

**GOVERNMENT OF INDIA
WATER RESOURCES
LOK SABHA**

STARRED QUESTION NO:402
ANSWERED ON:25.04.2005
CONTAMINATED GROUND WATER
Chowdhury Shri Adhir Ranjan;Nikhil Kumar Shri

Will the Minister of WATER RESOURCES be pleased to state:

- (a) whether the Government is aware that there is substantial amount of nitrate and arsenic contamination in ground water in the country which may lead to gastric cancer and other diseases;
- (b) if so, the facts and details of Central Ground Water Board Report in this regard;
- (c) whether the Government with the help of foreign expertise proposes to take any concrete action plan to make ground water free from nitrates and arsenic contamination;
- (d) if so, the details thereof; and
- (e) the funds allocated to State Governments during the last three years, State-wise?

Answer

THE MINISTER OF WATER RESOURCES (SHRI PRIYA RANJAN DASMUNSI)

(a) to (e) A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY OF PARTS (a) TO (e) OF LOK SABHA STARRED QUESTION NO.402 FOR REPLY ON 25.04.2005 REGARDING CONTAMINATED GROUND WATER

Nitrate content in excess of the desirable limit of 45 mg/l and arsenic content in excess of the desirable limit of 0.05 mg/l from ground water sources has been reported by Central Ground Water Board (CGWB) in localized pockets in various parts of the country. State-wise details of districts parts of which are affected by excess nitrate and excess arsenic in ground water are given in Annexure-I.

As reported by the Ministry of Health, as per WHO guidelines of Drinking Water Quality, the weight of evidence is strongly against there being an association between nitrate exposures in humans and the risk of cancer. There is slight protective effect of these ions on the cardiovascular systems. High concentration of nitrate in drinking water may cause methaemoglobinemia (blue baby disease) in human infants, a potentially fatal syndrome by which oxygen transport in the blood stream is impaired. Prolonged use of arsenic contaminated water for drinking causes diseases like dermatosis, keratosis, conjunctivitis, bronchitis and gastro- enteritis in the initial stage. Peripheral neuropathis, hepatopathy melanosis, de-pigmentation and hyper-keratosis manifest in patients using higher concentrations of arsenic contaminated water over a long period. Gangrene in the limbs and malignanat neoplasm are the last stage manifestation in patients drinking highly arsenic contaminated water over a prolonged period.

"Water" being a State subject, it is primarily the responsibility of the concerned State Governments to formulate schemes to provide people with contamination free water. However, CGWB monitors ground water quality periodically to map the changes in it and apprises the State Governments of the same for taking necessary remedial measures. It has also drilled exploratory wells tapping contamination free aquifer zones and has handed over these wells to the State Governments, free of cost, for utilisation.

There is no proposal with Ministry of Water Resources to take help of foreign expertise in tackling problems of excess nitrate and excess arsenic in ground water.

Department of Drinking Water Supply, under the Ministry of Rural Development, is also rendering financial and technical assistance to the States for tackling water quality problems in rural areas through a Centrally Sponsored Accelerated Rural Water Supply Programme (ARWSP). 15% of ARWSP funds have been exclusively earmarked for Sub Mission project for tackling water quality problems. With effect from 01.04.1998, powers to sanction Sub Mission projects have been delegated to States. State-wise releases made under ARWSP during the last three years are given at Annexure-II.

ANNEXURE-I

(REFERENCE LOK SABHA STARRED QUESTION NO. 402 DATED 25.04.2005) STATE-WISE DETAILS OF DISTRICTS PARTS OF WHICH ARE AFFECTED BY EXCESS NITRATE AND EXCESS ARSENIC IN GROUND WATER

Sl. No.	Name of the State/UT	Name of the districts affected by excess Nitrate	Name of the districts
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	(more than 45 mg/l)	affected by excess Arsenic (more than 0.05 mg/l)
1. Andhra Pradesh	Prakasam, Khammam, Nellore, Nalgonda, Nizamabad, Guntur, Kurnool, Karimnagar, Mahaboobnagar, Vijayawada	-
2. Assam	Lakhimpur	-
3. Bihar	Gaya, Patna, Nalanda, Nawada, Bhagalpur, Banka	Bhojpur, Patna
4. Chhattisgarh	Raipur	Rajnandgaon
5. Delhi	West, South-west	-
6. Gujarat	Amreli, Banaskantha, Bhavnagar, Gandhinagar, Jamnagar, Junagarh, Kachchh, Mahesana	-
7. Haryana	Ambala, Bhiwani, Faridabad, Gurgaon, Hissar, Jind, Kurukshetra, Karnal, Mahendergarh, Rohtak, Sonapat, Sirsa	-
8. Himachal Pradesh	Una	-
9. Jammu & Kashmir	Kathua	-
10. Jharkhand	Palamu, Sahebganj	-
11. Karnataka	Bijapur, Bangalore, Belgaum, Bellary, Chiradurga, Dharwar, Gulbarga, Hassan, Kolar, Mandya, Raichur, Shimoga	-
12. Kerala	Idukki, Kottayam, Palghat, Pathanamthitta, Mallapuram	-
13. Madhya Pradesh	Bhind, Bhopal, Chhindwara, Dhar, Dewas, Gwalior, Indore, Khandwa, Mandsaur, Morena, Shivpuri, Sheore, Ujjain	-
14. Maharashtra	Ahmednagar, Amravati, Akola, Aurangabad, Bhandara, Beed, Buldana, Chandarpur, Gadchiroli, Dhule, Jalgaon, Jalna, Kolhapur, Latur, Nagpur, Nanded, Osmanabad, Pune, Sangli, Satara, Sholapur, Thane, Wardha	-
15. Orissa	Anugul, Baragarh, Bolangir, Boudh, Cuttack, Ganjam, Jagatsinghpur, Kalahandi, Keonjhar, Malkangiri, Nawapara, Rayagada, Sambalpur, Sundargarh	-
16. Punjab	Bhatinda, Faridkot, Ferozepur, Patiala, Sangrur	-
17. Rajasthan	Ajmer, Alwar, Bharatpur, Bikaner, Bundi, Churu, Dholpur, Ganganagar, Jaipur, Jaisalmer, Jhalawar, Jhunjhunu, Jodhpur, Nagaur, Sawai Madhopur, Udaipur	-
18. Tamil Nadu	Coimbatore, Periyar, Salem, NA Ambedkar Nagar, T. Kottabomman, Dindigul-Anna, V.R. Padayachi	-
19. Uttar Pradesh	Aligarh, Agra, Banda, Etawah, Ghaziabad, Hamirpur, Jaunpur, Jhansi, Kanpur, Mainpuri, Mathura, Pilibhit	Ballia
20. Uttaranchal	Nainital	-
21. West Bengal	Uttar Dinajpur, Malda, Birbhum, Murshidabad, Nadia, Bankura, Purulia, Howrah, Medinipur	Bardhaman, Howrah, Hoogli, Malda, Murshidabad, Nadia, North 24 Parganas, South 24 Parganas
22. U.T. of Chandigarh	Chandigarh	-

ANNEXURE-II

(REFERENCE LOK SABHA STARRED QUESTION NO. *402 DATED 25.04.2005)
STATE-WISE RELEASES MADE UNDER ACCELERATED RURAL WATER SUPPLY PROGRAMME (ARWSP), DEPARTMENT OF DRINKING WATER SUPPLY, MINISTRY OF RURAL DEVELOPMENT (INCLUDING NORMAL-ARWSP, DESERT DEVELOPMENT PROGRAMME (DDP) AND NATURAL CALAMITIES)

SL. NO.	STATE/UT	RELEASES (Rs. In Lakhs)		
		2002-2003	2003-2004	2004-2005
1	ANDHRA PRADESH	17823.92	13112.00	16418.40
2	ARUNACHAL PRADESH	3650.00	4102.40	6825.00

3	ASSAM	5252.50	5772.62	9565.62
4	BIHAR	3703.00	3159.50	8941.03
5	CHHATTISGARH	2943.00	2574.00	2269.80
6	GOA	0.00	0.00	0.00
7	GUJARAT	9997.75	8458.00	6696.35
8	HARYANA	3346.00	2662.00	2707.00
9	HIMACHAL PRADESH	8229.00	5137.00	5438.20
10	JAMMU & KASHMIR	11196.39	12850.63	12833.60
11	JHARKHAND	1949.80	2060.00	2752.83
12	KARNATAKA	14355.36	12062.00	12677.44
13	KERALA	1899.30	4268.71	4401.00
14	MADHYA PRADESH	9586.08	7310.00	7945.00
15	MAHARASHTRA	19336.24	15710.00	15971.00
16	MANIPUR	947.00	1624.15	2103.00
17	MEGHALAYA	2935.50	1811.78	2613.87
18	MIZORAM	2097.00	1386.00	1810.00
19	NAGALAND	2181.00	1626.73	1702.00
20	ORISSA	5829.80	4713.81	6934.00
21	PUNJAB	3081.00	2269.00	2815.00
22	RAJASTHAN	23595.96	23368.51	30439.76
23	SIKKIM	895.50	763.00	731.00
24	TAMILNADU	7558.00	6269.00	8494.13
25	TRIPURA	2427.60	1903.00	1575.13
26	UTTAR PRADESH	11349.46	10457.00	13455.00
27	UTTARANCHAL	3683.00	2371.50	3265.47
28	WEST BENGAL	10115.00	6827.00	8270.21
29	A&N ISLANDS	0.00	0.00	2037.00
30	D&N HAVELI	0.00	0.00	0.00
31	DAMAN & DIU	0.00	0.00	0.00
32	DELHI	0.00	0.00	0.00
33	LAKSHADWEEP	0.00	0.00	0.00
34	PONDICHERY	0.00	0.00	100.00
TOTAL:		189964.16	164629.34	201787.84