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# Potential and prospects of ecotourism in Bhoramdev Wildlife sanctuary, Kabirdham

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#### **Abstract**

Ecotourism, defined as responsible travel that conserves natural environments while benefiting local people, offers a pathway to combine biodiversity preservation with socioeconomic development. This study assesses the ecotourism potential of Bhoramdev Wildlife Sanctuary in Kabirdham, Chhattisgarh, which lies within the critical Kanha-Achanakmar tiger corridor. The research identified a diverse portfolio of ecotourism services: six ecolodges that integrate indigenous-themed mud houses and cultural interpretation, three camping operators, four trekking providers, and five waterfalls, bird and butterfly-watching opportunities, both contributing to niche wildlife tourism. Cultural heritage sites further enrich the visitor experience. The sanctuary is inhabited by Baiga and Gond tribal communities, whose traditional livelihoods depend on forest resources. Findings indicate that ecotourism can generate sustainable financing for conservation, create local employment, and enhance awareness of the sanctuary's unique biodiversity and heritage. Given the rich natural resources of Bhoramdev, exploring the scope of ecotourism in the region has significant importance for future development.

Keywords: Ecotourism potential, protected area, wildlife sanctuary

#### 1. Introduction

Ecotourism, defined as responsible travel to natural areas that conserves the environment and improves the well-being of local people, offers an opportunity to combine preservation and human benefit, especially when managed collaboratively between stakeholders, communities, and regulatory authorities [7]. In these areas, diverse ecotourism activities such as wildlife observation, guided nature walks, and immersive cultural encounters not only generate financial resources for conservation but also foster educational opportunities and cross-cultural appreciation [1]. A strong educational component, including heritage interpretation and environmental outreach, is vital for maximizing positive impacts and ensuring that the influx of visitors supports rather than undermines conservation objectives [1]. In order to strengthen community control and management of the forests, it is important to generate a sustainable flow of non-extractive financial benefits of forests for the communities, to ensure that the communities take interest in the conservation of forests and wildlife. Ecotourism is perhaps the only means of achieving this end. Developing environmental tourism and ecotourism in today's world, where massive destruction of nature is common, is significant to the society and seen as an important tool in achieving sustainable development and avoiding uncontrolled movement of tourists [4]. Ecotourism practices contribute to income generation, conservation of protected areas, creation of employment opportunities for local communities and offers environmental education [15]. One of the significant aspects of ecotourism is sustainability [6], because ecotourism is generally nature-based, and careful to an environment. Furthermore, it conserves nature and there by contribute to the sustainability of tourism reliant on wildlife and other natural resources [19]. The research examines activities that promote ecotourism. Such experiences can allow the tourists to gain a deeper understanding of environmental issues while contributing to conservation efforts and supporting sustainable practices in the communities they visit as well as allow better management by the authorities.

### Materials and methods

**Study area:** The study was carried out at Bhoramdev wildlife sanctuary (WLS). The sanctuary is situated in district Kabirdham of Chhattisgarh State and named after the famous temple Bhoramdev built in 11th Century. The sanctuary is located between latitude 080°53' E to 081° 10' E and longitude 21° 57' N to 22°15' N.

Corresponding Author: Hritik Ronald Ekka Forestry, Department of It is situated about the elevation of 320-925 metres. Bhoramdev WLS is an important PA falling within Kanha-Achanakmar Corridor of the Central Indian Satpuda- Maikal Landscape (SML) which is a global priority landscape for tiger conservation comprising three states in Central India i.e, Madhya Pradesh, Maharashtra and Chhattisgarh. The total area of the corridor is about 1,18,867 km2 with potential of having largest contiguous habitat for tiger conservation. The area is an important dispersal ground and transition zone of important biological features and the endangered mega species Tiger and Gaur. Within the Satpuda- Maikal Landscape, Kanha-Achanakmar corridor is a contiguous forest patch with two source populations of tigers connected as a potential meta- population i,e. Kanha TR and

Achanakmar TR. Few tigers tenaciously hold their ground in the forests of Phen and Bhoramdev Wildlife Sanctuary intervening Kanha and Achanakmar corridor. This population forms a crucial linkage for the largest meta-population unit in Central India connecting the populations of Achanakmar-Kanha- Pench. The Sanctuary has about 26 villages and efforts to relocate them are being considered to save the area from further degradation. The sanctuary is well connected by all-weather road networks with daily plying of buses and taxies to the neighbouring cities and the states. The nearest railway station and cities are Raipur, Bilaspur, Rajnandgaon and Durg which are about 115-130 km from Bhoramdev WLS.

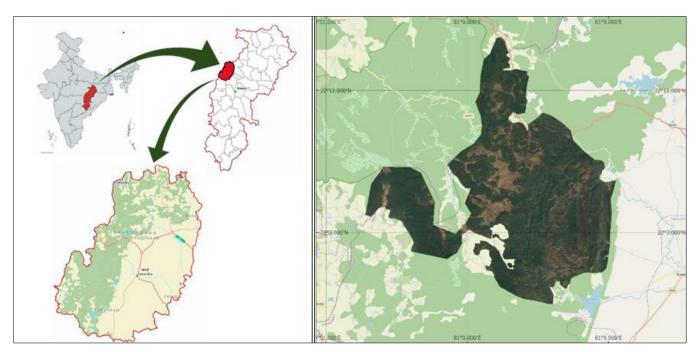


Fig 1: Map of study area

#### **Data collection**

The study is based on both primary and secondary data. Primary data were collected through interview schedules with the authorities and the residents of the sanctuary. Secondary data was obtained from the state forest department offices.

**Result and discussion:** The research has documented various ecotourism activities with their service providers and

identified potential ecotourism sites and products in the study area. The ecotourism services recorded in the study are categorised as ecolodges, camping, trekking and nature trails, waterfalls, bird watching, butterfly watching and cultural heritage sites. The study identified various stakeholders involved in providing these ecotourism services. Table 1 provide a list of all the stakeholders who provide these ecotourism services.

 Table 1: Ecotourism services provided by various stakeholders.

Stakeholders	Ecolodges	Camping	Trekking	Birding	<b>Butterfly Watching</b>
Baingan Resort	✓	X	✓	✓	X
Hotel Natraj	✓	Χ	Χ	Х	Х
Takshak Eco Farm	✓	✓	✓	✓	Х
Bhoramdeo Jungle Retreat	✓	<b>√</b>	✓	✓	✓
Gagan Kanha Resort	✓	Χ	✓	X	Х
Maikal Hill Eco-Farm	✓	✓	✓	✓	✓

**Ecolodges:** Russell *et al.*, (1995) <sup>[16]</sup> defined "ecolodge" as a "nature-dependent tourist lodge that meets the philosophy and principles of ecotourism". It offers natural resource-oriented ecotourism activities and opportunities for learning about the environment <sup>[10]</sup>. The study identified six ecolodges within the

study area. These are *Baiga Resort*, *Hotel Natraj*, *Takshak Eco Farm*, *Bhoramdeo Jungle Retreat*, *Gagan Kanha Resort*, and *Maikal Hill Eco-farm* (Table 2). All the ecolodges are situated near natural environments, providing visitors with an immersive experience of the local ecosystem. Among them,

Baiga Resort and Takshak Eco Farm offer accommodations in Indigenous-themed mud houses that reflect the traditional lifestyle of the Baiga tribes. Additionally, Baiga Resort features various informational boards that present insights into the rituals, traditions, and cultural practices of the Baiga community, including ceremonies related to birth, prayers, deities, marriages, dietary customs, dialects, and funeral rites.

Table 2: Ecolodges providers in Bhoramdev WLS

S. No.	Name of Accommodation	Location	Ownership	Туре	No. of Rooms	Price (per night)	Additional Facilities
1	Baingan Resort	_	Private	Normal	6	Rs. 2000	Restaurant, garden, playground for cricket, badminton, volleyball, board games, open theatre, museum, bar, parking
2	Hotel Natraj	Chilphi	Private	Luxury	1	Rs. 5000	Transportation
3	Takshak Eco Farm	Chaura	Private	Normal	5	Rs. 6000	Restaurant, cricket, badminton, volleyball, football, basketball, archery
				Premium	2	Rs. 9000	Board games
4	Bhoramdeo Jungle Retreat	Chaura	Private	Normal	7	Rs. 2500	Restaurant, trekking, jungle walk
5	Gagan Kanha Resort	Chaura	Private	Tent house	2	Rs. 3500	Cycling, river picnic
				Normal	4	Rs. 1500	Restaurant, garden
		•		Dormitory	1	Rs. 3000	_
6	Maikal Hill Eco- Farm	Katgo	Private	Normal	2	Rs. 2000	Restaurant, garden, playground
		•		Tent house	10	Rs. 2500	

Camping: Camping involves travel with one or more nights away from home in a temporary dwelling such as a tent or mobile recreational vehicle [3]. Camping has significantly increased in popularity over the last 20 years, particularly during the pandemic and stimulates economic activities around the globe [11]. The study identified three stakeholders offering camping services in the study area. These are *Bhoramdeo Jungle Retreat, Takshak Eco Farm* and *Maikal Hill Eco-farm*. Camping offers a liminal escape from the ebbs and flows of everyday urban living, where individuals from various backgrounds have the opportunity to meet, recreate, and socialize within an egalitarian environment [3].

#### **Trekking and Nature trails**

The study revealed four stakeholders involved in providing trekking services. These are *Baiga Resort, Bhoramdeo Jungle Retreat, Takshak Eco Farm* and *Maikal Hill Eco-farm*. Nature trail is one of the significant basic tools for nature study in natural conservation areas. Trekking plays an important role in promoting nature learning to visitors. It is also the most effective way to disseminate basic knowledge concerning outdoor environmental education and interpretation, which provides the trail users with a first-time natural experience as well as enhancing their awareness of nature [18].

# Waterfalls

The study has revealed five waterfalls in the study area. These are *Ranidahra waterfall, Gitti khadan waterfall, Supa pani waterfall, Maikal rani waterfall* and *Durduri waterfall* (Table 3). Out of these, *Gitti khadan* and *Durduri* waterfall has not been documented before. Waterfalls are one of the most spectacular shows deployed in nature, being a constant attraction for tourists. Searched for their special beauty, waterfalls are enchanting because of the size of the water volume, height of the fall, number of steps, and the thundering noise and, finally, due to the unique landscape in which this natural show is played [2].

**Table 3:** List of waterfalls sites in study area

S.no.	Name	Location	Seasonality	Coordinates
1	Ranidahra waterfall	Ranidahra	Perennial	22.198514, 81.094488
2.	Gitti khadan waterfall	Duldula	Seasonal	22.155532, 81.074556
3.	Supa pani waterfall	Bahenakhodra	Seasonal	22.110667, 81.058457
4.	Maikal rani waterfall	Madanabedi	Seasonal	22.061794, 81.156666
5.	Durduri waterfall	Koriyama	Perennial	22.087570, 81.119698

# **Bird watching**

It is important to note that birdwatching tourism is dependent upon the diversity and visibility of species in the target destination, with sightings of migratory birds, songbirds and birds of prey also in popular demand from avitourists [12]. The data of birds was obtained from the Sub-division office of Bhoramdev WLS. The information obtained revealed a total of 136 species of birds belonging to 59 families. Bird watching services are offered by *Baiga Resort*, *Bhoramdeo Jungle Retreat*, *Takshak Eco Farm* and *Maikal Hill Eco-farm*. Research findings have showed that region with high bird richness attracts more tourists, and these regions often have potential for avifauna tourism [9].

## **Butterfly watching**

The data of butterflies was obtained from the Sub-division office of Bhoramdev WLS. A total of 85 butterfly species belonging to 6 families (Hesperiidae, Pieridae, Papilionidae, Nymphalidae, Lycaenidae, Riodinidae) is observed in the study area. Butterfly diversity is one of the potential sources for tourism product variety and improvement. It is thought that the abundance and diversity of butterflies' potential will contribute to the diversification and development of tourism products in the sustainable tourism industry. Butterflies, like other wildlife tourism subjects, have an important potential in

destination development and can be used to diversify touristic activities in destinations. Tourism income levels of rural areas, including rich natural areas, can be increased by an improvement of ecotourism through butterfly watching and the conservation of biodiversity <sup>[8]</sup>.

#### **Cultural heritage**

Cultural heritage tourism is defined as travelling to experience the places and activities that authentically represent the stories and people of the past and present [5, 14]. Various cultural heritage sites were identified in the study area. These site includes *Bhoramdev temple*, *Chherki mahel*, *Madwa Mahel*, *Shiv mandir Benda*, *Ganesh mandir Benda* and *Shani Mandir*, *Koriyaama*. These sites, along with their significance are listed in Table 4. Heritage tourism is a new combination of words to look at tourism planning more comprehensively. It affirms that local community has identified significant elements of their places as important enough to preserve and to pass on to future generations. Providing an inventory of local cultural heritage assets is fundamental step to protect what is found in a specific area [13].

Bhoramdev mandir, Chherki mahel and Madwa mahel are state protected monuments. However, the infrastructural condition of Madwa mahel and Chherki mahel is degraded and require better management from the authorities.

#### Tribal heritage

The study area is inhabited by two tribal communities. These area Baiga tribe and Gond tribe. The Baiga tribe is classified as a particularly vulnerable tribal group (PVTG) by the government of India due to their declining population and low level of literacy. They are mainly dependent on forest resources to sustain their livelihood, while many also engage in wage labour, limited millet cultivation, honey collection, and, for a minority, plough-based agriculture. Majority of the Baiga tribe do not practice agriculture. Their semi-nomadic sub-caste, the Nahads (Narotiyas), remain largely landless and depend almost entirely on forest-derived livelihoods, whereas

the Bharotiyas and Binjhwars hold small land parcels of roughly half to one acre [17]. Cultural practices are influenced by beliefs such as the traditional ban on ploughing, seen as harming "one's own mother," and respect for deities like Bada Deo and Mara Deo are inherited patrilineally. Attire varies by settlement type; interior villages wear a shortened sari ("sola haath") and men alternate between dhotis, shirts and pants, while tattoos among middle-aged men serve as ornamental substitutes for costly jeweller. The Baiga observe a range of festivals that have become increasingly mainstream: Holi, Diwali, Raksha Bandhan, and the harvest festival Pola and Karma, followed by Narbod, during which herbal knowledge is transmitted and mahua liquor is offered to *Dharti Mata*. Mahua also features prominently in marriage rites, where the groom's family supplies the liquor for ceremonial consumption. The Gond tribes are indigenous people primarily found in central India, known for their rich culture and traditions. They traditionally inhabit forests and hilly regions, maintaining a close connection with nature.

Agriculture and forest resources are fundamental to the livelihoods of the Gonds. These communities depend heavily on both cultivated land and the natural wealth of the forests for sustenance and economic activities. The Gonds have preserved a rich and vibrant oral tradition. Through generations, they have passed down their myths, stories, and songs, ensuring that their collective memory and cultural identity remain intact. Artistic expression is another significant aspect of Gond life. Their art, which includes intricate tattoos and unique paintings, serves as a reflection of their spiritual beliefs as well as their daily experiences. These artistic traditions are not only decorative but also deeply symbolic and meaningful within their community. The Gonds celebrate several festivals with great enthusiasm, including Diwali, Holi, and Bhagoria. These celebrations are marked by communal participation and showcase the rich cultural heritage of the community, reinforcing their social bonds and traditional values.

Table 4: List of cultural heritage sites in study area

S. No.	Name of Site	Location	Significance		
1	Bhoramdev Temple	Chaura	Bhoramdeo Temple, known as the "Khajuraho of Chhattisgarh," is an ancient Hindu temple dedicated to Lord Shiva and carved in the Nagar style. Built between the 7th and 11th centuries A.D. by King Ramchandra of the Nag Dynasty, it features erotic sculptures resembling those of the Khajuraho and Konark Sun Temples.  Hence, the Bhoramdeo complex is called the "Khajuraho of Chhattisgarh."		
2	Madwa Mahel	Chhapri	Madwa Mahal, located about a kilometre away from the main temple, is a west-facing temple where a Shiva Linga is deified. The structure resembles a marriage hall or pandal ("Madwa" in local dialect) and was built to commemorate the wedding of Nagwanshi King Ramachandra Dev and Haihawanshi Queen Raj Kumari Ambika Devi in 1349.		
3	Cherki Mahel	Chaura	Cherki Mahal, located to the northeast, is believed to have been built by a Nag chief in the 14th century and is dedicated to Lord Shiva. It served as a shrine for the shepherd (Cherki) communities to consolidate the ruler's legitimacy in a region dominated by grazers.		
4	Shiv Mandir	Benda	A temple made from stone carvings, believed to predate the construction of the Bhoramdeo Temple. It deteriorated when sculptures were moved to Bhoramdeo during construction. Only a Shiva Linga remains at the site today, marking the remnants of the original temple.		
5	Ganesh Mandir	Benda	A stone carving of Lord Ganesha found about 100 metres from Shiv Mandir Benda during the transport of sculptures to the Bhoramdeo Temple was later established as a shrine. It is believed that the carving of Lord Ganesha refines with time.		
6	Shani Mandir	Koriyama	A small shrine dedicated to God Shani Dev, situated in a dense forest near the Bhoramdeo sanctuary. The mandir also features stone carvings from the same period as the Bhoramdeo Temple.		

#### **Conclusion and suggestions**

The study demonstrates that Bhoramdev Wildlife Sanctuary possesses substantial ecotourism potential rooted in its rich biodiversity, cultural heritage, and strategic location within the Kanha-Achanakmar tiger corridor. Diverse activities including six ecolodges, camping, trekking, nature trails, five notable waterfalls, birds richness of 136 species, butterflies richness of 85 species, and several heritage sites such as the Bhoramdev temple provide a robust product mix for sustainable ecotourism. Local stakeholders like Baiga Resort and Bhoramdeo Jungle Retreat, already deliver many of these services, indicating an existing capacity that can be expanded with minimal ecological disturbance. Ecotourism offers dual benefits, it generates non-extractive income for the surrounding communities, especially the Baiga and Gond tribes, while fostering environmental education and conservation awareness. By linking visitor experiences to the protection of tigers, gaurs, and other flagship species, ecotourism can become a vital financing mechanism for habitat management within this globally significant corridor. To realize this potential, the paper suggests (1) formalizing community-based management structures that ensure equitable revenue sharing, (2) improving infrastructure at key particularly under-documented waterfalls deteriorating heritage structures, to enhance visitor safety and experience, and

(3) integrating interpretive programs that highlight tribal culture and biodiversity, thereby strengthening the educational component of ecotourism. In sum, Bhoramdev WLS can serve as a model for balancing conservation objectives with socio-economic development, provided that policy makers, local authorities, and private operators collaborate to implement sustainable, culturally

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sensitive tourism practices.

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