



CURRENT AFFAIRS



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NIPAH VIRUS

This article covers "Daily Current Affairs" and the Topic details "Nipah Virus". This Topic has relevance in the Science and Technology section of the UPSC CSE exam.

For Prelims:

About the Nipah Virus?

Natural Animal Host Reservoir?

Spread and Mortality Potential?

Why in the news

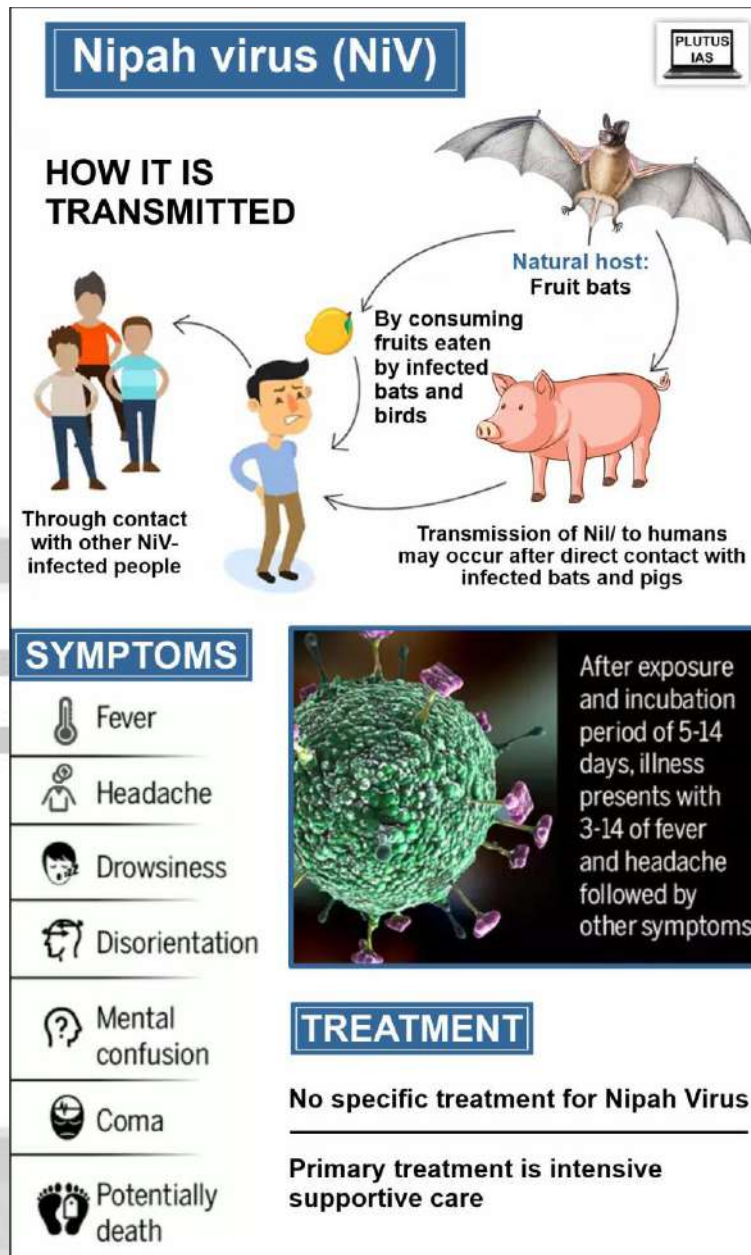
The viral disease, Nipah infection, has resurfaced in Kerala, with two individuals in Kozhikode district confirmed to have succumbed to the disease.

About the Nipah Virus:

- Nipah virus is a zoonotic disease, i.e., it is transmitted to humans through infected animals or contaminated food.
- Person-to-person transmission can also occur through close contact with infected individuals.
- Symptoms include fever, headache, cough, sore throat, breathing difficulties, and vomiting.
- Severe cases may lead to disorientation, drowsiness, seizures, encephalitis, coma, and death.

Natural Animal Host Reservoir

- Fruit bats, commonly known as flying foxes, serve as the primary reservoir for the Nipah virus. These bats transmit the virus to animals such as pigs, dogs, cats, goats, horses, and sheep.
- Human infection mainly results from direct contact with these animals or consumption of food contaminated by their saliva or urine.



Outbreaks in South and Southeast Asia

- Outbreaks have occurred in South and Southeast Asian countries since its identification in 1998-99.
- Bangladesh has experienced at least 10 outbreaks since 2001.
- India has witnessed outbreaks in West Bengal (2001, 2007) and Kerala (2018, 2019, 2021).

Nipah Virus Spread and Mortality

- It spreads more slowly than COVID-19 but has a higher mortality rate.
- Mortality rates in past outbreaks have ranged from 68% to 100%.
- During the 2018 Kerala outbreak, 17 out of 18 confirmed patients died.
- All outbreaks so far have been localized and contained relatively quickly.
- A study observed that the reproductive number (R0) was approximately 0.48 during previous outbreaks. The R-value serves as an indicator of the virus's rate of spread within the population. **When this value is less than one, it implies that less than one person is getting**

infected by an already infected individual. In such circumstances, the outbreak is anticipated to subside relatively rapidly.

SOURCE:

[Nipah kills two in Kerala: What is this virus, why is it dangerous even though it doesn't spread fast | Explained News – The Indian Express](#)

Q.1 Which of the following statements regarding the Nipah virus is/are correct?

1. Nipah virus can only be transmitted to humans through infected animals.
2. The reproductive number (R0) for the Nipah is greater than that of SARS-COV-2.

Options:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

ANSWER: D

Q.2 Which of the following statements regarding the Nipah virus is/are correct?

1. Recently, there was an outbreak in North Indian states
2. Natural hosts for the Virus are Wild Pigs.

Options:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

ANSWER: D

Q.3 Zoonotic diseases have emerged as a significant global health concern, with implications for human and animal populations. Discuss taking into account the One Health approach.

Rishabh

SHANTI SWARUP BHATNAGAR AWARDS

This article covers "Daily Current Affairs" and the topic details "Shanti Swarup Bhatnagar Awards". This topic has relevance in the "Science and Technology" section of the UPSC CSE exam.

For Prelims:

*What are the Shanti Swarup Bhatnagar Awards?
What is CSIR and its organisational structure?*

For Mains:

GS3: Science and Technology

WHY IN THE NEWS?

Following a delay of almost a year, the Council of Scientific and Industrial Research (CSIR) has officially announced the recipients of the Shanti Swarup Bhatnagar (SSB) awards for the year 2022.

SHANTI SWARUP BHATNAGAR AWARDS

- The Shanti Swarup Bhatnagar Prize for Science and Technology (SSB), instituted in 1958 by the Council of Scientific and Industrial Research (CSIR) in honour of Shanti Swarup Bhatnagar, its founder director, is among the highest multidisciplinary science awards in India.
- These awards have been instrumental in recognising and nurturing outstanding scientific talent in India and promoting excellence in scientific research.

ELIGIBILITY AND CRITERIA:

- **Any citizen of India** engaged in research in any field of science and technology for up to 45 years as of December 31 of the year preceding the year of the Prize is eligible for consideration.
- Additionally, **Overseas Citizens of India (OCI) and Persons of Indian Origin (PIO) working in India** are eligible candidates.
- The award is granted based on contributions primarily made within India during the five years leading up to the year of the Prize.
- This ensures that recent and impactful scientific achievements within the country are recognised and celebrated.
- The awardee receives a citation, a plaque, and a cash award of ₹5 lakh. In addition, recipients are granted a **monthly stipend of ₹15,000 until the age of 65** years, providing support for their ongoing scientific endeavours.
- In the 2022 awards, two scientists were chosen in the first five categories, while one scientist each was honoured in earth and planetary and medical sciences.

AWARD CATEGORIES:

- Physical Sciences
- Biological Sciences
- Chemical Sciences
- Mathematical Sciences
- Engineering Sciences
- Earth and Planetary Sciences
- Medical Sciences

ANNOUNCEMENT AND DISTRIBUTION:

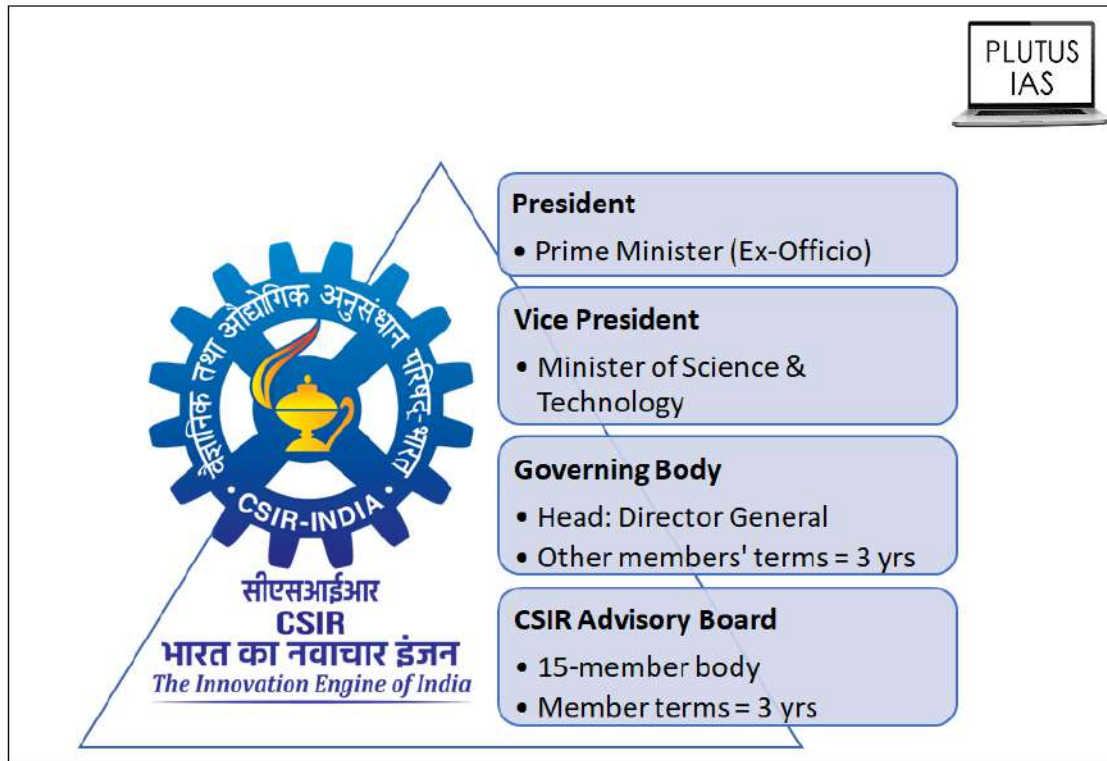
- Traditionally, the names of the Shanti Swarup Bhatnagar Award recipients are declared by the Director General of CSIR on September 26, which coincides with the CSIR Foundation Day.
- The awards are presented to the recipients by the Prime Minister of India, adding to the prestige and significance of these honours.

COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH

- The Council of Scientific & Industrial Research (CSIR) is a premier national R&D organisation in India.
- Established by the Government of India in September 1942, CSIR has emerged as the largest research and development organisation in India.
- CSIR is an autonomous body funded by the Ministry of Science and Technology and operates under the Societies Registration Act of 1860.

- CSIR has a dynamic network of 37 national laboratories, 39 outreach centres, 1 Innovation Complex, and three units with a pan-India presence.
- It encompasses a broad range of scientific and technological fields, spanning from oceanography, geophysics, chemistry, pharmaceuticals, genomics, biotechnology, and nanotechnology to mining, aeronautics, instrumentation, environmental engineering, and information technology.

ORGANISATIONAL STRUCTURE OF CSIR:



Sources:

[After a year's hold-up, Centre announces top national science prize for young talent | India News](#)
- [The Indian Express.](#)

Q1. With reference to the Shanti Swarup Bhatnagar Awards, consider the following statements:

1. Only Indian citizens engaged in research are eligible for consideration.
2. The contributions considered for the award must be based on work primarily conducted in India within the preceding five years.
3. Overseas Citizens of India (OCI) are not eligible for the award.

Which of the statements given above is/are NOT correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) None

Answer: (c)

Q2. Who is the President of the Council of Scientific & Industrial Research (CSIR)?

- (a) The Minister for Science and Technology
- (b) The President of India

- (c) The Director General of CSIR
- (d) The Prime Minister

ANSWER: (d)

Q3. Discuss the significance of Shanti Swarup Bhatnagar Awards in recognizing scientific excellence in India and their role in shaping India's future in science and technology.

Gaurav Nikumbh

