

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

LOK SABHA
UNSTARRED QUESTION NO. 3226
TO BE ANSWERED ON 23/03/2022

One Health for All

3226. SHRI C.R. PATIL:

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

- (a) whether the Government has taken initiative to evaluate the concept of one health for all living organisms including the invisible biota in soil that sustain our agricultural systems;
- (b) If so, the details thereof; and
- (c) whether the Government has initiated steps to prepare a strong and extensive cadre of human resources required to meet the environmental challenges of the 21st century and if so, the steps taken in this regard?

ANSWER

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

(a) and (b) Yes, Sir. To evaluate the concept of one health for all living organisms including the invisible biota in soil that sustain our agricultural systems; following initiatives have been taken:

- (i) Department of Biotechnology (DBT), Ministry of Science and Technology has launched a Consortium for One Health at DBT-National Institute of Animal Biotechnology, Hyderabad where 27 participating centres, including major medical colleges (AIIMS Delhi, AIIMS Jodhpur, etc.) and veterinary universities (GADVASU, TANUVAS, etc.), are partnering to undertake surveillance of certain select zoonotic diseases.
- (ii) Council of Scientific & Industrial Research (CSIR) through its constituent laboratory namely, National Botanical Research Institute, Lucknow (CSIR-NBRI) has taken initiative to evaluate the concept of one health for all living organisms including the invisible biota in soil that sustain our agricultural systems through

Metagenomic Mapping of agricultural soil from 75 district of UP under CSIR-Root biology project.

- (iii) Ministry of Agriculture and Farmer Welfare has initiated Soil Health Card Scheme under which the soil health cards carrying crop-wise recommendation are issued to farmers. In this health card one parameter i.e. Soil Organic Carbon indirectly assesses the soil microbes required to sustain agriculture system. Further, ICAR-Indian Institute of Soil Science, Bhopal (MP) and ICAR-National Bureau of Agriculturally Important Microorganisms (NBAIM), Mau (UP) have the mandate to research on soil biota that sustain the agriculture system in the country.
- (iv) Indian Council for Medical Research (ICMR), New Delhi has started the preparatory activities for establishment of a dedicated infrastructure in the form of **National Institute of One Health (NIO) at Nagpur** which will also house a BSL-IV laboratory.
- (v) To adopt a holistic and integrated approach towards solving health issues and developing a roadmap on One Health approach in the country a High Level Inter-Ministerial Steering Committee was constituted by Department of Health Research (DHR) and a meeting was held on 26th March 2021 which was chaired by Hon'ble Union Minister for Health and Family Welfare. The committee has members from various ministries and departments.

(c) Human Resource Development (HRD) programmes in all areas of Biotechnology including Environmental Biotechnology have been implemented to support post-graduate teaching programme, junior research fellowship programme, research associateship programme, re-entry fellowship, innovative young biotechnologist fellowship and young researcher's fellowship programmes. Further, under competitive research and development programme, DBT is supporting fundamental and applied research in the area of Environmental Biotechnology which also provides a platform to prepare strong and extensive cadre of human resources having expertise in environmental research.

CSIR-National Environmental Engineering Research Institute, (CSIR-NEERI) has already taken an initiative to prepare a strong and extensive cadre of human resources through various short-term and long-term academic, training, and skill development programmes to meet the environmental challenges of the 21st century such as air pollution, water pollution and waste management.

Under the National Mission on Sustaining the Himalayan Ecosystem (NMSHE) and National Mission on Strategic Knowledge for Climate Change (NMSKCC), coordinated and implemented by the Department of Science & Technology (DST), human capacity building programmes on climate change science (CC) and adaptation strategies have been supported.
