

GOVERNMENT OF INDIA  
MINISTRY OF WATER RESOURCES,  
RIVER DEVELOPMENT & GANGA REJUVENATION  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 2192**  
ANSWERED ON 08.03.2018

**AVAILABILITY OF WATER RESOURCES FOR AGRICULTURAL PURPOSE**

2192.           SHRIMATI V. SATHYA BAMA  
                  SHRI K.N. RAMACHANDRAN  
                  SHRI BHARATHI MOHAN R.K.

Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION be pleased to state:

- (a) the effective steps taken/proposed to be taken by the Government for sustainable use of water resources for agricultural purpose particularly in the lower riparian States like Tamil Nadu;
- (b) whether the Government has assessed the availability of water resources for agriculture in each State and if so, the outcome thereof; and
- (c) the steps taken by the Government to increase the ground water level in the country and the funds allocated for the purpose, State-wise?

**ANSWER**

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION & PARLIAMENTARY AFFAIRS

(SHRI ARJUN RAM MEGHWAL)

(a) Water being a State subject, steps for augmentation, conservation and efficient management of water resources to ensure sustainability and availability are primarily undertaken by the respective State Governments. In order to supplement the efforts of the State Governments, Central Government provides technical and financial assistance to States including lower riparian States like Tamil Nadu through various schemes and programmes. The Central Government has taken various steps for sustainable use of water resources for agricultural purpose through various schemes like Pradhan Mantri Krishi Sinchayee Yojana, Accelerated Irrigation Benefits Programme, Command Area Development, Repair, Renovation & Restoration (RRR) of water bodies, Interlinking of Rivers Project, Dam Rehabilitation & Improvement Project, etc. Additionally, non-structural measures have also been taken through the development and augmentation of National Hydrology Project, Flood Forecasting Stations, Hydrological Observation Stations, etc.

(b) The average annual precipitation and average annual water availability in the country has been assessed as 4000 Billion Cubic Meter (BCM) and 1869 BCM respectively. Due to topographic, hydrological and other factors, the utilizable water availability is limited to 1137 BCM per annum, comprising of 690 BCM of surface water and 447 BCM of replenishable ground water. The details of basin-wise availability of surface water and State-wise availability of ground water are at **Annexure I and II** respectively.

(c) Steps taken up by the Central Government to increase the ground water levels include:

- Special focus through Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) for water conservation and water harvesting structures to augment ground water. Priority has been given for construction of farm ponds in the year 2016-17 to harvest rain water.
- One of the major activities under the 'Watershed Development' component of the 'Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)', inter-alia, includes rainwater harvesting.
- CGWB has taken up Aquifer Mapping and Management program, under the scheme of Ground Water Management and Regulation.
- MoWR, RD & GR has circulated a Model Bill to all the States/UTs to enable them to enact suitable ground water legislation for its regulation and development which includes provision of rain water harvesting.
- "Master Plan for Artificial Recharge to Ground Water in India" has been prepared, which envisages construction of different types of Artificial Recharge and Rainwater Harvesting structures in the Country. The Master Plan has been circulated to all State Governments for implementation.
- CGWB has undertaken the Demonstrative Rain Water Harvesting and Artificial Recharge Projects during XI Plan under the Scheme of "Ground Water Management & Regulation", in priority areas.
- 'Atal Bhujal Yojana', envisaging sustainable management of ground water with emphasis on demand side management through community participation in identified over-exploited and water scarce blocks in Haryana, Gujarat, Uttar Pradesh, Madhya Pradesh, Maharashtra and Karnataka has been proposed with an estimated cost of Rs. 6000 Cr.

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Annexure referred to in reply to part (b) of Unstarred Q.No. 2192 to be answered in Lok Sabha on 08.03.2018 regarding “Availability of Water Resources For Agricultural Purpose”.

**WATER RESOURCES POTENTIAL OF RIVER BASINS OF INDIA**

<b>S. No.</b>	<b>River Basin</b>	<b>Catchment area (Sq.Km)</b>	<b>Average Water Resources Potential (BCM)*</b>	<b>Utilisable surface water resources (BCM)**</b>
1	Indus	321289	73.3	46
2	Ganga-Brahmaputra-Meghna			
	(a) Ganga	861452	525	250
	(b) Brahmaputra	194413	537.2	24
	(c) Barak & others	41723	48.4	
3	Godavari	312812	110.5	76.3
4	Krishna	258948	78.1	58
5	Cauvery	81155	21.4	19
6	Subernarekha	29196	12.4	6.8
7	Brahmani-Baitarni	51822	28.5	18.3
8	Mahanadi	141589	66.9	50
9	Pennar	55213	6.3	6.9
10	Mahi	34842	11	3.1
11	Sabarmati	21674	3.8	1.9
12	Narmada	98796	45.6	34.5
13	Tapi	65145	14.9	14.5
14	West Flowing Rivers from Tapi to Tadri	55940	87.4	11.9
15	West Flowing Rivers from Tadri to Kanyakumari	56177	113.5	24.3
16	East Flowing Rivers between Mahanadi and Pennar	86643	22.5	13.1
17	East Flowing Rivers between Pennar & Kanyakumari	100139	16.5	16.5
18	West Flowing Rivers of Kutch and Saurashtra including Luni	321851	15.1	15
19	Area of Inland Drainage in Rajasthan	---	Negl.	--
20	Minor Rivers draining into Myanmar (Burma) and Bangladesh	36302	31	--
	<b>Total</b>		<b>1,869.4</b>	<b>690</b>

\*CWC Publication “Reassessment of Water Resources Potential of India, 1993”

\*\* CWC Publication “Water Resources of India, 1988”

**Annexure-II**

**Annexure referred to in reply to part (b) of Unstarred Q.No. 2192 to be answered in Lok Sabha on 08.03.2018 regarding "Availability of Water Resources For Agricultural Purpose".**

**STATE-WISE GROUND WATER RESOURCES AVAILABILITY, UTILIZATION AND STAGE OF DEVELOPMENT  
INDIA (As on 31st March 2013)**

Sl. No	States / Union Territories	Annual Replenishable Ground Water Resource	Natural Discharge during non-monsoon season	Net Annual Ground Water Availability	Annual Ground Water Draft			Stage of Ground Water Development (%)
					Irrigation	Domestic and industrial uses	Total	
1	Andhra Pradesh	20.39	1.91	18.48	7.29	0.81	8.1	44
2	Arunachal Pradesh	4.433	0.443	3.99	0.002	0.007	0.01	0.23
3	Assam	32.11	3.21	28.9	4.06	0.68	4.74	16
4	Bihar	31.31	2.82	28.49	10.36	2.37	12.73	45
5	Chhattisgarh	12.8	0.9	11.9	3.76	0.64	4.4	37
6	Delhi	0.34	0.03	0.31	0.14	0.25	0.39	127
7	Goa	0.24	0.1	0.15	0.02	0.03	0.05	37
8	Gujarat	20.85	1.07	19.79	12.3	1.14	13.44	68
9	Haryana	11.36	1.06	10.3	13.32	0.6	13.92	135
10	Himachal Pradesh	0.56	0.03	0.53	0.16	0.11	0.27	51
11	Jammu & Kashmir	5.25	0.43	4.82	0.2	0.98	1.18	24
12	Jharkhand	6.56	0.57	5.99	0.63	0.72	1.35	23
13	Karnataka	17	2.16	14.83	8.76	0.99	9.76	66
14	Kerala	6.27	0.6	5.66	1.18	1.45	2.63	47
15	Madhya Pradesh	35.98	1.82	34.16	17.95	1.41	19.36	57
16	Maharashtra	33.19	1.71	31.48	15.93	1.14	17.07	54
17	Manipur	0.474	0.047	0.426	0.004	0.001	0.004	1.01
18	Meghalaya	3.31	0.33	2.98	0.008	0.004	0.012	0.4
19	Mizoram	0.03942	0.00394	0.03548	0	0.00104	0.00104	2.9
20	Nagaland	1.94	0.194	1.75	0	0.03	0.03	2
21	Odisha	17.78	1.09	16.69	4.14	0.87	5.02	30
22	Punjab	25.91	2.52	23.39	34.05	0.77	34.81	149
23	Rajasthan	12.51	1.26	11.26	13.79	1.92	15.71	140
24	Sikkim	-	-	-	-	-	-	-
25	Tamil Nadu	20.65	2.07	18.59	12.98	1.38	14.36	77
26	Telangana	14.74	1.35	13.39	7	0.76	7.77	58
27	Tripura	2.471	0.202	2.269	0.093	0.072	0.165	7.3
28	Uttar Pradesh	76.34	4.75	71.58	48.35	4.41	52.76	74
29	Uttarakhand	2	0.03	1.97	0.84	0.15	0.99	50
30	West Bengal	29.33	2.77	26.56	10.84	1	11.84	45
	<b>Total States</b>	<b>446.14</b>	<b>35.49</b>	<b>410.65</b>	<b>228.16</b>	<b>24.71</b>	<b>252.87</b>	<b>62</b>
	<b>Union Territories</b>							
1	Andaman & Nicobar	0.42	0.042	0.378	0.0001	0.0035	0.0037	1
2	Chandigarh	0.022	0.0022	0.0194	0	0	0	0
3	Dadara & Nagar Haveli	0.07	0.007	0.063	0.008	0.013	0.02	32
4	Daman & Diu	0.015	0.001	0.014	0.008	0.002	0.01	70
5	Lakshdweep	0.01055	0.00704	0.0035	0	0.00237	0.00237	68
6	Puducherry	0.193	0.019	0.174	0.124	0.029	0.153	88
	<b>Total UTs</b>	<b>0.73</b>	<b>0.08</b>	<b>0.65</b>	<b>0.139</b>	<b>0.05</b>	<b>0.189</b>	<b>29</b>
	<b>Grand Total</b>	<b>446.87</b>	<b>35.56</b>	<b>411.3</b>	<b>228.3</b>	<b>24.76</b>	<b>253.06</b>	<b>62</b>