GOVERNMENT OF INDIA
MINISTRY OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. 2611
ANSWERED ON 01.12.2016

STUDY ON DEPLETION IN GROUND WATER RESERVES

2611. SHRI M. CHANDRAKASI:

Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION be pleased to state:

(a) whether the National Geophysical Research Institute (NGRI) has undertaken any study to assess ground water reserves in the country, if so, the details thereof;
(b) the percentage of run-off water from monsoon rains which is harnessed through check-dams for irrigation and improve ground water reserves in the country; and
(c) the quantum and percentage of monsoon rain water being drained into seas every year and the proposed action plan of the Government to fully utilize this water in the country?

ANSWER

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION

(DR. SANJEEV KUMAR BALYAN)

(a) As per the information received, the National Geophysical Research Institute (NGRI), Hyderabad under the Council of Scientific and Industrial Research (CSIR) has carried out geophysical studies in six representative geological formations in the Country in the States of Rajasthan, Bihar, Maharashtra, Karnataka and Tamil Nadu using advanced technology of heliborne geophysics and determined the detailed model for aquifer geometry and structure delineating the principal aquifers present there. Through satellite observations and models estimates of water storages are also obtained.

NGRI has also used injected tritium tracer technique to evaluate dynamic groundwater reserves in various watersheds and basins located in different climatic hydro-geological provinces during the last 3 decades.

(b) The percentage of run-off from monsoon rainfall harnessed through check dams is not maintained centrally. However, as per the information received, NGRI has carried out experimental studies in percolation tanks and check dams located in hard rock granite and basalt terrain of southern and central India through tracer, isotope and hydro-geological techniques. The studies demonstrate that the recharge potential is 30-40 % of the total water harnessed in the storage structures.

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(c) According to Central Water Commission, the estimated run-off to sea can be considered approximately as 1174 BCM.

Water being a State subject, steps for augmentation, conservation and efficient management to ensure sustainability of water resources are undertaken by the respective State Governments. State Governments conceive, plan and implement major, medium and minor schemes (both surface and ground water) for utilization of water resources. However, various steps taken by the Government to utilize this water are as follows:

- The National Water Policy (2012) formulated by Ministry of Water Resources, RD & GR, inter-alia, advocates conservation, promotion and protection of water including the need for optimum utilization of available water, enhancing water use efficiency, water harvesting, water shed development and revival of water bodies. The National Water Policy (2012) has been forwarded to all State Governments/ UTs and concerned Ministries/ Departments of Central Government for adoption
- Further, Government of India has formulated a National Perspective Plan for Water Resources Development which envisages transfer of water from surplus basins to water deficit basins.
- The Department of Rural Development has prioritized work related with Natural Resources Management (including water harvesting) under MGNREGA and has issued a joint framework with the Ministry of Water Resources and Department of Land Resources. For FY 2016-17, the States have taken up a target of 8,82,325 farm ponds.
- 1,44,876 Check Dams have been constructed under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) from 2013-14. In addition to above, 7108 check Dams were constructed from 2013-14 onwards under the scheme of NRDWP (National Rural Drinking Water Programme) of Ministry of Drinking Water and Sanitation
- CGWB has also prepared a conceptual document on "Master Plan for Artificial Recharge to Ground Water in India" in the year 2002, which was subsequently revised in the year 2013, which envisages construction of different types of artificial recharge and rainwater harvesting structures in the Country. The Master Plan envisages constructionof **1.11** crore rain water harvesting and artificial recharge structures in the Country at an estimated cost of Rs. 79,178 Crore to harness 85 BCM (Billion Cubic Meter) of water. The Master Plan has been circulated to all State Governments for implementation.

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