GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION No. 4363
TO BE ANSWERED ON FRIDAY, DECEMBER 13, 2019

ALLOCATION OF FUNDS FOR R&D

4363. SHRI VISHNU DAYAL RAM:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the Government proposes to increase the allocation of fund for Research and Development (R&D) in Earth Sciences and if so, the details thereof;
(b) the percentage of GDP incurred on R&D initiatives in Earth Sciences during the last three years;
(c) the other plans of the Government to attract students for research in Earth Sciences and give fruitful results; and
(d) whether scientists are given world class facilities, equipment, resources, and packages to carry on their research, etc. and if so, the details thereof?

ANSWER
MINISTER FOR SCIENCE AND TECHNOLOGY AND
MINSITRY OF EARTH SCIENCES
(DR. HARSH VARDHAN)

(a) Yes Sir. There has been a gradual increase in the allocation of funds for Research and development in the earth sciences over the recent years. The year-wise total allocation including plan and non-plan for the last 3 years are as follows:

(Rs in Crores)

Year	RE	Actual Expenditure
2015-16	1420.98	1296.80
2016-17	1579.11	1459.76
2017-18	1597.69	1547.73

(b) The average percentage of expenditure incurred with respect to GDP for R&D initiatives in earth sciences during the last 3 years is 0.01.

(c) In order to attract the students for conducting research in the field of earth sciences, the Ministry of Earth Sciences had started Development of Skilled Manpower in Earth System Sciences (DESK) program. DESK was initiated to create a large pool of trained and dedicated multidisciplinary earth system and manpower in the country. Besides, an International Training Centre for Operational Oceanography has been set up in Hyderabad for development of skills to conduct front ranking research in the field of Ocean Sciences.

A set of five Project Appraisal and Monitoring Committees (PAMCs) and a Technology Research Board (TRB) have been constituted for appraisal, review and monitoring of the various projects for consideration for extramural funding. An Apex committee chaired by the Secretary has also been constituted to consider specific proposals recommended by these committees.

Under Earth Science & Technology Cell (ESTC), MoES supports theme based focused network R&D activities involving multi institutions with focused objectives and definite deliverables that can be translated into operational use. It also helps towards capacity building and creating adequate expertise in various disciplines of earth system Science for the benefit of society and national development.

During the period 2017-20, 11 projects are funded under the theme of Atmospheric Science including Climate Change; 33 projects under Geosciences; 10 projects under Hydrology & Cryosphere; 17 Projects under Seismology; 13 projects under Ocean science and 1 project under ESTC.

All these initiatives are expected to enhance the skill of the operational weather, climate, ocean state and multi-hazard services.

(d) Yes Sir. Scientists are being given world class facilities, equipment and resources to carry out the research in earth sciences. The major initiative for creation of such facilities are (i) geochronology laboratory to support contemporary cutting-edge research in isotope geochemistry and geochronology at the Inter-University Accelerator Centre (IUAC), New Delhi (ii) Scientific deep drilling in Koyna Intra-plate Seismic Zone of Maharashtra aimed at setting up of borehole observatories for better understanding of reservoir induced earthquakes (iii) provide logistic and scientific support to conduct front ranking research in the polar regions i.e., Antarctic and Arctic (iv) Supporting the Advanced Centre for Atmospheric Radar Research (ACARR) in Cochin University of Science and Technology (v) State of the art supercomputing facility at Pune and Noida, real-time data of various atmospheric and oceanographic parameters using systematic observations and field campaigns, and high resolution mathematical models for better prediction of weather and climate.

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