GOVERNMENT OF INDIA MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 2013

ANSWERED ON 07.08.2023

DROUGHT AND GROUNDWATER LEVEL

2013. SHRI S. KALYANASUNDARAM

Will the Minister of JAL SHAKTI be pleased to state:

- (a) the steps taken by Government to combat drought situations across the country and the details thereof;
- (b) the steps taken by Government to address the issue of groundwater depletion and groundwater pollution across the country and the details thereof;
- (c) the amount of groundwater reserves available in the country, State-wise and year wise from the year 2017;
- (d) whether Government has any systems to predict droughts and/or increased demand for water and if not, the reasons therefor; and
- (e) the preventive steps taken by Government to ensure the mitigation of droughts?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) & (b) Government of India has taken various steps to combat drought situation across the country. Jal Shakti Abhiyan (JSA), a time bound campaign has been launched in 2019 with a mission mode approach intended to improve water availability including ground water conditions in the water stressed blocks of 256 districts in India. 'Jal Shakti Abhiyan – Catch the Rain' campaign for the year 2021 was launched by Hon'ble Prime Minister of India on 22 March 2021. Since then, the Jal Shakti Abhiyan has become an annual, nation wide campaign.

The mission Amrit Sarovar was launched on National Panchayati Raj day on 24th April 2022, as a part of celebration of Azadi Ka Amrit Mahotsav with an objective to conserve water for future. The mission is aimed at developing and rejuvenating 75 water bodies in each district of the country.

National Water Policy (2012) has been formulated by Department of Water Resources, RD & GR, interalia advocates rainwater harvesting and conservation of water and highlights the need for augmenting the availability of water through direct use of rainfall.

Ministry has circulated a Model Bill to all the States/UTs to enable them to enact suitable ground water legislation for regulation of its development, which also includes provision of rain water harvesting. So far, 19 States/UTs have adopted and implemented the ground water legislation. Central Ground Water Authority (CGWA) has been constituted for the purpose of regulation and control of ground water development and management in the Country. CGWA has advised States/UTs to take measures to promote/adopt artificial recharge to ground water / rain water harvesting. Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by Central Ground Water Board in consultation with States/UTs which is a macro level

plan indicating various structures for the different terrain conditions of the country including estimated cost. 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 of monsoon rainfall. CGWB has taken up Aquifer Mapping and Management Programme under the scheme of Ground Water Management and Regulation.

Further, various steps have been taken for prevention and control of ground water pollution. Central Pollution Control Board in association with State Pollution Control Boards and Pollution Control Committees is executing National Water Quality Monitoring Programme & water quality is monitored at 4484 locations including 1235 groundwater locations in the country. Groundwater quality monitoring is carried out with a frequency of half yearly basis and subsequently, water samples are analyzed for core parameters, general parameters (including TDS), trace metals and set of pesticides as per "Guidelines for Water Quality Monitoring, 2017" issued by Ministry of Environment Forest & Climate Change.

- (c) The Dynamic Ground Water Resources of the country are being periodically assessed jointly by Central Ground Water Board and State Governments. CGWB has carried out the Dynamic Ground Water Resources Assessment three times (2017, 2020 and 2022) from the year 2017. The details of state-wise ground water resources for the year 2017, 2020 and 2022 are given in **Annexure I, II and III** respectively.
- (d) & (e) Ministry of Agriculture & Farmer's Welfare has informed that advisories have been issued to all States/Union Territories before the onset of Monsoon 2023 season for reviewing the States preparedness in managing any weather related contingency for mitigating the adverse impacts of an aberrant monsoon. They have been advised to update/fine-tune the District Agriculture Contingency Plans; to tie-up the availability of seeds and other inputs for implementing the Contingency Plans; to construct water harvesting structures; to promote agronomic practices for conservation of moisture; to promote cultivation of less water consuming crops by crop diversification; to restore irrigation infrastructure; to review the progress of preparation & implementation of District Irrigation Plans/repair of hand-pumps & drinking water projects; and Establishment and activation of Drought Monitoring Centre at the State Headquarters.

A Crop Weather Watch Group for Drought Management monitor rainfall situation, progress of sowing of Kharif crops, reservoir levels and other parameters to determine/assess drought situation and to get first-hand information about the States' preparedness in the event of any drought like development through weekly video conference with State Governments during South-West Monsoon season (June to September). The Ministry of Agriculture and Farmers Welfare through ICAR-Central Research Institute for Dryland Agriculture (CRIDA) has formulated District Agricultural Contingency Plans for 650 districts for implementing location specific interventions to sustain agriculture production in the eventuality of any extreme climatic events. District level contingency plans are technical documents containing integrated information on agriculture and allied sectors. Rainfed Area Development Programme (RAD) programme is being implemented by the Department of Agriculture and Farmers Welfare, which focuses on Integrated Farming System (IFS) for enhancing productivity and minimizing risk associated with climate variabilities.

ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 2013 TO BE ANSWERED IN RAJYA SABHA ON 07.08.2023 REGARDING "DROUGHT AND GROUNDWATER LEVEL".

State-Wise Ground Water Resources of India, 2017 (in Bcm)

| S. | States/Union | Ground ' | Water Re | | <i>atte</i> **150 | Ground | 1 | Annual | | | al Groui | | AnnualGWAllocati | Net Ground | Stage of |
|----|------------------|-----------|----------|-----------|-------------------|----------|----------|----------|---------|---------|----------|-------|--------------------|--------------|----------|
| | Territories | | | 8 | | | Natural | Extracta | Water | Extract | ion | | onforforDomesticUs | | Ground |
| | | Monsoon | Season | Non-mo | nsoon | Total | Discharg | ble | Irrigat | Industr | Domest | Total | eason2025 | Availability | Water |
| | | | | Season | | Annual | es | Ground | | ial | ic | | | for future | Extracti |
| | | Recharg | Recharg | Rechar | Recharg | Ground | | Water | | | | | | use | on |
| | | e from | | ge from | | Water | | Resource | | | | | | | (%) |
| | | rain fall | other | rain fall | other | Recharge | | | | | | | | | |
| | | | sources | | sources | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | States | | | | | | | | | | | | | | |
| 1 | | 9.96 | 5.62 | | | 21.22 | | 20.15 | 7.85 | 0.14 | | 8.90 | 1.48 | 12.31 | 44.15 |
| 2 | | 1.89 | 0.18 | 0.95 | | 3.02 | | 2.67 | 0.00 | 0.00 | | 0.01 | 0.03 | 2.64 | 0.28 |
| | | 20.22 | 0.43 | 7.28 | | 28.67 | | 24.26 | 1.97 | 0.06 | | 2.73 | 0.79 | 21.43 | 11.25 |
| 4 | Bihar | 19.83 | | 3.14 | | 31.41 | | 28.99 | 10.78 | 0.66 | 1.83 | 13.26 | 1.83 | 15.78 | 45.76 |
| 5 | Chhattisgarh | 7.82 | 1.36 | 0.76 | | 11.57 | | 10.57 | 3.98 | 0.05 | | 4.70 | 0.79 | 5.76 | 44.43 |
| 6 | Delhi | 0.13 | | 0.03 | | 0.32 | 0.02 | 0.30 | 0.09 | 0.02 | | 0.36 | 0.29 | 0.02 | 119.61 |
| 7 | Goa | 0.19 | 0.03 | 0.01 | | 0.27 | 0.11 | 0.16 | 0.02 | * | | 0.05 | 0.04 | 0.07 | 33.50 |
| 8 | Gujarat | 15.95 | 3.40 | 0.00 | | 22.37 | | 21.25 | 12.84 | 0.11 | 0.63 | 13.58 | 0.90 | 7.98 | 63.89 |
| 9 | Haryana | 3.56 | 2.55 | 1.03 | 3.00 | 10.15 | | 9.13 | 11.53 | 0.34 | 0.63 | 12.50 | 0.72 | 0.87 | 136.91 |
| 10 | Himachal Pradesh | 0.34 | 0.02 | 0.11 | | 0.51 | 0.05 | 0.46 | 0.20 | 0.00 | | 0.39 | 0.34 | 0.16 | 86.37 |
| 11 | Jammu &Kashmir | 1.00 | 0.50 | 0.88 | | 2.89 | | 2.60 | 0.20 | 0.07 | | 0.76 | 0.50 | 1.84 | 29.47 |
| 12 | | 5.25 | 0.13 | 0.41 | | 6.21 | | 5.69 | 0.80 | 0.22 | 0.56 | 1.58 | 0.56 | 4.13 | 27.73 |
| 13 | Karnataka | 6.59 | 4.36 | 2.67 | | 16.84 | 2.05 | 14.79 | 9.39 | * | 0.95 | 10.34 | 1.14 | 5.41 | 69.87 |
| 14 | | 3.91 | 0.04 | 0.68 | | 5.77 | | 5.21 | 1.22 | 0.01 | | 2.67 | 1.57 | 2.41 | 51.27 |
| 15 | Madhya Pradesh | 27.10 | 1.51 | 0.82 | 6.99 | 36.42 | | 34.47 | 17.43 | 0.22 | 1.24 | 18.88 | 1.72 | 15.84 | 54.76 |
| 16 | Maharashtra | 20.59 | 2.29 | 0.53 | 8.23 | 31.64 | 1.74 | 29.90 | 15.10 | 0.003 | 1.22 | 16.33 | 2.28 | 12.91 | 54.62 |
| | | 0.23 | | 0.17 | | 0.43 | 0.04 | 0.39 | 0.00 | 0.00 | | 0.01 | 0.04 | 0.34 | 1.44 |
| | Meghalaya | 1.37 | | 0.43 | | 1.83 | | 1.64 | 0.03 | 0.00 | | 0.04 | 0.02 | 1.59 | 2.28 |
| 19 | Mizoram | 0.16 | 0.00 | 0.05 | | 0.21 | | 0.19 | 0.00 | 0.00 | | 0.01 | 0.01 | 0.18 | 3.82 |
| | Nagaland | 1.65 | 0.03 | 0.52 | | 2.20 | | 1.98 | 0.00 | 0.00 | | 0.02 | 0.02 | 1.96 | 0.99 |
| 21 | Odisha | 10.53 | 2.34 | 1.50 | | 16.74 | | 15.57 | 5.28 | 0.14 | | 6.57 | 1.30 | 8.85 | 42.18 |
| 22 | Punjab | 5.54 | 11.83 | 1.31 | | 23.93 | | 21.58 | 34.56 | 0.20 | | 35.78 | 1.41 | 1.09 | 165.77 |
| | Rajasthan | 9.74 | 0.78 | 0.24 | | 13.21 | | 11.99 | 14.85 | 0.00 | 1.92 | 16.77 | 2.67 | 0.88 | 139.88 |
| | | 5.20 | 0.00 | 0.43 | | 5.63 | | 1.52 | 0.00 | 0.00 | | 0.00 | 0.01 | 1.51 | 0.06 |
| | | 6.67 | 9.41 | 1.89 | | 20.22 | | 18.20 | 13.06 | 0.00 | 1.67 | 14.73 | 1.85 | 5.66 | 80.94 |
| | Telangana | 7.56 | 1.42 | 1.88 | | 13.62 | | 12.37 | 7.09 | * | | 8.09 | 1.39 | 4.26 | 65.45 |
| | | 0.80 | 0.06 | 0.40 | 0.26 | 1.53 | 0.29 | 1.24 | 0.02 | 0.00 | 0.08 | 0.10 | 0.11 | 1.11 | 7.88 |

| 28 | Uttar Pradesh | 37.73 | 11.67 | 1.59 | 18.93 | 69.92 | 4.60 | 65.32 | 40.89 | * | 4.95 | 45.84 | 5.96 | 20.36 | 70.18 |
|----|-------------------|--------|-------|-------|-------|--------|-------|--------|--------|------|-------|--------|-------|--------|-------|
| 29 | Uttarakhand | 1.15 | 0.93 | 0.09 | 0.87 | 3.04 | 0.15 | 2.89 | 1.30 | 0.13 | 0.22 | 1.64 | 0.22 | 1.25 | 56.83 |
| 30 | West Bengal** | 18.71 | 1.51 | 5.26 | 3.85 | 29.33 | 2.77 | 26.56 | 10.84 | * | 1.00 | 11.84 | 1.53 | 14.19 | 44.60 |
| | Total States | 251.36 | 66.41 | 36.30 | 77.06 | 431.13 | 39.09 | 392.04 | 221.33 | 2.38 | 24.77 | 248.47 | 31.52 | 172.82 | 63.38 |
| | Union Territories | | | | | | | | | | | | | | |
| 1 | Andaman & | 0.35 | 0.00 | 0.02 | 0.00 | 0.37 | 0.04 | 0.33 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.32 | 2.74 |
| | Nicobar | | | | | | | | | | | | | | |
| 2 | Chandigarh | 0.02 | 0.01 | 0.00 | 0.01 | 0.04 | 0.00 | 0.04 | 0.00 | * | 0.03 | 0.03 | 0.03 | 0.00 | 89.00 |
| 3 | Dadra & Nagar | 0.06 | 0.00 | 0.00 | 0.01 | 0.07 | 0.00 | 0.07 | 0.01 | * | 0.01 | 0.02 | 0.01 | 0.04 | 31.34 |
| | Haveli | | | | | | | | | | | | | | |
| 4 | Daman &Diu | 0.02 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.02 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 61.40 |
| 5 | Lakshdweep | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.004 | 0.00 | 0.00 | 0.002 | 0.002 | 0.00 | 0.00 | 65.99 |
| 6 | Puducherry | 0.09 | 0.07 | 0.02 | 0.05 | 0.23 | 0.02 | 0.20 | 0.11 | * | 0.04 | 0.15 | 0.04 | 0.05 | 74.33 |
| | Total UTs | 0.54 | 0.08 | 0.05 | 0.07 | 0.73 | 0.08 | 0.66 | 0.13 | 0.00 | 0.10 | 0.23 | 0.10 | 0.43 | 34.51 |
| | Grand Total | 251.90 | 66.49 | 36.34 | 77.13 | 431.86 | 39.16 | 392.70 | 221.46 | 2.38 | 24.87 | 248.69 | 31.62 | 173.25 | 63.33 |

Note: *Industrial and domestic draft has not been estimated separately in Goa, Himachal Pradesh, Karnataka, Rajasthan, Tamil Nadu, Uttar Pradesh, Chandigarh, Dadra & Nagar Haveli and Puducherry.

^{**}The Ground Water resources assessment as on 2013 has been considered for the state of West Bengal.

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State-Wise Ground Water Resources of India, 2020 (In Bcm)

| | States/Union Territories | Ground W | ater Rech | arge | | | Total | Annual Extracta | | - | | round | GW | Net Ground | Stage of | |
|--------|-----------------------------|------------------------------|-----------|--------|-----------------|---------------------------------|-------|-----------------------|-------|-------------|------|-------|--------------------------------|---------------|--------------------------------|--|
| S. No. | | | | Season | | Annual | | Ground | | | | Total | | Availabi | Ground Water Extraction (%) | |
| | | Recharge from rainfall | | e from | e from other | Ground Water Recharg e | | Water Resourc e | | trial | stic | | Domesti c Use as on 2025 | future | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | |
| 1 | Andhra Pradesh | 8.93 | 8.54 | 0.85 | 5.83 | 24.15 | 1.21 | 22.94 | 6.60 | 0.15 | 0.88 | 7.63 | 1.31 | 15.91 | 33.26 | |
| 2 | Arunachal Pradesh | 2.01 | 0.07 | 1.11 | 0.002 | 3.19 | 0.27 | 2.92 | 0.003 | 0.000 2 | 0.01 | 0.01 | 0.01 | 2.90 | 0.36 | |
| 3 | Assam | 17.92 | 0.96 | 7.64 | 0.53 | 27.05 | 5.09 | 21.97 | 1.97 | 0.01 | 0.60 | 2.58 | 0.66 | 19.33 | 11.73 | |
| 4 | Bihar | 21.02 | 3.32 | 1.29 | 2.42 | 28.05 | 2.60 | 25.46 | 10.33 | 0.65 | 2.04 | 13.02 | 2.29 | 12.23 | 51.14 | |
| 5 | Chhattisgarh | 8.33 | 1.38 | 1.11 | 1.84 | 12.65 | 1.11 | 11.55 | 4.53 | 0.10 | 0.71 | 5.35 | 0.84 | 6.25 | 46.34 | |
| 6 | Delhi | 0.05 | 0.13 | 0.004 | 0.13 | 0.32 | 0.03 | 0.29 | 0.07 | 0.04 | 0.18 | 0.29 | | 0.02 | 101.40 | |
| 7 | Goa | 0.34 | 0.02 | 0.003 | 0.04 | | 0.08 | 0.32 | 0.02 | | 0.05 | 0.08 | | 0.24 | 23.48 | |
| 8 | Gujarat | 19.59 | 2.89 | 0.00 | 4.32 | | 1.90 | 24.91 | | 0.03 | 0.62 | 13.30 | 0.78 | | 53.39 | |
| | Haryana | 3.24 | 2.81 | 0.58 | 2.90 | 9.53 | 0.90 | 8.63 | 10.47 | 0.53 | 0.62 | 11.61 | | 0.97 | 134.56 | |
| 10 | Himachal Pradesh | 0.66 | 0.13 | 0.13 | 0.14 | | 0.10 | 0.97 | 0.20 | | 0.10 | 0.36 | | | 36.83 | |
| | Jharkhand | 4.91 | 0.43 | 0.47 | 0.35 | | 0.51 | 5.64 | 0.93 | | 0.51 | 1.64 | | 4.02 | 29.13 | |
| | Karnataka | 7.47 | 4.68 | 2.23 | 3.77 | | 1.76 | 16.40 | 9.60 | 0.00 | 1.03 | 10.63 | | | 64.85 | |
| | Kerala | 4.20 | 0.13 | 0.46 | 0.86 | | 0.53 | 5.12 | 1.16 | 0.01 | 1.47 | 2.65 | | | 51.68 | |
| | Madhya Pradesh | 27.75 | 1.60 | 0.12 | 6.69 | | 2.78 | 33.38 | | 0.03 | 1.61 | 18.97 | 1.84 | | 56.82 | |
| | Maharashtra | 20.66 | 2.38 | 0.53 | 8.45 | | 1.76 | 30.25 | 15.29 | 0.003 | 1.34 | 16.63 | 1.34 | | 54.99 | |
| 16 | Manipur | 0.40 | 0.001 | 0.11 | 0.002 | 0.51 | 0.05 | 0.46 | 0.003 | 0.000 | 0.02 | 0.02 | 0.02 | 0.44 | 5.12 | |
| 17 | Meghalaya | 1.66 | 0.01 | 0.36 | 0.01 | 2.04 | 0.22 | 1.82 | 0.03 | 0.000 | 0.05 | 0.08 | 0.06 | 1.73 | 4.22 | |
| 18 | Mizoram | 0.19 | 0.00 | 0.03 | 0.00 | 0.22 | 0.02 | 0.20 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.19 | 3.81 | |
| 19 | Nagaland | 1.08 | 0.76 | 0.27 | 0.06 | 2.17 | 0.22 | 1.95 | 0.002 | 0.000 03 | 0.02 | 0.02 | 0.02 | 1.93 | 1.04 | |
| 20 | Odisha | 10.26 | 2.71 | 1.51 | 2.60 | 17.08 | 1.37 | 15.71 | 5.50 | 0.15 | 1.21 | 6.86 | 1.46 | 8.74 | 43.65 | |

| 21 | Punjab | 5.01 | 10.42 | 0.95 | 6.41 | 22.80 | 2.20 | 20.59 | 32.80 | 0.00 | 1.05 | 33.85 | 1.08 | 1.61 | 164.42 |
|----|---------------------|--------|--------|-------|--------|--------|-------|--------|-------|-------|-------|--------|-------|--------|--------|
| 22 | Rajasthan | 8.80 | 0.58 | 0.29 | 2.57 | 12.24 | 1.17 | 11.07 | 14.37 | 0.13 | 2.14 | 16.63 | 2.17 | 0.99 | 150.22 |
| 23 | Sikkim | 0.96 | 0.00 | 0.00 | 0.00 | 0.96 | 0.10 | 0.86 | 0.00 | 0.002 | 0.01 | 0.01 | 0.01 | 0.85 | 0.86 |
| 24 | Tamil Nadu | 6.83 | 9.04 | 1.26 | 2.45 | 19.59 | 1.90 | 17.69 | 13.52 | 0.17 | 0.99 | 14.67 | 1.52 | 5.65 | 82.93 |
| 25 | Telangana | 7.50 | 3.29 | 1.10 | 4.75 | 16.63 | 1.60 | 15.03 | 7.13 | 0.14 | 0.73 | 8.01 | 0.74 | 7.14 | 53.32 |
| 26 | Tripura | 0.85 | 0.06 | 0.34 | 0.22 | 1.47 | 0.22 | 1.24 | 0.02 | 0.000 | 0.08 | 0.10 | 0.09 | 1.14 | 7.94 |
| | | | | | | | | | | 2 | | | | | |
| 27 | Uttar Pradesh | 37.75 | 13.16 | 1.30 | 19.99 | 72.20 | 5.32 | 66.88 | 41.29 | 0.00 | 4.74 | 46.03 | 5.38 | 21.53 | 68.83 |
| 28 | Uttarakhand | 1.29 | 0.31 | 0.10 | 0.32 | 2.02 | 0.17 | 1.85 | 0.63 | 0.09 | 0.15 | 0.87 | 0.16 | 0.98 | 46.80 |
| 29 | West Bengal* | 18.71 | 1.51 | 5.26 | 3.85 | 29.33 | 2.77 | 26.56 | 10.84 | 0.27 | 0.73 | 11.84 | 1.53 | 14.19 | 44.60 |
| 30 | Andaman and | 0.32 | 0.0002 | 0.00 | 0.0001 | 0.32 | 0.03 | 0.28 | 0.000 | 0.001 | 0.01 | 0.01 | 0.01 | 0.28 | 2.60 |
| | Nicobar | | | | | | | | 1 | | | | | | |
| 31 | Chandigarh | 0.01 | 0.02 | 0.005 | 0.03 | 0.06 | 0.01 | 0.06 | 0.01 | 0.002 | 0.03 | 0.05 | 0.03 | 0.01 | 80.60 |
| 32 | Dadra &Nagar Haveli | 0.04 | 0.01 | 0.003 | 0.02 | 0.07 | 0.005 | 0.07 | 0.01 | 0.01 | 0.02 | 0.03 | 0.02 | 0.03 | 45.99 |
| | Daman & Diu | 0.03 | 0.0005 | 0.00 | 0.001 | 0.03 | 0.001 | 0.03 | 0.003 | 0.03 | 0.00 | 0.03 | 0.02 | 0.0002 | 113.38 |
| 33 | Jammu and Kashmir | 0.80 | 2.04 | 0.95 | 0.88 | 4.68 | 0.46 | 4.22 | 0.20 | 0.13 | 0.56 | 0.89 | 0.57 | 3.32 | 21.03 |
| 34 | Ladakh | 0.01 | 0.05 | 0.02 | 0.04 | 0.12 | 0.01 | 0.11 | 0.001 | 0.000 | 0.02 | 0.02 | 0.02 | 0.09 | 17.90 |
| | | | | | | | | | | 2 | | | | | |
| 35 | Lakshadweep | 0.011 | 0.00 | 0.002 | 0.00 | 0.01 | 0.01 | 0.005 | 0.00 | 0.00 | 0.003 | 0.003 | 0.005 | 0.002 | 58.47 |
| 36 | Puducherry | 0.06 | 0.10 | 0.01 | 0.05 | 0.22 | 0.02 | 0.20 | 0.10 | 0.01 | 0.05 | 0.15 | 0.05 | 0.05 | 74.27 |
| | Grand Total | 249.65 | 73.54 | 30.41 | 82.54 | 436.15 | 38.51 | 397.62 | 217.6 | 2.94 | 24.37 | 244.92 | 28.90 | 184.56 | 61.60 |
| | | | | | | | | | 1 | | | | | | |

NOTE-Data on Ground Water Extraction for Industries is not available for Karnataka, Punjab & Uttar Pradesh and is available only for 2 districts of Maharashtra.

^{*}NOTE-The Ground Water resources assessment as on 2013 has been considered for the state of West Bengal.

ANNEXURE III

ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 2013 TO BE ANSWERED IN RAJYA SABHA ON 07.08.2023 REGARDING "DROUGHT AND GROUNDWATER LEVEL".

State-Wise Ground Water Resources of India, 2022 (In Bcm)

| | States/Union Territories | Ground Wate | er Recharge | | | | Total | Annual Extracta | Curre Water | | | round | GW | | Stage of |
|--------|-----------------------------|---------------|-----------------------------------|--------|--------------------------------------|---------------------------------|--------|-----------------------|----------------|------------|------------|------------|-----------------------------------|--------|----------------|
| S. No. | | | | Season | | | | Ground | | | | Total | on for | | Water |
| | | from rainfall | Recharge from other sources | e from | Recharge from other sources | Ground Water Recharg e | | Water Resourc e | tion | trial | stic | | Domesti c Use as on 2025 | s | Extraction (%) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 1 | Andhra Pradesh | 9.14 | 9.41 | 0.91 | 7.77 | 27.23 | 1.36 | 25.86 | 6.46 | 0.16 | 0.83 | 7.45 | 1.09 | | 28.81 |
| 2 | Arunachal Pradesh | 1.96 | 0.94 | 1.06 | 0.56 | 4.52 | 0.41 | 4.07 | 0.02 | 0.01 | 0.01 | 0.03 | 0.01 | 4.03 | 0.79 |
| 3 | Assam | 17.92 | 1.15 | 6.52 | 0.94 | 26.53 | 2.56 | 21.4 | 2.06 | 0.01 | 0.58 | 2.65 | 0.62 | 18.71 | 12.38 |
| 4 | Bihar | 19.94 | 7.07 | 1.14 | 5 | 33.15 | 3.1 | 30.04 | 10.01 | 0.35 | 3.14 | 13.5 | 3.41 | | 44.94 |
| 5 | Chhattisgarh | 8.08 | 1.8 | 0.15 | 2.01 | 12.04 | 1.04 | 11.01 | 4.62 | 0.11 | 0.73 | 5.46 | 0.83 | 5.56 | 49.58 |
| 6 | Delhi | 0.1388 | 0.0895 | 0.0094 | 0.1728 | 0.4105 | 0.0411 | 0.3695 | 0.090 4 | 0.000 7 | 0.271 6 | 0.362 7 | 0.2878 | 0.0288 | 98.1612 |
| 7 | Goa | 0.35 | 0.02 | 0 | 0.04 | 0.41 | 0.08 | 0.33 | 0.026 | 0.004 | 0.048 | 0.078 | 0.05 | 0.25 | 23.63 |
| 8 | Gujarat | 19 | 2.63 | 0 | 4.83 | 26.46 | 1.88 | 24.58 | 12.1 | 0.16 | 0.82 | 13.09 | 1.04 | 12.18 | 53.23 |
| 9 | Haryana | 3.15 | 2.79 | 0.70 | 2.83 | 9.48 | 0.87 | 8.61 | 10.30 | 0.60 | 0.65 | 11.54 | 0.66 | 1.04 | 134.14 |
| 10 | Himachal Pradesh | 0.6 | 0.14 | 0.14 | 0.15 | 1.03 | 0.09 | 0.94 | 0.18 | 0.05 | 0.12 | 0.35 | 0.12 | 0.59 | 37.56 |
| 11 | | 4.92 | 0.45 | 0.48 | 0.36 | 6.21 | 0.51 | | | 0.21 | 0.65 | 1.78 | 0.65 | | 31.35 |
| 12 | Karnataka | 8.83 | 4.29 | 1.19 | 3.43 | 17.74 | 1.70 | 16.04 | 10.01 | 0.13 | 1.09 | 11.22 | 1.17 | 6.34 | 69.93 |
| 13 | Kerala | 4.25 | 0.15 | 0.47 | 0.87 | 5.74 | 0.54 | 5.19 | | 0.01 | | | 2.2 | 2.18 | 52.56 |
| 14 | Madhya Pradesh | 26.87 | 1.56 | 0.11 | 6.69 | 35.23 | 2.66 | 32.58 | 17.39 | 0.17 | 1.69 | 19.25 | 1.88 | 14.21 | 59.1 |
| 15 | | | 2.43 | 0.54 | 8.6 | 32.29 | 1.84 | 30.45 | 15.29 | 0.003 | 1.35 | 16.65 | 1.35 | 14.38 | 54.68 |
| 16 | Manipur | 0.4 | 0 | 0.11 | 0.01 | 0.52 | 0.05 | 0.47 | 0.02 | 0.000 2 | 0.02 | 0.04 | 0.02 | 0.43 | 7.95 |
| 17 | Meghalaya | 1.29 | 0.01 | 0.42 | 0 | 1.72 | 0.17 | 1.51 | 0.003 | 0.000 7 | 0.05 | 0.05 | 0.06 | 1.45 | 3.55 |
| 18 | Mizoram | 0.19 | 0 | 0.03 | 0 | 0.22 | 0.02 | 0.2 | 0.000 | 0.00 | 0.01 | 0.01 | 0.01 | 0.19 | 3.96 |
| 19 | Nagaland | 0.36 | 0.33 | 0.08 | 0.02 | 0.79 | 0.08 | 0.71 | 0.002 | 0.000 | 0.02 | 0.02 | 0.02 | 0.69 | 2.89 |

| | | | | | | | | | | 020 | | | | | |
|----|-------------------------|--------|--------|--------|--------|--------|--------|--------|-------------|--------------|------------|------------|--------|--------|---------|
| 20 | Odisha | 10.44 | 2.82 | 1.81 | 2.72 | 17.79 | 1.44 | 16.34 | 5.83 | 0.16 | 1.24 | 7.23 | 1.37 | 9.03 | 44.25 |
| 21 | Punjab | 4.67 | 9.09 | 0.72 | 4.46 | 18.94 | 1.87 | 17.07 | 26.69 | 0.16 | 1.17 | 28.02 | 1.19 | 1.57 | 165.99 |
| 22 | Rajasthan | 8.71 | 0.62 | 0.20 | 2.61 | 12.13 | 1.17 | 10.96 | 14.18 | 0.14 | 2.23 | 16.56 | 2.28 | 0.87 | 151.07 |
| 23 | Sikkim | 0.1712 | 0.0039 | 0.0956 | 0.0005 | 0.2712 | 0.0271 | 0.2441 | 0.008 9 | 0.002 2 | 0.003 6 | 0.014 7 | 0.0038 | 0.2291 | 6.04 |
| 24 | Tamil Nadu | 7.42 | 9.76 | 1.33 | 2.59 | 21.11 | 2.04 | 19.09 | 13.68 | 0.18 | 0.57 | 14.43 | 1.36 | 6.42 | 75.59 |
| 25 | Telangana | 7.19 | 6.66 | 0.98 | 6.44 | 21.27 | 2.02 | 19.25 | 7.257 | 0.154 | 0.596 | 8 | 3.82 | 11.23 | 41.6 |
| 26 | Tripura | 0.81 | 0.06 | 0.22 | 0.22 | 1.31 | 0.25 | 1.06 | 0.02 | 0.000 7 | 0.08 | 0.10 | 0.09 | 0.96 | 9.70 |
| 27 | Uttar Pradesh | 35.44 | 13.96 | 0.82 | 21.23 | 71.45 | 6.13 | 65.3 | 40.72 | 0.41 | 5.01 | 46.14 | 5.48 | 19.99 | 70.66 |
| 28 | Uttarakhand | 1.28 | 0.31 | 0.1 | 0.32 | 2.01 | 0.16 | 1.86 | 0.63 | 0.12 | 0.15 | 0.89 | 0.15 | 0.96 | 48.04 |
| 29 | West Bengal | 15.46 | 1.65 | 3.04 | 3.46 | 23.61 | 2.19 | 21.42 | 8.38 | 0.14 | 1.54 | 10.07 | 1.76 | 11.29 | 47.01 |
| 30 | Andaman and Nicobar | 0.2979 | 0.0002 | 0.3203 | 0.0001 | 0.6185 | 0.0618 | 0.5566 | 0.000 1 | 0.001 | 0.006 5 | 0.007 5 | 0.0069 | 0.5486 | 1.35 |
| 31 | Chandigarh | 0.01 | 0.01 | 0.00 | 0.03 | 0.05 | 0.01 | 0.05 | 0.01 | 0.002 | 0.03 | 0.04 | 0.03 | 0.01 | 80.99 |
| 32 | Dadra & Nagar Haveli | 0.06 | 0.01 | 0.003 | 0.02 | 0.09 | 0.01 | 0.08 | 0.01 | 0.09 | 0.01 | 0.11 | 0.02 | 0.01 | 133.2 |
| | Daman & Diu | 0.037 | 0.001 | 0.000 | 0.001 | 0.038 | 0.002 | 0.036 | 0.003 | 0.055 | 0.000 | 0.057 | 0.016 | 0.000 | 157.927 |
| 33 | Jammu and Kashmir | 1.16 | 1.94 | 1.15 | 0.64 | 4.90 | 0.46 | 4.44 | 0.31 | 0.05 | 0.71 | 1.07 | 0.73 | 3.35 | 24.18 |
| 34 | Ladakh | 0.01 | 0.05 | 0.02 | 0 | 0.08 | 0.01 | 0.07 | 0.000 37 | 0.000 200 | 0.03 | 0.03 | 0.03 | 0.04 | 41.36 |
| 35 | Lakshadweep | 0.01 | 0 | 0 | 0 | 0.01 | 0.01 | 0.01 | 0 | 0.00 | 0 | 0 | 0 | 0 | 61.6 |
| 36 | Puducherry | 0.06 | 0.09 | 0.01 | 0.04 | 0.21 | 0.02 | 0.19 | 0.08 | 0.01 | 0.05 | 0.13 | 0.05 | 0.05 | 69.17 |
| | Grand Total | 241.35 | 82.30 | 24.88 | 89.07 | 437.60 | 36.85 | 398.08 | 208.49 | 3.64 | 27.05 | 239.16 | 33.86 | 188.03 | 60.08 |
