# GOVERNMENT OF INDIA MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY LOK SABHA

UNSTARRED QUESTION No. 3360 TO BE ANSWERED ON 23.03.2022

#### **ECOSYSTEM TOWARDS INNOVATION**

### 3360. SHRI MANNE SRINIVAS REDDY: SHRI KOMATI REDDY VENKAT REDDY:

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

- (a) whether youngsters need an ecosystem to take the first step towards innovation in science and technology and develop skills for problem-based learning;
- (b) if so, the details thereof and the steps being taken; and
- (c) the details of steps being taken to encourage the students to develop an interest in innovation as early as the second grade and come up with solutions for problems affecting the society and the steps being taken to shift to problem-solving learning and foster innovation in youngsters/along with results yielded till date and if not, the time by which such steps will be taken?

### ANSWER

## MINISTER OF STATE (INDEPENDENT CHARGE) OF THE MINISTRY OF SCIENCE AND TECHNOLOGY & EARTH SCIENCES (DR. JITENDRA SINGH)

विज्ञान और प्रौद्योगिकी तथा पृथ्वी विज्ञान मंत्रालय के राज्य मंत्री (स्वतंत्र प्रभार) (डॉ. जितेंद्र सिंह)

- (a) & (b): Yes Sir. Creating an ecosystem to foster innovation in science & technology has been a part of Government's Science and Technology (S&T) policy. The Science, Technology and Innovation (STI) Policy of 2013 encourages students/youth of the country towards the field of science & technology and innovation. The key elements of STI Policy include promoting the spread of scientific temper amongst all sections of society, enhancing skill for application of science among the youth from all social strata, making careers in science, research and innovation attractive enough for talented and bright minds.
- (c): Government has been implementing several schemes to encourage students/ youth of the country towards the field of science and technology. The "Innovation in Science Pursuit for Inspired Research (INSPIRE)" is a major scheme to attract, motivate, nurture and train talented and meritorious students

to study science subjects, inculcate scientific temperament and opt for careers in Research and Development (R&D) to build a pipeline of quality manpower, thereby widening the R&D manpower base of the country. Close to 52,000 young students of class 6th - 10th receive the INSPIRE Award MANAK (Million Minds Augmenting National Aspiration and Knowledge) per year from recognized schools across the country. About 20,000 students per year attend INSPIRE Internship Camps to experience the joys of creative pursuit of science.

The vision of Atal Tinkering Lab initiative is to 'Cultivate 1 Million children in India as Neoteric Innovators'. The objective of this scheme is to foster curiosity, creativity and imagination in young minds and inculcate skills such as design mind-set, computational thinking, adaptive learning, physical computing, rapid calculations, measurements etc. These ATLs are equipped with latest emerging technologies such as electronics, IoT, 3D printing, Robotics, etc. Around 9600 ATLs have been setup in various schools of the country.

Government has taken several steps to promote affordable and sustainable innovations in the field of science and technology. DST has launched National Initiative for Developing and Harnessing Innovations' (NIDHI) programme to strengthen the innovation value chain through Technology Business Incubators (TBIs). NIDHI provides much-needed support to innovators and entrepreneurs at different stages of their journey to take their innovative ideas to market and further scale up its operations. NIDHI-PRAYAS Shala specially assists innovators in their "idea to prototype journey" through grant funding of up to Rs. 10 lakh. Forty three PRAYAS Centres have been setup in various academic institutions to support innovators and entrepreneurs to test their ideas and make prototypes which is further developed as products and a startup.

The DST-NIDHI program aims to provide state-of-the art infrastructure for nurturing startups along with mentoring and funding support during pre-incubation, incubation and post incubation periods through startups incubators. These incubators support startups in various technology domains like agritech, manufacturing, electronics, IoT, health-tech, biotech, AI/ML, deep-tech etc.

For promoting affordable sustainable innovation in the field of science and technology, 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.

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