GOVERNMENT OF INDIA

MINISTRY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF SCIENCE AND TECHNOLOGY

RAJYA SABHA

UNSTARRED QUESTION No. 1246

ANSWERED ON 05/12/2024

CLUSTERING OF SCIENTIFIC EXCELLENCE

1246 Dr. Sikander kumar:

Will the Minister of Science and Technology be pleased to state:

(a) whether the clustering of scientific excellence and development has been contrived by boosting investments in scientific activities and manpower progress;

(b) if so, the details thereof;

(c) the funds allocated for encouraging innovations and infrastructure during the last two years in the State of Himachal Pradesh; and

(d) whether Government has taken any steps to boost creation of science and technology infrastructure in the State of Himachal Pradesh?

ANSWER

MINISTER OF STATE (INDEPENDENT CHARGE) FOR THE MINISTRY OF SCIENCE AND TECHNOLOGY & EARTH SCIENCES

(DR. JITENDRA SINGH)

(a) to (b): Yes, the clustering of scientific excellence is often the result of investments in Research and Development (R&D) , Innovation, Institutional & Human Capacity Building and collaborations. India's scientific workforce has expanded significantly by various funding schemes like Women in Science and Engineering-KIRAN (WISE-KIRAN), Innovation in Science Pursuit for Inspired Research (INSPIRE), Prime Minister Research Fellowship, and fellowships from Council of Scientific and Industrial Research (CSIR), Department of Biotechnology (DBT), and other scientific departments.

This sustained investment has translated into remarkable growth in India's scientific output. There has been a significant rise in the country's overall performance in terms of number of publications. India occupies 3rd rank in terms of number of PhDs awarded in Science and Engineering (S&E). India has seen a jump in its global ranking of Global Innovation Index (GII) from 81st in the year 2015 to 39th in 2024. Women's participation in extramural R&D has also doubled during last 10 years.

The Ministry of Science and Technology launched/implemented a range of innovative research and development schemes designed to transform and elevate the Science and Technology landscape.

i. The Department of Science & Technology (DST), is implementing National Mission on Interdisciplinary Cyber Physical Systems (NM-ICPS) and established 25 Technology Innovation Hubs (TIHs) in reputed institutes across the country in advanced technologies like Artificial Intelligence and Machine Learning, Internet of Things, Robotics, Cyber Security etc.
ii. DST plays a vital role in strengthening scientific infrastructure across the nation by establishing scientific facilities in academic and research Institutions through its schemes like the Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions, Promotion of University Research and Scientific Excellence (PURSE) and Consolidation of University Research for Innovation and Excellence (CURIE) and Sophisticated Analytical & Technical Help Institutes (SATHI) scheme.
iii. DST promotes Centre-State collaboration in Science and Technology (S&T) through its State Science and Technology Programme (SSTP).
iv. DST's National Initiative for Developing and Harnessing Innovations (NIDHI) programme to foster innovation and promoting entrepreneurship in technology.

v. Department of Biotechnology (DBT) also foster innovation, promote bio-entrepreneurship, accelerate research, enhance product development, and bridge the gap between academic research and industrial applications through Biotechnology Research Innovation and Entrepreneurship Development (Bio-RIDE) and Biotechnology Industry Research Assistance Council (BIRAC).

vi. CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT), Palampur has been identified as one of the Technology Partner under the "Indian Himalayan Central Universities Consortium (IHCUC)".

vii. Anusandhan National Research Foundation (ANRF) recently launched several flagship programs like Prime Minister's Early Career Research Grant (PMECRG), Partnerships for Accelerated Innovation and Research (PAIR) and Electric Vehicle Mission (EV-Mission).

(c) The funds allocated for encouraging innovations and infrastructures during the last two years in the State of Himachal Pradesh by different department/agency under Ministry of Science and Technology are as follows: -

Department/Agency	Fund Allocated (in crores)	
	2022-23	2023-24
DST	31.91	30.1
DBT	6.55	38.07
CSIR {Institute of Himalayan Bioresource Technology (IHBT)}	101.88	86.62
ANRF	10.45	12.79

(d) Yes. The Ministry of Science and Technology has actively supported numerous research and development projects across academic and research institutions through its various schemes. These initiatives aim to strengthen the creation of science and technology infrastructure in the State of Himachal Pradesh.

Over the past two years, a Technology Innovation Hub (TIH) named IIT Mandi iHub and HCI Foundation was established at IIT Mandi, focusing on the technology vertical of "Human-Computer Interaction". The iTBI-Uttishthati Foundation, set up at the National Institute of Technology (NIT) Hamirpur, serves as a technology business incubator, while a Technology Enabling Centre (TEC) was established at Career Point University, Hamirpur. The R&D infrastructure support was extended to six academic institutions through the FIST (Fund for Improvement of Science and Technology), PURSE (Promotion of University Research and Scientific Excellence), Consolidation of University Research for innovation and Excellence (CURIE) programs. Shoolini University, Solan received support under PURSE to enhance its R&D infrastructure.

The IHCUC (Indian Himalayan Central University Consortium) at CSIR-IHBT Palampur focuses on the unique challenges and opportunities in the Indian Himalayan Region (IHR).

The erstwhile SERB (now ANRF) has supported 69 research projects in Himachal Pradesh through various schemes, including the Core Research Grant (CRG), Startup Research Grant (SRG), State University Research Excellence (SURE), and the National Post-Doctoral Fellowship (NPDF). These projects have been implemented across diverse academic and research institutions, contributing significantly to the region's scientific advancement.

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