



Exploring ecotourism dynamics: A comparative study of visitor patterns in Ranthambore and Sariska Tiger Reserves

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Abstract

This study delves into the intricate dynamics of ecotourism by conducting a comparative analysis of visitor patterns in two prominent tiger reserves in Rajasthan, India: Ranthambore and Sariska. Utilizing secondary data obtained from the Forest Department of the Government of Rajasthan, the National Tiger Conservation Authority (NTCA) of the Government of India, and various online sources, this research aims to provide insights into the factors influencing tourist flows in these ecologically significant regions. The methodology involves the collection and analysis of data pertaining to visitor demographics, visitation trends, infrastructural developments, conservation efforts, and socio-economic factors influencing tourism in both reserves. By examining historical visitor data and government reports, the study evaluates the temporal and spatial variations in tourist arrivals, and preferred modes of transportation. Furthermore, the research investigates the effectiveness of management strategies implemented by authorities to regulate tourism activities while ensuring the preservation of biodiversity and habitat integrity. Comparative analysis allows for the identification of similarities and disparities in visitor experiences, resource allocation, and conservation practices between Ranthambore and Sariska. Insights gained from this study can inform policymakers, conservationists, and stakeholders about the strengths and weaknesses of ecotourism management in these tiger reserves. Additionally, the findings contribute to a deeper understanding of the complex interactions between tourism, conservation, and community livelihoods in protected areas. Ultimately, this research aims to foster sustainable ecotourism practices that promote biodiversity conservation, enhance visitor experiences, and support local communities in tiger reserve regions.

Keywords: Ecotourism, biodiversity, visitors experiences, demographics

Introduction

The primary factors influencing tourism demand include income (GDP), household consumption, unemployment rate, and the harmonized consumer price index. Per capita income, unemployment rate, and final household consumption emerged as the predominant explanatory variables across all tourism regions (Serra *et al.*, 2014) ^[7]. Domestic tourism proves to be a more potent tool for fostering balanced regional economic development in China compared to international tourism, particularly due to its widespread reach within the country (Goh *et al.*, 2014) ^[2]. A study conducted in STR concluded the hierarchical method of managing protected areas has resulted in socio-cultural upheaval and frequently fallen short in biodiversity conservation efforts. Such a top-down conservation strategy has resulted in management choices that significantly endanger the livelihoods and cultural heritage of local communities. For instance, initiatives like resettlement programs aimed at relocating villagers from areas within the park and restrictions on resource access and traditional rights have exacerbated these challenges (Torri, 2011) ^[9]. The aim of the Rajasthan tourism policy is to advance ecological preservation in the region, nurturing distinctive, high-quality, and low-impact ecotourism sites that prioritize the careful safeguarding of natural and cultural treasures. Additionally, it seeks to cultivate enriching educational experiences, empower local communities by creating livelihood opportunities, alleviating poverty, and enhancing capacity. This policy framework provides an ideal foundation for the establishment of sustainable ecotourism

ventures in Ranthambore and Sariska Tiger Reserves (Forest Department, 2021). The involvement of communities in ecotourism has diminished their overreliance on forest resources for sustenance. Furthermore, both park authorities and local communities have laid a robust groundwork for ensuring additional facets of sustainability, such as the preservation of natural and cultural assets, leading to an improved overall well-being (Vinodan & Manalel, 2011) ^[11]. In the Sundarbans, local residents primarily derive income from tourism by working as guides and cooks. Additionally, individuals living in fringe areas receive one-fourth of the revenue generated from visitors as entry fees to the National Park (Mitra *et al.*, n.d.). Tourism centered around observing tigers makes a substantial contribution to both the environment and the economy of the neighbouring area, playing a crucial role as a key source of revenue within the forest ecosystem (Singh & Sen, 2022) ^[8]. The rise and popularity of specific forms of wildlife tourism, present both opportunities and challenges for host communities. Wildlife tourism relies on the presence of a sustainable resource (wildlife), a receptive market (tourists), and supportive local residents (hosts). Various wildlife tourism activities have the potential to affect host communities in numerous ways, just as the host community can influence wildlife tourism activities. With any increase in wildlife tourism, there's likely to be a corresponding increase in the number of individuals impacted by it. Therefore, a key challenge for the wildlife tourism industry is to maximize the cultural, economic, and social benefits for host communities while mitigating any negative repercussions (Scott, n.d.). The

public's evaluation of the effects of tourism demonstrates a considerable level of complexity and reflection on the trade-offs highlighted in existing literature. Furthermore, there is widespread acknowledgment of the possibility for wildlife to encounter both advantages and disadvantages as a consequence of tourism (Macdonald & Wester, 2021) [4]. The growth of wildlife tourism could spark increased public engagement in conservation efforts, but it also presents new challenges in a setting where conservation initiatives are already stretched thin due to infrastructure development, dense human populations dependent on park resources, and declining wildlife populations (Karanth *et al.*, 2008 [3]; Udaya Sekhar, 2003) [10].

Study Area

This research focuses on two prominent tiger reserves located in the state of Rajasthan, India: Ranthambore Tiger Reserve and Sariska Tiger Reserve. Ranthambore Tiger Reserve, situated in the Sawai Madhopur district, spans over 1411.28 km² (including core and buffer) and Latitude and longitude of the RTR's are 25°52' N to 26°33' N and 75°85' E to 77°02' E is renowned for its rich biodiversity and historical significance, including the iconic Ranthambore Fort. Sariska Tiger Reserve, located in the Alwar district, covers an area of 1213.34km² (including core and buffer) and Latitude 27°05' to 27°38' North and Longitude 76°14' to 76°32' East of the STR's core zone respectively is characterized by diverse landscapes, including dense forests, rocky hills, and grasslands. Both reserves are integral parts of the larger Western Ghats

biodiversity hotspot and serve as critical habitats for the endangered Bengal tiger, among other wildlife species. Ranthambore and Sariska Tiger Reserves attract a significant number of domestic and international tourists each year, drawn by the opportunity to observe wildlife in their natural habitats, including tiger sightings. The study area encompasses the entirety of both tiger reserves, including the core zones, buffer zones, and surrounding fringe areas. Data collection and analysis will be conducted within the boundaries of these reserves, focusing on visitor patterns, tourism infrastructure, conservation initiatives, and socio-economic dynamics impacting ecotourism activities.

Methodology

The primary data for this study will be sourced from the Forest Report published by the Department of Forest, Government of Rajasthan. This report contains comprehensive information on domestic and foreign tourist visitation to Ranthambore and Sariska Tiger Reserves from 2010-11 to 2013-14.

Data Extraction: Relevant data pertaining to domestic and foreign tourist arrivals in both Ranthambore and Sariska Tiger Reserves for the specified time period will be extracted from the Forest Report. This data will serve as the basis for comparative analysis of visitor patterns between the two reserves. A bar graph will be constructed using appropriate software to visually represent the visitor patterns in Ranthambore and Sariska Tiger Reserves from 2010-11 to 2013-14. Separate bars will be used to depict the total number of domestic and foreign tourists for each year in both reserves, allowing for easy comparison.

Table 1: Visitors Data and Tiger Population Data of STR Between 2010-2014.

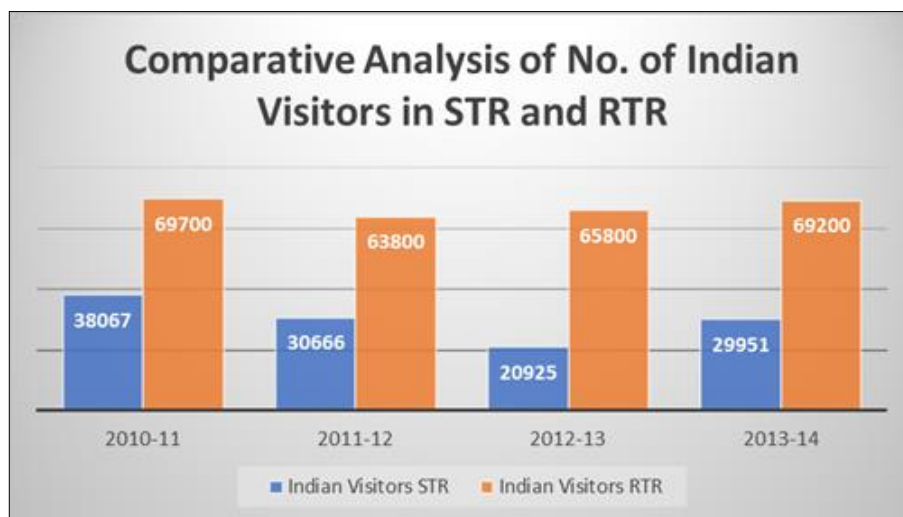
No.	Year	No. of Indian Visitors	No. of Foreign Visitors	Total No. of Tourist	Tiger Population
1.	2010-2011	38067	6169	44236	05
2.	2011-2012	30666	3737	34403	05
3.	2012-2013	20925	2138	23063	05
4.	2013-2014	29951	2410	32361	09

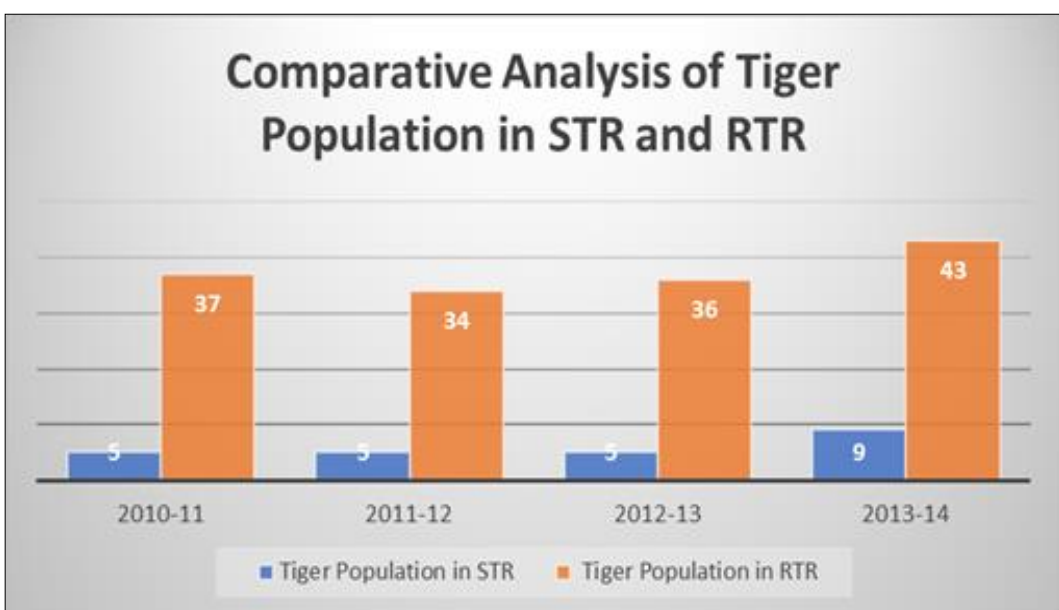
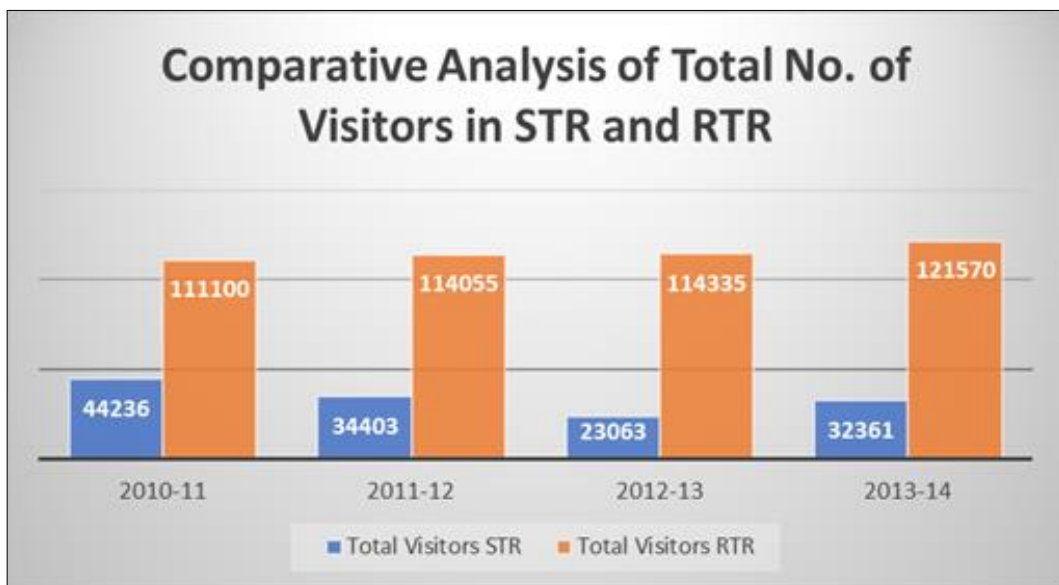
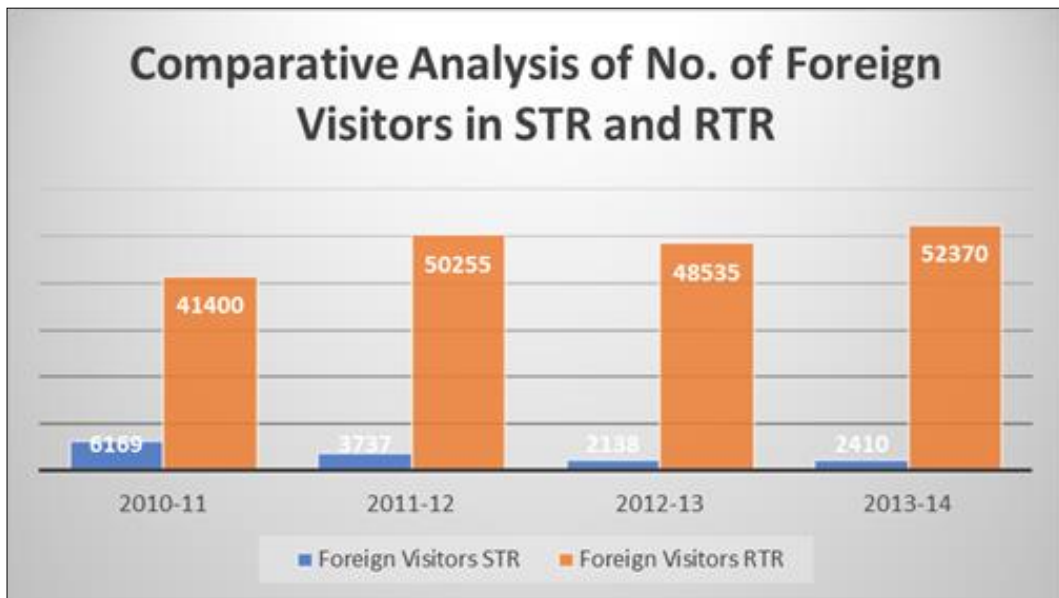
Source: Forest Report, Department of Forest, Government of Rajasthan.

Table2: Visitors Data and Tiger Population Data of RTR Between 2010-2014.

S.No.	Year	No. of Indian Visitors	No. of Foreign Visitors	Total No. of Tourist	Tiger Population
1.	2010-2011	69700	41400	111100	37
2.	2011-2012	63800	50255	114055	34
3.	2012-2013	65800	48535	114335	36
4.	2013-2014	69200	52370	121570	43

Source: Forest Report, Department of Forest, Government of Rajasthan.





Result

The comparative study of visitor patterns in Ranthambore and Sariska Tiger Reserves reveals significant differences in

ecotourism dynamics between the two reserves, with Ranthambore exhibiting drastically higher visitor numbers compared to Sariska.

▪ Visitor Patterns in 2010-11

In Sariska Tiger Reserve: Domestic visitors are 38,067, Foreign visitors are 6,169 and total visitors are 44,236. Whereas in Ranthambore Tiger Reserve: domestic visitors are 69,700, foreign visitors are 41,400 and total visitors are 111,100.

▪ Visitor Patterns in 2013-14

In Sariska Tiger Reserve: Domestic visitors are 29,951, foreign visitors are 2,410 and total visitors are 32,361. Whereas in Ranthambore Tiger Reserve: domestic visitors are 69,200, foreign visitors are 52,370, total visitors are 121,570.

Conclusion

The research findings underscore the significant disparities in visitor patterns between Ranthambore and Sariska Tiger Reserves, with Ranthambore consistently attracting drastically higher numbers of both domestic and foreign visitors compared to Sariska.

Factors Influencing Visitor Patterns: Tiger Population and Sightings: Ranthambore's reputation as a prime tiger habitat with frequent sightings contributes to its popularity among wildlife enthusiasts and tourists, both domestic and foreign. In contrast, Sariska's tiger population faced challenges in the past, impacting its appeal as a wildlife tourism destination.

Infrastructure and Facilities: Ranthambore offers better infrastructure, including accommodation options, safari services, and visitor amenities, enhancing the overall tourist experience. Sariska, on the other hand, may have limited facilities and services, potentially limiting its attractiveness to visitors.

Marketing and Promotion: Ranthambore's proactive marketing strategies and high-profile status as a premier wildlife destination may contribute to its higher visibility and visitor numbers. Sariska may require stronger marketing efforts to increase awareness and attract more visitors.

Implications for Management and Conservation:

Sustainable Tourism Management: Both reserves need to focus on sustainable tourism management practices to ensure the conservation of wildlife and habitats while catering to visitor demands.

Capacity Building: Sariska may benefit from capacity building initiatives aimed at improving infrastructure, enhancing visitor services, and implementing effective marketing strategies to increase visitor numbers sustainably.

Conservation Education: Both reserves should prioritize conservation education and awareness-raising efforts to promote responsible tourism practices and foster support for conservation initiatives among visitors and local communities.

In conclusion, the comparative study highlights the need for tailored management approaches to address the unique challenges and opportunities associated with ecotourism development in Ranthambore and Sariska Tiger Reserves. By leveraging strengths, addressing weaknesses, and implementing sustainable tourism strategies, both reserves can contribute to biodiversity conservation and promote ecotourism as a tool for socio-economic development in the region.

References

1. Forest Department, G. of R. Rajasthan Ecotourism Policy, 2021.
2. Goh C, Li H, Li M. A Comparative Analysis of Domestic and International Tourism Spatial Distribution: Trends and Impacts. *Journal of China Tourism Research*,2014;10(4):388–413. <https://doi.org/10.1080/19388160.2014.906933>
3. Karanth KK, Kramer RA, Qian SS, Christensen NL. Examining conservation attitudes, perspectives, and challenges in India. *Biological Conservation*,2008;141(9):2357–2367. <https://doi.org/10.1016/j.biocon.2008.06.027>
4. Macdonald C, Wester J. Public understanding of wildlife tourism: defining terms, harms, and benefits. *Journal of Ecotourism*,2021;20(2):198–209. <https://doi.org/10.1080/14724049.2020.1817930>
5. Mitra A, Bhattacharyya S, Raha AK. Ecotourism revenue in Sunderban Tiger Reserve. In: *Techno International Journal of Health, Engineering, Management and Science*. Vol,29. <https://www.researchgate.net/publication/322465010>
6. Scott N. Wildlife Tourism: a strategic destination analysis. <https://www.researchgate.net/publication/40871766>
7. Serra J, Correia A, Rodrigues PMM. A comparative analysis of tourism destination demand in Portugal. *Journal of Destination Marketing & Management*,2014;2(4):221–227. <https://doi.org/10.1016/j.jdmm.2013.10.002>
8. Singh BVR, Sen A. Assessment of Tiger Tourism in India: A Case Study of Ranthambore Tiger Reserve, Rajasthan, India,2022:317–327. https://doi.org/10.1007/978-981-16-7731-1_15
9. Torri M. Conservation, relocation and the social consequences of conservation policies in protected areas: Case study of the Sariska Tiger Reserve, India. *Conservation and Society*,2011;9(1):54. <https://doi.org/10.4103/0972-4923.79190>
10. Udaya Sekhar N. Local people's attitudes towards conservation and wildlife tourism around Sariska Tiger Reserve, India. *Journal of Environmental Management*,2003;69(4):339–347. <https://doi.org/10.1016/j.jenvman.2003.09.002>
11. Vinodan A, Manalel J. Local Economic Benefits of Ecotourism: A Case Study on Parambikulam Tiger Reserve in Kerala. In: *CITATIONS 5 READS*. Vol. 1. <https://www.researchgate.net/publication/304776019>