



Challenges and Prospects of Entrepreneurship in Sustainable Avitourism: A Case Study

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Abstract:

This study seeks to enquire into the nature and status of Avitourism, or birdwatching tourism, in the state of Telangana, India. In particular, this study seeks to identify the challenges and prospects for the growth of this increasingly popular niche activity in the context of conservation and sustainability. The scope of this study is threefold: to examine the current state of birdwatching and avitourism, to assess the challenges and prospects for entrepreneurship, and to offer suggestions and recommendations based on the insights derived. To achieve its primary objectives, this study develops a portfolio of the birdwatching offerings in Telangana, such as the various ecosystems, protected areas and avitourism hotspots, avian diversity, flagship species, as well as the width and depth of services offered in the market. This research uses secondary data sources such as previous research, content from social media as well as traditional media to conduct a SWOT analysis and identify the problems and prospects of avitourism entrepreneurship in Telangana. The findings of the study are used to formulate suggestions and recommendations for the sustainable development of avitourism in Telangana. This is the first study of avitourism in the state, serving as both a documentary record, as well as being a base for further research in the area. The findings from this study are intended to inform service providers and policy makers in the sustainable planning and development of avitourism destinations and services in Telangana.

Keywords: Avitourism; birdwatching tourism; ecotourism; wildlife entrepreneurship; sustainable tourism.

1. Introduction

Avitourism, also known as birdwatching tourism, is the activity of traveling to places away from home for the purpose of observing birds (Conradie & van Zyl, 2013). It is a popular subsector of nature-based tourism which is seeing exponential growth across the globe in recent decades (Connell, 2009). Initially, the hobby of birdwatching was pursued as a leisure travel activity mainly by affluent people from the developed Western nations (Çakici & Harman, 2007). However, the hobby is now expanding in reach and more and more people from all walks of life, even from developing countries, are joining in the practice. Even prior to this expansion of tourist generating markets, the biodiverse equatorial countries – often in economically disadvantaged regions –

were in demand as birdwatching destinations, especially among the more advanced birders (Cole & Scott, 1999). However, the significant economic and social benefits that avitourism can provide are now better documented, and these have served as major incentives for the conservation of birds and bird habitats (Sekercioglu, 2002). Birdwatching has emerged as a vital source of income for many countries, and they have been keen on development of facilities to attract more of the birdwatching tourism market (Vas, 2013).

Avitourism is now valued at over 66 billion USD as of 2024 and is set to grow at 6.3 percent each year. In India, the avitourism market was worth 2.3 billion USD (196 lakh crore INR) in 2024 with a CAGR of 7.3 percent (Grand View Research, 2024). A large leisure market such as this, with well-educated and affluent consumers has resulted in destinations around the world trying to differentiate themselves from each other through unique destination management and marketing methods. This is only in addition to the inherent uniqueness of avitourism destinations due to the natural variation of species around the globe (Li et al., 2013). Birdwatching destinations have implemented various strategies to capture the attention of prospective travellers, such as adopting novel visitor experience management techniques, and development of sustainable infrastructure.

2. Literature Review

Avitourism does not rely on the consumption of natural resources, and is in fact dependent on the pristine quality of natural resources (Guimarães et al., 2015). Avitourism has the potential for both positive or negative conservation outcomes, depending on the nature of management actions. If managed correctly, avitourism is known to deliver sustainable, environmentally-positive benefits (Aas et al., 2023). When avitourism is carried out outside of protected areas, such as cities and suburbs, the potential for recreational disturbance is greatly increased (Callaghan et al., 2018). Birds are facing increasing anthropogenic pressures, and conventional conservation measures are not expected to be sufficient to reverse the trend in declining bird numbers and dwindling bird habitats (Fanshawe & Bennun, 1991).

Telangana, situated in the Deccan Plateau of southern India, is India's 11th largest state. Its status of statehood is relatively recent, having been separated from Andhra Pradesh in June 2014. The cosmopolitan tech-hub, Hyderabad, is the capital city of Telangana. (The Editors of Encyclopaedia Britannica, 2025). While the research literature on avitourism around the world is growing at an exponential rate, the coverage of India is limited to only a handful of studies (Mohammadi et al., 2024). Telangana, despite its wealth of avifaunal diversity, ecosystems, and its potential for avitourism, is yet to be assessed and documented as a birdwatching destination in any form.

3. Methodology

The methodology adopted for this study is qualitative in nature. In order to investigate the current condition of avitourism in the state of Telangana, India, an exploratory case study approach has been adopted, so as to identify the challenges and opportunities for entrepreneurship development in the context of sustainable tourism development. The research methodology for this study is centred around the research objectives stated above. The study is based primarily on secondary data sources, such as citizen science websites (eBird); academic literature (journal articles, books, book chapters on avitourism, ecotourism entrepreneurship, and sustainability); websites of avitourism service providers; government and other bodies' reports, such as the Telangana Forest Department, and Ministry of Tourism; user-generated content such as vlogs, blogs, and social media posts; news

media; and grey literature such as publications and newsletters of NGOs and conservation groups. The data thus collected were gathered and thematically analysed in order to identify the major themes in Telangana's avitourism scenario. Thus, the main components of the niche market in the state have been synthesized. The insights synthesized from the data collected have been incorporated into a SWOT analysis framework in order to assess the status of avitourism entrepreneurship in Telangana. In this procedure, the findings were categorized into internal factors (Strengths and Weaknesses) and external factors (Opportunities and Threats).

4. Findings

4.1. Avian diversity

The state of Telangana is home to a total of 446 species of birds (*eBird Telangana*, n.d.). This comprises of 32.2 % of the 1381 bird species recorded in India (*India - eBird*, 2025). Owing to the large variety of ecosystems in Telangana, from dense forests, grasslands, mangroves, wetlands, and urban areas, there is a similarly wide variety in the type of birds that can be seen in the state. Forest birds, such as colourful songbirds and raptors, grassland birds, such as racket-tailed drongos and shrikes, wetland species such as flamingos and garganeys, and more common species seen all over the state, such as spotted owlet, Indian rollers, and ring-necked parakeet, are some of the many avian residents of Telangana.

4.2. Flagship and target species

The concept of flagship species is built around the idea that focusing conservation efforts around certain selected species will in-turn yield benefits in the protection and preservation of wider biodiversity (Walpole & Leader-Williams, 2002). As such wildlife administrators and stakeholders in decision-making capacities often choose popular and charismatic species as flagships to promote conservation efforts (Veríssimo et al., 2009). While the idea was originally incorporated in the case of iconic charismatic megafauna such as pandas and tigers, in recent times the range of species identified and put forward as flagships has greatly widened (Veríssimo et al., 2009). Flagship species help in creating a focused image of a beneficiary species that can be the recipient of the public goodwill.

In a similar vein, target species are those which are most in-demand and sought-after by avitourists, often for characteristics such as attractive plumage, behavioural distinctiveness, and more importantly, rarity and restricted distribution. Quite often those species that are most sought-after are often branded in public forums as flagship species of the local wildlife. As such, Telangana has numerous options due to its high avian diversity. The bird species that are most commonly advertised in birding tours within the state are: Indian paradise flycatcher, Indian pitta, greater painted snipe, ultramarine flycatcher, Eurasian kestrel, greater flamingo, dusky eagle-owl, and verditer flycatcher.

4.3. Birdwatching hotspots

The world's largest citizen science platform, eBird, is a website where birdwatchers can record their observations of birds and their habitats. Over time, eBird has grown to host an enormous amount of data on bird species abundance, distribution, and migratory patterns. Going by the recorded observations, users can also glimpse the amount of birdwatching activity done in any given area. While this dataset includes observation from both avitourists as well as local birdwatchers, it serves as a useful proxy for the avitourism volume and potential in a given location. Similarly, data regarding the number of species recorded in a location are also available. Below

are listed the ten locations in Telangana where the highest number of species have been recorded. This table offers a valuable insight into the locations in Telangana with the highest avitourism potential (*eBird Telangana*, n.d.).

Rank	eBird Hotspot	Species
1.	Manjeera Wildlife Sanctuary	289
2.	Osman Sagar Lake	281
3.	Ameenpur Lake, Hyderabad	276
4.	Ananthagiri Hills, Vikarabad	270
5.	ICRISAT Campus	216
6.	Uma Maheshwaram	262
7.	Narsapur Reserve Forest	258
8.	Pakhal Lake	256
9.	Amrabad Tiger Reserve	254
10.	Himayat Sagar Lake	249

Table 1: List of top 10 eBird Hotspots with the highest species richness (*eBird Telangana*, n.d.).

4.4. Avitourism infrastructure

The practice of avitourism is greatly augmented through the development and use of birdwatching infrastructure. The most prevalent birdwatching infrastructural component is the birdwatching tower. These structures provided elevated vantage points over forest areas or water bodies that aid the observation of birds from a distance. Though not as common in India as yet, several globally popular avitourism destinations have erected birdwatching towers with multi-level viewing decks. Such a feature enables visitors to observe birds from different heights. This is particularly useful in densely forested birding sites, where different avian species occupy different layers of the forest canopy. Multi-level viewing decks also reduce crowding on the top-most deck of the birdwatching tower. Similarly, birdwatching destinations have incorporated birding platforms, which are structures that are erected on one side of a sloping terrain. This is a cost-effective and more accessible form of viewing deck for birders. Perhaps the most essential of all forms of birdwatching infrastructure are blinds and hides that help birders conceal themselves while observing birds. While hides are small, portable structures made of lightweight material, blinds are larger built structures that were several people can discreetly observe and photograph birds. Blinds are constructed with small slits, windows, or one-way glass for observation.

4.5. Characteristics of avitourism services provided

We can draw several significant insights based on the analysis of avitourism packages by service providers in Telangana. Hyderabad, the state capital, has a lot to offer for the birdwatchers. While the general public might be surprised by a large metropolis being home to great avian diversity and birdwatching activity, the city has several locations with high bird counts, and is thus a regular feature of avitours offered in Telangana. Ameenpur Lake, Ananthagiri forest, Botanical Gardens, Edulabad Lake, and Nehru Zoological Park are some of the popular locations in Hyderabad that feature prominently in birdwatching tourism packages (Siva, 2025). The Hyderabad Zoo offers in-house birdwalks that are popular with the general public (NZPCMS, n.d.). There are also several

birdwatching trails that are offered by birdwatching service providers. Kasu Brahmananda trails, Hussain Sagar Lake trail, Durgam Chevuru, Island Point in Ananthagiri Hills, Damagundam Forest trail are regularly featured on bird tours online (*Best Bird Watching Trails in Telangana*, n.d.). The bird species most commonly advertised on avitour packages online are the Indian blue robin, painted storks, kingfishers, black-headed ibis, herons, and lapwing (*NZPCMS*, n.d.; Siva, 2025).

4.6. SWOT Analysis

The SWOT analysis of avitourism in Telangana has revealed several of its salient characteristics. To begin with, avitourism as it is globally, holds significant environmental, economic, and socio-cultural benefits, and Telangana can benefit greatly from the same. However, these benefits are hindered by the present gaps in birdwatching infrastructure, awareness, and policy support. Nevertheless, as is observed around the world, the rising wave of public awareness and trends in sustainable travel and government interest in ecotourism, rural, and community-based tourism present major opportunities for the development of avitourism, provided, the possible environmental and socio-cultural risks are accounted in policy, and are managed responsibly. The table below details the strengths, weaknesses, opportunities and threats of sustainable avitourism in Telangana that entrepreneurs have to take note of in order to maximise tourism quality and minimise negative impacts arising from the same.

<p>Strengths</p> <ol style="list-style-type: none"> i. Rich avian diversity with several endemic and migratory species. ii. Extensive protected area network such as wildlife sanctuaries and national parks. iii. Growth in birdwatching interest among the general public. iv. Low environmental impact compared to mass tourism. v. Scope for rural and community-based tourism (CBT). 	<p>Weaknesses</p> <ol style="list-style-type: none"> i. Lack of awareness among the public and local stakeholders. ii. Poor tourism infrastructure in the avitourism sites. iii. Limited marketing focused on avitourism. iv. Lack of trained and skilled local guides to cater to avitourism. v. Policy support for the niche tourism sectors is fragmented.
<p>Opportunities</p> <ol style="list-style-type: none"> i. Large-scale growth in nature-based travel post Covid-19. ii. Growth in domestic and international birdwatching communities. iii. Potential for community and women-led enterprises. iv. Government schemes for rural and nature-based entrepreneurship. v. Collaboration with NGOs and conservation groups. 	<p>Threats</p> <ol style="list-style-type: none"> i. Environmental impacts such as habitat degradation and behavioural threats. ii. Irresponsible and unethical tourism practices. iii. Conflict between conservation and commercialization. iv. Dependence on seasonality of migrations. v. Regulatory hurdles and land-use restrictions.

Table 2: SWOT analysis of avitourism in Telangana. (Source: self-prepared).

5. Discussion

This study has revealed several insights into the current state and prospects of avitourism in Telangana. Firstly, we see that Telangana has a healthy volume of birdwatching activity at present. While it remains to be seen how much of the birdwatching activity in the state is a result of tourists, the number of websites offering birdwatching tours to visitors suggests that Telangana is, at the very least, an emerging destination in the avitourism market. Secondly, Telangana has excellent potential as a prospective avitourism destination, owing to its high avian diversity, accounting for around one-third of all the species seen in India. For a single state to be host to a large portion of the country's avian richness, the potential for a healthy avitourism market is beyond doubt. We observe that there are several locations across the state which can be developed and marketed as prime birdwatching destinations. For the non-specialized tourists who would only try birdwatching as a novel experience, the capital city, Hyderabad itself is the site of about a dozen prime locations for birdwatching. However, this observation comes with the caveat that birdwatching locations have to be developed with extreme care, with the right infrastructure appropriate to the site. The administrators of avitourism activity such as the Ministry of Tourism and the Forest Department of Telangana have to be conscious of developing the birdwatching locations in such a way that, while the experiences of the visitors are maximised so as to deliver the highest possible satisfaction levels, the impacts caused to the environments, to the birds, and to the local communities is negated. This can be achieved through carrying out carrying capacity studies, capping the number of visitors in each location depending on the time of the year, allocation of zones for birdwatching away from nesting and roosting areas, and maintaining stringent checks and balances on the activities conducted at birdwatching locations.

Innovations in accessibility of destinations have made birding more inclusive, bringing the differently abled into the fold. Similarly, nature-based modes of accommodation, such as eco-lodges, bring together sustainable architecture with functionality and user application. The usage of sustainable, locally-sourced materials, environmentally inspired design, and wildlife-friendly landscaping techniques, are all made possible through imaginative design and development. This key challenge of scaled-up avitourism remains the same around the world: to provide high-quality birdwatching experiences without negatively impacting the local wildlife and their habitats.

Through the SWOT analysis, we find that the awareness of local communities regarding the avian richness and potential for economic benefits, is lacking. Raising awareness among local residents in this regard, as well as involving them in the decision-making process, can lead to a sense of ownership among the community members wherein they are incentivized to conserve and protect the birds and habitats in their areas. Around the world, it has been observed that avitourism can deliver significant community benefits when the local community members are made aware of the economic and conservation potential of birdwatching activity. As a corollary to this, local community members, who are generally known to possess a high level of knowledge and understanding of the natural world, can be trained to communicate their knowledge to visitors. This provides a great incentive to conservation. The government can also motivate the development of self-help groups, women-led enterprises, and community-based tourism initiative in connection with avitourism so that the benefits of avitourism are fully realised and, at the same time, are directed towards the stakeholders that should rightly receive the benefits.

Finally, it is imperative that the government takes the lead in incorporating the views and involvement of all the stakeholders involved in the activity. This includes the tourists, local community members, service providers such as guides and accommodation providers, researchers, and conservationists. Doing so can lead to ideal integration of viewpoints and addresses conflicting interests at the planning stage, making allowances for the same.

6. Limitations

This study is delimited to the state of Telangana. The findings of this study are interpretative and exploratory in nature, and are based entirely on secondary data sources, and the analyses are qualitative in nature. Being based on secondary data and qualitative analyses this work may not fully reflect the on-ground perspectives of local stakeholders of avitourism in Telangana. The absence of primary data from the location limits the depth of contextual insights that are gained from the study. The authors of this study recommend future research in sustainable avitourism entrepreneurship in Telangana to incorporate on-ground empirical data and quantitative analyses to in order to develop a holistic understanding of the phenomena involved.

7. Conclusion

This study has revealed valuable insights into the nature and scope of avitourism, its sustainability as a commercial activity, and the potential scope of developing Telangana as a prominent sustainable avitourism destination. While we note that Telangana has several features that present themselves in a favourable light, such as high avian diversity, variety of ecosystems, network of Protected Areas, and developed infrastructure and connectivity, there are also certain facets of avitourism development that have to be heeded in order to develop the activity in a way that minimises the negative impacts that may arise from unplanned development. The qualitative analysis of the strengths, weaknesses, opportunities and threats for entrepreneurship in avitourism in the state of Telangana serve as a vital starting point to base further research on, in order to back policy-building and commercial activity with credible, evidence-based academic literature.

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