

Future of ground water

2787. SHRI T.M. SELVAGANAPATHI: Will the Minister of WATER RESOURCES be pleased to state:

(a) whether it is a fact that a study report had indicated that future of water will be in danger if the current trends in its usage continue;

(b) if so, the details thereof;

(c) whether it is also a fact that the 432 bcm of ground water could be replenished if the necessary measures were taken; and

(d) if so, the steps taken by Government in this regard?

THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES (SHRI VINCENT PALA): (a) and (b) As per the report titled "India Infrastructure Report 2011" brought out by Infrastructure Development Finance Company, India's water future is in danger if current trends in its use continue. The report states that the total utilizable water in the country is 1,122 bcm, which appears to be just about sufficient to meet our present needs. Since the total available water is more or less constant, rising demands due to population and economic growth will strain the demand-supply balance. The Water Resources Group estimates that if the current pattern of demand continues, about half of the demand for water will be unmet by 2030 (WRG 2009). The report also states that of the 20 major river basins in India, 14 are already water-stressed. Nearly three-fourth of India's population lives in water-stressed regions (where per capita availability is less than 2,000 cubic metres per year) of which one-third of the region is in water scarce areas (where per capita water availability is less than 1,000 cubic metres per year). Climate change will further aggravate the problem by causing erratic weather patterns. More extreme rates of precipitation and evapo-transpiration will cause more instances of droughts and floods, with disparate and complex effects at the sub-basin level

(c) 432 bcm of ground water is the estimated quantum that is replenished annual through natural recharge, seepages from canals, water bodies etc. As per the latest assessment of ground water resources carried out jointly by State Ground Water Organizations and Central Ground Water Board, as on 2009, the annually replenishable ground water resources in the country have been re-estimated as 431 bcm. Based on various scientific studies carried out to demarcate the areas where decline of ground water level is on continuous basis and identify areas feasible for recharge, a concept report titled 'Master Plan for Artificial Recharge to Ground Water' has been prepared by Central Ground Water Board, according to which a total of 9.42 lakh sq.km, area in the country is feasible for artificial recharge. It has been estimated that annually about 86 bcm of surplus monsoon runoff can be

recharged to augment ground water through construction of 111 crore recharge structures of various types in urban and rural areas.

(d) 'Water' being a State subject, necessary steps to implement artificial recharge measures are undertaken by the State Governments. Central Ground Water Board/ Authority has been promoting implementation of rain water harvesting and artificial recharge through various measures as listed below:

- Central Ground Water Board has prepared a Manual on artificial recharge to ground water which provides guidelines on investigated techniques for selection of sites, planning and design of artificial recharge structures, economic evaluation and monitoring of recharge facility. The manual has been circulated to user agencies.
- States have been advised for making rainwater harvesting mandatory. In pursuance thereof, 18 States and 4 UTs have made rain water harvesting mandatory under building bye-laws.
- Directions have been issued to Chief Secretaries/Administrators of all the States/Union Territories and Ministry of Urban Development to take necessary action to adopt rain water harvesting/artificial recharge on all the Government buildings.
- Directions have been issued to all the Residential Group Housing Societies/Institutions/Schools/Hotels/Industrial Establishments falling in the over-exploited and critical areas (except in the water logged areas) in the country to adopt Roof Top Rain Water harvesting systems in their premises.
- Directions have been issued for Implementation of ground water recharge measures along all National Highways, State Highways and other major roads by CRRI, National Highways Authority of India, CPWD, State PWDs; along rail tracks by Indian Railways; in the Stadia by Sports Authority of India, BCCI, Departments of sports and Youth Affairs and in the Airports by Airport Authority of India, Ministry of Civil Aviation for Promoting Rain Water Harvesting/adoption of artificial Recharge to Ground Water in the country (except in the water logged areas).
- Government has constituted Advisory Council on Artificial Recharge to Ground Water in the year 2006 under the Chairmanship of Hon'ble Minister of Water Resources with the main objective of popularizing concept of artificial recharge among stakeholders as well as water managers.

- The Ministry of Water Resources has instituted 20 Ground Water Augmentation Awards and National Water Award to encourage Non-Governmental Organizations (NGOs)/Gram Panchayats/Urban Local Bodies/Institutions/Corporate Sector and Individuals for adopting innovative practices of ground water augmentation by rainwater harvesting and artificial recharge, promoting water use efficiency, recycling and re-use of water and creating awareness through people's participation.
- Ministry of Water Resources have circulated to the States/UTs the Model Bill to Regulate and Control Development of Ground Water', which provides for making rooftop rain water harvesting mandatory. So far 11 States/Union Territories namely Andhra Pradesh, Bihar, Goa, Himachal Pradesh, Kerala, Tamil Nadu, West Bengal, Chandigarh, Dadra and Nagar Haveli, Lakshadweep and Puducherry have enacted ground water legislation.
- Central Ground Water Board organizes IEC activities like mass awareness and training programmes, painting completion, displaying models in exhibitions and fairs, printing of Meghdoot cards, display of hoardings at prominent public places etc.

Proposal for dam projects

2788. SHRI T.M. SELVAGANAPATHI: Will the Minister of WATER RESOURCES be pleased to state:

- (a) whether it is a fact that Government had received many proposals from State Governments to fast track dam projects in the country;
- (b) if so, the details thereof;
- (c) whether it is also a fact that many States were creating hindrances in creation or addition of dam level; and
- (d) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES (SHRI VINCENT PALA): (a) and (b) Presently, 51 major/medium projects from various states have been getting central assistance under Accelerated Irrigation Benefits Programme (AIBP) from Government of India including execution of dam portion in the project.

Apart from this, at present 13 proposals of Major/Medium irrigation projects which include execution of dam portion also are under various stages of appraisal in CWC.