Babesiosis infection in Gir Lions

Prelims: *Current events of national and international importance | Conservation*

Why in News?

Gujarat's Forest and Environment Minister, Arjun Modhwadia, confirmed that 8 Asiatic lions, including cubs, have succumbed to a suspected Babesiosis infection in the Gir ecosystem.

- Babesiosis is a ***tick-borne parasitic infection*** that lions and other wildlife can get from the bite of ticks infected with the Babesia parasite.
- Babesia (the parasite) is endemic and prevalent at low levels in livestock, wild ungulates (refers to large mammals with hooves), and even in lions.
- **Causes -** It does not cause mortality and appear without any symptoms in most cases.
- In nature, there is a ***host-parasite equilibrium, so that both co-exist, and this rarely needs an intervention.***
- Domestic livestock along with wild ungulates such as chital, nilgai act as asymptomatic reservoirs of Babesia.
- Under nutritional or physiological stress, or with other infections, it (Babesiosis) can cause mortality.
- **Symptoms -** The symptoms include lethargy, anaemia, enlarged spleen, and high fever.
- **Effect -** Babesia acts much like malaria. It is a protozoan, like *Plasmodium*, and it infects and ***ruptures red blood cells.***
- In conditions of stress, co-infections, or genetic predisposition, the infection can cause organ failures and mortality.

Recent outbreaks and Management

- Recent outbreaks in Gujarat's Gir National Park led to the deaths of several Asiatic lions, predominantly cubs and immunocompromised individuals.
- To contain the spread, the state Forest Department implemented strict

containment measures

- **Isolation -** Isolating lions and setting up quarantine perimeters around affected areas.
- **Veterinary Treatment -** Administering specific anti-protozoan drugs and antibodies at treatment facilities like the Jasadhar Animal Treatment Centre.
- **Vector Control -** De-worming local cattle, disinfecting livestock enclosures, and burning grass near watering holes to eliminate tick populations.

The only exclusive space for Asiatic lions is Gir national park whereas tigers occur in 11 countries and have 58 tiger reserves within India.

Reference

The Indian Express | Babesiosis infection in Gujarat Lions