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### Potential of ecotourism in Tatamari ecotourism Spot of Keshkal, Chhattisgarh with special reference to livelihood of tribes

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#### Abstract

Ecotourism is known as responsible travel to natural areas that conserves the environment, supports local people's well-being, and includes interpretation and education. The present investigation carried out on Potential of Ecotourism in Tatamari ecotourism spot Keshkal, Chhattisgarh with special reference to the livelihood of Tribes. In the Department of Forestry, Indira Gandhi Krishi Vishwavidyalaya, Raipur, during 2021-2022. The experimental data was collected through primary and secondary data collected. The result shows that there is a continuous flow of tourists and satisfaction level of tourists out of 6 villages studied near Tatamari ecotourism spot few suggestions are collected from the forest-dependent communities like - Local people should give the job opportunity in the management of tourist spot so that their source of income can be increased, Proper food facility should be made available, Proper drinking water facility should be made available. As Tatamari ecotourism is rich with attractive beauty of flora and fauna and located in Chhattisgarh. These areas are blessed with varieties of Waterfalls (Katulkasa, Kodakal, Lingodarha, Muttekhadka, Upperbedi, Cherbeda, Girgoli, Ghumar, Mirdey, Ghumar, Umradaha, Nalajhar, Hanki kudum, Kurkuchi, Gadh silyara Amadarha-I, Amadarha-II), Rock painting (Umradha, Hatha pahad, Lingo-Darha), Temples (Gobrahin Shiv temple, Nal vansh Yug Vishnu 6<sup>th</sup> -7<sup>th</sup>AD), Manjhingarh Scenic beauty spot, Satnam Dham Hathi Pahad Cave, etc. Chhattisgarh is very rich in biodiversity and scenic beauty point of view in India for all tourists. This paper focuses on the community's reliance on various forest products and ecotourism destinations in and around Chhattisgarh's Tatamari Ecotourism Spot.

Keywords: Tatamari, ecotourism, flora and fauna, Chhattisgarh

#### Introduction

Hector Ceballos – Lascurain coined the word "ecotourism" in 1983, and it was originally used to characterize nature travel to relatively undeveloped places with a focus on educational value. Its early description, whereas IUCN (International Union for Conservation of Nature and Natural Resources), formally adopted his amended phrase in 1996. (International Ecotourism Monthly, October 2006) As one of the largest contributors to global GDP, the travel and tourism (T&T) industry directly contributes about 3.6 percent and indirectly contributes about 10.3 percent. This industry directly employs nearly 77 million people worldwide, accounting for approximately 3% of total global employment. The World Tourism Organization (WTO) predicts over one billion arrivals in 2010, up from around 693 million today.

In case of Indian tourism and ecotourism, the beauty of India's cultural heritage and the abundance of natural resources make India a tourist's paradise. "Welcome a Tourist and send back a Friend," said Pandit Jawaharlal Nehru. That was the essence of India's post-independence approach to tourism. Tourism was viewed as a vital tool for national integration and international understanding. India is ranked 68th out of the world's 139 most appealing destinations. It ranks very high in terms of natural resources (ranked 8th) and cultural resources (ranked 24th), with 30 world heritage sites and vital creative industries. Tourism is the most important industry in the Indian economy's service sector. The World Conservation Union (IUCN) describes ecotourism as, "responsible travel to nature which conserves the environment and improves the livelihood of local people. Moreover, it should contribute income and education to the contribution of ecosystems (Brown 1997)<sup>[2]</sup>.

Chhattisgarh, located in the heart of India, has a rich cultural heritage as well as attractive natural diversity. Ancient monuments, rare wildlife, exquisitely carved temples, Buddhist sites, palaces, waterfalls, caves, rock paintings, and hill plateaus abound in the state.

Corresponding Author: Shristy Hakre Department of Forestry, Faculty of Agriculture, IGKV, Raipur, Chhattisgarh, India Most of these sites are untouched and unexplored, providing tourists with a unique and alternate experience when compared to traditional destinations that have become overcrowded. Chhattisgarh, the green state, has forest covering 44% of its land area and is one of the country's richest bio-diversity areas. Tatamari Ecotourism attraction spot was explored and highlighted in 2016. Tatamari is located 150 km away from the capital of Chhattisgarh, Raipur towards Kondagaon in the Keshkal block. Tatamari is 3km away from Keshkal. The distance between Tatamari from Bastar is 137 km. and the distance between Tatamari from Jagdalpur is 134 km.

Chhattisgarh has 3 national parks and 11 wildlife sanctuaries. These wildlife refuges and national parks are home to the state animal (wild buffalo) and state bird (Hill Myna), as well as other endangered animals and birds such as spotted deer, four-horned antelope, sloth bear, wild dog, jackal, wolf, hyena, and bison. The Indian government has designated Chhattisgarh as having the "highest tourist potential" and has pledged to support the state's efforts to become an ecotourism hotspot. Ecotourism has the potential to significantly improve the economic well-being and livelihood of the local population. There is a need to locate ideal eco-tourism places and construct infrastructure to give excellent hospitality while also educating people about environmental conservation. Ecotourism has a lot of potential in Chhattisgarh to generate more cash while also contributing to the conservation of nature and natural resources.

#### Significance of Ecotourism

Ecotourism provides opportunities for people in backward and remote areas to benefit economically. The primary goal of ecotourism is to strengthen the conservation cause by providing visitors with informed wilderness experiences. It also allows visitors to study and enjoy the forest, wildlife, people, and their culture while providing additional employment opportunities for local communities. As a result, dependency on resources can be reduced to a greater extent. At the same time, if ecotourism principles are followed, it can be a powerful tool for protecting and promoting unique biodiversity as well as landscapes and escapes. Locals act as crusaders for the protection of flora and fauna as a result of the percolation effects of tourist expenditures. Thus, ecotourism generates paid employment for villagers, including guides, porters, conservation workers, and small shopkeepers. The goal of the ecotourism policy is to create a sustainable community-oriented and managed approach to enforcing rules for visitors, service providers, and community members.

#### Material and Methods Experimental site and methods

The study was carried out in the Tatamari ranges of the

Tatamari eco-tourism spot of the Keshkal Forest Division. Tatamari Ecotourism spot was explored and highlighted in 2016. Tatamari is located 150 km away from the capital of Chhattisgarh, Raipur towards Kondagaon in the Keshkal block. Tatamari is 3km away from Keshkal. The distance between Tatamari from Bastar is 137 km. and the distance between Tatamari from Jagdalpur is 134 km. the study was carried out at Tatamari Ecotourism spot, Keshkal extends between 19'11to 20'13 Latitude, 81'17 to 82'04 Longitude. The Ecotourism spot consists of 75 hectares of total area. Kondagaon is located on National Highway NH-43, which connects Raipur and Vishakhapatnam in Andhra Pradesh via Koraput in Odisha. The region is dominated by the Loam soil, the mean annual temperature ranges maximum temperature recorded was 40-41 °C - 41-42.8 °C while the minimum temperature was 10.5 °C -11.6 °C and average rainfall of this area is 1410.2 mm to 1600 mm. Fig.1 Show location information.

#### Method of Data collection and interpretation

In case of primary data collection, three different types of respondents were chosen. In each study site, a questionnaire was developed to collect information in the form of data from a different category of people or stakeholders:

- 1. Tourists or visitors;
- 2. Local people (stakeholders)
- 3. Field officers or forest officers

Primary data was gathered from three different types of respondents. The main reason for selecting visitors/tourists is to obtain information about ecotourism awareness and importance, as well as expectations and shortfalls for facilities and services required, if any, as well as the correct measures to correct the shortcomings for better facilities and infrastructure needed to increase Chhattisgarh's ecotourism.

#### Methods of investigation and data collection

The exhaustive survey method was used to collect the information, and primary data were properly recorded for compilation of data for further computation and analysis to reach some concrete outcome. The primary data was collected through a separate interview and questionnaire completion by the respondent (visitors/tourists, local people, and staff/forest officers). The data was gathered like a source of income, occupation, knowledge of the forest area, flora and fauna, and their utilization pattern. First and foremost, we attempted to construct a good report with the villagers in an informal and friendly environment to obtain actual honest information from them, and then they were separately interviewed and a separate proforma was requested to fill out by them to record the data to reach some existing conclusions about how and why ecotourism impacts on their livelihood.



Fig 1: Location map of Tatamari Ecotourism spot

#### **Result and Discussion**

## To work out the impact of ecotourism on livelihood of tribes

In the present study area of Tatamari ecotourism spot, there were 6 villages from where we have recorded the information of that area at the same time, we received suggestions from all 6 villages via personal interview by filing the questionnaire, which was filled out separately by the respondents themselves, and all such data were mentioned in table 1. There were various suggestions made by respondents, as some benefited while others did not profit from the ecotourism activity. The main issue they encountered was the non-disposal of polybags and glass bottles on the runway and within the ecotourism area, which causes major problems for the environment and the animals. Thus, there were many suggestions regarding these problems, such as providing formal training to residents, and banning polybags and glass bottles (which are thrown by the tourists inside the ecotourism spot) there is need to completely protect the environment and the animals, we have to ensure that no SUP is thrown and sufficient number of dustbins placed in all sites available within every equidistant point.

Bibi et al. (2013) <sup>[1]</sup> also suggested that the livelihood conditions of the peoples of three villages (Bait Qaimwala, Basti Allahwal, and Jannu) and their dependency on the biodiversity of Taunsa Barrage Wildlife Sanctuary, Pakistan from 2009 to 2011. The Participatory Human Resource Interaction Appraisal method was used to assess socioeconomic status, and the direct census method and point count were used to assess biodiversity. Floral biodiversity included 79 plant species such as trees, herbs, shrubs, grasses, and weeds, and fauna such as fish, amphibians, reptiles, mammals, and bird species. The infrastructure and important items to check the pollution and garbage control measures must be taken. Similar findings in the current investigation confirm that safe and healthy pollution free ecotourism spots will play a significant role to enhance the National and International tourists flow. Fiseha (2014)<sup>[3]</sup> reported that the contributions of protected area for local community livelihood were carried out in Senkele Swayne's Hartebeest sanctuary

(SSHS). Primary data were collected through questionnaire, Key Informant Interview (KII), Focus Group Discussion (FGD) and direct field observation. Secondary data were collected through review of literature. Out of the 32 rural kebeles found in the Siraro district, four kebeles surrounding the sanctuary were purposively selected for the study. Regarding to managing current destruction of the sanctuary, 27.2% of respondent supposed that, the sanctuary could be managed through ensuring protection and conservation while 13.9%, 11.9% and 11.3% respondents stated sanctuary destruction could be managed through benefit sharing, participatory wildlife management and controlling grazing respectively. Some other 10.6% and 9.9% of the respondents said the sanctuary destruction can be managed through awareness creation and controlling illegal activities. Similar results were recorded in the present study.

Rajendra *et al.* (1987) <sup>[5]</sup> reported in their experiment at Aravalli Hill, where they discovered the natural habitat of 616 species, including 9 orchids and 25 locally and globally endangered plant species. However, because this sanctuary is not well-known for its ecotourism activities, very few people visit it. Aside from traditional pra practice scientific and technological approaches will assist the forest department in developing a systematic plan for ecotourism activities. Developing tourism facilities, nature trails, identifying additional viewing points, camping sites, publicity, brochures, and signage in this sanctuary, to name a few examples.

Ranjith (2020)<sup>[6]</sup> reported in their experiment that the positive and negative impacts of ecotourism developments in Trivandrum's ecotourism destinations of Nevvar. Agastyarvanam, and Ponmudi, as well as the environmental and socio-cultural impacts of ecotourism development in these region environmental qualities in terms of conserving resources, improving quality natural environmental Agastyarvanam, and Ponmudi achieving good status, according to data analysis. The low status in negative environmental impacts such as ecosystem damage and natural hazards. The results are similar to reported by the above worker confirming the results obtained in this study.

S. No	Name of the respondent	Occupation	Role forests in their sustainable income And livelihood	Benefit from tourist	If problems are coming from the tourist	Suggestion for improvement of tourist activities
			1. Village	– Surdongar	•	
1.	Rahul Dhruv	Labour work	Medicinal Plant (Bhui-neem) Fruit tree (Chaar, Tendu)	No benefit from tourist	Tourists spread garbage and plastic which harharmse environment	Plastic should be banned.
2.	Karan Sahu	Labour work	Medicinal plant (Chirayata)	No benefit from tourist	Spreading garbage,	After the official training, the locals should have been offered employment opportunities.
3.	Indra kuwar	Labour work	Fruit tree (Chaar, Tendu)	No benefit from tourist	No problem	Need for pond
4.	Madhuram Das	Business (shop)	Medicinal tree (Vantulsi, Bhui- neem)	No benefit from tourist	Pollutants- Polythene, garbage	The drinking water facility should be made available.
5.	Akash Patel	Farming	Medicinal tree (Tulsi, Vantulsi) Fruit Tree (Tendu, Chaar)	No benefit from tourist	No problem	The forest area should maintain cleanliness drive
6.	Ramayan Kanwar	Farming	Medicinal plant (Bhuyineem) Fruit tree (Mango, Chaar, Imli)	No benefit from tourist	Tourist spread their polythene	Water plastic pouches, which animals used to consume but were unable to digest, should not be tossed about.
7.	Lalita Bai	Anganwadi	Fruit tree (Mango, Mahua)	No benefit from tourist	No problem	'Cigarettes' etc. should not be used within the forest and could lead to a fire.

 Table 1: Awareness of ecotourism, Livelihood of peoples, forest conservation, and importance of protected area among local inhabitants of Tatamari Ecotourism spot

8.	Rahul Netam	Labour work	Medicinal plants (Bhui-neem, Vantulsi, tulsi)	No benefit from tourist	The spreading of polythene creates problems.	The lighting facility should be improved	
9.	Masat ram	Farming	Medicinal tree (Tulsi, Bhui-neem) Fruit tree (Mahua, mango, imli)	No benefit from tourist	No problem	The building of roads must be prioritized.	
10.	Jitendra Sahu	Business (tent house)	Fruit tree (Mahua, Tendu, Beer)	No benefit from tourist	The spreading of plastic, and polyethylene harm the environment	The visitor's accommodation could be enhanced further.	
			2. Village -	Chikhladih	i		
11.	Ansuiya Sinha	Farming	Fruit tree (Mango, Chaar)	from tourist	No problem	improved.	
12.	Rameshwari bagel	Anganwadi	Medicinal tree (Bhui-neem, tulsi, Vantulsi)	No benefit from tourist	No problem	Roads should be constructed such that they do not cause issues during the rainy season.	
13.	Rameshwar Patel	Farming	Fruit tree (Chaar, Mango)	No benefit from tourist	No problem	The drinking water facility should be made available.	
14.	Nilvati	Labour work	Medicinal tree (Vantulsi, Bhui- neem, Bhuyineem)	No benefit from tourist	No problem	Tourists leave polythene and plastic bottles all over the place, which should be prohibited.	
15.	Madhu Bai	Labour work	Fruit tree (Mahua, Mango)	No benefit from tourist	No problem	The drinking water facility should be made available.	
16.	Vijay das	Farming, Labour work	Medicinal plants (Bhuyineem, Bhui- neem, tulsi Fruit tree (Mango, Tendu) Fuelwood (Senha, Saja)	No benefit from tourist	No problem	Tourists should avoid throwing polythene and throwaway bottles around.	
17.	Janki Bai	Farming	Medicinal plants (Bhui-neem, Vantulsi, tulsi)	No benefit from tourist	No problem	The drinking water facility should be made available.	
18.	Khagesh Yadav	Farming	Fruit tree(Mango, Chaar, Mahua)	No benefit from tourist	No problem	Water plastic pouches, which animals used to consume but were unable to digest, should not be tossed about.	
19.	Chandrika bai	Labour work	Fruit tree (Mango, tendu)	No benefit	No problem	'Cigarettes' etc. should not be used in the bush since they might cause a fire.	
20.	Prem Patel	Farming	Medicinal plant(Chirayata)	No benefit	No problem	The forest area gets polluted by the tourist	
			3. Village -	Harrapada	V		
21	Rupesh tekam	Labour work	Medicinal Plant (Bhui-neem) Fruit tree (Chaar, Tendu)	No benefit from tourist	No problem	Roads should be constructed such that they do not cause issues during the rainy season.	
22	Parmeshwari	Business (Shop)	Medicinal plants (Bhui-neem, Vantulsi, tulsi)	No benefit from tourist	No problem	The drinking water facility should be made available.	
23	Amrit bai	Labour work,	Medicinal tree (Tulsi, Bhui-neem) Fruit tree (Mahua, mango, imli)	No benefit from tourist	No problem	The drinking water facility should be made available.	
24	Rupendra Suryavanshi	Teacher	Medicinal plant (Bhuyineem) Fruit tree (Mango, Chaar, Imli)	No benefit from tourist	No problem	Tourists should avoid throwing polythene and throwaway bottles around.	
25	Laxmi Bai	Labour work	Medicinal plants (Bhuyineem, Bhui- neem, tulsi)	No benefit from tourist	No problem	Polythene bags should be avoided by tourists.	
26	Umen bai	Labour work	Medicinal plants (Bhuyineem, Bhui- neem, tulsi Fruit tree (Mango, Tendu)Fuelwood (Senha, Saja, kuru)	No benefit from tourist	The spreading of plastic, and polyethylene harm the environment	Polythene bags should be avoided by tourists.	
27	Ramayan Singh	Farming, Labour work	Fuelwood (Saja, Kuru)	No benefit from tourist	No problem	'Cigarettes' etc should not be used in the bush since they might cause a fire.	
28	Dharm lal	Labour work	Medicinal tree (Tulsi, Bhui-neem) Fruit tree (Mahua, mango, imli, tendu)	No benefit from tourist	No problem	Water plastic pouches, which animals used to consume but were unable to digest, should not be tossed about.	
29	Kanhaiya Lal	Labour work	Medicinal Plant (Bhui-neem) Fruit tree (Chaar, Tendu)	No benefit from tourist	The spreading of plastic, and polyethylene harm the environment	Roads should be constructed such that they do not cause issues during the rainy season.	
30	Hathi ram	Labour work	Medicinal tree (Bhui-neem, Bhyuineem)	No benefit from tourist	No problem	Polythene bags should be avoided by tourists.	
	4. Village - Goregaon						
31	Mina bagel	Cook	Medicinal tree (Tulsi, Bhui-neem) Fruit tree (Mahua, mango, imli,	No benefit from tourist	No problem	The visitor's accommodation could be enhanced further	

			tendu				
32	Bharat pasvan	Fruit shop	Medicinal Plant (Bhui-neem) Fruit tree (Chaar, Tendu)	No benefit from tourist	No problem	Roads should be constructed such that they do not cause issues during the rainy season.	
33	Shyam Sardar	Business	Medicinal plant (Bhuyineem) Fruit tree (Mango, Chaar, Imli)	No benefit from tourist	No problem	Water plastic pouches, which animals used to consume but were unable to digest, should not be tossed about.	
34	Manishya salam	Farming	Medicinal plants (Bhui-neem, Vantulsi, tulsi)	No benefit from tourist	No problem	Tourists should avoid throwing polythene and throwaway bottles around.	
35	Chat bai	Labour work	Medicinal tree (Tulsi, Bhui-neem) Fruit tree (Mahua, mango, imli)	No benefit from tourist	No problem	The drinking water facility should be improved.	
36	Hira Bai	Farming	Medicinal plant (Bhuyineem) Fruit tree (Mango, Chaar, Imli)	No benefit from tourist	No problem	Water plastic pouches, which animals used to consume but were unable to digest, should not be tossed about.	
37	Ram Singh	Labour work	Medicinal plant (Bhuyineem) Fruit tree (Mango, Chaar, Imli)	No benefit from tourist	No problem	The visitor's accommodation could be enhanced further	
38	Mangal Singh	Labour work	Medicinal plants (Bhuyineem, Bhui- neem, tulsi Fruit tree (Mango)Fuelwood (Senha, Saja)	No benefit from tourist	No problem	Tourists should avoid throwing polythene and throwaway bottles around.	
39	Ganpati	Farming	Medicinal plants (Bhui-neem, Vantulsi, tulsi)	No benefit from tourist	No problem	A drinking water facility is needed	
40	Nilesh das	Business (cycle shop)	Medicinal plant (Chirayata, tulsi)	No benefit from tourist	No problem	'Cigarettes' should not be used in the bush since they might cause a fire.	
			5. Village - 1	Manjhicherr	a	·	
41	Surendra Kashyap	Driver	Fruit tree (Mango, Guava, Jamun, tendu)	No benefit from tourist	No problem	Roads should be constructed such that they do not cause issues during the rainy season.	
42	Subhae malik	Farming	Medicinal plant (Bhuyineem), Fruit tree Mango	No benefit from tourist	No problem	A drinking water facility is needed	
43	Mahmood Alam	Tailor	Medicinal plant (Anantmool, Bhui- neem)	No benefit from tourist	No problem	Water plastic pouches, which animals used to consume but were unable to digest, should not be tossed about.	
44	Ankit Sahu	Business	Medicinal plants (Bhui-neem, Vantulsi, tulsi)	No benefit from tourist	No problem	Tourists should avoid throwing polythene and throwaway bottles around.	
45	Aditya Tiwari	Guide	Medicinal Plant (Bhui-neem) Fruit tree (Chaar, Tendu)	No benefit from tourist	No problem	'Cigarettes' should not be used in the bush since they might cause a fire.	
46	Neti	Painter	Fruit tree (Mango, imli,	No benefit from tourist	No problem	Roads should be constructed such that they do not cause issues during the rainy season.	
47	Mukti das	Farming	Medicinal plants (Bhuyineem, Bhui- neem, tulsi) Fruit tree (Mahua Tendu)	No benefit from tourist	No problem	A drinking water facility is needed.	
48	Ramesh	Labour work	Medicinal tree (Tulsi, Bhui-neem) Fruit tree (Mahua, mango, imli, tendu)	No benefit from tourist	No problem	Tourists should avoid throwing polythene and throwaway bottles around.	
49	Himanshu	Farming	Medicinal plant (Chirayata)	No benefit from tourist	No problem	A drinking water facility is needed	
50	Falesh Patel	Electrician	Fruit tree (Jamun, Mango)	No benefit from tourist	No problem	Roads should be constructed such that they do not cause issues during the rainy season.	
	6. Village – Kohkameta						
51	Vikas katlam	Labour work	Medicinal Plant Bhui-neem, Tulsi Fruit tree (Chaar, Tendu)	No benefit from tourist	No problem	animals used to consume but were unable to digest, should not be tossed about.	
52	Jaganath Yadav	Teacher	Medicinal plant (Bhuyineem) Fruit tree (Mango, Chaar, Imli)	No benefit from tourist	No problem	The visitor's accommodation could be enhanced further	
53	Preeti Sahu	Anganwadi	Medicinal plants (Bhui-neem, Vantulsi, tulsi)	No benefit from tourist	Spreading of plastic bags, and polythene cause damage to the environment	Roads should be constructed such that they do not cause issues during the rainy season.	
54	Kailash Sahu	Driver	Fruit tree (Mahua, Mango,	No benefit from tourist	No problem	A drinking water facility is needed	

55	dularwa Singh	Labour work	Medicinal tree (Tulsi, Bhui- neem)Fruit tree (Mahua, mango, imli, tendu)	No benefit from tourist	No problem	Tourists should avoid throwing polythene and throwaway bottles around.
56	Bahiya bai	Labour work	Medicinal plants (Bhuyineem, Bhui- neem, vantulsi) Fruit tree (Mango, Tendu, Imli) Fuelwood (Senha, kuru)	No benefit from tourist	No problem	'Cigarettes' should not be used in the bush since they might cause a fire.
57	Visambhar tekam	Farming	Medicinal Plant (Bhui-neem) Fruit tree (Tendu)	No benefit from tourist	No problem	Tourists should avoid throwing polythene and throwaway bottles around.
58	Khem Sahu	Labour work	Medicinal plant (Bhuyineem) Fruit tree (Mango, Chaar)	No benefit from tourist	No problem	The visitor's accommodation could be enhanced further
59	Vinod sae	Mechanic	Fruit tree (Mango)	No benefit from tourist	No problem	A drinking water facility is needed
60	Baldev	Labour work	Medicinal plants (Bhui-neem, Vantulsi, tulsi)	No benefit from tourist	No problem	Roads should be constructed such that they do not cause issues during the rainy season.

Ecotourism destination in the study site

#### Table 2: Tourist attraction spot of Tatamari Ecotourism spot documented in this study

S.No	Name	Place	About the place		
1	Shiv Temple Gobrahin	Gobrahin	Garh Dhanora is significant both historically and religiously. It is situated in the Kondagaon district's Keshkal tehsil. It is located 2 kilometers from Keshkal on the Kondagaon-Keshkal main road. It is located 3 kilometers to the east left. Karna's capital is said to be Dhanora. On the occasion of Mahashivratri, a massive fair is held here. Many Shiva temples have been found here in the excavation of Keshkal mounds. There are many Shivling on a mound situated here, it is famous as Gobarhin.		
2	Satnam Dham Hathi pahad Cave	Keshkal	The Jait pillar in Satnam Dham Hathi Pahad was built in the year 2000, and the mountain was given the name Hathi Pahar because of its elephant-like shape. and can be reached via the Vishrampuri road from here, one can also see a beautiful view of Tatamari. As well as the Tatamari bus stop.		
3	Nal vansh yug Vishnu 6 <sup>th</sup> -7 <sup>th</sup> ADGadh DhanoraGarh dharona village is made up of three temple groups, the first of which is the Vishnu Temple Group consists of ten temples, including the Vishnu, Shive		Garh dharona village is made up of three temple groups, the first of which is the Vishnu temple group. The Vishnu Temple Group consists of ten temples, including the Vishnu, Shiva, and Narshima temples.		
4	Manjhingarh scenic beauty spot	Manjhingarh	The site is surrounded by mountains and greenery. The Manjhingarh plateau is hundreds of acres of land with a view of the neighboring mountain filled with green trees, wild animals, and beautiful birds. Some of the mountains in this area have rock paintings of primitive humans.		

## Table 3: Documentation of Unexplored waterfalls and scenic beauty spots, ancient heritage of rock paintings made by the aboriginal tribes at Tatamari, Keshkal in Kondagaon District.

S. No	Name of Waterfall	Distance From Keshkal (km)	Location		
1	Katulkasa Waterfall	20	Honhed		
2	Kodakal Waterfall	15.5	Kuvemari		
3	Lingodarha Waterfall	15	Bedmamari		
4	Muttekhadka Waterfall	30	Madgaon, kuemari		
5	Upperbedi Waterfall	20	Bawnimari		
6	Cherbeda Waterfall	15	Cherbeda		
7	Girgoli Waterfall	17	Girgoli		
8	Ghumar Waterfall	25	Gadh Silyara		
9	Mirdey Waterfall	15.6	Kudarwahi		
10	Ghumar Waterfall	20.5	Rahtoli		
11	Umradaha Waterfall	30	Manjhingarh		
12	Nalajhar Waterfall	15	Nalajahar		
13	Amadarha Waterfall-1	15	Amardarha		
14	Amadarha Waterfall -2	20.9	Amardarha		
15	Hanki kudum	16	Keshkal		
16	Kurkuchi Waterfall	30	Manjhingarh		
17	Gadh Silyara Waterfall	20	Gadh Silyara		
18	Umradaha - here rock painting has been found				
19	Hata pathra rock paintings have been found				
20	Lingo- Dhara waterfall here rock paintings have been found				

## Impact of ecotourism industry on environment and conservation of biodiversity

Tourism depends on the quality of the environment, both natural and man-made. Tourism's relationship with the environment, on the other hand, is complicated. It entails numerous activities that can have a negative impact on the environment. Many of these effects are related to the construction of general infrastructures such as roads and airports, as well as tourism facilities such as resorts, hotels, restaurants, shops, golf courses, and marinas. The negative effects of tourism growth have the potential to gradually deplete the ecological resources on which it is based. Tourism, on the other hand, has the potential to have a positive impact on the environment by contributing to environmental protection and preservation .It is a method of increasing awareness of environmental principles, as well as a tool for financing the protection of natural areas and increasing their economic importance. Tourists' perspectives on the environmental impact of the tourism industry.



Kuwemari Waterfall



Muttekhadka Waterfall



Lingodarha Waterfall



Honhed Waterfall



Tatamari View Point



Gobrahin Shiv Temple



Manjhingarh View Point



Interaction with Tourists





Interaction with villagers





Interaction with Officers/Staff

#### Conclusion

Chhattisgarh is very rich in plant and animal biodiversity along rich heritage and culture with dense forest cover and several ecotourism destinations. If the tourist attractions in these ecotourism zones are adequately recognized and publicized, the ecotourism business will play an important role in creating jobs and improving inhabitants' livelihoods. Environmental education should be provided to raise awareness of flora and fauna among tourists and local residents so that people can learn more and more about the importance of biodiversity conservation. The employment opportunity, business of local handicrafts, sale of NTFPs in attractive packaging. The facilities and infrastructure for the national and international tourists must be developed to increase the tourist flow. The suggestions of all stakeholders keep in mind the development of this spot is the need of the day. The tourist wants nature tourism local food and cultural activity of the area for their entertainment.

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