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'MPOX' Virus

Why in Newspapers?

When the outbreak of monkeypox disease increased earlier this year, racist and offensive language was used in many places. Many countries expressed concern over this and urged the WHO to change the name of the disease.

Quick Issue?

- In consultation with experts around the world, the **World Health Organization (WHO) renamed monkeypox as 'mpox'.**

Historical Background?

- Both these names will be used for one year, after which 'monkeypox' will be dropped.
- Under the International Classification of Diseases (ICD), WHO is responsible for naming diseases?
- Monkeypox is a rare, viral zoonotic disease that exhibits symptoms similar to smallpox, but is clinically less severe.
- The first case of human monkeypox was reported in **1970**. While this virus was detected in monkeys many years ago i.e. in 1958 itself.
- It was discovered in **1958** after two outbreaks of smallpox-like disease in colonies of monkeys kept for research.
- The fever, malaise, and headache caused by monkeypox are usually more severe than those caused by chickenpox.
- In the initial stage of the disease, monkeypox causes swelling of the lymph gland ie on both sides of your neck and rash or blisters also occur in places like face, palms, soles, eyes, mouth, throat, thighs and genitals. Huh.

Other Key Facts?

World Health Organization

- There is an organization for developing **mutual cooperation** and standards on the health related problems of the countries of the world. The World Health Organization has 194 member states and two associate members. It is a **subsidiary unit of the United Nations.** This institution was established on **7 April 1948**. Its purpose is to raise the level of health of the people of the world. The headquarter of WHO is located in the city of Geneva, Switzerland. **Dr. Tedros Adhanom Ghebreyesus** from Ethiopia has been elected as the new Director-General of the World Health Organisation.
 - He will replace **Dr. Margaret Chan** who is retiring from this post after serving two terms of five years each ie ten years.
 - India is also a member country of the World Health Organization and its Indian



- Monkeypox virus is most commonly transmitted to people from wild animals such as rodents (rats, shrews and squirrels etc.) and primates, but human-to-human transmission also occurs.
- It can also be transmitted through vaccination or placenta (congenital monkeypox).
- Talking about **human-to-human transmission**, according to the information available so far, this virus spreads through touching, face to face contact, kissing and having sex with an infected person.
- It also spreads from animals to humans by touching infected animals and eating undercooked meat.

Expected Questions for Preliminary Exam

Que. Which one of the following statements is correct regarding "Klebsiella" sometimes seen in the news -

- (a) It is a species of fungus that is native to the Western Himalayas and Ladakh region.
- (b) It is a giant neutron star in the Milky Way located 1.5 billion light-years away from Earth.
- (c) It is an asteroid the size of a football stadium which was recently hit by NASA to deflect its trajectory.
- (d) It is a gram-negative rod shaped bacterium which is very commonly found in nature including humans.

Ans-(d) It is a gram-negative rod shaped bacterium which is very commonly found in nature including humans.

Que. Consider the following statements about mpox disease:

1. It is caused by DNA-based orthopoxvirus.
2. It can be transmitted from mother to fetus through the placenta.
3. Currently there is no specific treatment to cure this disease.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer—(d) 1, 2 and 3

New Energy Outlook Report 2022

Why in Newspapers?

Recently the 2022 **New Energy Outlook** report was released by **BloombergNEF**, a global, clean energy research provider.

Quick Issue?

- The report analyzes net zero scenarios, or pathways, that limit global warming to 1.77 °C above pre-industrial levels by 2050 with 67 percent assurance.

Historical Background?

- Greenhouse gas emissions from developing countries, especially India, are expected to continue rising through the end of the 2030s. In these countries, the reduction in emissions will be achieved only in the early 2030s.
- Emissions in Europe, the US, Australia and Japan have already peaked in 2022, so they are expected to decline rapidly in the coming years.
- In China, emissions are expected to peak in 2022 and stabilize for some time before re-aligning with the trajectories of developed countries.
- **Limiting global temperature rise to 1.5°C is not easily achieved.**
- If proactive action is taken, it is possible to limit global temperature rise to 1.77°C. However, to achieve net zero by 2050, investment in the clean energy sector would need to be three times higher than in fossil fuels.
- Emissions need to fall by 30 percent by the end of this decade and by 6 percent per year overall by 2040. Even then, the energy sector will not be able to reach the desired emissions targets unless there is a radical change.
- If no new policies are implemented to transition to a low-carbon economy, emissions will average 0.9 percent per year. This corresponds to a temperature increase of 2.6°C by the end of this century.

Other Key Facts?

Climate Change and India's Efforts

- National Action Plan on Climate Change (NAPCC)
- The National Action Plan on Climate Change was launched in the year 2008.
- It aims to create awareness among public representatives, various agencies of government, scientists, industry and communities about the threat posed by climate change and the measures to combat it.
- **This action plan mainly includes 8 missions:~**
 - National Solar Mission
 - National Mission for Enhanced Energy Efficiency
 - National Mission on Sustainable Habitat
 - National Water Mission
 - National Mission for Sustainable Himalayan Ecosystem
 - National Mission for Green India
 - National Mission for Sustainable Agriculture
 - National Mission on Strategic Knowledge for Climate Change



- Shifting sources of electricity generation from fossil fuels to renewable energy can ensure a 50 percent reduction in carbon emissions.
- Using low-carbon electricity in the transport sector and industrial processes can reduce emissions by about 25 percent.
- The remaining emissions can be addressed using hydrogen (6 percent) and carbon capture and storage (11 percent).

Expected Questions for Preliminary Exam

Que. The World Energy Outlook Report 2022 published by the International Energy Agency (IEA) has reported emissions that need to decline by how many percent by the end of this decade and 6 percent per year overall by 2040?

- (a) 50 (b) 30
(c) 20 (d) 10

Answer: (a) 30

Q. Which of the following has not been mentioned in the World Energy Outlook Report 2022 published by the International Energy Agency (IEA)?

- (a) It is possible to limit the global temperature rise to 1.77°C.
(b) Limiting global temperature rise to 1.5°C is not easily achieved.
(c) There is a need to reduce emissions by 30 per cent by the end of this decade.
(d) About 50 percent of emissions can be reduced by using low-carbon electricity in the transport sector and industrial processes

Answer: (d) About 50 percent of emissions can be reduced by using low carbon electricity in the transport sector and industrial processes

