GOVERNMENT OF INDIA MINISTRY OF SCIENCE & TECHNOLOGY DEPARTMENT OF SCIENCE & TECHNOLOGY LOK SABHA UNSTARRED QUESTION No. 804 ANSWERED ON 05.02.2021

PROMOTING YOUTH IN THE FIELD OF SCIENCE AND TECHNOLOGY

804. SHRI MANOJ KOTAK: SHRIMATI CHINTA ANURADHA:

Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौदयोगिकी मंत्री be pleased to state:

- (a) whether Government has framed any policy to encourage the youth in the field of Science and Technology;
- (b) if so, the details thereof along with the achievements made therein; and
- (c) the steps taken by Government for promoting affordable and sustainable innovation in the field of Science and Technology?

ANSWER

MINISTER OF HEALTH AND FAMILY WELFARE; MINISTER OF SCIENCE AND TECHNOLOGY; AND MINISTER OF EARTH SCIENCES (DR. HARSH VARDHAN)

स्वास्थ्य और परिवार कल्याण मंत्री, विज्ञान और प्रौद्योगिकी मंत्री और पृथ्वी विज्ञान मंत्री (डॉ.हर्ष वर्धन)

- (a) Yes, Sir. Encouraging the youth in the field of Science and Technology (S&T) has been a part of the S&T Policy of the Government.
- (b) Promoting the spread of scientific temper amongst all sections of society; enhancing skill for applications of science among the young from all social strata; and making careers in science, research and innovation attractive enough for talented and bright minds are the first three key elements of Science, Technology and Innovation (STI) Policy 2013. The Policy also focused on investing in young innovators and entrepreneurs through education, training and mentoring.

Government has taken several steps and made significant achievements in encouraging youth in the field of S&T. This includes implementing schemes and programmes like Innovation in Science Pursuit for Inspired Research (INSPIRE), Scheme for Young Scientists and Technologists (SYST) of Department of Science and Technology (DST), National Postdoctoral Fellowship (N-PDF) and Start-up Research Grant (SRG) of Science and Engineering Research Board (SERB), Research Fellowship Schemes of Council of Scientific and Industrial Research (CSIR) and Department of Biotechnology (DBT), Research Associateship, Research and Development (R&D) project based Project Associates, Har Gobind Khorana-Innovative Young Biotechnologist Award of DBT etc.

Provisions to annually offer 50,000 students under INSPIRE Internship, 12,000 scholarships to meritorious students under the Scholarship for Higher Education (SHE), 1000 INSPIRE Fellowship to pursue doctoral research, 100 INSPIRE Faculty Fellowship to carry out post-doctoral research in basic and applied sciences demonstrate the commitment of the Government to attract, motivate, nurture and train talented and meritorious youth to study science subjects and opt for careers in R&D. Under INSPIRE Award MANAK (Million Minds Augmenting National Aspiration and Knowledge) scheme, in a year, ten lakh ideas are being targeted from more than five lakh middle and high schools across the country, out of which one lakh ideas are being shortlisted for an initial award of Rs. 10000/- each, directly into the bank accounts of the students through Direct Benefit Transfer for preparation of project/model/showcasing of idea. After a series of District Level and State level exhibitions, the top 60 innovations are selected from National Level Exhibition for whom incubation support is provided and also would be protected for Intellectual Property Rights (IPR). In addition, more than 750 young researchers are supported annually through N-PDF and SRG Schemes. At any given time, CSIR supports about 8000-9000 young researchers in their pursuit for doctoral and postdoctoral research in the field of science and technology.

(c) Government has taken several steps to promote affordable and sustainable innovations in the field of S&T. Promoting and Accelerating Young and Aspiring technology entrepreneurs (PRAYAS) under National Initiative for Developing and Harnessing Innovations (NIDHI) of DST supports conversion of an innovative idea into a working prototype developed by any innovator. For promoting affordable sustainable innovation in the field of S&T, the National Innovation Foundation

(NIF), an autonomous institution under DST organizes a biennial National Grassroots Innovation and Outstanding Traditional Knowledge Awards and for it, common people, including youth share their ideas and innovations. NIF provides value-addition and incubation support to the innovators so that their technologies can reach the market. NIF has also set up NIF Incubation and Entrepreneurship Council (NIFientreC), a Technology Business Incubator, for setting up and incubating commercial ventures based on innovative technologies of common people of the country. NIF has built an innovation portal which disseminates nearly 1.15 lakh innovations and many of them are affordable and sustainable.

Technical Research Centres (TRCs), set up within the Autonomous Institutions of DST have been instrumental in building R&D translation ecosystem by supporting advancements in technology readiness levels of background R&D capabilities and intellectual properties, streamlining multi-stakeholder involvement, technology out-licensing, setting-up platforms for start-ups, and strengthening state-of-the-art R&D infrastructure.

CSIR is implementing R&D as well as translational projects in various categories, namely, Focused Basic Research, Niche Creating Projects, Fast Track Translational Projects, Fast Track Commercialization Projects, HARIT Projects and Mission Projects for the purpose.

Department of Bio-Technology (DBT) is supporting affordable Healthcare R&D towards understanding the cause of human diseases at genetic and molecular level that enable the development of innovative therapies or preventive measures and early detection in areas like infectious diseases, chronic diseases, human genetics and genome analysis, maternal and child health, public health and nutrition, vaccine research, bioengineering and bio design, stem cells and regenerative medicine. DBT is also supporting translational research for application development under Accelerated Translational Grant for Commercialization (ATGC) program. ATGC enables academic researchers to take their laboratory research leads with established proof-of-concept to the next phase.
