



STATUS OF WILD LIFE AND TOURIST ATTRACTION'S: A CASE STUDY OF CHANDOLI WILD LIFE SANCTUARY IN MAHARASHTRA

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Abstract- The present research paper has been made an attempt in to analyze Status of wild life and tourist attractions in Chandoli Wildlife Sanctuary of Maharashtra. Maharashtra at a junction of four districts i.e. Kolhapur, Satara, Sangli and Ratnagiri District. India an sub-continent with vast variation in relief, climate, vegetation. There is an exacting diversity in habitats of over 350 species of mammal, 350 species of reptiles, 1200 species of birds and countless insects. The protected forest, national park, sanctuaries, tiger reserves Marine Park and Himalayan wilderness' are the integral part of eco-tourism. India has more than 80 national park, 441 wildlife sanctuaries, 23 tiger reserves.

Today, India has tremendous potential for eco-tourism. It is need to emphasize eco-tourism development and promotion of destination in the country to attract more eco-tourist, for socio-economic development and promotion of conservation .But, for development of destination need strategic planning. Present research paper focus on status and range of wild life and tourist attractions in Chandoli Wild life Sanctuary. This sanctuary of Maharashtra is one of the popular national parks in India. It is located in the western part of the state of Maharashtra and is surrounded by the Kolhapur, Satara, Sangli, and Ratnagiri District. Plenty of tourists and nature lovers visit to the Chandoli sanctuaries from Konkan region. Entire research paper is based on primary as well as secondary data such as journals, internet, various published Govt. Report etc. and information obtained through filed work. Analyses of the data information have been done with the help of cartographic method, photograph, table, maps, etc.

Keywords- Eco-Tourism, Species, Wildlife, Forest, Sanctuary.

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Introduction

India is an unique sub-continent with vast variation in relief features, climate, vegetation. There is an exacting diversity in habitats of over 350 species of mammals, 350 species of reptiles, 1200 species of birds and countless insects. The protected forest, national park, sanctuaries, tiger reserves, Marine Park and Himalayan wilderness' are the integral part of eco-tourism. India has more than 80 national park, 441 wildlife sanctuaries and 23 tiger reserves.

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tion in the country to attract more eco-tourist, for socio-economic development and promotion of conservation. But, for development of destination need strategic planning. The Chandoli Wildlife Sanctuary Maharashtra is home to around 23 species of mammals and 20 species of amphibians and 17 species of reptiles, 122 species of Birds. Some animals that are found in the forest are tigers, gaurs, deer, leopard cats, panthers, sloth bears, barking deer, mouse deer.

Keeping in view the principles of range and status of wildlife and tourist attractions in Chandoli Wildlife Sanctuary of Maharashtra has been evaluated with the main objectives.

Eco-Tourism

Basically, that is necessary to develop eco-tourism destination development of Chandoli Wildlife Sanctuary. 'Tourism' and 'ecology' are the two different term with literally different meaning but have complex interactions between them. "Ecology is science of the inter-relationship between living things and their natural environment and maintaining the natural ecological balance".

Tourism is multifaced activity which

- Generate income, government revenue and foreign exchange.
- Enhance socio-economic development.
- Conserve social, cultural, natural, heritage.
- Given recreation to tourists.

Study Area

Chandoli Wildlife Sanctuary, Maharashtra is one of the popular national parks in India. It is located in the western part of the state of Maharashtra at a junction of four

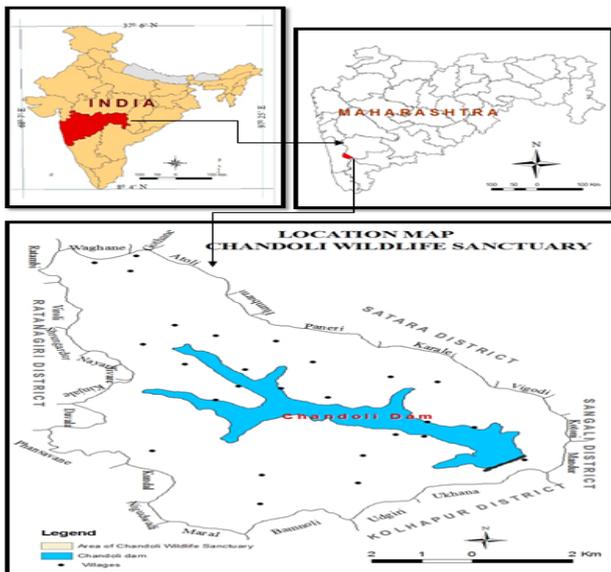


Fig. 1-

Districts i.e. Kolhapur, Satara, Sangli and Ratnagiri District. Plenty of tourists and nature lovers visit the Chandoli Wildlife Sanctuary. It is situated 55km south-west of Karad and 105 km North-West of Kolhapur city. It lies between 17° 03' 29" and 17° 17' 00" North latitude and 73° 03' 55" and 73° 51' 55" East longitude. Total area covered of this Sanctuary is 308.97 sq.km. East-west extent of this sanctuary is 30 km and North-south is 40 km.

Concerning to physiography of the entire study region is undulating with steep slope and escarpment with basalt. Average height is 816.5 meters above to mean sea level. Warna is the main river and it originate in the sanctuary area at Patharapunj and dividing the sanctuary area in two halve i.e. north and south. On this river dam is constructed at Chandoli Village and there by form's 'Vansant Sager' reservoir.

Chandoli Wild life Sanctuary prevails humid and moderate climate .The mean annual rainfall is 350 cm (recorded at Chandoli village). The half month of the year are March and April during rainy season maximum and minimum temperature range remaining between 28°C to 11°C Sanctuary and around them.

Forested Area

Out of the total area of the Chandoli Wild life Sanctuary 63.14% area under forest. Which is under direct management of forest division. viz.Kolhapur, Sangali, Satara and Chiplun.

Table 1-Chandoli Wild life Sanctuary Types and Areas of Forests, 2004 (Area in ha.)

Sr.No	Forest Division	Reserved	Protected	Unclass	Total
1	Kolhapur	-	330.34	6574.80 (95.1)	6905.14(35.4)
2	Sangali	10274.3(83.3)	-	219.8(3.2)	10493.4(53.8)
3	Satara	1986.3(16.2)	-	20.4(0.3)	2006.7(10.3)
4	Ciplun	-	-	102.4(1.4)	102.4(0.5)
5	Total	12260.7(62.8)	330.3(1.7)	6916.7(35.5)	19507.7(100)

Source- Govt. of Maharashtra State, Management plan for Chandoli Wildlife Sanctuary, 2002.

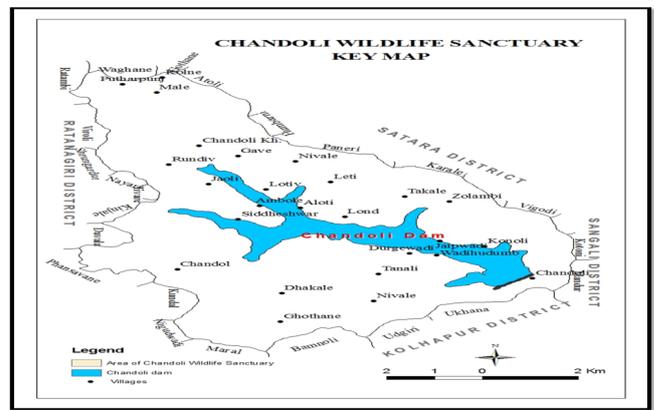


Fig. 2-

Range of Wild Life

Nearly 23 species of mammals, 122 species of birds, 20 species of amphibians and reptiles are known to be resident in the forests of Chandoli. Tigers, Indian bison or gaur *Bos gaurus*, sambar *Cervus unicolor*, leopard cats, *Prionailurus bengalensis*, sloth bears, *Melursus ursinus* and Indian giant squirrels, *Matura indica* are quite conspicuous here. Many species of ungulates like barking deer, *Muntiacus muntjak*, mouse deer. A census carried out in Year 2002 by the Forest Department showed a rise in the number of Tigers, Leopards *Panthera*, *Pardus*, Gaur, Barking Deer, Mouse Deer, Sloth Bears and Blackbuck.

The Chandoli Wildlife Sanctuary has high diversely of wildlife since 2004.Each year regular census is carried out by forest Department to estimate the population of major wild animals, following table show the major wild animal in this sanctuary.

Table 2- Major wild Animal in Chandoli Wildlife Sanctuary, 2004-2009

Sr. No.	Faunal species	2004	2005	2006	2007	2008	2009
1	Tiger	4	3	3	3	4	4
2	Panther	4	3	6	5	8	9
3	Bison(Gaur)	132	170	181	193	205	224
4	Sambar	45	60	75	68	114	125
5	Sloth Bear	36	42	47	70	82	90
6	Wild Boar	-	-	200	220	233	242

Source: Govt. of Maharashtra State, Management plan for Chandoli Wildlife Sanctuary (2009).

Monsoon end is the peak season for insects. There is a good wild life including dark malbar, paradise fly catcher, hornbill, black dragon, hawk, some more unusual species of wildlife that can be seen in this sanctuary are Indian giant squirrel, wild dog, common grey, hornbill.

Villeges Included in the Chandoli Wild Life Sanctuary

District -Sangali, Tal- Shirala: Total-19 Villages

- 1) District Kolhapur, Tal- Shahuwadi: Total -10 Villages
- 2) District-Satara, Tal-Patan: Total -3 Villages
- 3) District-Ratnagiri, Tal- Sangameshwar One Villages viz. Gothane

Most of the inner villages have been resettled out side the Wildlife Sanctuary area due to relocation, major portion of the Chandoli Wildlife Sanctuary has become "No man's land" resulting into least human and domestic cattle disturbance. Sighting of animal in this sanctuary are very poor. Due to very dense vegetation.

An inventory status for assertion of the fauna of this Wildlife Sanctuary has not yet been locked, but being in close proximity to Koyana sanctuary. This sanctuary harbours similar exclusive fauna. Status of endangered species found in the Chandoli Wildlife Sanctuary. Status of species found in Chandoli Wildlife Sanctuary is shown in following table-

Table 3- Status of Species Found in Chandoli Wildlife Sanctuary

Sr.No	Species	Distribution		Sightings	
		Well	Localized	Common	Rarely
A) Mammals					
1	Tiger		✓		✓
2	Panthers	✓			✓
3	Gaur(Bisin)	✓		✓	
4	Mouse deer		✓		✓
5	Slouth Bear		✓	✓	
B) BIRD'S					
1	Great honed owl	✓			✓
2	Grate pied hornbill		✓		✓
C) REPTILES					
1	Common Indian Moniter	✓			✓
2	Indian Pythey	✓			✓

Source- Govt of Maharashtra state Management plan for Chandoli Wildlife Sanctuary, 2004.

Distribution of wildlife Animal

Based on the data of population estimation and observation by forest departmental staff, the pattern of distribution of various major animal in the Chandoli Sanctuary is arrived, the Tiger is more confined to the western part at the sanctuary, that is Dhakale Chandel, Siddeshwar, Rundiv areas; Panthers are well distributed in Chandoli sanctuary wild boar are found throughout the Chandoli Wildlife Sanctuary, Samber and Gaur (bison) are more confined to western part of Chandoli Wildlife Sanctuary and zolambi sada, western and northern part of Chandoli Wildlife Sanctuary is well located with different type of animals.

Habitat:-These habitats can be divided into two viz.

1) Aquatic Habitat

Vasant sagar' is located in the center of Chandoli Wildlife Sanctuary having submergence area 45.5 sq.km. As water in reservoir is

very clean, deep, and without any water vegetation. Fish population is also limited, prior to declaration of Chandoli Wildlife Sanctuary. According to fisheries department certain species found in this reservoir like Kasav, Magar etc.



Fig. 3- Aquatic Habitat (Vasant Sagar Reservoir)

2) Terrestrial Habitat

This habitat can be divided into the three types.

1. Wood land 2.Grass land. 3. Rocky lateritic plateaus, with over hanging cliffs along the edges. Majority of the sanctuary areas is under thick forest (wood lands). Grasslands are in some pocket but now the areas of deserted villages are covered with grasses and there land is mentioned properly will save as meadows. The Rocky lateritic plateaus with over hanging cliffs along cliff, fallen builders with dense thorny growth come under unique category of habitat. This type of habitat has both open land and covered with derivate wood growth harbor final species like bear, tiger, panther, etc. The plant community in various habitats gives rise to diversity in the area.



Fig. 4- A View of Shelter for Burrowing Animal

Shelter availability for animals

There are 24 sadas which provide shelter to many animals in the Chandoli Wildlife Sanctuary. Shelter is not limiting factor in the Chandoli Wildlife Sanctuary. Dense cover of all trees such as, mangoes, umber, other fruit to bearing.

Food Availability for Animal

Tiger, Panther, Hyena, wild dog are major carnivores of the Chandoli Sanetuary. In general Samber is most preferred food of Tiger, Wild Boar, Gaur, Barking Deer, etc Panthers Hunt, Common Lan-

gur, Samber Fawns, Wild Boar etc. Wild Dog are seen hunting in the track and their main road is languor. They also feed on wild boar, samber barking deer etc.

Slouth bear is omnivore's animal that feed on fruits of Bear, Jamun, Mango, Awla and honey, termites .Grass and young sheet and leaves of shrubus Karavi and mits of some plant forms. The salt need of animal may be fulfill through the green vegetation.

Generally in this sanctuary food is not limiting factor for herbivores but for in creating population meadow development is an important aspect of the Chandoli Wildlife Sanctuary Management.

Types and species of selected Fauna found in Chandoli Sanctuary

1) Species of Mammals

Sr.No	Vernacular Name	English Name	Zoological Name
1	Wagh	Tiger	Pantheras tigris
2	Bibtya	Leopard	Panthera Pound
3	Aswal	Sloth Bear	Malersus Ursinus
4	Dukkar	Wild Boar	Sus serofa
5	Ran Manjar	Jungle Cut	Felis Chaus
6	Ran Kutra	Common Fox	Alpinus
7	Kolha	Comman foxko	Wolf
8	Sasa	Hare	Laps Higrwils
9	Waner	Laungerl	Preshyts entellus
10	Lal tondi Makad	Bonnel	Macan Radiate

Source- Complied By Researcher

2) Species of Reptiles

Source - Complied By Researcher

Sr.No	Vernacular Name	English Name	Zoological Name
1	Ghonus	Russles	Vipara Vasselli
2	Ajagar	Tyhton Sanke	Pythons nmolurus
3	Nag	Cobra	Varanus Bungalensis
4	Dhaman	Rat Sanke	Pity's mucous
5	Manyar	Karal	Bun gores
6	Sadha Sap	Common Rat Sanke	N.A.
7	Sarada	Common Lizard	Agamid

3) Species of Amphibians

Sr.No	Vernacular Name	English Name	Zoological Name
1	Beduk	Broanze Frok	Rang tigerina
2	Kasav	Tortoise	N.A
3	Magar	Corcodiles	N.A

Source- Complied By Researcher

Tourist Attraction's in Chandoli Wildlife Sanctuary

1. Chandoli Dam and Reservoir



Fig. 5- A Close View of Chandoli Dam

The Dam of Warna reservoir is an important attraction of tourist in Chandoli Wildlife Sanctuary. Dam is constructed across the Warna river hence it is called Warna Dam. Spread of water reservoir is 45 sq.km.Vasant Sagar Reservoir is located in the heart of Chandoli Wildlife Sanctuary. Capacity of water reservoir is 34 TMC. In summer the water storage of the reservoir is quite high as about 6.81 TMC. Tourist can observe the nature sense as well as cultural beauty of the Chandoli dam.

2. Zolambi Sada

In the western Ghat of Maharashtra, Zolambi sada is one of the most important tourist attractions. It is located north east of Chandoli Budruk Approximately about 10 km. area covered by zolambi sada is about 8.4 s q km. length of these sada is 1.5 km. width is 5.6 km.The place provide food and shelter to wildlife animal and plants. Such as Tiger, Bibtya, Wagh, Manjar,Pal, Nag, Samber etc.

3. Prachitgad

It is one of the historical tourist attractions in these sanctuaries. It is located at north, west of Shirala about 65 km.western margin of the Prachitgad is demarcated by range of Sahyadris and Konkan. Prachitgad is never the scene of any notable event until 1817. When it was seized by a Gosavi named Citursingh who gave himself out to be younger brother Shahu the Satara Raja.

4. Bhairavgad

Bhairavgad is one of the fort built by Rajs of Panhala. About five acres area acquired historical Place. It is located at 32 km South west of Patan.

5. Kalawantineechee Veehir

Kalawantineechee Veehir is an attraction of tourism in Chandoli Wildlife Sanctuary. It is located foot at Prachitgad. It is away from 5 km. from Rundiv. The name of Kalawantineechee veehir is associated name of women. She did recreation of people in an ancient time. Such as dance. She came to daily on veehir for bath. At that time nobody allowed to visit that veehir hence the veehir is famous by this women namely Kalawantineechee veehir.

6. Khandar Waterfall

It is another tourist attraction in Chandoli Wildlife Sanctuary. It is associated beauty of nature. Height of these waterfalls is 150 mts. It is steep slope and tourist can watch beauty during rainy season. Tourist Attraction around Chandoli Wildlife Sanctuary:

- Battis Shirala,
- Agashiva cave,
- Sadashivgad,
- Machindragad.

Conclusion

South Maharashtra has many tourism destinations and Chandoli Wildlife Sanctuary is one of them which are located at junction area of four districts. Although the sanctuary comprises geographical area at 33 villages. According to decision of Government of Maharashtra relocation of this village out of the sanctuary was started in 1985 and up to 2008 twenty seven village have been shifted. It is a unique home of wildlife.

Keeping a view of the Chandoli Wildlife Sanctuary as eco tourism, destination, development for the following notable concluding remarks:

A. Vegetation and habitat to wildlife fauna Chandoli Wildlife Sanctuary has a total 164 faunal species belonging to four classes namely-

- 1) 23 species of Mammals.
- 2) 17 species of Reptiles.
- 3) 20 species of Amphibians.
- 4) 122 Species of Birds

B. Vasant Sagar reservoir although occupies big area (i.e.45.5 sq.km.)These provide shelter for aquatic habitats.

C. There are several actual and potential tourists attractions in the Chandoli Wildlife Sanctuary such as Bhairavgad,Prachitgad, Zolambi sada,Chandoli dam,Kalavantineechi veehir etc.

D. Although the Chandoli Wildlife Sanctuary has high potential for eco-tourism development. But that is necessary to attract many visitors.

Some recommendations are suggested from the view point of eco-tourism development of these sanctuaries

- i) Wild life sensitive areas are found near in Ud giri and Bhairavgad. Therefore these areas as well as external boundary should be maintained every year.
- ii) Zolambi sada of this sanctuary area are very susceptible to fires and the erosion.

Therefore it is suggested that here sadas should not be burned for any purpose. The disease spread to wild animal from domestic live stock is rare. However Preventions measures needs to be taken in the Sanctuary.

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