

**GOVERNMENT OF INDIA
WATER RESOURCES
LOK SABHA**

UNSTARRED QUESTION NO:2106
ANSWERED ON:06.12.2012
QUALITY OF RIVER WATER
Kateel Shri Nalin Kumar

Will the Minister of WATER RESOURCES be pleased to state:

- (a) whether water quality of all rivers in the country is deteriorating gradually;
- (b) if so, whether the Government has conducted any study to find out the quality level of water of all rivers;
- (c) if so, the details of the study; and
- (d) the steps taken/being taken by the Government to improve the quality of the water and the fund allocated for this purpose?

Answer

THE MINISTER OF WATER RESOURCES (SHRI HARISH RAWAT)

(a) to (c): The study of Water Quality data of 10 years (2000-09) at 396 locations in all the major river basins of India by the Central Water Commission has revealed that the water of some stretches of Ganga, Yamuna, Chambal, Sone and Wainganga are not fit for drinking purposes. Salient features of the study are enclosed at Annexure. In addition, Central Pollution Control Board alongwith State Pollution Control Boards monitors water quality of rivers in terms of Dissolved Oxygen, Bio-chemical Oxygen Demand and Fecal Coliforms. Based on Bio-chemical Oxygen Demand levels, Central Pollution Control Board has identified 150 polluted river stretches on 121 rivers in the country.

(d): For improving the quality of the water, both the Central and the State Governments have taken various steps such as interception and diversion of raw sewage, setting up sewage treatment plants, creation of low-cost sanitation facilities, setting up of electric/improved wood crematoria, installation of Common Effluent Treatment Plants and river front development. Under the National River Conservation Plan, which aims at ameliorating the water quality, projects for an amount of Rs. 8847.22 crores have been sanctioned as on October 31, 2012, against which Rs. 4559.60 crores has been released to the State Governments.

Annexure referred to in reply to the Unstarred Question No. 2106 to be answered on 6.12.2012 in Lok Sabha regarding "Quality of River Water". Salient Features of the Study

The report attempts to provide the water quality scenario of our rivers viz-a-viz Bureau of Indian Standard (BIS) and other Standards. The report is based on the average values observed during the last 10 years at CWC monitoring Stations.

High values of pH greater than 8.5 are observed during the Monsoon season (July – September) at 2 water quality stations at Seondha and Gummanur. During the non-monsoon season (October – June), high values of pH greater than 8.5 are found at 12 water quality stations in 8 states. (BIS recommended range for pH is 6.5 to 8.5).

High values of Electrical Conductance (EC) in excess of 3000 micro Siemens per centimeter ($\text{\AA}\mu\text{S/cm}$) are observed at 3 water quality stations spread in 3 states. (BIS recommended limit for EC is 750 $\text{\AA}\mu\text{S/cm}$ that can be extended to 3000 $\text{\AA}\mu\text{S/cm}$ in case of no alternate source available).

One water quality station in the state of Tamilnadu has Chloride concentration in excess of 1000 milligram per litre (mg/l). (BIS recommended limit for Chloride concentration is 250 mg/l that can be extended to 1000 mg/l in case of no alternate source available).

Water having Fluoride concentration of more than 1.5 mg/l is not suitable for drinking purposes. Fluoride concentration more the 1.5 mg/l is observed at 15 water quality stations in 10 states. (BIS recommended limit for Fluoride concentration is 1.0 mg/l that can be extended to 1.5 mg/l in case of no alternate source available).

All the water quality stations of CWC have Nitrate concentration within the permissible limit.

Water having Sulphate concentration more than 400 mg/l is not suitable for drinking purposes. Sulphate concentration more than 400 mg/l is observed during Monsoon season at one water quality station in the state of Madhya Pradesh.

The permissible Iron concentration in surface water is less than 1.0 mg/litre as per the BIS Standard for drinking water. High concentration of iron greater than 1.0 mg/l is observed at 22 water quality stations in 6 states.

All the water quality stations of CWC have Calcium concentration within the permissible limit.

Water having Magnesium concentration of more than 100 mg/l is not suitable for drinking purposes. Relatively high value of Magnesium in excess of 100 mg/l is observed at one water quality station in the state of Tamilnadu.

BIS has recommended 5.0 mg/l concentration of Dissolved Oxygen (DO) for outdoor bathing. Dissolved Oxygen below 5.0 mg/l is observed at 17 water quality stations in 9 states.

BIS has recommended 3.0 mg/l concentration of Biochemical Oxygen Demand (BOD) for outdoor bathing. Relatively high values of BOD (more than 3.0 mg/l) are observed at 37 water quality stations in 14 states.

As per CPCB guidelines, for outdoor bathing, the Total Coliforms count should be equal to or less than 500 Most Probable Number per Hundred milliliter (MPN/100ml). Most of the middle and lower stretches of Indian rivers are high in Total Coliforms. It has been reported that stretches which are high in BOD have high Total Coliforms and Fecal Coliforms also.

All the water quality stations of CWC have Arsenic concentration within the permissible limit prescribed by BIS.