Asian Elephant Conservation

Why in News?

Interim Elephant Census report has highlighted declining elephant population across India.

Asian Elephants
• Asian Elephant is the natural heritage animal of India and the largest mammal living on the land of Asia. • **Scientific name** - Elephas maximus • **Gestation period** - 22 months • **Weight** - 3,000-6,000 kg • **Height** - Males - up to 9 feet - Females - up to 7.9 feet • **Lifespan** - 48 years (average in the wild) • **Tusks** - Larger in males, smaller or absent in females • **Intelligence** - Highly intelligent, known for empathy, mourning, and communication • **Social Structure** - Matriarchal herds, males generally solitary • **IUCN Red List** – Endangered • **Wildlife Protection Act 1972** - Schedule I • **CITES** - Appendix I • **Population** -There are about 50,000-60,000 Asian elephants in the world. • Indian Population More than 60% of the world's elephant population is in India. • **Distribution** - The current distribution of wild elephant in India is now restricted to four general areas - North-eastern India, - Central India, - North-western India, - Southern India. • Karnataka has the highest number of elephants (6,049) • Assam (5,719) and Kerala (3,054). • **Elephant reserves**- There are 33 elephant reserves in India, latest being Terai Elephant Reserve in Uttar Pradesh.

ELEPHANT NUMBERS IN INDIA (2012-2023)

States	2012	2017	2022-23	Change
Tamil Nadu	4015	2761	3136	13.6%
Karnataka	6068	6049	6013	-0.6%
Kerala	6117	5706*	2785	-51.2%
Maha (W Ghat)	4	6	27	350%
Western Ghats	**16204**	**14522**	**11961**	**-17.6%**
WB (South)	0	194	31	-84%
Jharkhand	688	679	217	-68%
Odisha	1930	1976	912	-54%
Chhattisgarh	247	247	451	82.6%
Madhya Pradesh	0	7	97	1286%
Maha (Gadchiroli)	0	0	36	NA
Andhra Pradesh	41	65	120	84.6%
Central & Eastern	**2906**	**3168**	**1864**	**-41%**
Uttarakhand	1346	1839	1792	-2.6%
Uttar Pradesh	291	232	257	11%
Bihar	0	25	13	-48%
Shivalik-Gangetic	**1637**	**2096**	**2062**	**-1.6%**
Haryana	0	7	0	NA
Himachal Pradesh	0	7	0	NA
A&N	0	25	NA	NA
India (Except NE)	**20747**	**19825**	**15887**	**-20%**
Arunachal Pradesh	890	1614	Pending	NA
Assam	5620	5719	1031^	NA
Megalaya	1811	1754	Pending	NA
Nagaland	212	446	Pending	NA
Mizoram	0	7	Pending	NA
Manipur	0	9	Pending	NA
Tripura	59	102	Pending	NA
WB (North)	647	488	423^^	NA
North East	**9239**	**10139**	**9866#**	**NA**

** Revised count. Initial count was 3054*

 # NE figures are extrapolated from 2017, count pending

^ Only in Manas TR | ^^ Only in Buxa TR

Data: MoEF/WII

How Elephant census is conducted?

- **Elephant Census** – It is a synchronized census conducted region wise.
- It is conducted ***every 5 years*** by the ***Wildlife Institute of India*** (WII), an autonomous body under the ministry.
- **Census Methods**
  - Direct (head) count - Forest divisions is divided into sample blocks ranging from 4 to 6 sq km.
  - Indirect (dung) count
  - waterhole count method – Identifying waterbodies frequented by the elephants.
  - DNA profiling
  - Camera traps
  - Statistical modelling based on mark-recapture
- Till 2017 Direct and Indirect method only used and Scientific estimation is being used in this years' census.

Regional Elephant Population Decline and Threats		
Region	**Declining % (Compared with 2017 Estimate)**	**Threats**
Central Indian and Eastern Ghats	41 %	• Unmitigated mining • Linear infrastructure construction • developmental projects
Southern West Bengal, and	84%	
Jharkhand	68%	
Orissa	54%	
Western Ghats	About 18 %	• Commercial plantations (coffee and tea) • Farmland fencing • Human encroachment
Kerala -	Nearly 51% (2,900)	
Shivalik-Terai population in Uttarakhand and Uttar Pradesh	2%	• Encroachments • Forest clearing • Monoculture • Invasive species • Intensified agriculture • Linear infrastructure
North East	Data Not Available	• Human habitations • Tea plantations • Mines, oil refineries • Linear infrastructure

What are the impacts of declining elephant population?

- **Human Animal Conflict** – Threats have pushed elephants to venture into historical but currently unoccupied areas fuelling human-elephant conflicts.
- **Retaliatory Killing** - In some cases, conflicts can escalate to retaliatory killings of elephants, further exacerbating their population decline.
- **Economic Losses** - Human-elephant conflicts can result in significant economic losses

for farmers and communities, especially in areas where agriculture is a primary livelihood.
- **Habitat Degradation** - As elephant populations decline, their role in shaping and maintaining ecosystems becomes compromised.

Elephants are ecosystem engineers and keystone species influencing vegetation structure and seed dispersal.

- **Disruption of Food Chains** -Their decline can disrupt food chains, affecting predator populations and overall ecosystem balance.
- **Reduced Seed Dispersal** - Elephants play a vital role in dispersing seeds, helping to regenerate forests and maintain plant diversity.
- **Loss of Cultural Heritage** - Elephants have deep cultural significance in India, and their decline represents a loss of cultural heritage.
- **Reduced Tourism Revenue** - Elephant tourism is a significant source of income in many parts of India.
- **Impact on Traditional Practices** - Some indigenous communities rely on elephants for their livelihoods and cultural practices.

What are the elephant's conservation initiatives?

- **Area Conservation** - There are 33 elephant reserves in India aimed at conserving their population.
- **Project Elephant** – It was launched in 1992 to protect elephants, their habitat and corridors, address issues of man-animal conflict and welfare of captive elephants
- **Surveillance** - Monitoring of Illegal Killing of Elephant is launched in 10 elephant reserves since 2003.
- **Stop Poaching** - Anti-poaching units have been formed to patrol elephant habitats and apprehend poachers.
- **Prevent Wildlife Crime** - Special Elephant task forces have been set up to address specific threats to elephant populations, such as ivory smuggling.
- **Compensation** – Community compensation schemes are in place to reimburse farmers for crop damage caused by elephants.
- **Surveys** - Regular elephant surveys are conducted to assess elephant population trends and distribution.

What are the strategies to conserve elephant population?

- Strengthening elephant corridors and connectivity, restoring habitat, mitigating developmental projects, and ensuring the support of local communities for elephant conservation.
- Focused estimation exercise to comprehensively assess occupancy and abundance to devise specific conservation actions.
- Develop early warning systems to alert communities of approaching elephant herds.
- Establish community-based anti-poaching units to monitor and protect elephant habitats.

Reference

[The Indian Express | Count fell by 20% in 5 year]