Prelim Bits 11-08-2022 | UPSC Daily Current Affairs

Novel Langya Henipavirus

Almost three years after the novel coronavirus was detected in China, the novel Langya virus (LayV) has been discovered in the two eastern provinces of China.

- Langya Henipavirus (LayV) was discovered in eastern China during surveillance testing of patients who had fever along with a recent history of animal exposure.
- It is a type of **Henipavirus**, a category of **zoonotic** viruses that can jump from animals to humans.
- It is closely related to the Mojiang Henipavirus, which was discovered in southern China.
- **Symptoms -** Fever, fatigue, cough, nausea, headache are the common symptoms of LayV disease.
- The other symptoms include impaired liver function, impaired kidney function, leukopenia and thrombocytopenia.

Thrombocytopenia is low platelet count, while leukopenia means a fall in the white blood cell count, in turn reducing the body's disease-fighting capability.

- **Transmission -** In all likelihood, the new virus has jumped from an **animal to humans**.
- The LayV virus RNA has been predominantly found in **shrews**, which may be its natural hosts.
- Among domestic animals, seropositivity was detected in goats and dogs.
- So far, there have been no cases of human-to-human transmission of the virus. However, the possibility of spread cannot be ignored.
- **Detection** - A standardized nucleic acid testing method is required to identify the Langya virus.
- **Treatment -** There is currently no vaccine or treatment for Henipavirus and the only treatment is supportive care to manage complications.

Henipaviruses

- Henipaviruses are classified as Bio-safety Level 4 (BSL4) pathogens.
- They can cause severe illness in animals and humans, and as of now there are no licensed drugs or vaccines meant for humans.
- The types of Henipaviruses that had been identified prior to this included Hendra, Nipah, Cedar, Mojiang and the Ghanaian bat virus.
- According to the US CDC, the Cedar virus, Ghanaian bat virus, and Mojiang virus are not known to cause human disease. But Hendra and Nipah infect humans and can cause fatal illness.

Reference

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Butterfly Mine

The UK Ministry of Defence, in its intelligence assessment of the ongoing war in Ukraine, has and sounded an alarm on the possible use of PFM-1 series 'Butterfly Mines' by the Russian military in Donetsk and Kramatorsk.

- Russia's PFM-1 series are called the 'Butterfly Mines' or 'Green Parrots' (because they were green in colour when they were first put to use).
- Butterfly Mines are **scatterable anti-personnel mines** that can be deployed to deter freedom of movement.
- The 'Butterfly mine' has earned a reputation for being particularly attractive to children because it looks like a coloured toy.
- It is very sensitive to touch and just the act of picking it up can set it off.
- Because of the relatively lesser explosive packed in this small mine, it often injures and maims the handler rather than killing them.
- These mines are also difficult to detect because they are **made of plastic** and can evade metal detectors.
- These mines can be deployed in the field of action through several means, which include being dropped from helicopters or through ballistic dispersion using artillery and mortar shells.
- These mines glide to the ground without exploding and later explode on coming in contact.
- **Similar Links** - Cluster Bombs and Vacuum Bombs,

Ottawa Convention

- It is the 1997 Convention on the use, stockpiling, production, and transfer of Anti-Personnel landmines (APLs) and on their Destruction.
- Usually referred to as Anti-Personnel Mine Ban Treaty, this international agreement **bans APLs**.
- This Convention requires states-parties,
    1. To destroy their stockpiled APLs within 4 years and
    2. To eliminate all APL holdings, including mines currently planted in the soil, within 10 years.
- Some key current and past producers and users of landmines, including the US, China, India, Pakistan, and Russia, have not signed the treaty.

India has not joined the treaty, its main reservation being "legitimate national security concerns" relating to its borders along which minefields constitute an important component of its defence plans.

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Advanced Towed Artillery Gun System

In a first, the indigenous Advanced Towed Artillery Gun System (ATAGS) will be used along with the usual 25-Pounders for the 21-gun salute during the Independence Day celebrations at Red Fort this year.

- The Advanced Towed Artillery Gun System (ATAGS) is an indigenous 155mm, 52-calibre **artillery gun system**.
- It was jointly developed by the Defence Research and Development Organisation (**DRDO**) in partnership with the **private industry** (Bharat Forge and Tata Group).
- The ATAGS has demonstrated a range of over 45 km, and an official termed it as the "most consistent and accurate gun in the world".
- It has a capability to program and fire future Long Range Guided Munitions (**LRGM**) to achieve precision and deep strike.
- The system is configured with an all-electric drive that will ensure maintenance free and reliable operation over longer periods of time.

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The Sacrifice Zone

Myanmar bears cost of green energy, so it is now called the 'Sacrifice Zone'.

- A "sacrifice zone" or "sacrifice area" is a place that **destroys itself for the good of the world**.
- It has been permanently impaired by heavy environmental alterations or economic disinvestment, often through locally unwanted land use.
- These zones most commonly exist in low-income and minority communities.
- The northern forest frontier areas of Myanmar are the source of several key rare earths, often called the vitamins of the modern world.

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SMILE-75 Initiative

The Union Minister for Social Justice & Empowerment will launch the "SMILE-75 Initiative".

- *'Support for Marginalised Individuals for Livelihood and Enterprise' (SMILE) scheme is set to provide welfare and rehabilitation to the transgender community and the people engaged in the act of begging.*
- *This umbrella scheme includes two sub-schemes,*
    1. *Central Sector Scheme for Comprehensive Rehabilitation for Welfare of Transgender Persons and*
    2. *Central Sector Scheme for Comprehensive Rehabilitation of persons engaged in the act of Begging'.*

- In the spirit of AzadikaAmritMahotsav, the SMILE-75 Initiative will be implemented in 75 identified Municipal Corporations to comprehensive rehabilitation of persons engaged in the act of begging.
- These 75 Municipal Corporations in collaboration with NGOs and other stakeholders will cover several comprehensive welfare measures for persons who are engaged in the act of begging with focus extensively on
    1. Provision of Rehabilitation,
    2. Provision of medical facilities, counselling, awareness,
    3. Provision of education, skill development, and economic linkages,
    4. Convergence with other Government welfare programmes etc.
- Ministry of Social Justice & Empowerment has allocated a total budget of Rs.100 crore for the SMILE project for coming years till 2025-26.
- The objective of SMILE- 75 is to make our cities/ town and municipal areas begging-free and make a strategy for comprehensive rehabilitation of the persons engaged in the act of begging.
- Local Urban Bodies, Civil Society Organisations/NGOs have a vital role to address this persisting social issue with concerted efforts.

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