



UN Report on Zoonotic Diseases

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Why in News

According to a report published by the **United Nations Environment Programme (UNEP)** and the **International Livestock Research Institute (ILRI)**, about 60% of known infectious diseases in humans and 75% of all emerging infectious diseases are **zoonotic**.

- The report was released on **6th July 2020**, observed as **‘World Zoonoses Day’**.
- It focuses on the **context and nature** of potential future zoonotic disease outbreaks, during the **Covid-19 pandemic** by identifying the **anthropogenic** (changes in environment due to human activity) factors.

Key Points

- **Zoonoses or Zoonotic Disease:**
 - It is a disease that passes into **the human population from an animal source** directly or through an intermediary species.
 - Zoonotic infections can be **bacterial, viral, or parasitic in nature**, with animals playing a vital role in maintaining such infections.
 - Examples of zoonoses include **HIV-AIDS, Ebola, Malaria**, and the current **Covid-19 disease**.

- **Anthropogenic Factors:**

- **Increased Use of Wildlife:** Exploitation of **wildlife** for hunting, harvesting of wild animals for meat and research or medical purposes can bring humans in closer contact with wild animals, thus increasing the risk of zoonotic disease emergence.
- **Changes in Food Supply Chains:** The popularity of food products with **animal source** and the need for immediate delivery to consumers is driving major changes in the food supply chain.
- **Increased Demand for Animal Protein:** This has encouraged the **intensification and industrialisation of animal production**, wherein a large number of genetically similar animals are bred in for higher productivity.
- **Intense and Unsustainable Farming:** Intensive farm settings cause **animals to be raised in close proximity** to each other characterised by poor waste management. This makes them more vulnerable to infections, which can further lead to emergence of zoonotic diseases.
- **Use of Antimicrobials:** High **use of antimicrobials** in farm settings is contributing to the burden of **AntiMicrobial Resistance (AMR)**.
 - **Antimicrobial resistance** is the **resistance acquired** by any microorganism (bacteria, viruses, fungi, parasite, etc.) against antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics) that are used to treat infections.
 - As a result, standard treatments become ineffective, infections persist and may spread to others.

- **Recommendations:**

- **One Health Approach: One Health** is a **multisectoral and transdisciplinary approach** with the goal of achieving **optimal health outcomes** by recognizing the interconnection between **people, animals, plants, and their shared environment**.

It aids a coordinated response to future pandemics and is a key to zoonoses risk reduction and control.

- **Expanding Scientific Enquiry:** This is a crucial element of AMR containment efforts since waste from **intensive farms using antimicrobials** paves way for AMR determinants (**e.g. antibiotic residues, resistant bacteria**) in the environment.
- **Strengthening Monitoring:** It would help in regulating practices associated with zoonotic diseases.
- **Sustainable Land Management Practices:** It would help in developing alternatives for food security and livelihoods that do not rely on the destruction of habitats and **biodiversity**.

It would also enhance sustainable co-existence of agriculture and wildlife.
- **Identifying Key Drivers:** It would encourage management and control measures for emerging zoonotic diseases in animal husbandry.

United Nations Environment Programme

- The UNEP is a leading global environmental authority established on **5th june 1972**.
- **Functions:** It sets the **global environmental agenda**, promotes the sustainable development within the **United Nations system**, and serves as an authoritative advocate for global environment protection.
- **Major Reports:** Emission Gap Report, Global Environment Outlook, Frontiers, Invest into Healthy Planet.
- **Major Campaigns:** Beat Pollution, UN75, World Environment Day, Wild for Life.
- **Headquarters:** Nairobi, Kenya

International Livestock Research Institute

- The ILRI is an **international agricultural research institute** formed in 1994 through the merger of the International Livestock Centre for Africa and the International Laboratory for Research on Animal Diseases situated in Nairobi, Kenya.
- **Functions:**
 - It focuses on **building sustainable livestock** pathways out of poverty in low-income countries.
 - It works with partners worldwide to help poor people keep their farm animals alive and productive and find profitable markets for their animal products.

- **Headquarters:** Nairobi, Kenya

Way Forward

- The report is one of the first to focus on the environmental side of the zoonotic dimension of disease outbreaks during the Covid-19.
- There is an **immediate need to invest in in-depth understanding of environmental linkages with zoonotic diseases** and monitoring of such diseases in human-dominated environments.
- There is an urgency for adoption of sustainable **methods of food production** and to **reduce dependence on intensive systems** to preserve health and ecosystems.

Source: DTE