

## NEW IRRIGATION TECHNIQUES

Relevant for: Indian Economy | Topic: Agriculture Issues and related constraints

Water resources development & management are planned, funded, executed and maintained by the State Governments themselves as per their own resources and priorities. In order to supplement the efforts of the State Governments, Government of India provides technical and financial assistance to State Governments to encourage sustainable development and efficient management of water resources through various schemes and programmes.

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was launched during 2015-16 by the Central Government with the following components, Accelerated Irrigation Benefits Programme (AIBP), Har Khet Ko Pani (HKKP), Per Drop More Crop (PDMC) and Watershed Development (WD).

PMKSY is strategize by focusing on end-to end solution in irrigation supply chain, viz. water sources, distribution network, efficient farm level applications, extension services on new technologies & information etc. PMKSY focuses on irrigation techniques by, among others,

During 2016-17, ninety-nine (99) on-going Major/ Medium irrigation projects (and 7 phases) in the country having balance estimated cost of Rs.77,595 crore (Central Assistance- Rs.31342.50 crore) under PMKSY-AIBP have been prioritized in consultation with States for completion in phases. Funding mechanism has been approved by the Government for providing Central and State Share under Long Term Irrigation Fund (LTIF) through NABARD. Out of which, AIBP works of 44 projects have been reported to be completed/ almost completed and an additional irrigation potential of 21.45 lakh hectare has been reported to be created by these projects. During 2016-17 to 2019-20, Central Assistance (CA) of Rs.11489.31 crore has been released for these projects.

The HKKP- Command Area Development and Water Management (CADWM) program has been taken up with objectives of utilize Irrigation Potential Created (IPC) under the project soon after its creation; improve water use efficiency; increase agricultural productivity & production; and bring sustainability in the irrigated agriculture in a participatory environment. Out of the 99 prioritized AIBP projects, 88 projects have been included under the ongoing CADWM program targeting Culturable Command Area (CCA) of 45.08 lakh Ha. at an estimated cost of Rs.18799 crore with targeted CA of Rs.8271.00 crore. Total Central Assistance amounting to Rs.2678 crore has been released from 2016-17 till date. As per information provided by the States, about 14.85 lakh Ha CCA has been developed with the reported expenditure of Rs.5302.00 crore. Under CADWM Scheme, States are also encouraged to use the underground pipeline network instead of conventional field channels. The implementation of Participatory Irrigation Management (PIM) is also being promoted through CADWM.

The Surface Minor Irrigation (SMI) and Repair, Renovation and Restoration (RRR) of Water Bodies schemes have multiple objectives like expanding cultivable area under assured irrigation, improving water use efficiency, ground water recharge, improvement and restoration of water bodies thereby increasing the tank storage capacity and revival of lost irrigation potential, increased availability of drinking water, improvement of catchment of tank commands etc.

During 2017-20, under the SMI scheme, CA of Rs.2158.665 crore has been released to States

with an achievement of 1.201 Lakh Ha irrigation potential. Further, since 12<sup>th</sup> plan onwards, 3399 schemes have been reported to be completed upto March, 2020. During 2017-20, under RRR Scheme, Rs.169.24 crore has been released to States with an achievement of 0.5283 Lakh Ha irrigation potential. Further, since 12<sup>th</sup> plan onwards, 1465 water bodies have been reported to be completed upto March, 2020.

Central Ground Water Board is implementing innovative schemes for Aquifer Rejuvenation under 'Ground Water Management and Regulation' scheme in select overexploited blocks of the Aspirational districts on pilot basis. Water Harvesting and Recharge Augmentation are completed as a pilot project through construction of Bridge cum Bhandaras in districts of Wardha and Amravathi in Maharashtra. Further, a joint Action Plan has been prepared with the Ministry of Rural development for effective implementation of water conservation and artificial recharge structures in convergence with Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).

Ground Water Irrigation component of PMKSY-HKPP aims to provide financial assistance to States to provide assured ground water irrigation for small and marginal farmers, in rain-fed areas. Schemes is applicable only in areas having stage of ground water development less than 60%, average rainfall more than 750 mm rainfall and with shallow ground water levels (less than 15 m bgl). The scheme is effectively launched in 2019-20, after revision of operational guidelines of the scheme. So far, 15 projects in 12 States have been sanctioned with an estimated cost of Rs.1719.55 crore.

Department of Agriculture, Cooperation & Farmers' Welfare is implementing Per Drop More Crop component of PMKSY. It mainly focuses on water use efficiency at farm level through precision/micro irrigation. Besides promoting precision irrigation (Drip and Sprinkler Irrigation System) and better on-farm water management practices to optimize the use of available water resources, this component also supports micro level water storage or water conservation/management activities to supplement micro irrigation. During 2015-16 to till date, cumulative amount of Rs. 14051.02 crore has been released to States with an achievement of 53.69 Lakh Ha coverage of Micro irrigation.

National Water Mission (NWM) has taken up Jal Shakti Abhiyan: Catch the Rain and Sahi Fasal campaigns for water conservation. "Jal Shakti Abhiyan: Catch the Rain" is under implementation in all districts, rural as well as urban areas, of the country with the main theme "Catch the Rain, where it falls, when it falls". The period of the campaign is from 22<sup>nd</sup> March, 2021 to 30<sup>th</sup> November, 2021 – the pre-monsoon and monsoon period in the country. Hon'ble Prime Minister launched "Jal Shakti Abhiyan: Catch the Rain" – 2021 campaign on 22.03.2021 with a view to take water conservation at grass-root level through people's participation to accelerate water conservation across the country.

'Sahi Fasal' campaign was launched by NWM on 14.11.2019 to nudge farmers in the water stressed areas to grow crops which are not water intensive, but use water very efficiently; and are economically remunerative; are healthy and nutritious; suited to the agro-climatic- hydro characteristics of the area; and are environmentally friendly.

This information was given by the Minister of State for Jal Shakti & Social Justice and Empowerment Shri Rattan Lal Kataria in Lok Sabha today.

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