

Recent Trends And Dimensions Of Tourism In Panna Tiger Reserve Of Madhya Pradesh, India

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Abstract:

Tourism is a form of travel for various reasons, whose primary purpose is entertainment and pleasure. At present tourism is the basis of the economy of many countries. On the one hand thousands of people get employment from tourism and on the other hand significant contribution is received in the gross domestic production of the country. India is a country full of diversity from natural and cultural point of view, where there are immense possibilities of tourism. The aim of the present study is to study the recent trends and dimensions of tourism in Panna tiger reserve of Madhya Pradesh. The study is based on both primary and secondary data and various cartographic techniques has been used to present data. This tiger reserve is lies in the central part of India. Over the period of time panna tiger reserve emerged as a popular tourist destination among the domestic and foreigner tourists because this park has various dimensions of tourist attraction beside rich diversity of wild animals and vegetation, there are many places with natural beauty, waterfalls, deep valleys, mountains and rivers. Ken Gharial sanctuary is situated within the limits of Panna tiger reserve. In terms of biodiversity there are 30 types of mammals, more than 15 types of reptiles ,252 species of birds and many types of insects and plants are found. About an average of 36,000 tourists visit this tiger reserve every year and more than 3.62 crore revenue generated during last five years. Growth of tourism in Panna tiger reserve has also created employment opportunities for local peoples.

Index Terms: Biodiversity, Wild life, Revenue, Tourists, Vegetation.

I.INTRODUCTION:

Tourism is an economic, social and cultural phenomenon which entails the movement of people to countries or places outside their usual environment for personal or business purpose. The Cambridge dictionary define tourism as the business of providing services such as transport, places to stay or entertainment for people who are on holiday. Tourism is the sum of relationship arising from the travel and stay of non-residents, in so far as they do not have permanent residence and are not connected with any earning activity (Hunnizkar and Karpet). The history of tourism is very ancient. The English word tour is often used to mean excursion. In ancient times, humans used to travel in search of food and water. In the history of human civilization, the medieval period is called the era of exploration when many travellers from European countries went to Asia, Africa and America. Many people from India went to Sri Lanka, China, Japan and other Asian countries to propagate Buddhism. this is an ancient form of tourism. Today religious tourism is one of the most popular dimensions of tourism. The beginning of modern tourism is considered to be in the Greek and Roman times in the nineteenth century. In the twentieth century, advancement in means of transport and communication has made the whole world accessible from tourism point of view. Economic development, increase in standard of living and improved income have played an important role in the development of tourism. At present, tourism is the main basis of economy in many countries.

India is a diverse nation with diversity and abundance of land, culture, religious places and natural resources, where there is immense potential for tourism. the snow-covered mountain ranges of the Himalayas, beautiful beaches and backwater, historical forts and palaces, climate, ancient temples, caves and forests with rich in wildlife and pilgrimage sites have always been tourist attractions (Naag2014). Tourism and hospitality sector contribute about 6.8 percent in India's GDP and is an important source of foreign exchange. According to the reports of ministry of tourism 6.19 foreign tourists visited India in 2022 which generated more than 2.11 lakhs crore revenue apart from this tourism in India created 32.1 million jobs also. India has about 30 world heritage sites along with rich culture. tourism industry has potential to enhance economic growth of the country. As per the reports of world economic forum travel and tourism development index 2021 India ranks 54 in the world while 7th among the Asian and pacific countries.

Panna national park and tiger reserve is popular tourist destination at present time among the domestic as well as foreigner visitors. The city of Panna has glorious history and known as diamond city of India because Panna district is the only place of production of diamond in India. In early days it was made the capital of raja Chhatrasal Bundela who ruled in this area during Mughal period. During British rule the district was a part of Vindhya Pradesh which was merged in to newly formed state of Madhya Pradesh in November 1956. The district is situated between the picturesque mountain ranges of Vindhyaachal in the north east part of Madhya Pradesh. there are many ancient temples in the city and famous Prannath ji temple located in Panna is the only temple of *Pranami* sampradaya in the world. Baldaau ji temple and Jugal Kishore temples are other important temples in the district. Panna tiger reserve is about 25 kilometres from the Panna city.

II.OBJECTIVES OF THE STUDY:

The aims and objectives of the present study are as follows

- 1.to study the tourist attraction in panna tiger reserve.
2. to study the biodiversity exist in panna national park.
- 3.to study the significance of tourism in the economic development of the region.
- 4.to study the recent trends and dimensions of tourism in the region.

III.METHODOLOGY:

Primary and secondary data have been used for the present study. Direct observation method and interview methods were used for the collection of primary data. During field work tourists, officers and other staff of Panna tiger reserve, guides and local people were consulted and interviewed for the collection of primary data and other relevant information. The collection of secondary data has been done from the reports published by Panna Tiger Reserve from time to time, survey reports of PTR and, reports of the forest department M.P. Government, and the official website of the Panna National Park. The collected data has been processed and presented through various cartographic techniques. Considering the nature of study cross tables, line diagram, bar diagram and maps has been used to present the data.

IV. STUDY AREA:

Panna Tiger Reserve has been selected for the present study. This national park was established in 1981 and declared a tiger reserve in 1994. Panna Tiger Reserve is situated in Panna and Chhatarpur district of Madhya Pradesh. Latitudinally, this park is located between 24°d 27' north latitude to 24° 4' north latitude and 79° 45' to 80° 09' east longitude. The total area of Panna National Park is 1645.08 sq. km, of which 542.56 Sq. km is the core area and 1002.42 sq km is the buffer zone. Topographically, the national park is located in the Vindhyan range, whose average height is 540 meters. Wide mountainous areas, deep valleys and plains are found in the entire park. Ken river flows through the central part of the park which flows from south to north. Ken is the main water source of the park. Tadoba river and lake and Kolasa lake are other major water sources located in the park. The Ken Gharial Sanctuary has been constructed on the Ken River under the National Park itself, where efforts are being made for the protection of Gharials. The climate of the study area is tropical with an average rainfall of 110 cm. As like other parts of the country, there are mainly three seasons – summer, monsoon and winter. More than 90 percent of the rainfall is received in the four months of monsoon. May is the hottest month with temperatures reaching up to 45 °C while January has an average temperature of 20 °C.

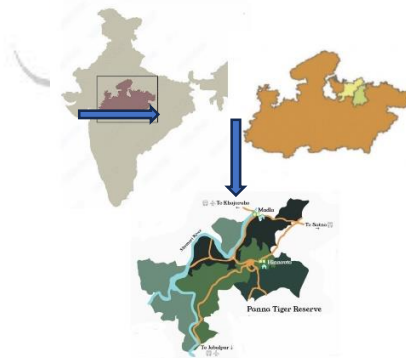


Fig. 1 Location of Panna tiger reserve in Madhya Pradesh and India

V.DIMENSIONS OF TOURISM IN PANNA TIGER RESERVE:

1. RICH BIODIVERSITY

Panna National Park and Tiger Reserve area is rich in terms of biodiversity. It is home to many rare and endangered animals, birds and plants.

WILD LIFE

Panna tiger reserve is home to variety of wild animals which includes carnivorous animals like tiger (*Panthera tigris*), leopard (*Panthera pardus*), sloth bear (*Melursus ursinus*) striped hyena (*Hyaena hyaena*) wild dog (*Cuon alpinus*) wild cat (*Felis chaus*) wolf, jackal, Indian fox (*vulpes benghalensis*) and rusted spotted cat are found in Panna National Park. Among the herbivores here, sambar (*Cervus unicolor*), Indian deer, chital (*Axis axis*), chinkara (*Gazella bennetti*), nilgai (*Boselaphus tragocamelus*), chowsingha (*tetraceros quadricornis*) four horned antelope (*Tetraceros quadricornis*) wild pig (*Sus scrofa*) the common langur (*Presbytis entellus*), the Indian porcupine (*hystrix indica*), honey badger (*Mellivora capensis*) and rabbits are prominent, which can be seen here in the grasslands. rare wild cat and one horned deer is also present here.

At present panna tiger reserve has more than 75 tigers. In the early years of 21st century, Panna National Park had 3 tigers per 100 square kilometre which became zero in the year 2008 but due to efforts made for tiger conservation under tiger project the number of tigers increase to 6 tigers in 2010 further the number of tigers has increased to 75 in 2021. This increase is about 1150 percent. At present, there is an estimate of growth of tigers in Panna National Park at the rate of 12 tigers in every year and by the year 2025, the number of tigers here is estimate by 100 tigers.

BIRDS

More than 200 species of birds are found in Panna National Park. Many migratory birds are also found. Birds including Marshalls lora (*Aegithina nigrolutea*) white bellied minivet (*Pericrocotus erythropygus*) striated grassbird (*Megalurus palustea*) variety of Galliformes, swan, Indian vulture, honey buzzard, stork, duck, milk king are found here. About 06 species of vultures are found in Panna tiger reserve mainly includes Egyptian vulture, long billed vulture, White backed vulture and red headed vulture. Eurasian,

Himalayan griffon vulture and Cinereous are migratory vulture found here. In the first panna bird survey 2022 about 252 species of birds were found in Panna tiger reserve.

REPTILES

More than 15 species of reptiles are found in Panna National Park. Crocodiles and watchdogs are found in large numbers in the Ken river area. Various species of snakes, iguanas, Indian rock pythons (*python molurus*), common monitor lizards (*varanus bengalensis*), chameleons, soft bone turtles, frogs are the main reptiles here. The snakes found in Panna National Park are Indian Cobra (*naja naja*), Rat snake (*ptyas mucosus*) Rasal Bipper, Karat, Dhaman and *Bhediya* snakes.

FISH DIVERSITY

Over 50 species of fishes are found in Panna tiger reserve. Among the species *devario aequipinnatus*, *channa gachua*, *esomus danricus* and *garra mullya*, *rita gogra*, *salmosphasia boopis*, *labeo angara*, *gibelion catla*, *bangana dero*, *lebeo calbasu* are common. Mahseer (*tor tor*) commonly known as king of fresh water fish and *tor putitora* are also found in Ken river area of Panna tiger reserve. The species like tengra (*mystus tengara*), catfish (*wallago attu*), katai (*mistris singhala*) and hilsa (*hilsa Ilisha*) are of rare endangered status.

INSECTS

Panna National Park is rich in various types of micro-organisms, which contribute significantly to the ecosystem here. Insects are the main diet of birds and small creatures found in Panna tiger reserve. Here many species of butterflies, spiders, ants, termites, grasshoppers, ladybugs are found in abundance.

VEGETATION

Mainly teak, bamboo, mixed forest and different types of vegetation exist in Panna National Park. According to Seth (1968), 6 types of forests are found in Panna National Park. 1. Southern tropical dry teak, mixed deciduous forest

2. Northern subtropical dry deciduous mixed forest

3. Dry Deciduous Scrub

4. Anogyssus Pendula (Dhak)

5. Salai (Bansobalia) Forest

6. Dry Bamboo Forest

Teak (*tectona grandis*) is the main tree of the forests here. Bamboo, Tendu (*diospyros melanoxylon*), dhaba (*anogeissus latifolia*) Salai (*Boswellia serrata*), khair (*acacia catechu*), saj (*terminalia tomentosa*) Palash (*butea monosperma*), bel (*aegle marmelos*) Pickle, Jamun, Mahuva, Lantana are the main vegetation found in Panna tiger reserve. The grasslands are wide on the flat plains and river banks, which are the main pastures of the herbivores here.

2. KEN GHARIAL SANTUARY

Ken gharial sanctuary is an important tourist attraction in panna tiger reserve. It was established in 1981 for the conservation of gharials and mugger crocodile population in India as the part of Panna National Park and spread over an area of 45.201 sq. kilometres. sanctuary is located in dense forest area. It is estimated that about 150 gharials are found here. Crocodile point located near the juncture of Ken and Khudar river. The banks are packed with rocks and the side slopes down gently. The sanctuary has a variety of birds and animals also. It is home to species like spotted deer, nilgai, chinkara, jackal and wolf, Himalayan and Egyptian vulture mainly. Flora attractions of Ken Gharial sanctuary includes teak, seja, salai, gunja, palash and khair etc.

3. PANDAV FALLS

Pandav fall is a serene waterfall located inside panna national park. This place is comprised of natural, historic and religious place. The fall is cascades down from a height of about 30 meters into a pool surrounded by lush green forest. Due to very clean water of the water tank the fishes are clearly visible. At the foot of fall there are many ancient caves overlooking large pool of water it is believed that during Mahabharat period Pandava have spent some time here during exile. This area is also very important from the point of view of biodiversity as many medicinal plants are found here.

4. RANEH FALLS

Raneh falls is beautiful falls known as Grand Canyon of India located in Ken River within the limits of Panna national park. This water falls is situated very near to Khajuraho in the Chhatarpur district. The

canyon is about five kilometre long and thirty meter deep made of crystalline granite in varying shade. The canyon formation is result of volcanic eruption many years ago. there are many large and small falls run throughout the year and during monsoon the flow of water is maximum. The Ken River here runs through a narrow gorge of igneous rocks.

5.VULTURE POINT

Vulture hill or vulture point in Panna tiger reserve is home to more than 200 vultures. In the last ten years, there has been a rapid decline in the number of vultures in India and it has almost become extinct in many parts. The main reasons for this are pesticides used in agriculture and environmental pollution, but due to efforts made for vulture conservation in this tiger reserve a sufficient number of vultures are present in Panna Tiger Reserve. There are 09 species of vultures found in the country, out of which 7 species are present here. These species are- Indian griffon Vulture, Red-headed Vulture, Egyptian Vulture, Himalayan Griffon, Eurasian Griffon, Cinereous Vulture and White backed Vulture which can be seen in the vulture point.

VI.GROWING TRENDS OF TOURISM IN PANNA TIGER RESERVE:

At present panna tiger reserve is emerged as a popular tourist attraction among the visitors. Variety of tourist places is the main characteristics of panna tiger reserve. Table 1 presents the growth in the number of tourists in the Panna tiger reserve.

Table 1 Number of Tourists in Core and Buffer Zone

Year	Core zone	Buffer zone	Domestic visitors	Foreigner visitors
2015-16	32923	00	NA	NA
2016-17	37681	00	27033	10648
2017-18	30840	00	24128	6712
2018-19	35479	1020	29908	6591
2019-20	28901	1091	24906	5086
2020-21	32636	3821	36409	48
2021-22	43800	11742	55139	403
Total	242260	17674	197523	29488

Source: Annual reports Panna tiger reserve.

Panna tiger reserve is divided under two zones for the better management-core and buffer zone. Core area is spread over an area of 576.13 sq. kilometres while buffer zone is spread over 1021.97 sq. kilometres. Both the zone has two entry gates for visitors. Madla and Hinota gate are in core area while Akola and Jhinna gate are in buffer zone. From June to July in the year 2015-16 panna tiger reserve was visited by about 32923 tourists and by the year 2016-17 the number of tourists rose to 37681 tourists recording a growth of 14.42 percent .this number of visitors is decline to 30840 in the year 2017-18.nex two years it has up and down trend in the number of tourists and by the end of year 2021-22 the number of tourist is increased to 43800.During the year 2015-16 more than 242260 tourist visited core area while about a total of 17674 tourist visited the buffer zone and at the same period panna tiger reserve was visited by about 197523 domestic visitors while more than 29488 foreign tourists visited Panna tiger reserve during 2016-17 to 2021-22.In the year 2016-17 more than 27033 domestic tourists visited panna tiger reserve while about 10648 foreigner tourists visited in the same year further the number of domestic as well as foreigner tourists has declined during 2017-18 which is again increased in 2018-19 but the number of foreigner visitors continuously declined till 2021-22 and the number of tourists is reaches to only 48 tourists in 2021. The main reason for the decline in the number of foreign tourists was the Corona epidemic, whose impact lasted for almost two years (Fig 2).

Figure 2

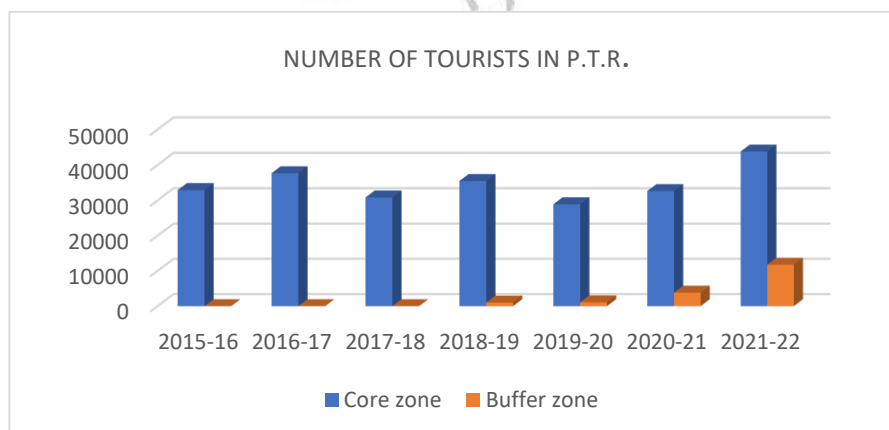
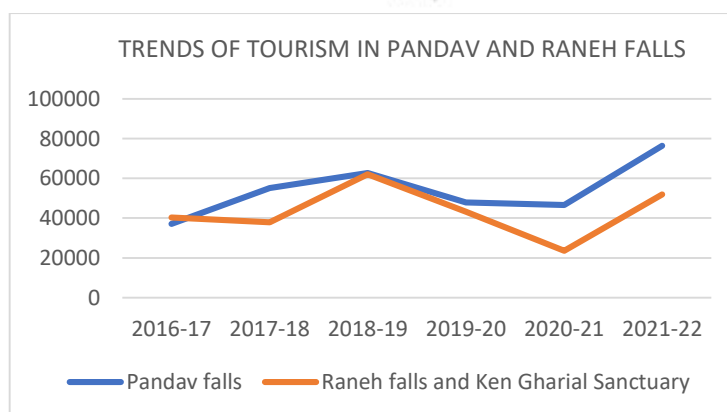


Table 2 Number of Tourists in Pandav and Raneh Falls

Year	Pandav falls	Raneh falls and Ken Gharial Sanctuary
2016-17	37128	40356
2017-18	55087	37974
2018-19	62670	62150
2019-20	47848	43191
2020-21	46686	23608
2021-22	76435	52005
Total	325854	259284

Source: Annual reports panna tiger reserve.

Pandav falls and Raneh falls along with Ken Gharial sanctuary are the other tourist attraction exists in panna national park. Both the sites are very famous among the tourists. in the year 2016-17 about 37128 tourists visited pandav falls while more than 40356 tourists visited raneh falls and ken gharial sanctuary. This number of tourists increased to 55087 in pandav fall during 2017-18 while raneh fall has a decline trend of tourist in the year 2017-18 and the numer of tourist decreased to 37974 further this number rose in the both sites during 2018-19.in the year 2021-22 a total of 76435 and 52005 tourist have visited panadav falls and raneh falls respectively. Figure 3 shows the trends of visitors in pandav fallas and raneh falls during 2016-17 to 2021-22.

Figure 3

VII.ECONOMIC IMPACT OF TOURISM IN PANNA TIGER RESERVE

The income received from tourists every year can be seen as the economic impact of tourism. This income is mainly received from the sale of tickets, vehicle rentals and consumption of residential facilities located in the national park. The other economic impact of tourism can be seen on the locals in the form of employment generation. growth of tourism has created opportunities for local residents to set up medium and small business such as shops of daily needs, breakfast and tea shops, lodging, restaurants and *dhaba*, and handicrafts.table no 3 shows the revenue generated in Panna tiger reserve during 2017-2022.

Table 3 Revenue Generation in Panna tiger reserve

Years	Revenue			
	Core zone /Pandav falls	Buffer zone	Raneh Falls/Ken Gharial Sanctuary	Total
2017-18	11109473	165000	3901875	15176348
2018-19	11755670	246900	6850625	18853195
2019-20	9325225	236400	5294550	14856175
2020-21	12462870	1036200	3205700	16704770
2021-22	-	-	-	36237480

Source: Annual reports Panna tiger reserve.

Above table 3 indicates the revenue generated in different tourism areas of the Panna tiger reserve during 2017-18 to 2021-22. Total revenue collection in 2017-18 was 1.51crore which is increased to more than 3.62 crore in 2021-22 recorded a growth of 138.77 percent in past five years. A total revenue of 18853195 rupee has been collected in 2018-19 which is decreased to 14856175 in 2019-20. this year total revenue seems to have affected by covid and year 2019-20 was also affected by covid when total revenue collection was 16704770 after that there is rapid increase in total revenue which rose to 3.62 crore in 2021-22.

The development of infrastructural facilities in the area is also a major economic impact of tourism in the region and Panna tiger reserve. Tourism encourages the development of transport facilities, health care, market and hotel industry.it also helps in the conservation of places with natural and historical importance and other heritage sites.

VIII. TOURISTS VIEWS ON PANNA TIGER RESERVE:

During field visit tourists were consulted for their views on tourism in panna tiger reserve. About 62.50 percent of the total respondents said that the purpose of their trip was to see wild animals and nature, while 25.8 percent of the tourists said that the purpose of their trip was travel and entertainment. Out of the total surveyed tourists, 2.50 percent people stated that their objective was to visit the Tiger Reserve when they come for government work or business work and more than 9.67 percent tourist have come for other different purpose. Out of total respondents more than 83.87 percent tourists are satisfied with the behaviour and knowledge of guides while about 16.13 percent tourists were not satisfied with the knowledge of guides. It was observed that most of the tourists are happy and satisfied with their trip to Panna tiger reserve.

IX. CONCLUSION:

At present tourism is an important economic activity which is not only a means of entertainment but it also provides employment to thousands of people. It is an important source of foreign exchange in many countries. India is a diverse nation with diversity and abundance of land, culture, religious places and natural resources, where there is immense potential for tourism. currently nature and wild life is an important dimension of tourism and over the period of time panna tiger reserve emerged as a popular tourist destination among the domestic and foreigner tourist because this park has various dimensions of tourist attractions beside rich diversity of wild animals and vegetation. Along with the core and buffer zone area Pandav Falls, Raneh Falls and Ken Ghariyal Sanctuary are the major tourist attractions in Panna tiger reserve. the hills, valleys and wide grasslands of panna tiger reserve are full of teak ,tendu ,salai, palas, khair and bamboo trees. Many species of mammals, reptiles, birds and insects are found in the national park. Due to efforts made for tiger conservation there are more than 75 tigers in panna tiger reserve.it is home to about 200 vultures and 150 Gharials. In the last few years, there has been a huge increase in the number of tourists coming here, where in the year 2016-17 more than 115165 tourists came here and their number has increased to 173988 in 2021-22, similarly the income received from tourism also increased to 3.62 crore recording a growth of 138.77 percent in past five years. Growth of tourism in Panna tiger reserve has created opportunities for local residents to set up various small business which helps to increase the living standard of local peoples.

REFERENCES:

- [1] Balamurugan, C. "Economic Development of Tourism in the Western Ghat region" International Journal of Arts, Science and Humanities, Vol 11, Issue 1,2023
- [2] Bhardwaj, T.,” Panna National Park: a gem among Madhya Pradesh tiger reserve” Financial Express,8 march ,2021.
- [3] Biswas, S. and Sankar K,” Prey abundance and food habit of tigers in Pench National Park, Madhya Pradesh” J. Zool, pp.411-420,2002
- [4] Gupta, Smt. Prabha, “Economic Study of National Parks of Madhya Pradesh, with special reference to Kanha National Park” PhD Thesis, Rani Durgavati Vishwavidyalaya, Jabalpur,2004
- [5] Gautam, Dr. Alka, “Resources and Environment,” Sharda Pustak Bhawan, University Road, Allahabad (U.P.).2015
- [6] Johnson, J.A., Parmer, R., Ramesh, K.,” Fish Diversity and Assemblage Structure in Ken River of Panna Landscape Central India” Journal of Threatened Taxa 4(13), pp.3161-3172,2012
- [7] Mahalaxmi,V and P.Stanely Raj,” Impact of Tourism in India“ International Journal of Scientific Engineering and Applied Sciences,Vol-2, Issue-1,pp.167-184.2016
- [8] Naag, S.” Development of Pench national park: Tourism Industry “ The Research Journal of Environment, Culture and Development ,Vol.No 1,Issue 1,pp.80-88,2014
- [9] Nair, S.M, ”The Endangered Wildlife of India and their Conservation & Quota” National Book Trust of India, New Delhi,1995
- [10]. P, Talat and Orus I. ” The Inter Linking of Rivers and Biodiversity Conservation: a Study of Panna tiger reserve, Madhya Pradesh, India“ Current Science, vol 121 no 12, pp.1572-1582,2021
- [11]. Sharma, V.K., “A Brief note on Tiger Population Dynamics and Future Projection in Panna Tiger Reserve”.2022
- [12]Singh R, Kumar A, and Singh P.S.,” Spatial analysis of tiger habitat suitability in Panna tiger reserve of Madhya Pradesh,” Life Sci. bull., pp 95-98,2013