Role of wildlife corridors in tiger conservation

Why in news?

Sahyadri-Konkan wildlife corridor will play a crucial role in translocating tigers from Tadoba-Andhari Tiger Reserve to Sahyadri Tiger Reserve in Maharashtra.

Why Maharashtra plans to translocate tigers to Sahyadri Tiger Reserve (STR)?

STR comprises of Chandoli National Park and Koyna Wildlife Sanctuary.

- **Historical challenges**- Tiger population in Sahyadri region has faced many challenges such as poaching, habitat loss, and a depleted prey base, have led to a decline in tiger numbers.
- **Need of intervention-** Despite the establishment of Sahyadri Tiger Reserve, the tiger population has not increased significantly.

- **Population stagnation**- The reserve has struggled to attract breeding tigers, further exacerbating decline in population.
- **Occasional evidence**- The reserve has limited evidence of tiger presence such as pugmarks indicates a small number of tigers moving within the reserve this underscores the urgency of action to revitalize the tiger population within the reserve.
- **Improve genetic diversity**- Translocation of tigers presents a strategic opportunity to infuse new genetic diversity into the population and potentially catalyse breeding efforts.
- **Sahyadri-Konkan wildlife corridor**- The corridor must be secure enough and free from human disturbance to achieve the objective of translocation.

Sahyadri-Konkan wildlife corridor
• **Coverage-** Maharashtra, Goa and Karnataka • **Crucial habitat**- It connects the Sahyadri Tiger Reserve in Maharashtra and Kali Tiger Reserve in Karnataka serving as a crucial habitat for *tigers, sloth bears and dholes*. • **Large carnivore occupancy**- A study by Wildlife Conservation Trust shows an increase in tiger and dhole occupancy, while tiger and leopard numbers remain stable. • This indicates improved landscape management since the Sahyadri Tiger Reserve's declaration since 2010.

What role do wildlife corridors play in conservation?

- **Facilitate gene flow**- It enable tigers to traverse human-dominated landscapes safely, minimizing the risk of human-wildlife conflicts and increasing their chances of successful dispersal and breeding.

- **Sustainable infrastructure-** Measures such as the construction of underpasses, wildlife crossings, and overpasses are increasingly implemented to safeguard tigers and other wildlife from the impacts of linear infrastructure projects that fragment habitats.
- **Preserve migratory routes**- The construction of overpasses on NH-7 between Kanha and Pench Tiger Reserves, ensures the safe passage of tigers and other wildlife underneath the elevated stretches, preserving their migratory routes.
- **Mapping of corridors**- *National Tiger Conservation Authority* and *Wildlife Institute of India's* mapping of 32 major tiger corridors is a significant step towards understanding and preserving these essential habitats.

What can be done for tiger recovery?

- **Habitat improvement**- It involves restoring degraded habitats to enhance their quality and resilience in activities such as reforestation, soil conservation, water management, and invasive species control.
- **Prey base enhancement**- Increasing the populations of natural prey species like deer and wild boar creates a healthier ecosystem.
- **Mitigate human-tiger conflict**-Increasing the natural prey would reduce the need for tigers to venture into human settlements for food, enhancing both human safety and the ecological integrity of the forest.
- **Corridor strengthening**- Wildlife corridors are crucial for allowing tigers to move between habitat patches, which can aid in recolonization of areas where tigers have become locally extinct and help maintain genetic diversity.
- **Anti-poaching measures-** Implementing rigorous anti-poaching efforts such as increased patrolling, enforcement of wildlife protection laws and collaboration with law enforcement agencies to combat illegal hunting and trade of tigers and their prey species.
- **Community engagement**- Engaging local communities in tiger conservation efforts through education, awareness programs, and livelihood support initiatives can foster greater support and participation in conservation activities.
- **Research**- Conducting scientific research to better understand tiger ecology, behaviour, and population dynamics is essential for informing conservation strategies and monitoring the effectiveness of conservation efforts over time.
- **Project tiger**- It is a flagship conservation program launched in 1973 aimed at conserving and increasing tiger population in India
- **International cooperation-** Collaborating with neighbouring countries and international organizations to address transboundary conservation challenges is crucial for ensuring the long-term survival of tigers.
- **Translocation**- It should be considered as a last resort, it should be based on thorough scientific assessments and community consultations.

Successful translocation	Setbacks in translocation

• *Sariska Tiger Reserve* and *Panna Tiger Reserve*, have helped restore tiger populations in areas where they had become locally extinct. • These projects have demonstrated that translocation can be effective in replenishing tiger populations and restoring ecological balance in suitable habitats.	• *Satkosia Tiger Reserve*, Odisha has faced challenges and setbacks in tiger reserve project. • Poor planning, inadequate community engagement, and unforeseen conflicts with local residents can lead to failure of translocation initiatives, causing harm to both humans and tigers.

References

1. Indian Express- Maharashtra to translocate tigers
2. WWF- Urgent need to increase prey augmentation