

Evaluating Socio-Economic Impacts of Community Based Ecotourism in the Panchase Protected Forest of Kaski, Nepal

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ABSTRACT

Ecotourism is promoted as a strategy for sustainable rural development, specifically in those regions that are rich in biodiversity. The Panchase region of Nepal is rich in biodiversity and ecotourism. The impacts of ecotourism activities in such region are still unknown; therefore, this study aims to assess the socioeconomic impacts of community-based ecotourism in this forest area. This study employed a mixed-methods approach, that integrate household surveys (n=48), focus group discussions (n=4), and key informant interviews (n=7) and both descriptive and inferential statistics were used to analyze the data. The findings reveal that community-based ecotourism is a significant livelihood driver of homestay owners who relying on it as a primary income source and creating employment opportunity. The study documented an overwhelming consensus on socioeconomic benefits like improved access to education, strengthened social cohesion and cultural preservation. Similarly, almost all the respondent agreed on the role of ecotourism on conservation awareness and biodiversity conservation. However, challenges like lack of marketing, unequal distribution of resources, and the isolation of stakeholders still exist. Long-term sustainability of ecotourism demands a clear strategy that ensures equitable benefit sharing, strengthens collaborative governance, and actively involves youth is essential to balance economic development with environmental preservation.

Keywords : *Benefit sharing, community forestry, marketing, stakeholder collaboration, sustainable livelihoods.*

INTRODUCTION

Ecotourism as a component of the sustainable green economy is one of the fastest growing segments of the tourism industry due to its superiority compared to other types of tourism in

terms of responsibility towards people, nature and the environment (Poudel & Joshi, 2020). The concept of ecotourism was introduced with the term of eco-development that was used in development consequences in the late 1960s (Nelson, 1994). Tourism is very close to human



and it has become a part of the society but while addressing its negative implications on social, cultural and ecological values, ecotourism is perceived as an alternative to the conventional tourism (Singh, 2015). Also, ecotourism increases income and employment, and contributes to local livelihoods despite limited investment. However, there is a need to address environmental degradation and improve hospitality services through strategic community involvement (Khatiwada, 2022; Ghimire *et al.*, 2025). Within the tourism industry, ecotourism distinguishes itself by safeguarding natural resources through the provision of local employment (Acharya & Halpenny, 2013). It aligns with the core idea of sustainability which is improving socio-economic conditions of the present generation without harming the environment for the future generations (Spiteri & Nepal, 2008). It is designed to facilitate large-scale leisure activities within open natural environments, centered on the exploration of the host communities' local attractions. Due to its high-income generating feature if properly implemented, many countries are encouraged to invest in this sector, if well approached; ecotourism has the potential to effectively address a number of socio-economic challenges within its communities (Mnisi & Ramoroka, 2020). Recognizing this potential, the Government of Nepal has aligned its investments with this global trend, as evidenced by the allocation of a budget of Rs. 13 Arba 28 Corer (over 1.3 billion

Nepali Rupees) to the Ministry of Culture, Tourism, and Civil Aviation to develop this high-potential sector (GoN, 2024).

Panchase area is known for its majestic mountains, spectacular biodiversity combined with its rich ancient authentic culture making it country of highest potential for ecotourism. People are attracted to the area by its unparalleled natural beauty, the challenge of its terrain, its rich wildlife and unique cultural heritage. Half of the area of Panchase was declared as a Forest Protection Area from the Ministry of Forest and Soil Conservation. It has been the focus of national, regional and local government considering its high natural resource significance as well as its potential for eco-tourism considering to a hotspot biodiversity (Sharma *et al.*, 2013). The Panchase represents a unique socio-ecological landscape where ecotourism and community development converge. Local people's participation in decision-making and equitable benefit sharing among stakeholders has helped to utilize natural and cultural assets for socio-economic growth and environmental conservation of rural area. In future, systematically analyzing these processes and integrating concepts like organic farming, promoting cultural preservation and dissemination of local knowledge can improve such practices (Adhikari *et al.*, 2021).

Ecotourism is an essential component of the global economy and it allows the



use of natural environment for aesthetic purpose without harming it (KC, 2017). It contributes in the socio-economic development of marginalized local communities and its indirect promotion of environmental conservation makes it suitable as a sustainable development strategy (Korosi, 2013; Koki, 2017). It creates local employment and business opportunities, which creates a sense of ownership toward natural resources among local people; this promotes conservation at the ground level while the government generates revenue through permits and taxes for environmental management at the national scale. The Annapurna Area Project (ACAP) introduced community based ecotourism in Nepal (Dahal *et al.*, 2024). As it helps to bring positive change, the government of Nepal (GoN) has included ecotourism component in the 14th Five Year Plan. This has supported coordination among multiple stakeholders for the integrated promotion of various ecotourism destinations (Khatiwada & Sharma, 2025).

Panchase possesses both natural and cultural assets which are basic requirement for ecotourism development, as it is a biodiversity hotspot and a religious site for Hindus and Buddhists. Other requirements for ecotourism development includes environmentally friendly infrastructure, supportive policy, and conservation mechanisms which can be developed through targeted study and research, local people's participation and government support. By establishing a clear strategic

vision and defined objectives, the region can effectively manage ecotourism to enhance the entire system and maintain a competitive edge (Neupane *et al.*, 2021). Effective rural development in line with the Sustainable Development Goals (SDGs) is urgently needed to increase the social, economic, and living conditions of the rural populations.

The local people are greatly dependent upon water, agriculture, forest and various other natural resources in Panchase (Adhikari *et al.*, 2019). Similarly, high biodiversity availability is the potentials to provide a solid foundation for development, which align with the types of attractions that drive successful ecotourism destinations. However, a significant gap exists between these assets and their market visibility as identified by Parajuli *et al.* (2025). Therefore, this study aims to evaluate the socio-economic impacts of ecotourism in the Panchase, providing an empirical basis for understanding how ecotourism acts as a catalyst for holistic development and local well-being of the region. Along with, an understanding of the role of ecotourism towards rural development in the area is necessary for the tourism industry, particularly for regional tourism development and local community development.

MATERIAL AND METHODS

Study area

The study was conducted in the Panchase, a region spanning the boundaries of Kaski,



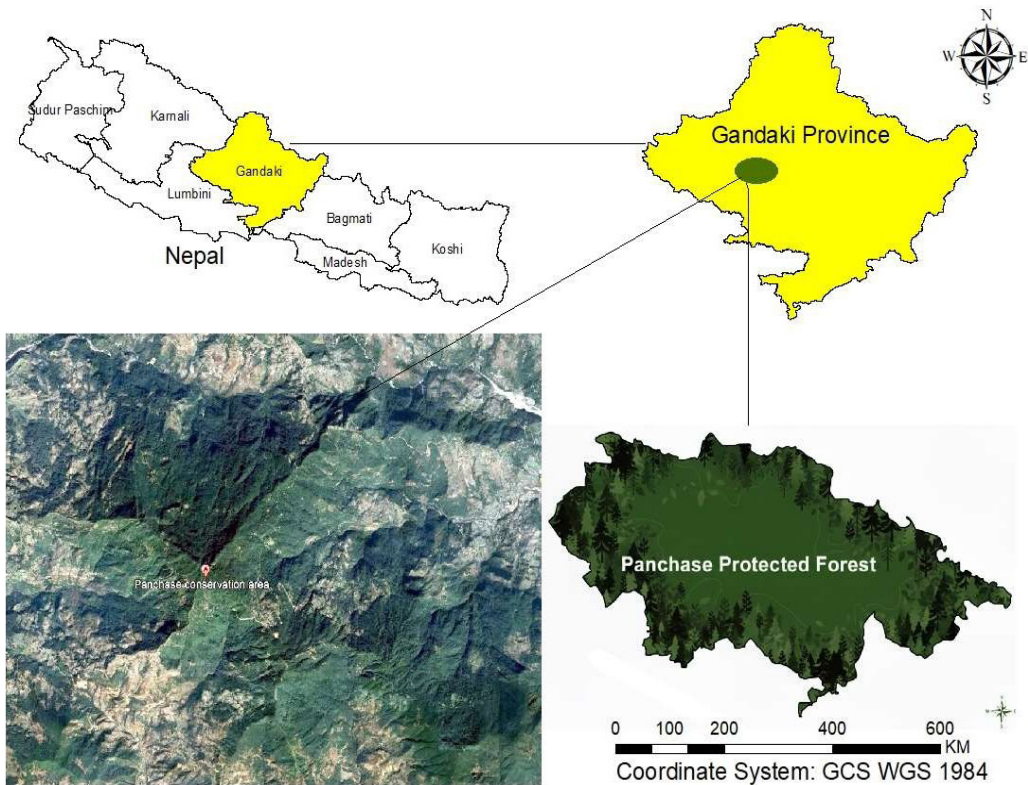


Figure 1: Study Area

Parbat, and Syangja districts in Gandaki Province, Nepal (Figure 1). Panchase, meaning 'Five Seats,' is named for its five prominent peaks and offers scenic views of the Annapurna and Dhaulagiri Mountain ranges. The ethnic composition is diverse, comprising Brahmin, Chhetri, Gurung, Bishwokarma, Nepali, Pariyar, Magar, and Thakali communities, with Gurung communities typically inhabiting higher elevations and Brahmins and Chhetris at lower elevations. The study focused on four villages namely Bhadaure Deurali, Bhangyang, Chitre, and Sidhane within the Panchase. According to Bhandari *et al.* (2018) in this region, approximately

3,600 tourists and 25,340 pilgrims visit each year.

Research design & sources of data:

A mixed-methods research design was used. Primary data like demographic information, employment status, socio-economic contributions of ecotourism and opportunities and challenges of ecotourism were gathered through a quantitative household survey.

Data was collected in between March and April 2024. A five-point Likert scale was used to measure different perceptions under various socio-economic indicators from respondents. To obtain information from the households involved in tourism



activity and individuals with knowledge about tourism, a non-probability purposive sampling was conducted across the village of Bhadaure Deurali, Bhanjyang, Chitre and Sidhane obtaining information from 48 households in total.

Furthermore, semi-structured key informant interview (KII), including teachers, local leaders and tour guides (n=7) and Focus Group Discussion (FGDs) in each village (n=4) that included presidents of homestay communities, women's group (Aama Samuha) members and youth club members were conducted. Also, the historical context of this region about tourist and tourism sector was understood through consultation with elderly local peoples.

Data analysis

Questions related to ecotourism were asked and on the basis of answer given by the respondents, they were categorized into four groups like very familiar, familiar, somewhat familiar and unfamiliar. Content analysis of the interviews was carried out to identify the tourism products and services. With further open ended questions the preferences of tourist for different products and services were identified along with its reason. Descriptive statistics like frequencies, percentage, means and standard deviations were used. Likert score was assigned to see the contribution of ecotourism on different socio-economic factors which was calculated using the formula:

$$\text{Likert score in \%} = \frac{\text{SA} * 5 + \text{A} * 4 + \text{N} * 3 + \text{D} * 2 + \text{SD} * 1}{5 * \text{No. of respondents}} * 100$$

Where,

SA = No. of respondents who strongly agree

A = No. of respondents who agree

N = No. of respondents who neutral

D = No. of respondents who disagree

SD = No. of respondent who strongly disagree

Community development benefits across multiple ranked items were analyzed using the Friedman test and an alternative to repeated measures ANOVA was used. For subsequent pairwise comparisons, Wilcoxon signed-rank test was conducted for post-hoc analysis. To control Type I errors, a Bonferroni correction was used, resulting in a stringent significance threshold of $p < 0.00048$.

RESULTS

Potential of Ecotourism Products & Activities

According to locals, the Panchase protected forest area has various types of ecotourism-related attractions that are significant from adventure, scenic beauty, biodiversity of flora and fauna, culture, aesthetics, recreation, and education point of view.



Table 1: Major Tourist attractions in and around Panchase area

Tourist attractions	Features
Cultural Villages	Gurung village like Chitre, Arthur, Sidhane, Bhadaure, Bhanjyang.
Biodiversity	Biodiversity hotspot hosting 589 species of flowering plants, 24 species of mammals, 262 species of birds.
Scenic Landscapes	Majestic panoramic mountains views of Annapurna & Dhaulagiri ranges, Pokhara valley & Phewa lake, lush tropical to temperate forests from vantage points like Bhangyang.
Unique flora	Plants like Rhododendron, herbs like Lauth salla, Kurilo, Khasru, Phalat, Lokta (used for Nepali paper production).
Religious sites	Panchase dham temple & pond, Balaji Panchyam temple, Bouddha stupas.
Local food & cuisines	Nepali Thali Dalbhat, Pancake of local millet & maize, Gundruk, Dhido, Mohi, local liquor (rakshi) and seasonal wild fruits & nuts.
Adventure Activities	Jungle walking, Bird watching, trekking, hiking and potentially paragliding.
Leisure Activities	Visiting cultural village, observing agro farming, livestock farming, playing with local musical instruments.

Source: Field Survey 2024 & Adapted from Bhandari et al., 2018

Familiarity with the ecotourism concept

The local community in the Panchase area appears to have a high level of awareness of ecotourism concepts, which is a crucial enabler for its development. Table 2 demonstrates that only less than 5% of respondents were unfamiliar with the concept of ecotourism, while the great majority of respondents (95.84%) were familiar with it. Local people actively

participate in ecotourism activities, providing visitors a chance to experience the rich biodiversity, cultural heritage, and warm hospitality of the area. The villages benefit economically and culturally from homestays and community-led tours, which offer genuine insights into the everyday lives of the locals. The village's dedication to responsible tourism is further strengthened by sustainable agriculture methods and environmental conservation initiatives.



Table 2: Familiarity with the concept of Ecotourism

Level Familiarity	Percentage (%)	Remarks
Very familiar	47.92	Indicates a strong understanding of ecotourism
Familiar	29.17	Shows moderate awareness
Somewhat familiar	18.75	Basic awareness exists but lack clarity on the actual concept
Unfamiliar	4.167	Shows that need of proper awareness campaigns in the area

Source: Field Survey 2024

This distribution indicates a core population ("very familiar," 47.92%) who can support ecotourism initiatives. However, the combined 22.92% who are only "somewhat familiar" or "unfamiliar" shows the need for educational outreach to promote widespread understanding and participation.

Ecotourism products and services

The study area currently offers a range of nature-based and cultural ecotourism

products. Hiking to Panchase Peak, nature walk, observing birds and wildlife, and immersing in the Gurung culture through clothing, festivals, music, and handicrafts are some of these activities. Another important service is agro-ecotourism, which serves regional organic food. An assessment of visitor preferences for these products (Table 3) shows a significant preference for authentic and high-quality local products.

Table 3: Tourism products, services and visitors' preferences

Product category	Example of products	Preference	Remarks
Local food/products	Dhido, local liquor, local honey	Preferred	Valued for authenticity and local taste
Food item	Local pickle	Less preferred	Health concerns
Clothing & accessories	Dhaka topi, cultural dress	Preferred	Valued for uniqueness and design
Agricultural items	Organic tea, local grains	Preferred	Favoured for quality and support to locals
Artistic/cultural items	Local paintings, musical instruments	Preferred	Reflects interest in local art
Homestays	Modern houses	Less preferred	Old traditional houses are more preferred
Adventure activities	Hiking, forest walk, bird watching, research in flora and fauna	Preferred	Lack of well-established hiking trails in forest area.

Source: Field Survey 2024



Marketing outreach of ecotourism products

The marketing of Panchase ecotourism products was found to have a significant gap. Nowadays, small-scale local networking and word-of-mouth are the main methods of promotion. There aren't many official marketing initiatives, collaborations with foreign travel companies, or an effective internet presence (such as on social media, travel blogs, and websites). The majority of focus group participants expressed dissatisfaction with this insufficient use of digital marketing tools. According to stakeholders, featuring the region's beautiful trails and handicrafts on social media sites like YouTube and Instagram, along with planning eco-friendly activities like sustainability workshops, might greatly increase its fame among environmentally conscious tourists. This gap prevents Panchase from effectively reaching the global audience of eco-conscious travelers that has propelled other Nepali destinations like Pokhara

and Chitwan to fame. Bridging the digital divide through targeted social media campaigns, engaging online content, and relationships with foreign travel agents is not only an improvement, but also a requirement for transforming latent potential into sustained tourist numbers and local economic advantages.

Socio-economic contribution

In Panchase, Ecotourism has emerged as a vital driver behind socioeconomic growth. The industry directly supports livelihoods; 45% of guesthouse operators depend on it as their main source of income, making between NPR 10,000 and NPR 20,000 per month during busy times. In a daily basis 18% of locals sell crafts, and local guides make between NPR 1,500 and NPR 3,000 as reported by key informants. Likewise, community perceptions strongly affirm these benefits (Table 4). High percentages were recorded for expanded employment opportunities (100%), improved access to education (97.9%), and the preservation of local culture (95.8%).

Table 4: *Ecotourism contribution for socioeconomic development*

Ecotourism contribution	Perception score					Response (%)	Interpretation
	SA	A	N	D	SD		
Access to education	45	2	1	0	0	97.92	Very strong
Access to health facilities	12	26	7	3	0	79.17	Strong
Construction of better roads	30	17	1	0	0	97.92	Very strong
Marketing of local products	36	11	1	0	0	97.92	Very strong
Opportunities to Growth small enterprises	36	12	0	0	0	100	Very strong
Expansion of employment opportunities	30	18	0	0	0	100	Very strong
Access to financial services	22	11	9	6	0	68.75	Strong



Community involvement in tourism activities	38	7	3	0	0	93.75	Very strong
Increased in the living standard	39	7	2	3	0	95.83	Very strong
Preserve and promote local culture and tradition	39	7	2	0	0	95.83	Very strong
Cultural exchange and interactions	34	14	0	0	0	100	Very strong
Increase in the investment to develop for local economy	25	15	5	3	0	71.42	Strong
Positive impact to local economy	27	19	2	0	0	95.83	Very strong
Increase in revenue locally regionally & nationally	35	13	0	0	0	100	Very strong
Strengthened social bonds & community cohesion	41	6	1	0	0	97.91	Very strong

Source: Field Survey 2024

The statistical analysis (Table 5) confirmed a very strong consensus (Mean < 1.5, low Standard Deviation) on most benefits, such as access to education (Mean=1.08) and strengthened social bonds (Mean=1.17). However, perceptions were divided on financial aspects, with "Access to financial services" (Mean=1.98, SD=1.05) and "Increase in investment"

(Mean=1.71, SD=0.89) showing only moderate agreement and lower consensus. Likewise, it seems strong consensus for the opportunities to develop small enterprises, local food and products (97.92%) where clear and relatively unified agreement (100%) seems to promote local culture and tradition with exchange and interactions (Table 5).

Table 5: Descriptive statistics for community ratings of ecotourism benefits

Ecotourism Contribution	Mean	Median	Std Dev	Enhanced interpretation
Access to education	1.08	1 (SA)	0.35	Very Strong Consensus. Overwhelming and unified agreement on this benefit.
Access to health facilities	2.02	2 (A)	0.85	Moderate Agreement, Low consensus. The community is not unified; a significant portion is neutral or disagrees.
Construction of better roads	1.4	1 (SA)	0.58	Strong Consensus. Clear agreement, though with slightly more variation than items like #1 or #5.



Marketing of local products	1.27	1 (SA)	0.51	Strong Consensus. High level of agreement with minimal dissent.
Opportunities for small enterprises	1.25	1 (SA)	0.44	Very Strong Consensus. Nearly unanimous and strong agreement.
Expansion of employment opportunities	1.38	1 (SA)	0.49	Strong Consensus. Clear agreement, with a very low level of dissent.
Access to financial services	1.98	2 (A)	1.05	Weak Agreement, Highly Divisive. The most contentious issue. Opinions are sharply divided, indicating this is not a universally perceived benefit.
Community involvement in tourism activities	1.27	1 (SA)	0.58	Strong Consensus. Strong agreement, though with a bit more spread in responses than the top items.
Increase in the living standard	1.48	1 (SA)	0.81	Strong Agreement, Moderate Consensus. While the median is "Strongly Agree," the higher standard deviation shows a notable number of less certain responses.
Preserve and promote local culture and tradition	1.23	1 (SA)	0.5	Strong Consensus. High level of agreement on this cultural benefit.
Cultural exchange and interactions	1.29	1 (SA)	0.46	Strong Consensus. Clear and relatively unified agreement.
Increase in investment to develop local economy	1.71	2 (A)	0.89	Moderate Agreement, Low Consensus. The community is unsure about this specific financial benefit, with opinions spread across agree, neutral, and disagree.
Positive impact to local economy	1.48	1 (SA)	0.58	Strong Consensus. Agreement is strong and relatively unified, supporting the general economic benefit.
Increase in revenue locally, regionally & nationally	1.27	1 (SA)	0.45	Strong Consensus. High level of agreement on the revenue generation aspect.
Strengthened social bonds & community cohesion	1.17	1 (SA)	0.38	Very Strong Consensus. One of the most unanimously agreed-upon social benefits.

Source: Field Survey 2024



The perceived strength of these 15 benefits varied significantly, a Friedman Test revealed a statistically significant difference in the median ratings, $\chi^2 (14) = 180.24, p < .001$. Likewise, items with the strongest consensus (e.g., "Access to education," $M=1.08$) were rated significantly higher than items with weak agreement (e.g., "Access to financial services," $M=1.98$), $Z = -5.87, p < .00048$. This statistically validates that "Access to financial services" is the most contentious benefit, with a perception significantly different from the top-ranked benefits.

DISCUSSION

Capitalizing on community awareness and product preferences

A significant finding of this study is the high level of community familiarity with ecotourism concepts (95.84%). This prior knowledge is a great advantage since it lowers the initial resources needed for training and community mobilization. It shows that the population is ready to contribute significantly to the growth of ecotourism. This well-informed viewpoint is in perfect harmony with visitors' evident demand for genuine experiences. The market's strong desire for traditional homestays, regional cuisine like Dhido, and traditional clothing, together with the rejection of modernized alternatives, seem to be similar with the findings of Ranabhat *et al.* (2024). Panchase's development plan should prioritize strengthening, professionalizing, and

effectively packaging its authentic cultural and natural offerings above providing generic or modernized equivalents, in line with a global trend towards authenticity in tourism.

Socioeconomic benefits and underlying challenges

In line with findings from other parts of Nepal, the results strongly confirm ecotourism's status as a key driver for socioeconomic growth in Panchase (Acharya *et al.*, 2025). The studies conducted by Khatiwada *et al.* (2022) & Pageni *et al.* (2024) supports the generation of primary income for homestay owners and daily wages for guides, as well as the very strong perceived benefits for employment, education, and cultural preservation, which show a tangible positive impact on livelihoods and community well-being.

However, the Friedman Test, which revealed statistically significant differences in how benefits are perceived ($\chi^2 (14) = 180.24, p < .001$), provides a critical, nuanced understanding. While benefits like education and social cohesion are overwhelmingly agreed upon, the community's perception is not uniform. Post-hoc analyses confirmed that items with the strongest consensus (e.g., "Access to education," $M=1.08$) were rated significantly higher than the most argumentative ones (e.g., "Access to financial services," $M=1.98$), $Z = -5.87, p < .00048$. According to this statistics data, the most contentious subject is



financial benefits. The gap indicates underlying issues such perceived income inequality, opaque financial transactions, or a perception that the wider economic benefits of ecotourism are not being adequately reinvested in the community.

Therefore, equitable investment and financial access are crucial for sustaining widespread community support and promising the long-term social sustainability of ecotourism in the area. Other limitations include a huge marketing gap that limits Panchase's exposure to potential travelers and youth under-involvement that puts doubt on the sector's long-term viability.

CONCLUSION

The ecotourism activity acts as the prominent source for the socio-economic development of Panchase region due to its suitable destination for unique cultural heritage, scenic landscapes, and rich biodiversity. From the community perception, the research highlight ecotourism plays significant role to improve the employment opportunities, access to education and preservation of local culture. However, some issues among community members such as financial transparency and equitable benefit sharing were uncovered challenges that created the diversification for reinvestment of revenue to local economy. The study found that there is strong commitment to biodiversity conservation among the peoples in grass root level, but lack of collaboration and coordination

among multi-stakeholders creates risk of environmental degradation with increased of tourism demand. Consequently, the ecotourism practices had proven its potentiality for livelihoods improvement and nature conservation, its success will only be recognized if it creates balance between biodiversity preservation and economic growth. Therefore, to ensure long term sustainability of ecotourism in this region, the future focused strategies must be towards equitable benefit sharing, appropriate marketing, and strengthening collaboration among the stakeholders and through the active engagement of the youth.

REFERENCES

- Acharya, B. P., & Halpenny, E. A. (2013). Home-stays as an alternative tourism product for sustainable community development: A case study of women-managed tourism product in rural Nepal. *Tourism Planning & Development, 10*(4), 367–387. <https://doi.org/10.1080/21568316.2013.783744>
- Acharya, S., Khatiwada, S. S., Parajuli, U., & Dhakal, S. (2025). People's perception on the establishment of buffer zone and ecotourism development in Dhorpatan Hunting Reserve, Nepal. *Perspectives on Higher Education, 15*(1), 19–32. <https://doi.org/10.3126/phe.v15i01.80863>
- Adhikari, A., & Adhikari, A. (2021). *Can homestay businesses build gendered resilience in mountain ecosystems? A case from the Panchase area of Nepal*. International Union for Conservation of Nature (IUCN), Nepal. https://www.iucn.org/sites/default/files/2022-07/himaldoc2021_ch3.pdf
- Adhikari, S., Baral, H., Sudhir Chitale, V., &



- Nitschke, C. R. (2019). Perceived changes in ecosystem services in the Panchase Mountain ecological region, Nepal. *Resources*, 8(1), Article 4. <https://doi.org/10.3390/resources8010004>
- Bhandari, A. R., Khadka, U. R., & Kanel, K. R. (2018). Ecosystem services in the mid-hill forest of western Nepal: A case of Panchase Protected Forest. *Journal of Institute of Science and Technology*, 23(1), 10–17. <https://doi.org/10.3126/jist.v23i1.22143>
- Dahal, S., Khatiwada, S. S., & Timilsina, Y. P. (2024). COVID-19 impact on community-based homestay tourism villages in the Annapurna Conservation Area. *Journal of Forest and Natural Resource Management*, 4(1), 100–114. <https://doi.org/10.3126/jfnrm.v4i1.74229>
- Ghimire, S., Khatiwada, S. S., Rawal, K., & Joshi, D. R. (2025). Opportunities and challenges for ecotourism development at Pyara Lake in Kanchanpur district of Western Nepal. *Dhaulagiri Journal of Contemporary Issues*, 3(1), 65–76. <https://doi.org/10.3126/djci.v3i1.79666>
- GoN (2024), Ministry of Finance. (2024). *Budget speech for the fiscal year 2024/25.*, Government of Nepal. https://giwmscdnone.gov.np/media/pdf_upload/Webside%20Final%20budget%20Speech%2021_15_qbn3jyt.pdf
- KC, A. (2017). Ecotourism in Nepal. *The Gaze: Journal of Tourism and Hospitality*, 8(1), 1–19. <https://doi.org/10.3126/gaze.v8i1.18342>
- Khatiwada, S. S. (2022). Ecotourism practice with community based home-stay program in the Gandaki Province of Nepal. *FORMATH*, 21, Article 21-001. <https://doi.org/10.15684/formath.21.001>
- Khatiwada, S. S., Timilsina, R., Pant, R. R., Bishwakarma, K., & Bhatta, K. (2022). Wetland-based tourism and livelihoods strategies in the Pokhara Valley, Nepal. *Curriculum Development Journal*, 30(44), 84–98. <https://doi.org/10.3126/cdj.v30i44.54983>
- Khatiwada, S. S., & Sharma, R. (2025). Planning and policy initiatives for tourism development in Nepal: Analysis of perspectives and positioning alignment. *Journal of Tourism & Adventure*, 8(1), 52–83. <https://doi.org/10.3126/jota.v8i1.82633>
- Koki, N. (2017). Contribution of ecotourism towards sustainable livelihood of the communities living on Wasini Island, Kwale County, Kenya. *Journal of Tourism and Hospitality Management*, 5(1), 26–39. <https://doi.org/10.15640/jthm.v5n1a3>
- Korosi, D. H. V. (2013). How effective are impact assessment procedures for ecotourism in developing nations? A case study analysis. *WIT Transactions on Ecology and the Environment*, 173, 405–416. <https://doi.org/10.2495/SD130341>
- Mnisi, P., & Ramoroka, T. (2020). Sustainable community development: A review on the socio-economic status of communities practicing ecotourism in South Africa. *International Journal of Economics and Finance*, 12(2), 505–519. Doi: 10.34109/ijefs.202012216
- Modak, N., & Poudyal, A. S. (2018). Potentials and challenges of scientific forest management in community forest in Nawalparasi district, Nepal. In *Wild harvests, governance, and livelihoods in Asia*, 61-70. Proceedings of the International Conference, Institute of Forestry, Kathmandu.
- Nelson, J.G. (1994). The spread of Ecotourism: Some Planning Implications. *Environmental Conservation*, 21(3):248-55. <https://www.jstor.org/stable/44521762>
- Neupane, R., KC, A. K., Aryal, M., & Rijal, K. (2021). Status of ecotourism in Nepal: A case of Bhadaure-Tamagi



- village of Panchase area. *Environment, Development and Sustainability*, 23(11), 15897–15920. <https://doi.org/10.1007/s10668-021-01314-z>
- Pageni, B., Khatiwada, S. S., Raut, N., Pant, R. R., & Dhakal, S. (2024). Socio-economic impacts of ecotourism activities around the Rupa Lake of Kaski, Nepal. *Janapriya Journal of Interdisciplinary Studies*, 13(1), 87–103. <https://doi.org/10.3126/jjis.v13i1.75530>
- Parajuli, U., Khatiwada, S. S., Gautam, S., Dhakal, S., & Shrestha, S. (2025). Assessment of opportunities for developing ecotourism in Kamalpokhari watershed area, Pokhara, Nepal. *Janapriya Journal of Interdisciplinary Studies*, 14(1), 200–215. <https://doi.org/10.3126/jjis.v14i1.87867>
- Poudel, B., & Joshi, R. (2020). Ecotourism in Annapurna conservation area: Potential, opportunities and challenges. *Grassroots Journal of Natural Resources*, 3(4), 49–73. <https://doi.org/10.33002/nr2581.6853.030404>
- Ranabhat, S., Khatiwada, S. S., & Rawal, K. (2025). Effect of COVID-19 pandemic on community- based homestay tourism in the buffer zone of Chitwan National Park. *The OCEM Journal of Management, Technology, and Social Sciences*, 4(1), 168–178. <https://doi.org/10.3126/ocemjmtss.v4i1.74759>
- Sharma, B. K., Timalcina, K., Rai, R., Maharjan, S. K., Joshi, A., & Rakhhal, B. (2013). *Biodiversity resource inventory: Ecosystem assessment of Bhadaure-Tamagi VDC, Kaski*. IUCN, Nepal.
- Singh, K. (2015). Women and their role in natural resources: A study in Western Himalayas. *International Journal of Research - Granthaalayah*, 3(10), 128–138. <https://doi.org/10.29121/granthaalayah.v3.i10.2015.2938>
- Spiteri, A., & Nepal, S. K. (2008). Distributing conservation incentives in the buffer zone of Chitwan National Park, Nepal. *Environmental Conservation*, 35(1), 76–86. <https://doi.org/10.1017/S037689290800445X>

