

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

LOK SABHA
STARRED QUESTION NO. *292
TO BE ANSWERED ON 09.08.2023

Zoonotic Diseases

***292. SHRI PARBHUBHAI NAGARBHAI VASAVA:**

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

- (a) whether it is a fact that there is a sudden spurt of zoonotic diseases in the country in the last few years;
- (b) if so, the details thereof and reasons therefor;
- (c) whether it is also a fact that new diseases affecting human beings are largely coming from pathogens released from an animal or from products of animal origin and if so, the details thereof; and
- (d) the details of the efforts being made by the Government for vaccine development in this regard, Department-wise?

ANSWER

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

विज्ञान और प्रौद्योगिकी मंत्रालय के राज्यमंत्री (स्वतंत्र प्रभार)
(डॉ. जितेंद्र सिंह)

(a), (b), (c) & (d): A statement is laid on the Table of the House.

STATEMENT IN RESPECT OF LOK SABHA STARRED QUESTION *292 TO BE ANSWERED ON 09.08.2023 REGARDING 'ZONOTIC DISEASES'

(a) No sudden spurt of zoonotic diseases in the country had been observed. However, several new zoonotic diseases have emerged during the last decade.

(b) The incidence of zoonotic diseases has been on the rise in the last decade. These diseases have been expanding their territory or have been identified as new pathogens. India has seen the incidence of a few of these diseases including Bird flu, Crimean-Congo Hemorrhagic fever (CCHF) and Nipah virus.

Ministry of Health & Family Welfare monitors infectious prone diseases and zoonotic diseases outbreaks under Integrated Diseases Surveillance Programme (IDSP). Under the programme, through an IT Portal the data is entered by 2,63,616 facilities across all States and UTs. The diseases being monitored include - Rabies, Crimean-Congo Hemorrhagic fever (CCHF), Kyasanur Forest Disease (KFD), Brucellosis, Japanese Encephalitis (JE), Scrub Typhus, Leptospirosis, Anthrax, West Nile Fever, etc.

(c) The new or emerging zoonotic diseases affecting human beings have been shown to be acquired from wild animals, and not from domestic animals. Wild animals such as bats, rodents, and primates act as reservoir for many zoonotic diseases affecting humans. Pathogen spill over from wildlife to human community happens when human proximity towards wild animals and wild ecosystem increases. Increase in human exposure to wild animals happens due to encroaching forest land, hunting and wild animal trade. Patterns of pathogen spread have changed due to global warming, humidity, rainfall etc. Various reports have highlighted that emerging and re-emerging diseases in humans are on the rise in recent decades. In India, Japanese encephalitis (JEV), Kyasanur Forest Disease (KFD), Crimean-Congo haemorrhagic fever (CCHF), Avian influenza, Nipah encephalitis are mainly reported to transmit via animal to human.

(d) Department of Biotechnology is continuously supporting various projects for development of vaccines for zoonotic diseases. Various vaccines have been developed through DBT supported projects for Brucellosis, Anthrax, Leptospirosis, Classical Swine Fever (CSF) etc. Further, the Department of Biotechnology (DBT) along with its industry academia interface agency, Biotechnology Industry Research Assistance Council (BIRAC), has facilitated strengthening of ecosystem for vaccine development, through various schemes/programmes including Mission programmes such as the National Biopharma Mission, Mission Ind-CEPI (Coalition for Epidemic Preparedness Innovations) and Mission COVID Suraksha.

Indian Council of Agricultural Research (ICAR) has initiated an All Indian Network Program on One Health Approach for research on diagnosis and control of Zoonotic Diseases. The National One Health Program for Prevention and Control of Zoonoses is another ongoing program of National Centre for Disease Control (NCDC), New Delhi. All these projects aim at capacity building and preparedness to tackle zoonotic diseases. Ancovax vaccine developed by ICAR is an Inactivated COVID-19 vaccine for animals. It is safe for use in dogs, lion, leopards, mice and rabbits.
