



Maharashtra Water Resources Regulatory Authority

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Notification

Of the total reservoir storages in the State water-sector in Maharashtra, about 70 - 75% water is used for irrigation purpose. In view of the growing water demand for irrigation, domestic use, industrial use, power generation, etc., it has become imperative to use the available water resources judiciously. The water availability is also likely to be adversely impacted further due to climate change. Irrigation being the major user of water, it is possible to achieve a substantial saving in water by enhancing the prevailing off-farm and on-farm efficiencies. The drip and sprinkler methods are the proven water-saving technologies for irrigating crops.

In drip irrigation, water is directly applied at the root zone of the crops either drop-by-drop or by micro spraying; while in sprinkler irrigation, water is applied uniformly over the crop canopy as per the requirement. The saving in water application has proved to be about 40-50% in the case of drip irrigation, while it is about 30-40% in the case of the sprinkler method. Besides water saving, other advantages of micro irrigation are - reduced labour, fertilizer and enhanced crop yields. Since only the required amount of water can be applied through these systems, soils are not subjected to water logging and/or do not become saline, thus maintaining the soil productivity.

The experience gained during the last two decades in the State shows that drip irrigation is useful for crops like sugarcane, banana, and fruit trees; while close growing crops like groundnut, wheat, etc. can be irrigated efficiently and economically by the sprinkler method. Maharashtra is the leading State in the country in terms of drip irrigation area coverage. During the year 2013, 11.77 lakh ha were under drip irrigation, whereas 4.25 lakh ha were under the sprinkler method.

In Maharashtra, presently, sugarcane is grown on around 10 lakh ha, of which 4.68 lakh ha are cultivated under the canal command. Reportedly, a major share of irrigation water goes to sugarcane. Moreover, farmers have the tendency to apply excessive water to sugarcane which leads not only to waste of valuable water and fertilizer but also to waterlogging and soil salinity, and eventually results into irreversible damage to the land. Presently, as per the Agriculture Department, only about 20% of the total sugarcane area is irrigated by the drip system. Thus, a large sugarcane area is still irrigated by conventional flood irrigation methods leading to significant overuse of water.

In order to ensure that the aforesaid issues do not assume serious proportions in the future, the Government of Maharashtra in its 'State Water Policy' as well as in the 'Maharashtra Water Resources Regulatory Authority Act 2005' have emphasized the judicious use of water resources in the State. In Para 10.4 of the Maharashtra State Water Policy (2003), the optimal development and use of the State's water resources is advocated through the promotion of research & development as well as the state-of-the-art technology in the water sector. The MWRRA Act, 2005, in Section 14 (4), states as follows:

"Water shall not be made available from the canal for perennial crops in such area and from such date as may be notified by the Authority, unless the cultivator adopts drip irrigation or sprinkler irrigation or such other water saving technology, approved by the Authority. The quantity of water so saved, after satisfying the future increased

demand of drinking water, shall be distributed equitably in the command area and the adjoining area."

The term 'canal' as mentioned in the Section 14(4) of the MWRRA Act is interpreted as per the Sub-sections 3(a) to 3(f) of Section 2 of the Maharashtra Irrigation Act, 1976 and includes all canals, channels, pipes, tube-wells and reservoirs constructed, maintained or controlled by the appropriate authority for the supply or storage of water.

In view of the above provisions and to ensure the efficient use of the available water, this Authority is making obligatory the adoption of the drip/ sprinkler irrigation for all perennial crops which are irrigated by conventional flood irrigation methods in the canal command areas. However, there are certain prerequisites which need to be fulfilled before making drip / sprinkler irrigation methods obligatory for perennial crops under the canal command and benefitted area of the Government operated / individual / private lift irrigation schemes in the State. These include - creating on-farm storages (farm ponds / tanks), an assured supply of electricity, provision of adequate subsidy for purchase of drip/ sprinkler systems, etc. In some situations, change in irrigation scheduling and rehabilitation/ modification in the canal distribution network may be required

In view of this, it is proposed to implement the above stipulation made under Section 14 (4) of the MWRRA Act on three eight -monthly irrigation projects in the State viz., 1) Tembhu LIS, 2) Bhima (Ujjani) Project, and 3) Mula Project on a pilot basis. In the Hot weather season, the farmers are expected to make their own arrangement by using groundwater sources. All farmers in the command area of these projects should adopt the drip/sprinkler irrigation system or such other water saving technology (like gated pipe with leveled straight furrows, surge irrigation, pitcher irrigation) as appropriate before the **8th June 2017** for sugarcane, banana and other perennial horticulture crops cultivated using water from the reservoirs, canals, rivers, nallas, wells, bore/tube

wells, natural streams, rivulets within the command of these irrigation projects.

Individual farmers who will adopt drip / sprinkler irrigation systems or such other water saving methods for perennial crops in these project canal commands and benefitted area of the all types of lift irrigation schemes (government, cooperative, individual/ private) will be charged at the concessional rate of water charges i.e. 75% of the basic flow rate; while defaulters will be required to pay the water charges at 150% of the basic flow rate. If WUAs are formed and functional on a project, and they are being supplied and charged water on volumetric basis, and have switched over to drip and / sprinkler irrigation or any other water saving technology, the WUAs will be charged at 90% of the basic volumetric rate. The defaulting WUAs (not adopting any irrigation methods stated above) will be charged at 110% of the basic volumetric rate.

On the basis of the experience gained in implementation of the drip/ sprinkler irrigation systems in the above mentioned pilot projects, this stipulation will be extended in other projects in the State with effect from the 8th June 2019.
