

- (b) if so, the details thereof;
- (c) whether this device would be more useful to people living by river side and sea shores; and
- (d) how far it would help the above population in getting pure drinking water?

THE MINISTER OF STATE OF THE MINISTRY OF DRINKING WATER AND SANITATION (SHRI BHARATSINH SOLANKI): (a) and (b) As per information available from Birla Institute of Technology and Science (BITS), Pilani, they have collaborated with Central Electronic Engineering Research Institute (CEERI) Pilani and developed a prototype biosensor device that detects arsenic content in water. This device detects the light signal generated by bacteria in response to the arsenic content in water. The light signal is converted to electrical signal and the intensity of signal is finally displayed in terms of concentration of arsenic in parts per billion (ppb). While BITS Pilani has developed the bacterial strain, CEERI has developed and fabricated the prototype device.

(c) and (d) The preliminary field trials conducted with the help of prototype device has shown that the device can detect arsenic level as low as 1.0 ppb (equivalent to 1 microgram per liter), while the permissible limit of total arsenic in drinking water as per Bureau of Indian Standards IS-10500-2012 is 50 ppb.

#### **Targets under sanitation programme**

†981. SHRI MAHENDRA SINGH MAHRA: Will the Minister of DRINKING WATER AND SANITATION be pleased to state:

- (a) whether any targets have been fixed for every districts of the country, especially rural districts, including those in Uttarakhand, under the sanitation programme;
- (b) if so, the details thereof;
- (c) if not, whether such targets are likely to be fixed in future; and
- (d) the details of the funds provided to the districts in Uttarakhand since financial year 2009-10 till date under the rural sanitation programme?

THE MINISTER OF STATE OF THE MINISTRY OF DRINKING WATER AND SANITATION (SHRI BHARATSINH SOLANKI): (a) and (b) Yes, Sir. District-wise

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†Original notice of the question was received in Hindi.

objectives have been fixed for all rural districts including those in Uttarakhand. Details are at Annexure [See Appendix 227 Annexure No. 9].

(c) Does not arise.

(d) Details of the funds provided to the districts in Uttarakhand since financial year, 2009-10 till date under the rural sanitation programme is given in Statement.

**Statement**

*Fund released to Districts of Uttarakhand by Government of India  
since 2009-10 to 2012-13 (Upto October, 2012)*

(Rs. in crore)

| Sl. No. | State       | District          | Fund released<br>(Since 2009-10 to 2012-13<br>Upto October, 2012) |
|---------|-------------|-------------------|---|
| 1.      | Uttarakhand | Almora            | 6.12  |
| 2.      | Uttarakhand | Bageshwar         | 2.75  |
| 3.      | Uttarakhand | Chamoli           | 3.03  |
| 4.      | Uttarakhand | Champawat         | 2.68  |
| 5.      | Uttarakhand | Dehradun          | 6.85  |
| 6.      | Uttarakhand | Haridwar          | 3.79  |
| 7.      | Uttarakhand | Nainital          | 1.71  |
| 8.      | Uttarakhand | Pauri (Garhwal)   | 2.74  |
| 9.      | Uttarakhand | Pithoragarh       | 1.49  |
| 10.     | Uttarakhand | Rudraprayag       | 1.67  |
| 11.     | Uttarakhand | Tehri Garhwal     | 6.97  |
| 12.     | Uttarakhand | Udham Singh Nagar | 3.34  |
| 13.     | Uttarakhand | Uttarkashi        | 2.42  |
| TOTAL:  |             |                   | 45.57   |