

Ecotourism in Ghoda Ghodi Wetland Sukhad, Kailali, Nepal

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Article History

Received: 14 December 2020
Accepted: 6 May 2021

Keywords

Ecotourism, Nepal, tourism, wetland

Abstract

Tourism is the act of spending time away from home. Nepal has remained an exotic tourist location for several decades, and wetlands are among the major areas of tourism in Nepal. Located in the far-western Tarai of Nepal, Ghoda Ghodi Lake is among the major wetlands in terms of both biodiversity and tourism. This study has assessed the ecotourism status in Ghoda Ghodi Lake of Nepal and to understand the current condition and possible inferences. A total of 40 households were surveyed, and 80 visitors were interviewed for collecting primary data. Most of the respondent visitors have visited wetlands more than five times. It is important to point

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out that fifty percent of the respondent visitors have visited the wetland for natural purposes indicating that the naturalness of the wetland has more capacity to attract tourists. Visitors perceived to enhance economic activities and increase employment opportunities to attract locals to promote ecotourism. The local people were engaged in homestay earning around NRs 2 to 4 lakh per year as well most of the local respondents (50%) were participating in tourism promotion activities

Background

In the past several decades, globally, tourism has proved to be one of the fastest and largest booming economic industries (Pao, 2010; World Tourism Organization, 2018). In Nepal, tourism is a newly discovered phenomenon dating back to the early 1960s (Stevens, 2003). Tourism is one of the major economic industries of Nepal (Gautam, 2011). With the increasing number of visitors every year, the tourism industry in Nepal has the potentiality to stretch its array in the generation of more income, employment, and other benefits (Thapa, 2003). It has been reported that simply tourism entertains more than half a million international tourists every year in several parts of Nepal (Gautam, 2011).

Tourism as an economic sector has aided some influence directly and indirectly towards the economy in Nepal. On a positive note, tourism has also helped increase foreign currency influx and indirectly promote other sectors of the Nepalese economy (Pandey, Chhetri, Kunwar, & Ghimire, 1995). On the contrary, there have been occurrences of some negative consequences due to tourism in Nepal. Tourism destinations could have several social, cultural, and even environmental impacts (Basnet, 2016; Kunwar, 2017; Vanhobe, 2005).

Ecotourism in the wetlands of Nepal has been important for the benefits of the local people (Shrestha, 2011). Ecotourism prioritizes the integrity of ecological resources, conservation of the environment, development of the community through economic prosperity through the maintenance of low-consumptive and low-impact utilization of the available resources (Duffy, 2008); (Gurung & Scholz, 2008). Sustainable ecotourism accounts for comparatively lower environmental impacts aiding in a decrease in negative external factors by promoting environmental and cultural integrity (UNEP, 2013).

Local communities are the primary caretakers of the wetland prevalent in their region (ICIMOD, 2006). The involvement of the local communities in the conservation of the wetland can play a crucial role. It is important to realize the relationship between the local people with the wetland. Their socio-cultural and economic status, attitudes towards conservation, enthusiasm in community participation for protection and welfare, resource utilization patterns play a significant role in deciding the fate of the wetland (Sah & Heinen, 2001). Nepal is a country teeming with natural beauty, as

of 2019, more than one million tourists have visited Nepal (GoN, 2020). In the early 1970s, most tourists were secluded within the Kathmandu valley, Pokhara, Chitwan National Park, or Annapurna Conservation Area (Stevens, 2003). This was because of the prevalence of infrastructures such as lodging and accommodation facilities and the availability of transportation services (Thapa, Murayama, & Ale, 2008). But now, they visit different parts of Nepal, including beautiful wetlands outside the major town of Nepal, such as Ghoda Ghodi, Rara.

Ghoda Ghodi Lake is one of the important wetlands in Nepal listed among the Ramsar sites of Nepal. It has been attracting many tourists each year and contributing to the socioeconomic activities of local people while also helping to promote the local area and culture in a different part of Nepal and the world. Ghoda Ghodi Lake has been registered under the Ramsar site since 2003 (Lamsal, Pant, Kumar, & Atreya, 2015; Kafle, 2005; Lamsal et al., 2014). The lake is an important destination for tourism for western Nepal most of whom attribute as Nepalese. Considered a religious shrine by the locals, Tharu people celebrate their traditional festival called 'Agan Panchami' every year in the study area (Lamsal, Atreya, Pant, & Kumar, 2016). Apart from that, ecotourism has also flourished in the Ghoda Ghodi Lake complex. Different researchers have researched Ghoda Ghodi Lake of Nepal viz. Lamsal et al. (2016) and Upadhyaya (2019), however, these studies have not combined visitors and local perception to find the ecotourism status in Ghoda Ghodi Lake. Therefore, this study has coupled both the visitors' and local perceptions to see the status of ecotourism in Ghoda Ghodi Lake, which is beneficial to local and other stakeholders to formulate and implement a plan and policy for better tourism and livelihood promotion and conserving wetland.

Tourism

Tourism is an act of spending time temporarily away from home for recreation and (Mathieson & Wall, 1982; p.1, Kunwar, 2017, p.11). The tourism sector has had several implications for the environment and stability. The top being sustainability issues (Thompson, Gillen, & Driess, 2018). The opportunity of tourism is prevalently high. There has also been an increased fuelwood demand, improper waste management, pollution, changes in the settlement patterns, among many others (Sharma, Upreti, & Pyakuryal, 2012). Therefore, institutional and government innovations are necessary for proper management and monitoring of the environment during the tourism planning process (Sharma, 2009).

Wetlands are important tourism destinations because of their aesthetic values (Paudyal et al., 2018) and the high diversity of the animal and plant life they contain (Lamsal et al., 2014; Bista et al., 2010). They are used as the sites for recreational fishing, and coral reef areas are highly used as recreational diving sites (Reid et al.,

2005). Tourism plays a significant role in supporting rural economies. However, there are often great disparities of visitation based on access and involvement of people in tourism is particularly noticeable when they introduce inequities and do not support and develop local economies, and significantly where the resources that support the recreation and tourism are degraded (Secretariat of the Ramsar Convention on Wetlands, 2012).

Wetlands are rich in biodiversity, and it has become a necessity to utilize sustainable ways to promote them while also recruiting the community's welfare through resource usage. Wetlands cover more than 2.6% of the total land in Nepal. According to the Ramsar Convention of 1988, there are a total of 9 registered wetlands in Nepal. They have been termed as the Ramsar sites viz. Ghodaghodi lake, Koshi-Tappu, Jagadishpur Reservoir, Beeshazari Lake, Gokyo, Gosaikunda lake, Phoksundo lake, Rara Lake, and Maipokhari (Bhandari, 2009,). Nepal is rich in terms of wetland-dependent birds.

In Nepal, many species of birds have been described of which, nearly 200 birds i.e. nearly 25% of birds in Nepal are wetland-dependent (Baral, 2009). Besides these, charismatic species of mammals and other vertebrates visit wetlands compelled by their ecological requirements offering the potential for wildlife based on ecotourism. From the perspective, where wetland conservation comes in the lower spectrum of infrastructure and poverty alleviation, it has become necessary to balance development with protection (Poudel, 2009). Ecotourism can contribute to all three aspects of sustainable development, i.e., environmental, social, and economic sectors (Rinzin et al., 2008). The activities can motivate local participation in wetland conservation and contribute to sustainable development (Poudel, 2009).

In the context of Nepal, local people involved in providing homestay facilities to tourists receive direct payback from the ecosystem services. Well-managed homestay as an ecotourism product can be an alternative to mass tourism and can play a crucial role in involving the remote population and contribute to the conservation of wilderness and traditional cultures (Acharya & Halpenny, 2013). The benefits that can be achieved from ecotourism depend upon that site's potential to attract and host tourists without affecting the physical, social, and economic aspects of the environment adversely and maintain ecosystem services in a well-managed form (Navarro et al., 2012; Reilly, 1986). Ecosystem services from the wetlands are an essential part of the livelihood strategies of the local people. Thus, wetlands play an important role in promoting ecotourism in Nepal. Because of their vulnerability due to development attractions, wetlands are also one of the most threatened habitats (Hollis, 1990).

Ecotourism

Ecotourism is considered as a newer approach of tourism contributing to cultural, scientific, and educational as well as adventure drives (Basnet, 2016; Weaver, 2002). In simpler terms, ecotourism can be defined as a responsible mode of traveling that allows for the conservation of the environment through sustainability approaches, consequently contributing to the wellbeing of the local people (TIES, 2015). Travel and tourism are human resource intensive employing 230 million people or 8% of the global workforce, and it is estimated that one direct tourism job creates more than one indirect job within the tourism industry. Eco tourists seek an alternative to mass tourism. Thus, they travel to new areas in a relatively undisturbed place with some cultural or environmental attraction. Thus, we can infer that ecotourism and sustainability go hand in hand and brings about mutual benefit to both conservation areas and local people (Bajracharya & Lama, 2008; Shrestha, 2015). Ecotourism in wetland regions of Nepal has been coming into the limelight for the past few years.

Even in developed counties such as Australia, New Zealand, and Tanzania, nature-based ecotourism is an essential entity for economic development (Eagles, 2002). Similarly, middle-income developing countries such as Thailand have also been incorporating ecotourism for the social empowerment of their local communities (Kontogeorgopoulos, 2005). Likewise, in the neighboring country India, in Kerala, the state government itself has been promoting ecotourism as an important agenda for increasing employment security and foreign currency influx (Sreekumar & Parayil, 2002). Obuga (1997), regarding the impacts of ecotourism on the environment, has revealed some negative influences such as degradation in environmental quality. Likewise, Kelkit, Ozel, & Demirel (2005) have assessed tourism activities particularly sensitive to the environment and deduced Strength, Weakness, Opportunities, and Threat (SWOT) analysis to derive strategic proposals for future development. In addition to this, Gezon (2014) has conducted research that revolved around protected areas in Madagascar to analyze the social implications caused due to ecotourism within the area. Likewise, Brunet et al. (2001) have also researched to analyze the relationship between environment, tourism, culture, and economic development in Bhutan. Stem et al. (2003) have also conducted a study to assess the benefits of ecotourism, impacts of ecotourism, and its potential for environment conservation in Costa Rica. Likewise, Nepal (2007) also researched in the Annapurna Conservation Area of Nepal to understand the effects of ecotourism experience. Likewise, various studies about ecotourism have been conducted in Nepal. Gurung et al. (2009) have been accounted for the limnology and bathymetry of the wetlands of Nepal. Khanal (2009) has assessed the forest cover change in the watershed and wetland regions of Nepal. Similarly, integrated wetland and watershed management have been researched intensively by Regmi et al. (2009).

Materials and methods

Study area

The Ghoda Ghodi Lake Complex (GLC) is located in the western part of lower Nepal between the latitudes of 28°41'03" N and 80°56'43" E and within the altitude of 205 meters above sea level (masl). The lake complex is under the jurisdiction of the Government of Nepal. The Ghodaghodi Lake Complex is located in a region of diverse topography and is connected to a widespread mixed type of tropical forest situated in the lower part of Siwalik Hills in the north. Likewise, it is also connected with Bardia National Park and Suklaphanta National Park in the south. This peculiar location of the Ghoda Ghodi Lake is also why it acts as a biological corridor for the movement of wildlife between the areas (Sah and Heinen, 2001).

Climate

The Ghoda Ghodi Lake Complex lies in the sub-tropic climatic zone. As per the climate data collected in Dhangadhi, the region was classified as CWA (Köppen and Geiger, 2011). It is located 60 km away from Ghoda Ghodi Lake and shows that the climate in Dhangadhi is warm and temperate. The average temperature in Dhangadhi recorded by the Department of hydrology and meteorology, Dhangadi (1984-2013), is 24.6 °C. About 1860.47 mm of precipitation falls annually.

Biodiversity

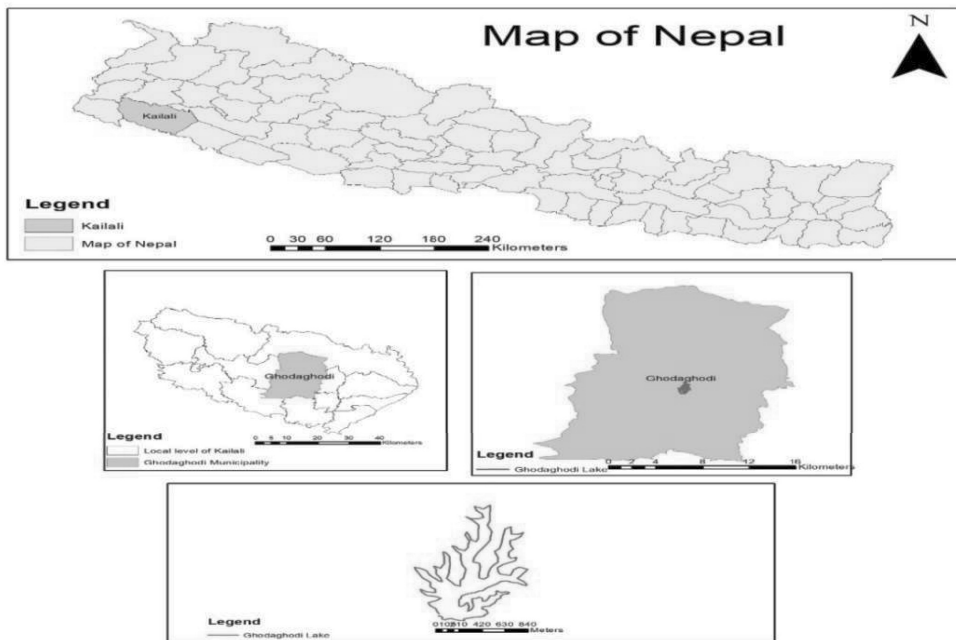
Ghoda Ghodi Lake is considered a biodiversity treasure because it hosts varieties of flora and fauna. The lake has a record of 388 vascular plants. The Ghoda Ghodi Lake has recorded 34 species of mammals, 35 species of herpetofauna, 148 species of birds, 30 species of fish, and 32 species of butterfly. This area serves as a corridor between Terai low land and Siwalik hills for wildlife, also supports many critically endangered and vulnerable species (IUCN,1998; Sah & Bhatta, 2002, Bista et al., 2010; Shrestha et al., 2020). Notably, the Ghoda Ghodi Lake is also a habitat for nationally and globally threatened and endangered bird species. Hence, the Government of Nepal has declared the GLC as an Important Bird Area (IBA) (BCN and DNPWC, 2012). On a positive note, the Ghoda Ghodi Lake has recently been extended to a total area of 9650ha encompassing Division Block Number 5 of Basanta Protection Forest to manage the ecosystem within the area more holistically and call for biodiversity conservation (DoF, 2017). As the name suggests, the Ghoda Ghodi Lake was named after the temple 'Ghodaghodi' located within the southern part of the lake complex. The temple premises marks as an important religious shrine for the local people practicing Hinduism, and the site also welcomes several devotees from nearby villages every year. The mechanisms for protection and governance are contextually based on the wetlands of Nepal depending upon the geography (Lamsal et al., 2017). As the lake complex is not located within the protected areas with stricter

governance and protection mechanism, the Ghoda Ghodi Lake does not pertain to strong legal protection measures compared to other wetlands located within the protective areas.

Socioeconomic features

The area's population is 47,979, with 8585 total households distributed in 9 different wards (CBS, 2011). The male population is 23,603, and the female is 24,376, which shows the sex ratio is 96:83.

Figure1: Map of Ghodaghodi Lake complex



Data collection

A set of the questionnaire was prepared and randomly, a total of 120 respondents were surveyed in which 80 were domestic tourists and 40 were local people out of which two people were key informants. Most of the respondents (about 63%) were male. The ages of the respondent were between 20 to 70 years. Most of the respondents (57%) were from the Kailali district, while the rest of them were from outside the Kailali district, viz. Bardiya, Palpa, Jumla, Doti, Kathmandu, and Chitwan.

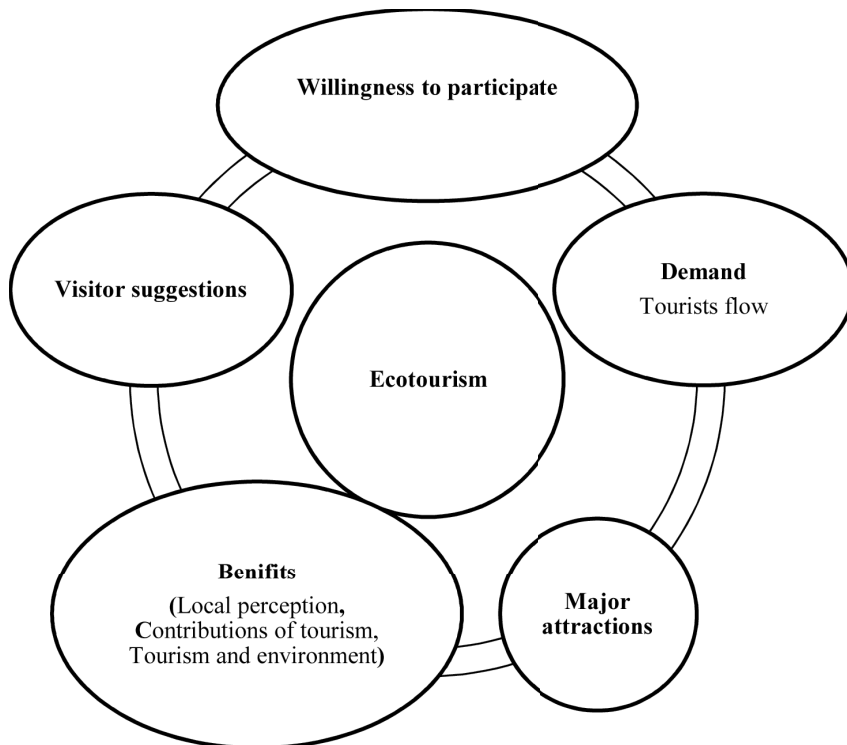
Prior to the survey, informant consent was taken orally from each respondent. To collect diverse information, both participant and non-participant observation

methods were applied in the study area. The participant observation method was prioritized while observing the local scenario, activities of the local people, and domestic tourists. Non-participation observation was employed while focusing on a specific context and whenever needed, such as tourism amenities of the study area, accessibility, and accommodation.

Data analysis

The data were analyzed and interpreted using Microsoft Excel 2010 and presented in the form of bar diagrams and pie charts. The data were presented in percentages in tables and graphs. Frequency of visits, the contribution of tourism and major attractions, visitors suggestions, Visitors Willingness to Participate in Tourism Activities, Local perception, tourism, and environment were taken as major variables for exploring ecotourism status (Figure 2).

Figure 2: Analytical framework used for the analysis of ecotourism in Ghoda Ghodi wetland.



Results

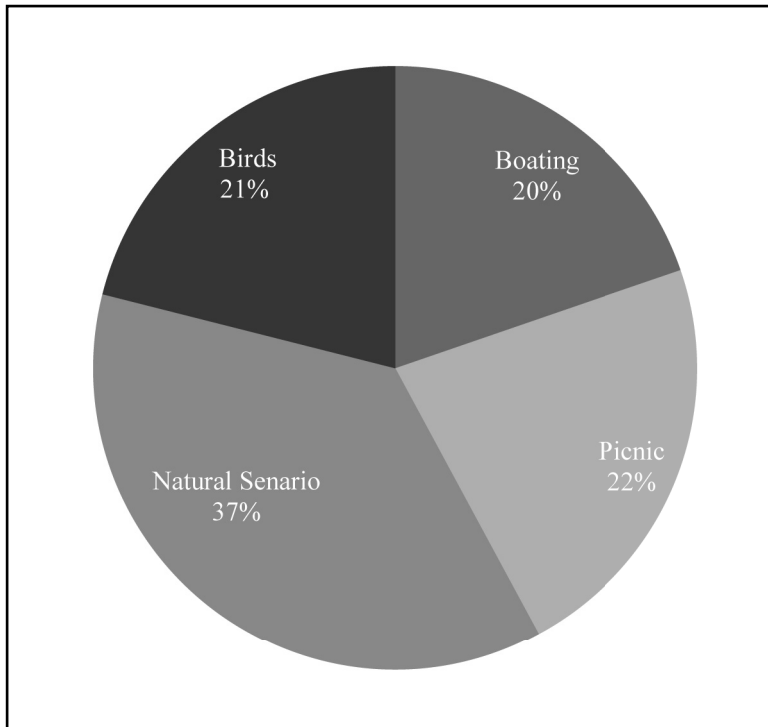
Tourists flow

The key respondent reported that more than 500 locals visited per day and 1500 foreign tourist visits per year. Most of the respondents (37.5%) have visited wetlands for more than five times followed by one time (26.25%), three times (22.5%) and five times (13.75%).

Major attraction of wetland

Among the visitors, 37% of them visited the Ghoda Ghodi Lake Complex to enjoy the natural scenery, while 22% of them had visited for a picnic. Likewise, about 21% of the visitors had visited for birdwatching while the rest of them were for boating (Figure 3).

Figure 3: Major attraction of wetland



Locals perception in tourism activities

A total of 40 respondents interviewed around Ghoda Ghodi Lake provided a homestay facility, and most of them were Tharu (80%). They were running their homestay for the last four years. They primarily generated income from early

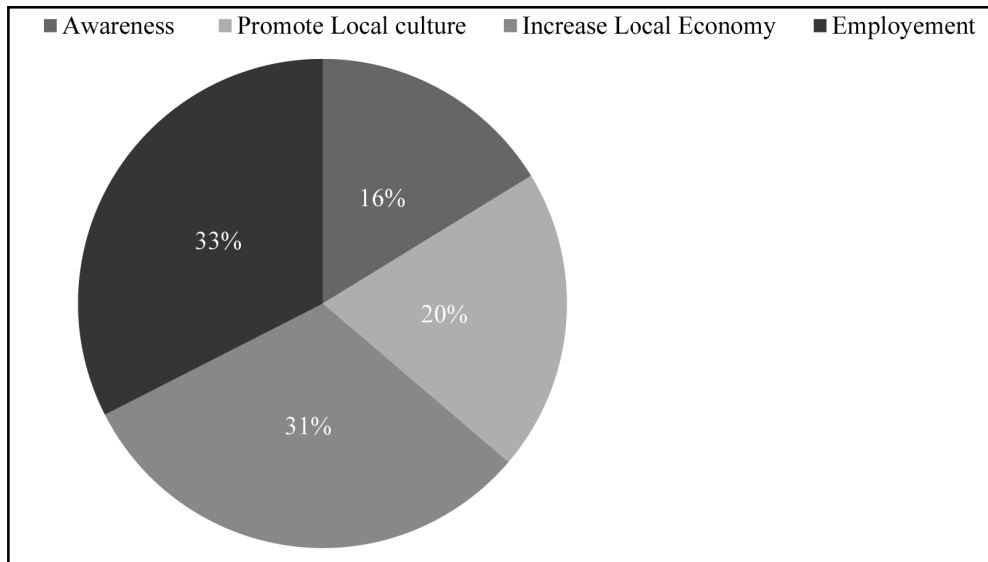
September to April in this season festivals, like Dashain, Deepawali, and Makar Sankrant falls. They were generating Nepalese Rupees (Rs.) 2 lakh to 4 lakh during this season.

Locals argue that land price around the lake has increased and the number of homestays is also increasing day by day. They also say that earning from tourism activities is insufficient for their livelihood, but it has been an alternative earning. Additionally, almost 100% of local respondents perceived that their lifestyle and culture have not been negatively impacted due to tourism activities in the area. They also reported that so far, they have not witnessed any crime scenes around the lake.

Contribution of tourism

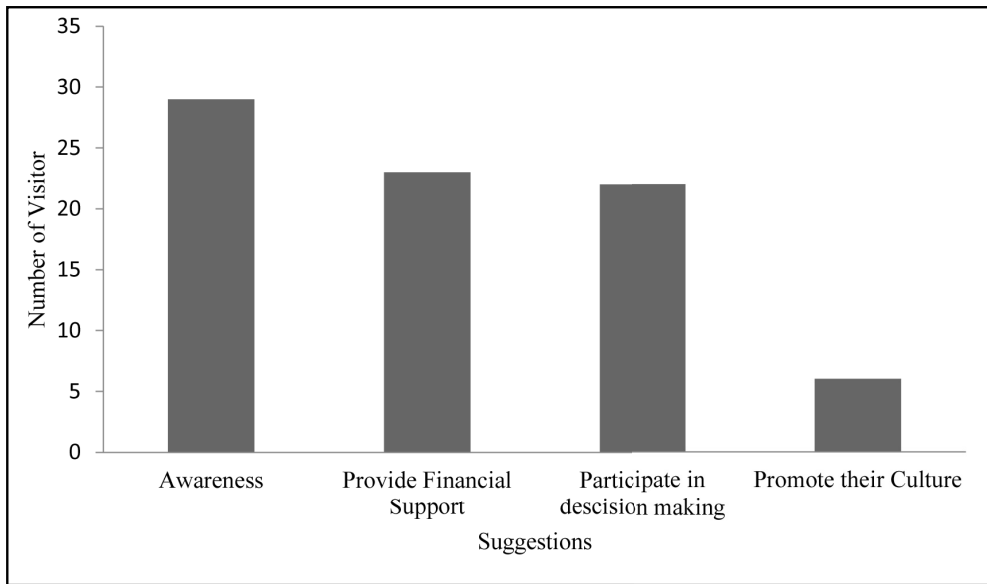
All the visitors believed that tourism activities could promote the socioeconomic conditions of the area. A total of 33% of the respondents perceived that tourism helps to promote employment opportunities, followed by an increase in the local economy, promotion of local culture, and enhanced awareness of the area (Figure 4).

Figure 4: Visitors perception on the most important socioeconomic attributes that tourism contributes in the area.



Visitors suggestions

A total of 41 (51.12%) respondents suggested generating massive awareness among the local people and enhancing the capacity of local people in tourism management through various training, 21 respondents (26.25%) indicated to increase financial investment, and 18 respondents (22.5%) suggested to help in livelihood (Figure 5).

Figure 5: Visitors suggestion to involve the local community in tourism

Local participation and tourism

Out of 40 respondents, 26% reported that they are participating in awareness, 50% participate in promotion and decision making, and 24% are providing financial support for tourism development.

Discussion

Frequency of visit

This study revealed that 37.5% of the visitor respondents had visited the Ghoda Ghodi Lake Complex more than five times. From this, it can be comprehended that the Ghoda Ghodi Lake Complex is a popular tourist destination among domestic tourists. In addition to this, it was also found that more visitor respondents were from the Kailali district, which is also where the Ghoda Ghodi Lake Complex is located. Considering that Ghoda Ghodi Lake Complex and its surrounding areas are easily accessible to the local people within the Kailali district, it is well validated that the local people from within the district comprise higher than those from other parts of Nepal. Apart from that, domestic travelers frequently visit certain places if a variety of services are offered. As the Ghoda Ghodi Lake Complex provides a diverse ecosystem and provisioning services such as sightseeing, leisure activities like boating, spots for organizing picnics, visitors from all over Nepal frequently visit the place (Bania & Paudel, 2016). It has been observed that, for domestic travelers, the accessibility and affordability factors are among the significant affairs when selecting

their destinations (Deraniyagala, 2005). Bania & Paudel (2016) reported that the pull motives of domestic tourism could be easy access and affordable, which in the case of the Ghoda Ghodi Lake Complex is true.

Major attraction of wetland

The majority of the respondents' visitors (37%) perception about the major attraction of the wetland was a natural scenario. The lake complex is named the country's most extensive interconnected natural lake system and is also under the Ramsar site since 2003 because of its biodiversity (IUCN, 1998; Kafle, 2005; Thapa et al., 2020). Additionally, the lake complex is blessed with 45 species of aquatic plants, while more than 27 species of aquatic fishes also inhabit there (Lamsal, Pant, Kumar, & Atreya, 2014). Similarly, the vicinity of the lake is also teeming with terrestrial biodiversity making the entire area a haven for the admirers of nature and natural beauty. Likewise, the Ghoda Ghodi Lake Complex offers recreation through picnics within the vicinity. This attracts many local people from the area as well as from neighboring districts and domestic tourists from all over Nepal. Similarly, 140 bird species have been reported within GLC, out of which six are threatened (Baral, 1992; Baral & Inskipp, 2005). Therefore, the Ghoda Ghodi Lake Complex remains an important site for bird watching in Nepal. In addition to this, considering the provision of boating services within the lake complex, the lake complex is also used for boating recreationally (Sah & Heinen, 2001).

Local's perception in tourism activities

The peak season for tourists at the Ghoda Ghodi Lake Complex is between September and April. Particularly, during festival seasons among Nepalese practicing Hinduism such as Dashain, Tihar, Makar Sankranti, etc, there is a high influx of domestic tourists in the Ghoda Ghodi Lake Complex. In this same context, the respondents reported more than 500 domestic visits to the area in a day while generating income between Nrs 2lakh to 4lakh during these peak seasons. While the number of international tourists is estimated to be around 500,000 annually, the Ghoda Ghodi Lake Complex has welcomed approximately (Ministry of Culture, Tourism & Civil Aviation, 2015). Despite booming tourism at the lake complex, the respondents have argued that tourism is an insufficient source of livelihood and needs to depend on alternative earning such as farming. Researchers such as Reisinger (2009) have argued that tourism could change the lifestyle and culture. On the contrary, the respondents have observed no negative impact on their lifestyle and culture. In addition to this, the respondents have strongly stated that the Ghoda Ghodi Lake Complex area has not been a platform of violence for the visitors.

Tourism contribution

Tourism is known to positively correlate with economic growth (Armstrong & Read, 2000). Tourism contributes to the local economy through the exchange of local goods; tourism also promotes cultural exchange and hence, ultimately contributes to the economic growth of the society (Mihalic, 2002; Bhattarai, Roskaft, & Graae, 2020). Based on the interview of the visitor respondents, 33% of them believe that tourism in the Ghoda Ghodi Lake Complex has contributed to the provision of employment for local people. In line with this, from the research by Aynalem et al. (2016), tourism opportunities and challenges, it is observed that tourism contributes to employment opportunities in fields such as accommodation, transportation, and attraction sites such as the Ghoda Ghodi Lake Complex in this research. Similarly, Herman et al. (2017) have analyzed the linear increase in the local economy with time. Likewise, it is also agreed that tourism can contribute to awareness of conservation behavior (Ajzen, 2005). The visitor respondents in the study area also acknowledged awareness in their conservation behavior due to ecotourism.

Tourism and environment

It has been observed that tourists are getting more inclined to visit natural areas (Kiper, 2013). This is also why, over recent times, the problem of managing solid wastes within the Ghoda Ghodi Lake Complex has become apparent. Reports by Nepal (2000) and Shackely (1994) point out that tourism contributes to increased litter, poor sanitation facilities, and solid waste disposal in developing countries like Nepal. In addition to this, in the Ghoda Ghodi Lake Complex areas, paper, plastics, glass bottles, and several other non-biodegradable materials are frequently disposed of without proper management, and especially in spaces such as designated picnic spots solid wastes are openly disposed of. More than 40% of the household respondents have been providing homestay for the past 3-4 years in the Ghoda Ghodi Lake Complex. Almost all of the household respondents agree that increasing tourism in the Ghoda Ghodi Lake Complex has caused several environmental impacts, particularly due to increasing solid wastes and their improper management.

Prebensen et al. (2016) and Troye and Supphellem (2012) outline the participation of visitors or consumers in tourism to be a good approach to create value in the consumption process. Bajracharya et al. (2006) reiterate that the current scenario where the visitors rarely participate in conservation is planning and decision making. However, in the study area, the respondents have emphasized that their involvement is necessary for both the sectors and help promote local culture through participation.

Participation and tourism

Participation is considered as one of the successful strategies for sustainable development as well as conservation (Alexander, 2000; Khadka et al., 2019). In addition

to this, the participation of the local people in decision making is also a necessity to increase the socioeconomic benefits of the community through ecotourism (Mensah & Ernest, 2013). The advantages of local participation in ecotourism are widely known, it is in many cases. It is not an approach followed in developing countries (Dei, 2000). On the contrary, community participation is quite common in the Ghoda Ghodi Lake Complex, where, among the household respondents, 26% stated that they're involved in awareness activities, 50% have been participating in decision making while 24% of them help in tourism development through financial support. Similarly, an important ecotourism principle is that the local communities are to participate in making tourism decisions so that it results in an effective, legitimate as well as equitable planning process (Buanes et al., 2005). The locals were gaining economic benefits from the area through homestay activities. They were also actively engaged in tourism activities. They argue the wetland is facing the problem of degradation.

Conclusion

The Ghoda Ghodi Lake Complex is an important site for ecotourism for the local people of the region as the lake complex is one of the major contributing factors for the provision of employment. Most of the tourists are domestic, to attract more of them, exciting schemes which also focus on sustainability could flourish the ecotourism in the region that could also eventually lead to ecotourism as the main source of livelihood. Similarly, it is revealed that to enhance the local ecotourism within the region, local participation is deemed necessary. From the study, it has been disclosed that local participation has been the approach of practice within the Ghoda Ghodi Lake Complex. Thus, it is better to continue it for the welfare of the local people and the environment.

Acknowledgments

We would like to thank all the respondents who took part in this survey and Ghoda Ghodi Lake Management committee. We would also like to thank the Ministry of Industry, Tourism, Forest and Environment Province seven Dhangadi Kailali for fund for field work, Shi Shi, Dafang Cui, and CARON, Chandramani Aryal and Sandesh Neupane for field support, Dr. Man Kumar Dhamala, Mr. Prakash Chandra Aryal, Bharat Gotame, Prakash Chandra Wagle, Pappu Rana Magar for guidance and support.

Declaration

The authors declare there is no conflict of interests.

References

Acharya, B. P., & Halpenny, E. A. (2013). Homestays as an Alternative Tourism Product for Sustainable Community Development: A Case Study of Women

- Managed Tourism Product in Rural Nepal. *Tourism Planning and Development*, 10(4), 367–387. <http://doi.org/10.1080/21568316.2013.779313>
- Ajzen, I. (2005). *Attitudes, Personality and Behaviour*. Maidenhead, U.K.: Open University Press.
- Alexander, S. E. (2000). Resident Attitude Towards Conservation and Black Howler Monkeys in Belize: The Community Baboon Sanctuary. *Environmental Conservation*, 27(4): 341-350.
- Armstrong, H. W., & Read, R. (2000). Comparing the Economic Performance of Dependent Territories and Sovereign Microstates. *Economic Development and Cultural Exchange*, 285-306.
- Aynalem, S., Birhanu, K., & Tesefay, S. (2016). Employment Opportunities and Challenges in Tourism and Hospitality. *Journal of Tourism & Hospitality*, 5:257. doi:10.4172/2167-0269.1000257
- Bajracharya, S. B., & Lama, A. K. (2008). Linking Tourism to Biodiversity Conservation: A Paradigm Shift in Protected Area Management. *Shifting Paradigms in Protected Area Management*, 107-118.
- Bajracharya, S. B., Furley, P. A., & Newton, A. C. (2006). Impacts of Community-based Conservation on Local Communities in the Annapurna Conservation Area, Nepal. *Biodiversity and Conservation*, 15(8): 2765-2786. doi:10.1007/s10531-005-1343-x
- Bania, R., & Paudel, K. (2016). An Analysis of Push and Pull Travel Motivations of Domestic Tourists in Nepal. *Journal of Management and Development Studies*, 27: 16-30.
- Baral, H. S. (1992). *Ghodaghodi Lake System: A National Treasure*. Kathmandu: Nepal Bird Watching Club.
- Baral, H. S. (2009). Updated status of Nepal's wetland birds. *Banko Janakari*, 19(3).
- Baral, H. S., & Inskipp, C. (2005). *Important Bird Areas in Nepal: Key Sites for Conservation*. Bird Conservation.
- Basnet, S. (2016). Types of Tourism in Nepal and Their Prospect.
- BCN & DNPWC (2012). *Birds of Nepal: An Official Checklist*. Kathmandu, Nepal: Bird Conservation of Nepal and Department of National Parks and Wildlife Conservation
- Bhandari, B. (2009). Wise Use of Wetlands in Nepal. *Banko Janakari*, 19: 10-17.
- Bhattarai, M., Roskaft, E., & Graae, B. J. (2020). Socioeconomic Impacts and Attitude towards Conservation of Wetland: An Analysis from KoshiTappu Wildlife Reserve, Nepal. *Journal of Development Innovations*, 4(1), 133-150.

- Bista, D., Shah, K., & Thapa, A. (2010). Diversity of Amphibian in Ghodaghodi Lake Complex, Kailali.
- Brunet, S., Bauer, J., Lacy, T. D., & Tshering, K. (2001). Tourism Development in Bhutan: Tensions between Tradition and Modernity. *Journal of Sustainable Tourism*, 9(3): 243-263.
- Buanes, A., Jentoft, S., Maurstad, A., Soreng, S., & Karlsen, G. (2005). Stakeholder Participation in Norwegian Coastal Zone Planning. *Ocean and Coastal Management*, 48(9/10): 658- 66
- CBS. (2011). *National Population and Housing Census 2011* . Kathmandu: Central Bureau of Statistics, Government of Nepal.
- Chaudhary, P., & Tewari, V. P. (2006). A Comparison between TCM and CVM in Assessing the Recreational use Value of Urban Forestry. *International Forestry Review*, 8(4): 439-448
- Dei, L. A. (2000). Community Participation in Tourism in Africa. In P. Dieke, *Political Economy on Tourism in Africa*. New York: Cognizant Publications.
- DoF. (2017). Wetlands of western Nepal: A brief profile of selected lakes, Department of Forests, Babarmahal, Kathmandu, Nepal
- Duffy, R. (2008). Neoliberalising Nature: Global Networks and Ecotourism Development in Madagascar. *Journal of Sustainable Tourism*, 16(3): 327-344. doi:10.1080/09669580802154124
- Eagles, P. F. (2002). Trends in Park Tourism: Economics, Finance and Management. *Journal of Sustainable Tourism*, 10(2): 132-153. ecotourism.org/what-is-ecotourism.
- Gautam, B. P. (2011). Tourism and Economic Growth in Nepal . *NRB Economic Review*, 23(2): 18-30.
- Gezon, L. L. (2014). Who Wins and Who Loses? Unpacking the Local People Concept in Ecotourism: A Longitudinal Study of Community Equity in Ankarana, Madagascar. *Journal of Sustainable Tourism*, 22(5): 821-838.
- GoN. (2020). *Nepal Tourism Statistics 2019*. Kathmandu: Ministry of Culture, Tourism & Civil Aviation, Government of Nepal .
- Gurung, D. B., & Scholz, R. W. (2008). Community-based Ecotourism in Bhutan: Expert Evaluation of Stakeholder-based Scenarios. *International Journal*, 15(5): 397-411. doi:10.3843/SusDev.15.5:1
- Gurung, S., Sharma, S., & Sharma, C. M. (2009). A Brief Review on Limnological Status of High Altitude Lakes in Nepal. *Journal of Wetlands Ecology*, 3: 12-22.

- Herman, G. V., Luminita, D. A., & Ciobotaru, A. (2017). The Role of Tourism in Local Economy Development: Bihor Country Case Study. *Urbanism. Architecture*, 8(3): 265-274.
- Hollis, G. (1990). Environmental Impacts of Development on Wetlands in Arid and Semi-arid Lands. *Hydrological Sciences Journal*, 35: 411-428.
- ICIMOD. (2006). Watershed Approach to Securing Resilient Livelihoods and Ecosystem Services. In *Managing Watersheds in the Himalayan Region* (pp. 22-24). Kathmandu: International Centre for Integrated Mountain Development.
- IUCN. (1998). *The Ghodaghodi Tal Conservation Area: A Community Centred Management Plan*. Kathmandu: International Union for the Conservation of Nature and Natural Resources.
- Kafle, G. (2005). *Avifaunal Survey and Vegetational Analysis Focusing on Threatened and Near-threatened Species on Ghodaghodi Lake of Nepal*. Bedford: Oriental Bird Club (OBC).
- Kelkit, A., Ozel, A. E., & Demirel, O. (2005). A Study of the Kazdagi (Mt. Ida) National Park: An Ecological Approach to the Management of Tourism. *International Journal of Sustainable Development & World Ecology*, 12(2): 141-148.
- Khadka, D., Neupane, S., Sharma, B., Dixit, S., Wagle, P. C., Thapa, L., & Bhujel, A. (2019). Ecotourism Potential of Tinjure Milke Jaljale Area: A Rhododendron Capital of Nepal. *Journal of Tourism & Adventure*, 2(1), 40-60.
- Khanal, S. (2009). Change Assessment of Forest Cover in Ghodaghodi Lake Area in Kailali District of Nepal. *Banko Janakari*, 19(2):15-19. doi:10.3126/banko.v19i2.2980
- Kiper, T. (2013). Role of Ecotourism in Sustainable Development. In M. Ozyavuz, *Advances in Landscape Architecture* (pp. 773-802). London: IntechOpen. doi:http://dx.doi.org/10.5772/55749
- Kontogeorgopoulos, N. (2005). Community-Based Ecotourism in Phuket and Ao Phangnga, Thailand:n Partial Victories and Bittersweet Remedies. *Journal of Sustainable Tourism*, 13(1): 4-23.
- Köppen, W., Volken, E., & Brönnimann, S. (2011). The thermal zones of the earth according to the duration of hot, moderate and cold periods and to the impact of heat on the organic world (Translated from: Die Wärmezonen der Erde, nach der Dauer der heissen, gemässigten und kalten Zeit und nach der Wirkung der Wärme auf die organische Welt betrachtet, Meteorol Z 1884, 1, 215-226). *Meteorologische Zeitschrift*, 20(3), 351-360.
- Kunwar, R. R. (2017). *Tourists and Tourism: Revised and Enlarged Edition*, Kathmandu: Ganga Sen Kunwar.

- Lamsal, P., Atreya, K., & Pant, K. P. (2016). Tourism and Wetland Conservation: Application of Travel Cost and Willngness to Pay an Entry Fee at Ghodaghodi Lake Complex, Nepal. *Natural Resources Forum*, 40: 51-61. doi:10.1111/1477-8947.12089
- Lamsal, P., Pant, K. P., Kumar, L., & Atreya, K. (2014). Diversity, Uses, and Threats in the Ghodaghod Lake Complex, A Ramsar Site in Western Lowland Nepal. *International Scholarly Research Notices*. doi:https://doi.org/10.1155/2014/680102
- Lamsal, P., Kumar, L., Atreya, K., & Pant, K. (2017). Vulnerability and Impacts of Climate Change on Forest and Freshwater Wetland Ecosystems in Nepal: A review. *AMBIO A Journal of the Human Environment*, 46(8).
- Lamsal, P., Pant, K. P., Kumar, L., & Atreya, K. (2015). Sustainable livelihoods through conservation of wetland resources: a case of economic benefits from Ghodaghodi Lake, western Nepal. *Ecology and Society*, 20(1).
- Mathieson, A., & Wall, G. (1982). *Tourism: Economic, Physical, and Social Impacts*. London, New York: Longman
- Mensah, I., & Ernest, A. (2013). Community Participation in Ecotourism: The Case of Bobiri Forest Reserve and Butterfly Sanctuary in Ashanti Region on Ghana. *American Journal of Tourism Management*, 2(1A): 34-42. doi:10.5923/s.tourism.201304.04
- Mihalic^ˆ, T. (2002). Tourism and Economic Development Issues. In R. Sharply, & D. J. Telfer, *Tourism and Development: Concepts and Issues* (pp. 81-111). Clevedon: Channel View Publications.
- Ministry of Culture, Tourism & Civil Aviation. (2015). *Nepal Tourism Statistics 2015*. Kathmandu: Government of Nepal. Retrieved from <http://www.tourism.gov.np>
- Navarro Jurado, E., Tejada Tejada, M., Almeida García, F., Cabello González, J., Cortés Macías, R., Delgado Peña, J., Fernández Gutiérrez, F., Gutiérrez Fernández, G., Luque Gallego, M., Málvarez García, G., Marcenaro Gutiérrez, O., Navas Concha, F., Ruiz de la Rúa, F., Ruiz Sinoga, J., & Solís Becerra, F. (2012). *Carrying capacity assessment for tourist destinations. Methodology for the creation of synthetic indicators applied in a coastal area*. *Tourism Management*, 33(6), 1337–1346.
- Nepal, S. K. (2000). Tourism in Protected Areas. *Annals of Tourism Research*, 27: 661-681.
- Nepal, S. K. (2007). Ecotourists' Importance and Satisfaction Ratings of Accommodation-Related Amenities. *Anatolia. An International Journal of Tourism and Hospitality Research*, 18(2): 255-276.
- Obua, J. (1997). Environmental Impact of Ecotourism in Kibale National Park, Uganda. *Journal of Sustainable Tourism*, 5(3): 213-223.

- Pandey, R. N., Chhetri, P., Kunwar, R. R., & Ghimire, G. (1995). *Case Study on the Effects of Tourism on Culture and the Environment: Nepal; Chitwan-Sauraha and Pokhara-Ghandruk*. Bangkok: UNESCO.
- Pao, J. W. (2010). *A Review of Economic Impact Analysis for Tourism and Its Implications for Macao*. Macao: Monetary Authority of Macao.
- Paudyal, K., Baral, H., & Keenan, R. J. (2018). Assessing social values of ecosystem services in the Phewa Lake Watershed, Nepal. *Forest Policy and Economics*, 90, 67–81. <https://doi.org/10.1016/j.forpol.2018.01.011>
- Poudel, B. (2009). Wetland Conservation in Nepal: Policies, Practices, Problems and Possibilities. *Banko Janakari*, 19(3).
- Prebensen, N. K., Kim, H., & Uysal, M. S. (2016). Co-creation as Moderator between the Experience Value and Satisfaction Relationship. *Journal of Travel Research*, 5(7): 934-945.
- Ramsar and UNWTO (2012). *Destination wetlands: supporting sustainable tourism*. A report published jointly by Secretariat of the Ramsar Convention on Wetlands (Ramsar, Iran, 1971) and the World Tourism Organization (UNWTO)
- Regmi, B. R., Kafle, G., Adhikari, A., Subedi, A., Suwal, R., & Paudel, I. (2009). Towards an Innovative Approach to Integrated Wetland Management in Rupa Lake Area of Nepal. *Journal of Geography and Regional Planning*, 2(4): 80-85.
- Reid, W., Mooney, H., Cropper, A., & Zurek, M. (2005). *Millenium Ecosystem Assessment Synthesis Report*. Washington, DC: Island Press.
- Reilly, O. (1986). Tourism carrying capacity Concept and issues, 254–258.
- Reisinger, Y. (2009). *International Tourism, Cultures and Behavior*. Oxford: Butterworth Heinrman.
- Rinzin, C., V Vermeulen, W. J., & Glasbergen, P. (2008). Environmental Sciences Ecotourism as a mechanism for sustainable development: the case of Bhutan. *Sciences*, 4(2), 109–125. <https://doi.org/10.1080/15693430701365420>
- Sah, J. P., & Heinen, J. T. (2001). Wetland Resource Use and Conservation Attitudes among Indigenous and Migrant Peoples in Ghodaghodi Lake Area, Nepal. *Environmental Conservation*, 28: 345-356.
- Sah, J. P., & Heinen, J. T. (2001). Wetland Resource Use and Conservation Attitudes among Indigenous and Migrant Peoples in Ghodaghodi Lake Area, Nepal. *Environmental Conservation*, 28: 345-356.

- Sah, J. P., Singh, R. L., & Bhatta, N. (2002). Floristic diversity and use of plants in Ghodaghodi lake area, Nepal. *J Nat Hist Mus*, 21(1-4), 243-66.
- Shackely, M. (1994). The Land of Lo, Nepal/Tibet: The First Eight Months of Tourism. *Tourism Management*, 15: 17-26.
- Sharma, P. (2009). Climate Change Implications, Planning and Federalism in Nepal. *360 Journal*, 1(1): 10-15.
- Sharma, S. R., Upreti, B. R., & Pyakuryal, K. (2012). *Nepal 2030: A Vision for Peaceful and Prosperous Nation*. Kathmandu: South Asia Regional Coordination Office of the Swiss National Centre of Competence in Research (NCCR North-South) and Department of Development Studies, Kathmandu University.
- Shrestha, B. B., Shabbir, A., & Adkins, S. W. (2015). Parthenium hysterophorus in Nepal: A Review of its Weed Status and Possibilities for Management. *Weed Research*, 55: 132-144.
- Shrestha, B., Shrestha, S., Shrestha, A., & Khadka, U. R. (2020). Ramsar sites in Nepal: Conservation, present scenario, biodiversity value and threats. *Journal of Wetlands Ecology*, 2020, 15.
- Shrestha, U. (2011). Community Participation in Wetland Conservation in Nepal. *The Journal of Agriculture and Environment*, 12: 140-147.
- Sonali Deraniyagala, 2005. The Political Economy of Civil Conflict in Nepal. *Oxford Development Studies, Taylor & Francis Journals*, 33(1): 47-62.
- Sreekumar, T. T., & Parayil, G. (2002). Contentions and Contradictions of Tourism as Development Option: The Case of Kerala, India. *Third World Quarterly*, 23(3): 529-548.
- Stem, J., Lassoie, J. P., Lee, D. R., & Deshler, J. (2003). How 'Eco' is Ecotourism? A Comparative Case Study of Ecotourism in Costa Rica. *Journal of Sustainable Tourism*, 11(4): 322-347.
- Stevens, S. (2003). Tourism and Deforestation in the Mount Everest Region. *Geographical Journal*, 169(3): 255-277.
- Thapa, B. (2003). Tourism in Nepal: Shangri-La's Troubled Times. *Journal of Travel and Tourism Marketing*, 117-137.
- Thapa, R. B., Murayama, Y., & Ale, S. (2008). City Profile: Kathmandu. *The International Journal of Urban Policy and Planning*, 25: 45-57. doi:10.1016/j.cities.2007.10.001
- Thapa, S., Wang, L., Koirala, A., Shrestha, S., Bhattarai, S., & Aye, W. N. (2020). Valuation of Ecosystem Services from an Important Wetland of Nepal: A Study from Begnas Watershed System. *WETLANDS*.

- Thompson, B. S., Gillen, J., & Friess, D. A. (2018). Challenging the principles of ecotourism: insights from entrepreneurs on environmental and economic sustainability in Langkawi, Malaysia. *Journal of Sustainable Tourism*, 26(2), 257-276.
- TIES (2015). What is Ecotourism? Retrieved June 28, 2017, from <http://www.ties.edu.sg/>
- Troye, S. V., & Supphellen, M. (2012). Consumer Participation in Coproduction: "I made it myself" Effects on Consumers' Sensory Perceptions and Evaluations of Outcome and Input Product. *Journal of Marketing*, 76(2):33-46.
- UNEP. (2013). *Tourism: Trends, Challenges and Opportunities Green Economy and Trade*. United Nations Environment Programme.
- Upadhyaya, P.K. (2019). Sustainable Tourism Appliance in Destinations: An Overview of Ghodaghodi Lake Area in Far West Nepal. *Contemporary Research: An Interdisciplinary Academic Journal*, 3(1), 41-51.
- Vanhobe, N. (2005). *The Economics of Tourism Destinations*. Butterworth-Heinemann.
- Weaver, D. B. (2002). The evolving concept of ecotourism and its potential impacts. *International Journal of Sustainable Development*, 5(3), 252-265.