

Potential of Ecotourism with Reference to Livelihood of Local People: Amarkantak Region, Madhya Pradesh

Satya Prakash Vishwakarma^{1*}, R. K. Prajapati², Yogesh Dubey³ and Sarita Bodalkar⁴

¹Ph.D. Scholar, Department of Forestry, IGKV, Raipur (Chhattisgarh), India.

²Professor, Department of Forestry, IGKV, Raipur (Chhattisgarh), India.

³Professor, IIFM, Bhopal (Madhya Pradesh), India.

⁴Scientist, Department of Forestry, IGKV, Raipur (Chhattisgarh), India.

(Corresponding author: Satya Prakash Vishwakarma*)

(Received: 24 April 2023; Revised: 03 May 2023; Accepted: 25 May 2023; Published: 05 July 2023)

(Published by Research Trend)

ABSTRACT: The present investigation was carried out on “Potential of Ecotourism with Reference to Livelihood of Local People: Amarkantak Region, Madhya Pradesh”. The study was conducted in Anuppur forest division during 2021-2023. The observations were recorded in different villages of Amarkantak ecotourism spots and nearby villages; the findings showed a regular flow of tourists and a high level of satisfaction among tourists. During this investigation several suggestions have been gathered from forest-dependents and local people, such as local people should be given the job opportunity in the management of tourist spots. So that their source of income can be increased and it is necessary to provide enough facilities for both the preparation of meals and proper drinking water consumption. Amarkantak is renowned for its attractive scenic beauty of flora and wildlife. These areas are blessed with varieties of Waterfalls (Kapil Dhara, Dudh Dhara and Sambhu sarovar), tracking rout (Laxman Dhara, Sambhu Dhara, Kapil Dhara, Maa ki bagiya, Panch Dhara, and Kabir chabutara), Temples (Narmada, Son, Jaleshwar, Amareshwar, Maa ki bagiya, and Jain temple), Scenic beauty spots like; Sambhu sarovar, Sunrise point, sun set point, Kapil Dhara, Dharampani and other more spots are available. The tourists visiting in India, getting a rich experience regarding the country's biodiversity and natural beauty. Ecotourism is becoming more and more critical every day. Not only are people becoming more aware of sustainability, but it also handles social, cultural, and economic problems. This paper focuses on the local people and ecotourism destinations in and around Amarkantak ecotourism spot. It was observed and recorded that more no of unexplored tourist spots were identified and documented which are having lot of scenic beauty and potential to attract more no of people.

Keywords: Ecotourism, Livelihood, Local People, Flora, Waterfall, Amarkantak.

INTRODUCTION

Ecotourism, a unique subset of the tourism industry is focused on enhancing or maintaining natural resources to create awareness among people. Ecotourism means different things to different people it gives peace of mind and good for mental health. The general term encompasses nature based, adventure, soft adventure, and cultural tourism. Ecotourism is preserving the cultural and natural history of the environment, taking care not to disturb the integrity of the ecosystem while, creating opportunities that make conservation and protection of natural resources advantage to the local people. 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). Ecotourism refers to travelling in environmentally-responsible methods to limit the area's impact (Cetin and Sevik 2016). Ecotourism is consecrated for preserving and sustaining the diversity of the world's natural and cultural environments. Ecotourism guarantees the sustainable use of environmental resources while generating economic opportunities for the local people (Kiper, 2013). Ecotourism functions as an alternative source of livelihood to those which are environmentally degrading (Poaching, illegal felling of timber exploitation, unsustainable harvesting, etc.), thus contributing to biodiversity conservation and sustainable community development (Das and Chatterjee 2015).

Ecotourism can encourage other sectors to have through its backward and forward linkages and cross-sartorial synergies with sectors like Agriculture, Poultry, Horticulture, Handicrafts, Construction, Transport, Floriculture etc. Ecotourism can play a significant role in uplifting the local population concerning economic benefit and livelihood (Pandey *et al.*, 2021). As alternative tourism, ecotourism is visiting natural regions to learn, study, or engage in ecologically beneficial, where the natural beauty, local community and visitors will benefit. (Kumari, 2021).

Ecotourism in India, the land of varied geography, offers several tourist destinations that not just distress but also rejuvenate. There are several ways to enjoy mother nature in the most pristine way. The places like Himalayan Region, Kerala, Northeast India, Andaman & Nicobar Islands and the Lakshadweep Islands are two some places where you can enjoy the treasured wealth of Mother Nature. The declaration of several wildlife areas and National parks has encouraged the growth of wildlife resources, which was reduced due to the wildlife hunt by several kings in the past. Today, India has many wildlife sanctuaries and wildlife protection act 1972. India has a network of 998 protected areas including 106 National Parks, 567 Wildlife Sanctuaries, 105 Conservation Reserves and 220 Community Reserves covering a total of 1,73,629.52 km² of geographical area of the country which is approximately 5.28% (WII, 2023). Ecotourism, particularly in rural areas providing income to communities, discouraging migration to another place, conserving biodiversity etc., are widely acclaimed. It is also observed that ecotourism checks the exploitation of residents and resources.

The state's RFA is 94,689 sq km, 30.72% of its total territory. The state's reported forest area is 65.36% reserved, 32.84% protected, and 1.80% unclassified (FSI, 2019). It is part of the central plateau having Satpura, Vindhya and the ravines of Chambal. Rivers like Narmada, Tapti, Chambal and Betwa flow in the state. The state is also known as Tiger State, with Kanha and Bandhavgarh being prominent tiger reserves. Ecotourism and in around other prominent places like Pachmarhi, Panna, Bandhavgarh, and Bhopal greatly provided jobs to hundreds of local villagers. In this context, "Ecotourism" has gained its bearing in Madhya Pradesh. Ecotourism also had the potential to play an essential role in creating environmental and cultural conservation and support of life maintenance awareness amongst all the stakeholders, local communities, tourists, government and the private sector.

MATERIAL AND METHODS

Experimental site: The investigation was conducted in the Amarkantak ranges of the Anuppur forest division. Amarkantak is located in the Anuppur district of

Madhya Pradesh at 22°67' N and 81°75' E and it is away from 243.9 kilometers from Raipur, the capital of Chhattisgarh. Its average elevation is 1048 meters (3438 feet) above sea level. The Biosphere reserve is 60 kilometers away from Bilaspur, CG. Detailed location information is shown in (Fig. 1).

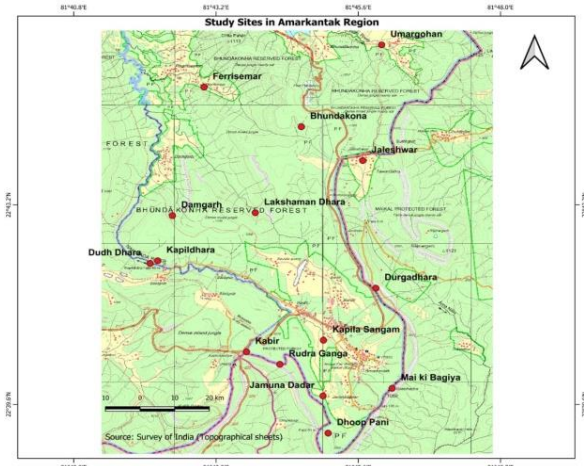


Fig. 1. Detailed information about the study area.

Method of Data collection and interpretation: The collection of primary data three types of respondents were selected in each site with the help of questionnaire developed for this study

1. Questionnaire for tourists/ Visitors.
2. Questionnaire for local people.
3. Questionnaire for forest officials.

The respondents like local people selected in such a way that they are the real stake holder of the tourist spots and nearby area. The other respondents are the tourists visiting that area got the experience during their stay with the experience of ecotourism spots and the expectations. The third stake holders are the forest officials who are working in forest department. These field officials shared their experience the problems and facilities available for visitors Local people was selected as respondents to know whether they have knowledge of ecotourism principles or not, if they are aware of the benefits they can get through ecotourism or not, and whether they understand what protected areas, conservation, and their importance.

Forest officer/ staff were selected to know about the opinions for the shortcoming of the flora & fauna, resort facilities food availabilities and to know the way how we increase the ecotourism at the Amarkantak region.

The detailed data was collected as per the proforma developed for this investigation. However the information was collected in three seasons of the year to know the frequency of different category of people comes for pilgrimage, ecotourism, and educational purpose.

RESULT AND DISCUSSION

A. To assess the impacts of ecotourism on livelihood of local people

In areas, the relationships of local residents with the forest and the impact of ecotourism activities on sustainable livelihood of local residents are examined. The majority of the inhabitants of the forest villages are tribes, and their development is one of the government's top priorities in implementing eco-development programs. Residents filled out proforma to learn about their knowledge of ecotourism in these areas. Few people believe that the forest area hurts the forest and the livelihood also since it was designated as a reserve forest. Though there are some who believe the conservation of the flora and fauna an immediate necessity, but these people are those who are the members of different forest protection committees. This clearly indicated that there is need to create awareness among people in relation to protected area, reserved forest area and ecotourism then only the aim of ecotourism can be achieved. The conflict with the local residents and forest officials is very common and there is need to solve their issues so that the conservation measures would be undertaken.

Amarkantak forest area utilizes ecologically responsible strategies of natural assets in the forest communities' *via* trainings may enhance their economic status and livelihoods. Himberg (2004) in his study community-based ecotourism as a sustainable development option in Taita-Taveta, Kenya. Ecotourism is valued for its direct benefits and local employment opportunities. Joint ventures between village communities and investors generate income for conservation and socio-economic development. This approach also raises awareness about indirect forest values and encourages small-scale enterprises. Stem *et al.* (2003) studied community participation in ecotourism benefits, which revealed that in communities where tourism was an economically viable alternative, people had abandoned environmentally destructive practices. The reason that has been put forward is that fully employed people have less time to hunt or cut trees. This is the point where we have to intervene with the people of this area and tell them about the potential of ecotourism, which helps their livelihood. Schoemann (2002) revealed that park inhabitants receive employment opportunities and use of the park's natural resources without paying for them. About 90% of the park's inhabitants are engaged in some form of employment generated by the park, and up to 50% of the permanent labour force consists of park residents. The predominant use of natural resources by residents was for cattle husbandry, which had created problems for the diversity and preservation of natural resources. Due to the prevalence of park residents, park administration was forced to confront

challenges. Similarly, Amarkantak ecotourism development works like (construction of roads, rest house, etc., provided by the forest department and village panchayat), minor forest products, and small business (shops, dhabas, hotels) are the primary sources of income must be properly developed. As employment opportunities are very limited it is about 21% of the people engaged in ecotourism. The employment generated through temporary shops near the tourists spots from NTFPs and agriculture shared 18% income whereas, from 61% income of the permanent labour force consists of local residents. In Amarkantak there are major three tourist spot namely Narmada where the Narmada and Sone river is originated, Kapil Dhara and Dudh Dhra waterfall where tourist is visiting but in this investigation we have explored more mout of hidden waterfall and other scenic spots there is need that this hidden water fall and scenic beauty spot must be developed for to enhance the more number of tourist for ecotourism as well as spiritual tourism at Amarkantak Region. The paper revealed ecotourism's role in the economic, social, and psychological uplift of local communities. However, more excellent tourism promotion, particularly for nature-based activities, tends to impose a long-term cost on the economy.

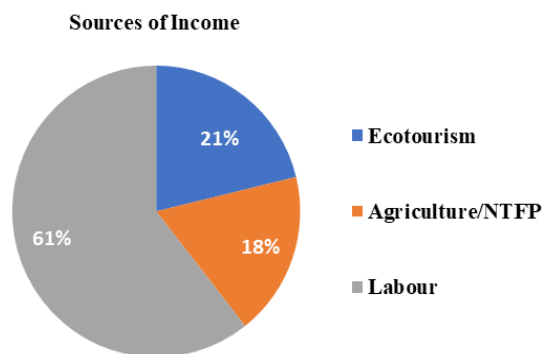


Fig. 2. Share % of income of local people from different component to their livelihood.

Why there is need of ecotourism to be developed

India is one of the 12 most biologically varied nations globally but has a significant cultural legacy. It has a huge potential for ecotourism, which has to be developed to ensure the area's continued healthy protection. Ecotourism in India has developed recently, for the concept itself is a relatively new one. Natural and cultural tourism destinations in India are stunning and highly visited. Hilly places are surrounded by land, verdant valleys and plains, beaches with white sand, and islands. Central India is home to a significant number of protected natural areas that are home to an incredible diversity of flora and fauna.

Table 1: Awareness of ecotourism, forest conservation and importance of area among local inhabitants of Amarkantak Region.

Sr. No.	Details of the local peoples	Educational qualification	Land holding	Source of Income in rupee (Annual)			Benefit from tourist	Problems identified by the local people	Suggestion for improvement tourism activities
				Ecotourism	Agriculture/ NTFP	Labour			
Village –Jaleshwer									
1	Shatrughn Baiga , Age-3, Family member-0	-	Land-1 acre, Mud House, Awas Yojana	-	5000-10000	15000-20000	No benefit from tourist	Polythene doesn't degrade which pollutes the environment.	<ol style="list-style-type: none"> 1. Range land should be developed. 2. Glass bottles & polythene material cause pollution 3. this should be restricted. 4. Restrict the heavy vehicle in the forest 5. Ponds need to dig deeper.
2	Kallu Singh Age-36, Family member -4	7 th	Land- 1 acre, Awas Yojana	-	5000	12000-15000	No benefit from tourist	The roads are narrow and also paved	<ol style="list-style-type: none"> 1. Start the Awareness programme how to conserve the flora of Amarkantak. 2. Tree cutting should be prohibited.
3	Mohlal , Age-45, Family member-3	-	Land-10 acre, Awas Yojana	-	5000-7000	15000-20000	No benefits from tourists	Plastic and glass bottles banned in area.	<ol style="list-style-type: none"> 1. Need to increase the pond availability. 2. Make the artificial water source like check dams which are helpful for animal in their pinch period 3. Roads are very damp & its needs to repair.
4	Chimatu Baiga , Age-40, Family member-5	-	Land- 2acre, Awas Yojana	-	-	50000	No benefits from tourists	No picnic spot here for enjoy and hotels	<ol style="list-style-type: none"> 1. Mixed forest should be encouraged for habitat purpose. 2. Local people should have given the job opportunity after the formal training.
5	Motilal , Age-52, Family member-4	-	Land-2 acre, Awas Yojana	-	-	35000-40000	No benefits from tourists	The forest area gets polluted by the tourist like plastic plate etc.	<ol style="list-style-type: none"> 1. Afforestation should be encouraged and deforestation should be restricted. 2. Polythene should be banned within premises.
Village- Jamunadadar									
6	Laamu Baiga , Age-67, Family member-6	-	land- 2-acre, Mud House, Awas Yojana	-	-	40000-45000	No benefit from tourist	Polythene does not degrade, which pollutes the environment	<ol style="list-style-type: none"> 1. Restriction of glass bottles & polythene material in to the forest. 2. Pond is requiring for local people and animal. 3. Instead of Eucalyptus, other beneficial trees species should be planted which are beneficial for animals.
7	Santosh Kumar Yadav , Age-32, Family member-5	9 th	Land- 5 acre, Mud House	-	-	10000-15000	No benefit from tourist	No problem	<ol style="list-style-type: none"> 1. Awareness programmed on the conservation of forests and maintenance of biodiversity. 2. Forest should be protecting from the fire in summer season. 3. In this area need water facility and range land for animal. 4. The street dogs and monkey must be dragged

									to another place or their population must be controlled.
8	Mahesh Yadav, Age-41, Family member-6	3 th	Land- 1.5acre, Mud House	-	-	25000-30000	No benefit from tourist	Throughout the polythene and plastic bottle on the road	<ol style="list-style-type: none"> 1. Don't use the polythene in forest area. 2. Limitation of vehicle speed in and around the forest. 3. Medicinal trees of mixed species should be planted. 4. Repairing of the dark track.
9	Roy Singh Baiga Age-48, Family-6	6 th	Land-4 acre, Mud House, Awas Yojana	5000-8000	-	15000-20000	Selling of wood and mahuwa wine	Tourist creates pollution by throwing the glass bottles & Plastic.	<ol style="list-style-type: none"> 1. Afforestation should be done. 2. Control on deforestation and penalties should be charged. 3. Medicinal plant should be planted here.
10	Babu lal Baiga Age-56, Family member-6	-	No land , Mud House	6000-8000	-	15000-18000	we sell the wood and wine	No problem	<ol style="list-style-type: none"> 1. Capative breeding centers should be developed for preservation of endangered habitat species. 2. Animal destroy the field crop, so kindly make a separate range land for them.
Village- Kabir Chabutara									
11	Hari Singh Maravi, Age-34, Family member-7	4 th	Land- 3.02 acre, Mud House	-	-	60000-65000	No benefit from tourist	No problem	<ol style="list-style-type: none"> 1. Rangeland should be developed. 2. Control the poarching of animal. 3. Control the illegal activity. 4. Need of more check dam. 5. The pond is having scarcity of water during the summer so check dam is needed.
12	Rama Maravi, Age-41, Family member-7	-	Land- 10 acre, Awas Yojana	-	-	10000-15000	No benefit from tourist	No problem	<ol style="list-style-type: none"> 1. Start the awareness program for conservation of biodiversity. 2. Forest should be protected from fire in summer season through fire alarms. 3. Mixed forest should be encouraged.
13	Dev Singh Maravi, Age-80, Family member-8	4 th	Land-2.81acre, Awas Yojana	-	-	4000-4500	No benefit from tourist	No problem	<ol style="list-style-type: none"> 1. Limit the cuttings of tree in forest. 2. Make the check dam for restoration of water in this area.
14	Santosh Maravai, Age-27, Family member-5	5 th	Land- 3.03 acre, Awas Yojana	-	-	3000-3500	No benefit from tourist	No problem	<ol style="list-style-type: none"> 1. Proper establishment of lodge and hotel facilities. 2. Road and sign board should be maintained properly
15	Kavishwar Singh Maravi, Age-49, Family member-4	7 th	Land- 2.17-acre Mud House	-	-	30000-35000	No benefits from tourists	No problem	<ol style="list-style-type: none"> 1. Mixed forest should be encouraged. 2. The rangeland must be established which will be useful for the animals. 3. Solar water system should be installed to overcome the water sacristy during the summer season.
Village –Ferrisemar									
16	Daniram, Age-22, Family member-3	-	Land- 4-acre, Mud House	-	5000-7000	18000-20000	No benefits from tourists	No problem	<ol style="list-style-type: none"> 1. Conservation of fauna. 2. Electricity is needed in this area. 3. Medicinal plants should be planted. Plastic must be ban in the jungle.
17	Vijay, Age-22, Family member-2	5 th	Land- 4-acre, Mud House, Awas Yojana	-	3000-5000	8000-10000	No benefits from tourists	No problem	<ol style="list-style-type: none"> 1. Pond reclamation should be done. 2. Afforestation should be done and deforestation

										should be restricted. 3. Animal breeding centre should be established here.
18	Ram kali, Age-60, Family member-6	-	Land- 2.36-acre, Mud House	-	-	3000-3500	No benefits from tourists	No problem		1. Electricity is needed in this area. 2. Medicinal plants should be planted. 3. Pond reclamation should be done so that it would remain fresh to use by animal. 4. Fruit tree should be planted here.
19	Dholi Bai, Age-45, Family member-10	-	-	-	-	6000-7500	No benefits from tourists	No problem		1. Mix forest species should be planted. 2. Protection of the bear in this area. 3. Proper maintenance of electricity facilities. 4. Range land should be developed.
20	Guddi Bai, Age-40, Family member-6	-	Land- 7 acre, Mud House	-	2000-3000	2000-2500	No benefits from tourists	No problem		1. Range land for the livestock habitat 2. Limitation on the cutting of trees in forest. 3. Road should be made in such a way that it does not create problem during the rainy season.
Village – Local Amarkantak										
21	Bharat Gupta, Age-43, Family member-5	10 th	Mud House	14000-16000	-	-	Shop of gift & Prasad related to Hindu religious	No problem		1. Need of hotel and lodge at cheap price. 2. Need of proper maintain of the road. 3. There should be increase the parking area near the temple.
22	Girivar Singh, Age-48, Family member-5	5 th	Concrete House	8000-10000	-	-	Sell of bakery products, cool drinks & water for tourist and get money from tourist	No problem		1. Conserve the flora and fauna. 2. Control the deforestation. 3. Proper establishment of lodge and hotel facilities. 4. Road facilities should be maintained properly. 5. Medicinal plants should be planted. 6. Ban on the mahuwa drink.
23	Amit Sahu, Age-29, Family member-6	BCA	-	30000	-	-	Cloth house	No problem		1. Conserve the wildlife. 2. Limitations on the cutting of trees. 3. Need of hotel and lodge at cheap price. 4. Need of maintain the road.
24	Anil Rajpoot, Age-40, Family member-9	Graduate	Land- 3- decimal Concrete House	22000-25000	-	-	Get the money from hotel and food restaurant	No problem		1. Plastics should be banned near tourist spot. 2. Water resources must be improved. 3. Control the cutting of tree in forest & need of plantation.
25	Hari Shanker Gupta, Age-39, Family member-8	Graduate	Awass Yojana	5000-8000	-	-	Shop of stationary	No problem		1. Conserve the flora and fauna. 2. Need of Biodiversity Park which is attracting the tourist. 3. Proper establishment of lodge and hotel facilities. 4. Road facilities should be maintained properly.

Table 2: Assessment of awareness of ecotourism, forest conservation among forest official of Amarkantak Range.

Sr. No.	Details of forest official	Category of employee or forest official	Problems from tourists	Suggestion for improvement Tourism activities
1	Mithun Sisodiya 32- year-old	Range officer	Some insensitive & unaware tourist damage the neutrality of forest by polluting and giving food to the wild animal specially monkey.	<ol style="list-style-type: none"> 1. We need to organize the meeting in order to create the awareness to people for the punishment given for the hunting of the wild animals, which will create the fear among the locals and in such a way, the hunting will reduce to a greater extent. 2. Sensitization of tourist toward clean and plastic free environment and wild animals so that they do not harm the wildlife, also strict fine should be levied against feeding of the animals.
2	Brijlal Singh Paraste 52- year-old	Deputy Ranger	Spread of the poly bags by the visitors, which creates a problem for animal and environment	<ol style="list-style-type: none"> 1. Awareness should be created among the locals for the trees and medicinal plants, which are in shortage. 2. To create awareness among the visitors and for extension of the knowledge about the forest.
3	Man Singh Maravi 54-year-old	ACF	The spread of the waste products everywhere is a major problem here and people throw garbage everywhere, which pollute the environment.	<ol style="list-style-type: none"> 1. Plastics should be totally banned in tourist places. 2. Motorbikes travelling at night a high speed should only be permitted in case of emergency only. 3. Animal tracking reports must be prepared and checked at regular intervals. 4. A tour guide must elaborate on the tree species names in Hindi, 5. The visit local people should have been made aware about the 6. Drawbacks of hunting and the necessity of cleanliness.
4	Harilal Prajapati 37-year-old	Beat Guard	Spread of the non-disposable product like polybags by the visitors, which creates a problem. Dustbin should be used by the visitors.	<ol style="list-style-type: none"> 1. Illegal deforestation is being done, which needs to be stopped, and fruit trees and rangelands should be grown here for the animals. 2. Stop the hunting of an animal 3. Need the separation of a high-tension electric wire passing through the forest. 4. Wild animals should be protected and conserved. 5. Conserve the medicinal plant.
5	Sadhana Marko 39-year-old	Forest guard	Glass bottles, polybags, pouches like (guthka, ciggrates, beedi etc.) must be banned here.	<ol style="list-style-type: none"> 1. Plantation of wild fruiting trees in the forest area. 2. Employing more staff for the maintenance. 3. The pets of the tourists are not allowed into the forest. 4. Bus facility should be provided to facilitate the greater number of visitor

Table 3: Assessment of awareness of ecotourism, forest conservation among tourist of Amarkantak tourist spots.

Sr. No.	Details of the tourists	Qualifications and occupation	Means of transport and stay period	Tourist interest like: wildlife, forest and pilgrimage	Satisfaction level for tourism*	Satisfaction level for facilities	Problem identified by the tourist	Suggestion given to improve the tourism activities
					(Note: Satisfaction level count in range between 0–5 Rating)			
1	Naveen Singh Age-31, Mova, Raipur (CG)	MBBS Surgeon	By Car, Stayed 2 Days	Flora and Fauna, Lion, Deer, Bear All wildlife animals	I-1, II-4, III-4, IV-2, V-1	I-4, II-4, III-1, IV-3.	Bilaspur to Amarkantak road is very poor. Sign boards not placed properly	<ol style="list-style-type: none"> 1. Fruit trees should be planted so that animals can get fruits in the forest itself. 2. Limitation of restriction of people in protected area of the forest. 3. Use of electric powered vehicles. 4. At least graduate staff should be hired so that they can conduct a very good behaviour and also, they should be very well trained guide. 5. Entry fee ticket of tourist should be collected for maintenance of the forest.
2	Shailendra Kushwaha Age-21, Didori (MP)	B.A. Business	By bike, Stayed 1Days	Wildlife, waterfall Lion, Bear, Spotted deer	I-1, II-4, III-4, IV-3, V-2.	I-4, II-3, III-4, IV-5.	Lack of cleanness & hygiene. Accommodation rates are costly	<ol style="list-style-type: none"> 1. More tree plantation is needed. 2. Road should be wider. 3. Cleanness is required in all the tourist spots 4. Accommodation rate should be affordable
3	Kapil Sinha Age-43, Mumbai	Engineering Private job	By own vehicle, stayed 3 Day	For pilgrimage Lion, Bear spotted deer	I-4, II-5, III-4, IV-5, V-3.	I-4, II-4, III-4, IV-5.	No any type of problems	<ol style="list-style-type: none"> 1. Provide natural habitat for the wildlife. 2. Need of interpretation center. 3. Improvement of hospital facilities. 4. Improve the food facilities to the tourists in limited price.
4	Sanjay Giri Age-48, Jabalpur, (MP)	B.A. Business	By car, stayed 1Days	Tribal culture, forest, waterfall, Narmada temple Bear, deer	I-2, II-4, III-4, IV-3, V-3.	I-3, II-3, III-3, IV-4.	No tour guide must elaborate the tree species names & about these places, Road should be wider & improved.	<ol style="list-style-type: none"> 1. Food is too much expensive. 2. Mixed forest should be encouraged. 3. Plants should be preventing from the fire. 4. Need of more sign boards properly
5	Mukesh Agrawal 38-year-old Korba, (CG)	Post graduate Business	Car, stayed 1Days	Vegetation, Tribal culture Deer	I-2, II-3, III-3, IV-4, V-3.	I-4, II-3, III-3, IV-4.	No more food choice. No cheap rest house for staying	<ol style="list-style-type: none"> 1. Make strict rules for forest conservation. 2. Increase the diversity through mixed plantation. 3. Glass bottles & polythene material cause pollution. 4. This should be restricted & maintain clean.

*Satisfaction level for tourism (I-wildlife, II-Forest, III-Biodiversity, IV-Waterfall, V-Ecosystem)

*Satisfaction level for facilities (I-Stay facilities, II-Boarding, III-Road, IV-Behaviour of worker)

Table 4: Existing tourist attraction spot in Amarkantak Region to be developed through various interventions.

Sr. No.	Tourist Spot	Special features
1.	Narmada Kund and Temple	Narmada kund is the name of the pond and the origin of the Narmada. The Narmada and Shiva temples, Karthikeya temples, Shri Ram Janki temples, Annapurna temples, Guru Gorakh Nath Temple, Shri Surya Narayana Temple, Bageshwar Temple, Durga Temple, Shiva Parivar Temple, Siddheshwar Mahadev Temple, Krishna Temple, and 11 Rudra temples are just a few temples that are situated near to the kund.
2.	Sonmuda	The source of the so river is 1.5 kilometers from Narmada Kund and on the banks of the Maikal range. The son river descends in the form of a waterfall.
3.	Kalchuri Temple	The ancient temple of kalchuri is situated to the south of Narmada kund. It was built by kalchuri Maharaj Karan dev. The architecture of Chandranath and Pataleshwar temple is an example. Keshav Narayan temple was built by raja Bhonsle in 18 century.
4.	Jaleshwar temple	The Jaleshwar temple and the source of the third river Johila are located on Shahdol road, 8 km from Amarkantak.
5.	Maa ki bagiya	Maa ki bagiya is situated 1 km from Narmada Temple and it is famous for the gulabakawali medicinal plant, which is generally used as an eye drop.
6.	Kapil Dhara	Kapil Dhara Falls is about 1000 feet high and 6 kilometers away from Narmada. The waterfall, along with mountain thickets, forests, and caves, creates a beautiful environment.
7.	Dudh Dhara	One of the more popular waterfalls is known as Dudh Dhara, which is situated 1 km from the Kapil Dhara.
8.	Kapil Chabutara	Kabir Chabutara has situated 5 km from Amarkantak, on the way to Bilaspur. It is said that Sant Kabir mediated at this place and achieved attainment here.
9.	Jain temple	The watch tower provides bird's eye-view of 2/3 part of the reserve area. Its height is 2300 foot.

It presents a tremendous opportunity to use natural resources such as landscapes, mountains, and places rich in biodiversity, rivers, and other natural features for the benefit of humanity. Ecotourism is a travel statement and conveys a message about our connection to the natural world and the people who live in it. Ecotourism in India emphasizes the country's indigenous peoples, wilderness areas, outdoor activities, and the preservation of the natural environment. In recent years, ecotourism as a concept has been gaining popularity in India; however, ecotourism as a way of life has been practiced by Indians ever since the beginning of time due to its traditional relationship with the environment and extensive cultural legacy (Hameed and Khalid 2018).

Today, India includes wildlife sanctuaries and regulations that preserve animals. India is host to a large number of botanical and zoological gardens, all of which are actively contributing to the improvement of the local environment. India has stunning landscapes. India's rich culture, gorgeous beaches, thick jungles, and Himalayan Mountains draw tourists from across the globe. Ecotourism is the finest method to admire nature without destroying it.

Problems that could be converted into opportunities:

So, which challenges need to be focused on to promote ecotourism in Amarkantak. It is essential to remember some of the basic facts of this place.

- Transportation capacities by air, and terrestrial routes.
- Accommodations rates must be made at affordable.
- Establishing a good reputation in other countries.
- The importance of preserving previously as well as natural resources.
- Ecotourism that is safe and risk-free.

-Infrastructure available is not up to the mark.

CONCLUSION

Madhya Pradesh particularly Amarkantak having its vast resources in the form of natural landscape, Biodiversity, heritage sites and adventure site has got tremendous potential in term of promoting ecotourism. Now a day's ecotourism has become very important for the areas having rich cultural and biological heritage. Presently in Amarkantak there are major three tourist spot namely Narmada where the Narmada and Sone River is originated, Kapil Dhara and Dudh Dhara waterfall where tourists are visiting. We have explored some important scenic beauty spots and waterfall which may be developed for tourist point of view in future this will help to increase the tourist flow in round the year.

FUTURE SCOPE

Environmental education should be offered to both visitors and local inhabitants in order to raise awareness in connection to flora and fauna. This is necessary in order to understand more and more about the significance of the preservation of biodiversity to the tourists/ visitors. Ecotourism travelling to these areas could be benefited to community residing inside the forest area simultaneously to know the value of the plants help in conservation of this precious spiciness of flora and fauna available in different sites of Amarkantak. When there is increase in pilgrimage, ecotourism and adventure tourism then the livelihood of local people would be benefited with this nature tourism and this is good for nature and people also.

Acknowledgement. The authors are grateful to Shri Ram Prasad (Ex-PCCF), Shri O. G. Goswami (Ex-SDO), Maan Singh Maravi (SDO), Mithun Sisodiya (RFO), and Shri

Harilal Prajapati (FG) staff of the forest department, Amarkantak Range, for providing the facilities and support in the forest area during the study period.

REFERENCES

- Brown, K., Turner, R. K., Hameed, H., Bateman, I. (1997). Environmental carrying capacity and tourism development in the Maldives and Nepal. *Environmental Conservation*, 24(4), 316-325.
- Cetin, M. and Sevik, H., (2016). Assessing potential areas of ecotourism through a case study in Ilgaz Mountain National Park. *Tourism-from empirical research towards practical application*, 190, 81-110.
- Das, M. and Chatterjee, B. (2015). Ecotourism: A panacea or a predicament?. *Tourism management perspectives*, 14, 3-16.
- FSI (Forest survey of India), (2019). *India state of forest report 19(2)* Madhya Pradesh. <https://fsi.nic.in>.
- Hameed, B. and Khalid, A. (2018). Impact of ecotourism in Ensuring the Sustainable Development of tourism Industry in India. *International Journal of Recent Research Aspects*, 5(2), 46-50.
- Himberg, N. (2004). Community-based ecotourism as a sustainable development option in Taita Taveta, Kenya. *Taita Hills and Kenya*, 40, 87-95.
- Kiper, T. (2013). Role of ecotourism in sustainable development. *Advances in Landscape Architecture*, 773-802.
- Kumari, N. (2021). Impact of Eco-Tourism on the Indian Economy. *Gap Interdisciplinarity*, 12-16.
- Pandey, S., Prajapati, R. K. and Nayak, A. P. (2021). Ecotourism potentials in Barnawapara wildlife sanctuary of Chhattisgarh with special reference to livelihoods of tribes. *Journal of Pharmacognosy and Phytochemistry*, 10(2), 1390-1401.
- Schoemann, T. (2002). Socio-political aspects of establishing ecotourism in the Qwa-Qwa National Park, South Africa. *Current issues in tourism*, 5(3-4), 287-308.
- Stem, C. J., Lassoie, J. P., Lee, D. R., Deshler, D. D. and Schelhas, J. W. (2003). Community participation in ecotourism benefits: The link to conservation practices and perspectives. *Society & Natural Resources*, 16(5), 387-413.
- WII, 2023. National wildlife database cell. Wildlife Institute of India, Dehradun, an Autonomous Institution of the Ministry of Environment, Forest and Climate Change, Govt. of India. <https://wii.gov.in/nwdc>.

How to cite this article: Satya Prakash Vishwakarma, R. K. Prajapati, Yogesh Dubey and Sarita Bodalkar (2023). Potential of Ecotourism with Reference to Livelihood of Local People: Amarkantak Region, Madhya Pradesh. *Biological Forum – An International Journal*, 15(7): 323-332.