

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF SCIENCE & TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION No. 816
ANSWERED ON 05.02.2021**

Preparations to deal with COVID-19

**816. SHRI MOHAN MANDAVI:
SHRI CHUNNI LAL SAHU:**

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

- (a) the details of preparations made and steps taken by his Ministry to deal with COVID-19 pandemic;**
- (b) the steps taken by the Government to aid healthcare professionals/workers deployed in the fight against COVID-19 pandemic?**

A N S W E R

**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. हर्षवर्धन)**

(a) The Department of Science and Technology (DST) and its various Autonomous Institutions made some sincere efforts to address R&D and innovation related challenges arising out of COVID-19 pandemic. A mapping of startup ecosystem was done to identify and support relevant technology solutions ready for scaleup. Several calls through DST, Science & Engineering Research Board (SERB), Technology Development Board (TDB), Indo-US S&T Forum (IUSSTF) were made inviting research proposals on COVID-19 related challenges. A National Super Model was formulated to predict the spread of the pandemic. Some major breakthroughs came out from DST initiatives like Centre for Augmenting War with COVID-19 (CAWACH) and Science and Society programme. Further, Subordinate Offices/Autonomous institutes under DST, like Sree Chitra Tirunal Institute of Medical Science and Technology, Survey of India, Technology Information Forecasting and Assessment Council (TIFAC) and others, contributed significantly in the fields of diagnostic kits, hospital devices, Personal Protective Equipment (PPE), masks and other technology solutions to reduce the menace of COVID pandemic.

Department of Biotechnology (DBT), initiated an integrated response to overcome the unprecedented COVID-19 pandemic. The DBT-BIRAC (Biotechnology Industry Research Assistance council) COVID-19 research Consortium call was issued, whereby, more than 100 projects for development of vaccines, diagnostics and therapeutics are being supported. 'Mission COVID Suraksha' is being implemented to accelerate the indigenous COVID-19 vaccine development efforts. Nearly 15 vaccine candidates are being supported of which 3 vaccine candidates are in clinical trial stage and about 2 vaccine candidates are in advanced pre-clinical developmental stage.

Several indigenous diagnostics kits have been developed. PAN-India 1000 SARS-CoV-2 genome sequencing was successfully completed. The Indian SARS-CoV-2 Genomic Consortium (INSACOG) has been launched, to ascertain the status of new variants of SARS-CoV-2 in the country. DBT is working closely with the Ministry of External Affairs for advancing vaccine development and conducting training programme to strengthen clinical trial capacity activities in neighboring countries.

Council of Scientific & Industrial Research (CSIR) has responded to the situation with a well-coordinated and integrated approach in cooperation with all relevant stakeholders. CSIR is extending all possible R&D support to industry and is also aligned to the Government's strategy of mitigation of outbreak. CSIR has developed more than 100 technologies under five technology verticals viz., Digital and Molecular Surveillance; Rapid and Economical Diagnosis; Development of new drugs/repurposing of drugs; Hospital Assistive Devices and PPEs and Supply chain and logistics and is working with about 100 industries. Six CSIR labs are working on sequencing of coronavirus to know if any genetic changes are occurring in the virus while it is spreading in the country. Thirteen CSIR labs are engaged in corona diagnostic testing. CSIR Labs have developed several rapid diagnostic kits, drug formulations like Favipiravir, Remdesivir, Arbidol, for synthesis and repurposing for COVID.

(b) Ministry of Health and Family Welfare (MoHF&W) provided guidelines on Infection Prevention and Control practices to the State Governments to minimize the risk of infection to healthcare workers. Training on Infection Prevention and Control was also provided to all categories of healthcare workers on the iGoT platform.

An advisory for managing health care workers working in COVID and Non-COVID areas of the hospital was issued by the Ministry. MoHF&W in consultation with Department of Personnel and Training (DoPT) has also directed State Governments to consider quarantine period of healthcare workers as 'on duty'. A direction was issued to the Chief Secretaries of the States/Union Territories on provision for accommodation facilities for quarantine of healthcare workers. Guidelines on rational use of PPEs for hospital and community settings (including front line workers) were issued. An advisory was issued for providing hydroxy-chloroquine for prophylaxis and prevention of infection to the healthcare workers. States have been supported in terms of supply of logistics. An order was issued for timely payment of salary to health workers and doctors along with additional incentives.

The Epidemic Diseases (Amendment) Ordinance, 2020 was promulgated on 22nd April 2020 that provides for safety and security of Health care Service Personnel (HSPs) from acts of violence. Life insurance benefits have been extended to all healthcare workers, under the 'Pradhan Mantri Garib Kalyan Package Insurance Scheme for Health Workers Fighting COVID-19'.
