

## CHITWAN NATIONAL PARK: A PRIME DESTINATION OF ECO-TOURISM IN CENTRAL TARAI REGION, NEPAL

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### Abstract

*Within the Himalayan region, Nepal is one of the countries that receive the largest number of international tourists, and also one where tourism has shown relatively rapid growth. The recent decades in Nepal tourism is being explored as one of the avenues for local development and it is second important source of foreign exchange for Nepal. This paper is an attempt to present the brief description of tourism resources in general and Royal Chitwan National Park (but since the republic government in Nepal the name has been changed to Chitwan National Park and hereafter it is named only CNP) as an example of prime destination of eco-tourism in Nepal. Existing tourism activities and its environmental considerations have been discussed on the basis of available secondary and primary sources of information.*

**Keywords:** Chitwan national park, eco-tourism, biodiversity, conservation, environmental balance

### INTRODUCTION

Nepal is a small country with an area of 147,181 sq. km. that accounts only 0.1 percent of the total land area of the globe, but it compasses a wide range of sites and sounds within its narrow confine as well as multi-diversity of touristic resources. These resources that Nepal has to offer include both natural and cultural features, which are distributed in different parts of the country. This country is renowned for its physiographic and eco-climatic variations, Himalayan ranges, natural beauty, protected areas, rich bio-diversity, spectacular landscape, extraordinary cultural heritage and mosaic of ethnic diversity. Here congregate eight of the world's fourteen highest mountains along with panoply of another 1300 peaks exceeding 6000 metres (Gurung, 1989).

These resources are the major attractions for the foundation and acceleration of tourism industry in Nepal. Therefore, it is necessary to manage these tourism resources properly by mobilizing the local participation with sufficient considerations on the quality of supply side of tourism in order to attract the maximum number of tourists from different parts of the world. It is also pertinent to expose these tourism resources widely with their typical characteristics to the out side world for the development of quality tourism in Nepal. This paper is an attempt to present the brief description of tourism resources in general and Royal Chitwan National Park (RCNP) (HMG/Nepal 1972) but after the republic government in Nepal the name has been changed to Chitwan National Park and hereafter it is named only CNP) as an example of prime destination of eco-tourism in Nepal.

Within the Himalayan region, Nepal is one of the countries that receive the largest number of international tourists, and also one where tourism has shown relatively rapid growth. The recent decades in Nepal tourism is being explored as one of the avenues for local development and it is second important source of foreign exchange for Nepal where majority of tourists visiting from different countries include India, Japan, USA, UK, Germany, France, Netherlands, Italy, Australia, Switzerland and so on. More than 70 percent of the tourists visit Nepal for the pleasure holiday and site seeing, whereas around 14 percent come for the purpose of trekking and mountaineering (Department of Tourism/HMG/Nepal. Nepal Tourism Statistics of Different Date). Sightseeing tourists are concentrated in urban areas, whereas trekkers are spread in rural and mountain regions.

### BIOLOGICAL DIVERSITY

Nepal is a center of rich bio-diversity and abundance of species due to vast topographic variations (Tarai and Inner Tarai ,low laying plain, regions in the South, Hilly region in the center and Mountain region in the North), the vertical range which extends from approximately 50m in the South to 8848m (Mt. Everest-Sagarmatha) in the North and climatic condition that ranges from tropical in the South to alpine in the North.

As a result of these geo-climatic variations a high share of species diversity is distributed .These include 844 species of birds (9.3 percent of the total species in the world), 853 species of bryophytes (5.1 percent of the world), 27 species of gymnsperms (5.1 percent of the world), 181 species of mammals (4.5 percent of the world), 380 species of peridophytes (3.4 percent of the world), 5806 species of angiosperms (2.6 percent of the world),

635 species of butterflies, 2,888 species of moth (2.6 percent of the world) and 687 species of algae (2.6 percent of the world). Likewise the high altitude of Nepal are known worldwide for its richness in medicinal herbs (over 100 species), rhododendrons (30 species), saxifraga (89 taxa), primuland (77 taxa) and orchidaceous over 350 species (Chaudhary 2001).

## **SOCIO-CULTURAL DIVERSITY**

Nepal has a total population of over 23 million and consists of 59 ethnic groups and 101 spoken languages. Nepalese people are mainly divided into two distinct groups: the Indo-Aryan and Mongoloid. Nepal is the birthplace of Lord Buddha, the Light of Asia. There is a complex blending of Hinduism and Buddhism in Nepal. Therefore, it is a country of bio-religion and socio-cultural diversity. Nepal has a rich cultural heritage, where more than 1250 heritage sites have been identified and documented from 72 districts outside Kathmandu valley. Within the Kathmandu valley the Kathmandu Development Committee has listed a total of 870 religious and cultural shrines and monuments.

Nepal consists of eight World Cultural Heritage Sites: Bhaktapur, Patan and Kathmandu Durbar Squares; Swyambhunath; Baudhanath; Pashupatinath; Changuanarayan and Lumbini (the birth place of Lord Buddha) combined with two world's Natural Heritage Sites: Sagarmatha and Chitwan National Parks. These natural and cultural heritage sites are distributed in different geographic regions of the country, thus can be the core attractions for the tourists visiting those areas.

## **PROTECTED AREAS AND ECO-TOURISM**

At least three basic threads had emerged by about middle of the twentieth century which led to the establishment of national parks and similar reserves in Nepal. These threads can be described as firstly, in the preservation and protection of nature, wilderness, and resources; secondly in planning for the recreational and aesthetic needs of the people, and thirdly, in generating income from business associated with recreation and tourism. It was in this line an effective conservation movement in Nepal started in 1970, when the government of Nepal approved in principle the establishment of the Chitwan National Park in the Southern Tetrai (lowland) region and Langtang National Park in the Northern Mountain region.

In 1973 the National Park and Wildlife Conservation Act was promulgated and same year

the CNP was officially established as the first National Park of the country. According to a National Park and Wildlife Conservation Act 1973, a National Park is defined as an area set aside for the conservation and management of the natural environment including flora and fauna and landscapes. It is primarily intended to protect sites, landscapes/geological formations and scientific or aesthetic values, together with their associated flora and fauna.

The second objective, if compatible with conservation principles, is to develop such area for tourism destination. As such, it is necessary to maintain the ecological balance between tourism activity and the integrity of the natural/socio-cultural sites in order to enhance the eco-tourism development in the country. That will certainly support the welfare of community life, especially for those who are below the poverty line (MoPE 2004).

The policy of the government of Nepal is to include pristine areas, representing principal geographic divisions and biotic regions, within the network of parks and protected areas. Accordingly there are a total of 9 National Parks (Makalu-Barun:2,330 sq km; Sagarmatha:1,148 sq km; Langtang:1,710 sq km; Shivapuri:144 sq km; Chitwan:932 sq km; She-Phoksundo: 3,555 sq km; Rara:106 sq km; Khaptad:225 sq km and Bardia:968 sq km), including 9 buffer zones around each National Park: 3836sq km, 3 Wildlife Reserves (Koshi Tappu:176 sq km; Parsa:499 sq km; and Shuklaphanta:305 sq km), 1 Hunting Reserve (Dhorpatan:1325 sq km) and 3 Conservation Areas (Kanchanjunga:2,035 sq km; Manaslu:1,663 sq km and Annapurna:7,629 sq km), covering a total of 28585.67 sq km (19.42 percent) of the country's total land (DNPWC 1998).

The protected areas are the legacy of the country to attract the tourists from different parts of the world. Major protected areas to attract the tourists are Chitwan National Park (77,266 visitors), Annapurna Conservation Area (66,320 visitors) and Sagarmatha (Mt. Everest) National Park (21,327 visitors) in the fiscal year 1998/99. These three protected areas accommodate 86 percent (164,958) of the total tourists (191,617) visiting protected areas. These figures indicate that the highest concentration of eco-tourists is recorded in Chitwan National Park, this is because of the spectacular recreational facilities of natural interest are available in and around the Park areas and easy accessibility from Kathmandu, the Capital City of Nepal.

The Chitwan National Park (CNP) lies in Nepal's Southern border with India, with typical sub-

tropical vegetation and oriental fauna. It was gazetted as the country's first National Park in 1973, but in 1977, more land was added in the east and west making it 932 sq. km. The CNP has been accorded a special status to give it the protection it deserves. In recognition of its importance, not just to Nepal but also to the whole world and all of mankind, the United Nations Educational and Scientific Organization (UNESCO) have designated CNP on behalf of the world community as a World Heritage Natural Site in 1984 (HMG/IUCN 1988; 1991)

The Park Headquarters is at Kasara, housed in a Rana hunting lodge. This lodge was the first building in the Tarai to be made of concrete, built in 1939 for the visit of King George VI of England.

North bank of Rapti River and is seriously threatened by the Rapti river flood during the Monsoon period.

**NATURAL FEATURES AS TOURISM RESOURCES IN CHITWAN NATIONAL PARK**

The CNP possesses a diversity of ecosystem, including Rapti, Reu and Narayani rivers. The Churia hills rise slowly towards the East from 150m. to more than 800m. The West portion of the Park is comprised of the lower but more rugged Someshwor hills. The Park shares its Eastern boundary with the Parsa Wildlife Reserve.

The CNP consists of tropical and subtropical forests. Sal (*Shorea robusta*) forest covers 70 percent of the

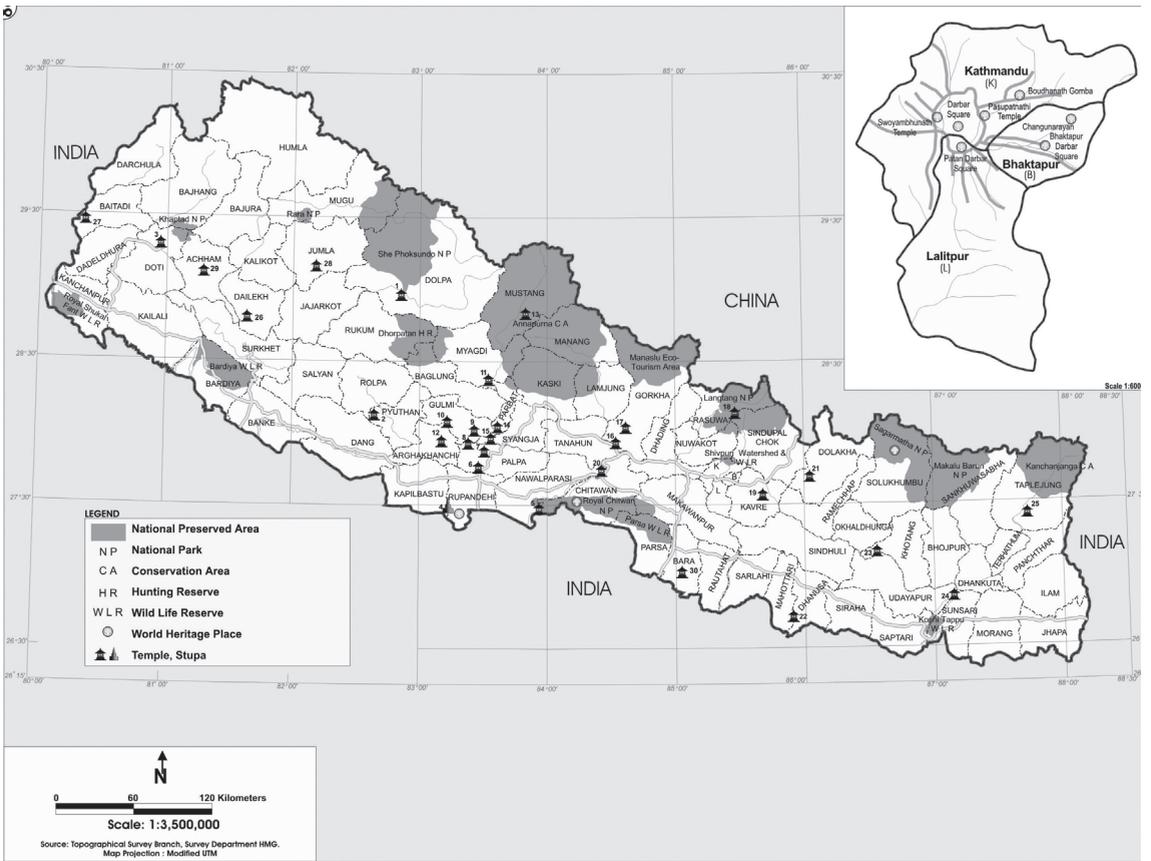


Figure 1: National Parks and Conservation Areas of Nepal

It now houses a small museum and offices for the park's warden and staff. The main entrance gate to the Park and most important tourism trade area within the buffer zone of the CNP is Sauraha, where more than 60 safari type lodges with the capacity of over 1500 beds and other different tourism facilities are located. This important tourism area lies in the Northern boarder of the CNP along the

Park. Sal leaves are used locally for plates in festivals and religious offering. Grasslands cover 20 percent of the Park. There are more than 50 different types of grasses distributed in the Park, including the elephant grass (*Saccharum* spp.), renowned for its immense height (up to 8m.). The shortest grasses (*Imperata* sp.) are used for roof thatching, mats, rope and papermaking. Grass for

thatching house roofs is permitted once a year in the Park and not any other time, which is of great economic help to the local the local communities. An entrance fee is levied to enter the forests, which were once free for all to use.

The CNP is unique and is home to more than 50 mammal species, over 525 birds, and 55 amphibians and reptiles. This National Park is the foremost natural habitat when endangered animal (fauna) species such as the one- horned rhinoceros, gaur bison, wild elephant, four horned antelope, pangolin, Gangetic dolphin, gharial crocodile, golden monitor lizard, python, etc. are survived.

CNP provides a haven for just over 300 of the world's 1000 greater one-horned rhinoceros (rhinoceros unicornis). The Royal Bengal Tiger is another threatened animal, which exists in the Park. The fish eating Garial crocodile, with a world population of less than 500 adults in the wild, has its greatest concentration in the section of Narayani river, which flows through CNP. The marsh mugger crocodile, mainly an inhabitant of marshes and lakes also exist in Chitwan (Mishra and Jefferies 1991).

Major types of birds that are found in the Park included Bengal Floicanm lasser floricanm giant hornbill, black stork, white stork etc. It is not only wildlife that CNP contains. The flora, water, soil and insects that combine to create an environment suitable for animals, are also important in maintaining the welfare of human population in the buffer zone of the CNP.

## **TOURISM DEVELOPMENT**

The CNP is a typical example of the protected areas. This National Park has been included in the World Natural Heritage List because it contains exceptionally pristine areas with great concentrations of typical ecosystem. This National Park is providing recreational facilities so that visitors can fully enjoy the benefits of the Park, which is the major policy of the CNP management. Between 1974 and 1997 the number of tourists visiting the CNP grew from a little over 800 to more than 0.1 million. Likewise between the same periods the annual total revenue captured from tourism amounted from NRs. 0.1 million to 48 million (Sharma 2001).

### **Employment**

The promised benefits of tourism have materialized slowly and few jobs in tourism industry have been generated in this CNP area, especially in Sauraha tourist area. Tourism is a service-oriented industry,

where a number of people are enjoying employment opportunities in different tourism related activities for their livelihood.

There are more than 60 lodges/ restaurants with the capacity of over 1500 beds at Sauraha area, where about 1000 people have been employing in different levels (e.g. labor, cook, waiter and so on). Likewise, at present there are 22 tourist guide offices at Sauraha, providing employment opportunities to more than 380 people as tourist guide. Local people are also employed in elephant rides and boat rides, where altogether 36 elephants and 40 boats are in use for riding.

Three men are needed to take care of one elephant; the Phanti (driver), who rides on his neck; the Pachhuwa, who stands behind and often spots game; and the Mahute, who cleans the stable and attends to other daily chores. The CNP itself employs a number of local people and is perhaps their second biggest employer after the tourism. As with tourism, these jobs in the Park also are seasonal.

### **Fishing**

Over 100 species of fish live in the waters of Rapti, Narayani and Reu Rivers and their tributaries offering a variety of food for water dwellings. Fishing is an integral part of the lives of Tharu community and other local people in this VDC. Tharus have developed considerable skills in the art of making nets and fish traps. Women, who catch fish with a scooping movement, mainly use wooden formed hoop nets. Men block the stream and then scoop water and fish into net, which is raised at one end by two upright sticks. Circular nets and conical traps are used to catch fish.

### **Physical and Tourism Infrastructure**

CNP area has a Health Post; Primary, Lower Secondary and Secondary Schools; Small Farmer Development Centre under agriculture Development Bank providing services to local people. Provision of telephone for short and long distance communication, hydro electricity power for lighting and potable drinking water is made available in this VDC.

### **Visitor Services**

Sauraha is a location where altogether 70 safari type of hotels/ restaurants with over 1500 beds and 15 restaurants are located along the Rapti river which are run under license from the government.

These hotels provide accommodation, food and a range of activities including elephant rides, jungle safaris, jungle drives and boat trips on the Rapti river, all with accompanied guides. Most of the hotels provide cultural shows and natural history talk in the evenings. There is a women's user group souvenir shop at Sauraha, offers a variety of handicrafts and other local products for gift and souvenirs. There are 22 tourist guide offices with 383 professional guides at Sauraha.

### Visitor Center

The display at the visitor center at Sauraha gives an insight to the Park and its inhabitant. The center also provides fascinating information on wildlife and conservation programmes in the RCNP areas. Maps and information leaflets are available at the adjacent Park Entrance Office. Sauraha is the focal point to provide the information on domesticated elephant and the baby elephants born here.

### Elephant Rides

There are altogether 20 elephants (16 private owned and 4 government owned) to take the tourists into the park for wildlife viewing. Total income from thru tourists by elephant riding recorded NRs 92,75,200 for the fiscal year 2000/2001.

### Boat Rides

Visitors staying at Sauraha lodges have the option of a boat trip on the Rapti river. At Sauraha, dogout canoes (with boat man) can be hired to take people down the Rapti river, providing an opportunity to view Park's water birds. Boat rides give a different view of the park and its wildlife. October to November and February to March are particularly good period to see the birds. During these periods migratory birds are resting in the park.

After a boat ride of about an hour, it is usually to walk back to Sauraha while the boatman poles the canoe back upstream. Fees are set and approved by Park authorities. Altogether there are 20 privately owned boats and total income derived from the boat rides recorded in the year 2001 was NRs. 20,26,000

### Vehicles

Most of the lodges inside the park have their own four wheel drive vehicles for taking guests out on a jungle drives. Other lodges opening outside the Parks at Sauraha do not have this right. The use of private vehicles on Park roads is only by permit from the park authorities at Kasara or Sauraha.

## ENVIRONMENTAL CONSIDERATIONS

As a matter of fact water is both a life giver and destroyer. Positive aspects of abundant rain combined with warm temperatures promote rapid growth of vegetation, provide irrigation, and flooding brings nutrient-rich silt. But too much water also causes enormous destruction. For example torrential rain at higher altitudes swell rivers immensely, and on reaching the Tarai, the rivers overflow their banks, often changing the coarse and devastating areas of well established vegetation, agricultural land and human settlements by the flood.

In Bachheuli VDC, particularly at Sauraha the Rapti river flood is causing the major environmental problem during the monsoon period. Because of the protection other side (south) of the river bank (opposite to Sauraha) thick matted grasses effectively trap sand silt stabilised and help to control erosion. But on the Northern bank of the river reverse situation occurs and the Rapti river has changed coarse and cuts off part of Bachhauili VDC at Sauraha, a tourism trade area. Since 1965, this river has cut off about 200m of land towards Sauraha, where this process is accelerating rapidly year by year and erosion is severe.

The process of Northern side cutting by Rapti River was noticeable since 1965 particularly at Sauraha, the main entrance of the CNP. Since then the Rapti River has moved about 200m towards the North at Sauraha, where 15 houses with agricultural land in 1971 and 30 houses in 1985 were swept away by the monsoon flood. An effort of constructing embankments in a few of flood prone points was made by government in order to control the side cutting in 1993. However, in few years of time, these embankments were also swept away by the flashflood and the present condition of Sauraha is so much fearful and almost all tourist activities are in high risk zone.

This has a high chance of hampering the tourism trade of Sauraha and will adversely affect the local economy in near future. As such, it is necessary to maintain the ecological balance between tourism activity and the integrity of the natural/socio-cultural sites

Sauraha is not an ordinary settlement, rather this is a site of national importance, where lies the main entrance of the World Natural Heritage Site, CNP, and accommodating thousands of foreign tourists annually. Therefore, appropriate measures should be implemented as soon as possible in order to minimize personal danger, property and infrastructures damage and to save this important part of the CNP's Buffer Zone area.

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