GOVERNMENT OF INDIA MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY LOK SABHA UNSTARRED QUESTION NO.5696 TO BE ANSWERED ON 26/7/2019

DEVELOPMENT OF INDIGENOUS TECHNOLOGY

5696. SHRIMATI KIRRON KHER:

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

(a) whether the Government has formulated any scheme to develop indigenous technology and to improve it; and

(b) if so, the details in this regard?

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 प्रौदयोगिकी मंत्री; और पृथ्वी विज्ञान मंत्री

डॉ. हर्ष वर्धन

(a) Yes sir.

(b) Ministry of Science and Technology and other Departments/Ministries have taken numerous steps to develop indigenous technologies in various sectors of Science and Technology.

Department of Science & Technology (DST) has launched many schemes under Technology Development Programme (TDP) to promote R & D towards indigenous technologies, such as Science & Heritage Research Initiative (SHRI), Waste Management Technologies (WMT) Programme, Advanced Manufacturing Technology (AMT) Programme, Biomedical Device and Technology Development (BDTD) and Device Development Programme (DDP). Through Technology Mission programme, DST supports technologies aiming for generating clean energy (smart grids, off grids, clean coal, methanol, solar energy) and water. National Supercomputing Mission of DST through "Build" approach has taken steps towards manufacturing most of the mother board components of Super computers in India itself.

The Council of Scientific and Industrial Research (CSIR) under Department of Scientific and Industrial Research (DSIR) through New Millennium Indian Technology Leadership Initiative (NMITLI) scheme has developed various Indigenous technologies with public private partnership. Some of the indigenous technologies for process and product include: Vaccine against Johne's Disease, Battery operated hand held micro PCR for diagnosing Tuberculosis, Malaria, Dengue, Chikungunya, Hepatitis B and HINI, Supercontinuum Light Source based Confocal Microscope etc.

Department of Atomic Energy (DAE) through Bhabha Atomic Research Center (BARC) has developed numerous indigenous technologies in the entire spectrum of Nuclear Science and Engineering and related areas. The technologies include: Cesium-137 based Blood irradiator; Radiation induced mutagenic 44 varieties of oil seeds, pulses, rice and jute with improved agronomic and quality traits, early maturity, and resistance to biotic and abiotic stresses; Nisargruna Technology using biphasic biomethanation process to handle biodegradable waste; Dry Sludge Hygienisation; Membrane assisted technologies for desalination of brackish and sea water; Radio isotopes for non-invasive diagnosis and Bhabhatron, an indigenous tele-cobalt machine for cancer treatment; Low cost hand held 12-Channel Tele ECG machine and BhabhaKavach, an indigenous light weight bullet proof jacket.

Ministry of Electronics & Information Technology (MeitY) is supporting R & D projects to develop indigenous technologies having applications in Health, Agriculture, Energy, Automation, Industries, Communications, Materials etc. in the Electronics and IT domain.

Indian Council of Agricultural Research (ICAR) through its constituent Institutes and All India Coordinated Research Centers across the country is implementing an All India Network programme on Organic Farming (AI-NTOF) for documentation and validation of Organic Indigenous Technical Knowledge (ITK). Through 19 Animal Science Institutes, efforts are being made for developing and refining technologies for the improvement of indigenous animal breeds, vaccines, kits for disease diagnostics, detection of adulterants in milk. The Fisheries Research Institutes under ICAR is developing various indigenous technologies for breeding and seed production of finfish/shell fishes, nutraceuticals from aquatic organisms, therapeutics and chemical formulations for fish diseases, fish in craft and gears; processing and value addition of fish and cage culture in open waters. National agriculture research system developed 1014 indigenous varieties of cereals, pulses, oil seeds, fiber crops, forage crops and sugarcane.