

# Analysis of Tourism in Chitwan National Park, Determining Its Sustainability and Development towards an Eco-Tourism Destination

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**Abstract**—Tourism is one of the largest industries in Nepal and is one of the largest sources of foreign exchange and revenues. Tourism has both negative and positive effects, and Chitwan National Park (CNP) is no different. CNP is the first national park of Nepal where tourists can enjoy many mega faunas along with other natural amenities and the indigenous Tharu culture. This research is focused on analyzing sustainability of the national park and ways to develop it as an eco-tourism destination. The methodology used are literature review, questionnaire, focus group discussion, household survey and field observation. The research reveals that, although, tourist has increased the value and economic scale of the destination, there is huge influx of population from the nearby areas in search of opportunities, which has led to various problems such as, overuse and declining of resources, side-lining of the aboriginals' groups, modernization and pollution. Hence, analysis of tourism in the area and determining its sustainability becomes vital for protecting it from further damage.

**Keywords**—Culture, economy, eco-tourism, effects of tourism, environment, national park and sustainability.

## I. INTRODUCTION

**S**USTAINABLE tourism is important to safeguard cultural and natural heritage from deteriorating. It is defined as the one, “which establishes a suitable balance between the environmental, economic and socio-cultural aspects of tourism development and plays an important role in conserving biodiversity. It attempts to minimize the negative impact of tourism on the environment and local culture, to make the resources available for future generations, while positively contributing to income generation, employment, and the conservation of local ecosystems” [6].

Ecotourism is a form of tourism that is sustainable, nature-based and environmentally and socially friendly [1].

Nepal is a country with high floral and faunal diversity, snow-capped mountains and rich history & cultural heritage, which attracts lot of tourists from around the world [4]. Nature-based tourism is the backbone of Nepal. National parks and wildlife reserves are the most visited places representing nature-based tourism in the nation [3]. With the main purpose being observing wildlife and nature, CNP maintains itself as the most visited national park of Nepal [5].

CNP is Nepal's first national park established in 1973. Initially known as Royal Chitwan National Park, the park was declared as a world heritage site in 1984 by UNESCO. The Park

is also a Ramsar site. Located at the bottom of the Himalayas, CNP is one of very few remaining of uninterrupted fragments in the terai region of Nepal [2]. The Park covers an area of 932 square kilometers and is in the subtropical region. It has a tropical monsoon climate and humidity throughout the year. The average daily temperature is 36° in summer (mid-June to late-September) and 18° in winter. The altitude of the park ranges from about 100 m to 815 m above sea level. Therefore, the park offers a huge diversity of plants, animals and birds.

Fig. 1 shows the number of tourists in Nepal and Fig. 2 shows the number of tourists in CNP from 2014-2017.

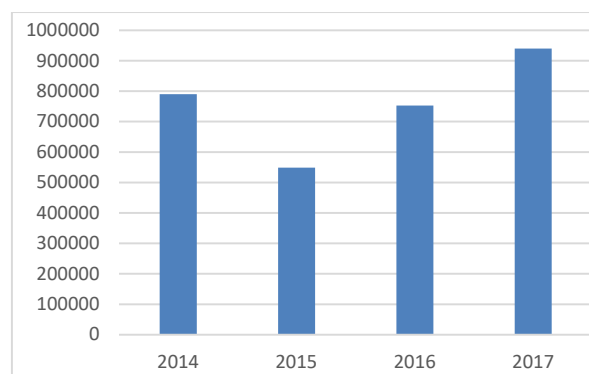


Fig. 1 Tourist in Nepal from 2014-2017 [7]

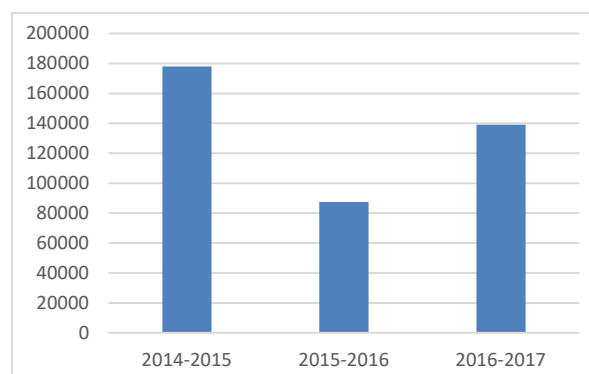


Fig. 2 Tourist in CNP from 2014-2017 [8]

## A. Objectives of the Research

Although the tourism in CNP is nature based, it has the potential to be an eco-tourism destination. However, the

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haphazard and unmanaged tourism industry of the town has not only depleted the resources but also questioned the sustainability of tourism in the area. Therefore, through this research we identify the hindrances in the sustainability of tourism of the area through the following objectives:

- Analysis of positive and negative impacts of tourism in CNP.
- Analysis of existing environmental, social, cultural and economic problems faced by the local people around the national park and its relationship to its growing tourism.

## II. METHODOLOGY

The methodologies used for the research were literature review, household surveys, focus group discussions, questionnaire surveys and field observations. 200 samples each from tourists and residents were taken for the research.

## III. RESULTS AND DISCUSSION

### A. Impacts of Tourism

Tourism in national parks is one of the biggest challenges as tourists have both positive and negative impacts on the landscape and local communities [4]. Hence, tourism in CNP also has tremendous outcomes, both positive and negative.

Fig. 3 highlights the positive impacts of tourism whereas Fig. 4 highlights the negative impacts of tourism in CNP region.



Fig. 3 Positive impacts

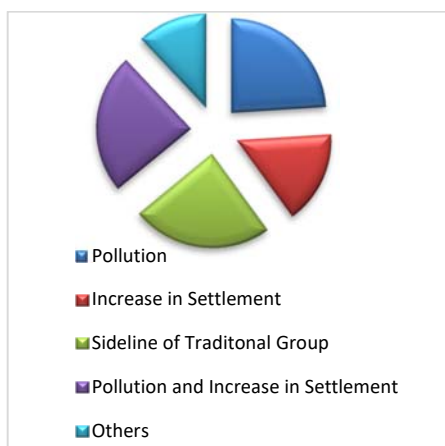


Fig. 4 Negative impacts

### B. Existing Issues

#### Environmental Issues

Table I shows that, the residents believe that the number of Fauna has been increasing due to better rules and regulations against poaching and smuggling, as well as management for tourism purpose. However, they believe that the resources and Flora are being used massively by the tourists and the population has increased.

Adding to the environmental issue, elephant safari is next. Fig. 5 shows that, among all the options available, the maximum number of tourists chose elephants for the safari ride. As a result, the condition of elephants used in the safari ride is very poor. This is due to a lack of understanding of people towards the environment and animals.

Although there are several Environmental awareness & tourism development programs taking place each year, Fig. 6 represents that the participation rate of the locals is very low.

TABLE I  
FLORA AND FAUNA TREND

Property	Increasing	Decreasing
Fauna	✓	
Flora		✓

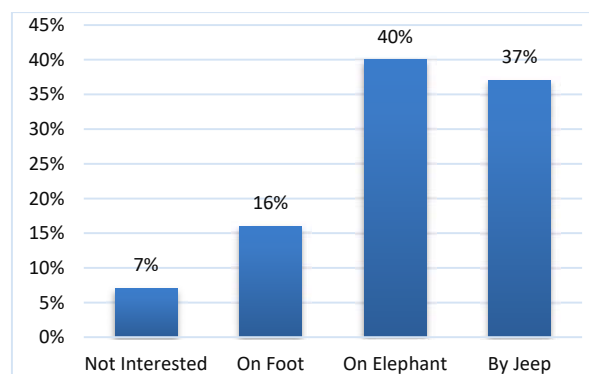


Fig. 5 Different safari options



Fig. 6 Locals involvement in development programs

#### Social and Cultural Issues

Fig. 7 shows that, although the life standards of people have increased due to an increase in tourism, there is a huge gender difference in terms of working population. Out of 200 sampled residents, only 24% female were working population.

Fig. 8 shows that further due to invasion of non-native population the number of native populations in the surrounding local areas have decreased in terms of percentage, which has resulted in the side-lining of indigenous ethnic groups and cultural conflict.

Fig. 9 represents that most of the people live in lodges and resorts rather than accommodating themselves in eco-friendly accommodations or homestays, where tourists could also learn about local lifestyles. However, over 50% of tourists were interested in staying homestay and eco-friendly lodge but could not find them.



Fig. 7 Working population categories

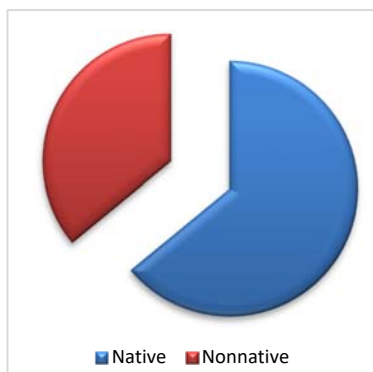


Fig. 8 Native and non-native population

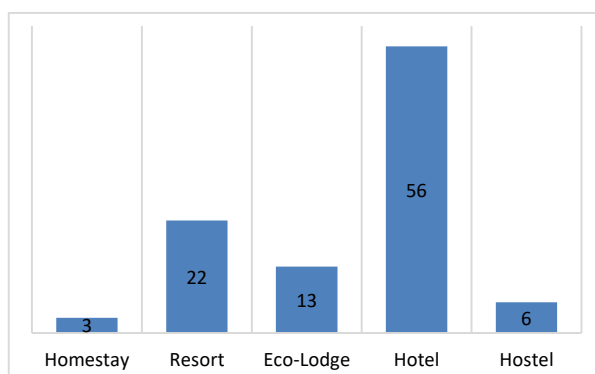


Fig. 9 Accommodations used by tourists

Table II shows that the maximum numbers of restaurants available serve international food and the restaurants serving local food are fewer. Similarly, Table III shows that, number of

tourists enjoying the local traditional performance and museum is less. Hence, CNP region is losing its cultural charm.

TABLE II  
 PERCENTAGE OF RESTAURANTS SERVING LOCAL AND INTERNATIONAL FOOD

Food type	International continental	Local
Percentage of Restaurant	75%	25%

TABLE III  
 MODES OF OBSERVING LOCAL CULTURE

Activities	Yes (%)	Through dance (%)	Through museum visit (%)	Both (%)
Observing local culture	64	45	6	49
	No (%)	Lack of awareness (%)	Not interested (%)	
	36	100	-	

Economic Issues

Fig. 10 represents that, although the national park receives one of the highest influxes of tourist in Nepal, the income satisfaction of people is quite low.

Fig. 11 reveals that, since the income generation is mostly seasonal (during touristic season), people of CNP region generally do not have any work or have less income during rest of the time of the year.



Fig. 10 Satisfaction from income



Fig. 11 Job categories

Fig. 12 shows that most people pursue jobs related to accommodation. The lowest number of people are involved in promoting the culture of the region. This has also decreased the interest of tourists participating in viewing the cultural shows or museum as represented by Table III. This can cause culture

detriment.

Fig. 13 further shows that most of the people use tourism packages for travelling, hence, most of the time, the benefit of tourism is not distributed uniformly among the locals.

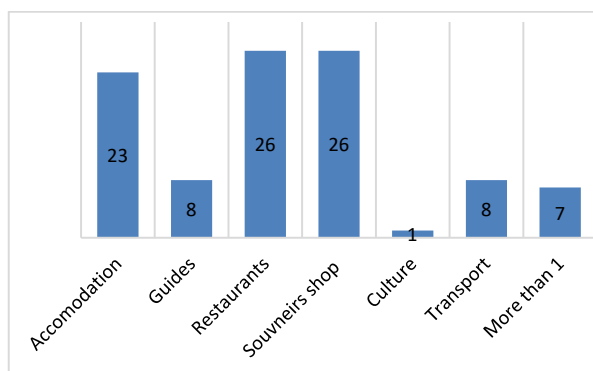


Fig. 12 Major jobs types provided by locals

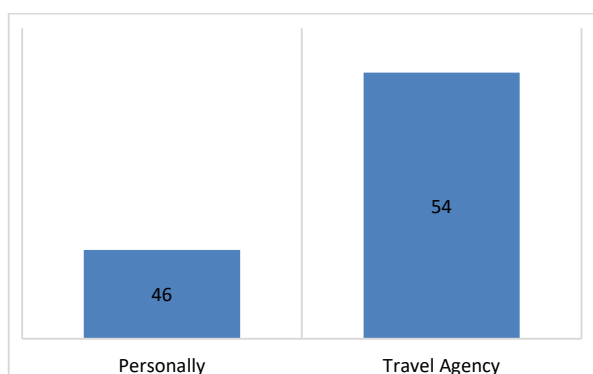


Fig. 13 Tourist planning their visit

#### IV. CONCLUSION

CNP region of Nepal faces huge effects of tourism. The effects are both positive and negative. Currently, practicing nature-based tourism, the park has a huge potential of being a perfect sustainable eco-tourism destination. However, there are a few hindrances environmentally, economically, socially and culturally, that act as constraints in sustainability of tourism.

Although the rules and regulations have improved the status of fauna, the resources and flora required for daily lives are being used massively due to increase in population and tourist. Despite of various programs on tourism development and environmental awareness being conducted, the participation is less due to lack of awareness. Similarly, despite having various options for safari, elephants are chosen widely for this. This has caused a huge impact on the health of elephants.

There is also a huge gender difference in the case of the working population. The influx of people from other region has also threatened the local indigenous groups of the region. Moreover, lack of homestay and eco-friendly lodges has given massive chance to resort and hotels to thrive in the area.

Further, the local people are also generally not satisfied with the income as it is not enough for them to survive a whole year, year, since the tourism-based income are mostly season.

The organizer should let the people know about the tourism development programs and environmental awareness programs pre-hand to increase the participation rate. People should be motivated to go on jungle safari by walking. Strict rules and regulations should be implemented for the use of elephants. Similarly, Carbon compensation can be the option to plant the trees and compensate for the resources used and carbon emitted. Locals should be given training on homestay and local cuisine to increase the number of home stays and local restaurants in the area. People should be made aware of the importance of their local culture and promote them. Local people involved in tourism businesses should be provided with skills to use in the off-season as well. Local development government should take initiatives to preserve the rights and status of aboriginal people. This implication can present further social, cultural, environmental and economic damage to the region.

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