

Wetland-based Tourism and Livelihoods Strategies in the Pokhara Valley, Nepal

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Abstract

The aim of this study is to assess the current status of tourism and associated livelihood strategies around the Ramsar-listed Lake Cluster of Pokhara Valley in Gandaki Province, Nepal. The study utilizes a mixed research approach, including field observation, semi-structured questionnaires, Key Informants Interview (KII), and Focus Group Discussion (FGD). In addition, published scientific papers and relevant reports were reviewed to assess tourism and livelihood strategies in the area. The findings of the study revealed that locals engage in various livelihood activities, including tourism, business, agriculture, government and non-government jobs, among others. However, while wetlands-based tourism is a significant livelihood option in the study area, there is a need to identify more income-generating opportunities related to wetlands, as highlighted by the FGD. The study also found a positive and significant relationship between livelihood capitals arising from the wetlands and household livelihood level. The COVID-19 pandemic has severely impacted the livelihoods of the tourism-dependent community, particularly those in poor and disadvantaged groups. The study noted that the extent of the pandemic's impact differs in core urban areas and neighboring settlements around the study area. Therefore, the study suggests that policymakers and planners must develop plans, policies, and strategies that promote the tourism sector and involve local communities in decision-making processes and tourism implementation, taking into consideration the global pandemic situation. Agriculture is the primary livelihood strategy for people living near the Lake Cluster of Pokhara Valley, but it can lead to natural resource stress if not managed properly. The study suggests that tourism, particularly eco-tourism-based activities, could be the backbone for the livelihood services of the local population in the Pokhara Metropolitan City. However, to ensure the sustainability of ecotourism, there must be an integrated development and conservation strategy based on a strong public-private partnership.

Keywords: *Livelihood, Wetlands, Ecotourism, Sustainability, Pokhara valley*

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Introduction

Tourism is a vital industry that contributes to the economic development of countries and provides livelihood opportunities for many people. Sustainability should be a core principle in tourism development, with a focus on minimizing negative impacts and promoting environmental and cultural awareness. Community-based tourism can be a promising approach to ensure that local communities benefit from tourism and that their rights and beliefs are respected. By carefully managing the development of tourism, we can maximize its positive impacts while minimizing its negative effects. It is a rapidly growing economic sector that plays a pivotal role in the development of countries. Also, it is highly valued by politicians and policymakers as it serves as a significant source of income. Honey & Gilpin (2009) emphasize that tourism is not only an income-generating industry for both developed and developing destinations but also provides livelihood options for many people. Moreover, tourism goes beyond economic benefits and contributes to raising awareness about the political and social conditions of host countries, recognizing and empowering the rights and beliefs of indigenous peoples (Breiby et al., 2020).

In order to ensure sustainability of the tourism industry, it is crucial for communities to implement plans that minimize physical, social, behavioral, and psychological impacts, raise environmental and cultural awareness, and respect local communities (Chen et al., 2018). It is often observed that developing countries have natural areas but lack sufficient infrastructure and capital to support mainstream tourism. However, the development of tourism within any country can contribute to growth and development by utilizing abundant natural resources (Muhanna, 2006). Community-based tourism is an approach that ensures the industry uplifts community members and provides opportunities for alternative livelihood strategies. For example, in countries like Nepal, tourism is committed to the highest standards of poverty alleviation, community development, economic development, and cultural preservation (Giampiccoli & Kalis, 2012). One of the most significant positive impacts of tourism is job creation, which improves the living standards of local people. However, it is important to acknowledge that tourism can also have negative impacts, such as limiting access to protected areas and eroding the intrinsic characteristics of local communities (Badola et al., 2018). It is essential to strike a balance between economic benefits and environmental and cultural preservation in the development of tourism (Das & Chatterjee, 2015).

The policy framework for wetland tourism should recognize the importance of wetlands in supporting biodiversity and the livelihoods of local communities. It should prioritize proper management, long-term development, economic growth, and social benefits, while also ensuring environmental conservation and poverty reduction. Addressing challenges such as inadequate technical capacity, governance issues, and political instability should be key focus areas. Ultimately, the policy should prioritize the protection and preservation of wetlands for the benefit of both locals and tourists alike. The policy framework for

wetland tourism should prioritize the recognition of the vital role of wetlands in supporting biodiversity and the livelihoods of local communities. Proper management of the physical, biological, and socio-economic aspects of wetlands is crucial for ensuring the sustainability of tourism activities. The promotion of wetland tourism should contribute to long-term development, economic growth, and social benefits, while also prioritizing environmental conservation and poverty reduction.

Wetlands, particularly lakes, hold significant importance for local communities who depend on them for their livelihoods, including those engaged in tourism, fishing, irrigation, electricity production, and water supply. Wetlands also serve as crucial sources of drinking water and support rich biodiversity. Additionally, wetlands provide recreational, religious, spiritual, and inspirational values to both residents and visitors alike. However, there are several challenges and issues that need to be addressed for the successful promotion of tourism in wetlands. These include a lack of knowledge about effective management mechanisms, unclear policies, weak wetland governance, inadequate technical capacity, and unstable political situations. Therefore, the policy framework should focus on improving the technical capacity of stakeholders and enhancing the governance of wetlands, ensuring clear policies and effective management mechanisms, and addressing political instability. Furthermore, the policy should prioritize the protection and preservation of wetlands for the benefit of both local communities and tourists. Conservation measures should be in place to safeguard the ecological integrity of wetlands, while also considering the socio-economic well-being of local communities who rely on them. This can include measures such as sustainable tourism practices, community involvement in decision-making, and equitable benefit sharing.

Nepal has immense potential for tourism development, and appreciation for its rich social, cultural, and ecological diversity. Tourism can not only contribute to economic growth but also play a significant role in environmental conservation and social enhancement, particularly in areas where it is promoted (KC et al., 2015). However, it is crucial for the newly formed local governing bodies in Nepal, especially in tourism hubs like the Pokhara Valley, to prioritize the preservation of local sociocultural values, including wetlands and their peripheral regions. Government support is essential to promote tourism entrepreneurship (Devkota et al., 2020). The increasing popularity of the Lake Cluster in the Pokhara Valley among domestic and foreign tourists has led to a shift towards mass tourism, which poses a threat to the ecological, economic, and socio-cultural aspects of the region (Bhandari, 2022). To ensure sustainable wetland-based tourism in the Pokhara Valley, it is important to balance and maintain these elements. Community-based tourism has proven to be beneficial for both protected and non-protected areas, supporting local livelihoods. As a result, the Nepalese government has encouraged the development of protected areas and cultural heritage to boost tourism. Tourism has already emerged as an alternative source of income in many communities in Nepal (Nepal, 1997). Therefore, this study aims to assess the status of tourism and livelihood strategies in the Pokhara Valley of Nepal.

Methodology

Study area

The study was carried out across the three lakes situated in the Pokhara Valley, namely Phewa, Begnas, and Rupa Lakes (Fig. 1). These particular lakes were selected due to their favorable geographical positioning, which ensures convenient accessibility and substantial tourism prospects.

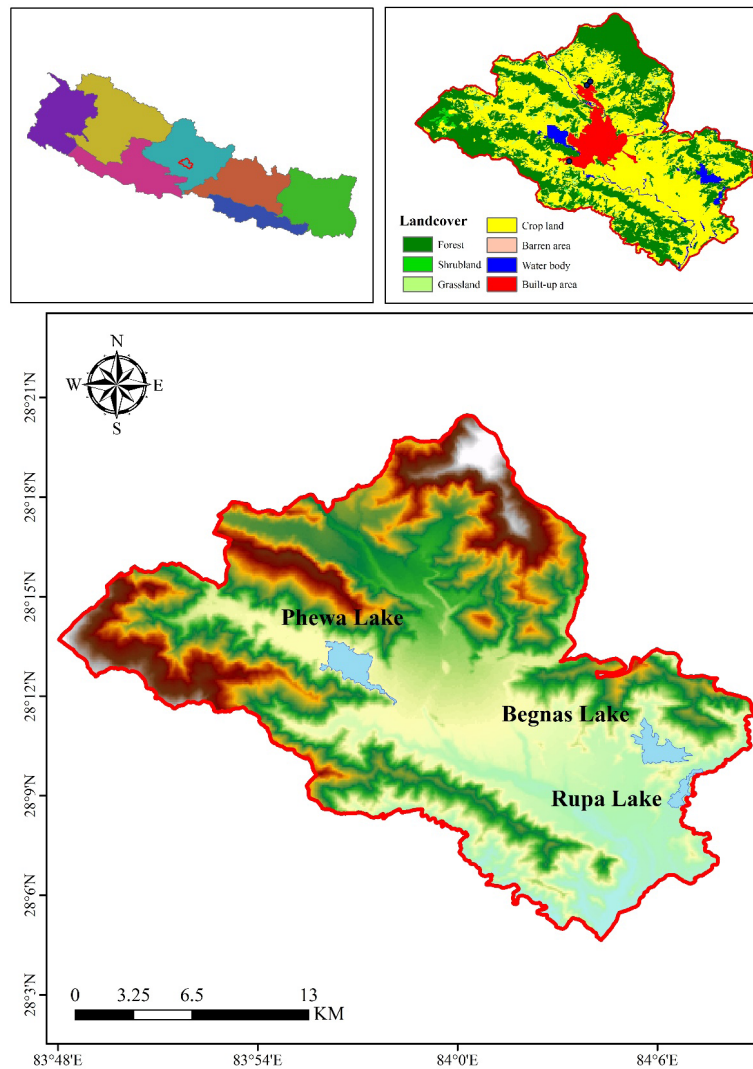


Figure 1: Locations of Phewa, Begnas, and Rupa Lake of Pokhara Valley, Gandaki Province, Nepal

Data collection

The present study employed a mixed-method approach utilizing both qualitative and quantitative research methods to obtain a comprehensive understanding of the key informants' viewpoints and community perceptions. To achieve this, a household survey was conducted to collect data from wetland communities. The survey questionnaire comprised three main sections, namely, Sections I, II, and III. Section I contained demographic information, including gender, age, marital status, occupation, and household size. In Section II, information on tourism status and livelihood linkages of wetland communities was included. Lastly, Section III examined the potential and gaps for tourism development as an alternative means of livelihood, taking into account the vulnerability context of wetland communities. The questionnaire incorporated major demographic variables such as the respondents' position in the household, gender, age, employment status, socioeconomic situation, and livelihood strategies. The Likert scale was used to assess the respondents' agreement or disagreement with each statement, ranging from -2 (strongly disagree) to 2 (strongly agree).

The study employed a face-to-face interview method to gather information from relevant key informants. Participants were selected based on their background, knowledge, and experience in the tourism industry, using a nonprobability purposive sampling technique. Data collection took place between March and December 2021, and a total of 74 participants were included in the study. The sample population was distributed across three areas: the Phewa Lake region, where 34 household representatives were sampled, and the Begnas Lake and Rupa Lake peripheral regions, where 20 questionnaires were collected from each. A systematic random sampling method was applied to select the head of the household and an adult representative of the household, ensuring the element of randomness in the selection of respondents in the first group. A semi-structured questionnaire was distributed to households with the assistance of field workers. The second population group comprised key informants, with a total of 9 Key Informant Interviews (KIIs) conducted, five from Phewa Lake, two from Begnas Lake, and two from Rupa Lake. The selected key informants included chiefs of local NGOs, CBOs and business organizations, teachers, researchers, the wetlands authority, and a tour guide, all of whom provided useful information about tourism practices in each case study area. The interviews with community representatives and the tour guide revealed specific livelihood strategies and the impact of tourism on their livelihoods. Open-ended questions were posed to each respondent about tourism growth and development, community involvement and livelihood, and the historical context of tourism development in the area, providing valuable information for the study.

Data analysis

All questionnaire data were inputted into the Statistical Package for Social Sciences (SPSS) version 25 to analyze the results. The data underwent descriptive analysis to generate

information on the demographic profile of the respondents. The mean, which measures central tendency, and the standard deviation, which measures dispersion, were used to determine the community's average or typical perception of specific variables (Larson, 2006). Additionally, the interviews conducted for this study were recorded, transcribed, and categorized into emerging themes based on the data content. The key findings from the interviews were included in the results and discussion section.

Results and discussion

Overview of the tourism

Nepal's tourism industry has immense potential to connect the country with the global economy. Despite a slow pace of development, this sector can significantly contribute to the country's economic growth. With the exception of the years 2019 and 2020, when the COVID-19 pandemic hit the world, data from 2008 to 2018 revealed a steady growth in tourist arrivals. Fig. 2 displays the number of tourists arriving in Nepal and Pokhara from 2008 to 2020. This graph underscores the importance of the tourism industry and its potential to drive economic development in Nepal.

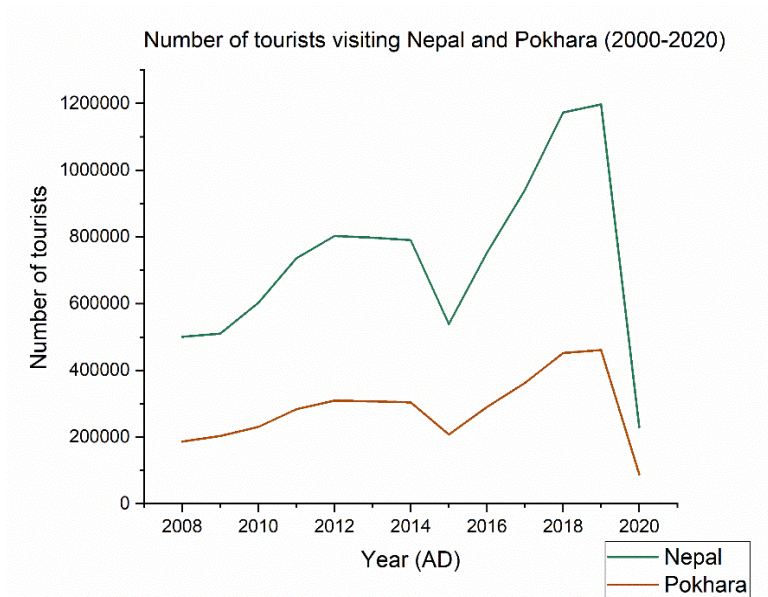


Fig. 2: Line graph illustrates tourist arrivals in Nepal and Pokhara from 2008 to 2020

(Sources: MoCTCA, 2018; Pokhara Tourism Council, 2015 and ACAP Office, Pokhara, 2020)

Pokhara possesses distinct geographic characteristics with an elevation range of <1,000 to >7,500 meters (3,300 to 24,600 feet) spanning over a distance of 30 kilometers, making it a promising location for investments in various forms of tourism such as adventure, cultural, and religious tourism. As per the data of 2019, the total investment in Nepal was NPR 16 trillion, out of which NPR 500 billion was invested in Pokhara alone, resulting in the creation of 75,000 jobs. Over the past two decades, the number of people who depend on the lake for their livelihoods has also significantly increased.

Major tourism destinations

Tourism is a crucial driver of development for Nepal, with positive economic impacts on income, employment, and production. The industry generates significant economic value for both the wider tourism sector and the local economy. In fact, tourism makes significant contributions to both the local and global economies (Acharya and Halpenny, 2013). Additionally, it incentivizes the development of advanced infrastructures and transportation systems, which not only benefit other forms of tourism but also local stakeholders, as noted by Ma (2020).

Pokhara is a city in Nepal that is known for its tourism and is often referred to as the “Capital of Tourism” and the “City of Lakes” (Fig 3). This region boasts a rich biodiversity of flora and fauna, as well as unique ecological areas and landscapes. A study conducted in the Pokhara Lake Clusters found that there are 60 aquatic plant species, 203 terrestrial plant species, 168 bird species, 28 fish species, 11 frog species, 28 reptile species, and 36 mammal species (Tamrakar, 2008). The wide range of plant species in the area suggests that there is great potential for agricultural production. Additionally, the peripheral region of the wetlands has fertile land, abundant water, high precipitation (1200 mm annually), and rich topsoil, making it an ideal location for rain-fed agriculture with a variety of crops (Basnet & Neupane, 2018). The wetlands are also an excellent location for fishing, providing numerous job opportunities and the potential to turn the region into a fishing hub.

In Pokhara, the tourism industry is thriving, with a total of 1309 tourism businesses generating a monthly transaction of NPR 878 million. The total investment of NPR 134 billion has provided employment to 18,712 individuals, contributing to the economic development of the region (Khatiwada et al., 2021). Additionally, the operation of >1000 boats across Phewa, Begnas, and Rupa Lakes has created employment opportunities for >500 people and generated a monthly transaction of NPR 265 million, further contributing to the region’s economic growth. Tourism-related activities have encouraged people to participate and rely on tourist traffic, which has also positively impacted the cleanliness of the city. However, the seasonality of tourism has resulted in economic inconsistencies throughout the year. To address this issue, integrating tourist development policies and diversifying tourism outcomes could be a potential source of income for the region. At

the domestic level, tourism provides sustainable livelihood opportunities and adds new dimensions to living choices, enhancing the purchasing power of local communities. The thriving tourism industry in Pokhara has contributed significantly to improving the living conditions of the general public, while also providing opportunities for economic growth and development.

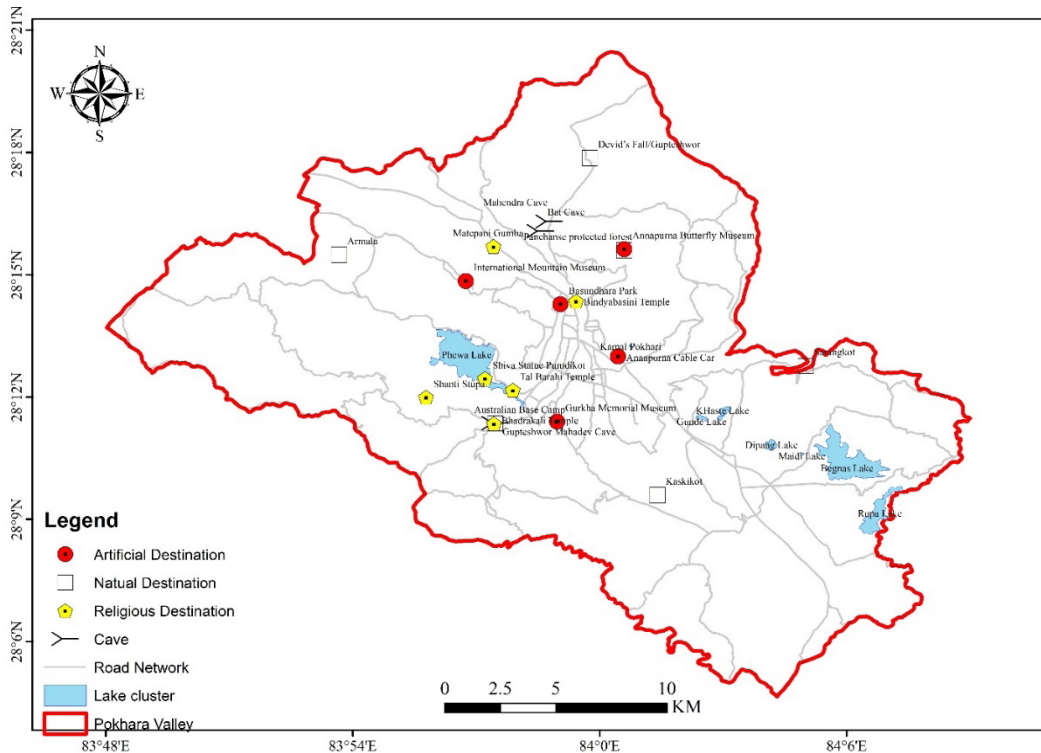


Fig. 3: Major tourism potential destinations of the Pokhara Valley

Livelihood activities of interviewed households

In terms of household representation in Phewa Lake, there was an almost equal split between the actual head of the household (52.5%) and other members (47.5%). However, male representatives dominated in all three lakes, with 70.5% in Phewa Lake, 84.5% in Begnas Lake, and 68.2% in Rupa Lake falling into this category. The respondents' ages ranged from 25 to 60 years. When it came to occupation, self-employment was the most common for all three lakes. Specifically, in Phewa Lake, 45.6% of respondents identified as self-employed, followed by full-time workers (18.2%), part-time workers (9.1%), unemployed individuals (17%), home executives (7.8%), and retirees (2.3%). Similarly, in Begnas Lake, 54.6% identified as self-employed, followed by full-time workers (28.2%), part-time workers (7.4%), unemployed individuals (4.5%), home executives (2.8%), and retirees (2.5%). In Rupa Lake, 51.6% identified as self-employed, followed by full-time workers (23.2%),

part-time workers (6.4%), unemployed individuals (5.5%), home executives (10.8%), and retirees (2.5%). It's worth noting that given the geographic locations of Phewa Lake, Begnas Lake, and Rupa Lake, most people were either involved in agricultural practices or tourism businesses.

Tourism and households vulnerability

The study found that despite some vulnerability issues in the area, the wetlands in Pokhara have been helpful for local enterprises, businesses, and agriculture, leading to an improvement in the living standards of the people. Respondents mentioned several factors that make the area vulnerable, such as floods, droughts, price hikes, disease, and pollution. However, the study also indicated that the region has great potential for both tourism and agriculture. The study's participants agreed that wetlands are a significant source of income for the local people, and they have contributed to the development of basic infrastructure and local markets. The availability of desirable agricultural resources in the region has led to diversification of products and improved food security, making tourism more fruitful and trustworthy. The wetlands have also helped to reduce household vulnerability, making them essential to the growth of both the tourism and agronomy sectors in the area. Like a previous study by Lamsal et al. (2015), this study also highlights that wetland resources can provide a source of revenue for the locals. While tourism has improved their livelihoods, the seasonality of the industry is considered a weakness. The participants from Rupa Lake emphasized the importance of wetlands as a source of tourism and livelihood for many people in the area.

During the off-season, local communities in the Phewa Lake region sustain their daily needs through fishing and agriculture. However, the region's recent development in health services, transportation, and other major infrastructure can be attributed to the growth of wetland tourism. Conservation efforts have been key in reducing potential vulnerabilities, as wetlands provide significant ecological and economic benefits to the region. The participants of the study emphasized the importance of protecting wetlands and their resources. One participant from Begnas Lake stated that wetlands are the main attraction of the Pokhara region, and protecting them is essential to sustain tourism activities. The study recommends protecting wetlands from sediment and other anthropogenic activities such as encroachment, the release of toxic chemicals, excessive use of chemical fertilizers in nearby fields, and deforestation.

To protect the lake, the study recommends the construction of sediment belts and check dams to control sedimentation. Additionally, swift implementation of plans and policies is necessary. These actions would be highly effective in controlling floods, preventing land degradation, and increasing groundwater recharge. Furthermore, they would impact people's awareness of the importance of wetlands and their resources. Overall,

the study emphasizes the importance of protecting wetlands in the Phewa Lake region from environmental degradation and promoting their sustainable use. It highlights that conservation efforts not only provide ecological benefits but also promote economic growth through the development of tourism infrastructure.

Tourism-livelihoods nexus

In a group discussion, 83.57% of the participants believed that the expansion of recreation centers and resorts has created opportunities for the local community to engage in economic activities and sustain their livelihood. However, the remaining participants stated that only economically sound individuals have benefited from the expansion. The development of tourism-related activities has contributed to the growth of infrastructure in Pokhara. A participant from the Phewa Lake discussion mentioned that wetlands provide opportunities for trading agricultural products, livestock, handicrafts, and other local products. 71.42% of the participants believed that wetlands-based tourism has created opportunities for trading local products, while the rest believed it has led to the overshadowing of local products and increased use of imported products. Another participant from the Rupa Lake discussion stated that wetlands provide opportunities for fishing and boating, leading to economic returns. 94.28% of the participants believed that wetlands provide such opportunities. The study also highlights that commercial fishing and boating activities can create employment opportunities in the region. The role of wetlands in protecting and preserving the ecosystem and people's livelihoods is also significant. The impact of tourism on the community's livelihood is presented in Table 1.

Table 1: Community perceptions about the impact of tourism on livelihood

	Phewa Lake		Begnass Lake		Rupa Lake	
	Mean	SD	Mean	SD	Mean	SD
1 Local residents have suffered from living in an tourism destinationa rea	-1.24	1.07	-0.35	0.88	-0.8	1.06
2 Benefits of tourism for the community outweigh its costs	0.71	0.58	0.75	0.55	0.9	0.55
3 Tourism brings about important economic benefits for the residents of the community	1.24	0.61	1.55	0.51	1.5	0.61
4 Tourism benefits only bussiness owners	-0.63	1.21	-0.75	1.02	-1	1.03
5 Tourism has increased the employment oppertunities for the local residents	1.68	0.47	1.75	0.44	1.65	0.49
6 Tourism provides desirable jobs for the community	0.85	0.70	1.20	0.77	0.85	0.81
7 Tourism has resulted conflicts over forest, land and natural resouce use	0.00	0.00	-0.20	0.83	-0.05	0.69

8	Tourism activities have resulted in disruption to local people's lifestyle	0.50	0.66	0.90	0.72	0.9	0.79
9	I hunt in wetlands to secure a source of food and income	-1.06	1.41	-0.40	1.57	-0.7	1.49
10	I use wetlands for the recreational activities	1.12	0.41	1.05	0.51	1.2	0.52
11	I use wetlands for my cultural and traditional activities	1.12	0.33	0.80	0.62	1.3	0.66
12	I rely on wetlands for food	1.18	0.46	0.05	0.83	0.95	0.76
13	I rely on wetlands for natural resources	0.21	0.88	0.65	0.75	0.85	0.81
14	My livelihood strategy depends upon on my accessing the wetlands	1.24	0.89	0.70	0.47	0.8	1.15
15	I support Polluters pay principal	2.00	0.00	1.70	0.57	1.85	0.37
16	I am involved in lake conservation activities	1.29	0.68	1.50	0.51	1.4	0.60
17	I suport environment created by tourism	1.82	0.39	1.35	0.49	1.75	0.44
18	Research activities	1.41	0.56	1.15	0.37	1.15	0.37
19	Sanitation and hygiene	1.18	0.39	1.35	0.49	1.45	0.51
20	Disaster control	1.15	0.49	1.05	0.22	1.1	0.45

5 point Likert Scale where -2: strongly disagree, -1: disagree, 0: neutral, +1: agree and +2: strongly agree

The study results show that the perception of people regarding the benefits of tourism for the community is largely positive across all three lakes. Specifically, the mean perception scores for Phewa Lake, Begnas Lake, and Rupa Lake were 0.71, 0.75, and 0.90, respectively. The majority of participants were aware of the potential positive impact of tourism on the livelihood of local people, particularly in terms of economic benefits. The mean economic benefit scores for Phewa Lake, Begnas Lake, and Rupa Lake were 1.24, 1.55, and 1.5, respectively. This indicates that most people are aware of the advantages that local people can gain from an increase in tourism. However, it was observed that tourism has not completely benefited the communities residing near the wetlands, as reported in previous studies. This statement was supported by the representatives in the case of Phewa Lake, and was proven by interviews with boat sailors, city tour guides, and hiking guides in the Begnas Lake region. While the majority of them are involved in the tourism industry, they also engage in alternative livelihood strategies like agriculture and fishing during low tourist inflow seasons. Nonetheless, most participants from all three lakes acknowledged that tourism has increased employment opportunities for the locals in the communities concerned. Specifically, the mean scores for employment opportunities for Phewa Lake, Begnas Lake, and Rupa Lake were 1.68, 1.75, and 1.65, respectively.

Interestingly, most participants from Phewa Lake and Begnas Lake partially disagreed that tourism would benefit business owners only, and believed that all people would receive direct or indirect benefits from tourism. On the other hand, most participants from Rupa Lake firmly disagreed that tourism benefits only business owners. The fishing industry in Rupa Lake is highly demanded, with products distributed to major city centers of Pokhara and Suklagandaki Municipality of Tanahun District. The study found that tourism has noticeably increased desirable employment activities for residents across the three lakes, with a mean score of 0.85. Moreover, most participants who are involved in tourism activities directly or indirectly expressed genuine happiness about their involvement in these activities. Finally, the study found little to no conflict over access to and use of the natural resource base, with mean scores of 0.0, -0.20, and -0.05 for Phewa Lake, Begnas Lake, and Rupa Lake, respectively. Overall, the study provides insight into community perceptions of tourism and its impact on local livelihoods, as well as the absence of conflict over natural resource use.

The study examined the impact of tourism on the livelihood of communities living in or adjacent to protected wetland areas. While many participants stated that they did not rely on wetlands for day-to-day resources such as food and water, some communities were found to be dependent on them. For instance, the Rupa Lake communities relied on fishing for their food and livelihood, while the Phewa Lake and Begnas Lake communities relied on the presence of the wetland for the sustainability of their livelihood.

The Rupa Lake Restoration and Fishery Cooperative (RLRFC) has provided grants to 21 Community Forest User Groups (CFUGs) to make fishing-related activities more reliable and easy, but the intense fishing has stressed the beauty of Rupa Lake, according to some participants. However, all participants enjoyed the occasional visit to the lakes, suggesting that people like the naturalistic view along with tourist participation. The study also found that while there were similarities between the two study sites, there were also differences in the alternate livelihood strategies employed by the residents in each study area. Most of the people from all three study areas revealed that they rely on wetlands for cultural and traditional activities. It is important to note that although communities were allowed to fish and farm within the areas, there were still rules and regulations that had to be followed, such as prohibiting the intentional fishing of endangered species or immature fish. One of the major tourist attractions of Pokhara city, Tal Barahi Mandir, situated as an island in Phewa Lake and a holy place of Hindu pilgrims, was also fairly liked by people for its cultural and religious significance. Overall, the study highlights the importance of sustainable tourism practices and the need for regulations that take into account the needs of local communities.

The livelihood strategy for the residents of the Begnas Lake and Rupa Lake communities primarily revolves around agriculture, which is a common trend in rural areas of developing countries, as noted by Ellis (2000). Participants in the study stated that they

partially rely on natural resources and occasional fishing in the lake. The lakes also serve as a social gathering spot for family and friends, making visits to the area highly valued. Participants from the Phewa Lake strongly agreed on the “polluter pays” principle, with participants from the Begnas Lake and Rupa Lake also believing in the principle. Those involved in agriculture and boating businesses firmly believed that polluters should be held accountable for the lake’s current state. Participants from the study area expressed a desire to be involved in lake conservation activities, with most of them willing to participate actively in conservation efforts. The environment created by tourism was appreciated by all participants, including national and international tourists, and they hoped that the condition would remain the same throughout the year. Over 85% of the participants believed that regular research activities should be conducted, and policies and plans should be made accordingly.

In summary, agriculture is the primary means of survival for the residents of Begnas Lake and Rupa Lake communities, who partially rely on natural resources for sustenance. The “polluter pays” principle is widely accepted, and participants expressed a willingness to participate actively in conservation efforts. The environment created by tourism is appreciated, and regular research activities are desired. The residents of the Begnas Lake and Rupa Lake communities engage in alternative livelihood strategies, and the location of the Phewa Lake in Pokhara Valley is a crucial factor in determining their livelihood. However, there is a need for research activities to focus on all lakes in the area to ensure that they receive the necessary attention.

Conclusion

This study assessed the current status of tourism and its associated livelihood strategies in the Ramsar-listed Lake Cluster of Pokhara Valley, Gandaki Province, Nepal. The study found that tourism has had an impact on the livelihoods and strategies of the communities surrounding Phewa Lake, Begnas Lake, and Rupa Lake, although the extent of the impact varies depending on geographic location and level of involvement in tourism. The potential for tourism in Pokhara has not been fully recognized due to limited research on potential tourism zones. In Begnas Lake and Rupa Lake regions, where the number of tourists is comparatively lower than that of Phewa Lake, many people engage in agricultural activities. The study emphasizes the importance of diverse livelihood strategies among households, including selling and utilizing wetland goods and services, as well as improving assets, to protect against the seasonality of the tourist season. Involvement in tourism-related activities has increased the access to financial capital for the wetland communities, and many community members have adopted alternative livelihood strategies to ensure economic sustainability throughout the year.

The study emphasizes that while agriculture is currently the primary livelihood strategy for communities near the Lake Cluster, it can lead to natural resource stress if not managed properly. Therefore, the study suggests that eco-tourism-based activities could be a sustainable alternative for livelihood services in the Pokhara Metropolitan City. An integrated development and conservation strategy, based on a strong public-private partnership, should be put in place to ensure the sustainability of ecotourism in the region. The study recommends that policymakers and planners take steps to promote the tourism sector in the Lake Cluster of Pokhara Valley and involve local communities in decision-making processes and tourism implementation. This can help ensure that the benefits of tourism are shared among the local population and that their voices are heard in shaping tourism development plans, policies, and strategies.

Finally, the study underscores the need for a holistic approach that considers both tourism development and the conservation of natural resources, with the active involvement of local communities. This can lead to the promotion of sustainable tourism practices that benefit the local population and ensure the long-term sustainability of the tourism sector in the Lake Cluster of Pokhara Valley.

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