

History of Sahyadri Tiger Reserve: A Conservation Study

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Article Info	ABSTRACT
Article History: Received: 26th Sep 2025 Accepted: 10th Oct 2025 Published: 25th Oct 2025 Keywords: Sahyadri, Tiger population, Project Tiger	The tiger population in India faced a severe decline by the late 20th century. In response, the Government of India launched Project Tiger in 1973 to protect and conserve the species and its habitat. This paper examines the history and impact of this initiative, with a specific focus on the Sahyadri Tiger Reserve (STR) in Maharashtra. The study analyzes the reserve's formation, its geographical and ecological components, and the trends in its tiger population. Using both primary and secondary data, the research finds that while Project Tiger has been largely successful at the national level, leading to a growing tiger population, the STR faces unique challenges. The findings suggest that continued habitat management and community involvement are crucial for the long-term success of tiger conservation in the Sahyadri region.

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1. Introduction

India is home to a vast forest area of 713,789 square kilometers. The state of Maharashtra contributes significantly to this, with a forest cover of 61,965.88 square kilometers, which is about 20.14% of the country's total forest area (Qureshi et al., 2023). A critical part of this ecosystem is the Western Ghats, which, though covering only about 6% of India's landmass, is recognized as one of the world's most important biodiversity hotspots due to its rich variety of flora and fauna.

For centuries, forests have been valued for their ecological importance. However, increasing human population and associated activities have led to habitat loss, threatening the existence of many wild species. The tiger, a key apex predator, was particularly vulnerable, with its numbers declining rapidly. To address this crisis, Project Tiger was initiated in 1973. Under this project, various tiger reserves were established across India. The Sahyadri Tiger Reserve, notified in 2008, is one such reserve located in the Western Ghats of Maharashtra. This paper aims to document the history, geography, and conservation efforts within the STR and assess its role in tiger conservation.

2. Objectives

1. To provide detailed information about the Sahyadri Tiger Reserve, including its constituent protected areas and river systems.
2. To analyze the impact of Project Tiger schemes on the tiger population within the reserve and in Maharashtra.
3. To identify the challenges and measures associated with tiger conservation in the region.

3. Study Area

The study area for this research is the Sahyadri Tiger Reserve (STR), located within the Sahyadri range of the Western Ghats. It is the only tiger reserve in this mountain range. The STR spans four districts of Maharashtra: Satara, Sangli, Kolhapur, and Ratnagiri, with a total area of 1,165.57 square kilometers. This includes a core area of 565.45 sq. km and a buffer zone of 600.12 sq. km (National Tiger Conservation Authority, n.d.).

The reserve primarily consists of two major protected areas:

Chandoli National Park: Established as a sanctuary in 2004 and declared a national park in 2007, it covers an area of 317.67 sq. km in Sangli and Kolhapur districts.

Koyna Wildlife Sanctuary: Notified in 1985 and designated a World Heritage Site as part of the

Western Ghats, it covers an area of 423.55 sq. km in Satara district.

The STR is characterized by rugged terrain, evergreen forests, and two major rivers—the Koyna and the Warna, both tributaries of the Krishna River.

4. Database and Methodology

This study employs a descriptive research design based on both primary and secondary data sources.

Primary Data: Collected through structured interviews and questionnaires with local community members and forest department officials in the buffer zone villages of the STR.

Secondary Data: Gathered from a comprehensive review of published sources, including Government reports from the National Tiger Conservation Authority (NTCA) and the Maharashtra Forest Department, National tiger census reports, Reputable newspapers (e.g., The Times of India, Sakal), Peer-reviewed journals and academic articles, Official websites of relevant government and conservation bodies. The data were analyzed to identify trends in tiger populations and to understand the conservation strategies and challenges in the STR.

5. History of Project Tiger and Tiger Reserves in India

Although scientific forest management in India began during the British era in the 19th century, focused conservation efforts for tigers gained momentum later. India's first national park, now known as Jim Corbett National Park, was established in Uttarakhand in 1936. The significant decline in tiger numbers due to hunting and habitat loss prompted the Indian government, under Prime Minister Indira Gandhi, to launch Project Tiger in 1973 (Jhala et al., 2020). The project aimed to ensure a viable population of tigers in their natural habitats by protecting them from extinction. Today, there are 54 tiger reserves in India. The tiger census, conducted every four years, shows a positive trend. The national tiger population has increased from 1,411 in 2006 to 3,682 in 2022 (Qureshi et al., 2023). Madhya Pradesh has the highest number of tigers (785), while states like Jharkhand have very few.

Table 1
TIGER CENSUS REPORT IN INDIA (2022)

State	The Number of Tigers
Madhya Pradesh	785
Karnataka	563
Uttarakhand	560
Maharashtra	444
Total =3682	

Source: <https://www.bigcatsindia.>

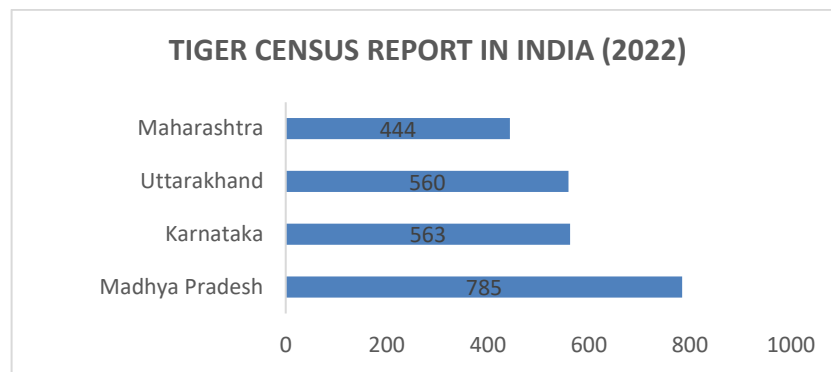


Fig -1 Source: Qureshi et al., 2023

6. Tiger Reserves in Maharashtra

Maharashtra is home to six tiger reserves: Melghat (the first, established in 1974), Tadoba, Pench, Sahyadri, Navegaon-Nagzira, and Bor. Together, they cover a total area of approximately 9,113 square kilometers, which is about 3% of the state's geographical area. The tiger population in Maharashtra has seen a substantial increase, from 103 in 2006 to 444 in 2022.

Table 2

TIGER RESERVE IN MAHARASHTRA

TIGER RESERVE	YEAR DECLARED	CORE AREA (Sq. Km)	BUFFER AREA (Sq. Km)	TOTAL AREA (Sq. Km)
Melghat	1974	1500	1268	2768
Tadoba	1993	626	1102	1728
Pench	1999	257.23	483.96	741.19
Sahyadri	2007	600	565	1166
Nawegaon Nagzira	2013	654	1241	1895
Bor	2014	138	678	816
Total		3775	5338	9113

Source: <https://www.bigcatsindia.com>

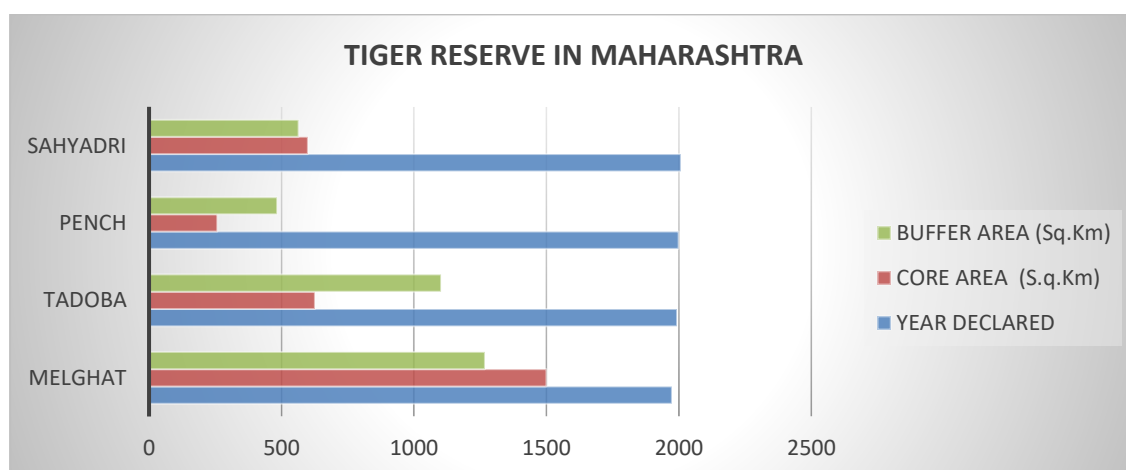


Fig -2

Table -3

THE NUMBER OF TIGERS IN MAHARASHTRA (2006-2022)

YEAR	THE NUMBER OF TIGERS
2006	103
2010	169
2014	190
2018	312
2022	444

Source: The Times of India, Daily News Paper, 30 Jan,2025.

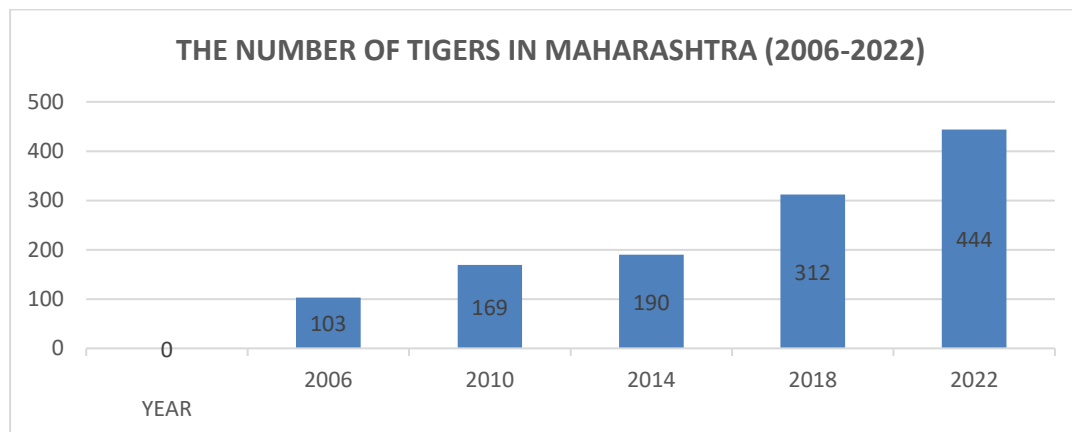


Fig -3

Table -4

SANCTUARY COMING UNDER SAHYADRI TIGER RESERVE

SANCTUARY NAME	AREA (Sq. Km)	ESTABLISHED YEAR
Chandoli National Park	317.67	2004
Koyna Wildlife Sanctuary	423.55	1985
Total area of Tiger Reserve	741.22	

Source: <https://www.mahaforest.gov.in>

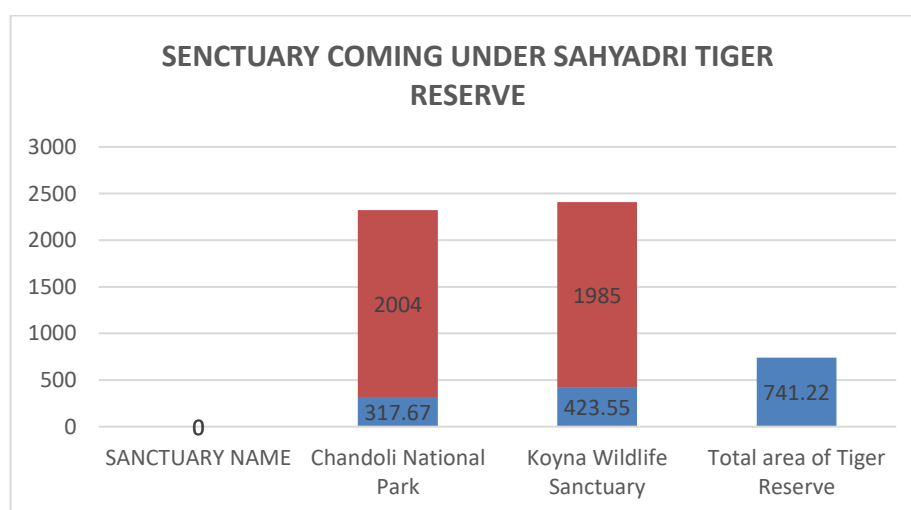


Fig -4

Table -5
TIGERS IN TIGER PROJECTS IN MAHARASHTRA (2022)

Name of Tiger Project	The Number of Tigers In 2022
Tadoba tiger reserve	87
Melghat tiger reserve	57
Pench tiger reserve	41
Bor tiger reserve	9
Sahyadri tiger reserve	8
Navegaon tiger reserve	12

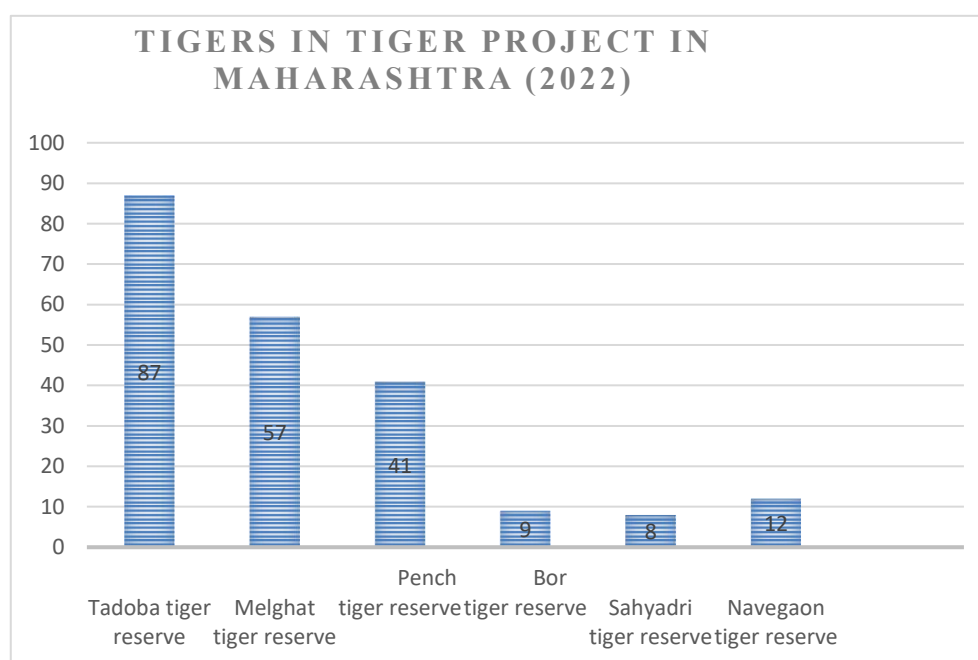


Fig -5

7. Conservation Efforts and Challenges in Sahyadri Tiger Reserve

7.1. Conservation Measures-

Several strategies are implemented under Project Tiger to protect wildlife in STR:

- 1. Habitat Management:** This includes planting grass and pastures, creating waterholes for drinking water, and removing invasive plant species.
- 2. Legal Protection:** Strict laws against poaching and the illegal wildlife trade are enforced.
- 3. Technology Use:** Modern tools like camera traps, GPS, and satellite monitoring are used for surveillance and tracking.
- 4. Community Involvement:** The forest department conducts awareness programs through 'Sahyadri Katta' (village gatherings) to explain the importance of wildlife protection. Eco-tourism

initiatives provide employment opportunities for local people, encouraging their support for conservation.

7.2. Challenges

Despite these efforts, the STR faces significant challenges:

- 1. Human-Wildlife Conflict:** Tigers and other animals sometimes prey on livestock and damage crops, leading to economic losses for local farmers and creating conflict.
- 2. Habitat Fragmentation:** Human encroachment for agriculture and infrastructure development fragments the forest, affecting tiger movement.
- 3. Rehabilitation Issues:** Relocating villages from the core area to reduce conflict is a complex process, as people face challenges adapting to new locations.
- 4. Low Tiger Density:** As seen in Table 4, the STR has a relatively low tiger population compared to other reserves in Maharashtra, indicating specific ecological or anthropogenic pressures.

Conclusion

The creation of Project Tiger in 1973 was a critical step towards preventing the extinction of tigers in India. The project's strategies, such as establishing core and buffer zones, have contributed to a steady increase in the national tiger population. The Sahyadri Tiger Reserve, as a part of this network, plays a vital role in conserving the unique biodiversity of the Western Ghats.

However, the relatively low tiger numbers in the STR highlight the persistent challenges of human-wildlife conflict and habitat pressure. The success of tiger conservation in this landscape depends on a balanced approach that includes effective habitat management, the use of technology, and, most importantly, the active participation and support of local communities. Continuous efforts to mitigate conflict and provide sustainable livelihoods are essential for the long-term survival of tigers in the Sahyadri region.

9. References

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