

COVID-19 Impact on Community-Based Homestay Tourism Villages in the Annapurna Conservation Area

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ABSTRACT

Community-based homestay tourism program is one of the recently growing rural tourism enterprises in Nepal. It has been regarded as economic chain for upgrading rural livelihood in several parts of Nepal, preferably in nearby location of popular tourist destinations, which strongly support ecotourism and rural development. The outbreak of COVID-19 developed a global shock and damaged the tourism sector of globe including Nepal. The pause of tourism activities and halt of traveler's movement had increased crisis in the tourism sector of the country as well as local level, interrupting the economic aspect of whole nation. This study analyzed the impact of COVID-19 lockdown on ecotourism in conservation area, particularly in homestay tourism villages of Machhapuchhre Rural Municipality of Kaski district, Nepal by collecting household level data from 40 households. The study further analyzed the positive and negative effects of lockdown in economic, environmental and socio-cultural aspects of homestay tourism. COVID 19 had constructively impacted on the environment sector by proper solid waste management and less fuel wood consumption but negatively impacted on economic and socio-cultural aspect of homestay tourism, which caused reductions in income, visitors flow and employment. Hence, we need to adopt supporting strategy to promote community-based homestay tourism by the government.

Keywords: Community based homestay, conservation area, destination, ecotourism, pandemic

INTRODUCTION

Ecotourism is defined as “a responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education” (TIES, 2015). It is one of the most preferred tools for conservation and community development in rural areas (KC, 2016). As the rural society in Nepal is predominant with rich ethnic and cultural diversity, homestay is

considered as part of ecotourism activity (Shrestha *et al.*, 2020), promoting rural economy (Thakuri, 2016). At present, the concept of homestay tourism has gained popularity and practice widely in various parts of Nepal (Chhetri, 2015). Homestay tourism creates employment and economic changes in rural areas that could motivate micro economic modules. It supports environmental sustainability, exposes rural culture and nature to the outside world. Homestay Operating Guidelines, 2011 has classified



homestay into community homestay and private homestay (Chhetri, 2015). Many studies show that community-based homestay tourism is considered as one of the components of a broad-based plan to improve rural economies (Johnson, 2010). A community-based homestay program enhances the local participation and involvement in different tourism activities, which has also empowered the women through income generation activities (Baniya *et al.*, 2018). Community based homestay tourism is an appropriate ecotourism model for local involvement and promotes rural tourism based on local skills, knowledge and resources (Khatiwada, 2022). The above stated facts indicate the urgency to manage the homestay tourism sector taking into consideration economic, social and environmental factors.

Tourism in Nepal has been experiencing major crisis from disasters like earthquakes, diseases, insurgency, economic recession and political instability, and no tourist destination is immune to such crisis (Ghimire, 2016). The COVID-19 pandemic is considered as one of the most impactful incidents of the 21st century (Zenker & Kock, 2020). This pandemic is also considered as catastrophic event after the second world war (Gossling *et al.*, 2020) which is affecting global tourism and economic, political, socio-cultural system as well. Global restriction on travelling has dealt a devastating blow to developing countries like Nepal,

where tourism industry provides job to millions of people but is mainly depends on international visitors and their hard currency (Sah *et al.*, 2020). The tourism industries of Nepal have contributed 7.9% of its total Gross Domestic Product (GDP) by generating NRs 240.7 billion in 2018 (Prasain, 2019). Tourism sectors like hotels, restaurants, trekking, mountaineering, airlines and including other subsectors in Nepal contributed direct employment to about 200,000 people (ADB, 2019) where all of them are significantly affected by the pandemic. Before COVID-19 the tourism in Nepal was hit hard by the Maoist insurgency from 1996 to 2006 and earthquake in the year 2015 and economic blockade by India in the same year. The overall economic loss, due to the earthquake, in the tourism sector was estimated at Rs. 81241 million (11.5%) of the total (Rijal, 2016). But the economic impact of COVID-19 is much worse than the last earthquake in 2015 (Gautam & Khatri, 2021). COVID-19 has brought major changes and difficulties in rural tourism and altered the pattern of socio-economic status of local people, which nowadays has become a matter of great concern. Nepal was adversely affected by the Covid pandemic, and its preliminary impact recorded 14.37% loss in Nepalese economy as a repercussion of travel restriction and flight cancellation (Shrestha *et al.*, 2020). The ambitious campaign of “Visit Nepal Year 2020” was cancelled by Nepal government considering the



intensity of COVID-19 and its health impact, which had targeted to welcome about two million visitors in the country (Ulak, 2020).

Lack of visitors in various ecotourism destinations has already knocked on the financial crisis that ripples throughout the entire communities. As per the government rules and regulations, all home stays were reopened when the conditions were normal; however, COVID-19 had left this business seriously affected and there is an overall understanding that the business won't be the same even long after the lockdowns (Prasain, 2020). Information on how COVID-19 has affected the economic, social, cultural and environmental aspects of various ecotourism destinations practicing community-based homestay is still lacking. Hence, it is important to explore local people's perception of the impact of COVID-19 on community-based homestay programs and overall development of the region. The research focused on the effect of COVID-19 on the number of visitors, sources of income, sales of local products, security provision, social life and environment status. It is extremely necessary to have a source of information to provide feedback to the policy makers, planners and managers based on empirical studies.

MATERIALS AND METHODS

Study area

The Annapurna Conservation Area (ACA) covers an area of 7,629 sq

km and is the largest and oldest conservation area of Nepal. It covers five districts and 15 rural municipalities of Gandaki province. The ACA is rich in biodiversity and provides habitat for 1,226 species of flowering plants, 105 mammals, 518 birds, 40 reptiles and 23 amphibians (Prajapati *et al.*, 2020). The area is also rich in both biophysical and socio-cultural diversities of Mongolian and Aryan communities. For these reasons, it has become one of the most popular trekking destinations among trekkers around the world.

The study was carried out in two community-based homestay villages located inside the ACA and closely managed by the conservation area project. The study was conducted in two community-based homestays of Machhapuchre Rural Municipality of Kaski district Hemjakot community-based homestay of Dhital ward number 6, and Machhapuchre community organic homestay of Tusse village ward number 1. Both villages are typically dominated by Gurung community, a unique indigenous community of Nepal and famous for their cultural richness and traditions. The various ecotourism products in these destinations include hiking with magnificent views of the Himalayas and its unique flora and fauna, Peepar Lake, paragliding, hot spring water, sunrise view, 13 types of rhododendrons and six types of lophophorus. Along with ACA, other institutions like, Caritas Nepal, Korean International Cooperation



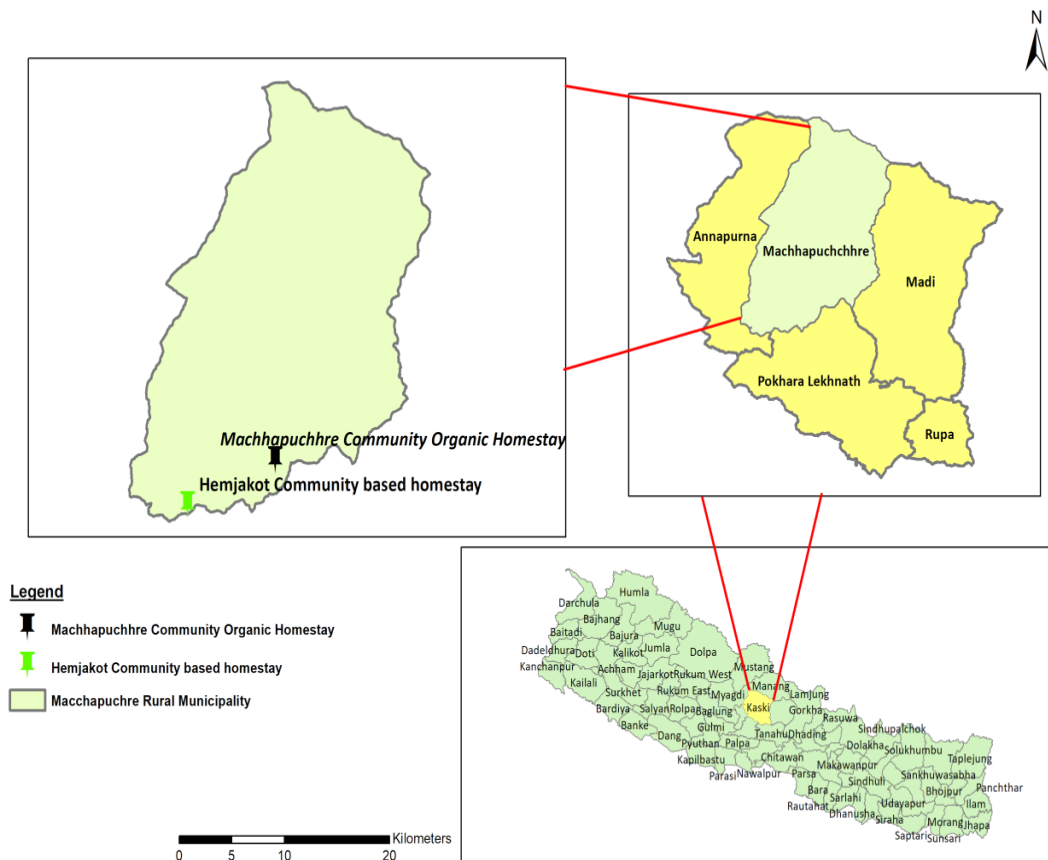


Figure 1: Map of study area

Agency (KOICA), Trekking Agencies Association of Nepal (TAAN) and Gandaki Provincial Government have been working with local community in home-stay development of these areas.

Household survey & key informant survey

A total of 40 homestay households, 16 homestay households from Hemjakot and 24 homestay households from Tusse, have been studied. Six key informants were interviewed by the executives to get insight in the status of homestay after COVID-19. Similarly,

homestay management committee members, from both homestays were surveyed, likewise interview with Dhital tourism promotion committee members was done to get information on impact of COVID-19 on economic, cultural and environmental aspect. Relevant information and suggestions for the study were collected from the discussion with staff of Annapurna Conservation Area Project (ACAP) office.

The family members available at the time of interview were interviewed from all the 40 homestay households. A series



of questionnaires were administered to collect data about the flow of tourists and income generated from homestay and impact of COVID-19 in their experience of homestay tourism with this new sort of environmentally friendly business.

Focus group discussion

Two focus group discussions with nine and eleven people were carried out in each site with members of Hemjakot and Machhapuchre community homestay management committee, Dhital Tourism Promotion Committee, Annapurna Conservation Area members and Community Forestry Users Groups. The discussions were focused on collecting data on the contribution of homestay programs on various aspects of community development and environment and COVID-19 impact on them and their suggestions to improve homestay. The main aim of the group discussion was to gather information on the contribution of homestay to economic, cultural and environmental aspects and the existing issue amidst COVID-19.

Data analysis

The collected data were analyzed using statistical package for social science (SPSS) version 25.0 and MS-EXCEL. The descriptive statistics (e.g., mean, percentage, Standard Deviation) were used to analyze the household level data (age, gender, education level,

occupation). In order to find out the association of various socio-economic factors with the satisfaction of income from homestay tourism after the re-opening of homestay after complete lockdown, the likelihood test ratio was used. Besides these, paired t-tests were used to find out the impact of COVID-19 on average monthly income of homestay households in peak season. For this the average monthly income in peak season was taken for two years (2019 and 2020). And the average monthly income was calculated, and paired t-test was used. Furthermore, to find out the COVID-19 impact on annual flow of tourists and annual income of homestay, three-year data (2018, 2019, 2020) was used and compared and the result was shown in the bar diagram. Similarly, a 5- point Likert scale test was done to find out people perception on homestay amidst COVID-19.

RESULTS

Motivational factor

The family income was the initial motivating factor for 47% of the households to conduct homestay (Figure 2). The other motivating factors for participating in homestay were self-inspiration, pride and prestige, social networking and relation and others, i.e. contribution of homestay in culture preservation, women empowerment and utilization of free time but they are not the primary drivers to initiate homestay.



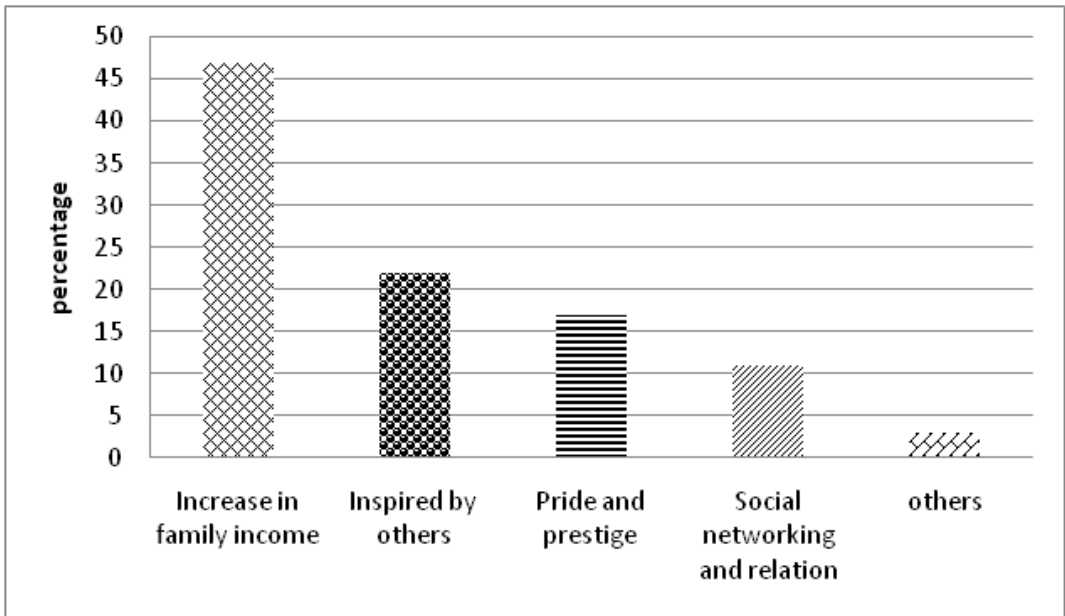


Figure 2: Motivational factors to operate homestay

Contribution of homestay to local economy before and after COVID-19

Based on people’s perception, it was found that homestay significantly contributed to the local economic sector before the pandemic. All the

respondents agreed that the major contribution of homestay to economic sector was to increase the income, job creation, fund collection (Figure 3) for physical infrastructure development like foot trail, tap, chautara, bench

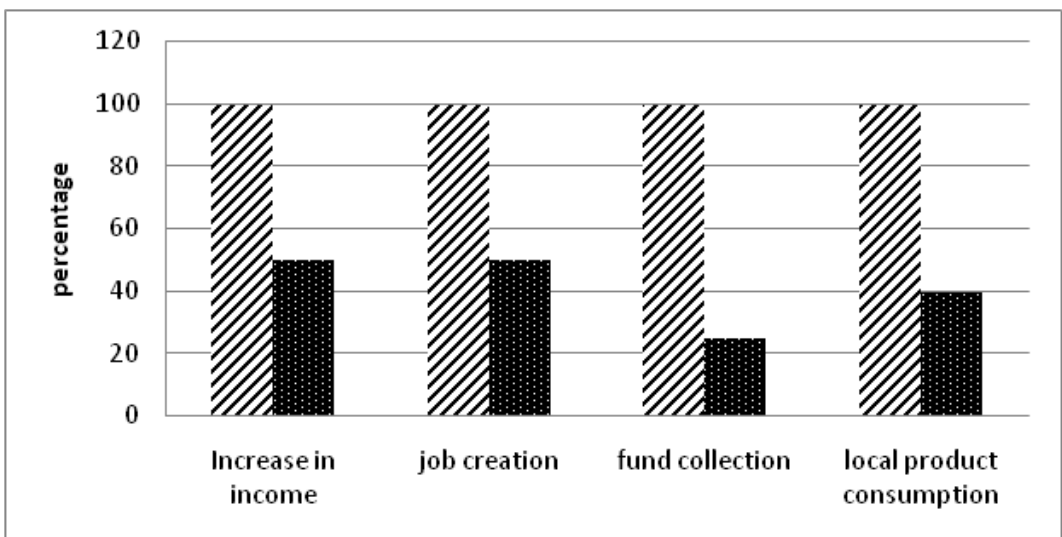


Figure 3: Contribution of homestay in local economy



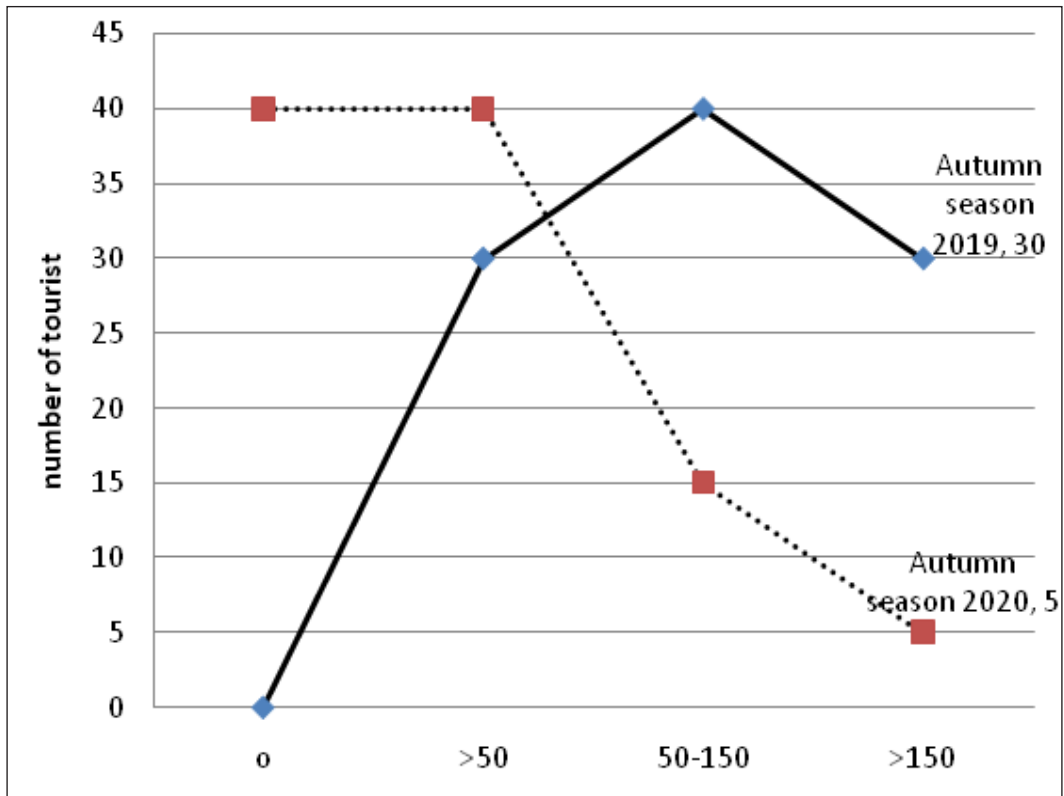


Figure 4: Tourist flow in peak season in homestay

and dustbin and consumption of local product like milk, vegetables, fruits, meat, fish, honey and flowers. But after pandemic when the homestays were re-opened after 120 days of complete lockdown, it was found that only 50% respondents agreed with the fact that homestay contributed to income increase and job creation while only 25% and 40% respondents agreed that homestay contributed to fund collection and local product consumption.

COVID-19 impact on tourist flow

The homestay business is influenced by seasons. When respondents were

asked about the peak season for tourist flow, they said that spring is the most favorable time for tourist flow and the most preferred month for tourists. In order to find out fluctuation in number of tourists due to COVID-19 we compared the tourist flow in peak season of the year 2019 and 2020. It was found that 30% of respondents said they received less than 50 tourists but another 30% said more than 150 tourists per month on an average in peak season (Figure 4). The scenario had changed after the re-opening of homestay after complete lockdown in September 2020. The surprising fact is that 40% of respondents did not receive



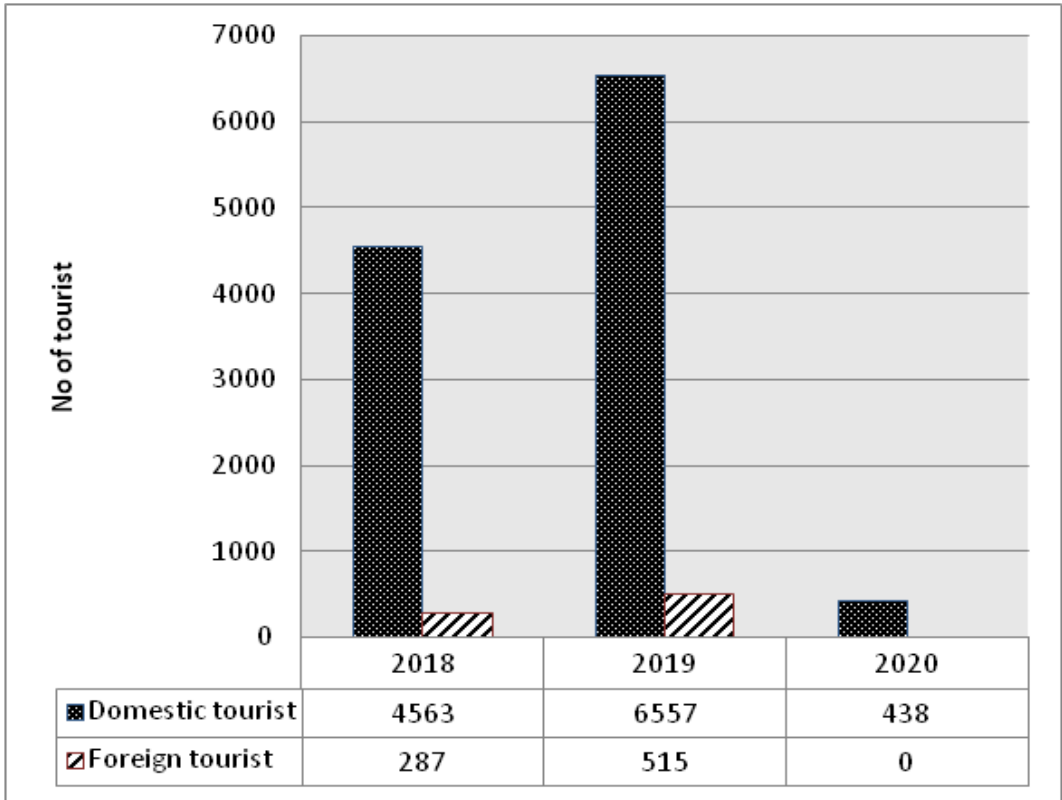


Figure 5: Annual tourist flow in homestay

any single tourist and only five percent of respondents received more than 150 tourists per month. Another fact is that all the tourists received after lockdown were domestic tourists only. The decrease in travel and tourist arrivals for subjects in home stay tourism meant the decrease in income and employment as well.

In the discussion with focal people, it was found that the tourists' flow had significantly increased in the recent first two years, with the proper advertising of the place, improvement of service quality and infrastructure improvement. The domestic tourist flow seems to have

increased more than foreign tourists. As found, the number of internal tourists was higher as many visited the place just to stay there. However, the external tourists' flow seems to be very low due to lack of reach in the external world. The number of international arrivals was almost zero for the month of April, May, June and July when the Government of Nepal imposed a lockdown from March 20, 2020. The number of internal tourists in 2019 increased by 1,994 compared to 2018 AD and the foreign tourist in 2019 increased by 228 compared to 2018 (Figure 5). The interesting fact is that the number of foreign tourists dropped

to zero and domestic tourists to 438 in the year 2020, i.e. pandemic year and it is because of the travel restriction and flight cancellation. The data shows that in the year 2020 very few domestic tourists visited these homestays and not even a single foreign tourist visited the homestay, probably, due to the risk of COVID-19.

Relationship between monthly income and flow of tourist

Both average monthly incomes before lockdown and after lockdown were positively correlated with average

monthly flow of guests before lockdown. Similarly, average monthly income before lock down was positively correlated with monthly income after lockdown (Table 1).

The analysis indicates a significant reduction in monthly income from homestays due to the COVID-19 lockdown (Figure 6, 7). The data demonstrates that, on an average, monthly income decreased by a substantial amount, and this reduction is unlikely to have occurred by chance. In terms of environmental impact, homestays have consistently

COVID-19 impact on income from homestay

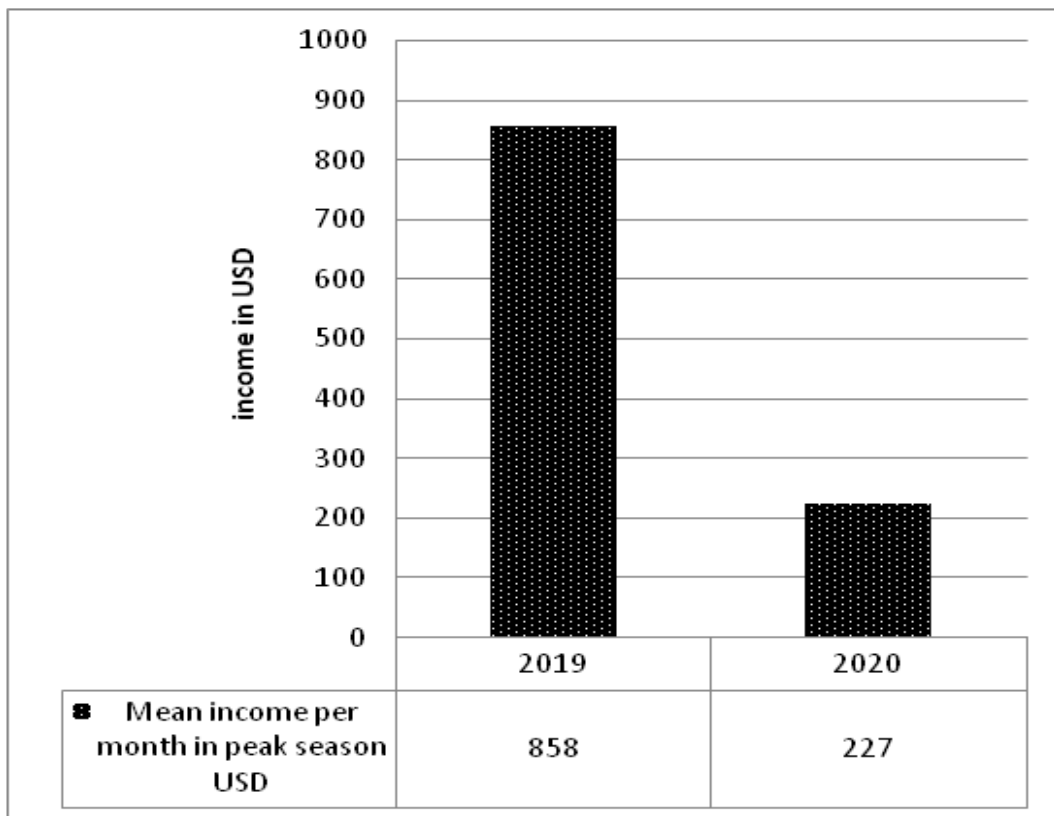


Figure 6: Mean income per month in peak season



Table 1: Correlation between income and number of tourist flow (*r* is correlation, *N* is no of observation)

Variables		r	N	p-value
Monthly income before COVID-19	Monthly income after lockdown	0.46	40	0.002
Monthly income before COVID-19	Average monthly flow of guest before lockdown	0.841	40	<0.001
Monthly income after lockdown	Average monthly flow of guest before lockdown	0.583	40	<0.002

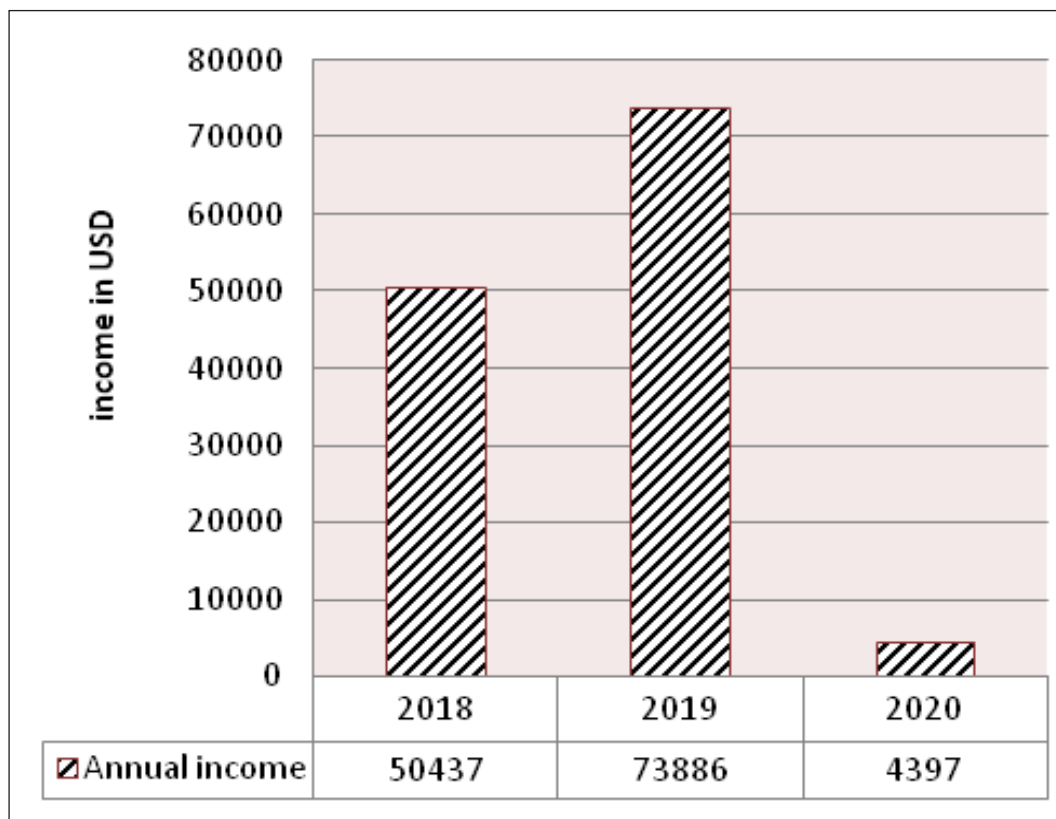


Figure 7: Annual income from homestay

raised awareness about conservation, supported plantation efforts, promoted alternative energy sources, and improved local sanitation. The pandemic has had a generally positive effect on the environment, with 90% of

respondents agreeing that pollution has decreased since the pandemic began. This reduction is attributed to lower human and vehicle activity, reduced fuel wood consumption, and decreased use of other energy sources.



Table 3: Minimum, maximum and mean values for people’s perception on homestay

Statement	Minimum	Maximum	Mean
Are you planning or doing any other profession beside homestay operation after lockdown?	1.00	5.00	3.10
Do you have any plan to improve homestay services and quality amid COVID-19?	1.00	5.00	2.67
Are you interested in making further investment on homestay?	1.00	5.00	2.90
COVID-19 has affected economic aspect more than socio-cultural and environmental aspects.	1.00	5.00	3.22
After the re-opening of homestay after lockdown they have followed the safety measures and precaution for visitors and workers safety.	1.00	5.00	3.37
COVID-19 has decreased your living standard.	1.00	5.00	3.92
Overall mean			3.20

(Strongly disagree-1, Disagree-2, Neutral-3, Agree-4, Strongly agree-5)

People’s perception to homestay during COVID-19

On an average, respondents are neutral regarding their plans to engage in other professions aside from homestay operations after the lockdown, with a mean score of 3.10 and significant variability in responses (Table 3). There is a general tendency to disagree about plans to improve homestay services and quality amid the pandemic, as indicated by a mean score of 2.67. Similarly, the interest in further investment in homestays is also neutral to slightly negative, with a mean score of 2.90.

Respondents generally agree that COVID-19 has had a more significant impact on the economic aspects than on socio-cultural and environmental aspects, with a mean score of 3.2250,

though there is considerable variation in this perception. On the positive side, there is an average agreement that safety measures and precautions were followed when the homestays were reopened, as shown by a mean score of 3.3750. However, respondents largely agreed that their living standards have decreased due to COVID-19, with a high mean score of 3.9250. The standard deviations for these measures indicate a range of opinions and experiences among respondents, reflecting diverse impacts and attitudes toward the pandemic's effects on homestay operations. The likelihood test demonstrated that there was no association of different age groups and gender on the satisfaction of income from homestay after lockdown. Likewise, the likelihood test demonstrated that the



association of various economic strata with satisfaction from income after lockdown was statistically significant.

DISCUSSION

The finding of this research suggested that an increase in family income was the initial motivating factor, which is also supported by Karki *et al.* (2019), a study conducted in Amaltari Community based homestay village of Nawalpur Nepal. Another research revealed that community-based homestay tourism enhances the local participation for physical infrastructure development as the people are actively involved to promote their homestays and share more benefit among themselves (Khatiwada, 2022). Our results suggested that before COVID-19 community-based homestay program in Machhapuchre rural municipality had not only improved income of residents, but also had fostered greater environmental education, job creation, fund collection for physical infrastructure development and consumption of local products. Homestay tourism is an important economic activity in most of the developing countries like Nepal (Adhikari, 2020). But after the pandemic when the homestays were re-opened after 120 days of complete lockdown, it was found that only 50% respondents agreed with the fact that homestay contribute to increase in income, job creation while only 25% and 40% respondents agreed that homestay contributed to fund collection and local product consumption.

Nationally, Nepal Tourism Board estimates that loss of USD 85.2 billion monthly from tourism sector only in Nepal (Panthhe & Kokate, 2021). In the recent study it was found that 94.3% of the respondents indicated the outbreak of COVID-19 in Nepal has affected the Nepalese economy (Khanal, 2020). Moreover, Nepal earned only NRs 24.95 billion from foreign tourists visiting Nepal from January 2020 to January 2021 for various purposes. This earning was 70% less than that of the corresponding period of the previous year (MoCTACA, 2021). The outcome of the research is similar as at the local level the average monthly income in the peak season of 2020 decreased by USD 600 (73.54%) and the annual income by tourism in the year 2020 decreased by USD 60000 (94.048%) due to the pandemic. A similar finding mentioned about a popular tourist destination of Nepal as Pokhara and its vicinity seem to be the shutdown of substantial numbers of hospitality businesses (more than 80%) and the bulk of loss income and employment by Covid-19, the entire tourism sector had loss NRs 2.12 billion per month (Khatiwada *et al.*, 2021).

The total number of tourists arrival in Nepal were limited to 230,085 in 2020 which was 81 percent less than that of the corresponding period of the previous year (MoCTACA, 2021). Likewise, the total number of tourist arrivals in ACA has increased by five percent to 181746 and in 2020 it decreased by 89.6 percent



(MoCTACA, 2021). Similarly, in these homestays the number of tourists increased by 35.23 percent in 2019 from 2018 and decreased by 93.8 percent in 2020. A recent study shows that more than 1600 trekking agencies which have been serving in Nepal are badly affected because more than 98 percent of booking has been canceled due to the Corona virus problem, which affected the Nepalese economy (Khanal, 2020). Likewise, at this local level 60% of people agree that they cancelled the booking made by the visitors through social media and they suffer the loss of 7000 USD. While the pandemic had minimal impact on the socio-cultural aspects of homestays, it delayed skill development training for capacity building and women's empowerment, and slightly affected the local standard of living. Overall, the pandemic had some constructive impact on environmental aspect through pollution minimization and this statement is also supported by (Chakraborty & Maity, 2020; Somani *et al.*, 2020) which mentioned that COVID-19 directly or indirectly affected the environment like improvement of air and water quality, less fuel wood consumption, reduction of noise and restoration of ecology.

From the discussion with the homestay management teams, the income earned by the home stays in the first two consecutive years was found to be increasing significantly. The income growth as observed from 2018 AD to 2019 AD was NRs. 2344850 i.e.

by 46.49%. It was mainly due to the increase in the number of tourists as well as the days of their stay. But the income in the year 2020 AD with respect to year 2019 AD has decreased by 94.048%. This is because of very few flows of tourist in the homestay due to the risk of COVID-19 and the travel restriction and flight cancellation imposed by the Government of Nepal. Moreover, the household survey of 40 houses operating homestay, 60 percent respondents said that the booking done by visitors through phone calls and social media has been cancelled due to the sudden lockdown imposed by the Government of Nepal and 40% people did not respond on this.

As per the findings, all the homestay respondents said that homestay has increased community pride, enhanced the standard of life, empowered women and increased social network and bonding before pandemic. Along with this contribution, homestay has supported the establishment of community-based organizations in both community-based homestay. But after COVID-19 most of the people agree as they are unable to give continuity to the various cultural performances after the re-opening of homestay in the year 2020. Not only this, COVID-19 also postponed various skill development training for capacity building and women empowerment and had slight impact on the living standard of the local people.



CONCLUSION

Homestay tourism was the major contributor to the increase of household income at local level. The COVID-19 pandemic severely affected household income and local people are now struggling to sustain their livelihoods. Without income generation from tourism, the future of local homestay operators has become uncertain more than ever before. However, the pandemic had not affected the contribution of homestay towards the social, cultural and environmental aspect heavily though the economic aspect had been badly affected. After COVID-19, homestay tourism has highly relied on domestic tourists as the foreign tourists decreased significantly. The cancellation of booking for the year 2020 affected the earning of foreign currency. Hence the role and actions of government to subsidize community-based tourism are necessary for their sustainability.

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REFERENCES

- Adhikari, U. R. (2020). Home stay tourism in Gandaki Province: economic impact policy provision and strategies.
- ADB. (2019). Macroeconomic update: Nepal. Asian Development Bank (ADB), 7(1). <https://www.adb.org/sites/default/files/institutionaldocument/495276/nepalmacroeconomic-update-201904.pdf>
- Baniya, R., Shrestha, U., & Karn, M. (2018). Local and community well-being through community-based tourism – a study of transformative effect. *Journal of Tourism and Hospitality Education*, 8, 77-96. <https://doi.org/10.3126/jthe.v8i0.20012>
- Chakraborty I., & Maity, P. (2020). COVID-19 outbreak migration, effects on society, global environment and prevention. *Science of Total Environment*, 728, 138882.
- Chhetri, M.K. (2015). A study of Dallagaon Homestay and its sustainability. Nepal Rastra Band Banking Development & Research Unit, Banke.
- Gautam, D., & Khatri, A. (2021). COVID-19 global pandemic lockdown impact on Visit Nepal Year 2020: a review. *International School of Tourism and Hotel Management, Kathmandu*, ISSN 2467-933X.
- Ghimire, H. (2016). Tourism in Gorkha: A proposition to Revive tourism after devastating Earthquakes. *Journal of Tourism and Hospitality* Vol. 6.
- Gossling, S., Scott, D., & Hall, M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1-20.
- Johnson, P. A. (2010). Realizing rural community-based tourism development: prospects for social-economy enterprises. *Journal of Rural and Community Development*, 5(1).
- Karki, K., Chhetri, B. B. K., Chaudhary, B., & Khanal, G. (2019). Assessment of



- socioeconomic and environmental outcomes of the homestay program at Amaltari Village of Nawalparasi, Nepal. *Journal of Forest and Natural Resource Management*, 1(1), 77- 87.
- KC, A. (2016). Ecotourism in Nepal. *The Gaze Journal of Tourism and Hospitality*, 8, 1-19.
- Khatiawada, S.S. (2022). Ecotourism practice with community-based home-stay program in the Gandaki Province of Nepal. *FORMATH*, 21. <https://doi.org/10.15684/formath.21.001>
- Khatiawada, S.S., Sharma, R., & Ranabhat, S. (2021). Impact of Covid-19 on tourism business in Pokhara Nepal. *Janapriya Journal of Interdisciplinary Studies*, 10, <https://doi.org/10.3126/jjis.v10i01.42617>
- Khanal, B. (2020). Impact of the COVID-19 in tourism industry in Nepal and policy recommendation. *Journal of Tourism and Adventure*, 3(1), 76-91. <https://doi.org/10.3126/jota.v3i1.31357>
- MoCTACA. (2021). Nepal Tourism Statistics-2020. Kathmandu: Ministry of Culture, Tourism and Civil Aviation.
- Panthhe K., & Kokate, C. N. (2021). Impact of Covid-19 on tourism sector in Nepal. *Sustainability Agri Food and Environmental Research*, 9(1), <https://doi.org/10.7770/safer-VONO-art2366>
- Prajapati J., Huettmann F., Ghale T.R., & Regmi G.R. (2020). The Annapurna Conservation Area Project (ACAP): towards a success story in landscape features and watershed conservation management. https://doi.org/10.1007/978-3-030-36275-1_24
- Prasain, S. (2020). Nepal tourism generated Rs240b and supported 1m jobs last year: reportt. <http://kathmandupost.ekantipur.com.np/news/2019-05-26/nepal-tourism-gene...> (1 June 2020, date last accessed).
- Rijal, S. (2016). Impact of earthquake on tourism sector of Nepal. *Tribhuvan University Journal*, 30(2), 183-194.
- Sah, R., Sigdel, S., Ozaki, A., Kotera, Y., Bhandari, D., & Regmi, P. *et al.* (2020). Impact of COVID-19 on tourism in Nepal. *Journal of travel medicine*, 27(6). <https://doi.org/10.1093/jtm/taaa105>
- Shrestha, R., Shrestha, S., Khanal, P., & KC, B. (2020). Nepal's first case of COVID-19 & public health response. *J Travel Med.* 18;27(3). doi: 10.1093/jtm/taaa024
- Somani, M. D. (2020). An analytical study on growth of tourism industry with special reference to Himachal Pradesh and Jammu and Kashmir. *Remarking an analisation*, 4(12).
- Thakuri, I. M. (2016). Economic contribution of homestay in Nepal. *Journal of Advanced Academic Research*, 3, 1-10.
- TIES. (2015). Announces the ecotourism principles revision. Washington: The International Eco-Tourism Society (TIES).
- Ulak, N. (2020). COVID-19 pandemic and its impact on tourism industry in Nepal. *Journal of Tourism and Adventure*, 3(1), 50-75. <https://doi.org/10.3126/jota.v3i1.31356>
- Zenker, S., & Kock, F. (2020). The Corona Virus Pandemic - a critical discussion of a tourism research agenda. *Tourism management*, 81, 104164.

