

(b) Water being State subject, initiatives on water management including taking suitable action related to ground water quality/making groundwater pollution-free in the country is primarily States' responsibility. However, the important measures taken by the CPCB in this regard are as under:

- (i) CPCB in association with State Pollution Control Boards/Pollution Control Committees (SPCBs/PCCs) is implementing the provisions of The Water (Prevention and Control) Act, 1974 and The Environment (Protection) Act, 1986 to prevent and control of aquatic resources from pollution.
 - (ii) Establishment of Common Effluent Treatment Plants (CETPs) for cluster of Small Scale Industries.
 - (iii) 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.
- (c) No such information is immediately available with the Ministry.

Impact of climate change on water reserves

3293. SHRI DEREK O' BRIEN: Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether Government has undertaken any study to evaluate the impact of climate change on available water reserves in the country;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether Government has taken any steps to control the negative impacts of climate change in the country; and
- (d) if so, the details thereof and if not, the reasons therefor?

THE MINISTER OF STATE IN THE MINISTRY OF JAL SHAKTI (SHRI RATTAN LAL KATARIA): (a) and (b) Impact of climate change on water resources is a dynamic process and its quantum of this impact varies from time to time due to variable nature of climatic conditions. Therefore, studies on linkages between climate change and availability of water resources require periodic upgradation. Accordingly, various agencies of the Government of India undertake research and development studies on the effect of climate change on various dimensions of water from time to time depending upon

the prevailing conditions gauging the systematic linkages between climate and water.

Department of Water Resources, River Development and Ganga Rejuvenation extends financial assistance for undertaking research and development projects on impact on climate change on water resources. The Department has initiated studies to study the impact of climate changes on the water resources, the details of some of which are given below:

- (i) Impact Assessment of Climate Change on Hydro-meteorological processes and Water Resources of Mahanadi River Basin.
- (ii) Climate change impact studies for Rajasthan Area of inland drainage and Mahi basin.
- (iii) Impact of Climate Change on Water Resources of Tapi Basin.
- (iv) Effects of Climate Change and land use/landcover changes on spatial and temporal water availability in Subarnarekha Basin.
- (v) Impact of Climate Change on Water Resources of Sabarmati Basin.
- (vi) Impact of Climate Change on Water Resources in River Basins from Tadri to Kanyakumari.

Besides, two studies, namely, 'Statistical Downscaling for hydro-climatic projections with CM, Simulations to assess Impact of Climate Change' and 'Dynamic Downscaling to study Climate change Impacts on Water Resources in India'. Also, Dynamic Ground Water Resources of the country are periodically assessed jointly by Central Ground Water Board (CGWB) and State Governments. National Mission for Clean Ganga have awarded a project titled 'High Resolutions Climate Scenarios for Basin Scale Water Resource Management'.

(c) and (d) In order to control negative impact on climate change in the country, the Government is implementing National Action Plan of Climate Change (NAPCC) which comprises of eight Mission in the specific areas of solar energy, enhanced energy efficiency, water, sustainable agriculture, Himalaya ecosystem, sustainable habitat, green India and strategic knowledge on climate change. Climate actions at the state level are based on the State Action Plans on Climate Change (SAPCC). 33 States/Union Territories have prepared their SAPCC in line with the NAPCC. Government of India has also embarked upon ambitious actions in the areas of renewable energy, afforestation, energy efficiency and sustainable urban development.

According to India's 2nd Biennial Update Report 2018, implementation of NAPCC and other measures have led to reduction of emission intensity of GDP by about 21% between 2005 and 2014, against India's voluntary pledge to reduce the emission intensity of its GDP by 20-25% by 2020, compare with the 2025 level. The Nationally Determined Contributions (NDCs) submitted to the United Nations Framework Convention on Climate Change (UNFCCC) under the Paris Agreement, have to be implemented during the period 2021-2030.

Desiltation and rejuvenation of all major rivers

3294. SARDAR BALWINDER SINGH BHUNDER: Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether it is a fact that the major rivers in the country have become highly polluted and are considered a threat to the health of the people living along its banks and otherwise and if so, the details thereof;
- (b) whether it is also a fact that there is a need to do desilting and rejuvenation of all the major rivers; and
- (c) if so, the details thereof and the action to be taken thereon?

THE MINISTER OF STATE IN THE MINISTRY OF JAL SHAKTI (SHRI RATTAN LAL KATARIA): (a) Pollution load in rivers has increased over the years due to rapid urbanization and industrialization. Rivers in the country are polluted mainly due to discharge of untreated and partially treated sewage from cities/towns and industrial effluents. Central Pollution Control Board (CPCB) in collaboration with the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) is regularly monitoring the water quality of rivers and other water bodies in the country through a network of monitoring stations. As per CPCB report of September, 2018, 351 polluted river stretches have been identified on 323 rivers based on monitoring results in terms of Bio-chemical Oxygen Demand (BOD) levels, an indicator of organic pollution. State-wise details of polluted river stretches are given in the Statement (*See* below).

(b) and (c) This issue of desilting of rivers has been considered by Government since long. In this regard, Government constituted a Committee under the chairmanship of former Chairman, Central Water Commission, Dr. B.K. Mittal in October, 2001. The Committee found that desilting of rivers in general is not technically feasible due to several reasons like non-sustainability, non-availability of vast land required for the