Tamil Nadu topped in micro-irrigation—Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

Part of: GS Prelims and GS-II-Governance

The state of Tamil Nadu has topped the all-India level for micro-irrigation (MI), under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), with a coverage of 2,06,853.25 ha for the year financial year 2019-20. The state is followed by Karnataka and Gujarat with 1,41,103.56 Ha and 1,08,322.00 Ha of coverage respectively.

- On the other hand, the cumulative total coverage of MI during 2015-2020 has been topped by Karnataka (8,15,690.31 ha) followed by Andhra Pradesh (7,17,421.08 ha) and Gujarat (7,00,858.35 ha). Tamil Nadu occupies the fourth spot with about 5,62,059.11 ha.
- At the all-India level, 43.71 lakh ha of land were brought under micro irrigation in the last 5 years.

How MI cover increased in TN?

During the inaugural year of the MI programme (2015-16), Tamil Nadu had just 32,290 hectares under micro-irrigation. After that the State government had started providing additional subsidy to what was provided by the Centre to small and marginal farmers and big farmers through a website “Micro Irrigation Management Information System” (MIMIS). They have also removed 12% goods and services tax (GST) on MI components. The state has provided options to farmers for the purchase of MI components by identifying 45 firms.

Pradhan Mantri Krishi Sinchai Yojana

Out of about 141 m.Ha of net area sown in the country, about 65 million hectare (or 45%) is presently covered under irrigation. Substantial dependency on rainfall makes cultivation in unirrigated areas a high risk, less productive profession. Empirical evidences suggest that assured or protective irrigation encourages farmers to invest more in farming technology and inputs leading to productivity enhancement and increased farm income.

The overreaching vision of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) is to ensure access to some means of protective irrigation to all agricultural farms in the country, to produce ‘per drop more crop’, thus bringing much desired rural prosperity.

Objectives

The broad objectives of PMKSY include (PT SHOTS)

- Achieve convergence of investments in irrigation at the field level (preparation of district level and, if required, sub district level water use plans).
- Enhance the physical access of water on the farm and expand cultivable area under assured irrigation (Har Khet ko pani).
- Integration of water source, distribution and its efficient use, to make best use of water through appropriate technologies and practices.
• Improve on farm water use efficiency to reduce wastage and increase availability both in duration and extent.
• Enhance the adoption of precision irrigation and other water saving technologies (More crop per drop).
• Enhance recharge of aquifers and introduce sustainable water conservation practices.
• Ensure the integrated development of rainfed areas using the watershed approach towards soil and water conservation, regeneration of ground water, arresting runoff, providing livelihood options and other NRM activities.
• Promote extension activities relating to water harvesting, water management and crop alignment for farmers and grass root level field functionaries.
• Explore the feasibility of reusing treated municipal waste water for peri-urban agriculture.
• Attract greater private investments in irrigation.

Programme implementation

• Krishi Sinchayee Yojana with an outlay of Rs.50,000 crores for a period of 5 years (2015-16 to 2019-20) is to achieve convergence of investments in irrigation at the field level.
• PMKSY has been formulated amalgamating ongoing schemes viz. Accelerated Irrigation Benefit Programme (AIBP) of Ministry of Water Resources, River Development & Ganga Rejuvenation; Integrated Watershed Management Programme (IWMP) of Department of Land Resources; and On Farm Water Management (OFWM) component of National Mission on Sustainable Agriculture (NMSA) of Department of Agriculture and Cooperation.
• PMKSY is to be implemented in an area development approach, adopting decentralized state level planning and projectised execution, allowing the states to draw their irrigation development plans based on district/blocks plans with a horizon of 5 to 7 years. States can take up projects based on the District/State Irrigation Plan.
• All the States and Union Territories including North Eastern States are covered under the programme.
• The National Steering Committee (NSC) of PMKSY under the chairmanship of Hon’ble Prime Minister, will provide policy direction to programme framework and a National Executive Committee (NEC) under the chairmanship of Vice Chairman of NITI Aayog will oversee the programme implementation at national level.
• Provision has been made under PMKSY during 2015-16 for carrying out extension activities in the field with special focus on water harvesting, water management and crop alignment for farmers and grass root level field functionaries.

Programme Components

PMKSY has the following programme components:

A. Accelerated Irrigation Benefit Programme (AIBP)

• To focus on faster completion of ongoing Major and Medium Irrigation including National Projects.

B. PMKSY (Har Khet ko Pani)

• Creation of new water sources through Minor Irrigation (both surface and ground water)
• Repair, restoration and renovation of water bodies; strengthening carrying capacity of traditional water sources, construction rain water harvesting structures (Jal Sanchay);
- Command area development, strengthening and creation of distribution network from source to the farm;
- Ground water development in the areas where it is abundant, so that sink is created to store runoff/ flood water during peak rainy season.
- Improvement in water management and distribution system for water bodies to take advantage of the available source which is not tapped to its fullest capacity (deriving benefits from low hanging fruits). At least 10% of the command area to be covered under micro/precision irrigation.
- Diversion of water from source of different location where it is plenty to nearby water scarce areas, lift irrigation from water bodies/rivers at lower elevation to supplement requirements beyond IWMP and MGNREGS irrespective of irrigation command.
- Creating and rejuvenating traditional water storage systems like Jal Mandir (Gujarat); Khatri, Kuhl (H.P.); Zabo (Nagaland); Eri, Ooranis (T.N.); Dongs (Assam); Katas, Bandhas (Odisha and M.P.) etc. at feasible locations.

C. PMKSY (Per Drop More Crop)

- Programme management, preparation of State/District Irrigation Plan, approval of annual action plan, Monitoring etc.
- Promoting efficient water conveyance and precision water application devices like drips, sprinklers, pivots, rain - guns in the farm (Jal Sinchan);
- Topping up of input cost particularly under civil construction beyond permissible limit (40%), under MGNREGS for activities like lining inlet, outlet, silt traps, distribution system etc.
- Construction of micro irrigation structures to supplement source creation activities including tube wells and dug wells (in areas where ground water is available and not under semi critical /critical /over exploited category of development) which are not supported under AIBP, PMKSY (Har Khet ko Pani), PMKSY (Watershed) and MGNREGS as per block/district irrigation plan.
- Secondary storage structures at tail end of canal system to store water when available in abundance (rainy season) or from perennial sources like streams for use during dry periods through effective on - farm water management;
- Water lifting devices like diesel/ electric/ solar pumpsets including water carriage pipes, underground piping system.
- Extension activities for promotion of scientific moisture conservation and agronomic measures including cropping alignment to maximise use of available water including rainfall and minimise irrigation requirement (Jal sarankchan);
- Capacity building, training and awareness campaign including low cost publications, use of pico projectors and low cost films for encouraging potential use water source through technological, agronomic and management practices including community irrigation.
- The extension workers will be empowered to disseminate relevant technologies under PMKSY only after requisite training is provided to them especially in the area of promotion of scientific moisture conservation and agronomic measures, improved/ innovative distribution system like pipe and box outlet system, etc. Appropriate Domain Experts will act as Master Trainers.
- Information Communication Technology (ICT) interventions through NeGP - A to be made use in the field of water use efficiency, precision irrigation technologies, on farm water management, crop alignment etc. and also to do intensive monitoring of the Scheme.
D. PMKSY (Watershed Development)

- Effective management of runoff water and improved soil & moisture conservation activities such as ridge area treatment, drainage line 5 treatment, rain water harvesting, in-situ moisture conservation and other allied activities on watershed basis.
- b) Converging with MGNREGS for creation of water source to full potential in identified backward rainfed blocks including renovation of traditional water bodies.

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