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Emerging trends of ecotourism in threatened Tal Chhappar sanctuary of India

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Abstract

Rajasthan State forest covers an area of 32,638.74 Sq. km. which is 9.54 percent of the total geographical area of the state. Tal Chhappar Wildlife Sanctuary is one of the enclaved area enlisted by Wildlife Department Rajasthan. Tal Chhappar is located on the fringes of the Thar Desert covering an area of about 17.19 Sq Km. It is an abode to thousands of migratory bird species. The region represents a salty area which is being massively covered with *Dichanthium lasiurus* that is the chief food for *Antelope cervicapra*. This natural abode is presently under threat and necessary steps are must to maintain the rich biodiversity. This sanctuary needs to be upgraded to Ecotourism Blackbuck Sanctuary by adopting sustainable practices. The paper presented here is inspired to address the influence of ecotourism with the locals of Sujangarh area. There is a need to implement realistic ecotourism practices to enrich the biodiversity and livelihood of indigenous people.

Keywords: Ecotourism, Tal Chhappar wildlife sanctuary, blackbuck, saline and biodiversity

Introduction

Ecotourism is an emerging trend to blend wildlife with tourism. Ecotourism is a tool to preserve natural areas by appreciating the cultural and natural history of the environment. It takes care not to disturb the integrity of the fragile ecosystem, while creating job opportunities that are advantageous to the local people. From past many centuries nature has been our idol for worship, as kids we were told conserve, forfend it from threat. The Indian tradition has always believed that, humankind is a part of nature and one should look upon all creation with the eyes of benevolence and respect.

The India topography boasts an abundant source of flora & fauna. India has numerous rare, endangered, vulnerable threatened species of wildlife. The formation Wildlife areas such as Biosphere Reserve, Marine Protected Areas, National Parks, Sanctuaries, Tiger reserves, World Heritage Wetlands, Community and Conservation Reserves have had a considerable growth and welfare of these beautiful animals. Also, if we turn back to history, we can clearly see that now wild animals are more safer as the threats like hunting are specifically lesser in number. Numbers of these conserved areas in India for wild creatures are provided as 80 National Parks and 144 Wildlife Sanctuaries.

Rajasthan is one of the most sought-after tourist destinations in South East Asia owing to its cultural, geographical and ecological diversity. Culture, historical, monuments, palaces, forts, heritage sites along with the landscapes and wildlife form the most lasting memory when it comes to touristic impression of Rajasthan. A large state of 34.22 million ha, Rajasthan is approximately 10% of India. Around 9% of this land is under the administrative control of the forest department. With 3 National Parks, 3 Tiger Reserves, 27 Wildlife Sanctuaries, 2 Ramsar Sites, 14 Conservation Reserves and many niche faunal habitats.

A latest term has been provided that makes tourism more sustainable and in a long term more friendly, referred as Sustainable Tourism. The main objective for sustainable tourism is to make it more environmentally friendly and more apt to exceed the values of locals in it. Sustainable tourism is an accountable tourism that intends to generate employment, income along with alleviating any specific impact on environment and local culture of the area. Tal Chhappar Sanctuary can be developed as an Ecotourism point by conserving its flora and fauna along with increasing the local cultural and traditional value imbibed in the people of Sujangarh.

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Tal Chhappar Sanctuary resides in the Churu district present in Northwestern Rajasthan consoled in the Shekhawati region of our nation. The Tal Chhappar sanctuary lies in the Sujangarh which is situated at a distance of 95 km from Sikar. The

wildlife sanctuary covers an area of 17.19 Sq. Km and is surrounded by six villages namely Gopalpura, Chhappar, Charwas, Soorwas, Dewani, Rampura. (Fig 1)

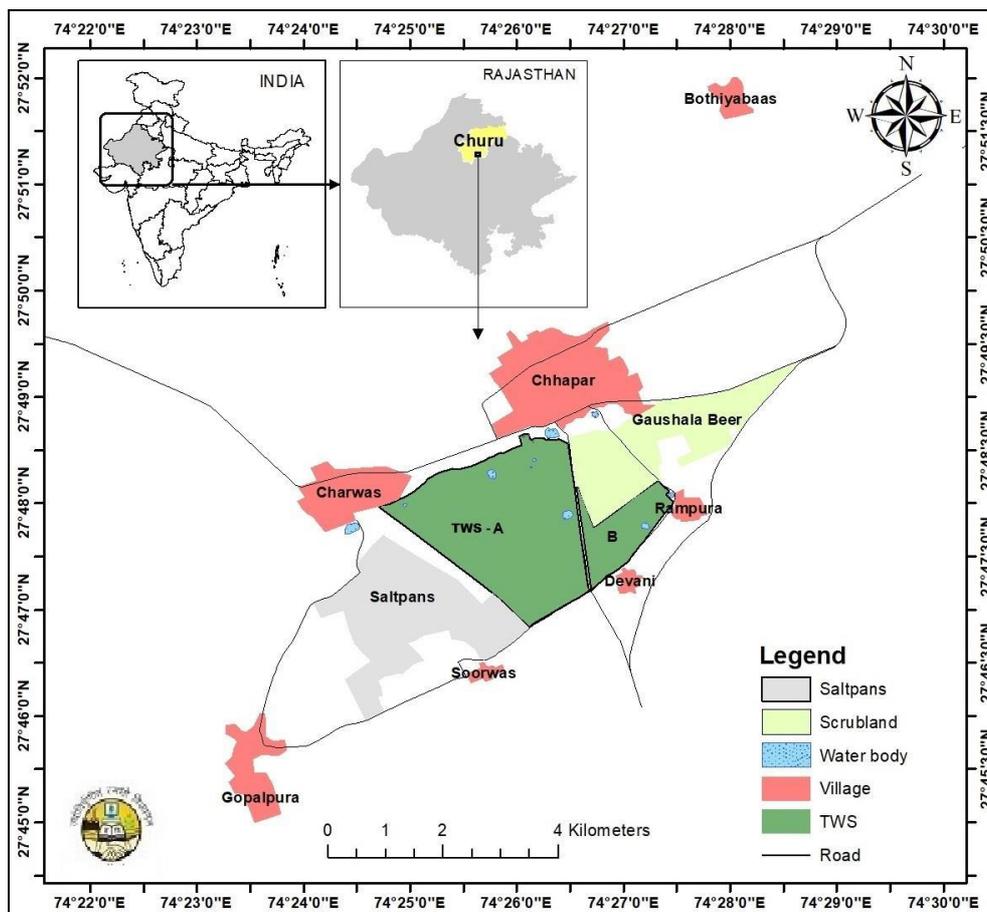


Fig 1: Map of Tal Chhappar Sanctuary

In the Tal Chhappar Sanctuary, a special type of grass commonly called Mothiya is found. The Seeds of this particular grass resembles the pearls in the monsoon season Mothiya has a sweet taste and is a favorite food also of the local inhabitants. The Production of this type of grass variety is very less. The grass Mothiya has been grown in the Sanctuary and is a relishing food for Black bucks and birds like Starks which dig it from the ground.

In 1962 under the Wildlife Act this natural abode of blackbucks was upgraded to Reserve Area. It was notified as a sanctuary in 1962, and a separate wild life wing was created in the Rajasthan government Forest Department in 1976. In April 16, 1988 this sanctuary was handed over to the wild life wing. In 1980, the center forest land was allowed to be transformed for the non forestry purposes which is the main cause of the threatening the Sanctuary due to commercialization of salt works.

Presently the sanctuary is under threat due to various reasons and the sanctuary needs to be protected by adopting sustainable ecotourism approach. The paper analyses the reasons for the present situation and suggestions to enhance and maintain biodiversity by including indigenous people of adjoining village to restore the lost charisma of the Blackbuck sanctuary. Notable contributions have been made by Ashutosh (2016) [1], Banerjee (2010) [2], Birdlife International (2021) [3], Coria & Calfucura (2012) [4], Das and Chatterjee (2015) [5], Guha & Ghosh (2007) [6], Kaur *et al* (2020) [7], Magray,

(2018) [8], Ojha (2016) [9], Sharma (2013) [10], Sheikh (2019) [11] Singh (2010) [13], Singh (2019) [12] and Spicer (2020) [14].

Geography and Geology

The geographical location of the Sanctuary is between 27°-50' North and 74°-25' east. The origin of the name of the Sanctuary is from Tal word which is vernacular for a plain salty area. It is situated at nearly 990 feet above sea level and has height of 302 meters. Tal Chhappar Sanctuary resembles Tropical Savanna Grassland having only few trees of *Acacia nilotica* and *Prosopis juliflora* trees. Small water bodies have been artificially created all over the Sanctuary which collect rain water during monsoon. Tube wells are also set up to remove water scarcity in these ponds. The water is having much saline content and these tube wells are ineffective in solving water crisis during summer season. The sanctuary is surrounded by hilly area on one side and this constitutes the watershed zone. Due to salt work activities in the watershed zone rain water rarely reaches during monsoon in the Sanctuary thereby depriving the rain water storage in the small ponds.

Key Biodiversity

The forest of sanctuary area is of Group Tropical Thorn Forest and which can be further classified as sub group Desert Thorn Forest. The sanctuary is chiefly having dominant form of grass with scanty trees. The area represents a salty

grassland having dominant form of *Dichanthium* and *Lasiurus* grasses. Tal Chhappar Sanctuary is lively with the beautiful songs of birds like harriers, sparrow hawk, skylark, dove, blue jay, southern grey shrike, Indian spotted creeper, green bee eaters, black ibis, Peacock, and Kingfisher. The sanctuary is famous for the dominant fauna the blackbuck which are found moving all around the Sanctuary (Fig 2)



Fig 2: Blackbuck in Tal Chhappar Sanctuary

Other Key Fauna: Few other major mammals which can be seen are the Golden Jackal, Indian Fox, Red Fox, Jungle Cat & Desert Hare. Among the reptiles, Spiny-tailed Lizard, The Monitor Lizard snakes like Eryx, Viper & Rat Snake are also found in the Sanctuary.

Flora: 78 angiosperm species have been found in the Sanctuary. Of which the Family Poaceae was found in maximum numbers. The grass *Dichanthium annulatum* was found to be the most dominant growing type (Fig 3). *Acacia nilotica* was found to be the most dominant tree.



Fig 3: Grassland of Sanctuary in Summer Season

Climate

This region depicts three main seasons winter spanning from October to February, summer from March to June and monsoon covering July to September. The Sanctuary witnesses dry climate with large variation in temperature. In May and June local winds become very hot and the mercury shoots up to 48 °C and in contrast the minimum temperature falls to 0 °C in December and January. The Tal Chhappar falls under principal arid zone of India. Rainfall pattern is highly erratic. An Average rainfall in this region is nearly around 300 mm.

Results and Discussion

Rajasthan State offers the most amazing and unique canvas

for those interested in mingling with the elements of nature rich biodiversity, dense forests, host of water bodies and scenic places. The three important pillars on which ecotourism is based are conservation, communities and interpretation. Eco-conservation and development must be strongly integrated in all plans and activities for development of tourism in the state. Dovetailing tourism objectives with the overall environmental concerns requires planned co-operative efforts between the tourism industry, the local community and the Government on a sustained basis. Apart from a strong policy environment to protect and develop natural ecosystems, there is a strong need for local communities to participate in environment conservation.

Ecotourism activities are to be coordinated by a qualified nature and cultural interpreter trained to entertain and educate the visitors. In the context of this sanctuary it can encompass the following:

- Trekking, nature walk, bird and wildlife watching, hiking, flora and fauna observation, photography, etc;
- Lodging in eco-lodges, home stays and guesthouses that are located in an area of natural and/or cultural beauty, and involves local specificities;
- Activities in specified areas of the forests such as jungle safari in vehicles trekking/nature walk, overnight camping in designated sites, bird watching and study of flora & fauna, etc.

The scope of wildlife ecotourism includes Tourism is aimed at observing / appreciating nature, traditional cultural heritage and it includes the following parameters:

- Organized for environmentally conscious small groups
- Reduces negative impacts on the natural and socio-cultural environment
- Promotes protection of natural areas, restoration of heritage / culture
- Supports local livelihoods by active community participation
- Increases awareness for conservation of natural and cultural heritage through
- participatory, interactive, educational and interpretative, experiences.

The main objectives of Rajasthan Ecotourism Policy, 2020 are Promote ecotourism in a sustainable manner based on the Global Sustainable Tourism Criteria (GSTC) based on the four pillars including sustainable management, socioeconomic impacts, cultural impacts, and environmental impacts; Promote the sustainable use of bio-diversity by generating income in indigenous people and conserve the existing biodiversity and ecosystems. All ecotourism activities shall be in conformity with the existing environmental laws of the country, including Wildlife (Protection) Act, 1972, the Forest (Conservation) Act 1980, the Environment (Protection) Act, 1986, the Environment (Protection) rules 1986 and rules for Eco sensitive zones, NTCA guidelines, Rajasthan Tourism Policy 2020, Rajasthan Forest Policy, directives of Hon'ble Supreme Court of India and National Green Tribunal.

Rajasthan's rich biodiversity is an important asset having economic potential. This wildlife sanctuary is facing a critical situation of water shortage food scarcity and the blackbucks are dwindling in numbers. The threats and suggestions to improve the sanctuary water resources are elaborated below.

Threats

- The Forest Department of Sujjangarh has transferred 417 acres of land to The Revenue Department under political muscle power thereby establishment of salt work activities have been initiated which disrupts the wildlife of the Sanctuary.
- Salt mining activities in the side of Gopalpura have obstructed rain water entry in the Sanctuary leaving the small ponds dry.
- The Forest Department introduction of *Prosopis juliflora* have devastated the local vegetation. This is a weed which is depriving blackbuck of their natural food. The weed is recklessly growing and its removal is must.
- Underground water is salty and the salt concentration makes it unfit to be drinkable by blackbucks, And the Forest Department had tried to solve the problem by digging wells which is totally impractical.
- Human settlements in surrounding villages surrounding the Sanctuary have hordes of pariah dogs which kill the black bucks
- Even hunters do poaching on regular basis as has been reported in the media
- Tal Chhappar Wildlife Sanctuary has a unique fragile ecosystem which is extremely threatened and requires necessary steps to restore its rich wildlife biodiversity. Forest Department and tourist's intervention are the need of the hour to develop it into realistic ecotourism sanctuary. (Fig 4)



Fig 4: Realistic Ecotourism

Conservation Efforts

Few conservation strategies are quoted below to restore the wildlife biodiversity of the Sanctuary:

- Complete area of Sanctuary is too preserved and not patches strategy as adopted by Forest Department.
- The life line of Tal Chhappar Ecosystem the water supply management to the Sanctuary is to be restored on war footing basis.
- The hunting activities need to be curbed and punishment should be given as per the Wild Life Laws. The population of the blackbuck is dwindling at a faster rate due to poaching.
- Proper wire fencing eradication should be done to stop the entry of pariah dog, Neelgai, Pigs in Sanctuary. Human Settlement around Sanctuary need to be made aware of ecotourism wildlife conservation benefits.
- The land taken for salt activities needs to be taken back for the Sanctuary to restore the ecological balance.

Conclusion

Sustainable ecotourism practices will give momentum to bring the sanctuary into the limelight as it is the natural abode of blackbucks in arid part of Rajasthan. I recently visited Tal Chhappar Black Buck sanctuary, where wide swath of beauty is spread out vastly all around. I would like to highlight few major crux points which are destroying the abditory of these innocent animals.

- Due to the illegal salt formation in the fringes of the sanctuary the land inside is desolating. It's dry and fragile. The tiny ponds manufactured for water supply are brittle. Not a single drop of water is visible. Trees are uprooted and dead, with a few bones and flesh sporadically spread. The desolation, death and fight for survival for these diffident animals is immense.
- Stray dogs, Neelgai, pigs and many other animals are freely venturing in and out of the sanctuary.
- Poor fencing on the boundaries allows the animals to go out. On the motorways black bucks can be spotted hoping around, with their face terrified with awe and horror. The area coverage should be increased. The wiring of the fence around salt works is too loose and blackbucks are seen jumping and coming out of the sanctuary. There is no tracking on how many are crossing out the sanctuary
- Hunting practices need to be banned by implementing strict wildlife laws to restore their dwindling numbers
- Burnish the quality of fencing
- Regular monitoring of the population of animals.
- Surety by the forest department to make the space more safe for them
- Abundant amount of water availability to be made sure.
- If possible, closure of the salt manufacturing unit. Salt is having hazardous effects towards the soil and water of the sanctuary.

Hope these points make the place more ravishing and effulgent. There is an utmost need for ecotourism policy application on ground level to avoid destruction of this environmentally vulnerable zone. The policy makers along with the village communities must realize that the natural resources will be conserved only through mutual effort and to maintain the balance between biodiversity conservation and livelihood of indigenous people of adjoining villages will come only through sustainable ecotourism practices.

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