

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. As per information received from Government of Bihar, Minor Water Resources Department (MWRD) of Government of Bihar (GoB) has constructed Ahar systems which receive water from these rivulets. These Ahar systems are used for irrigation as well as recharge of groundwater.

#### **Improving groundwater quality**

1586. SHRI VIJAY PAL SINGH TOMAR: Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION be pleased to state:

(a) whether Government is aware that groundwater in various parts of the country has become poisonous;

(b) if so, the details thereof;

(c) whether Government has taken any steps to improve groundwater quality in the country; and

(d) if so, the details thereof along with the funds allocated, sanctioned and utilized therefor and the details of progress made therein, State-wise and region-wise during the last three years?

THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION (SHRI ARJUN RAM MEGHWAL): (a) and (b) Central Ground Water Board (CGWB) under the Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD and GR) monitors groundwater quality periodically to ascertain the magnitude and extent of different contaminants in groundwater. The groundwater quality data is shared with concerned State Governments for taking necessary remedial measures. States-wise details of affected districts with groundwater contamination by different chemical constituents are given in the Statement (*See* below).

(c) and (d) Water being a State subject, initiatives for water management including its improvement in quality is primarily States' responsibility.

For improving the coverage of safe drinking water to rural populations, the Ministry of Drinking Water and Sanitation supplements the efforts of the States by providing them with technical and financial assistance through the centrally sponsored National Rural Drinking Water Programme (NRDWP).

CGWB generally carries out exploratory drilling to delineate contamination free aquifer zones and the data/information so generated, is shared with States/ Union Territories. The data/information may be used by States/Union Territories for constructing contamination free wells.

The Central and State Pollution Control Boards are also implementing the Water (Prevention and Control of Pollution) Act, 1974 to prevent/control river pollution and to restore water quality.

As informed by Central Pollution Control Board, following steps have been taken to prevent/control ground water pollution:—

- (i) Regulation of industrial pollution has been implemented through various provisions of Water (Prevention and Control of Pollution) Act, 1974 by issuing 'consent to establish' and 'consent to operate' by the respective State Pollution Control Board (SPCB) and Pollution Control Committee (PCC).
- (ii) CPCB has issued directions under Section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 to SPCBs/PCCs on 21.4.2015 for treatment and utilization of sewage.
- (iii) CPCB has issued directions under Section 5 of the Environment (Protection) Act, 1986 for 'Treatment and Utilization of Sewage for Restoration of Water Quality of River' to Municipal Commissioners of 46 metropolitan cities and 20 State capitals on 9th October, 2015.
- (iv) Directions were issued under Section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 to seven Ganga River Basin SPCBs (Uttar Pradesh, Uttarakhand, Chhattisgarh, Haryana, Madhya Pradesh, Bihar and West Bengal SPCBs) to ensure implementation of 'Zero Liquid Discharge' in molasses based distilleries during the year 2016 for protection of the water quality of rivers and streams in Ganga River Basin.
- (v) With respect to industrial effluents, consent management for compliance of standards is being enforced by SPCBs/PCCs to improve the water quality of the rivers.
- (vi) The continuous water quality monitoring systems are being established on industrial units in the country through the directives issued by CPCB for getting real time information on the effluent quality and non-complying units had been identified and appropriate actions taken.

*Statement*

*State-wise Number of Partly Affected Districts with different contaminants in Groundwater of India*

| Sl. No. | State/UT          | Salinity (EC above 3000 micro mhos/cm)<br>(EC: Electrical Conductivity) | Fluoride (above 1.5 mg/l) | Nitrate (above 45 mg/l) | Arsenic (above 0.01 mg/l) | Iron (above 1mg/l) | Lead (above 0.01 mg/l) | Cadmium (above 0.003 mg/l) |
|---------|-------------------|-------------------------------------------------------------------------|---------------------------|-------------------------|---------------------------|--------------------|------------------------|----------------------------|
| 1       | 2                 | 3                                                                       | 4                         | 5                       | 6                         | 7                  | 8                      | 9                          |
| 1.      | Andhra Pradesh    | 12                                                                      | 12                        | 13                      | 3                         | 7                  |                        |                            |
| 2.      | Telangana         | 8                                                                       | 10                        | 10                      | 1                         | 8                  | 2                      | 1                          |
| 3.      | Assam             |                                                                         | 9                         |                         | 19                        | 18                 |                        |                            |
| 4.      | Arunachal Pradesh |                                                                         |                           |                         |                           | 4                  |                        |                            |
| 5.      | Bihar             |                                                                         | 13                        | 10                      | 22                        | 19                 |                        |                            |
| 6.      | Chhattisgarh      | 1                                                                       | 19                        | 12                      | 1                         | 17                 | 1                      | 1                          |
| 7.      | Delhi             | 7                                                                       | 7                         | 8                       | 2                         |                    | 3                      | 1                          |
| 8.      | Goa               |                                                                         |                           |                         |                           | 2                  |                        |                            |
| 9.      | Gujarat           | 21                                                                      | 22                        | 24                      | 12                        | 10                 |                        |                            |
| 10.     | Haryana           | 18                                                                      | 21                        | 21                      | 15                        | 17                 | 17                     | 7                          |
| 11.     | Himachal Pradesh  |                                                                         |                           | 6                       | 1                         |                    |                        |                            |

|     |                   |    |    |    |    |    |    |   |
|-----|-------------------|----|----|----|----|----|----|---|
| 12. | Jammu and Kashmir |    | 2  | 6  | 3  | 9  | 3  | 1 |
| 13. | Jharkhand         |    | 12 | 11 | 2  | 6  | 1  |   |
| 14. | Karnataka         | 29 | 30 | 29 | 2  | 22 |    |   |
| 15. | Kerala            | 4  | 5  | 11 |    | 14 | 2  |   |
| 16. | Madhya Pradesh    | 18 | 43 | 51 | 8  | 41 | 16 |   |
| 17. | Maharashtra       | 25 | 17 | 30 |    | 20 | 19 |   |
| 18. | Manipur           |    | 1  |    | 2  | 4  |    |   |
| 19. | Meghalaya         |    | 1  |    |    | 6  |    |   |
| 20. | Nagaland          |    | 1  |    |    | 1  |    |   |
| 21. | Odisha            | 17 | 26 | 28 | 1  | 30 |    |   |
| 22. | Punjab            | 10 | 19 | 21 | 10 | 9  | 6  | 8 |
| 23. | Rajasthan         | 30 | 33 | 33 | 1  | 33 | 3  |   |
| 24. | Tamil Nadu        | 28 | 25 | 29 | 9  | 2  | 3  | 1 |
| 25. | Tripura           |    |    |    |    | 4  |    |   |
| 26. | Uttar Pradesh     | 13 | 34 | 59 | 28 | 15 | 10 | 2 |
| 27. | Uttarakhand       |    |    | 4  |    | 5  |    |   |
| 28. | West Bengal       | 6  | 8  | 5  | 9  | 16 | 6  | 2 |

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| 1   | 2                              | 3                                                 | 4                                                       | 5                                                       | 6                                                       | 7                                                       | 8                                                    | 9                                    |
|-----|--------------------------------|---------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------|--------------------------------------|
| 29. | Andaman and<br>Nicobar Islands | 1                                                 |                                                         |                                                         |                                                         | 2                                                       |                                                      |                                      |
| 30. | Daman and Diu                  | 1                                                 |                                                         | 1                                                       | 1                                                       |                                                         |                                                      |                                      |
| 31  | Puducherry                     |                                                   |                                                         | 1                                                       |                                                         |                                                         |                                                      |                                      |
|     | TOTAL                          | Parts of 249<br>districts in 18<br>States and UTs | Parts<br>of 370<br>districts in<br>23 States<br>and UTs | Parts<br>of 423<br>districts in<br>23 States<br>and UTs | Parts<br>of 152<br>districts in<br>21 States<br>and UTs | Parts<br>of 341<br>districts in<br>27 States<br>and UTs | Pb in<br>parts<br>of 92<br>districts in<br>14 States | Cd in 24<br>districts in<br>9 States |