

Climate change-induced Snakebite Hotspots in India

Prelims - Current events of national and international importance | Climate Change.

Why in News?

Recently, a study published in *PLOS Neglected Tropical Diseases* reveals that climate change could significantly increase the geographical spread of venomous snakes in India.

- **Neglected Disease** - Snakebite is a neglected tropical disease like dengue and malaria, which are expanding in geographic reach due to climate change.
- Tropical and subtropical regions of the world experience a disproportionate impact of deaths due to a snakebite.
 - Cases in India are among the highest in the world.
- **Big Four Snakes** - The Four Species of Venomous snakes, such as ***Common krait, Russell's viper, Echis carinatus and Indian cobra***.
- These are responsible for the majority of snakebite cases among humans on the Indian subcontinent.
- **Climate Change** - Increased *heat and humidity* are creating favourable habitats for venomous snakes.
- It increases human-snake interactions across rural and urban areas could present new challenges for public health and medical management.
- **Recent findings - States likely to see spread** in Haryana, Rajasthan, Assam.
- Continued warming, northeast states, such as Manipur, Meghalaya, Nagaland, and Arunachal Pradesh considered to lack a habitat conducive for snakes.
- It shows notable increases of over 100 % snakebite risk.
- **Highly vulnerable states** - Karnataka (including Chikkaballapura, Haveri, and Chitradurga) and Gujarat (Devbhumi Dwarka and Jamnagar).
- **Northern and Northeastern states** - Rajasthan (Pratapgarh), Assam (Nagaon, Morigaon, and Golaghat), Manipur (Tengnoupal), have

experienced an increased risk of snakebite.

- **Snakebite Risk Index** - It combines climate models, geographic spread, socio-economic vulnerability & healthcare capacity.
- It shows climate change as a **looming public health crisis**, not just an environmental crisis.

Quick Facts

Neglected tropical diseases

- Neglected tropical diseases (NTDs) are a diverse group of conditions caused by a variety of pathogens, including viruses, bacteria, parasites, fungi and toxins and associated with devastating health, social and economic consequences.
- NTDs are prevalent among impoverished communities in tropical regions, although some have a much larger geographical distribution.
- **Diseases** - Buruli ulcer, Chagas disease, dracunculiasis, foodborne trematodiasis, human African trypanosomiasis, rabies, scabies, soil-transmitted helminthiasis, snakebite envenoming, taeniasis/cysticercosis, trachoma and yaws.

Reference

[The Hindu| New Snakebite Hotspots in India.](#)

