

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA
REJUVENATION
RAJYA SABHA

UNSTARRED QUESTION NO. 1205

ANSWERED ON 13.02.2023

INCREASING THE EFFICIENCY OF WATER USE

1205. SHRI S. KALYANASUNDARAM SHRI M. MOHAMED ABDULLA

Will the Minister of **JAL SHAKTI** be pleased to state:

- (a) whether Government is aware that the demand for water has multiplied due to the ever increasing population and rapid changes in agriculture and industrial development;
- (b) the details of the initiatives taken/being taken by Government to increase the efficiency of water use especially in the agriculture sector; and
- (c) the steps taken by Government to enhance the groundwater reserves in the delta region of Tamil Nadu?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI
(SHRI BISHWESWAR TUDU)

(a) Yes, Sir.

The water requirement of the country for high demand scenario (this scenario considers population projection of 1.33 Billion and 1.58 Billion for year 2025 and 2050 respectively) as assessed by National Commission on Integrated Water Resources Development (NCIWRD-1999) constituted by Ministry of Water Resources, is given below:

Sl. No.	Total Water Requirement for Different Uses (in BCM)		
	Uses	Scenario (2025)	Scenario (2050)
1.	Irrigation	611	807
2.	Domestic	62	111
3.	Industries	67	81
4.	Power	33	70
5.	Inland Navigation	10	15
6.	Flood Control	0	0
7.	Environment (1)Afforestation	0	0
8.	Environment (2)Ecology	10	20
9.	Evaporation Losses	50	76
	Total	843	1180

(b) The initiatives taken by the Government of India, to increase efficiency of water use inter alia include the following :

- i. Pradhan Mantri Krishi Sinchai Yojna (PMKSY) is a Centrally Sponsored Scheme which addresses convergence of investments in irrigation at the field level and targets to expand the cultivable area under assured irrigation through 'Har Khet Ko Pani' (HKKP), and to improve on farm water use efficiency (WUE) to reduce wastage of water.
- ii. Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD&GR) is implementing Atal Bhujal Yojana in identified water stressed areas of 7 states. The scheme focuses on community participation and demand side interventions for sustainable ground water management.
- iii. National Water Mission (NWM) has undertaken baseline studies for irrigation projects and benchmarking studies for industries on water use efficiency through reputed institutes.
- iv. 'Jal Shakti Abhiyan (JSA) - Catch the Rain (CTR)' campaign and 'Sahi Fasal' campaign have created mass awareness about efficient use of water. Sahi Fasal promotes crops, which are suited to the agro-climatic zone keeping in view water availability.
- v. The Ministry of Jal Shakti (MoJS) under NWM has set up the Bureau of Water Use Efficiency (BWUE) to facilitate promotion of improving water use efficiency across various sectors namely irrigation, drinking water supply, power generation, industries etc and inter alia also assess water footprint.
- vi. Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD&GR) with technical assistance from the Asian Development Bank (ADB) has taken up a new initiative called 'Support for Irrigation Modernization Programme' (SIMP) for application of national and international best practices for modernizing Major & Medium Irrigation (MMI) projects in India to improve water use efficiency and crop water productivity.
- vii. Ministry of Housing and Urban Affairs (MoHUA) has taken several steps towards sustainable management of water in urban areas through the Atal Mission for Rejuvenation and Urban Transformation (AMRUT). AMRUT was launched on June 25, 2015 in 500 select cities across the country covering around 60% of the urban population. AMRUT focuses on development of basic urban infrastructure of water supply and sewerage & septage management, storm water drainage, non-motorised public transport and green spaces & parks are other minor components covered under the mission.
- viii. Department of Agriculture & Farmers' Welfare (DA&FW) is implementing Centrally Sponsored Scheme of 'Per Drop More Crop' (PDMC) in the country from 2015-16. The PDMC focuses on enhancing water use efficiency at farm level through micro irrigation.

- ix. Recognizing the enormous potential of millet both as a nutrient and a low water consuming crop, the Government had proposed to the United Nations to declare the year 2023 as International Year of Millet. The UN has declared the same and various initiatives are being taken to encourage the production and consumption of millets, as a replacement to the water intensive crops like rice and wheat.
- x. Indian Council Agricultural Research (ICAR) promotes use of efficient irrigation methods including micro-irrigation, precision technologies for irrigation and farming practices, optimum irrigation scheduling, resource conservation technologies, adoption of modern agronomic practices like raised bed sowing, alternate furrow irrigation, mulching, Direct Seeded Rice (DSR), System of Rice Intensification (SRI), laser land leveling, conservation agricultural practices, crop diversification adopting crops/varieties which require less water etc to reduce water footprint in agriculture and improve water use efficiency.

(c) The Dynamic Ground Water Resources of the country are being periodically assessed jointly by Central Ground Water Board (CGWB) and State Governments including Tamil Nadu. CGWB has taken up Aquifer Mapping and Management Programme during XII Plan, under the scheme of Ground Water Management and Regulation. Under this programme, the Lower Cauvery Basin has been covered including the delta districts. Based on the studies, Artificial Recharge and Water Conservation Plans have been taken up in the Over Exploited & Critical firkas (assessment units) of the basin through utilizing the uncommitted surface runoff of 802 MCM. A total number of 1811 Recharge Rejuvenation ponds are selected for desilting followed by construction of recharge shafts within the tanks. The expected recharge through these artificial recharge structures is in the order of 88 MCM. As per the information received from the State Government of Tamil Nadu, the State Government has sanctioned Rs.6019.72 lakh for implementing Artificial Ground Water Recharge Schemes by constructing recharge shafts and recharge wells in Thanjavur and Thiruvarur Districts.
