Vector-borne disease

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Why in news?

Growth of these diseases is a cause of concern.

What are these?

- Vector-borne diseases are human diseases caused by vector-borne parasites, viruses, and bacteria.
- They are living organisms that can transmit infectious diseases from or to humans and are insects such as mosquitoes, flies, ticks, bugs and so on.
- About **17 percent of all infectious diseases are significant vector-borne diseases.**
- In tropical and subtropical areas, the burden of these diseases is highest and it has a disproportionate impact on the poorest population.
- The world's **fastest growing vector-borne disease is dengue fever,** together with related dengue haemorrhagic fever (DHF).
- Every year, malaria kills over 400,000 people around the world, most of them children, under the age of 5.
- Hundreds of millions of people globally are infected through other illnesses such as Chagas disease, leishmaniasis and schistosomiasis.

Different diseases and their vectors:

- **Mosquitoes – (Aedes)** cause Chikungunya, Dengue fever, Lymphatic filariasis, Rift Valley fever, Yellow fever, Zika.
- **Mosquitoes – (Anopheles)** cause Malaria, Lymphatic filariasis.
- **Mosquitoes- (Culex)** cause Japanese encephalitis, Lymphatic filariasis, West Nile fever.
- **Sandflies** cause Leishmaniasis, Sandfly fever.

- **Triatomine bugs** cause Chagas disease (American trypanosomiasis).
- **Tsetse flies** cause Sleeping sickness (African trypanosomiasis).
- **Fleas** cause Plague (transmitted by fleas from rats to humans) and Rickettsiosis.

Changes in agricultural practices due to variation in temperature and rainfall can affect the transmission of vector-borne diseases. The growth of urban slums, lacking reliable piped water or adequate solid waste management, can render large populations in towns and cities at risk of viral diseases spread by mosquitoes.