



Landscape Ecology in Elephant Corridors

[Source: DTE](#)

Why in News?

Recently, **landscape ecology has become crucial for identifying and restoring elephant corridors** effectively, rather than relying solely on expert field knowledge.

- **Landscape ecology** is the **study of the interactions** between the **temporal** (time-related) and **spatial** (space-related) **aspects of a landscape and the organisms within it.**
- **Landscape ecology** became more accurate with the advancements in detecting core areas and corridors are now **based on three factors:** intensive use of field data; **improvement in GIS** ([Geographic Information Systems](#)) and availability of **geospatial data and adapted algorithm.**

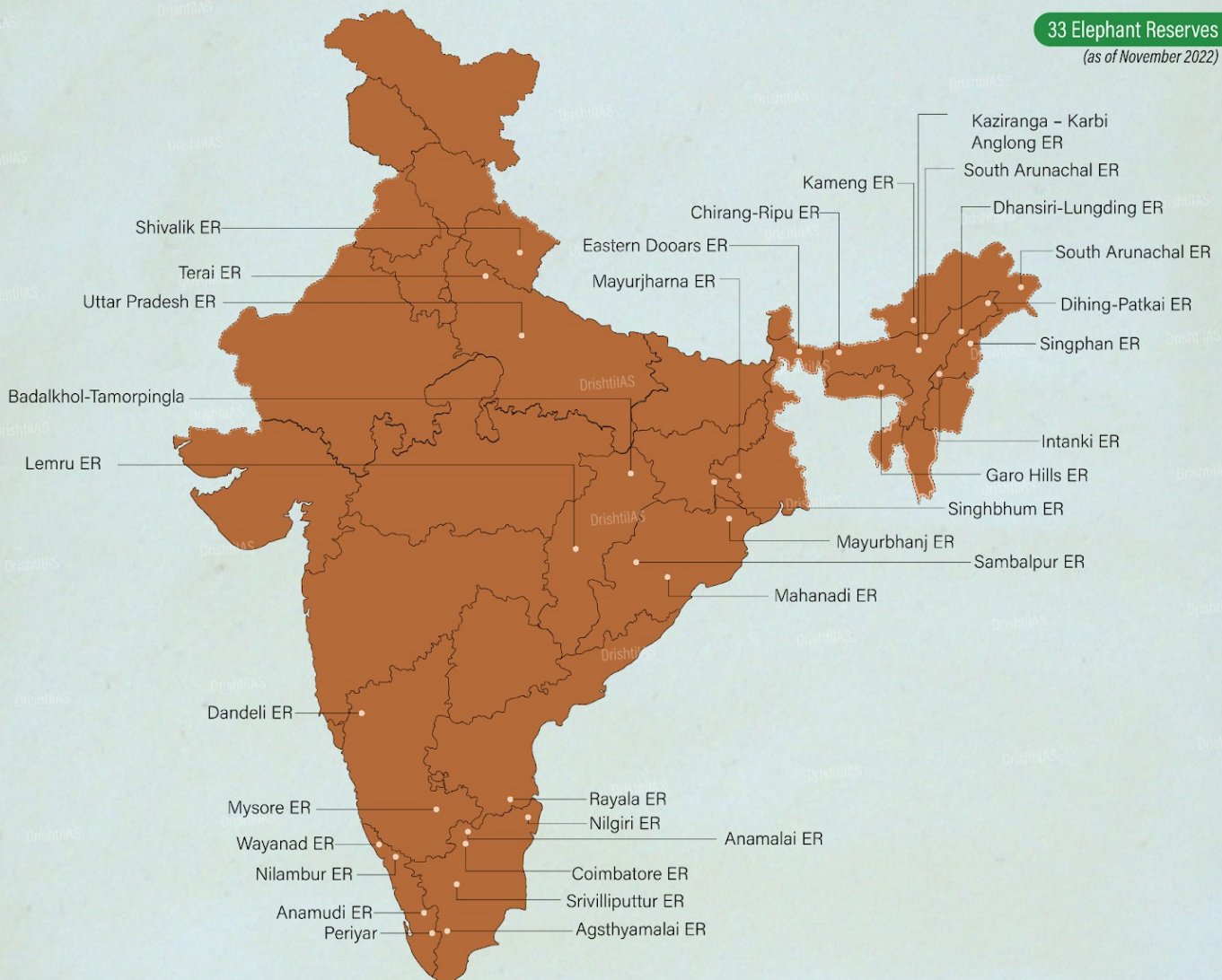
What are Elephant Corridors?

- **About:**
 - [Elephant corridors](#) are strips of land that enable elephant movement between two or more friendly habitats.
- **Status of Elephant Corridors in India:**
 - The key findings of the [Elephant Corridors of India, 2023 Report](#) are as follows:
 - The report highlighted a surge of 62 new corridors, marking a 40% increase since 2010, now totalling **150 corridors across the nation.**
 - **West Bengal** has the **highest number of elephant corridors**, totalling 26, constituting 17% of the total corridors.
 - The **East central region** contributes 35% (**52 corridors**), and the **North East** region follows as the second-largest with 32% (**48 corridors**).
 - **Southern India** registered **32 elephant corridors**, representing 21% of the total, while northern India has the **lowest count of 18 corridors**, amounting to 12%.
 - Elephants have **expanded their ranges** in the **Vidarbha region** of Maharashtra and southern Maharashtra bordering Karnataka.

Elephant Reserves

33 Elephant Reserves

(as of November 2022)



FACTS

- Tamil Nadu and Assam have the highest number (5) of elephant reserves in India.
- The Indian elephant *Elephas maximus* is included in Schedule I of the Indian Wildlife (Protection) Act, 1972 and in Appendix I of CITES.
- Indian Elephant has also been listed in the Appendix I of the Convention of the Migratory Species and as 'Endangered' in the IUCN Red List.
- The elephant was declared the National Heritage Animal of India in 2010.
- MoEFCC provides financial and technical support to major elephant range states in the country through Project Elephant. Project Elephant was launched by the Government of India in the year 1992 as a Centrally Sponsored Scheme.




Elephants

- **Elephants in India:**
 - **Elephants** are **keystone species** as well as the **Natural Heritage** Animal of India.
 - India has the **largest number of wild Asian Elephants**. The elephant population in the country is estimated to be over 30,000.
 - **Karnataka** has the **highest elephant population** in India.
- **Conservation Status:**
 - **Convention of the Migratory Species (CMS):** Appendix I
 - **Wildlife (Protection) Act, 1972:** Schedule I
 - **International Union for Conservation of Nature (IUCN) Red List** of threatened species:

- **Asian Elephant: Endangered**
- **African Forest Elephant: Critically Endangered**
- **African Savanna Elephant: Endangered**

▪ **Conservative Efforts:**

- India:
 - [Gaj Yatra](#)
 - [Project Elephant](#)
- Global:
 - [Monitoring of Illegal Killing of Elephants \(MIKE\) Programme.](#)
 - [World Elephant Day](#)



ELEPHANT

4 Main Species of Elephant

Species	Found in	IUCN Red List Status	Habitat
Indian	Asia	EN (CITES - Appendix I, WPA - Schedule I)	Subtropical broadleaf forest, tropical broadleaf moist forest, dry forest, grassland
Sumatran	Asia	CR	Broadleaf moist tropical forests
Savanna (Bush)	Africa	EN	All sub-Saharan Africa except for Central Africa's dense tropical forest
Forest	Africa	CR	Dense Tropical Forests

Indian Elephant (*Elephas maximus*)

Largest Land Mammal on Asian Continent
National Heritage Animal of India

- **Top 5 Indian States by Maximum Elephant Population:**
(As per elephant census 2017)
 - Karnataka > Assam > Kerala > Tamil Nadu > Odisha
- **Social Structure:**
 - Female elephants are more social than males; form herd (generally 5-7)
 - Led by the oldest female, the 'matriarch'
 - Males usually live alone

- **Threats:**
 - Habitat Fragmentation
 - Poaching for Ivory
 - Human-Elephant Conflict
 - Mistreatment in Captivity
- **Conservation Efforts:**
 - Gaj Sookna App (2022)
 - Gaj Yatra (2017)
 - Hathi Mere Sathi campaign (2011)
 - National Elephant Corridor project (2005)
 - Monitoring the Illegal Killing of Elephants (MIKE) Programme (2003)
 - Project Elephant (1992)

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims:

Q. With reference to Indian elephants, consider the following statements: (2020)

1. The leader of an elephant group is a female.
2. The maximum gestation period can be 22 months.
3. An elephant can normally go on calving till the age of 40 years only.
4. Among the States in India, the highest elephant population is in Kerala.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 4 only
- (c) 3 only
- (d) 1, 3 and 4 only

Ans: (a)

PDF Refernece URL: <https://www.drishtias.com/printpdf/landscape-ecology-in-elephant-corridors>

