

Immunocontraception in Leopards

Prelims: Current events of national and international importance | Environment

Why in News?

The Junnar Forest Division in Pune district, Maharashtra, has launched India's first pilot initiative to control leopard reproduction through immunocontraception.

- In early October 2026, two female leopards received an immunocontraceptive drug and were released into the wild.



Immunocontraception in Leopards		
	Location	Junnar Forest Division, Pune district, Maharashtra
	Initiative	Pilot study using immunocontraception
	Animals treated	Two female leopards
	Method	Non-surgical, temporary prevention of reproduction
	Approval	Union Ministry of Environment, Forest and Climate Change (MoEFCC)
	Legal framework	Wildlife (Protection) Act, 1972
	Scientific assessment	Wildlife Institute of India (WII)
	Research collaboration	ICMR – National Institute for Research in Reproductive and Child Health (ICMR-NIRRH), Mumbai
	Veterinary support	RESQ Charitable Trust
	Monitoring period	Approximately 2.5 years



Human fatalities



56

people killed in leopard attacks in Junnar Forest Division between 2000 and 2025

- **Immunocontraception** - It is a method of controlling reproduction by administering a vaccine or immunological agent that triggers an immune response, temporarily preventing an animal from reproducing.
- **Aim** - To assess whether this non-surgical method can help manage leopard populations and reduce human-leopard conflict.
- **Key characteristics**
 - **Non-surgical** - It eliminates the need for conventional surgical sterilisation procedures.
 - **Temporary** - It is designed to prevent pregnancy for a defined duration rather

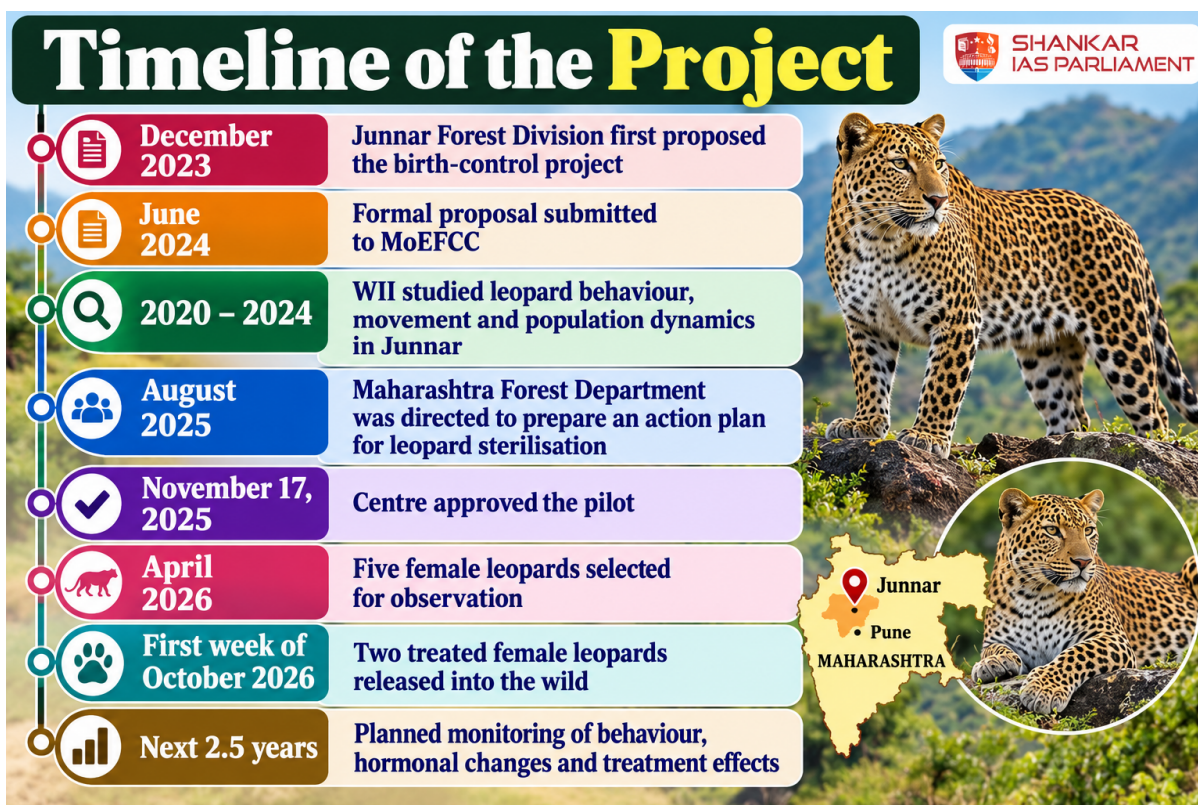
than as a permanent solution.

- **Potentially reversible** - Reproductive capacity can be restored as the immunocontraceptive effect diminishes over time.
- **Wildlife management** - Immunocontraception can be utilized to regulate reproduction within targeted wildlife populations.
- **Monitoring required** - Scientific evaluation of safety, hormonal changes, reproductive effects, and animal behaviour is necessary.

Immunocontraception	Surgical sterilisation
Uses an immunological intervention	Uses a surgical procedure
Intended to be temporary	Generally permanent
Does not require reproductive surgery	Requires an operation
Long-term effects must be monitored	Surgical risks and recovery must be managed

• Objectives of the Pilot Study

- To assess the safety and effectiveness of immunocontraception.
- To evaluate a non-lethal approach for wildlife population management.
- To reduce human-leopard conflict in areas with high population density.
- To monitor hormonal changes and long-term effects in treated animals.
- To generate scientific evidence to inform future wildlife management policies.



Indian Leopard

- **Scientific name** -Panthera pardus fusca.
- **Family** - Felidae.
- **Distribution** - Leopards occur across a wide range of habitats in India, including forests, grasslands, scrublands and some human-dominated landscapes.
- **Diet** - Carnivorous; prey includes various mammals and other animals.

- **Ecological role** - Predator that contributes to ecosystem balance.
- **Conservation status**

Framework	Important fact
IUCN Red List	Leopard is classified as Vulnerable globally
Wildlife (Protection) Act, 1972	“Endangered”
CITES	Appendix I

Reference

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