

Open Source Drug Discovery, Network Projects, Climate Change Studies, National Biotechnology Development Strategy etc. in the XI Plan period demonstrated the commitment of the Government to encourage and promote research in a better scientific environment. Significant enhancement of S and T support system has been recorded in the last three years. This includes reaching of INSPIRE programme in every part of the country, creation of a new structure for basic research by establishing a Science and Engineering Research Board (SERB) in the country as an autonomous body through an Act of Parliament etc.

(e) S and T Departments have made detailed plans with substantial increase of investment in the XII Plan period. This includes initiation of Grand Challenge Programmes; launching PAN-India missions to address national priorities in various developmental sectors particularly in the areas of Health, Water, Energy, Food; setting up Peta scale supercomputing facilities for various applications in prime domains like climate modelling, weather prediction, aerospace engineering, computational biology, atomic energy simulations, earthquake simulations, national security etc. Increase R and D expenditure to 2% of GDP with sizable contribution from the corporate sector by attracting investments and engagement of the corporate sector into R and D is another significant action plan.

#### **Installation of guage recorder**

†4946. SHRI ASHK ALI TAK: Will the Minister of WATER RESOURCES be pleased to state:

(a) whether Government proposes to install a gauge recorder at RD 86.5 in place of RD 45 in Bikaner and if so, by when; and

(b) whether Government proposes to install gauge recorder at the linking point of the Sirhind feeder canal Rajasthan instead of installing the same at the Sirhind feeder head and if so, by when?

THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES (SHRI VINCENT PALA): (a) As informed by Bhakra Beas Management Board (BBMB), it was decided in 84th meeting of Irrigation Sub Committee of BBMB held on 31.01.2012 to install the automatic stage recorder at RD 86,500 of Bikaner canal by Rajasthan under their ongoing Supervisory Control And Data Acquisition (SCADA) scheme. The installation is thus dependent on Rajasthan Government. BBMB has further informed that if necessity arose, after installation of automatic stage recorder at RD 86,500, the gauge could also be provided at RD 45,000 of Bikaner canal.

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† Original notice of the question was received in Hindi

(b) As per BBMB, the site referred to is not clear but a site namely, Rajasthan Feeder d/s of Link with Sirhind Feeder has been approved in the BBMB Board's 208th meeting held on 21.10.2011, for implementation under the World Bank funded Hydrology Project. The installation of the gauge recorder at this site is therefore dependent on the implementation of the World Bank funded Hydrology Project.

#### **Management of ground water**

4947. SHRI PIYUSH GOYAL: Will the Minister of WATER RESOURCES be pleased to state:

(a) whether it is a fact that aquifer mapping is not commonly done in India before digging for ground water;

(b) if so, the details thereof;

(c) whether Government is taking active steps to promote and encourage better ground water management in the country;

(d) if so, the details thereof; and

(e) if not, the reasons therefor?

THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES (SHRI VINCENT PALA): (a) and (b) Central Ground Water Board under the Ministry of Water Resources carries out aquifer delineation through hydrogeological surveys, geophysical surveys and ground water exploration to delineate potential aquifer zones worthy of ground water development. All the scientific data on aquifer characteristics thus collected are provided to the state agencies for enabling them in planning, development and management of ground water resources. However, a large number of tube wells are owned by individuals for various uses, most of which are constructed without any systematic scientific study.

(c) and (d) Various steps being undertaken by the Central Ground Water Board to promote and encourage better ground water management are as follows:

- Central Ground Water Board is taking up aquifer mapping during the Twelfth Plan, which will lead to more accurate assessment of ground water resources, defining aquifer geometry and potential including water quality. This will provide better insight for ground water management.
- Ministry of Water Resources has circulated the Model Bill to regulate and control development and management of ground water. So far