Animal Pandemic Preparedness

What is the issue?

The developments unleashed by COVID-19 have put the spotlight on the pressing need to create greater synergies between research on human health and animal health.

How significant are animals to humans?

- India has a livestock population of 1.6 billion, where approximately 280 million farmers rely on the livestock and related industries for livelihood.
- From the perspective of trade, the dairy industry in the country is valued at 160 billion dollars, while the meat industry is valued at 50 billion dollars.
- In addition, livestock and related activities have significant overlap with wildlife and humans.
- In the current atmosphere of climate change and unpredictable weather, animal husbandry assumes significance as a source of reliable income to farmers.

How is the trend of zoonotic disease incidence?

- **Global level**- We have witnessed around 9,580 instances of disease outbreaks from 2000 to 2010, of which 60% diseases were zoonotic in nature.
- The incidences of disease outbreaks across the globe have been increasing at a compound annual growth rate (CAGR) of 6%.
- **National level**- In India, we see that annual outbreak of zoonotic diseases translates into an estimated annual loss of 12 billion dollars to the economy.
- **Impacts**- Even though these diseases do not affect human health directly, they are responsible for huge consequences to farmers, exports and gross domestic product (GDP) growth nationally.

What efforts were taken in the aspect of pandemic preparedness?

- A major loophole in the context of pandemic preparedness can be attributed to the fact that it has largely been human centric, leaving a large unaddressed gap for diseases of pandemic potential in animals.
- **Investment-** The Department of Animal Husbandry has been working towards increased investment in preparedness to protect health and building economic resilience so that India could become a world leader in animal pandemic preparedness.
- **One Health Unit**- The Department of Animal Husbandry and Dairying (DAHD) has set up a dedicated ‘One Health Unit’ in collaboration with the Gates Foundation.
- **Animal pandemic preparedness model**- The unit focuses on coming up with an animal pandemic preparedness model for storage and seamless exchange of data and information on livestock health that will be implemented through National Digital Livestock Mission (NDLM).

- **Linking of labs**- Within the framework of NDLM, substantial progress has been made by linking all the animal disease diagnostic labs involved in sero-surveillance through a single portal and harmonisation of SOPs used by labs.
- **Incentives for infrastructure**- Companies can avail incentives for setting up or expansion of animal vaccine and related infrastructure under the Animal Husbandry Infrastructure Fund.
- **Animal health ecosystem**- DAHD in collaboration with Office of the Principal Scientific Adviser, Central Drugs Standard Control Organisation (CDSCO), Indian Council of Agricultural Research (ICAR), and the Indian Pharmacopoeia Commission (IPC) has set up an Empowered Committee for Animal Health to streamline animal health regulatory ecosystem in the country.

What is the way forward?

- To create a robust pandemic preparedness model, it is imperative to compare the data on animal health with the available data on human health.
- A successful animal pandemic preparedness model template would entail seamless coordination with critical ecosystem partners to ensure timely and successful development of animal drugs and vaccines.
- The pandemic preparedness initiative would enable the linking and comparison of real-time information regarding diseases between wildlife and human systems to create a reliable mechanism for forecasting disease outbreaks.

Reference

1. https://www.thehindu.com/opinion/op-ed/working-towards-animal-health/article65710590.ece

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