

CANINE DISTEMPER VIRUS (CDV)

Prelims: Environment, Biodiversity

Mains: GS-III- Conservation, environmental pollution and degradation, environmental impact assessment.

Why in News?

- ▶▶ With doubled tiger populations in India, the loss of habitat, a decline of prey and poaching continues to be a threat to tigers' survival.
- ▶▶ Along with these, a potential virus — Canine Distemper Virus (CDV) — that can be transmitted from CDV-infected dogs living in and around wildlife sanctuaries has started to raise concern among wildlife biologists.
- ▶▶ Last year, over 20 lions from the Gir forest succumbed to the viral infection and now a guideline has been prepared by the NTCA to prevent the spillover of the disease to wild animals.

Canine Distemper Virus (CDV):

- ▶▶ CDV is a contagious and serious disease caused by a virus that attacks the respiratory, gastrointestinal and nervous systems of puppies and dogs.
- ▶▶ Canine distemper is caused by a single-stranded RNA virus of the family Paramyxoviridae (the same family of the viruses that causes measles, mumps, and bronchiolitis in humans).
- ▶▶ Its common symptoms include high fever, eye inflammation and eye/nose discharge, labored breathing and coughing, vomiting and diarrhea, loss of appetite and lethargy, and hardening of nose and footpads.
- ▶▶ It affects a wide variety of animal families, including domestic and wild species of dogs, foxes, pandas, wolves, ferrets and large cats as well.

Risk of Disease Transfer:

- ▶▶ A recent study notes that 86% of the tested dogs around Ranthambhore National Park in Rajasthan carried CDV antibodies in their bloodstream.
- ▶▶ This means that the dogs are either currently infected or have been infected sometime in their life and have overcome the disease.
- ▶▶ This finding points out that there is an increased risk of disease transfer from the dogs to tigers and leopards that live in the park.

Preventive Measure:

- ▶▶ The main aim should be to vaccinate the free-ranging and domestic dogs in the area around national parks.
- ▶▶ The disease needs to be recognised and more targeted studies need to be initiated to collect baseline data on CDV from wherever they are reported from in wild carnivores.
- ▶▶ Understanding the role of domestic animals as contributors to a local CDV reservoir is imperative precursor in considering control measures.

