GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION No. 617
ANSWERED ON 02.12.2021

DEVELOPING SCIENCE AND TECHNOLOGY INFRASTRUCTURE

617. SHRI IRANNA KADADI:

Will the Minister of SCIENCE & TECHNOLOGY be pleased to state:

(a) whether Government proposes to strengthen and develop the Science and Technology infrastructure in major sectors, if so, the details thereof;

(b) whether there is any system to encourage the scientists, technology experts and other specialized institutions in the country and if so, the details thereof; and

(c) whether Government is providing any assistance to or coordinating with the foreign institutions having the said expertise, and if so, the details thereof?

ANSWER

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

(a) and (b) Yes Sir. The Government proposes to strengthen and develop the Science and Technology (S&T) infrastructure in major sectors. Government has taken several steps for promoting R&D activities in new and emerging areas in universities and other institutions of the country. This includes successive increase in plan allocations for Scientific Departments, and R&D Infrastructure Programs like Fund for Improvement of S&T Infrastructure (FIST), Promotion of University Research and Scientific Excellence (PURSE), Sophisticated Analytical Instrument Facilities (SAIF), Sophisticated Analytical & Technical Help Institute (SATHI), Research Resources Services Facilities & Platforms (RRSFP), Consolidation of University Research through Innovation and Excellence in Women Universities (CURIE) programs, those provides support for development of research infrastructure and establishing State-of-the art laboratories and creates special window support for R&D in thematic areas through Nano Mission, Solar Energy Research Initiative, Water Technology Initiative, Clean Energy Initiative, National Supercomputing Mission etc. Emerging areas like Big Data, Cyber Physical Systems, Advanced Manufacturing, Waste Processing have been identified as futuristic platforms and special thrust has been given for initiation of R&D. The Ministry of Mines provides funds to promote research in applied geosciences, mineral exploration, mining & allied areas, mineral processing, optimum utilization and conservation of the mineral resources of the country. The Indian Council of Agricultural Research has strengthened the S&T infrastructure through establishment of Speed Breeding, Double Haploid and genome editing facilities, development of diagnostic tools for detection/ identification of insects, pests and diseases. S&T infrastructure has also been strengthened in the area of

food crops/ horticultural crops, development of equipment/ methodologies for post harvest processing and mechanization of natural fibres, lac and other natural resins and gums. DRDO is encouraging Industry as well as academic Institutions for strengthening Science and Technology. Recently, hypersonic wind tunnels, test ranges at various locations, special equipment in Labs have been established. The Department of Telecommunications has supported the set-up of a multi-institute collaborative project on 'Indigenous 5G Test Bed' to enhance national capacity in telecom technology, develop indigenous Intellectual Property and provide fillip to Indian telecom manufacturers.

(c) Yes Sir. The Government is providing assistance and coordinating with the foreign institutions under several bilateral, regional and multilateral international collaborations. The Government has international collaborations with German Electron Synchrotron (DESY) for use of PETRA-III Synchrotron, The High Energy Accelerator Research Organization (KEK)- Photon factory at Japan for using the same by our Scientists, and Ruthurford Appleton Laboratory, Neutron Facility at Oxfordshire, UK. In addition, collaboration for use of Macromolecular Crystallography Beamlines at European Synchrotron Radiation Facility (ESRF), France and Synchrotron facility available at other countries like Italy, South Korea, Sweden etc., have also been established. The Government has enabled research collaborations with various foreign organizations such as International Maize and Wheat Improvement Center (CIMMYT), Mexico; International Rice Research Institute (IRRI), Philippines; International Center for Agricultural Research in the Dry Areas (ICARDA), Syria; International Crop Research Institute for Semi-Arid Tropics (ICRISAT), India; Network of Aquaculture in Asia Pacific (NACA), Thailand; WorldFish, Malaysia; Food and Agricultural Organizations (FAO), Rome; Centre for Environment, Fisheries & Aquaculture Sciences (CEFAS), UK etc. for specific R&D programs in the areas of mutual interest.

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