

**Presentation**

**on**

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

**Ministry of Rural Development  
Department of Land Resources**

**01.08.2019**

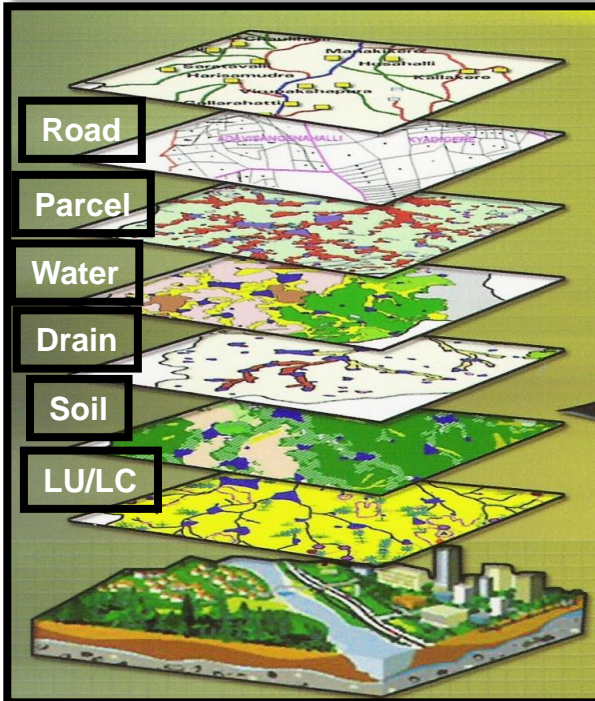
# Salient Features

- Watershed projects implemented as per the Common Guidelines for Watershed Development Projects-2008 (Revised Edition-2011)
- Normative period for completing Watershed project: 4 to 7 years
- Activities distributed over three phases:
  - ***Preparatory Phase*** (1 to 2 years) involves preparation of DPR, Entry Point Activities and Institution & Capacity Building
  - ***Watershed Works Phase*** (2 to 3 years) involves Watershed Development Works, Livelihood Activities for assetless persons and Production System & Micro Enterprises
  - ***Consolidation and Withdrawal Phase*** (1 to 2 years) involves Consolidation and Completion of various works

# Activities under Watershed Projects

- Soil & moisture conservation measures
- Rainwater harvesting measures
- Afforestation, horticulture and pasture development
- Livelihood activities including production systems & micro-enterprises
- Capacity building and awareness generation
- People's participation - Entry Point; Planning & Implementation; Sustainability

# Snapshot 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 districts
- **Funding pattern:** 60:40 between Centre & States; 90:10 for NE and Hill States
- **Release of funds:** 2 installments (60%, 40%) as per PMKSY Guidelines
- **Project Phases:** 3 phases (Preparatory, Works , Consolidation)
- **Project period:** 4-7 years.
- **Scientific planning:** IT, Remote Sensing techniques, GIS for planning, monitoring and evaluation

# Financial Progress

(Rs. in crore)

Year	RE	Release	% Release	Expenditure
2014-15	2316.61	2316.41	99.99	3724.19
2015-16	1530.00	1527.39	99.83	2580.80
2016-17	1495.00	1494.92	99.99	2818.97
2017-18	1700.00	1699.40	99.96	2897.12
2018-19	1826.00	1791.49	98.11	2665.21

## Physical Progress

Indicators / Parameters	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 *	Total
No. of Water Harvesting Structures	1.08	1.05	1.55	1.37	0.81	0.12	5.98
Additional Area brought under Irrigation(ha)	1.87	2.47	3.07	2.87	2.57	0.38	13.23
No. of Farmers Benefited	4.40	5.07	5.20	4.73	6.52	0.71	26.63
Area brought under plantation [Afforestation / Horticulture etc.] (in Lakh ha)	-	-	-	-	0.70	0.06	0.76
Area of culturable wastelands treated in completed / closed watershed development projects (in Lakh ha)	-	-	-	-	1.78	0.17	1.95
No. of man-days generated (in Lakh man-days)	-	-	-	-	168.96	22.63	191.59

\*upto June 2019

# Real Time Monitoring

- Space Technology: Tied up with NRSC to monitor the programme (2015 / 2016)
  - Srishti geo-portal
  - Drishti mobile app
- Geo-coded and time stamped photographs of works are uploaded using mobile application 'Drishti'
- 10.63 lakh photos uploaded uptill 31.07.2019
- The tool aids in physical and qualitative assessment of works.
- Shortcomings as evidenced are appropriately taken up on a continuing basis by the project implementers.

# WDC-PMKSY: End-line Evaluation Reports

Andhra Pradesh	
Indicator	Achievement
Water Table	+15%
Cultivated Area	+30%
Crop Productivity	+30%
Crop Production	+20%
Area under Water Bodies	+8%
Milk Production	+40%
Vegetation Cover	+50%

Maharashtra	
Indicator	Achievement
Water Table	+0.2 m to 2m
Cultivated Area	+2.29%
Crop Productivity	+2-3 qt/Ha
Cropping Intensity	+ 18.3%
Stream Flow duration	+1.24 months.
Dependence on Tankers	-2.47 months.
Annual Income	+70.13%
Outmigration	-32%



## WDC-PMKSY: End-line Evaluation Reports (contd...)

### Karnataka

Indicator	Achievement
Crop Intensity	+10%
Wasteland	-120 ha. / project
Milch cattle	+1256 / project
Household income	+ Rs.14725/-
Enrolment of children in school	+50

### Tamil Nadu

Indicator	Achievement
Crop Productivity	+4.13% to +40.1%
Cultivated area	upto +43.3%
Landless labours	-24.4%

### Odisha

Indicator	Achievement
Cultivated Area	+24% to + 54%
Area under Water Bodies	+22% to + 64%
Agricultural fallow & wastelands	-30% to -58%

## Challenges of Rainfed / Degraded Areas

- Rainfed areas constitute about 51.2% of the Nation's 140.13 Million ha cultivated area.
- Mostly occupied by small and marginal farmers depending heavily on subsistence farming with low productivity.
- Rainfed areas are the most vulnerable as the production system which suffer from the challenges of land degradation and livelihood of the people is fully dependant on rainfall and other climatic factors.
- Most effective principle of rainfed and degraded area development is conservation and efficient use of natural resources. This can best be achieved through watershed development adopting ridge to valley approach.

# Case for Development of Rainfed and Degraded Land

- To fulfill Nation's commitment under SDG 15.3 : Land Degradation Neutrality by 2030.
  - 62.74 million ha. rainfed and degraded land available for treatment
- Current Annual Agriculture Productivity 2,509 kg/ha. India aims to double this by 2030 to 5,018 kg/ha (NITI Aayog, 2018).
- Impact Assessment Studies reveal improvement in surface and ground water, increase in productivity and livelihood opportunities.
- Watershed management - an effective scientifically proven approach for development of rainfed and degraded areas.
- There is a need for continuation of watershed programme in the country to cover untreated areas.
- To develop 20 million ha of rainfed & degraded areas @ 5 million ha/year by sanctioning new projects



**Bund with Plantation**





**Use of harvested water with Sprinklers**





**Diversion Channel on ridge**





**Drumstick Plantation**





***Continuous Contour Trench (CCT) and Deep CCT***

***IWMP-3 (2010-11) Project, Gram panchayat - Akhodiya khed Block - Rajsamand, District - Rajsamand, Rajasthan, Latitude -25.114869, Longitude -74.06376***





Checkdam-III, PMKSY-III Batch, 2016-17, Alaghatta, Hosadurga Taluk.Chitradurga Dist



***Water Harvesting Structure  
 IWMP-2/ (2010-11) Project, District -North Tripura, Tripura***





***Water Absorption Trench***

***IWMP-1 (2009-10) Project, Block- Saharapada, District-Keonjhar, Odisha  
Latitude-21.77551, Longitude- 85.86762***

Before



Work in Progress



District Name : Amreli  
Project Name: - IWMP-1(JASWANTGADH CLUSTER)  
Village Name:- JASWANTGADH  
Activities:- Village Pond  
Expenditure:- 1.96  
Storage Capacity :- 0.38 Mcft.  
Survey No:- 322  
GPS: N21 43 24.1 E71 10 42.5  
Area Covered:- 45 ha.



Completion



**Name of the Project:** Dhalai IWMP-II/B-II  
**Location:** Jarulcherra IWMP  
**District :** Dhalai  
**GPS Coordinates:** 24°03' 26" N , 91°51'34"E  
**Type of Activity:** Pineapple plantation



## Dry Land Horticulture (Mango)



District	Y.S.R. Kadapa
Betch	2009-10
WCC	RAYACHOTY
Work Name	DRY HORTICULTURE
Location	T. VENKATAMMA
Work ID	21457
Mandel	VEERABALLI
Macro Watershed	VEERABALLI
Micro Watershed	Gurrappegaripalli-III
Latitude	14.07.37
Longitude	78.53.14

***IWMP-6 (2009-10) Project, District Y.S.R. Kadapa, Andhra Pradesh***





Pre-monsoon



Post-monsoon

### ***Anicut***

***IWMP-8 (2011-12) Project, Gram panchayat - Pilak, Block - Jhadol, District - Udaipur,  
Latitude -24.49188, Longitude - 73.35567***



***Capacity building of Self Help Groups***

***IWMP-1 (2010-11) Project, Village - Katlabodi , Block – Umred, Nagpur, Maharashtra***



***Thank You***