

# ROLE OF PLANNERS TO ADDRESS THE THREATS OF NATIONAL PARKS IN INDIA. CASE EXAMPLE: KEOLADEO GHANA NATIONAL PARK, BHARATPUR, RAJASTHAN, INDIA.

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**Abstract-** Designated areas of protected landscapes are usually extensive areas which are of highest value to the nation for their natural resources and as habitat for the wildlife. Globally there are over 161000 protected areas, representing between 10 to 15 percentages of the world's land surface area. In India around 156700 square kilometers i.e. 4.95 percentage of the land is designated as protected landscapes. At present there are 102 national parks in India comprising of 39,919 square kilometers which is contributing to 1.21 percentage of total surface area. The paper focuses on the identification of threats to Keoladeo Ghana National Park, Bharatpur, Rajasthan, India which could be addressed by designers. The data has been collected through field study, literature study, interviews with key informants and information from government agencies, organization such as International Union for conservation of Nature (IUCN).

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**Keywords-** Protected Landscapes, National Parks, Keoladeo Ghana National Park.

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## I. INTRODUCTION

A protected area as defined by IUCN is "A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values". The term "protected area" is therefore shorthand for a sometimes bewildering array of land and water designations, of which some of the best known are national park, nature reserve, wilderness area, wildlife management area and landscape protected area. In India these protected lands have been classified as national parks, animal sanctuaries, biosphere reserves, reserved and protected forests, conservation and community reserves, village panchayat forests, private protected areas, and conservation areas. All these are major sources of natural resources that act as green lung for the nation. Though we have enormous pride in the extraordinary resources as protected areas of our nation yet we are exploiting the resources in a dreadful manner. We are on verge to cross the resilience capacity of these protected areas as the ecosystem is under immense pressure. Due to human interventions like deforestation, urbanization, construction of dams national parks are undergoing many problems as degradation of the water shed, climate change, soil erosion and many more. There are many related problems to the national parks which need proper attention and dedication of designers to address the threats to the biodiversity of national parks.

### 1.1 NATIONAL PARKS

National parks comprises of several ecosystems and houses variety of flora and fauna species with special scientific interest which contains untouched

landscape features where visitors are allowed in restricted manner to experience the natural harmony of environment for the purpose of recreation and research. National parks are free from the encroachment of human intervention for their living purposes or any occupational activity. It acts as green lungs for the cities surrounded by these protected landscapes. The common features of the national parks are the massive land with great value to the area for wildlife and also to maintain the cultural and heritage value of that particular area. National parks also manages the natural resource to safe guard the earth from intense human interventions. According to International Union for Conservation of Nature and Natural Resources National parks comes under II category.

### Importance Of National Parks

National Parks are home for native species of plants which plays very important role in maintaining the ecological balance of any particular region. National parks also protects and conserve the biodiversity which ultimately helps the environment from fighting the issues like climate change and global warming. It also promotes and protect the aboriginal communities sustain their life with self-sustainable methods and preserve the cultural values of such communities. National parks help in watershed protection, natural resource protection, soil conservation, carbon sequestration and helps in research and education.

### National Parks In India

In India 1.23 percentage of total surface area i.e. 40,500 square kilometers of the total surface area. 103 National parks are there at present. India's first national park was established in 1936 as Hailey

National Park, now known as Jim Corbett National Park, Uttarakhand.



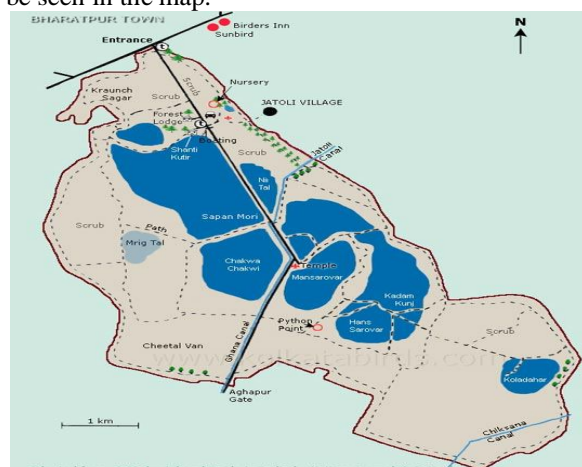
The Kalaladeo National park does not only host resident birds but also houses the migratory birds which are of major attraction for the tourists. It is one of the biggest bird sanctuary in the world.



Source: Author.

## II. KEOLADEO GHANA NATIONAL PARK, BHARATPUR, RAJASTHAN, INDIA

The Keoladeo National Park or Keoladeo Ghana National Park formerly known as the Bharatpur Bird Sanctuary in Bharatpur, Rajasthan, India is a man made famous avifauna sanctuary covering almost 28.73 square kilometres, is home for thousands of birds especially during the winter season. It is situated on the confluence of two rivers Banganga and Gambhir. Ajan Bund which is constructed in 1726- 1763 by maharaja Suraj Mal on the confluence of both rivers is the major source of water for the wetlands present in the National Park. It was declared a protected sanctuary in 1971. It is also declared as World Heritage Site. As the Park is located almost in the middle of the Central Asian flyway for migratory birds from Siberia, Central Asia, China, Mongolia and the Himalayan states. According to the need of different territories the structure of national parks varies. Keoladeo National Park comprises of woodland, scrubland, grasslands and wetlands, as can be seen in the map.



Source: A birdwatchers Guide to India by Kazmierczak and R Singh.

### 2.2. Chronological development of the Keoladeo National Park.

Ajan bund was constructed by maharaja suraj mal in 1726-1763 by the ruler of the princely state of Bharatpur at the junction of two rivers Gambhir and Banganga.

In 1850-1899- it was used as the deer shooting area which is now natural depression inside the park.

The depression was converted into a duck shoot reserve by Prince Harbhanji of Morvi in 1899 Dams and barriers were constructed in order to increase the water folding capacity of the area. As the reserve started flooding with the water the abundance of water resulted in production of a lot of aquatic vegetation which attracted a very large number of migratory birds. The artificially created duck shoot was formally inaugurated in 1902.

Boundaries of the duck shooting reserve were clearly demarcated in 1919.

The forest act of Bharatpur was passed in 1925 and the erstwhile shikhar department brought under the forest department.

In 1938 a shooting party headed by the then viceroy of India lord Linlithgow shot a maximum of 4273 birds on 12<sup>th</sup> November as shown in shooting record inscribed on the pillar near Keoladeo temple.

In 1956 Keoladeo Ghana was notified a bird sanctuary. Hunting rights remained with the maharaj of Bharatpur. In 1967 Keoladeo Ghana was declared as a reserved forest area act, 1953.

1977-81 Keoladeo Ghana sanctuary was upgraded to a national park. Cattle grazing inside the park was banned. Keoladeo Ghana was declared as a RAMSAR site under the convention on wetlands of international importance. In 1985 the park was declared as a world heritage site under the world heritage site convention.

### 2.2. Merits of Keoladeo National Park.

1. Park is green lung for the city and provide open air recreation to the advantage.

2. It plays a critical role in the preservation of biodiversity.
3. About a quarter of all species listed as threatened or endangered are found within park for their habitat needs.
4. The National Park System preserves an incredible array of most biologically significant places.

### 2.3. Issues.

#### 1. Lack of green buffer from the city.

2. The park is manmade and totally dependent upon the monsoon, construction of dam proves to be hazardous for the water availability. Only the time dam overflows park gets the required amount of water.

#### 3. Invasive species.

Roads inside the park to facilitate the tourist activity is hampering the natural phenomena of the avifauna.



Source: Author.

Urbanization in close proximity of the Keoladeo national park is hazardous for the sensitive ecosystem.

Increasing number of tourist creates negative impact on the ecology.

As Keoladeo National Park is home for birds the mobile towers in vicinity of this area due to increase in urbanization deteriorates the health of birds.

Rise in air pollution due to the National Highway beside the park with the flow of noticeable traffic can create a problematic scenario for the national park. Many of the species does not migrate to the Keoladeo National park. It has been noted that Siberian cranes are extinct.

Although five hundred meter belt area is designated as eco sensitive zone in perimeter of the 2 m high boundary which cannot be increased due to the proximity of the town

### CONCLUSION

While the expansion of city it is very important to identify the regions which can be developed and does not harm the buffer space or core areas of the protected landscapes.

Many National Parks are facing the problems of construction of roads and activity zones in the buffer areas which eventually harm the core areas of protected landscapes.

Strategies should be developed for the tourist activities, number of tourist should be restricted.

In case when buffer zone can't be provided as development is in vicinity to the national park some regulations should be formulated so that the biodiversity does not get affected out of it.

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