

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

RAJYA SABHA

UNSTARRED QUESTION NO.707

ANSWERED ON 02.12.2024

POLLUTION IN YAMUNA RIVER

707. SHRI SANDEEP KUMAR PATHAK

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

- (a) the list of the schemes run by Government for the cleanliness of Yamuna river, the details of the steps taken by Government during the last five years to clean Yamuna river and stop further pollution;
- (b) amount of funds spent by Government in 2019-24 on the cleanliness of Yamuna river; and
- (c) the details of the funds released in the last two terms of Government to the concerned State/UT for the cleanliness of Yamuna by Government and funds spent by them each year?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) The Government of India (GoI) launched the Namami Gange Programme (NGP) in 2014-15 for the rejuvenation of river Ganga and its tributaries (including Yamuna) for five years, up to March 2021 and has been further extended to March 2026. Under NGP, 33 projects have been sanctioned for the creation of a sewerage treatment capacity of 2,130 million litres per day (MLD) at a cost of ₹ 5,911 crore. The list of projects is enclosed in **Annexure**.

In addition Central Pollution Control Board (CPCB), regularly monitors river water quality parameter and also Sewage Treatment Plants (STPs) inspection, and also issued directions dated 12.11.2024 to Delhi Pollution Control Committee under Section 18(1) (B) of the water (prevention & control of Pollution) Act, 1974 regarding non-compliance status of Sewage Treatment Plants (STPs) installed in Delhi.

The Government of NCT of Delhi is working on the following sewage infrastructure enhancement projects: -

- a. Rehabilitation of existing 3 STPs at Kondli Phase II, Rithala Phase I, and Yamuna Vihar Phase –II;
- b. Upgradation and increasing capacity of existing STPs;
- c. Construction of New STPs at Sonia Vihar;
- d. Various interceptor sewer projects.

All the operational STPs of DJB are being monitored by DPCC every month & analysis reports are available on the website of DPCC. DPCC issues communication with the DJB to meet prescribed standards on a regular basis.

Delhi Jal Board has informed that each contract has provision of penalty in case of non-achievement of guaranteed parameters of treated effluent, etc. and, payment is withheld/recovered time to time for non-compliances. In case the agencies do not respond properly even after repeated communication there is a provision to blacklist/debar from DJB tendering. DJB has taken action on defaulting firms at various sites.

(b) & (c) The funds released by the NMCG to various agencies from financial year (FY)2014-15 to FY 2018-19 and from FY 2019-20 to FY 2023-24 for projects related to abatement of pollution of Yamuna river and its tributaries under Namami Gange Programme are as under:-

| Funds released by NMCG | Amount (Rs. in crore) |
|-------------------------------|------------------------------|
| FY2014-15 to FY 2018-19 | 510.25 |
| FY2019-20 to FY 2023-24 | 1,580.89 |

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 707 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “POLLUTION IN YAMUNA RIVER”.

The list of projects sanctioned under Namami Gange Programme for rejuvenation of river Yamuna:

| Sl.No | Name of Project | Treatment Capacity(MLD) | Sanctioned Cost(₹ In crore) |
|----------------------|---|--------------------------------|------------------------------------|
| Uttar Pradesh | | | |
| 1 | Rehabilitation of Sewerage Infrastructure & Augmentation/Upgradation of STP (4 MLD) in Vrindavan | 4 | 42.82 |
| 2 | Rehabilitation/Renovation of Mathura sewerage scheme at Masani | 67.8 | 460.45 |
| 3 | Interception & Diversion with Rehabilitation work in Agra | 177.6 | 842.25 |
| 4 | Interception & Diversion and STP works Baghpat | 14 | 77.36 |
| 5 | Interception & Diversion works in Firozabad | 0 | 51.08 |
| 6 | Interception & Diversion works in Etawah | 44.94 | 140.6 |
| 7 | Interception & Diversion works in Muzaffarnagar | 44.5 | 234.03 |
| 8 | Interception & Diversion works in Budhana | 10 | 48.76 |
| 9 | Upgradation of Infrastructure of Existing CETP for Textile Printing Units at Mathura Industrial Area, Muthura (6.25MLD) | 6.25 | 13.87 |
| 10 | I&D and STP Works for balance drains in Mathura | 60 | 292.56 |
| 11 | Interception & Diversion works in Kairana | 15 | 78.42 |
| 12 | I&D and STP Works in Chhata | 6 | 56.15 |
| 13 | I&D and STP Works in Kosi | 12 | 66.59 |
| 14 | I&D and STP Works in Vrindavan | 13 | 77.7 |
| 15 | I&D and STP works in Hathras | 24 | 128.91 |
| 16 | I&D and STP works in Saharanpur | 135 | 577.23 |
| 17 | I&D and STP works in Banat | 5 | 48.71 |
| 18 | I&D and STP works in Babri&Bantikhera | 5 | 55.47 |
| 19 | I&D and STP works in Thanabhawan | 10 | 97.19 |
| 20 | I&D and STP works in Shamli | 40 | 206.02 |
| 21 | I&D and STP works in Deoband | 20 | 134.71 |
| Delhi | | | |
| 1 | Rehabilitation of Trunk Sewer No.4 | 0 | 87.43 |
| 2 | Rehabilitation of Trunk Sewer No.5 | 0 | 83.4 |

| Sl.No | Name of Project | Treatment Capacity(MLD) | Sanctioned Cost(₹ In crore) |
|-------------------------|--|-------------------------|-----------------------------|
| 3 | Rehabilitation and upgradation of Kondli Phase-I STP (45 MLD), Phase-II STP (114 MLD) & Phase-III STP (45 MLD) | 204 | 239.11 |
| 4 | Rehabilitation of Rising Mains | 0 | 59.13 |
| 5 | Rehabilitation of Trunk Sewers | 0 | 43.92 |
| 6 | Rehabilitation of Rising Main | 0 | 45.4 |
| 7 | Rehabilitation and up-gradation of Phase-I STP (182 MLD) | 182 | 211.79 |
| 8 | Construction of 564 MLD (124 MGD) Waste Water Treatment Plant (WWTP) | 564 | 665.78 |
| 9 | Construction of 318 MLD (70 MGD) at Coronation Pillar, Delhi | 318 | 515.07 |
| Himachal Pradesh | | | |
| 1 | Sewerage scheme for Zone II & III of Paonta Sahib | 3.16 | 11.57 |
| Haryana | | | |
| 1 | Sewerage and Sewage Treatment Plant (STP) in Panipat | 90 | 129.51 |
| 2 | Sewerage and Sewage Treatment Plant (STP) in Sonipat | 55 | 88.36 |

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA
UNSTARRED QUESTION NO.708

ANSWERED ON 02.12.2024

NATIONAL MISSION FOR CLEAN GANGA

708.# SHRI TEJVEER SINGH

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

- (a) whether the National Mission for Clean Ganga (NMCG) is contributing to the reuse of treated water, biodiversity conservation and revival of polluted river stretches;
- (b) whether Government has identified specific areas for reuse of treated water, and the manner whereby this water can be used in agriculture, industry and other sectors; and
- (c) the steps being taken by Government to reduce dependence on fresh water by reusing treated water, and the benefits thereof?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

- (a) Yes, Sir. The Government of India, under the National Mission for Clean Ganga (NMCG), has been promoting the reuse of treated water, biodiversity conservation, and remediation of polluted river stretches.
- (b) The Government of India has been promoting the reuse of treated water for different non-potable purposes, particularly for Industrial use, Railways, Thermal Power Plants, Municipal uses, Irrigation uses etc. to reduce dependency on fresh water.
- (c) The following initiatives have been taken up by NMCG in Ganga Basin to encourage the reuse of treated water and to reduce the dependency on fresh water:
 - A *National Framework for Safe Reuse of Treated Water* has been developed by NMCG to guide States in formulating their reuse policies and to establish economic models for the reuse of treated wastewater.
 - NMCG has also developed a guidance handbook for urban policymakers and city officials on safely reusing treated water, which aims to conserve freshwater resources and promote sustainable water management practices;
 - Notably, 8MLD treated water from the Trans Yamuna STP is supplied to the Mathura Refinery for non-potable purposes and two thermal plants of Pragati Power Corporation Ltd. Delhi and Jojobera Thermal Plant, Jharkhand are using treated water of nearby STPs.

GOVERNMENT OF INDIA
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UNSTARRED QUESTION NO.709

ANSWERED ON 02.12.2024

WATER QUALITY IN RIVERS OF THE COUNTRY

709. SHRI JOSE K. MANI

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

- (a) whether Government has conducted any recent study to assess the water quality in the country rivers;
- (b) if so, furnish the key findings of the study conducted;
- (c) manner in which Government is addressing the issue of urban waste, including plastic waste, entering rivers, and the initiatives that are being implemented to improve waste management practices; and
- (d) whether Government has any plans to conduct public awareness campaigns to educate citizens about the impact of pollution on rivers and to promote sustainable practices?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) & (b) The Central Pollution Control Board (CPCB) based on river water quality monitoring results carries out pollution assessment of rivers from time to time. As per the last report published by CPCB, 603 rivers throughout the country were monitored and 311 polluted river stretches on 279 rivers have been identified. State and river-wise details of pollution level can be also accessed at:

<https://cpcb.nic.in/openpdffile.php?id=UmVwb3J0RmlsZXMvMTQ5OF8xNjcyOTg4MDQ1X21lZGlhcGhvdG8xMjk5NS5wZGY=>

(c) It is the responsibility of States and Urban Local Bodies to ensure required treatment of sewage and industrial effluents to the prescribed norms before discharging into the rivers and other water bodies. The Govt. of India provides financial and technical support to the States and ULBs under various programs like Namami Gange for pollution abatement of river Ganga and its tributaries and National River Conservation Program (NRCP) for other than Ganga river basin. Apart from this, sewerage infrastructure is created under programs Atal Mission for Rejuvenation & Urban Transformation (AMRUT), Smart Cities Mission and Swachh Bharat Mission of Ministry of Housing & Urban Affairs. Further Ministry of Environment and Forests is implementing Extended Producers Responsibility (EPR) regime under Plastic Waste Management Rules, 2016, according to which it is the responsibility of Producers, Importers and Brand-owners to ensure processing of their plastic packaging waste through recycling, re-use or end of life disposal.

(d) For cleanliness of rivers, public participation is a very important component of the river conservation/rejuvenation program. Under National River Conservation Plan, Namami Gange Programme, Swachh Bharat Mission financial assistance is provided to participating States for undertaking various conservation/rejuvenation activities including education and public awareness among the local people, students and stakeholders about the value, functions and ecological services of rivers through awareness campaigns/publications, pamphlets, video films, yatras, slogan/drawing/essay competitions, etc.

Ministry of Housing and Urban Affairs under the aegis of Swachh Bharat Mission-Urban, has launched 'Clean Green Campaign' with massive citizen participation for effective management of plastic waste and to ensure enforcement of ban on specific Single Use Plastic (SUP) items.

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UNSTARRED QUESTION NO.710
ANSWERED ON 02.12.2024
BUDGET SANCTIONED, ALLOCATED BY CENTRAL GOVERNMENT TO
HIMACHAL PRADESH

710.# SHRI HARSH MAHAJAN

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

- (a) the details of item-wise Budget sanctioned, allocated by the Central Government to Himachal Pradesh under the scheme of the Ministry during the last two years, the details thereof;
- (b) whether utilization certificate has been given by Himachal Pradesh State after expenditure under all the schemes, if so, the details thereof, if not, the reasons therefor; and
- (c) whether the Ministry monitors the accounting of budget under various heads given by it; if so, the details thereof, if not, reasons therefor?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

- (a) The details of item-wise Budget sanctioned, allocated by the Central Government to Himachal Pradesh under the scheme of the Ministry during the last two years are as follows:
 - i. Pradhan Mantri Krishi Sinchayee Yojana – Accelerated Irrigation Benefits Programme (PMKSY-AIBP): Central assistance provided to Himachal Pradesh in last two financial years including current financial year is Rs.416.75 crore.
 - ii. Pradhan Mantri Krishi Sinchayee Yojana- Har Khet Ko Paani (PMKSY-HKPP): Central assistance released to Himachal Pradesh in last two financial year including current financial year is Rs. 221.43 crores.
 - iii. Flood management and border area programme (FMBAP): Central assistance provided to Himachal Pradesh in financial year 2023-24 for the last two years is Rs. 30.16 crores.
 - iv. National Hydrology Project (NHP): Central assistance released to Himachal Pradesh in last two financial years is Rs. 20.32 crores.
 - v. Swachh Bharat Mission (Grameen): Central assistance allocated to Himachal Pradesh during last two financial years is Rs. 240.07 crores.

vi. Jal Jeevan Mission (JJM): Central assistance allocated to Himachal Pradesh during last two financial years is Rs. 1747.28 crores.

(b) Utilization certificates are obtained from State Governments before release of next instalment of central assistance. Utilization certificates has been submitted by Himachal Pradesh in respect of schemes namely, PMKSY-AIBP, PMKSY-HKKP, NHP, and JJM.

(c) Budget monitoring is conducted via systems like the Single Nodal Account (SNA) on PFMS, which tracks fund allocation and utilization. The Ministry ensures financial controls through audits, utilization certificates, regular review meetings with state government/implementing agencies, and internal budget reviews.

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UNSTARRED QUESTION NO.711

ANSWERED ON 02.12.2024

NATIONAL MISSION FOR CLEAN GANGA

711. SHRI TIRUCHI SIVA

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

- (a) the reason for consistent underutilisation of funds allocated for Namami Gange programme in every year since Financial Year 2019-20, with cumulative expenditure thus far being limited to 51 per cent of the overall budgeted amount;
- (b) estimated timeline for complete utilisation of ₹ 383 Crores sanctioned for 32 projects under Clean Ganga Fund (CGF); and
- (c) whether National Mission for Clean Ganga (NMCG) has taken any measures to minimise delays in review of Detailed Project Reports submitted by States to its existing sixty day limit?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) The National Mission for Clean Ganga (NMCG) has disbursed ₹ 10,560.84 crore during the period FY 2019-20 to FY 2023-24 which is about 86% of the budget provision of ₹ 12,310.02 crore. It may be noted that besides financial outflow, future liabilities (i.e. annuity payments and operation and maintenance payments) are also created in view of implementation of infrastructure projects via Hybrid Annuity Model (HAM)/ Design, Build, Operate, and Transfer (DBOT) model.

(b) Out of the 32 projects sanctioned for funding under the Clean Ganga Fund, 18 projects have been completed. Two projects were dropped due to a lack of regulatory clearances, and the remaining 12 River Front Development projects are expected to be completed by December 2025.

(c) Initiatives taken by NMCG for early finalization of the Detailed Project Reports (DPRs) submitted by State include:

- i. Deployment of expert teams and Project Management consultants to assist States in the preparation of DPRs obviating multiple revisions;
- ii. Offering technical support to ensure that DPRs meet required standards at the initial stages;
- iii. A system of monthly review of all the DPR's along with State Program Management Groups and concerned State Department to speed up the process.

- iv. Guidelines for preparation of DPRs for most common type of projects that are Interception & Diversion projects.
- v. A number of training programs by premier institutions like Indian Institute of Technology, Roorkee have been organized for the key stakeholders i.e. officials of SPMGs/State Mission for Clean Ganga, executing agencies.
- vi. A checklist of essential components of the Detailed Project Report (DPR) has also been prepared and circulated to all concerned.

GOVERNMENT OF INDIA
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UNSTARRED QUESTION NO.712

ANSWERED ON 02.12.2024

FLOOD MANAGEMENT

712. SHRI G.C. CHANDRASHEKHAR

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

- (a) the data regarding damage caused by floods to crops, land, property, and life in the State of Karnataka particularly from 2021 to till date;
- (b) the quantum of funds released under the Flood Management and Border Areas Programme during the last four years;
- (c) the salient features and funding pattern of Flood Management and Border Areas Programme; and
- (d) the number of projects sanctioned and completed under the flood management component of PMKSY till date, State-wise?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) The damages due to heavy rain and floods are published by CWC after confirmation from respective States. So far, the flood damage data record is available for the period from the years 1953 to 2022. As per CWC's data bank, damage to land, property and life due to floods/heavy rains in respect of Karnataka from 2021-2022 is given at **Annexure I**.

(b) Fund release under Flood Management Programme and Border Areas Programme during the last four years is as under:

| Releases under FMP and RMBA during last four financial years | | | |
|---|----------------------|-------------------------------------|---------------|
| Rs. in Crore | | | |
| Year | FMP Component | RMBA(Grant-in-Aid) Component | Total |
| FY:2020-21 | 37.80 | 42.49 | 80.29 |
| FY:2021-22 | 239.75 | 3.736 | 243.49 |
| FY:2022-23 | 325.28 | 88.96 | 414.24 |
| FY:2023-24 | 100.71 | 74.59 | 175.30 |
| Total | 703.54 | 209.78 | 913.32 |

(c) To strengthen the structural measures of flood management, Ministry had implemented Flood Management Programme (FMP) during XI & XII Plan for providing Central Assistance to States for works related to river management, Flood control, anti-erosion, drainage development, anti-sea erosion,

etc. which subsequently continued as component of "Flood Management and Border Areas Programme (FMBAP) for the period from 2017-18 to 2020-21 and further extended up to September 2022 with limited outlay. The Union Cabinet has approved "Flood Management and Border Areas Programme (FMBAP) with total outlay of Rs. 4,100 crore for a period of 5 years from 2021-22 to 2025-26 (15th Finance Commission period) in the month of February 2024.

The FMBAP scheme have two components:

1. Under Flood Management Programme (FMP) component of FMBAP, pattern of funding to be followed is 90% (Centre):10% (State) for Special Category States (8 North- Eastern States and Hilly States of Himachal Pradesh, Uttarakhand and UT of Jammu & Kashmir) and 60% (Centre):40% (State) for General/ Non-Special Category States. Total Central assistance amounting to Rs 7136.00 Cr. has been released under FMP component to various states upto October, 2024.
2. Under River Management and Border Areas (RMBA) component of FMBAP, flood control and anti-erosion works on common border rivers with neighbouring countries including hydrological observations and flood forecasting and investigation & pre-construction activities of joint water resources projects (with neighbouring countries) on common border rivers is taken up with 100% central assistance.

(d) Total 529 flood management projects have been sanctioned till October, 2024 under FMP component of FMBAP. List of statewise sanctioned project is given at **Annexure II**.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 712 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “FLOOD MANAGEMENT”.

Statement showing Flood Damage Statistics from 2021 to 2022 in Karnataka

| Sl.No. | Year | Damage to Crops | | Damage to Houses | | Cattle lost nos. | Human lives lost nos. | Damage to public utilities in Rs.Crore |
|--------|------|-----------------|----------------------|------------------|----------------------|---------------------|-----------------------------|---|
| | | Area (m.ha) | Value in Rs.Crore | Nos. | Value in Rs.Crore | | | |
| 1 | 2 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 1 | 2021 | 1.19 | 1069.19 | 38802 | 170.12 | 734 | NR | 736.50 |
| 2 | 2022 | 1.03 | NR | 49362 | NR | 1676 | 152 | NR |

- NR – Not Reported

The department has flood damage data available up to 2022 and is currently collecting and preparing data for subsequent years.

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 712 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “FLOOD MANAGEMENT”.

List of Statewise sanctioned project under FMP component of FMBAP

| Sl. No. | State | List of sanctioned Project |
|----------------|----------------------------|-----------------------------------|
| 1 | Arunachal Pradesh | 23 |
| 2 | Assam | 142 |
| 3 | Bihar | 48 |
| 4 | Chhattisgarh | 3 |
| 5 | Goa | 2 |
| 6 | Gujarat | 2 |
| 7 | Haryana | 1 |
| 8 | Himachal Pradesh | 8 |
| 9 | Jammu & Kashmir | 44 |
| 10 | Jharkhand | 3 |
| 11 | Karnataka | 3 |
| 12 | Kerala | 4 |
| 13 | Manipur | 23 |
| 14 | Meghalaya | 0 |
| 15 | Mizoram | 2 |
| 16 | Nagaland | 17 |
| 17 | Odisha | 68 |
| 18 | Puducherry# | 1 |
| 19 | Punjab | 5 |
| 20 | Sikkim | 45 |
| 21 | Tamilnadu | 5 |
| 22 | Tripura | 11 |
| 23 | Uttar Pradesh | 29 |
| 24 | Uttarakhand | 22 |
| 25 | West Bengal | 18 |
| | Total | 529 |

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

UNSTARRED QUESTION NO.715

ANSWERED ON 02.12.2024

GROUNDWATER CONTAMINATION IN CHHATTISGARH

715. SHRI RAJEEV SHUKLA

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

- (a) whether Government is taking cognisance of the fact that the groundwater is depleting fast in Chhattisgarh and there has been a significant increase in chemical contamination of Fluoride, Arsenic and Iron;
- (b) if so, the details thereof;
- (c) the measures being taken to address the same; and
- (d) the proposed measures thereof?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) & (b) Central Ground Water Board (CGWB) regularly monitors groundwater levels throughout the country including the state of Chhattisgarh. During the November 2023, about 76.4% of the wells monitored in Chhattisgarh have registered the water level between 0-5 mbgl(meters below ground level), indicating ease of access to ground water. Further, as per the Dynamic Ground Water Resource assessment, 2023 carried out by CGWB, 119 out of 146 Assessment Units in Chhattisgarh were reported to be under safe category and the Stage of Extraction for the state as a whole was 47.17%.

CGWB also generates ground water quality data for various parameters, including Arsenic, Fluoride and Iron for the whole country, including Chhattisgarh as part of its ground water quality monitoring program and for various scientific studies. The details of Fluoride contamination (based on Pre-Monsoon data from 2019 to 2023) and; Arsenic and Iron (based on Pre-Monsoon 2019, 2020 & 2023 data) in ground water across Chhattisgarh are given in **Annexure**.

(c) & d) Water being a State subject, sustainable development and management of groundwater resources is primarily the responsibility of the State Governments. However, the Central Government facilitates the efforts of the State Governments by way of technical and financial assistance through its various schemes and projects. In this direction, the important steps taken by the Ministry of Jal Shakti and other central ministries for sustainable development of ground water resources in the country are given below:-

- i. The Government is implementing Jal Shakti Abhiyan (JSA) in the country since 2019 which is a mission mode and time bound programme for harvesting the rainfall and taking up water conservation activities. Currently, JSA 2024 is being implemented in the country with special focus on 151 water stressed districts of the country including 3 such districts in Chhattisgarh.

- ii. CGWB has taken up National Aquifer Mapping and Management Programme (NAQUIM) with an aim to delineate aquifer disposition and their characterization. Entire mappable area of the country of around 25 lakh sq. km, including 96,000 sq km of Chhattisgarh has been mapped under the scheme and management plans have been shared with the respective State governments for implementation.
- iii. Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by the CGWB for the entire country, including Chhattisgarh and shared with States/UTs providing a broad outline for construction of around 1.42 crore rain water harvesting and artificial recharge structures in the country to harness 185 BCM (Billion cubic meter).
- iv. Department of Agriculture & Farmers' Welfare (DA & FW), GoI, is implementing Per Drop More Crop Scheme in the country, including Chhattisgarh, since 2015-16, which focuses on enhancing water use efficiency at farm level through Micro Irrigation and better on-farm water management practices to optimize the use of available water resources.
- v. Mission Amrit Sarovar was launched by the Government of India which aimed at developing and rejuvenating at least 75 water bodies in each district of the country, including Chhattisgarh. As an outcome nearly 69,000 Amrit Sarovars have been constructed/rejuvenated in the country. For improving ground water quality in the country, including Chhattisgarh and to provide safe drinking water to the citizens the following measures have been taken:
- vi. Government of India is implementing Jal Jeevan Mission (JJM) – Har Ghar Jal, since August, 2019, in partnership with States, to make provision of potable tap water supply in adequate quantity, of prescribed quality and on regular & long-term basis to every rural household by 2024. Under JJM, while allocating the funds to States/ UTs, 10% weightage is given to the population residing in habitations affected by chemical contaminants.
- vii. Since, planning, implementation and commissioning of piped water supply scheme based on a safe water source may take time, purely as an interim measure, States/UTs have been advised to install community water purification plants (CWPPs) especially in arsenic and fluoride affected habitations to provide potable water to every household at the rate of 8–10 litre per capita per day (lpcd) to meet their drinking and cooking requirements.
- viii. Data on ground water quality available with CGWB are made available in public domain through reports as well as through the web site (<http://www.cgwb.gov.in>) for use by various stakeholders. The data is also shared with concerned State Governments for taking necessary remedial measures.
- ix. CGWB is successfully constructing Arsenic free wells in arsenic affected areas using the cement sealing technology for tapping contamination free aquifers and also providing technical assistance to state departments in Fluoride mitigation.
- x. Central Pollution Control Board (CPCB), in association with State Pollution Control Boards/Pollution Control Committees (SPCBs/PCCs), is implementing the provisions of the Water (Prevention & Control) Act, 1974 and the Environment (Protection) Act, 1986 to prevent and control pollution in water.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) & (b) OF UNSTARRED QUESTION NO. 715 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “GROUNDWATER CONTAMINATION IN CHHATTISGARH”.

Percentage of samples showing concentration of Fluoride, Arsenic and Iron above Permissible Limit since 2019

| Year | Fluoride % of sample showing F>1.5 mg/L | Arsenic % of sample showing As>10 ppb | Iron % of sample showing Fe>1.0 mg/L |
|-------------|---|---|--|
| 2019 | 5.23 | 0.3 | 10.03 |
| 2020 | 2.03 | 0 | 11.63 |
| 2021 | 1.28 | Not analyzed | Not analyzed |
| 2022 | 1.52 | Not analyzed | Not analyzed |
| 2023 | 2.35 | 0.52 | 16.04 |

GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO.716

ANSWERED ON 02.12.2024

DECREASING GROUNDWATER LEVEL

716. SHRI SANT BALBIR SINGH

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

- (a) whether any policy has been made to check the rapidly decreasing water level in the country including Punjab, if so, the details thereof;
- (b) the information of the works done by Government for protection of groundwater during the last five years, State-wise;
- (c) whether Government has conducted any recent research or survey regarding the groundwater situation of other States including Punjab for future preparation, if so, the status of water under the States, if not, the reasons therefor; and
- (d) the schemes being implemented by Government to save water in the country?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) Realizing the significance of holistic and sustainable development of water resources in the country, Ministry of Water Resources had formulated the National Water Policy (NWP) in 1987 itself which was subsequently reviewed and updated in 2002 and 2012. From the ground water perspective, the NWP, inter-alia, calls for rainwater harvesting and conservation of water, mapping the aquifers of the country, proper regulation of extraction by setting up regulatory authorities and integrated development of surface and ground water. Based on the NWP, this Ministry had drafted a Model 'Groundwater (Regulation and Control of Development and Management) Bill' 2005, providing a regulatory framework to curb indiscriminate extraction of ground water while also making provisions for rain water harvesting and artificial recharge. The Model Bill has been circulated to all States/UTs and so far 21 States/UTs have adopted it, including Punjab.

(b) to (d) The Central Ground Water Board (CGWB) annually conducts Dynamic Ground Water Resources Assessment of the country in association with States/UTs. In 2023, the Stage of ground water Extraction (SoE) for the whole country is assessed at 59.26%. State-wise details of annual ground water recharge and extraction, as per the 2023 assessment, is provided at **Annexure-I**.

Water being a State subject, sustainable development and management of groundwater resources is primarily the responsibility of the State Governments. However, the Central Government facilitates the efforts of the State Governments by way of technical and financial assistance through its various schemes and projects. In this direction, the important steps taken by the Ministry of Jal Shakti and other central ministries for sustainable development of ground water resources in the country are given below:-

- i. The Government is implementing Jal Shakti Abhiyan (JSA) in the country since 2019 which is a mission mode and time bound programme for harvesting the rainfall and taking up water conservation activities. Currently, JSA 2024 is being implemented in the country with special focus on 151 water stressed districts of the country, including 10 such districts in Punjab. JSA is an umbrella campaign under which various ground water recharge and conservation related works are being taken up in convergence with various central and state schemes. As per the information under JSA, a total of around 1.05 crore water conservation and rain water harvesting structures have been constructed/restored in the country since inception of the Abhiyan. State-wise details of all such water conservation works done from March 2021 to the present is provided in **Annexure-II.**
- ii. CGWB has taken up National Aquifer Mapping and Management Programme (NAQUIM) with an aim to delineate aquifer disposition and their characterization. Entire mappable area of the country of around 25 lakh sq. km, including 50,369 sq km of Punjab, has been mapped under the scheme and management plans have been shared with the respective State governments for implementation.
- iii. Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by the CGWB and shared with States/UTs providing a broad outline for construction of around 1.42 crore rain water harvesting and artificial recharge structures in the country with estimated cost. Master plan for the state of Punjab envisages construction of about 11 lakh structures to harness about 1200 MCM of rain-water.
- iv. Department of Agriculture & Farmers' Welfare (DA & FW), GoI, is implementing Per Drop More Crop (PDMC) Scheme in the country, including Punjab, since 2015-16, which focuses on enhancing water use efficiency at farm level through Micro Irrigation and better on-farm water management practices to optimize the use of available water resources. As per the data available, an area of 15,173 Ha was covered under PDMC in Punjab up to Feb 2024.
- v. Mission Amrit Sarovar was launched by the Government of India which aimed at developing and rejuvenating at least 75 water bodies in each district of the country, including Punjab. As an outcome nearly 69,000 Amrit Sarovars have been constructed/rejuvenated in the country with 1,450 in Punjab.

- vi. MoJS is promoting conjunctive use of surface water and groundwater and to reduce over-dependence on groundwater in the country under PMKSY-AIBP scheme in collaboration with States/UTs under which surface water based Major and Medium irrigation projects have been taken up.
- vii. Government of India supports construction of water conservation and rain water harvesting in states, including in Punjab, through its schemes like MGNREGS and PMKSY-WDC.
- viii. Based on the advisories of MoJS to States to review their free/subsidized electricity policy to farmers, bring suitable water pricing policy and to work further towards crop rotation/diversification/other initiatives to reduce over-dependence on groundwater, Department of Agriculture, Punjab is pursuing hard to diversify the acreage under paddy to other less water consuming crops by extending incentives to farmers.
- ix. Based on the advice of the Ministry of Jal Shakti, the Punjab Water Resources Regulation and Development Authority (PWRDA) has been established under section 3 of Punjab Water Resources (Management and Regulation) Act, 2020 Act to ensure conservation, management and regulation of water resources in the State.

Details of several other significant initiatives of the Government of India for improvement of groundwater situation in the country can be seen through the link below-

<https://jalshakti-dowr.gov.in/document/steps-taken-by-the-central-government-to-control-water-depletion-and-promote-rain-water-harvesting-conservation/>

- x. In addition, a number of States have done notable work in the field of water conservation/harvesting. Some of them can be mentioned as ‘Mukhyamantri Jal Swavlamban Abhiyan’ in Rajasthan, ‘Jalyukt Shivar’ in Maharashtra, ‘Sujalam Sufalam Abhiyan’ in Gujarat, ‘Mission Kakatiya’ in Telangana, Neeru Chettu’ in Andhra Pradesh, Jal Jeevan Hariyali in Bihar, ‘Jal Hi Jeevan’ in Haryana, ‘Kudimaramath’ scheme in Tamil Nadu etc.

ANNEXURE REFERRED TO IN REPLY TO PART (b) to (d) OF UNSTARRED QUESTION NO. 716 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “DECREASING GROUNDWATER LEVEL”.

STATE-WISE GROUND WATER RESOURCES OF INDIA, 2023 (in bcm)

| S.No. | State | Total Annual Ground Water Recharge | Annual Extractable Ground Water | Current Total Ground Water Extraction | Stage of Ground Water Extraction (%) |
|-------|----------------------|------------------------------------|---------------------------------|---------------------------------------|--------------------------------------|
| 1 | Andhra Pradesh | 27.83 | 26.45 | 7.48 | 28.3 |
| 2 | Arunachal Pradesh | 4.65 | 4.16 | 0.02 | 0.42 |
| 3 | Assam | 27.26 | 20.93 | 2.63 | 12.54 |
| 4 | Bihar | 33.96 | 30.72 | 13.75 | 44.76 |
| 5 | Chhattisgarh | 13.34 | 12.18 | 5.75 | 47.17 |
| 6 | Delhi | 0.38 | 0.34 | 0.34 | 99.13 |
| 7 | Goa | 0.396 | 0.317 | 0.068 | 21.37 |
| 8 | Gujarat | 27.35 | 25.41 | 13.13 | 51.68 |
| 9 | Haryana | 9.55 | 8.69 | 11.8 | 135.74 |
| 10 | Himachal Pradesh | 1.11 | 1.01 | 0.35 | 34.95 |
| 11 | Jharkhand | 6.25 | 5.73 | 1.8 | 31.38 |
| 12 | Karnataka | 18.93 | 17.08 | 11.32 | 66.26 |
| 13 | Kerala | 5.53 | 5.01 | 2.73 | 54.55 |
| 14 | Madhya Pradesh | 35.47 | 32.85 | 19.3 | 58.75 |
| 15 | Maharashtra | 32.76 | 30.95 | 16.66 | 53.83 |
| 16 | Manipur | 0.52 | 0.47 | 0.04 | 7.99 |
| 17 | Meghalaya | 1.83 | 1.51 | 0.07 | 4.58 |
| 18 | Mizoram | 0.22 | 0.2 | 0.01 | 3.70 |
| 19 | Nagaland | 0.6 | 0.54 | 0.02 | 3.76 |
| 20 | Odisha | 17.35 | 15.94 | 7.39 | 46.33 |
| 21 | Punjab | 18.84 | 16.98 | 27.8 | 163.76 |
| 22 | Rajasthan | 12.45 | 11.25 | 16.74 | 148.77 |
| 23 | Sikkim | 0.243 | 0.219 | 0.012 | 5.54 |
| 24 | Tamil Nadu | 21.59 | 19.51 | 14.42 | 73.91 |
| 25 | Telangana | 23.14 | 20.92 | 8.09 | 38.65 |
| 26 | Tripura | 1.36 | 1.09 | 0.11 | 9.92 |
| 27 | Uttar Pradesh | 71.83 | 65.57 | 46.4 | 70.76 |
| 28 | Uttarakhand | 2.02 | 1.85 | 0.95 | 51.69 |
| 29 | West Bengal | 26.29 | 23.9 | 10.71 | 44.81 |
| 30 | Andaman And Nicobar | 0.618 | 0.557 | 0.008 | 1.37 |
| 31 | Chandigarh | 0.054 | 0.048 | 0.037 | 75.41 |
| 32 | Dadra & Nagar Haveli | 0.09 | 0.08 | 0.11 | 131.53 |
| | Daman & Diu | 0.035 | 0.033 | 0.057 | 170.70 |
| 33 | Jammu And Kashmir | 4.94 | 4.46 | 1.08 | 24.20 |
| 34 | Ladakh | 0.09 | 0.08 | 0.03 | 37.05 |
| 35 | Lakshadweep | 0.014 | 0.005 | 0.003 | 61.723 |
| 36 | Puducherry | 0.20 | 0.18 | 0.13 | 70.27 |
| | Grand Total | 449.08 | 407.21 | 241.34 | 59.26 |

ANNEXURE REFERRED TO IN REPLY TO PART (b) to (d) OF UNSTARRED QUESTION NO. 716 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “DECREASING GROUNDWATER LEVEL”.

Water Conservation works done under Jal Shakti Abhiyan
State-wise (Period: from March 2021 to November 2024)

| Jal Shakti Abhiyan: Intervention-Wise Status Report | | | | | |
|---|--|--|--|---------------------------------------|-------------------------------|
| <i>*Figures Showing No. of Works Completed as reflected in JSA portal</i> | | | | | |
| S.No. | State | *Water Conservation and Rain Water Harvesting | *Renovation of Traditional Water Bodies | *Reuse and Recharge Structures | *Watershed Development |
| 1 | ANDAMAN AND NICOBAR ISLANDS | 244 | 930 | 321 | 121 |
| 2 | ANDHRA PRADESH | 280985 | 88001 | 8084 | 103429 |
| 3 | ARUNACHAL PRADESH | 1683 | 171 | 335 | 684 |
| 4 | ASSAM | 42255 | 5838 | 909 | 45730 |
| 5 | BIHAR | 164330 | 24801 | 72705 | 78630 |
| 6 | CHANDIGARH | 319 | 8 | 0 | 0 |
| 7 | CHHATTISGARH | 192693 | 60007 | 41269 | 114873 |
| 8 | DADRA AND NAGAR HAVELI AND DAMAN AND DIU | 246 | 1 | 0 | 0 |
| 9 | DELHI | 113 | 36 | 0 | 0 |
| 10 | GOA | 72 | 88 | 15 | 59 |
| 11 | GUJARAT | 42570 | 25754 | 42907 | 93999 |
| 12 | HARYANA | 68459 | 19266 | 45582 | 15352 |
| 13 | HIMACHAL PRADESH | 37353 | 5527 | 2918 | 100586 |
| 14 | JAMMU AND KASHMIR | 39191 | 9119 | 90952 | 104965 |
| 15 | JHARKHAND | 77729 | 2026 | 32617 | 318761 |
| 16 | KARNATAKA | 372998 | 52157 | 451540 | 568627 |
| 17 | KERALA | 91987 | 41651 | 77446 | 270501 |
| 18 | LADAKH | 3292 | 118 | 14128 | 3947 |
| 19 | LAKSHADWEEP | 3 | 8 | 0 | 0 |
| 20 | MADHYA PRADESH | 435577 | 23996 | 78303 | 256838 |
| 21 | MAHARASHTRA | 38120 | 11167 | 71965 | 26385 |
| 22 | MANIPUR | 7335 | 2329 | 49 | 2313 |
| 23 | MEGHALAYA | 9800 | 1387 | 407 | 8214 |
| 24 | MIZORAM | 22772 | 974 | 2056 | 12068 |
| 25 | NAGALAND | 920 | 317 | 84 | 938 |
| 26 | ODISHA | 164237 | 29594 | 31713 | 174795 |
| 27 | PUDUCHERRY | 290 | 1718 | 0 | 21 |
| 28 | PUNJAB | 5149 | 14503 | 3310 | 23963 |
| 29 | RAJASTHAN | 309500 | 36790 | 11603 | 125305 |
| 30 | SIKKIM | 6864 | 48 | 983 | 4114 |
| 31 | TAMIL NADU | 385217 | 42793 | 534845 | 265720 |
| 32 | TELANGANA | 28040 | 24738 | 105548 | 58361 |
| 33 | TRIPURA | 66409 | 2017 | 5109 | 61759 |
| 34 | UTTAR PRADESH | 218274 | 88394 | 101681 | 933967 |
| 35 | UTTARAKHAND | 173388 | 10968 | 5427 | 96456 |
| 36 | WEST BENGAL | 96602 | 44744 | 34964 | 54225 |
| Total | | 3385016 | 671984 | 1869775 | 3925706 |

GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO.717

ANSWERED ON 02.12.2024

STATUS OF PROJECTS UNDER ABY IN STATE OF RAJASTHAN

717.# SHRI RAJENDRA GEHLOT

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

- (a) the current status of implementation of projects under Atal Bhujal Yojana (ABY) and details of major projects planned, ongoing and completed during the last three years, especially in the State of Rajasthan;
- (b) the details of funds allocated and utilized under this scheme in each State, especially in Rajasthan, during the last three years; and
- (c) whether Government proposes any special scheme under ABY in the next phases, considering the critical groundwater challenges of Rajasthan, if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) Government of India is implementing Atal Bhujal Yojana, a Central Sector Scheme, with a total outlay of Rs. 6,000 crore in 8,203 water stressed Gram Panchayats (**GPs**) of 229 administrative Blocks/Talukas in 80 districts of 7 States, viz., Haryana, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh for a period of 6 years from 01.04.2020.

This scheme marks a paradigm shift from groundwater development to groundwater management. Salient features of the scheme include community based monitoring and sharing of groundwater data, planning, capacity building & focused Information, Education & Communication (**IEC**) activities. This is the first scheme to focus on demand side interventions such as micro-irrigation, crop diversification, use of pipelines etc. for conservation of groundwater. GP-wise Water Security Plans (**WSPs**) having details about water budget and proposed demand side interventions such as micro-irrigation, crop diversification, use of pipelines etc., and supply side interventions such as check dams, farm ponds, recharge shafts and other artificial recharge / water conservation structures are prepared and executed through convergence of ongoing schemes.

Major activities completed / ongoing under Atal Bhujal Yojana are as under:

- i. Establishment of National Program Management Unit (**NPMU**), 7 State Project Management Unit (**SPMU**) and 80 District Project Management Units (**DPMUs**) supported by 155 District Implementation Partners (**DIPs**) in the 7 participating states.

- ii. The GPs are equipped with basic instruments like piezometers, Digital Water Level Recorder (**DWLR**), Rain gauges, Water Level Indicators/ Sounders, Field Testing Kits and Water Flow Meters (**WFM**) to strengthen the water monitoring mechanism at GP level.
- iii. 49 State level, 410 District level, 1152 Block level and 99406 GP level trainings have been conducted so far.
- iv. Awareness and sensitization at GP level through IEC activities including Nukkad Natak, Atal Jal Rath, Distribution of leaflets/brochures & pamphlet, Audio publicity through Radio Jingle, Wall Paintings, Door to door campaigns, Kala Jatha, preparation of Documentaries, etc. Cross learning through inter-State field visits have been conducted.
- v. Public disclosure of data in all the Atal Bhujal Yojana's GPs through various modes of disclosure viz., central/state web portals, display board at each gram panchayat, social media, wall paintings, distribution of pamphlets/brochure, public meetings and Atal Jal Mobile application.
- vi. Preparation of water budgets and community led water security plan for all Atal Bhujal Yojana's GPs.
- vii. An amount of more than Rs. 4600 crore has been converged through ongoing/ new schemes for implementation of the supply side and demand side measures as proposed under WSPs.
- viii. An area of around 6.7 lakh Hectares has been brought under efficient water use practices including Drip, Sprinkler, Mulching, Crop Diversification etc.
- ix. 813 GPs in 47 blocks have shown a rise in water levels.

(b) Tentative allocation to each State under the Atal Bhujal Yojana at its inception is provided in the table below:

| State / NPMU | Indicative Allocation (Rs. in crore) |
|----------------------------------|---|
| Gujarat | 756.76 |
| Haryana | 723.19 |
| Karnataka | 1201.52 |
| Madhya Pradesh | 314.54 |
| Maharashtra | 925.77 |
| Rajasthan | 1189.65 |
| Uttar Pradesh | 729.24 |
| National Program Monitoring Unit | 159.33 |
| Total | 6000.00 |

A total of Rs. 3,346.91 Cr. has been disbursed to the States since the inception of the scheme, out of which Rs. 2,725.77 Cr. has been utilised by the States till date. State-wise and year-wise break-up of funds disbursed to the States and utilised by the States during the last three years are given in **Table 1** and **Table 2** at **Annexure** respectively.

(c) No. Atal Bhujal Yojana is a pilot project for participatory ground water management with a fixed duration & outlay.

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 717 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “STATUS OF PROJECTS UNDER ABY IN STATE OF RAJASTHAN”.

Table 1: Year-wise funds disbursed to States under Atal Bhujal Yojana

(Amount in Rs. crore)

| State | FY 2021-22 | FY 2022-23 | FY 2023-24 | Total |
|----------------|---------------|----------------|----------------|----------------|
| Gujarat | 36.20 | 180.19 | 285.88 | 502.27 |
| Haryana | 32.15 | 163.42 | 489.62 | 685.19 |
| Karnataka | 73.62 | 303.51 | 406.86 | 783.99 |
| Madhya Pradesh | 46.56 | 62.84 | 58.99 | 168.39 |
| Maharashtra | 43.18 | 190.95 | 242.62 | 476.75 |
| Rajasthan | 46.35 | 171.76 | 144.62 | 362.73 |
| Uttar Pradesh | 32.33 | 65.84 | 92.67 | 190.84 |
| Total | 310.39 | 1138.51 | 1721.26 | 3170.16 |

Table 2: Year-wise funds utilized by States under Atal Bhujal Yojana

(Amount in Rs. crore)

| State | FY 2021-22 | FY 2022-23 | FY 2023-24 | Total |
|----------------|--------------|---------------|----------------|----------------|
| Gujarat | 4.68 | 97.87 | 191.75 | 294.30 |
| Haryana | 8.26 | 84.03 | 283.03 | 375.32 |
| Karnataka | 27.03 | 88.00 | 494.20 | 609.23 |
| Madhya Pradesh | 11.33 | 34.28 | 80.95 | 126.56 |
| Maharashtra | 3.38 | 65.67 | 301.87 | 370.92 |
| Rajasthan | 7.55 | 73.89 | 154.71 | 236.15 |
| Uttar Pradesh | 6.97 | 42.68 | 85.16 | 134.81 |
| Total | 69.20 | 486.42 | 1591.67 | 2147.29 |

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

RAJYA SABHA
UNSTARRED QUESTION NO.718

ANSWERED ON 02.12.2024

GROUNDWATER IN TANJAVUR, TAMIL NADU

718. SHRI S. KALYANASUNDARAM

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

- (a) the status of groundwater contamination in Thanjavur District of Tamil Nadu;
- (b) the steps enforced to combat the same;
- (c) whether Government has constituted any Committee to study the effects of single use and non biodegradable plastics on groundwater and the details thereof; and
- (d) if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) Central Ground Water Board (CGWB) generates ground water quality data for the entire country including Tamil Nadu as part of its ground water quality monitoring program and also during various scientific studies.

From the groundwater samples collected and analyzed from Thanjavur district, Tamil Nadu during 2023-24, it is observed that except for nitrate (exceeding permissible limits in two out of thirteen samples), all other parameters like Electrical Conductivity, Total Hardness Nitrate, Fluoride, Uranium etc. were within the permissible limits specified in the Bureau of Indian Standards (BIS) 10500:2012 for drinking water quality.

(b) Water being a State subject, initiatives on groundwater management, including its quality, is primarily States' responsibility; however, various steps have been taken by the Central Government for preventing groundwater contamination in the country and providing water of safe quality to the citizens, like:

- i. Government of India is implementing Jal Jeevan Mission (JJM) – Har Ghar Jal, since August, 2019, in partnership with States, to make provision of potable tap water supply in adequate quantity, of prescribed quality and on regular & long-term basis to every rural household by 2024. Under JJM, while allocating the funds to States/ UTs, 10% weightage is given to the population residing in habitations affected by chemical contaminants.
- ii. Since, planning, implementation and commissioning of piped water supply scheme based on a safe water source may take time, purely as an interim measure, States/UTs have been advised to install community water purification plants (CWPPs) especially in arsenic and fluoride

affected habitations to provide potable water to every household at the rate of 8–10 litre per capita per day (lpcd) to meet their drinking and cooking requirements.

- iii. Data on ground water quality available with CGWB are made available in public domain through reports as well as through the web site (<http://www.cgwb.gov.in>) for use by various stakeholders. The data is also shared with concerned State Governments for taking necessary remedial measures.
- iv. Central Pollution Control Board (CPCB), in association with State Pollution Control Boards/Pollution Control Committees (SPCBs/PCCs), is implementing the provisions of the Water (Prevention & Control) Act, 1974 and the Environment (Protection) Act, 1986 to prevent and control pollution in water.

(c) & (d) As known, single use and non-biodegradable plastics can leach into ground water and can potentially cause several adverse effects like releasing toxic materials into soil, reaching human and other life forms as micro-plastic particles and causing health hazards etc. However, further studies are required to fully understand its implications on ground water and ecosystem. Several important measures have been taken up by the Central and state governments to combat the adverse effects caused by single use and non-biodegradable plastic, some of which are mentioned below:-

- i. Swachh Bharat Mission-Urban (SBM-U) 2.0 lays special emphasis on reduction of plastic waste generation and compliance of Plastic Waste Management (PWM) Rules. Key priority areas under SBM-U 2.0 include source segregation of waste; segregated collection and transportation; processing of segregated waste; setting up of Material Recovery Facility (MRF) in all ULBs; continuous awareness generation for reducing Single Use Plastic (SUP) and use of substitute products.
- ii. The Ministry of Environment, Forest and Climate Change has notified the Plastic Waste Management Amendment Rules, 2021, on 12th August 2021, prohibiting manufacture, import, stocking, distribution, sale and use of the identified Single Use Plastic (SUP) items, which have low utility and high littering potential with effect from the 1st July, 2022.
- iii. All thirty-six States/UTs have constituted the Special Task Force under the chairpersonship of the Chief Secretary / Administrator for elimination of identified single use plastic items and effective plastic waste management. A National Level Taskforce has also been constituted by the M/o EF & CC.
- iv. Directions have been issued under Section 5 of the Environment (Protection) Act, 1986 to E-commerce companies, leading single use plastic sellers/users, and plastic raw material manufacturers with respect to phasing out of identified single use plastic items.

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO.719

ANSWERED ON 02.12.2024

COMPENSATION FOR REHABILITATION AND RESETTLEMENT OF DISPLACED FAMILIES

719. SHRI YERRAM VENKATA SUBBA REDDY

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

- (a) whether it is a fact that Polavaram Project Authority has estimated ₹ 33,168.23 crores for compensation to be paid for rehabilitation and resettlement (R&R) of displaced families;
- (b) whether it is also a fact that irrigation component, streams and power house require ₹ 22,380.63 crores;
- (c) if so, the details of amount so far spent for rehabilitation and resettlement (R&R) of displaced families under Polavaram;
- (d) whether it is a fact that an amount of ₹ 26,585.12 crores is still to be paid by Government for R&R of Polavaram; and
- (e) if so, reasons for delay in releasing the above amount?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) & (b) An amount of ₹ 33,168.24 crores has been estimated for Land acquisition and Rehabilitation & Resettlement (LA and R&R) components and ₹ 22,380.64 crore has been estimated for works & power components, in the second revised cost estimate of Polavaram Irrigation Project which was accepted by the Technical Advisory Committee on Irrigation, Flood Control & Multipurpose Projects of MoWR, RD & GR in its 141st meeting held in February, 2019 for an amount of ₹ 55,656.87 crore (2017-18 PL). However, Revised Cost Committee in its 2024 report has assessed ₹ 30,436.95 crore for the revised cost for completion of the Polavaram Irrigation Project with water storage up to EL +41.15 meter i.e. Minimum Draw Down level which includes ₹ 12,270.42 crore for LA and R&R components.

(c) & (d) Polavaram Irrigation Project has been declared a National project in March, 2014. Government of Andhra Pradesh (GoAP) is executing the Polavaram irrigation project on behalf of Government of India. The reimbursement to GoAP is being done upon receipt of verified bills and recommendations from the Polavaram Project Authority and Central water Commission. After March, 2014, Government of Andhra Pradesh has incurred an expenditure of ₹ 6,160.68 crores towards LA and R&R up to October 2024, out of which ₹ 6,020.59 crores has been reimbursed by Government of India. Further, Government of India has approved ₹ 30,436.95 crore for 'Revised cost for completion of the Polavaram Irrigation Project with water storage up to EL +41.15 meter i.e. Minimum Draw Down level' which includes ₹ 12,270.42 crore for LA and R&R components.

(e) There is no undue delay in reimbursement of eligible amounts of LA and R&R bills and same are processed expeditiously after necessary scrutiny and approval.

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

UNSTARRED QUESTION NO.720

ANSWERED ON 02.12.2024

ERADICATION OF ARSENIC IN GROUNDWATER

720. SHRI NEERAJ SHEKHAR

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

- (a) the details of fund allocated, released and utilized for eradication of Arsenic in groundwater during 2024-25 till 30th November, 2024, State-wise; and
- (b) the efforts being made/ schemes being run by Government for eradication of Arsenic in food chain and crops through groundwater?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) Government of India, in partnership with States, is implementing Jal Jeevan Mission (JJM) since August, 2019 to provide potable tap water supply in adequate quantity, of prescribed quality and on regular & long-term basis to every rural household in the country. Still the funds are not released separately for eradication of Arsenic in ground and drinking water. As per the information available on the JJM dashboard, it is seen that during 2024-25 (up to the month of November) total funds to the tune of Rs. 54,073.96 cr (both central & state share) were released, out of which the total expenditure amount was Rs. 49,553.28 cr. The State/ UT-wise details of funds allocated, released, and utilized for provision of safe and potable water through taps to households including those affected by Arsenic during 2024-25, till November 2024, are provided in the **Annexure**.

(b) Central Ground Water Board (CGWB) under the Ministry of Jal Shakti is implementing Ground Water Management and Regulation Scheme (GWMR) covering several aspects of ground water management including the quality aspect. Under this scheme, CGWB takes up regular quality monitoring of ground water throughout the country, special studies on ground water quality in identified priority areas and also constructs arsenic free wells in arsenic affected areas using its innovative cement sealing technology. CGWB has so far constructed 525 exploratory wells tapping arsenic safe aquifers under NAQUIM programme including 40 in Bihar, 191 in West Bengal and 294 in Uttar Pradesh. The information regarding ground water quality and other technologies developed by it for mitigation of contamination are shared by CGWB with state and district administrations for taking up suitable field interventions. The data is also made available in public domain through its web site and disseminated to the masses through public interaction programmes. However, no separate funds are allocated for only Arsenic eradication, as the expenditure is incurred from the combined budget of GWMR scheme.

Further, water safety has been one of the key priorities under the JJM since its inception. States are advised to strictly ensure supply of safe drinking water as per these norms. Following measures have been taken under JJM to facilitate action on water quality aspects at state level :-

- i. While allocating the funds to States/ UTs, 10% weightage is given to the population residing in habitations affected by chemical contaminants.
- ii. The “Drinking Water Quality Monitoring & Surveillance Framework” was devised and disseminated to states in October 2021.
- iii. To facilitate implementation of the above said Framework, more than 2000 water quality testing laboratories have been set up in the country. Besides this, five persons, preferably women are identified and trained from every village for testing the water samples through Field Test Kits (FTKs).
- iv. To enable States/ UTs to test water samples for water quality, and for sample collection, reporting, monitoring and surveillance of drinking water sources, an online JJM – Water Quality Management Information System (WQMIS) portal has been developed.
- v. States/ UTs have been advised to plan and implement piped water supply schemes of bulk water transfer based on safe water sources such as surface water sources or alternative safe ground water sources for the villages with water quality issues including Arsenic & Fluoride.
- vi. Under JJM, while planning for potable water supply to household through tap water connection, priority is given to quality-affected habitations. Since, planning, implementation and commissioning of piped water supply scheme based on a safe water source takes time, purely as an interim measure, States/ UTs have been advised to install community water purification plants (CWPPs) especially in Arsenic and Fluoride affected habitations to provide potable water to every household at the rate of 8–10 litre per capita per day (lpcd) to meet their drinking and cooking requirements.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 720 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “ERADICATION OF ARSENIC IN GROUNDWATER”.

Under Jal Jeevan Mission total funds allocated, released and utilized for FY 2024-25 up to November 2024

*in Crores

| S.N. | State | Opening Balance (Central Share) | Central Allocation | Central Share Release Up to Month November 2024 | State Share Release | Total Expenditure Up to Month November 2024 |
|--------------|--------------------------------------|---------------------------------|--------------------|---|---------------------|---|
| 1 | Andaman & Nicobar Islands | 4.97 | 2.98 | 0 | 0 | 0 |
| 2 | Andhra Pradesh | 339.88 | 2,520.97 | 0 | 775.05 | 562.45 |
| 3 | Arunachal Pradesh | 26.84 | 217.82 | 65.35 | 0.17 | 22.38 |
| 4 | Assam | 780.58 | 5,198.78 | 2,059.63 | 364.15 | 2,653.37 |
| 5 | Bihar | 54.95 | 0 | 0 | 0 | 0 |
| 6 | Chhattisgarh | 521.03 | 1,277.27 | 191.59 | 1,881.57 | 508.9 |
| 7 | Dadra & Nagar Haveli And Daman & Diu | 0 | 0 | 0 | 0 | 0 |
| 8 | Goa | 0.4 | 4.32 | 0 | 0 | 0 |
| 9 | Gujarat | 947.97 | 2,420.14 | 0 | 1,248.35 | 1,683.26 |
| 10 | Haryana | 38.86 | 462.03 | 0 | 194.18 | 193.59 |
| 11 | Himachal Pradesh | 90.56 | 916.53 | 137.48 | 19.47 | 150.39 |
| 12 | Jammu & Kashmir | 660.69 | 2,112.86 | 633.86 | 145.38 | 1,015.47 |
| 13 | Jharkhand | 263.46 | 2,114.22 | 0 | 295.17 | 387.35 |
| 14 | Karnataka | 914.11 | 3,804.41 | 570.66 | 3,740.04 | 3,160.55 |
| 15 | Kerala | 106.45 | 1,949.36 | 974.68 | 957.71 | 1,574.61 |
| 16 | Ladakh | 65 | 624.78 | 93.72 | 0 | 35.04 |
| 17 | Lakshadweep | 29.06 | 0.75 | 0.38 | 0 | 0 |
| 18 | Madhya Pradesh | 91.39 | 4,044.70 | 2,622.35 | 2,621.54 | 4,966.50 |
| 19 | Maharashtra | 1,599.47 | 5,352.93 | 1,605.88 | 2,678.14 | 4,163.68 |
| 20 | Manipur | 44.93 | 0 | 0 | 1.12 | 25.77 |
| 21 | Meghalaya | 296.9 | 653.6 | 196.08 | 54.47 | 491.11 |
| 22 | Mizoram | 7.85 | 45.09 | 6.76 | 9.29 | 19.35 |
| 23 | Nagaland | 39.75 | 39.75 | 5.96 | 5.08 | 50.62 |
| 24 | Odisha | 484.23 | 2,455.94 | 368.39 | 782.46 | 1,011.01 |
| 25 | Puducherry | 0.01 | 12.58 | 0 | 0.01 | 0.01 |
| 26 | Punjab | 15.97 | 644.54 | 0 | 129.51 | 48.51 |
| 27 | Rajasthan | 786.95 | 11,061.46 | 1,659.22 | 1,620.00 | 3,035.69 |
| 28 | Sikkim | 11.92 | 124.5 | 18.67 | 13.04 | 26.59 |
| 29 | Tamil Nadu | 813.15 | 2,438.89 | 731.67 | 1,801.04 | 2,540.47 |
| 30 | Telangana | 26.06 | 0 | 0 | 0 | 0 |
| 31 | Tripura | 111.1 | 736.75 | 221.03 | 30.14 | 316.22 |
| 32 | Uttar Pradesh | 851.83 | 12,621.95 | 6,310.98 | 9,291.65 | 15,395.27 |
| 33 | Uttarakhand | 232.51 | 1,016.80 | 508.4 | 0 | 245.27 |
| 34 | West Bengal | 953.19 | 5,049.98 | 2,524.99 | 3,907.50 | 5,269.85 |
| Total | | 11,212.02 | 69,926.68 | 21,507.73 | 32,566.23 | 49,553.28 |

*Source JJM Reports

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

RAJYA SABHA
UNSTARRED QUESTION NO.721

ANSWERED ON 02.12.2024

INTERLINKING OF GODAVARI AND CAUVERY RIVERS

721. SHRI C. VE. SHANMUGAM

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

- (a) the details of the present status of interlinking of Godavari and Cauvery rivers;
- (b) whether any broad agreement / consensus has been reached to link Godavari and Cauvery rivers;
- (c) if so, the details thereof and if not, the reasons therefor;
- (d) the likely time by when these two rivers will be linked in order to relieve Tamil Nadu of the present water-woes; and
- (e) the steps taken by Government in this regard?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) to (e) The Government of India formulated a National Perspective Plan (NPP) for transferring water from water surplus basins to water-deficit regions, in 1980. The National Water Development Agency (NWDA) has been entrusted with the work of the Interlinking of Rivers (ILR) program under the NPP. The Godavari-Cauvery link project is among the 30 link projects, identified under the NPP.

Detailed Project Reports (DPRs) of the Godavari-Cauvery Link Project [comprising 3 link projects, viz; Godavari–Krishna (Nagarjunasagar) link, Krishna (Nagarjunasagar)–Pennar (Somasila) link and Pennar (Somasila)–Cauvery (Grand Anicut) link] envisaging diversion of 7000 Million Cubic Metres (MCM) of water from the Godavari river were prepared and circulated to the party States in April 2021.

Five consultation meetings for arriving at a consensus among the party States have been so far held. As per the decision taken during the consultation meeting held on 18.2.2022, a proposal limiting the transfer of water from 7000 MCM to about 4000 MCM from Godavari along with combining the proposal for supplementation in the Krishna basin through the Bedti-Varda link has been studied by the NWDA. The modified proposal comprises two components, viz; (a) Godavari (Inchampalli)-Cauvery link project envisages the diversion of 4189 MCM from Godavari to Cauvery with the introduction of a micro irrigation system to improve water use efficiency and (b) the Bedti-Varda link project envisages the diversion of 524 MCM from the Bedti River to the Tungabhadra reservoir.

A Technical Feasibility Report on the proposal of diversion of 4189 MCM of Godavari water was prepared by NWDA and circulated in January 2023 amongst the party States. The comments received from

the party States have been deliberated in the consultation meetings and subsequently, a DPR for the diversion of 4189 MCM through the Godavari (Inchampalli)-Cauvery link project has been prepared and circulated to the party States in January, 2024.

The Government of India has accorded top priority to the ILR programme and has been pursuing the programme in a consultative manner. The Government of India has made vigorous efforts at various levels for consensus building amongst the respective party States for implementation of matured ILR projects, including the Godavari-Cauvery link project. A Special Committee on Interlinking of Rivers (SCILR) has been constituted in September, 2014 for the implementation of ILR programme. 21 meetings of the SCILR have been held so far. Further, a Task Force for Interlinking of Rivers (TFILR) has been constituted in April, 2015 and 20 meetings of the same have been held so far. States have wide representation and participation in these meetings, wherein concerted efforts have been made for consensus building amongst the party States and for setting out road maps for implementation of the ILR projects. Apart from this, with a view to deliberate the issues regarding the Godavari-Cauvery link project and to expedite the consensus building for implementation of the link project, separate meetings have also been held with the representatives of the party States. It is, however, for the party States to reach a consensus for implementation of an ILR project.

The likely time by which these two rivers will be linked would depend upon the party States arriving at a consensus for implementation of the link project.

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

RAJYA SABHA

UNSTARRED QUESTION NO.722

ANSWERED ON 02.12.2024

SMART LAB ON CLEAN RIVERS (SLCR) IN VARANASI

722. DR. PARMAR JASHVANTSINH SALAMSINH SHRI MADAN RATHORE
SHRI BABURAM NISHAD

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

- (a) the manner in which the establishment of Smart Laboratory on Clean Rivers (SLCR) in Varanasi under the Green Strategic Partnership between India and Denmark will help to improve river rejuvenation and management; and
- (b) the unique sustainable approach adopted by SLCR to address the challenges faced by Varuna River?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) & (b) The Smart Lab for Clean Rivers (SLCR) has been set up under the Green Strategic Partnership between India and Denmark to bring global solutions on current challenges in the field of clean river water, conduct collaborative research and development to fit in real environment through Living lab approach and creation of platform between Government authorities, academic institutions and technology providers for knowledge sharing and co-creation to achieve clean river water.

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
RAJYA SABHA
UNSTARRED QUESTION NO.724
ANSWERED ON 02.12.2024

IMPLEMENTATION OF ATAL JAL SHAKTI YOJNA IN HARYANA

724. SMT. KIRAN CHOUDHRY

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

- (a) the number of villages in Haryana that have been covered under the Atal Bhujal Yojana; district-wise;
- (b) whether any specific parameters have been used while selecting the villages;
- (c) whether Government is mulling over to cover the left out villages in Haryana; and
- (d) if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) Government of India is implementing Atal Bhujal Yojana, a Central Sector Scheme, in identified water stressed areas of Seven States viz. Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh with an aim to arrest decline in ground water level through community led sustainable groundwater management.

In Haryana, Atal Bhujal Yojana is implemented in 1647 Gram Panchayats (GPs) of 36 Blocks in 14 Districts. The number of villages in Haryana that have been covered under the Atal Bhujal Yojana, district-wise, are as under:

| S.No. | District | Number of GPs covered | Number of Villages covered |
|--------------|--------------|-----------------------|----------------------------|
| 1. | Bhiwani | 156 | 169 |
| 2. | Charki Dadri | 47 | 52 |
| 3. | Faridabad | 69 | 87 |
| 4. | Fatehabad | 48 | 53 |
| 5. | Gurugram | 153 | 179 |
| 6. | Kaithal | 82 | 101 |
| 7. | Karnal | 41 | 57 |
| 8. | Kurukshetra | 189 | 213 |
| 9. | Mahendragarh | 255 | 278 |
| 10. | Palwal | 185 | 213 |
| 11. | Panipat | 55 | 60 |
| 12. | Rewari | 38 | 45 |
| 13. | Sirsa | 78 | 86 |
| 14. | Yamunanagar | 251 | 327 |
| Total | | 1647 | 1920 |

(b) Selection of the water stressed districts, blocks and villages were done by the State Government, based on the degree of groundwater exploitation and degradation.

(c) No.

(d) Not applicable in view of (c) above.

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

UNSTARRED QUESTION NO.725

ANSWERED ON 02.12.2024

IMPLEMENTATION STATUS OF RIVER LINKING PROJECTS

725. SHRI R. DHARMAR

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

- (a) the details of river linking proposals/projects initiated by Government and the present status of each of them;
- (b) the budgetary allocation made under the river linking initiative of Government since inception and the actual utilisation of funds so far, State-wise;
- (c) whether the work of river linking is being adversely affected due to various disputes, particularly inter-State disputes over several rivers;
- (d) if so, the details thereof and the steps being taken by Government to remove such obstacles for smooth implementation of river linking projects; and
- (e) the time by when it is likely to be completed?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) The Government of India formulated a National Perspective Plan (NPP) in 1980 to provide for water transfer from the water-surplus basins to the water-deficit regions. The National Water Development Agency (NWDA) has been entrusted with the Interlinking of Rivers (ILR) work under the NPP. Under the NPP, 30 ILR projects have been identified, 16 projects under the Peninsular component and 14 projects under the Himalayan component. Out of these 30 ILR projects, Detailed Project Reports (DPRs) of 11 projects, Feasibility Reports (FRs) of 26 link projects, and Pre-Feasibility Reports (PFRs) of all the 30 link projects have been completed. The present Status of ILR Projects under the NPP is given in the **Annexure**.

The Government of India has accorded top priority to the ILR program. Five ILR projects under the NPP have been identified as “Priority link projects” viz; Ken Betwa Link Project (KBLP), Godavari-Cauvery link project {comprising 3 link projects - Godavari (Inchampalli) – Krishna (Nagarjunasagar) link, Krishna (Nagarjunasagar) - Pennar (Somasila) link and Pennar (Somasila) – Cauvery link)} and Modified Parbati -Kalisindh-Chambal link (PKC) Link project.

KBLP is the first ILR project under the NPP, the implementation of which has started. A tripartite agreement was signed amongst the States of Madhya Pradesh (MP), Uttar Pradesh (UP), and the

Government of India for implementation of KBLP in March 2021. The Government of India, subsequently in December 2021, approved the implementation of KBLP with an estimated cost of Rs. 44,605 crore at the year 2020-21 price level with central support of Rs. 39,317 crore, through a Special Purpose Vehicle, viz.; the Ken-Betwa Link Project Authority.

(b) The budgetary allocation has been made under the river linking initiative of the Government for India for the KBLP only, as this is the first ILR project, implementation of which has started. After the project was approved by the Government of India in December 2021, budgetary provisions of Rs. 4644.46 crore, Rs. 1400 crore, and Rs. 3500 crore were made in the Union budget for the project, during the Financial Year (FY) 2021-22, 2022-23 and 2023-24 respectively. During the current Financial Year 2024-25, a budgetary provision of Rs. 4,000 crores has been made in the Union budget for the project. With such budget provisions, a total expenditure of Rs. 8022.27 crore has been incurred on the project till 31.10.2024, by the Government of India. Whereas, the total expenditure made on the project till 31.10.2024, by the State Governments of Madhya Pradesh and Uttar Pradesh amount to Rs. 4587.41 crores and Rs. 38.98 crores respectively. In addition to this, a reimbursement of Rs. 2158.38 crore has also been made to the Government of Madhya Pradesh by the Government of India in respect of the phase-II component of the project.

(c) to (d) In a federal setup, the State Governments with surplus river water basin(s) sometimes have reservations about projects involving transfer of such surpluses. Such reservations slow down of the process of consensus building amongst the party states and affect the progress of ILR projects. However, the Government of India has made concerted efforts to reduce such apprehensions among the party States and has persuaded them to bring them on board in respect of various ILR projects that are at an advanced stage of consensus building.

In this regard, a Special Committee on Interlinking of Rivers (SCILR) was constituted in September 2014 for the implementation of the ILR program. 21 meetings of the SCILR have been held so far. Further, a Task Force for Interlinking of Rivers (TFILR) was constituted in April 2015 and 20 meetings of the same have been held so far. States have wide representation and participation in these meetings, wherein collaborative efforts are made for consensus building amongst the party States and for setting out road maps for implementation of the ILR projects. It is, however, for the party States to reach a consensus for implementation of an ILR project.

(e) With respect to ILR projects, for the reasons elaborated above, the schedule of implementation and completion cannot be given. However, once party States reach a consensus, then that ILR project with all its physical items is detailed out and approved, the implementation of these components is monitored with timelines for its completion.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 725 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “IMPLEMENTATION STATUS OF RIVER LINKING PROJECTS”.

STATUS OF ILR PROJECTS UNDER THE NPP

Peninsular Component

| Sl. No | Name | States benefited | Status |
|---------------|--|-----------------------------------|---|
| 1 | a. Mahanadi (Manibhadra) - Godavari (Dowlaiswaram) link | Andhra Pradesh (AP) and Odisha | FR completed |
| | b. Alternate Mahanadi (Barmul) - Rushikulya – Godavari (Dowlaiswaram) link | AP and Odisha | FR completed |
| 2 | Godavari (Polavaram) - Krishna (Vijayawada) link %% | AP | FR completed |
| 3 | a.) Godavari (Inchampalli) - Krishna (Nagarjunasagar) link | Telangana | FR completed |
| | b. Alternate Godavari (Inchampalli) - Krishna (Nagarjunasagar) link * | Telangana | DPR completed |
| 4 | Godavari (Inchampalli / SSMPP) - Krishna (Pulichintala) link | Telangana and AP | DPR completed |
| 5 | a.) Krishna (Nagarjunasagar) - Pennar (Somasila) link | AP | FR completed |
| | b.) Alternate Krishna (Nagarjunasagar) - Pennar (Somasila) link * | AP | DPR completed |
| 6 | Krishna (Srisailem) – Pennar link | AP | Draft DPR completed |
| 7 | Krishna (Almatti) – Pennar link | AP and Karnataka | Draft DPR completed |
| 8 | a.) Pennar (Somasila) - Cauvery (Grand Anicut) link | AP, Tamil Nadu and Puducherry | FR completed |
| | b) Alternate Pennar (Somasila) - Cauvery (Grand Anicut) link * | AP, Tamil Nadu and Puducherry | DPR completed |
| 9 | Cauvery (Kattalai) - Vaigai - Gundar link | Tamil Nadu | DPR completed |
| 10 | a. Parbati –Kalisindh - Chambal link | Madhya Pradesh (MP) and Rajasthan | FR completed |
| | b. Modified Parbati – Kalisindh-Chambal link (duly integrated with ERCP) | MP and Rajasthan | Draft PFR completed |
| 11 | Damanganga - Pinjal link | Maharashtra | DPR completed |
| 12 | Par-Tapi-Narmada link | Gujarat and Maharashtra | DPR completed |
| 13 | Ken-Betwa link | Uttar Pradesh (UP) and MP | DPR completed and the project is under implementation |
| 14 | Pamba - Achankovil – Vaippar link | Tamil Nadu and Kerala | FR completed |
| 15 | Bedti - Varda link % | Karnataka | DPR completed |
| 16 | Netravati – Hemavati link ** | Karnataka | PFR completed |

* Due to pending consensus on Manibhadra and Inchampalli dams, Alternate study to divert unutilized waters of Godavari river was carried out and DPR of Godavari (Inchampalli) – Krishna (Nagarjunasagar) - Pennar (Somasila) – Cauvery (Grand Anicut) link project was completed. Godavari-Cauvery link project has been prepared comprising of Godavari (Inchampalli) - Krishna (Nagarjunasagar), Krishna (Nagarjunasagar)- Pennar (Somasila) and Pennar (Somasila) – Cauvery (Grand Anicut) link projects. The report was further updated terminating the link canal at Manimukhta nadi, a tributary of Vellar river flowing adjacent of Cauvery basin.

** Further studies are not taken up since after implementation of Yettinahole project by Govt. of Karnataka, as no surplus water is available in Netravati basin for diversion through this link.

% Godavari (Polavaram) - Krishna (Vijayawada) link – The project has been taken up by Govt. of Andhra Pradesh.

% Bedti - Varda link – DPR was prepared directly after preparation of its PFR, no FR was prepared

Himalayan Component

| Sl. No. | Name of the Link | Country/ States benefited | Status |
|----------------|---|-----------------------------------|--|
| 1. | Kosi-Mechi link | Bihar and Nepal | PFR completed |
| 2. | Kosi-Ghaghra link | Bihar, UP and Nepal | FR completed |
| 3. | Gandak - Ganga link | UP and Nepal | FR completed |
| 4. | Ghaghra - Yamuna link | UP and Nepal | Draft FR completed |
| 5. | Sarda - Yamuna link | UP and Uttarakhand | FR completed |
| 6. | Yamuna-Rajasthan link | Haryana and Rajasthan | FR completed |
| 7. | Rajasthan-Sabarmati link | Rajasthan and Gujarat | FR completed |
| 8. | Chunar - Sone Barrage link | Bihar and UP | Draft FR completed |
| 9. | Sone Dam - Southern Tributaries of Ganga link | Bihar and Jharkhand | Draft FR completed |
| 10. | Manas-Sankosh-Tista-Ganga (M-S-T-G) link | Assam, West Bengal (WB) and Bihar | FR completed |
| 11. | Jogighopa-Tista-Farakka link (Alternative to M-S-T-G) | Assam, WB and Bihar | PFR completed (The proposal has been dropped) |
| 12. | Farakka-Sundarbans link | WB | FR completed |
| 13. | Ganga(Farakka) - Damodar-Subarnarekha link | WB, Odisha and Jharkhand | FR completed |
| 14. | Subarnarekha-Mahanadi link | WB and Odisha | FR completed |

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

UNSTARRED QUESTION NO.726

ANSWERED ON 02.12.2024

STATUS OF THE POLAVARAM PROJECT

726. DR. SASMIT PATRA

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

- (a) the progress made under each component of the Polavaram Project during the last three years, year-wise;
- (b) the Central and State funding allocated to the project during this period, componentwise and year wise;
- (c) the expected completion timeline for the project;
- (d) whether Government has conducted any study or survey to identify the causes of delays in the project, and if so, the details thereof; and
- (e) whether the Central Water Commission has made any changes to the design of the Polavaram Project, including any increase in the height of the dam, and the current sanctioned height?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

- (a) Polavaram Irrigation Project (PIP) was declared a National project vide Andhra Pradesh Reorganisation Act, 2014. Government of Andhra Pradesh is executing the Polavaram irrigation project on behalf of Government of India. The reported physical progress of different components of the Polavaram irrigation project during the last three financial years is given in **Annexure-I**.
- (b) Government of India is reimbursing 100% of the remaining cost of the irrigation component only of the project for the period starting from 1.4.2014. The Component and year wise reimbursement made by Government of India and State funding to the project during the last three years is given in **Annexure-II**.
- (c) As per presently assessed timelines, Polavaram irrigation project for water storage up to minimum draw down level of EL 41.15m, is scheduled to be completed by March, 2026.
- (d) In August, 2021, Polavaram Project Authority awarded third party evaluation of the project to IIT, Hyderabad. Identification of reasons for delay was also included in the scope of work of the institute. As per the report of IIT Hyderabad submitted in November, 2021, change of construction agency, slow progress in land acquisition, rehabilitation & resettlement, and Covid 19 pandemic & its related conditions, were identified as key reasons for delay in implementation of the project.
- (e) Central Water Commission is approving the designs of Polavaram irrigation project as per GWDT Award, 1980.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 726 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “STATUS OF THE POLAVARAM PROJECT”.

| S.No | Component | Item | Unit | Total Quantity* | Progress during the Financial years (Quantity executed) | | |
|------|-------------------------------|------------|------------|-----------------|--|------------------|-------------------|
| | | | | | 2021-22 | 2022-23 | 2023-24 |
| 1 | Headworks | Earthwork | Lakh cum | 1,811.51 | 184.45 (10.18 %) | 43.76 (2.41%) | 141.39 (7.80%) |
| | | Concrete | Lakh cum | 42.92 | 2.01 (4.68%) | 0.06 (0.14%) | 0.24 (0.56%) |
| 2 | Right Main Canal | Earthwork | Lakh cum | 1,184.67 | 0 (0%) | 0 (0%) | 0 (0%) |
| | | Lining | Lakh cum | 19.25 | 0.18 (0.94 %) | 0.17 (0.88 %) | 0 (0%) |
| | | Structures | Nos | 255 | 1 (0.39%) | 0 (0%) | 0 (0%) |
| 3 | Left Main Canal | Earthwork | Lakh cum | 1,095.6 | 1.22 (0.11%) | 1.37 (0.13%) | 0.7 (0.06%) |
| | | Lining | Lakh cum | 15.15 | 0.17 (1.12%) | 0 (0%) | 0.009 (0.06%) |
| | | Structures | Nos | 451 | 1 (0.22%) | 9 (2.00%) | 5 (1.11%) |
| 4 | Land Acquisition | - | Acres | 1,27,262.79 | 277.91 (0.22%) | 0 (0%) | 5.10 (0.004%) |
| 5 | Rehabilitation & Resettlement | - | PDFs (Nos) | 1,06,006 | 3,679 (3.47%) | 3,715 (3.50%) | 1,120 (1.06%) |

*The total quantities under Headworks are revised by WRD, GoAP as per site conditions.

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 726 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “STATUS OF THE POLAVARAM PROJECT”.

| S.No. | Component | Funds released for Polavaram Irrigation Project (Rs in Crore) | | |
|--------------|-------------------------------------|--|----------------|----------------|
| | | 2021-22 | 2022-23 | 2023-24 |
| | Central Grants | | | |
| 1 | Head Works | 623.17 | 1217.43 | 20.66 |
| 2 | Left Main Canal | 0 | 0 | 20.39 |
| 3 | Right Main canal | 0 | 0 | 0 |
| 4 | Land Acquisition(LA) | 0 | 7.04 | 318.84 |
| 5 | Rehabilitation & Resettlement (R&R) | 1236.16 | 422.38 | 12.50 |
| 6 | Establishment | 17.37 | 24.38 | 307.20 |
| | Total | 1,876.70 | 1,671.23 | 679.59 |
| | State Funding to project | | | |
| | Total State funding | 2,635.83 | 906.03 | 274.93 |

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

UNSTARRED QUESTION NO.727

ANSWERED ON 02.12.2024

WATER CONSERVATION

727. MS. DOLA SEN

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

- (a) whether Government can provide State-wise details of the groundwater resources capacity;
- (b) if so, the details thereof and if not, reasons therefor;
- (c) whether Government has conducted any study to understand the loss of water due to perennial floods and excess rainfall;
- (d) if so, the details thereof and if not, the reason therefor;
- (e) whether Government has taken any step to trap the water resource from perennial floods or excess rainfall; and
- (f) if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) & (b) The Dynamic Ground Water Resources of the country are being assessed annually from 2022 jointly by Central Ground Water Board (CGWB) and State Governments. As per the 2023 assessment, the Total Annual Ground Water Recharge for the country as a whole is 449 Billion Cubic Meters (BCM) and the Annual Extractable Ground Water Resource is 407 BCM and the Total Annual Ground Water Extraction for all purposes has been estimated as 241 BCM. Accordingly, the stage of groundwater extraction for the country as a whole works out to be about 59.26 %.

The State/UT wise Ground Resources of India as per National Compilation of Dynamic Ground Water Resources of India, 2023 has been given in **Annexure**.

(c) & (d) As per the ‘Water and Related Statistics’ Report of Central Water Commission released in 2021, it is estimated that India receives an average annual precipitation of about 3880 BCM. The average annual water resources potential in the country is assessed as 1999 BCM. Due to topographic, hydrological and other constraints, the utilizable water availability is 1126 BCM which comprises of 690 BCM of surface water and 436 BCM of replenishable ground water resources.

(e) & (f) Water being a State subject, sustainable development and management of water resources is primarily the responsibility of the State Governments. However, the Central Government facilitates the efforts of the State Governments by way of technical and financial assistance through its various schemes and

projects. For mitigation of perennial floods and to use the excess river water, interlinking of rivers to transfer water from abundant river basin to shortfall basin can be an effective remedy. Further, increasing the water storage capacity is considered as the best way for tapping the water naturally available in the form of rainfall. Works like construction of rain water harvesting and artificial recharge structures, rejuvenation of traditional water bodies like lakes and ponds, desilting of dams and canals etc. are some of the ways to tap and store excess rainfall. Some of the important steps taken by this Ministry and other ministries/departments of govt. of India in the above direction are provided below :-

- i. National Water Development Agency (NWDA) has been entrusted with the work of Interlinking of Rivers (ILR) under the National Perspective Plan (NPP) formulated by the Government of India in the year 1980. Under the NPP, a total of 30 link projects have been identified, out of which 16 link projects are under the Peninsular Component and 14 link projects are under the Himalayan component.
- ii. MoJS is implementing Jal Shakti Abhiyan (JSA) since 2019 in the country in which special emphasis is being given for rainwater harvesting(RWH) / groundwater recharge. The 5th edition of JSA for 2024-25 with theme 'Nari Shakti se Jal Shakti' has been launched by the ministry in March 2024. JSA is implemented through local convergence of various schemes and funds and some of the major interventions undertaken under the Abhiyan include construction and repair of rainwater harvesting structures including rooftop & water conservation structures. Activities also include construction and desilting of existing water bodies like ponds, tanks etc. with an aim to augment storage capacity to reduce the groundwater stress.
- iii. Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by the CGWB with States/UTs providing a broad outline of the project and expected investments. The Master Plan envisages construction of about 1.42 crore Rain water harvesting and artificial recharge structures in the Country to harness 185 Billion Cubic Metre (BCM) of water. The Master plan has been shared with States/UTs for suitable interventions.
- iv. Mission Amrit Sarovar was launched by the Government of India which aimed at developing and rejuvenating at least 75 water bodies in each district of the country. As an outcome nearly 69,000 Amrit Sarovars have been constructed/rejuvenated in the country.
- v. Centrally sponsored scheme “Repair, Renovation & Restoration (RRR) of Water Bodies (WBs)” is a component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) – Har Khet Ko Pani (HKKP) being implemented by Ministry of Jal Shakti under which works like cleaning of traditional water bodies is taken up.
- vi. Under Ground Water Management & Regulation scheme, CGWB has implemented several successful artificial recharge projects in the country for demonstrative purpose which enable the State Governments to replicate the same in suitable hydrogeological conditions.

- vii. Ministry of Housing & Urban Affairs is currently implementing Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0 Scheme under which Rejuvenation of water bodies and wells in urban areas is one of the main components. Mission promotes water source conservation, recycle/ reuse of treated used water, by involving community at large.
- viii. Ministry of Housing & Urban Affairs (MoHUA) has formulated Model Building Bye Laws (MBBL), 2016 for the States/UTs, wherein adequate focus has been given on requirement of rainwater harvesting and water conservation measures. As per MBBL, all buildings having a plot size of 100 Sq.m. or, more shall mandatorily include the complete proposal of rainwater harvesting. 35 States/ UTs have adopted the features of the Model Bye Laws.

ANNEXURE REFERRED TO IN REPLY TO PART (a) & (b) OF UNSTARRED QUESTION NO. 727
TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “WATER CONSERVATION”.

STATE-WISE GROUND WATER RESOURCES OF INDIA, 2023 (in BCM)

| S.No. | State | Total Annual Ground Water Recharge | Annual Extractable Ground Water | Current Total Ground Water Extraction | Stage of Ground Water Extraction (%) |
|-------|----------------------|------------------------------------|---------------------------------|---------------------------------------|--------------------------------------|
| 1 | Andhra Pradesh | 27.83 | 26.45 | 7.48 | 28.3 |
| 2 | Arunachal Pradesh | 4.65 | 4.16 | 0.02 | 0.42 |
| 3 | Assam | 27.26 | 20.93 | 2.63 | 12.54 |
| 4 | Bihar | 33.96 | 30.72 | 13.75 | 44.76 |
| 5 | Chhattisgarh | 13.34 | 12.18 | 5.75 | 47.17 |
| 6 | Delhi | 0.38 | 0.34 | 0.34 | 99.13 |
| 7 | Goa | 0.396 | 0.317 | 0.068 | 21.37 |
| 8 | Gujarat | 27.35 | 25.41 | 13.13 | 51.68 |
| 9 | Haryana | 9.55 | 8.69 | 11.8 | 135.74 |
| 10 | Himachal Pradesh | 1.11 | 1.01 | 0.35 | 34.95 |
| 11 | Jharkhand | 6.25 | 5.73 | 1.8 | 31.38 |
| 12 | Karnataka | 18.93 | 17.08 | 11.32 | 66.26 |
| 13 | Kerala | 5.53 | 5.01 | 2.73 | 54.55 |
| 14 | Madhya Pradesh | 35.47 | 32.85 | 19.3 | 58.75 |
| 15 | Maharashtra | 32.76 | 30.95 | 16.66 | 53.83 |
| 16 | Manipur | 0.52 | 0.47 | 0.04 | 7.99 |
| 17 | Meghalaya | 1.83 | 1.51 | 0.07 | 4.58 |
| 18 | Mizoram | 0.22 | 0.2 | 0.01 | 3.70 |
| 19 | Nagaland | 0.6 | 0.54 | 0.02 | 3.76 |
| 20 | Odisha | 17.35 | 15.94 | 7.39 | 46.33 |
| 21 | Punjab | 18.84 | 16.98 | 27.8 | 163.76 |
| 22 | Rajasthan | 12.45 | 11.25 | 16.74 | 148.77 |
| 23 | Sikkim | 0.243 | 0.219 | 0.012 | 5.54 |
| 24 | Tamil Nadu | 21.59 | 19.51 | 14.42 | 73.91 |
| 25 | Telangana | 23.14 | 20.92 | 8.09 | 38.65 |
| 26 | Tripura | 1.36 | 1.09 | 0.11 | 9.92 |
| 27 | Uttar Pradesh | 71.83 | 65.57 | 46.4 | 70.76 |
| 28 | Uttarakhand | 2.02 | 1.85 | 0.95 | 51.69 |
| 29 | West Bengal | 26.29 | 23.9 | 10.71 | 44.81 |
| 30 | Andaman And Nicobar | 0.618 | 0.557 | 0.008 | 1.37 |
| 31 | Chandigarh | 0.054 | 0.048 | 0.037 | 75.41 |
| 32 | Dadra & Nagar Haveli | 0.09 | 0.08 | 0.11 | 131.53 |
| 33 | Daman & Diu | 0.035 | 0.033 | 0.057 | 170.70 |
| 34 | Jammu And Kashmir | 4.94 | 4.46 | 1.08 | 24.20 |
| 35 | Ladakh | 0.09 | 0.08 | 0.03 | 37.05 |
| 36 | Lakshadweep | 0.014 | 0.005 | 0.003 | 61.723 |
| 37 | Puducherry | 0.20 | 0.18 | 0.13 | 70.27 |
| | Grand Total | 449.08 | 407.21 | 241.34 | 59.26 |

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

UNSTARRED QUESTION NO.728

ANSWERED ON 02.12.2024

PROGRESS OF THE NAMAMI GANGE PROJECT

728. SHRI P. P. SUNEER

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

- (a) details of the conception of the Namami Gange Project and details of the work done under the project, expenditure incurred on various active and completed projects;
- (b) the estimated sewage generated by towns along the Ganga river, the difference in sewage quantity reaching the Ganga river after five years of the project;
- (c) the existing data for TDS and pH levels for the Ganga river water for major cities along the river like Haridwar, Kanpur, Allahabad, Varanasi and Patna, whether the water is potable if consumed from the river; and
- (d) the details of chemicals found in Ganga water along cities?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) A consortium of seven Indian Institutes of Technology (IITs) developed a holistic Ganga River Basin Management Plan (GRBMP), first presented in 2014-15. This plan consolidated knowledge on basin challenges and interventions for rejuvenation. It envisioned a rejuvenated Ganga, defined by "Nirmal Dhara" (unpolluted flow), "Aviral Dhara" (continuous flow), and the preservation of ecological and geological integrity. Based on scientific studies and past intervention analyses, the Namami Gange Programme was conceptualized as an integrated program for the conservation of the Ganga and its tributaries. Approved in May 2015 as a Central Sector Scheme, the mission adopts a basin-based approach with a diverse and holistic set of interventions for cleaning and rejuvenation of river Ganga and its tributaries such as wastewater treatment, solid waste management, riverfront management (ghats and crematoria), ensuring e-flow, rural sanitation, afforestation, biodiversity conservation, public participation, etc. Till October 2024, a total of 484 projects have been taken up at an estimated cost of ₹ 39,604 Crore, out of which 302 projects have already been completed and made operational. The details of the projects and their expenditures are enclosed in **Annexure I**.

(b) Estimated sewage generation is approximately 3,600 MLD from the identified Ganga front towns in 5 Ganga main stem States (Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal). With the

interventions taken up under the Namami Gange program, at present the total treatment along the towns located along the main stem of river Ganga increased to approximately 2,750 MLD. In addition, approximately 910 MLD sewage is treated through East Kolkata Wetland. Apart from the above, projects for developing approximately 900 MLD STP capacity in the towns along the river Ganga main stem have been taken up which are at different stages of implementation.

(c) & (d) The Namami Gange Programme aims to meet the primary water quality criteria for outdoor bathing, notified by CPCB/ Ministry of Environment, Forest & Climate Change (MoEF&CC). The CPCB advises against consuming untreated river water, as drinking water must comply with BIS Standard IS 10500/2012.

Water quality monitoring is conducted at 112 locations under the National Water Monitoring Programme (NWMP), data from 10 key locations, including Haridwar, Kanpur, Prayagraj, Varanasi, and Patna, for TDS and pH levels, is enclosed as **Annexure-II**.

Heavy metal analyses (Arsenic, Cadmium, Copper, Lead, Chromium, Nickel, and Mercury) at Prayagraj and Varanasi in 2023 indicate levels below detectable limits (BDL). Detailed data is enclosed as **Annexure-III**.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 728 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “PROGRESS OF THE NAMAMI GANGE PROJECT”.

The intervention-wise status of projects under the Namami Gange Programme is as follows:

| Sl. No. | Type of Project | State | Projects Sanctioned | | Project Status | Expenditure |
|---------|-----------------------------------|------------------|---------------------|------------------|----------------|-------------|
| | | | Projects (Nos) | Cost (in Rs. Cr) | Completed | |
| 1 | Sewerage Projects | Uttarakhand | 42 | 1,743 | 36 | 843 |
| | | Uttar Pradesh | 73 | 14,823 | 45 | 5,878 |
| | | Bihar | 38 | 7,089 | 17 | 4,342 |
| | | Jharkhand | 5 | 1,310 | 2 | 235 |
| | | West Bengal | 29 | 4,437 | 14 | 1,859 |
| | | Delhi | 9 | 1,951 | 8 | 1,899 |
| | | Haryana | 2 | 218 | 2 | 218 |
| | | Himachal Pradesh | 1 | 12 | 1 | 4 |
| | | Rajasthan | 1 | 258 | 0 | 182 |
| | | Madhya Pradesh | 3 | 670 | 0 | 0 |
| 2 | River front, Ghats and Crematoria | | 109 | 1,811 | 82 | 1,267 |
| 3 | Solid West Management | | 14 | 1,468 | 11 | 1,182 |
| 4 | Bioremediation | | 19 | 395 | 10 | 40 |
| 5 | Industrial Pollution Abatement | | 23 | 1,762 | 8 | 526 |
| 6 | Biodiversity & Afforestation | | 67 | 938 | 45 | 503 |
| 7 | Livelihood Projects | | 11 | 46 | 2 | 13 |
| 8 | Public Outreach Projects | | 16 | 421 | 11 | 217 |
| 9 | Knowledge Projects | | 22 | 251 | 8 | 63 |
| Total | | | 484 | 39,603 | 302 | 19,271 |

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PART (c) & (d) OF UNSTARRED QUESTION NO. 728 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “PROGRESS OF THE NAMAMI GANGE PROJECT”.

Water quality data of River Ganga for TDS and pH in 2023

| Sl. No | Name of Monitoring Location | District | TDS (mg/L) | | pH | |
|--------|--|------------|------------|-----|----------------|-----|
| | | | Min | Max | Min | Max |
| | Primary Water Quality for Outdoor Bathing notified under the E(P) Rules, 1986 | | | | 6.5-8.5 | |
| 1. | RIVER GANGA AT HAR-KI-PAURI GHAT | Haridwar | 106.6 | 225 | 7.3 | 8.3 |
| 2. | UPPER GANGA CAL DOWNSTREAM(D/S) AT ROORKEE | | 138 | 278 | 7.4 | 8.3 |
| 3. | RIVER GANGA AT BITHOOR (KANPUR), UTTAR PRADESH(U.P) | Kanpur | 148 | 248 | 7.8 | 8.5 |
| 4. | RIVER GANGA AT BATHING GHAT (JAJMAU BRIDGE) | | 154 | 409 | 7.7 | 8.5 |
| 5. | RIVER GANGA AT PRAYAGRAJ (RASOOLABAD), U.P. | Parayagraj | 201 | 247 | 7.8 | 8.4 |
| 6. | RIVER GANGA AT PRAYAGRAJ D/S (SANGAM), U.P. | | 228 | 258 | 7.8 | 8.4 |
| 7. | RIVER GANGA AT VARANASI UPSTREAM NEAR VISHWASUNDARI BRIDGE B/C DRAINS | Varanasi | 194 | 328 | 7.8 | 8.4 |
| 8. | RIVER GANGA AT VARANASI D/S , A/C RIVER VARUNA , U.P | | 204 | 336 | 7.6 | 8.1 |
| 9. | RIVER GANGA AT DIGHA, NEAR J P SETU, PATNA U/S | Patna | 170 | 286 | 7.2 | 8.4 |
| 10. | RIVER GANGA AT BAKHTIYARPUR-TAJPUR BRIDGE, ATHMALGOLA, PATNA | | 136 | 298 | 7.4 | 8.2 |

ANNEXURE-III

ANNEXURE REFERRED TO IN REPLY TO PART (c) & (d) OF UNSTARRED QUESTION NO. 728 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “PROGRESS OF THE NAMAMI GANGE PROJECT”.

Water quality data of River Ganga for heavy metals in Parayagraj and Varanasi in 2023

| Name of Monitoring Location | District | Arsenic (mg/L) | Cadmium (mg/L) | Copper (mg/L) | Lead (mg/L) | Chromium Total (mg/L) | Nickel (mg/L) | Mercury (mg/L) |
|--|-----------------|-----------------------|-----------------------|----------------------|--------------------|------------------------------|----------------------|-----------------------|
| RIVER GANGA AT PRAYAGRAJ (RASOOLABAD), U.P. | Parayagraj | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| RIVER GANGA AT PRAYAGRAJ D/S (SANGAM), U.P. | | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| RIVER GANGA AT VARANASI U/S NEAR VISHWASUNDARI BRIDGE B/C DRAINS | Varanasi | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| RIVER GANGA AT VARANASI D/S , A/C RIVER VARUNA , U.P | | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

BDL- Below Detection limit.

GOVERNMENT OF INDIA
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RAJYA SABHA
UNSTARRED QUESTION NO.729
ANSWERED ON 02.12.2024

GROUNDWATER DEPLETION AND INITIATIVES FOR WATER CONSERVATION

729. SHRI MUKUL BALKRISHNA WASNIK

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

- (a) the current status of groundwater levels across various regions in India, highlighting areas experiencing significant depletion;
- (b) the specific measures implemented by Government to address groundwater depletion, including the outcomes of the initiatives;
- (c) the key challenges faced in implementing water conservation initiatives, particularly in regions with severe water scarcity;
- (d) the steps taken to promote community participation and awareness in groundwater conservation efforts; and
- (e) the details of collaborations established with state governments, non-governmental organisations, and international bodies to enhance the effectiveness of water conservation strategies?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) CGWB monitors groundwater levels throughout the country four times every year. The state-wise water levels measured for the Month of November 2023 for the country is given in **Annexure**. The perusal of data indicates that about 84.8% of the wells across the country record the water level data within the range of 0-10 meters below ground level(mbgl), indicating ease of access to ground water. The data also reveals that the states of Punjab, Haryana, Rajasthan and the UT of Chandigarh are having significant percentage of wells in the >20 mbgl range indicating decline in ground water.

(b) Water being a State subject, sustainable development and management of groundwater resources is primarily the responsibility of the State Government. However, the Central Government facilitates the efforts of the State Governments by way of technical and financial assistance through its various schemes and projects. In this direction, the important steps taken by the Ministry of Jal Shakti and other central ministries for sustainable development of ground water resources in the country are given below:-

- i. The Government is implementing Jal Shakti Abhiyan (JSA) in the country since 2019 in which is a mission mode and time bound programme for harvesting the rainfall and taking up water conservation activities. Currently, JSA 2024 is being implemented in the country with special focus on 151 water stressed districts of the country. JSA is an umbrella campaign under which

various ground water recharge and conservation related works are being taken up in convergence with various central and state schemes.

- ii. CGWB has taken up National Aquifer Mapping and Management Programme (NAQUIM) with an aim to delineate aquifer disposition and their characterization. Entire mappable area of the country of around 25 lakh sq. km has been mapped under the scheme and management plans have been shared with the respective State governments for implementation.
- iii. Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by the CGWB and shared with States/UTs providing a broad outline for construction of around 1.42 crore rain water harvesting and artificial recharge structures in the country with estimated cost.
- iv. The Central Ground Water Authority (CGWA) has been constituted under MoJS for the purpose of regulation and control of ground water development and management in the country. Abstraction cum use of Groundwater in the country is regulated by CGWA by way of issuing NOCs as per the provisions of its Guidelines dated 24.09.2020 which have pan India applicability.
- v. Department of Agriculture & Farmers' Welfare (DA & FW), GoI, is implementing Per Drop More Crop (PDMC) Scheme in the country since 2015-16, which focuses on enhancing water use efficiency at farm level through Micro Irrigation and better on-farm water management practices to optimize the use of available water resources.
- vi. Mission Amrit Sarovar was launched by the Government of India which aimed at developing and rejuvenating at least 75 water bodies in each district of the country.. As an outcome nearly 69,000 Amrit Sarovars have been constructed/rejuvenated in the country.

(c) The key challenges faced in implementation of water conservation initiatives, *inter alia*, include local land right and ownership issues, lack of appropriate information at the field level, non-availability of sufficient pool of skilled personnel at the grassroots level; Insufficient coordination among various agencies and stakeholders; Winning community trust and their dedicated co-operation; Insufficient Institutional Capacities at State and local Level; Lack of attention to operation and maintenance activities post construction work etc.

(d) Since no water conservation activity can be sustained over long term without ensuring community participation, the central government has taken several important steps to make ground water management a truly peoples' movement.

- i. The government of India is implementing Atal Bhujal Yojana in 80 water stressed districts across 7 states. The scheme has community led sustainable management of ground water resources and demand management as its core theme and through sustained information, education, communication (IEC) and awareness activities, it aims at ensuring active community involvement and to bring about behavioural change in people.

- ii. Central Ground Water Board organizes various Public Interaction Programs (PIP), Mass Awareness Programs (MAP), Tier II and Tier –III programmes on local ground water issues, wherein the local public is made aware of rainwater harvesting techniques and conservation of water harvesting structures.
- iii. The Government is implementing Jal Shakti Abhiyan (JSA) in the country since 2019 under which Jal Shakti Kendras (JSKs) are being set up in every district of the country and as per the information available, already 700 JSKs have been set up. JSKs act as knowledge centres for disseminating information related to any water related issue such as water conservation methods, water use efficiency, policies on ground water, efficient irrigation techniques, water quality, grey water management etc. and as technical guidance centres to advice local people on these matters.
- iv. To further strengthen the momentum of Jal Shakti Abhiyan, Jal Sanchay Jan Bhagidari: A Community-Driven Path to Water Sustainability in India has been launched by the Hon'ble Prime Minister on September 6, 2024, in Surat, Gujarat with a vision to make rain water harvesting a mass movement in the country. By promoting community ownership and responsibility, the initiative seeks to develop cost-effective, local solutions tailored to specific water challenges across different regions.

(e) Water being a State subject, the Central Government supplements the efforts of the States and Union Territories (UTs) through technical and financial assistance. The States are an integral part of the whole effort of integrated water resource management. The Central Government provides support to States and UTs for undertaking water conservation efforts across the country through various schemes related to water resource management and also consults them to ensure their effective implementation.

Realizing the essential fact that integrated water management is a multi-stakeholder process, the Ministry of Jal Shakti and its organizations, work with a very large number of Non-Governmental Organizations and academic institutions to promote public awareness and for enhancing water resource management in the country. Notably, the Ministry has entered into several MoUs with NGOs working at the grassroots level like Rotary India Water Conservation Trust, International Water Management Institute, Foundation for Ecological Security etc. Additionally, under Atal Bhujal Yojana, several NGOs have been roped in as District Implementation Partners(DIPs) who act as a bridge between the government agencies and the community in implementation of the scheme.

Further, International organizations such as the World Bank, Asian Development Bank, European Union, Physikalisch-Technische Bundesanstalt (PTB), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Organization for Industrial, Spiritual and Cultural Advancement (OISCA) etc are associated with the Ministry in various capacities aimed at improving water resource management.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 729 TO BE ANSWERED IN RAJYA SABHA ON 02.12.2024 REGARDING “GROUNDWATER DEPLETION AND INITIATIVES FOR WATER CONSERVATION”.

Depth to Water Level Distribution of Percentage of Observation Wells Post-Monsoon 2023

| Sr. No. | State Name | No of well analysed | No./Percentage of Wells Showing Depth to Water Level (mbgl) in the Range of | | | | | | | | | | | |
|---------|--------------------------------------|---------------------|---|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|------------|------------|
| | | | 0 to 2 | | 2 to 5 | | 5 to 10 | | 10 to 20 | | 20 to 40 | | > 40 | |
| | | | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 1 | Andhra Pradesh | 809 | 109 | 13.5 | 382 | 47.2 | 241 | 29.8 | 54 | 6.7 | 16 | 2.0 | 7 | 0.9 |
| 2 | Arunachal Pradesh | 28 | 12 | 42.9 | 8 | 28.6 | 7 | 25.0 | 1 | 3.6 | 0 | 0.0 | 0 | 0.0 |
| 3 | Assam | 318 | 125 | 39.3 | 156 | 49.1 | 30 | 9.4 | 6 | 1.9 | 1 | 0.3 | 0 | 0.0 |
| 4 | Bihar | 784 | 116 | 14.8 | 525 | 67.0 | 139 | 17.7 | 4 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| 5 | Chhattisgarh | 1046 | 172 | 16.4 | 628 | 60.0 | 228 | 21.8 | 16 | 1.5 | 2 | 0.2 | 0 | 0.0 |
| 6 | Goa | 82 | 17 | 20.7 | 38 | 46.3 | 21 | 25.6 | 6 | 7.3 | 0 | 0.0 | 0 | 0.0 |
| 7 | Gujarat | 753 | 105 | 13.9 | 305 | 40.5 | 215 | 28.6 | 96 | 12.7 | 26 | 3.5 | 6 | 0.8 |
| 8 | Haryana | 985 | 71 | 7.2 | 160 | 16.2 | 154 | 15.6 | 198 | 20.1 | 253 | 25.7 | 149 | 15.1 |
| 9 | Himachal Pradesh | 171 | 30 | 17.5 | 69 | 40.4 | 30 | 17.5 | 26 | 15.2 | 12 | 7.0 | 4 | 2.3 |
| 10 | Jharkhand | 396 | 51 | 12.9 | 216 | 54.5 | 114 | 28.8 | 8 | 2.0 | 7 | 1.8 | 0 | 0.0 |
| 11 | Karnataka | 1264 | 228 | 18.0 | 504 | 39.9 | 454 | 35.9 | 75 | 5.9 | 3 | 0.2 | 0 | 0.0 |
| 12 | Kerala | 1377 | 323 | 23.5 | 477 | 34.6 | 485 | 35.2 | 85 | 6.2 | 5 | 0.4 | 2 | 0.1 |
| 13 | Madhya Pradesh | 1470 | 151 | 10.3 | 654 | 44.5 | 501 | 34.1 | 147 | 10.0 | 12 | 0.8 | 5 | 0.3 |
| 14 | Maharashtra | 1658 | 248 | 15.0 | 706 | 42.6 | 526 | 31.7 | 141 | 8.5 | 32 | 1.9 | 5 | 0.3 |
| 15 | Meghalaya | 51 | 23 | 45.1 | 27 | 52.9 | 1 | 2.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 16 | Mizoram | 2 | 2 | 100.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 17 | Nagaland | 10 | 0 | 0.0 | 6 | 60.0 | 3 | 30.0 | 1 | 10.0 | 0 | 0.0 | 0 | 0.0 |
| 18 | Odisha | 1370 | 528 | 38.5 | 694 | 50.7 | 142 | 10.4 | 6 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| 19 | Punjab | 283 | 29 | 10.2 | 55 | 19.4 | 34 | 12.0 | 65 | 23.0 | 81 | 28.6 | 19 | 6.7 |
| 20 | Rajasthan | 1061 | 27 | 2.5 | 171 | 16.1 | 195 | 18.4 | 234 | 22.1 | 194 | 18.3 | 240 | 22.6 |
| 21 | Tamil Nadu | 857 | 186 | 21.7 | 359 | 41.9 | 239 | 27.9 | 60 | 7.0 | 11 | 1.3 | 2 | 0.2 |
| 22 | Telangana | 623 | 58 | 9.3 | 278 | 44.6 | 204 | 32.7 | 72 | 11.6 | 9 | 1.4 | 2 | 0.3 |
| 23 | Tripura | 96 | 26 | 27.1 | 57 | 59.4 | 13 | 13.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 24 | Uttar Pradesh | 1092 | 179 | 16.4 | 481 | 44.0 | 265 | 24.3 | 133 | 12.2 | 30 | 2.7 | 4 | 0.4 |
| 25 | Uttarakhand | 171 | 17 | 9.9 | 48 | 28.1 | 35 | 20.5 | 31 | 18.1 | 25 | 14.6 | 15 | 8.8 |
| 26 | West Bengal | 736 | 224 | 30.4 | 413 | 56.1 | 85 | 11.5 | 14 | 1.9 | 0 | 0.0 | 0 | 0.0 |
| 27 | Andaman and Nicobar | 111 | 103 | 92.8 | 8 | 7.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 28 | Chandigarh | 14 | 0 | 0.0 | 5 | 35.7 | 2 | 14.3 | 2 | 14.3 | 4 | 28.6 | 1 | 7.1 |
| 29 | Daman & Diu and Dadra & Nagar Haveli | 30 | 7 | 23.3 | 17 | 56.7 | 6 | 20.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 30 | Delhi | 119 | 9 | 7.6 | 30 | 25.2 | 39 | 32.8 | 26 | 21.8 | 11 | 9.2 | 4 | 3.4 |
| 31 | Jammu & Kashmir | 385 | 96 | 24.9 | 173 | 44.9 | 59 | 15.3 | 27 | 7.0 | 21 | 5.5 | 9 | 2.3 |
| 32 | Puducherry | 9 | 2 | 22.2 | 5 | 55.6 | 2 | 22.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| | Total | 18161 | 3274 | 18.0 | 7655 | 42.2 | 4469 | 24.6 | 1534 | 8.4 | 755 | 4.2 | 474 | 2.6 |
