

ENVIRONMENTAL IMPACTS OF ECOTOURISM DEVELOPMENTS IN GREAT HIMALAYAN NATIONAL PARK, KULLU, HIMACHAL PRADESH

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Abstract: Ecotourism is one of the developing concepts of tourism and is defined as the visit to natural areas of rich flora & fauna, in which more consideration is given for the conservation of environment and to improve the wellbeing of the local populace by involving them in tourism activities. The Great Himalayan National Park is one of the finest ecotourism destinations in Himachal Pradesh & is inscribed as the UNESCO world heritage destination in June 2014 due to rich & instinct flora & fauna. The GHNP has been involved in a number of ecotourism activities like wildlife viewing, bird watching, Rafting, Climbing, Mountain biking, local sightseeing, angling, trekking etc. This paper is the study to analyze the environmental impact of ecotourism in Great Himalayan National Park.

Keywords: Sustainability, Ecotourism, Bio-diversity, World Heritage Site, Conservational.

INTRODUCTION

The Great Himalayan National Park (GHNP) is one of the distinguished national parks which falls under the geographical territory of Kullu district of Himachal Pradesh. Previously, GHNP was a joint initiative of British, American and Indian/state of Himachal Pradesh governments and was founded in 1984 in the beautiful valley of Seraj. The total area of GHNP was around 754.4 sq kilometers at the time of its inception and was declared as full-fledged National Park in 1999. Further, to sustain eco-development programs which were supposed to run in GHNP, an area of 265.6 sq kilometers is reserved for the population of around 16000-18000 people, 160 villages and approximately 2300 families living in the above-mentioned area. Further, two wildlife sanctuaries in Sainj and Trithan valleys of Himachal Pradesh were notified in 1994 covering the area of 90 and 61 sq kilometers and were later added in the total area of Great Himalayan National Park Conservation Area expanding its pervious area from 754.4 sq kilometers to 1171 sq kilometers.



Source: Photograph is taken by researcher during Data Collection

In the 38th meeting of World Heritage Committee held on 23rd June, 2014 at Qatar, the GHNP was renowned as UNESCO World Heritage Site due to its 'outstanding universal values' adhering to the fact that the park has sustained the protection of biodiversity and nurtured rare natural beauty in the Western Himalayas.

The managing body of GHNP is apprizing four key areas which are to celebrate, converse, protect and respect nature for the sake of sustaining environment as well as ecotourism in its area. To add to its attraction, the park is surrounded with some rivers out of which Beas, Jiwaji Nala, Tirthan are of importance and worth of tourist attraction.



Source: Photograph is taken by researcher during Data Collection

GHNP is working upon community based Eco-tourism methods in which they have engaged local populace through a NGO “Bio-diversity Tourism & Community Advancements (BTCA)”, registered in 2008, in many activities such as camps, porters, cooks, bird-watching guides, eco-tourism guides and experts for adventure activities. The park management earlier supported WSCGs and its members formed an NGO named “Society for Advancement of Hill and Rural Areas (SAHARA)” which was quite active from 2000 to 2005 and was later replaced by BTCA. The BTCA now help the local populace by providing them necessary guidance and help in asset building, rationalizes use of natural resources, socio-economic development, market support and fund raising.

NEED AND SIGNIFICANCE OF THE STUDY

The Great Himalayan National Park (GHNP) is a nature-based destination having opulent biodiversity, where visitors come to enjoy the natural beauty, landscapes, terrains, flora and fauna, biodiversity in its pure form. The park has been inscribed as the World Heritage Site status due to the outstanding universal values’ adhering to the fact that the park has sustained the protection of biodiversity and nurtured rare natural beauty in the Western Himalayas. This status is like a crown to the park and made a value of the destination at national as well as international level. As a result, a large number people from different socio-cultural communities are visiting the destination and availing the tourism related services in and around the vicinity of national park, intermingling with the locals and other stakeholders, and spending their time in the nature. So, there is a need to study the Environmental Impacts of Ecotourism Developments in the Great Himalayan National Park Conservational Area (GHNPCA) Kullu, Himachal Pradesh.

LITERATURE REVIEW

A thorough study was done on information available about Environmental Impacts of Ecotourism Developments on the Stakeholders from various research papers, journals, books, News articles, literature and other related articles. **Lindberg et al. (1997)** in their study discussed the adverse impact of tourism. They observed that environmental impact of tourism on the host communities are the subject of extensive studies in all parts of the world. They observed that apart from the economic and socio-cultural impact, tourism is also responsible for large number of environmental impacts. They explained that the main cause of environmental problems is the excess demand and over utilization, as environment is a zero priced goods and zero priced goods are always subject to excess demand and over utilization. They focused their studies around the negative impact on ecosystem and economic impact. **Gardner et al. (2002)** studied the tourism developments and its impact on Kullu-Manali area and observed that the accelerated growth of tourism in Kullu District of Himachal Pradesh over the past decade has a large number of impacts on local community, economy and environment. The Kullu District is blessed with the outstanding mountain scenery and fascinating cultural heritage with deep historical roots which had gained a rapid growth in mid-1990. They also observed that current level of tourism is not sustainable and the physical and cultural attractions of the area are compromised by certain impact of tourism. They concluded that this growth in tourism had occurred with both positive and negative effects. **Shrivastava et al. (2004)** observed that strategic tourism planning in Seraj Valley, Himachal Pradesh is necessary to ensure that local peoples are able to get benefits from tourism in their region as well as to ensure sustainable development in the fragile environment. They also suggested the number of possible ways by which local communities might be able to earn money from tourism directly. They also highlighted the need to frame a livelihood strategy for the development of local community through tourism and special focus to study the impact of tourism. **Buckley (2004) & Drumm (2008)** in their study



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discussed the various environmental impacts of ecotourism on the environment of the host destinations. They also discussed the activities which are affecting the environment at host destinations. They confirmly explained that extensive use of resources including the use of overseas transportation with large amount of CO₂ emission is harnessing the environment badly. They also observed that rise in number of tourists, which exceeds the carrying capacity of the destination, is also responsible for the erosion of natural resources for which tourists come to destinations. **Buckely (2009)** focused his study on ecotourism and described those protected areas including national parks as well as wildlife sanctuaries are created and managed to conserve natural landscapes, protect flora & fauna and to provide the recreational opportunities to the tourists visiting the destination. They also observed that protected areas especially national parks are the focus in many cases to increase the recreational and tourism interest. **Gupta et al. (2010)** in their study discussed the key factors under the influence of which the host community can adapt the behavior of tourists visiting the destination. They observed that social learning and learning capacity are integral to allow the changes in their behavior and these are based on their experiences. They observed that these changes are based on the abilities of the institution to allow the individuals to adjust their behavior in response to the environmental changes. They also observed that these changes are influenced by the legal and political mandate; it will affect the ability to raise resources and encourage adaptation and leadership. They concluded from their study that leadership is a driver for change, showing direction and motivating others to follow these changes. **Phillips (2015)** in is study about the capacity to adapt the climate changes at heritage sites observed that the exploration of application of the adaptive capacity to the cultural heritage management is a very novel approach. They developed the qualitative methods to investigate and develop the adaptive capacity in the heritage management. They also observed that there is a gap in knowledge in the area of climate change adaptation and cultural heritage management, the much more has to be done to understand the needs & wants of peoples in the area. They also felt the need to understand the individual determinants which are affecting the capacity to adapt the changes.

The GHNPCHA has been successfully implementing the ecotourism developments by providing alternate livelihoods opportunities in support of conserving biodiversity & sustaining environment, creating a tangible impact and as a result the local populace have organized themselves through an NGO, Biodiversity Tourism and Community Advancement (BTCA) which is working with the Great Himalayan National Park Management to increase the facilities, service quality and sustaining environment for sustainable ecotourism developments in the study area.

OBJECTIVES OF THE STUDY

The study was carried to meet the following objectives:

- To examine the status of ecotourism developments in Great Himalayan National Park, Kullu, Himachal Pradesh.
- To examine the Environmental Impacts of Ecotourism Developments on the local community and Stakeholders in the Great Himalayan National Park Conservational Area (GHNPCHA) Kullu, Himachal Pradesh.
- To suggest measures for ecotourism development in Great Himalayan National Park Conservation Area.

METHODOLOGY

The research design is descriptive in nature. This is an exploratory research study which attempts to study the Environmental Impacts of Ecotourism Developments on the Local Community and other Stakeholders in the Great Himalayan National Park Conservational Area (GHNPCHA) Kullu, Himachal Pradesh. The method of data collection is mainly based on primary data. However, an effort is made to collect the information from competent persons off and on in the study area. A series of field trips was made to the study area and observations were made by taking the personnel opinion of local community, Officials of Park management, NGO officials and other stakeholders in the study area. The present study examined the Environmental Impacts of Ecotourism Developments on the local community and Stakeholders in the Great Himalayan National Park Conservational Area (GHNPCHA) Kullu, Himachal Pradesh.

RESULTS AND DISCUSSION

Data Analysis & Data Interpretation

The Great Himalayan National Park (GHNP), Kullu, Himachal Pradesh has been inscribed as the UNESCO world heritage site in June, 2014 and is one of the best ecotourism destinations in the state. In order to study the Environmental Impacts of Ecotourism Developments on the local community and Stakeholders in the Great Himalayan National Park Conservational Area (GHNPCHA) Kullu, Himachal Pradesh, a sample size of 180 respondents from the local community/ stakeholders selected.



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Table 1: Classification of Stakeholders on the basis of Work Profile

Work Profile of Stakeholders	Number of Respondents	Percent
Govt. officials	40	22.2
Ecotourism Operators	50	27.8
Panchayat Representatives	40	22.2
Taxi drivers, Guides & Potters	50	27.8
Total	180	100

The study was completed with the help of primary as well secondary data collected through structured questionnaires and observations done by the researcher during field trips in the study area. The respondents were members from local community and other stakeholders from the study area in and around the Great Himalayan National Park conservational area. In this survey 180 respondents were covered. It is evident from the table 1 that out of 180 respondents, 40(22.2%) were Govt. officials, 50(27.8%) were Ecotourism Operators, 40(22.2%) were Panchayat Representatives and 50(27.8%) were Taxi drivers, Guides & Potters.

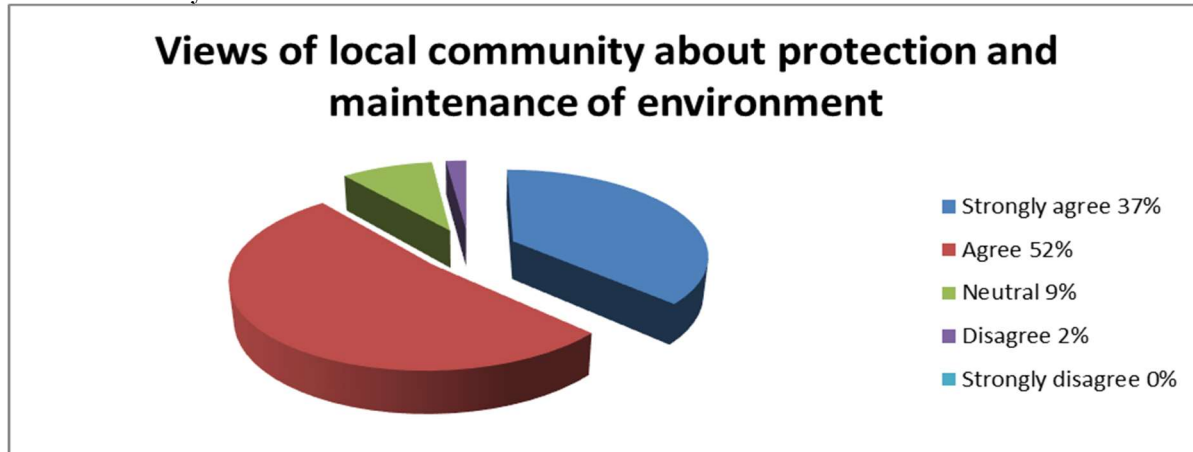
Table 2: Perception of the Respondents for the Environmental Impacts from Eco-tourism development

Attributes	SA	A	N	D	SD	Mean	Standard Deviation	Skewness	Kurtosis
Ecotourism has helped in the protection and maintenance of environment	37.0	52.0	9.0	2.0	0.0	1.76	0.696	0.725	0.662
Ecotourism has helped to beautify the local architecture in local community	23.0	56.0	18.0	3.0	0.0	2.01	0.730	0.455	0.178
Ecotourism has helped to beautify the environment in local community	23.0	50.0	18.0	5.0	4.0	2.17	0.973	1.043	1.173
Ecotourism has brought negative impacts to the surrounding environment	12.0	17.0	13.0	36.0	22.0	3.39	1.322	-0.485	-0.981
Ecotourism has improved the local public facilities	13.0	32.0	27.0	19.0	9.0	2.79	1.163	.263	-0.773
Ecotourism developments has brought more traffic jams	12.0	13.0	20.0	33.0	22.0	3.40	1.292	-0.497	-0.824
Ecotourism developments has brought more noise and destroyed local peaceful atmosphere	7.0	12.0	19.0	46.0	16.0	3.52	1.112	-0.738	-0.150
Tourists create crowding at Site	8.0	15.0	20.0	46.0	11.0	3.337	1.113	-0.640	-0.412
Ecotourism has helped in the development of community participation in tourism at World heritage Site	33.0	41.0	18.0	2.0	1.0	1.87	0.847	0.854	0.751

Source: Data Collected through Questionnaires, S.A. strongly Agree, A. agrees, N. neutral, D. disagree, S.D. strongly disagree

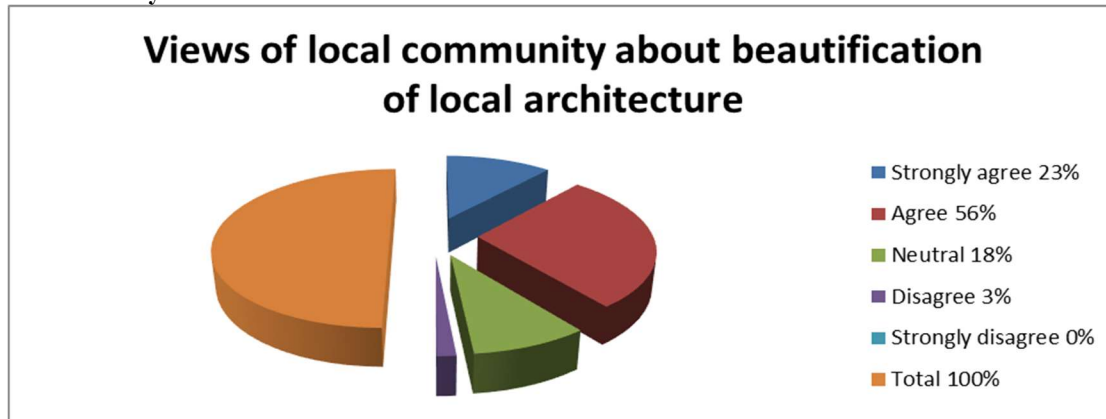
Note- Responses of Respondents are shown in percentage

Figure 1: Local Community's views about Protection and Maintenance of Environment



Respondents from local community were asked about the protection and maintenance of environment, and It is evident from the Table 2 and Graph 1 that 37% of the respondents have strongly agreed with the statement that ecotourism has helped in the protection and maintenance of environment; also 52% respondents have agreed; whereas 9% respondents have neutral opinion; however 2% respondents have disagreed opinion and no respondent have strongly disagreed opinion. It is revealed from the Table 2 that mean score to the responses relating to the protection and maintenance of environment is on higher side of the mean standard score from 1.76 in standard score 3 in five-point scale. This indicates that their opinion is distributed towards from agree to disagree side. The standard deviation 0.696 is on lower side of mean score and the value of Skewness has turned out to be affirmative indicating that variation has been scattered towards the lower side of the mean. The positive value of Skewness 0.725 denotes the disparity in the responses tends to fall below average. The calculated value of kurtosis 0.662 shows the distribution more towards higher of average. It leads to the conclusion that majority respondents have agreed opinion that ecotourism has helped in the protection and maintenance of environment.

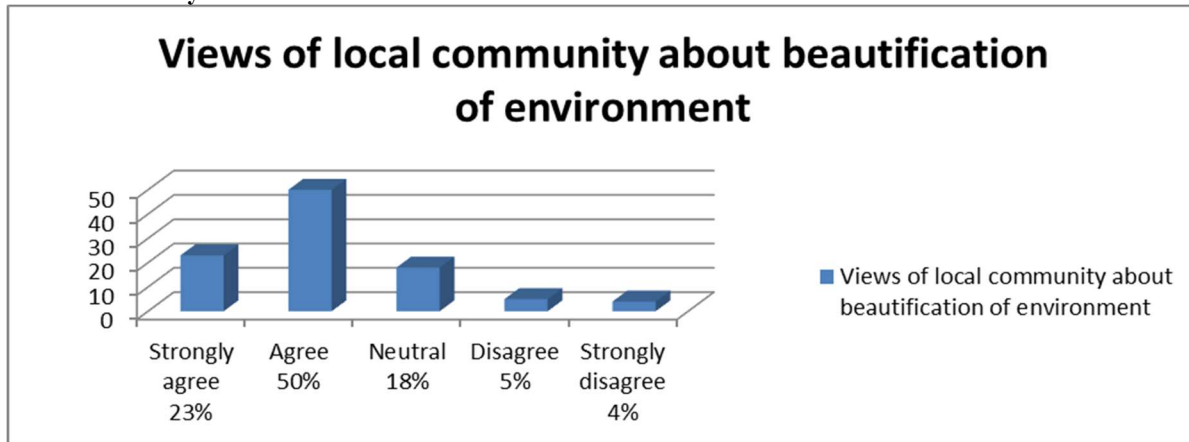
Figure 2: Local Community's views about Beautification of Local Architecture



Local community's views about beautification of local architecture were analysed, and it is observed from the Table 2 and Graph 2 that 23% of the respondents have strongly agreed with the statement that ecotourism have helped to beautify the local architecture in local community; also 56% respondents have agreed; whereas 18% respondents have neutral opinion; however, 3% of the respondent have disagreed opinion and no respondent have strongly disagreed opinion. It is revealed from the Table 2 that mean score to the responses relating to the beautification of local architecture is on higher side of the mean standard score from 2.01 in standard score 3 in five-point scale. This reflects that their opinion is distributed towards from agree to strongly disagree side. The standard deviation 0.730 is on lower side of mean score and the value of Skewness has turned out to be affirmative indicating that variation has been scattered towards the lower side of the mean. The positive value of Skewness 0.455 denotes the disparity in the responses tends to fall below average. The calculated value of kurtosis 0.662 shows the distribution more towards lower of average. It leads to the

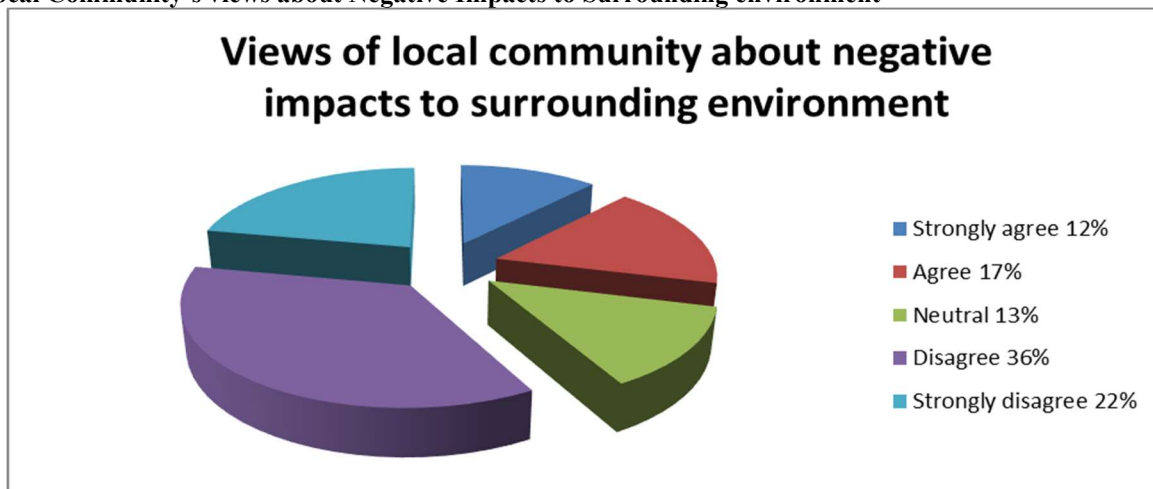
conclusion that majority respondents have agreed opinion that ecotourism have helped to beautify the local architecture in local community.

Figure 3: Local Community's views about Beautification of Environment



Local community's views about beautification of environment were analysed, and it is observed from the Table 2 and Graph 3 that 23% of the respondents have strongly agreed with the statement that ecotourism have helped to beautify the environment in local community; also 50% respondents have agreed; whereas 18% respondents have neutral opinion; however, 5% of the respondent have disagreed opinion and 4% respondent have strongly disagreed opinion. It is revealed from the Table 2 that mean score to the responses relating to the beautification of environment is on higher side of the mean standard score from 2.17 in standard score 3 in five-point scale. This reflects that their opinion is distributed towards from agree to strongly disagree side. The standard deviation 0.973 is on lower side of mean score and the value of Skewness has turned out to be affirmative indicating that variation has been scattered towards the lower side of the mean. The positive value of Skewness 1.043 denotes the disparity in the responses tends to fall below average. The calculated value of kurtosis 1.173 shows the distribution more towards lower of average. It leads to the conclusion that majority respondents have agreed opinion that ecotourism have helped to beautify the environment in local community.

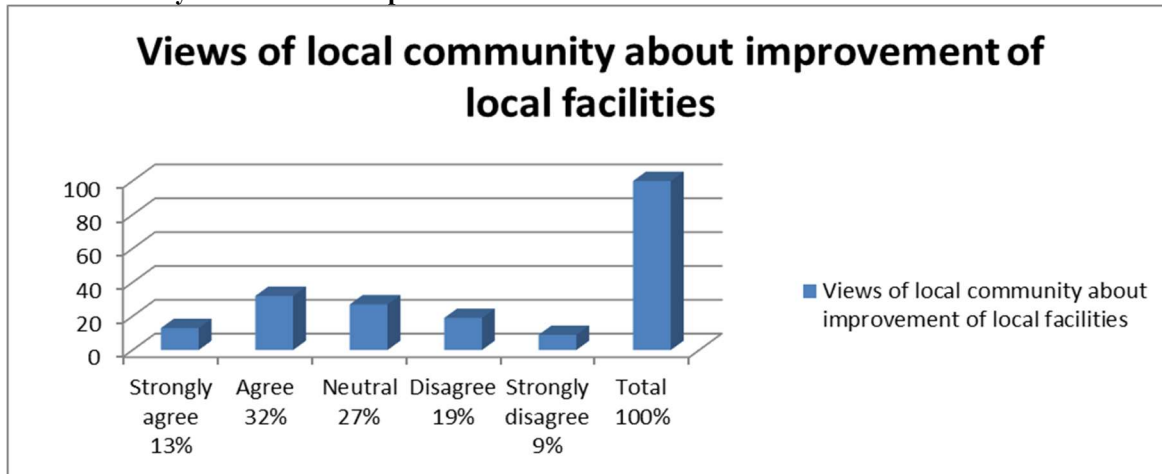
Figure 4: Local Community's views about Negative Impacts to Surrounding environment



Respondents from local community were asked about the negative impacts to surrounding environment, and It is evident from the Table 2 and Graph 4 that 12% of the respondents have strongly agreed with the statement that ecotourism has brought negative impacts to the surrounding environment; also 17% respondents have agreed; whereas 13% respondents have neutral opinion; however 36% respondents have disagreed opinion and 22% respondent have strongly disagreed opinion. It is revealed from the Table 2 that mean score to the responses relating to the protection and maintenance of environment is on higher side of the mean standard score from 3.39 in standard score 3 in five-point scale. This indicates that their opinion is distributed towards from agree to disagree side. The standard

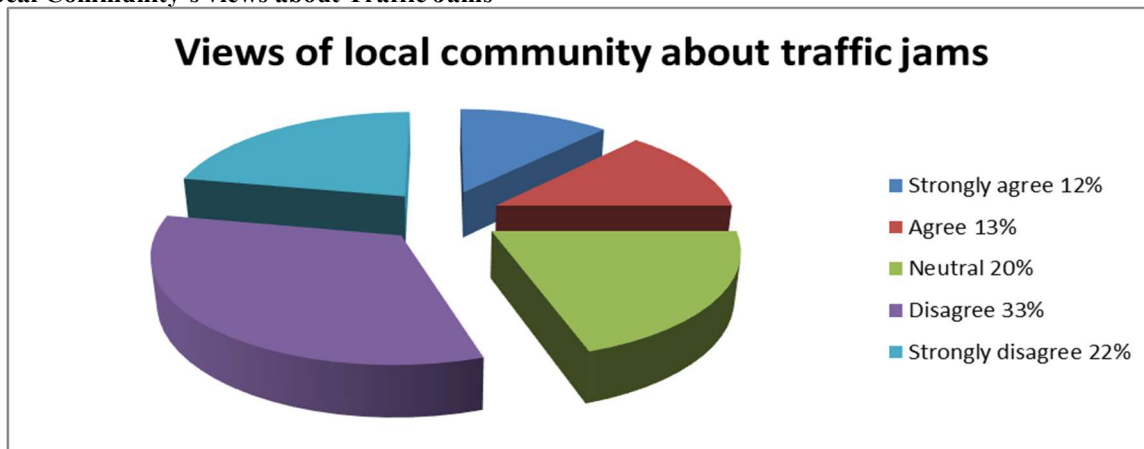
deviation 1.322 is on lower side of mean score and the value of Skewness has turned out to be affirmative indicating that variation has been scattered towards the lower side of the mean. The negative value of Skewness -0.485 denotes the disparity in the responses tends to fall above average. The calculated value of kurtosis -0.981 shows the distribution more towards lower of average. It leads to the conclusion that majority respondents have disagreed opinion that ecotourism has brought negative impacts to the surrounding environment.

Figure 5: Local Community's views about Improvement of Local Public Facilities



Respondents from local community were asked about the improvement of local public facilities, and It is evident from the Table 2 and Graph 5 that 13% of the respondents have strongly agreed with the statement that ecotourism has improved the local public facilities; also 32% respondents have agreed; whereas 27% respondents have neutral opinion; however 19% respondents have disagreed opinion and 9% respondent have strongly disagreed opinion. It is revealed from the Table 2 that mean score to the responses relating to the protection and maintenance of environment is on lower side of the mean standard score from 2.79 in standard score 3 in five-point scale. This indicates that their opinion is distributed towards from agree to disagree side. The standard deviation 1.163 is on lower side of mean score and the value of Skewness has turned out to be affirmative indicating that variation has been scattered towards the lower side of the mean. The positive value of Skewness 0.263 denotes the disparity in the responses tends to fall below average. The calculated value of kurtosis -0.773 shows the distribution more towards lower of average. It leads to the conclusion that majority respondents have disagreed opinion that ecotourism has improved the local public facilities.

Figure 6: Local Community's views about Traffic Jams

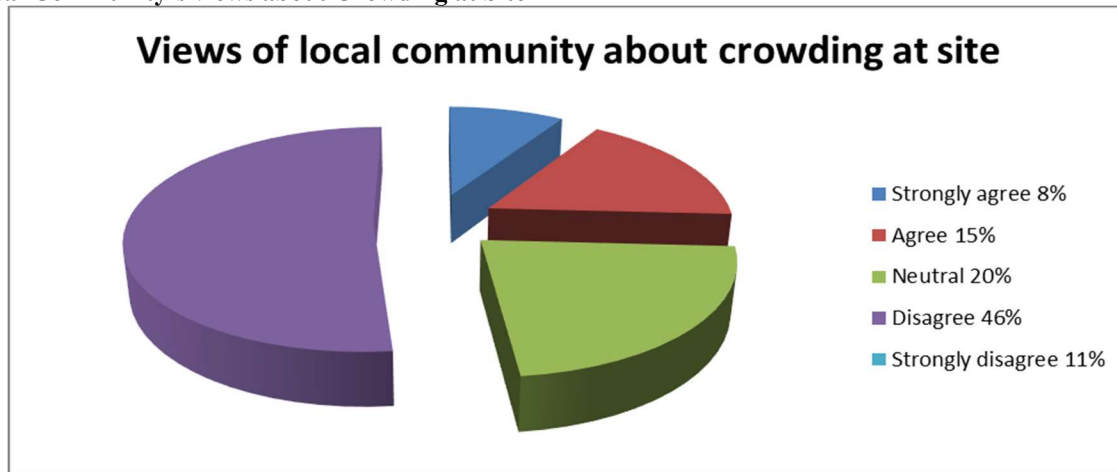


Local community's views about traffic jams were analysed, and it is observed from the Table 2 and Graph 6 that 12% of the respondents have strongly agreed with the statement that ecotourism have brought more traffic jams; also 13% respondents have agreed; whereas 20% respondents have neutral opinion; however 33% of the respondent have disagreed opinion and 22% respondent have



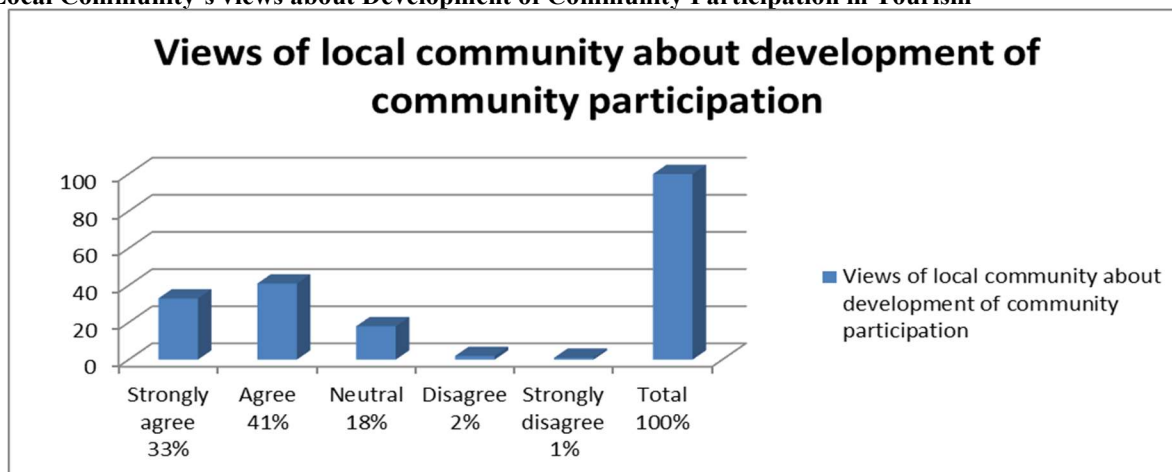
strongly disagreed opinion. It is revealed from the Table 2 that mean score to the responses relating to the traffic jams is on higher side of the mean standard score from 3.40 in standard score 3 in five-point scale. This reflects that their opinion is distributed towards from agree to strongly disagree side. The standard deviation 1.292 is on lower side of mean score and the value of Skewness has turned out to be affirmative indicating that variation has been scattered towards the above side of the mean. The negative value of Skewness -0.497 denotes the disparity in the responses tends to fall above average. The calculated value of kurtosis -0.824 shows the distribution more towards lower of average. It leads to the conclusion that majority respondents have disagreed opinion that.

Figure 7: Local Community's views about Crowding at Site



Respondents from local community were asked about the crowding at site, and it is evident from the Table 2 and Graph 7 that 8% of the respondents have strongly agreed with the statement that tourists create crowding at site; also 15% respondents have agreed; whereas 20% respondents have neutral opinion; however 46% respondents have disagreed opinion and 11% respondent have strongly disagreed opinion. It is revealed from the Table 2 that mean score to the responses relating to crowding at site is on higher side of the mean standard score from 3.337 in standard score 3 in five-point scale. This indicates that their opinion is distributed towards from agree to disagree side. The standard deviation 1.113 is on lower side of mean score and the value of Skewness has turned out to be affirmative indicating that variation has been scattered towards the lower side of the mean. The negative value of Skewness -0.640 denotes the disparity in the responses tends to fall above average. The calculated value of kurtosis -0.412 shows the distribution more towards lower of average. It leads to the conclusion that majority respondents have disagreed opinion that tourists create crowding at site.

Figure 8: Local Community's views about Development of Community Participation in Tourism



Local community's views about development of community participation were analysed, and it is observed from the Table 2 and Graph 8 that 33% of the respondents have strongly agreed with the statement that ecotourism have helped in the development of



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community participation in tourism at the study area; also 41% respondents have agreed; whereas 18% respondents have neutral opinion; however, 2% of the respondent have disagreed opinion and 1% respondent have strongly disagreed opinion. It is revealed from the Table 2 that mean score to the responses relating to the development of community participation is on higher side of the mean standard score from 1.87 in standard score 3 in five-point scale. This reflects that their opinion is distributed towards from agree to strongly disagree side. The standard deviation 0.847 is on lower side of mean score and the value of Skewness has turned out to be affirmative indicating that variation has been scattered towards the lower side of the mean. The positive value of Skewness 0.854 denotes the disparity in the responses tends to fall below average. The calculated value of kurtosis 0.751 shows the distribution more towards above of average. It leads to the conclusion that majority respondents have agreed opinion that ecotourism have helped in the development of community participation in tourism at the study area.

CONCLUSION

Stakeholders are that populace in and around the Great Himalayan National Park who directly or indirectly affected by the ecotourism development activities and policies of the park either by economic or non-economic terms. It is revealed from the study that local populace and other Stakeholders in and around GHNP area are gratified with the ecotourism developments in the area. Stakeholders believed that the ecotourism developments had helped in the protection and maintenance of the environment, beautified the local architecture, improved the local public facilities, helped in the community development and not brought any negative impact to the surrounding environment. Stakeholders agreed that ecotourism developments are satisfactory in the region and encouraging the infrastructure development and helping in sustaining the surrounding environment. Ecotourism developments are attracting more public and private investments from other parts of country for infrastructure developments. Stakeholders believe that ecotourism had created friendly atmosphere among the community involved and deepened the understanding of culture. Ecotourism had helped to create strong bonds and establish relations and improved the awareness of cultural heritage in the community involved. Stakeholders believed that ecotourism had developed a sense to respect, protect and conserve nature. Ecotourism had helped in the beautification of local architecture and environment in the region. Local people believe that, ecotourism had helped to sustain the wildlife as well flora & fauna in the study area.

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