

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF DRINKING WATER AND SANITATION

LOK SABHA
UNSTARRED QUESTION NO. 2010
ANSWERED ON 31/07/2025

HN VALLEY AND KC VALLEY PROJECTS

2010. DR. K SUDHAKAR:

Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether the Government has conducted any study to prove that the water from HN Valley and KC Valley projects is drinkable and if so, the details thereof;
- (b) whether the three-stage purification process would make sewage water drinkable and if so, the details thereof including the details of scientific studies conducted in this regard;
- (c) whether any permanent irrigation solutions are being adopted for frequent drought-prone regions such as Chikkaballapur, Kolar and Bangalore Rural and if so, the details thereof;
- (d) the steps taken/being taken to rejuvenate canals and lakes in the regions of Chikkaballapur, Kolar and Bangalore Rural; and
- (e) whether two-stage purification of sewage is sufficient for agricultural use and if so, the details thereof including scientific studies conducted for the purpose?

ANSWER

MINISTER OF STATE FOR JAL SHAKTI
(SHRI V. SOMANNA)

(a) Since August 2019, Government of India in partnership with States is implementing Jal Jeevan Mission (JJM) – Har Ghar Jal to make provision of potable water to every rural household of the country through functional tap water connection. Water is a state subject and therefore, the primary responsibility for planning and implementing piped water supply schemes to provide tap water to rural households, lies with the respective State/UT.

As per Government of Karnataka, State has initiated the KC Valley and HN Valley projects with the primary objective to replenish the groundwater table through an indirect groundwater recharge concept based on soil Aquifer Treatment (SAT) technology in regions that are severely affected by drought and over-extraction of ground water, and these are not drinking water projects. The treated water utilized in these projects adheres to secondary treatment standards, as stipulated by the National Green Tribunal (NGT) and the Karnataka Pollution Control Board, and studies conducted by IISc and other teams have shown that these projects have significantly increased both groundwater quality and quantity. The groundwater quality is suitable for secondary uses, and with minimal treatment (mainly disinfection). The villages served by KC Valley and HN Valley projects are equipped with RO-based drinking water dispenser systems provided by the RDPR department of GoK.

(b) As per State Govt., the three-stage purification still would not make the sewage water drinkable. In this regard, no detailed scientific study has been conducted on this matter till date.

(c) As per State Govt., no permanent irrigation solutions are being adopted by the State, but the Projects like KC Valley and HN Valley have been taken up by Minor Irrigation and Ground Water Development Department, Government of Karnataka, indirectly helps for irrigation.

(d) The Govt. of Karnataka has taken some steps to rejuvenate canals and lakes, their details provided by the State are enclosed at **Annexure**.

(e) Starting from 2019, the Minor Irrigation department of Govt. of Karnataka has engaged a team of scientists from IISc, Bangalore and Ms. EMP laboratories Bangalore, a NABL accredited lab for continuous monitoring of the recycled project. The IISc (CST) was engaged to monitor the overall outcomes regarding water quality (environmental) being transferred and its effect on indirect groundwater recharge. Under this project, IISc was engaged to study the groundwater quality and its ability to remain fresh and usable for long periods, soil agro ecology when indirectly recharged groundwater is used for irrigation and the nature of the change in agricultural practices. IISc was also asked to study the potential implications of this project and address the present and the future of such an endeavour. The current study goes beyond the mere reconstruction of environmental problems and the emerging outcomes.

In turn, IISc has constituted a national-level subject matter expert committee comprising scientists/experts from IIT-Bombay, IIT-Kharagpur and CSIR-NEERI Delhi to review the findings of the study. The committee "appreciated that the outcomes of this project are very interesting with positive impacts on solving one of the main problems of water scarcity. Experts gave their opinion that there is a need to build on this experience and replicate it in other groundwater-scarce areas of Karnataka and India".

IISc has regularly communicated the findings of the study to international peer-reviewed high-impact factor journals, which is reviewed by international experts. The findings of the study have shown significant positive impacts on improved groundwater recharge rates and positive impacts on groundwater quality impacts, significant positive socio-economic impact and there is no adverse impact on human health and animal health has been noticed. Positive impacts on these matters are:

- (i) Improved groundwater levels,
- (ii) Improved groundwater quality,
- (iii) Higher agricultural productivity due to higher availability of water,
- (iv) Improved productivity of milk and fish,
- (v) Farmers income has significantly increased,
- (vi) Revival of rural economy,
- (vii) Improved migratory birds and increased tourism.

Based on the positive outcomes of the KC valley project, the Honourable NGT has appreciated the work and has asked to study if the KC valley water can be used for direct irrigation i.e., not using the recharged groundwater, but directly using the treated water for irrigation. Based on this, the MI&GWD department of GoK has requested IISc to take up such a study. In February 2023, IISc, in collaboration with scientists from GKVK, Bangalore, has started this study. The study has completed one season, and the current findings are encouraging. A detailed study is ongoing.

**ANNEXURE REFERRED TO IN REPLY TO PART (D) OF LOK SABHA
UNSTARRED Q. NO. 2010 ANSWERED ON 31.07.2025**

Rejuvenated Tank List						
(In Lakhs)						
Sl.no	District	Taluk	Constituency	Head of Account	Name of Work	Estimate Cost
1	2	3	4	6	7	8
2023-24 Approved works List						
1	Bangalore Urban	Bangalore East	Mahadevapura	4702 -Modernization of tanks	Construction of chain link fencing to Elemallappashetty Tank in Bidarahalli Hobli, Bangalore East Taluk, Bangalore Urban District,	498.00
2	Bangalore Urban	Bangalore South	Yesvanthapura	4702 -Modernization of tanks	Construction of Protection work and Jungle Clearance from Venkateshwara's land to Dodda Mori to ensure smooth flow of water in Tavarekere Gram Panchayat, Tavarekere Hobli Bangalore South Taluk.	100.00
3	Bangalore Urban	Bangalore South	Yesvanthapura	4702 -Modernization of tanks	Improvements to Chikkalingashastry tank in Bangalore South Taluk, Bangalore District.	300.00
4	Bangalore Urban	Bangalore South	Yesvanthapura	4702 -Modernization of tanks	Improvements to New Tank in Devamachohalli village, Bangalore South Taluk, Bangalore District	100.00
5	Bangalore Urban	Bangalore South	Yesvanthapura	4702 -Modernization of tanks	Construction of Protection work and Jungle Clearance from Nanjappa's land to Janardhan's Land to ensure smooth flow of water in Tavarekere Gram Panchayat, Tavarekere Hobli Bangalore South Taluk.	100.00
6	Bangalore Urban	Bangalore South	Yesvanthapura	4702 -Modernization of tanks	Construction of Protection work and Jungle Clearance from Andanappa's land to Krishna's Land to ensure smooth flow of water in Tavarekere Gram Panchayat, Tavarekere Hobli Bangalore South Taluk.	100.00
7	Bangalore Urban	Bangalore South	Yesvanthapura	4702 -Modernization of tanks	Construction of Rajakaluve works and jungle Clearance due to heavy rainfall in Ganakalu village under Cholanayakanahalli Gram Panchayat limits of Tavarekere Hobli, Bangalore South Taluk	100.00
8	Bangalore Urban	Bangalore South	Yesvanthapura	4702 -Modernization of tanks	Desilting and Jungle Clearance to Muddayyanapalya Tank inTavarekere Gram Panchayat in Tavarekere Hobli, Bangalore South Taluk	50.00
9	Bangalore Urban	Bangalore South	Yesvanthapura	4702 -Modernization of tanks	Desilting and Jungle Clearance to Tank in Jolanayakanahalli Gram Panchayat in Tavarekere Hobli, Bangalore South Taluk	50.00
10	Bangalore Urban	Bangalore South	Bangalore South	4702 -Modernization of tanks	Improvements to Feeder Canal in Dyavasandra Village, Jigani Hobli Anekal Taluk, Bangalore Urban District	50.00
11	Ramanagara	Kanakapura	Kanakapura	4702 -Modernization of tanks	Improvements to Herandyapanahalli Tank waste weir in Kanakapura Taluk, Ramanagara District	355.00
12	Ramanagara	Kanakapura	Kanakapura	4702 -Modernization of tanks	Construction of chain link fencing and Encroachment Clearance around Hosadoddi Tank, in Kasaba Hobli, Kanakapura Taluk, Ramanagara District.	35.00
13	Ramanagara	Harohalli	Ramanagara	4702 -Modernization of tanks	Improvements to Sontenahalli Sluice Canal, under Kurubarahalli branch canal of Bhairamangala left bank canal, Harohalli taluk, Ramanagara district	300.00

Sl.no	District	Taluk	Constituency	Head of Account	Name of Work	Estimate Cost
1	2	3	4	6	7	8
14	Ramanagara	Harohalli	Ramanagara	4702 -Modernization of tanks	Improvements to Anedoddi Sluice Canal, under Yerehalli branch canal of Bhairamangala left bank canal, Harohalli taluk, Ramanagara district	200.00
15	Ramanagara	Ramanagara	Magadi	4702 -Modernization of tanks	Improvements to Ramanahalli branch canal of right bank canal of Bhairamangala reservoir, Bidadi Hobli, Ramanagara taluk Ramanagara district,	120.00
16	Chikkaballapura	Bagepalli	Bagepalli	4702 -Modernization of tanks	Improvements to Draft Canal from Cheruva Mandarapalli tank Waste Weir to Balchosahalli bridge, under Julapalya Panchayat, Bagepalli Taluk, Chikkaballapur District.	25.00
17	Chikkaballapura	Bagepalli	Bagepalli	4702 -Modernization of tanks	Improvements to Draft Canal from Kushamma Topi Bridge to Balehosahalli Bridge in Polanayakanahalli Panchayat, Bagepalli Taluk, Chikkaballapur District.	25.00
18	Chikkaballapura	Chikkaballapura	Chikkaballapura	4702 -Modernization of tanks	Construction of Percolation Tank and Draft Canal near Muddenahalli Village, Chikkaballapur taluk, Chikkaballapur district,	500.00
19	Kolar	Bangarapete	Bangarapete	4702 -Modernization of tanks	Comprehensive Development Work of Pakarahalli Tank in Kasaba Hobli, Bangarapet Taluk, Kolar District,	100.00
20	Kolar	Bangarapete	Bangarapete	4702 -Modernization of tanks	comprehensive development work of Aniganahalli Tank in Kasaba Hobli, Bangarapet Taluk, Kolar District,	50.00
21	Kolar	Mulabagilu	Mulabagilu	4702 -Modernization of tanks	Improvements to Kapalamadugu Oddukere Kere in Mulbagilu Taluk, Kolar District,	25.00
22	Kolar	Mulabagilu	Mulabagilu	4702 -Modernization of tanks	Construction of Waste weir and Improvements to C.Gundlahalli Doddakere Katte and Mulbagilu Taluk, Kolar District,	25.00
23	Kolar	Mulabagilu	Mulabagilu	4702 -Modernization of tanks	Construction of Revetment and improvements to draft canal of C.GundaAllahalli in Mulbagilu Taluk, Kolar District.	25.00
24	Kolar	Mulabagilu	Mulabagilu	4702 -Modernization of tanks	Construction of Canal from Kandinne to C. Gundlahalli Doddakere in Mulbagilu taluk, Kolar district,	25.00
25	Kolar	Mulabagilu	Mulabagilu	4702 -Modernization of tanks	Improvements to Rajendarahalli Doddakere katte and Waste weir in Mulbagilu taluk, Kolar district,	25.00
26	Kolar	Kolar	Kolar	4702 -Modernization of tanks	Comprehensive Development Work to Byrandahalli Tank in Vemagal Hobli Kolar Taluk, Kolar District	325.00

2024-25 Approved works List

1	Bangalore Urban District,	Yelahanka	Yelahanka	4702 -Modernization of tanks	Reconstruction of Dasenahalli Percolation tank in Yelahanka Taluk, Bangalore Urban District,	460.00
2	Bangalore Urban District,	Yelahanka	Yelahanka	4702 -Modernization of tanks	Improvements to Jagalahatti Tank in Yelahanka Taluk, Bangalore Urban District,	500.00
3	Bangalore Rural District,	Doddaballapura	Doddaballapura	4702 -Modernization of tanks	Repair works to Nagara Tank in Doddaballapur Taluk, Bangalore Rural District	50.00


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