

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

UNSTARRED QUESTION NO. 79

ANSWERED ON 25.11.2024

DATA BANK ON PALAEOCHANNELS

79. SHRI SANJAY KUMAR JHA

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

- (a) whether Government has created a systematic data bank on Palaeochannels as recommended by the Palaeochannels Committee (2016);
- (b) if so, the details thereof;
- (c) if not, the concrete steps Government has taken in this regard;
- (d) whether Government has taken any concrete steps regarding aquifer delineation and their development;
- (e) if so, the details district-wise and the funds allocated in this regard;
- (f) whether Government has taken any effective measures regarding artificial recharge of Palaeochannel; and
- (g) if so, the details thereof, the funds allocated in this regard, district-wise?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) to (c) Palaeochannels, which were once active rivers or streams or parts thereof, but now buried under sediments, usually offer good ground water yield as well as potential sites for artificial ground water recharge. Central Ground Water Board (CGWB), under various studies, has generated information on traces of palaeochannels found in parts of the Rajasthan, Haryana, Gujarat and Uttar Pradesh. The information generated is made available in the public domain in report form for policy making and project planning.

(d) & (e) Central Ground Water Board (CGWB) is implementing National Aquifer Mapping and Management program (NAQUIM) in the country under Ground Water Management & regulation (GWMR) Scheme since year 2012, which envisages mapping of aquifers (water bearing formations), their characterization and development of Aquifer Management Plans to facilitate sustainable management of Ground Water Resources. Thus far, 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 as well as District authorities for taking up suitable field interventions. **State-wise area mapped is given in Table below.**

Further, there are various ground water related activities conducted under GWM&R scheme like ground water level and quality monitoring, resource assessment, several types of geophysical surveys etc., the data generated from all of which is used for aquifer mapping and studies under NAQUIM. Overall, expenditure under GWM&R scheme in the years 2021-22, 2022-23 & 2023-24 stands at Rs. 180.2 cr., 204.76 cr and 202.31 cr., respectively.

State-wise Coverage under NAQUIM

Sl. No.	State/UT	Total Area (Sq.km)	Area targeted for coverage (sq. km)	Total Area covered (sq. km)
1	Andaman & Nicobar UT	8,249	1,774	1,774
2	Andhra Pradesh	1,63,900	1,41,784	1,41,784
3	Arunachal Pradesh	83,743	4,703	4,703
4	Assam	78,438	61,826	61,826
5	Bihar	94,163	90,567	90,567
6	Chandigarh UT	115	115	115
7	Chhattisgarh	1,36,034	96,000	96,000
8	Dadra & Nagar Haveli,	602	602	602
9	Daman & Diu UT	1,483	1,483	1,483
10	Goa	3,702	3,702	3,702
11	Gujarat	1,96,024	1,60,978	1,60,978
12	Haryana	44,212	44,179	44,179
13	Himachal Pradesh	55,673	8,020	8,020
14	Jammu & Kashmir UT	1,67,396	9,506	9,506
15	Jharkhand	79,714	76,705	76,705
16	Karnataka	1,91,808	1,91,719	1,91,719
17	Kerala	38,863	28,088	28,088
18	Lakshadweep UT	32	32	32
19	Ladakh UT	54,840	963	963
20	Madhya Pradesh	3,08,000	2,69,349	2,69,349
21	Maharashtra	3,07,713	2,59,914	2,59,914
22	Manipur	22,327	2,559	2,559
23	Meghalaya	22,429	10,645	10,645
24	Mizoram	21,081	700	700
25	Nagaland	16,579	910	910
26	Odisha	1,55,707	1,19,636	1,19,636
27	Puducherry UT	479	454	454
28	Punjab	50,368	50,368	50,368
29	Rajasthan	3,42,239	3,34,152	3,34,152
30	Sikkim	7,096	1,496	1,496
31	Tamil Nadu	1,30,058	1,05,829	1,05,829
32	Telangana	1,11,940	1,04,824	1,04,824
33	Tripura	10,492	6,757	6,757
34	Uttar Pradesh	2,46,387	2,40,649	2,40,649
35	Uttarakhand	53,484	11,430	11,430
36	West Bengal	88,752	71,947	71,947
	Total	32,94,105	25,14,437	25,14,437

(f) & (g) Water being a State subject, initiatives on water management including artificial recharge is primarily the responsibility of state governments. However, CGWB in collaboration with National Geophysical Research Institute (NGRI) has completed heliborne geophysical studies in parts of Rajasthan, Gujarat, Haryana and Uttar Pradesh for aquifer mapping. During the studies a few stretches of palaeochannels were also identified. Major stretches of these palaeochannels were found to be conducive for taking up artificial recharge to ground water. These reports are made available in the public domain for further appropriate use by the concerned agencies. Gist of these studies are provided in the **Annexure**.

ANNEXURE REFERRED TO IN REPLY TO PART (f) & (g) OF UNSTARRED QUESTION NO. 79 TO BE ANSWERED IN RAJYA SABHA ON 25.11.2024 REGARDING “DATA BANK ON PALAEOCHANNELS”.

District-wise the details of studies taken up for aquifer mapping including study of paleochannels and fund allocated

Parts of Districts	Gist of the study including funds allocated
Prayagraj and Kaushambi Districts of Uttar Pradesh	Data Generation for Aquifer Mapping with focus on Palaeo-Channels in parts of Ganga-Yamuna Doab. Study carried out in collaboration with NGRI with an expenditure of Rs.4.57 cr.
Kaushambi, Fatehpur and Kanpur Nagar Districts of Uttar Pradesh	Data generation for aquifer mapping with focus on paleochannels in part of Ganga Yamuna Doab. Study has been done in collaboration with NGRI with an estimated cost of 7.61 cr.
Bikaner, Churu, Ganaganagar, Jalor, Pali, Jaisalmer, Jodhpur and Sikar Districts of Rajasthan;	Study regarding High Resolution Aquifer Mapping & Management using heliborne geophysical survey was carried out during 2021-23 in Arid Region of North Western India in parts of Rajasthan, Gujarat and Haryana. During the studies a few stretches of palaeochannels were also identified with a cumulative length of around 280 kms. Major stretches of these palaeochannels were found to be conducive for taking up artificial recharge to ground water. The studies were done in collaboration with NGRI at an expenditure of Rs.52.78 cr.
Rajkot, Jamnagar, Morbi, Surendranagar and Devbhumi Dwarka Districts of Gujarat	
Kurukshetra and Yamuna Nagar Districts of Haryana	
