GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

LOK SABHA

UNSTARRED QUESTION NO. 3016

ANSWERED ON 07.08.2025

REVIVAL OF CONVENTIONAL WATER HARVESTING SYSTEMS

†3016. SHRI KULDEEP INDORA

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

(a) whether the Government has conducted any mapping or evaluation of conventional water harvesting systems in various States as a part of its water security efforts;

(b) if so, the details thereof along with the criteria adopted to identify the successful revival of these systems;

(c) whether any such systems operated by States or community have been formally documented and identified for implementation in other areas and if so, the details thereof;

(d) whether the Government has provided any technical or financial assistance to integrate these conventional water systems with existing schemes like Jal Shakti Abhiyan or the Atal Bhujal Yojana; and

(e) if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY**)**

(a) to (c) Water being a State subject, the aspects related to water resources including their conservation are studied, planned, evaluated, funded, and executed by the State Governments themselves as per their own resources and priorities. The Central Government supplements the efforts of the States through various technical, financial, and policy-level interventions.

As part of its ongoing initiatives to support States in sustainable water management and conservation, the Ministry of Jal Shakti has taken several steps towards documenting and promoting traditional and conventional water harvesting systems across the country. The Ministry conducted India's first Census of Water Bodies during 2018–19, the findings of which were published in 2023. The census provides comprehensive data on more than 24.24 lakh water bodies across the country, including details on their use, status, condition, storage, and encroachments. These water bodies include ponds, tanks, reservoirs, lakes, check dams, and others, thereby offering a broad database for analysis and planning purposes.

In addition, a notable initiative in this regard is the development of the GIS-based sub-portal "Jal Dharohar", operational in its beta version since 1st November 2023, under the India-WRIS Portal. This portal presents a consolidated and geo-tagged database of water bodies across India and integrates data from multiple national programmes and sources, including the Jal Shakti Abhiyan, Atal Bhujal Yojana, Minor Irrigation Statistics, the First Census of Water Bodies, and the National Water Informatics Centre (NWIC). It serves as a visual and spatial tool for awareness creation, planning, and monitoring of water resources.

To commemorate India's traditional water management heritage, the Ministry of Jal Shakti launched a campaign under the Azadi Ka Amrit Mahotsav (AKAM) to identify and celebrate 75 Water Heritage Structures **(Annexure)** across the country. These structures, nominated by States and Union Territories, reflect the historical, architectural, and cultural legacy of India's water conservation practices. A Water Heritage Structure Selection Committee was constituted to evaluate the nominations, based on which 75 structures were selected. These include tanks, stepwells, baolis, reservoirs, and other traditional systems from various regions of India.

In this regard, the launch of the "Jal-Itihas" sub-portal under the India-WRIS Portal, which was introduced during the 1st All India State Ministers' Conference on "Water Vision@2047" held on 5th–6th January 2023. The portal was unveiled along with the announcement of 75 Water Heritage Structures identified from across the country. These structures, rooted in regional histories and community practices, were selected to showcase India's enduring relationship with water conservation through time-tested indigenous systems. The portal hosts detailed information on these 75 water heritage sites.

To preserve and disseminate knowledge about these heritage structures, the Ministry entrusted the task of preparing a comprehensive monograph titled "75 Water Heritage Structures" to the Indian National Trust for Art and Cultural Heritage (INTACH). This publication was officially launched during the 2nd All India State Ministers' Conference on Water – Water Vision@2047, held in Udaipur on 18th–19th February 2024, and captures the historical importance, architectural features, and conservation aspects of these heritage water bodies.

To further strengthen community engagement and cultural connection with these traditional systems, a "Water Heritage Fortnight" was celebrated from 15th to 30th November 2023 at all 75 identified sites. As part of this celebration, a special event titled "Jal Itihas Utsav" was organized on 1st December 2023 at Shamsi Talab, Jahaz Mahal, Mehrauli, Delhi. The event aimed to highlight the role of water bodies in community life and cultural heritage.

Moreover, under the ongoing Jal Shakti Abhiyan: Catch the Rain (JSA:CTR) campaign, several innovative models of groundwater recharge and water conservation have been observed across various regions which showcases the diversity of locally adapted and community-driven solutions.

In Banaskantha, Gujarat, a large-scale initiative has focused on the construction of low-cost artificial recharge structures in arid regions. A total of 4,135 entries have been onboarded as per the "Jal Sanchay" portal data. This intervention was made possible by leveraging Corporate Social Responsibility (CSR) funding and the active participation of farmer cooperatives. The model demonstrates how public-private collaboration can effectively address regional water stress, offering a scalable and replicable solution for water-scarce areas.

The "Karmbhoomi se Matribhoomi" Model reflects contributions made by individuals working in Gujarat towards recharge projects in their native states such as Rajasthan, Madhya Pradesh, and Bihar. This voluntary and emotional investment has enabled cross-state support for sustainable groundwater recharge.

In Alwar, Rajasthan, school buildings have been transformed into educational and functional assets through the implementation of rooftop rainwater harvesting systems and Building as Learning Aid (BaLA) features. This initiative has enabled the storage of 1.45 crore litres of water in tanks for essential daily use and has led to the conservation of over 2 crore litres of rainwater annually, significantly contributing to groundwater recharge. Developed in partnership with NGOs, the approach effectively combines water conservation with school infrastructure enhancement and awareness building, creating a model of sustainability and learning for children and communities alike.

In Raipur, Chhattisgarh, the CREDAI–Raipur model has brought together builder associations and hydrologists to construct low-cost recharge units, with some installations completed for as little as ₹1,500 per unit. This urban-focused model integrates recharge infrastructure into the built environment efficiently and affordably.

The Gir Ganga Trust model in Gujarat showcases a philanthropic and community-led approach to water conservation. In this NGO-led initiative, a total of 8,161 recharge structures have been on-boarded with funding support from private donors, as reflected on the Jal Sanchay portal. Local communities have actively contributed through both in-kind labor and resources for the operation and maintenance of these structures, thereby fostering a strong sense of ownership and long-term sustainability. This model demonstrates how civil society partnerships can play a transformative role in scaling groundwater recharge efforts.

In Maharashtra, the Jal Tara Model involves farmers systematically constructing standardized recharge pits measuring 4 ft × 4 ft × 6 ft across agricultural land. This low-tech but impactful

intervention significantly enhances infiltration and supports the recharge of shallow aquifers, thereby benefiting both crop productivity and groundwater sustainability. A total of 8,258 structures have been on-boarded under this model, demonstrating its scalability and farmer-led execution potential.

The 5% Model from Korea district in Chhattisgarh illustrates how terraced recharge pits constructed on 5% of cultivable land can significantly improve local aquifer recharge. This model integrates water conservation directly into land-use planning and agricultural practices, resulting in improved soil moisture retention and enhanced groundwater levels. On each farmland, a shallow terraced recharge pit is constructed in a "pit within a pit" design, with farmers voluntarily contributing 5% of their cultivable land. The structure is built in the following steps:

1. First step: 4 ft × 4 ft pit at the surface level
2. Second step: 3 ft × 3 ft pit inside the first
3. Third step: 2 ft × 2 ft pit inside the second

This stepped design facilitates layered infiltration, making it an effective and community-owned solution for rainwater harvesting in agricultural landscapes.

Another noteworthy initiative is the "One House – One Recharge Pit" model from Thiruvananthapuram, Kerala, which encourages each household to construct at least one recharge pit or rooftop rainwater harvesting unit within their premises. This decentralized approach empowers individual households to contribute directly to groundwater recharge, reduces reliance on external water sources, and fosters a culture of local water stewardship. By aligning household infrastructure with community-level conservation goals, the model supports long-term water sustainability in both rural and urban settings. In the last year alone, 67,000 harvesting structures were constructed, resulting in an estimated 47 lakh cubic meters of groundwater recharge.

These successful models have been documented and are regularly showcased by the National Water Mission during interactions with District Collectors, wherein exemplary districts present their implementation strategies. To facilitate broader replication, a compilation of Frequently Asked Questions (FAQs) and standard designs for artificial recharge structures has also been shared with all States and Union Territories.

(d) & (e) The Jal Shakti Abhiyan: Catch the Rain (JSA: CTR) campaign is a nationwide initiative implemented annually, focusing on water conservation, rainwater harvesting and groundwater recharge. The campaign emphasizes convergent financing from various schemes of the Central, State and local bodies like Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Per Drop More Crop, Repair,

Renovation and Restoration Components under the Pradhan Mantri Krishi Sinchai Yojana (PMKSY), Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Finance Commission grants, etc.

To further strengthen JSA: CTR, "Jal Sanchay Jan Bhagidari" (JSJB) initiative, launched in Surat, Gujarat on 6th September 2024, under Jal Shakti Abhiyan: Catch the Rain (JSA: CTR) campaign focuses on intensifying community mobilization to build low cost rainwater harvesting structures in saturation mode. The Jal Sanchay programme has been started in Gujarat by also leveraging community funds, individual donations, Corporate Social Responsibility Funds etc. for construction of low cost structures like borewells, recharge shafts, recharge pits, using locally available material, to harvest rainwater, to boost ground water level and provide local tailor made solution to water issues.

Under Ground Water Management & Regulation Scheme, Central Ground Water Board (CGWB) has been involved in the implementation of several successful artificial recharge projects including recharge pits in the country for demonstrative purpose which enables the State Governments to replicate the same in suitable hydrogeological conditions. To address the challenges faced by States and local bodies in implementing rainwater harvesting systems, particularly in water-stressed regions, the Government of India has adopted a comprehensive, multi-pronged approach. As part of this strategy, Central Nodal Officers (CNOs) and Technical Officers (TOs) from the Central Ground Water Board (CGWB) and the Central Water Commission (CWC) conduct field visits to facilitate the districts and to provide technical assistance.

Also, Government of India is implementing Atal Bhujal Yojana, a Central Sector Scheme, with a total outlay of Rs.6000 crore in 8203 water stressed Gram Panchayats (GPs) of 229 administrative blocks/talukas in 80 districts of 7 States viz. Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh for a period of 6 years from 01.04.2020 with an aim to arrest decline in ground water level through a participatory approach led by community for sustainable groundwater management. Financial assistance is provided to States in the form of incentive which are utilized to implement the various demand and supply side activities. States take up the revival and construction of traditional water harvesting systems as supply-side interventions under Atal Bhujal Yojana.

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ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) to (c) OF UNSTARRED QUESTION NO. 3016 TO BE ANSWERED IN LOK SABHA ON 07.08.2025 REGARDING "REVIVAL OF CONVENTIONAL WATER HARVESTING SYSTEMS".

S. No.	Name of the Water Heritage Structure	States
1.	Panighat Aqueduct	Andaman and Nicobar Islands
2.	K.c. Canal Aqueduct across Hundri River	Andhra Pradesh
3.	Cumbum Tank	
4.	Porumamilla Tank (Anantharaja Sagaram)	
5.	Sir Arthur Cotton Barrage (Dowleshwaram Anicut)	
6.	Gaurisagar Pukhuri	Assam
7.	Lakshimpur Pukhuri	
8.	Bor Pukhuri or Sivasagar Tank	
9.	Joysagar pukhuri	
10.	Sher Shah Suri Pond	Bihar
11.	Agam Kuan	
12.	Sita Bari (Dug well)	Chhattisgarh
13.	Agrasen ki Baoli	Delhi
14.	Rani ki Vav	Gujarat
15.	Lothal Docks	
16.	Ahmedabad Lake System including Kankaria Lake, Chandola lake & Sarkhej Roza	
17.	Sudarshan Tal	
18.	Hamirsar Lake/Hamirsagar	
19.	Sudarshan Tal	
20.	The Western Yamuna Canal	Haryana
21.	Surajkund	
22.	Bhagsu Nag Temple water body	Himachal Pradesh
23.	Ancient Temple Laduv / Ladhoo (Sanyasar Nag)	Jammu and Kashmir
24.	Topchanchi Lake	Jharkhand
25.	Vijayanagar canals system	Karnataka
26.	New Madaga tank	
27.	Stepwell at Durga Gdi complex Aihole (a UNESCO world heritage site)	
28.	The cascading tank ecosystem of Karnataka-: Cholanagunte / Suddagunte	
29.	First piped water supply system for Bengaluru Hesarghatta lake , Syphon, Brick Aqueduct and Pumping stations	
30.	Kerala Waterways	Kerala
31.	Peralassery Subramanya Temple	
32.	Karzu Zing (Pond)	Ladakh
33.	Khooni Bhandara	Madhya Pradesh
34.	Upper Lake	
35.	Mandu (Malwa Plateau) system of of water collection in over 1200 tanks supporting the city	

36.	Mahal Gulara	
37.	Chandeva ki bawadi	
38.	Tank System of Bundelkhand	
39.	Dhamapur Lake	Maharashtra
40.	Aurangabad System (‘Nehers of Aurangabad’ - ‘Neher-e-Ambari’ & ‘Neher-e-Panchakki’.)	
41.	Raigad Fort	
42.	Baramotichi Vihir	
43.	Kangla Moats	Manipur
44.	Bamboo Drip Irrigation , West Jaintia Hills	Meghalaya
45.	Saptui Water Point	Mizoram
46.	Baitarani Irriagation Project	Odisha
47.	Rushikulya Irrigation System including Russelkonda Reservoir, Sorada Reservoir, Janivilli Anicut & Madhabarida Anicut (Ghumusar Anicut)	
48.	Aam khas bagh (Daulat Khana-i- Khas)	Punjab
49.	Bahour Irrgigation Tank	Puducherry
50.	Udaipur Lake System including Pichola Lake, Madaar Lake, Dhebar Lake (also known as Jaisamand Lake) , Swaroop Sagar/ Pichola, Fateh Sagar, Jaisamand Lake, Udaisagar and Bari Lake.	Rajasthan
51.	Rajsamand Lake & Dam	
52.	Chand Baori	
53.	Gadsisar Lake System	
54.	Kaylana Lake and Takhat Sagar lake	
55.	Ajmer Lake/ Ana Sagar Lake	
56.	Toorji Ki Bawari	
57.	Kallanai Dam (Grand Anicut on the Kaveri)	Tamil Nadu
58.	Veeranam Tank	
59.	Kalingarayan Anicut	
60.	Lower Anicut	
61.	Buckingham Canal (Kommamur Canal)	Tamil Nadu/Tamil Nadu and Andhra Pradesh
62.	Noyyal River System Tanks	Tamil Nadu
63.	Vandiyur Mariamman Teppakulam	
64.	Hussain Sagar Lake (Tank Bund)	Telangana
65.	Kakatiya Interconnected Tank System	
66.	Sadarmatt Anicut	
67.	Golconda Fort Water Systems	
68.	Kamalasagar Dighi with Temple	Tripura
69.	Sringaverapura	Uttar Pradesh
70.	Barua Sagar	
71.	NadraiPul	
72.	Shukla Talab	
73.	Solani Aqueduct	Uttarakhand
74.	Naula or covered spring attached to temple	
75.	Midnapore Anicut	West Bengal

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