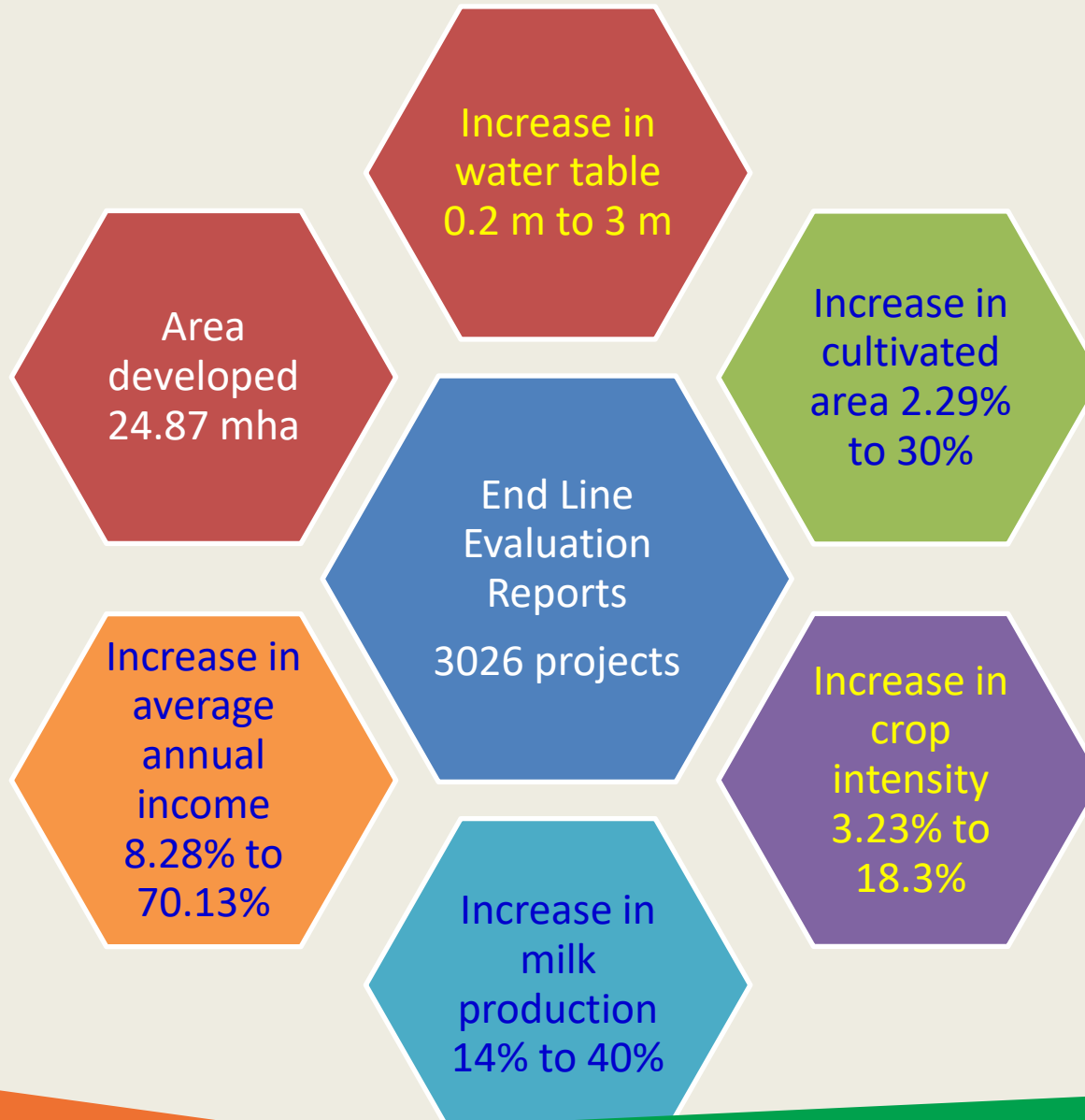
2018-19 to 2021-22 Q1

359.95 lakh man days generated

3.24 lakh ha wasteland treated

1.492 lakh ha brought under Plantation

# End-line evaluation reports of completed projects *inter alia* reveal significant improvements



## Way Forward and Action Plan for 2021-22

- **Sanction new projects under WDC-PMKSY 2.0:** DoLR's proposal envisages 4.95 million ha from 2021-22 to 2025-26.
- **Completion of balance 1277 projects (consolidation phase & work phase)**
- **Utilization of Rs 2000 crore allocated for WDC-PMKSY for 2021-22**
- DoLR, through WDC-PMKSY 2.0, **intends to contribute significantly towards** (a) doubling farmers income, (b) livelihood opportunities in rural areas, (c) India's commitment towards –
  - (i) Nationally Determined Contributions (NDCs),
  - (ii) Land Degradation Neutrality targets (LDN targets); and
  - (iii) Sustainable Development Goals (SDGs).

## Springshed Development (a new activity)

- Especially Himalayan States, peculiar problem: too much rain but scarcity of water during lean period.
- Mountainous areas of other states/UTs to also get covered
- Need for rejuvenation of traditional water sources, like Springs.
- NITI Aayog: Himalayan States Chief Ministers Conclave
- WDC-PMKSY already having Institutional arrangement in States/UTs
- Proper planning and technical knowhow including mapping of springs / aquifers required. Sikkim experiences 'Dhara Vikas'.
- Suitable interventions in the Revised Common Guidelines

*Modus Operandi*

Govt.'s  
Role Only  
as a  
Facilitator

Makes  
Action  
Plan



Selects  
Activities

Rural  
Community

Makes  
Payment

Implements  
Action Plan



THANK YOU