

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

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On 1 July 2015, the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was launched with an outlay of Rs. 50,000 crores over a period of five years (2015-16 to 2019), to boost irrigation facilities. The motto of the PMKSY is “Har Khet Ko Pani” and “More crop per drop”. The scheme will coordinate the ministries, departments, agencies and research and financial institutions engaged in the creation, use, recycling and potential recycling of water under a common platform so that a comprehensive and holistic view of the entire “water cycle” is taken into account, and proper water budgeting is done for all sectors, namely, household, agriculture and industries.

The PMKSY amalgamates ongoing schemes, viz., Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development and Ganga Rejuvenation; Integrated Watershed Management Programme (IWMP) of the Department of Land Resources; and On-Farm Water Management (OFWM) component of the National Mission on Sustainable Agriculture (NMSA) of the DAFC&W.

The key objectives and deliverables of the Scheme are as follows:

- The PMKSY envisages an end-to-end solution in the irrigation supply chain, viz., water sources, distribution network, efficient farm level application and extension services on new technologies and information.
- It will focus on improving water use efficiency to reduce wastage and increase availability both in duration and extend and bridging the gap between irrigation potential created and utilization. Special emphasis will be on creating protective irrigation by harnessing rainwater at the micro level, through “Jal Sanchay” and “Jal Sinchan”.
- The Scheme is meant for implementation in area

development mode, adopting “decentralized State-level planning and projectized execution” and allowing states to draw up their own irrigation development plans. Through these comprehensive irrigation plans at the sub-district, district and state level, it will serve as a platform for



convergence of investments in irrigation.

– The PMKSY will serve as an important tool for adaptation to climate change in the agriculture sector. Efficient use of water will avoid anaerobic conditions in the soil and thereby reduce GHG emission.

Programme component :

Accelerated irrigation benefit programme (AIBP): To focus on faster completion of ongoing major and medium irrigation projects, including national projects.

PMKSY (Har Khet ko Pani): Source augmentation, distribution, ground water development, lift irrigation, diversion of water from water plenty to water scarce areas, supplementing rain water harvesting beyond the IWMP and the MGNREGA, repair, restoration, renovation of traditional water bodies.

PMKSY (Per drop more crop): Micro level storage structures, efficient water conveyance and application, precision irrigation systems, topping up of input cost beyond MGNREGA permissible limits, secondary storage, water lifting devices, extension activities, co-ordination and management.

PMKSY (Watershed) : Ridge area treatment, drainage line treatment, soil and moisture Natural Resource Management conservation, water harvesting structure, livelihood support activities and other watershed works.

The major strategies for improving water use in agriculture are summarized as under.

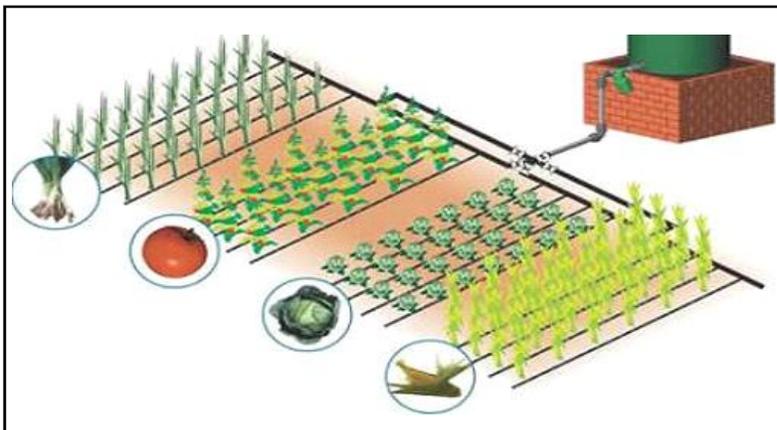
The operation and maintenance of irrigation systems is very poor and, therefore, water loss from canals is very

high. Almost half of this loss is found in field channels. Improvement in canal operating systems is the requirement of the day.

Application losses : According to Ministry of Water Resources on Efficient Utilization of Existing Irrigation Facilities (2008), traditional flow irrigation has very low application efficiency, and 15-90 per cent of water may be saved and significant increase in yield achieved by adopting non-conventional methods like sprinkler, drip or microsprinkler irrigation. Compared to flow irrigation, when sprinkler irrigation is

used, water saving in various crops ranges from 16 per cent to 69 per cent, and the increase in yield ranges between 3 per cent and 57 per cent. Similarly, as compared to traditional flow irrigation, drip irrigation saves water between 5 per cent to 68 per cent and increases yield between 10 per

cent to 50 per cent. Although it involves more operations and maintenance (O&M) cost for energy charges compared to surface irrigation, the microirrigation system increases water use efficiency. Irrigation efficiency in drip irrigation is about 90 per cent, compared to about 65 per cent in the case of sprinkler irrigation and about 35-50 per cent in the case of conventional method of irrigation, as per the Central Water Commission studies, 1991. Drip irrigation technology irrigates plants at the root zone through emitters fitted on a network of pipes, called mains, sub-mains and laterals. The emitting devices could be drippers, micro-sprinklers, mini-sprinklers, micro-jets, misters, fan



jets, micro-sprayers, foggers, etc., each designed to discharge water at prescribed rates. So far, under the National Mission on Micro Irrigation, an area of about 4 million ha has been covered under micro-irrigation.

Over-exploitation of ground water : While achieving their high food grain production targets under the green revolution, and emerging as the major contributors of foodgrains to the national pool stocks, Punjab, Haryana, Uttar Pradesh, Bihar, Andhra Pradesh, etc., have experienced serious groundwater depletion. The

overexploited regions need to be given integrated treatment of

- Artificial recharge of groundwater;

- Rain water harvesting;

- Conjunctive use of surface water and groundwater;

- Management of poor/marginal quality groundwater;

- Water conservation by increasing water use efficiency;

- Regulation of groundwater development, etc.

This is true proverb in Hindi "Jalhai to Kalhai" which means if there is water then only our future is safe. However man has been mercilessly misusing this precious resource given by nature. It is time that the bugle call is sounded to make everyone realize that water cycle and life cycle are one. Therefore, from today let all of us start saving each and every drop of water and conserve this priceless resource.

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