Barriers and Opportunities of Canyoning in Nepal

Susmita Gautam
Department of Rural Development, Tri-Chandra Multiple Campus, Tribhuvan University, Nepal
Email: susmita.gautam@trc.tu.edu.np
https://orcid.org/0009-0000-3673-0994
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Abstract
Adventure tourism is the main category of tourism in Nepal and a source of the National economy. It is multidimensional and multidisciplinary in terms of nature itself and closely related to culture and the increase in to per capita income. To know about the prospect and probability of the adventure tourism based on canyoning in Lamjung is the general objective of this study. Lamjung's continuous tourism activities are hindered by poorly implemented adventure tourism, which affects the environment, and promotes sustainable and beneficial industries for locals. So, this study tried to explore minutely the aspects at adventure canyoning that are consistent with degradation in study area. A mixed methods approach was used, involving primary and secondary data from canyoning companies, local guides, and experienced clients, whereas required data was collected using a structured questionnaire, Key Informant Interview (KII) and Focus Group Discuss (FGD). The data was analyzed quantitatively and qualitatively. The study aimed to identify the causes and hidden facts of the degradation of adventure Canyoning. Therefore, this study holds significant social science importance as it aims to reduce issues related to adventure canyoning in the study area. The study reveals that sustainable practices and responsible tourism can contribute to the long-term viability of canyoning as an adventure sport.

Keywords: adventure tourism, canyoning, tourism, tourism industry, sustainable development

Introduction
Tourism, a "smokeless industry," has rapidly grown in the past half-century, providing a significant revenue source, particularly for countries with limited foreign exchange opportunities like Nepal. Tourism in Nepal has become a significant economic activity, attracting visitors, and serving as the country's economic backbone since its opening to the outside world. Tourism promotion in Nepal began after 1950, with George Liberec's 1959 plan and French government cooperation. The department of tourism was established in 1961. The concrete steps to promote high-level tourism development committee were formed and the Nepal tourism master plan was prepared in 1972.

Adventure Tourism
Adventures are thrilling, risky, and unpredictable experiences, often involving physical dangers like travel, canyoning, skydiving, mountain climbing, caving, rock climbing, bungee jumping, river
rafting, kayaking, or extreme sports. Adventurous experiences can create psychological arousal, either negative (fear) or positive (flow), and can be experienced in any enterprise, including business ventures or major life undertakings. (Audiopedia, 2017)

Adventure tourism, involving remote exploration and experiences like mountaineering, trekking, bungee jumping, rafting, and rock climbing, is gaining popularity as tourists seek unique holidays. Adventure travel may be any tourist activity that includes physical activity, cultural exchange, and connection with nature. Adventure tourism has been closely linked to the development and encompasses a growing number of new destinations from different corners of the world which has resulted to the dynamics that have turned tourism into a key driver for socio-economic progress. The global tourism industry has known to be at the growth rate of 4 percent per annum, new destinations are being constantly added to accommodate 1, 2 billion tourists all around the world (UNWTO report, 2014).

Nepal’s adventure tourism is the main economic source, but traditional agriculture remains reliant. The rapidly growing tourism industry offers significant employment opportunities for professionals in canyoning, adventure guide, and hotel industries. These sectors are facilitated by tourism. In the present, tourism is touched by every sector and considered as a major product on modernization and globalization. It is multidimensional and multidisciplinary in terms of nature itself and closely with culture and increase to per capita income. There are so many case studies almost all the categories of tourism, but no one has done any case studies of canyoning in Nepal. Even though, ‘canyoning is great adventure worldwide’ which has tremendous probability to upgrade economy of Nepal but there are not any professionalism and policies from the nation. As long as safety measures are prioritized, canyoning offers a unique and exhilarating adventure experience for individuals seeking outdoor excitement.

What is canyoning?

Canyoning, or gorge walking, is a white-water rafting experience where participants swim through rock pools, slide down chutes, and clamber over unique canyon features. It requires local knowledge and rope rigging skills and is typically done in remote mountainous areas with unusual rock patterns. (WALSH, 2016)

Adventure trekking, bungee, mountain climbing, and white- water rafting are the major adventure tourism products of Nepal. The Nepal Mountain Association (NMA) and the Nepal Association of Rafting Agencies (NARA) are doing work to develop a wider field in adventure tourism in Nepal. But NCA (Nepal Canyoning Association) is not able to do such movements and to make canyoning fields in Nepal. Even though canyoning is the new adventure sports, it has great scope in Nepal. Canyoning can play a significant role in adventure tourism and development economics in the country. It can generate a source of employment opportunities. The tourism industry contributed about 6.7 percent to Nepal’s GDP, while its total impact was US$ 2.2 billion (World Bank, 2022).

Even though, concept of canyoning had been entered since 2000 AD in Nepal. Nepal Canyoning Association (NCA) had been created in 2007 to develop canyoning Nepal. Canyoning is the young adventure tourism field in the whole world and in Nepal as well. Thousands of tourists visit Nepal every year. Nepal has great potentiality in the field of adventure canyoning. Nepal can be the destination for the canyoners from all over the world which is additional category creation of the foreign currency in Nepal. Nepal has world-class waterfalls for canyoning.
Adventure tourists may have the motivation to achieve mental states characterized as rush or flow (Ralf, 2012) resulting from stepping outside their comfort zone. This may be from experiencing culture shock or by performing acts requiring significant effort and involve some degree of risk (real or perceived) and/or physical. This may include activities such as mountaineering, trekking, bungee jumping, mountain biking, cycling, canoeing, scuba diving, rafting, kayaking, zip-lining, paragliding, hiking, exploring, sand boarding, caving, and rock climbing. (Travel, Centers for Disease Control and Prevention, July 2015).

Canyoning tourism in Nepal

An organization called Nepal Canyoning Association (NCA) was established in 2007 in Nepal with great objectives to develop canyoning in Nepal. They did great initiation. They unitized adventure tourism companies to develop canyoning. NCA purposed Nepal Tourism Board to support canyoning financially and to make an effective plan as well as introduce adventure canyoning in Nepal. The Nepal Canyoning Association did international canyoning festival in Lamjung; Lamjung is the place which is tremendous potential with great canyoning spots around Annapurna region. Lots of Himalayas are the source of creating waterfall around the valley. In that festival there were 207 canyoning did participate in the whole world, which was historic moment in the canyoning history in Nepal. The canyoneers around the world were doing praised about level as well as class of waterfalls of Lamjung as well as of Nepal. Then again Nepal Canyoning Association Start to celebrate Nepal Canyoning Rendezvous. In 2013/2014/2015/2016 are the years in which year NCA did hold Nepal Canyoning Rendezvous.

Canyoning is growing around the world. Each country has their own canyoning association to promote canyoning. It has been speeded to spread from US and Europe to all over the globe. In the present the demand in market is increasing. Canyoning in Switzerland, Canyoning Bali and canyoning in Spain are the incredible an example that they run big numbers of canyoning trip per year. After Mountaineering, Kayaking, paragliding, and adventure trekking now peoples are interested in new adventure sports and that is of course canyoning. Canyoning has great potential globally. It is now famous in Europe and USA and growing all over the world because peoples are liking it. Peoples are tending to unitize the canyoning associations from all over the world. Once a year each country organized International Canyoning Rendezvous (ICR), and guides and canyoneers are meetup in that ICR so they can share their ideas to develop and to grow canyoning in the world.

Materials and methods

The objective of the study is to examine the barriers and opportunities of canyoning, the adventure tourism, in Nepal. The study area is in Lamjung district, known as the capital of canyoning. This study not only tried to explore minutely the asbeds of consistency in adventure canyoning but also tried to study about the causes and hidden fact of the degradation of Adventure Canyoning in the study area. A mixed method approach was used, involving primary and secondary data from canyoning companies, local guides, and experienced clients. Required data have collected using a structured questionnaire, KII and FGD. The data was analyzed quantitatively and qualitatively.

Results and discussion

The study area is the Nepal Canyoning Association (NCA) and the places where the NCA is working to develop canyoning such as specific places of Lamjung. As Lamjung is known the capital of canyoning there are many canyoning in Lamjung. Among them only 14 are within the study limitations.
Source: Author created map on Google earth base map

Table 1

Numbers of Canyoning in Study Area

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Geographical Status</th>
<th>No of Canyoning</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Easy geographical status</td>
<td>3</td>
<td>21.42</td>
</tr>
<tr>
<td>2</td>
<td>Difficult geographical status</td>
<td>7</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Very difficult geographical status</td>
<td>3</td>
<td>21.42</td>
</tr>
<tr>
<td>4</td>
<td>World Class geographical status</td>
<td>1</td>
<td>7.16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Field Visit, 2023

Above table no 1 explored that maximum numbers of canyoning sites are in Difficult geographical status with number 7 that is 50 percent of explored canyoning sites. The numbers of Easy and very
difficult geographical status were similar 3 that is 21.42 percent. And the one and only canyoning have a world-class geographical status which is 7.16 percent among all.

**Experience of clients during canyoning**

Canyoning also plays an important role in determining the present scenario of adventure tourism. The knowledge and information of adventure canyoning activities in clients were studied. The study shows that during their canyoning experience were most of the thrilling and adventurous a smaller number of client’s experiences canyoning is tougher as well as some said never do it again and do it again.

**Figure 1**

*Experience of clients during canyoning*

![Experience of Clients During Canyoning](image)

*Source: Field Visit, 2023*

During their interview 40 Clients were interviewed who have canyoning experiences from the study area. Among them 12 clients felt Canyoning is adventurous which is 30 percent. 8 clients felt canyoning is thrilling which is 20 percent. 5 clients told canyoning is tough which is 12.5 percent whereas 5 expressed canyoning is fun which is 12.5 Percent. Similarly, 8 Clients felt that canyoning is very enjoyable and do it again which is 20 percent. And lastly the few numbers of clients were afraid of doing canyoning again which is 5 percent and number 2.

Study shows that only 4 clients are not feeling fun during the Canyoning trip. That was only 10 percent but Other 90 percent are having fun and they want to join, or they want to do canyoning again. Some are even wanting to be a canyoning guide in the future. They ask about the gears and about the techniques. Some of them even took the contact number for next trip.

100 percent clients have not got any injured and they thanked to guide for that. They were impressed with the briefing techniques of the guides. They strictly followed what have been said in briefing. 20 percents clients were form different adventure fields. Some of them were rafting guide and some of them were mountain guide. They were also doing fun with water. 90 percent clients think
that canyoning is adventure sports and 85 percent clients felt canyoning is thrilling also 5 percent were scared and not going to do canyoning again in the future.

Most of the clients were very satisfied with the canyoning even they are doing for the first time or repeated. And 50 percent of clients said that they try to contact with Nepal Canyoning Association for canyoning trip but Nepal canyoning Association tells to form group at least 7 but they cannot, and they don’t get to do canyoning and 50 percent of clients doesn’t know the Nepal Canyoning Association. The present situation is most of the clients know the canyoning. Peoples are interested at Adventure Canyoning.

Challenges Faced by Canyoning Guides

**Figure 2**  
*Numbers of trained guides based on Level*

![Bar chart showing numbers of trained guides based on level of training](chart.png)

*Source:* Nepal Tourism Board 2077

Study shows that only five guides are well trained of they can also do rescue. The guides who have done rescue training they are less and only they have authority and ability to do rescue during the canyoning. It means if the accidents happen there are only limited guides who can rescue the clients. As canyoning is new adventure sector in Nepal, it is obvious to have little numbers of peoples involved in it. There are 72 peoples who have taken an entry-level course or introductory level course of canyoning, they know what is canyoning and how it can be handled. Similarly, there are only 30 and 20 guides who took training of basic and advance course respectively.
Economic challenge

Table 2
Economic challenges

<table>
<thead>
<tr>
<th>Problems</th>
<th>No of clients</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation to canyons</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>Training for guides</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>Gears for adventure</td>
<td>21</td>
<td>35</td>
</tr>
<tr>
<td>Marketing for canyoning</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Source: Field Visit, 2023*

Most of the people in the study area are staying in a joint family and they have a weak economy because they are still following traditional based farming. Due to the lack of economic and adventure tourism knowledge. There are many problems but based on economically 25 percent of clients think that access to canyoning is expensive. Geographical status makes transportation costs high in the study area. Other 25 percent of clients found that training for canyoning guides is expensive. Well, canyoning is the very technical adventure sport. Expertise have invented suitable gears for it. Though it very expensive and cannot get easily in Nepal so every gear must be Imported to nation that’s why it cost expensive. Even the guide who are trained they can’t get expensive gears to do practice as well as run the commercial canyoning trips. So, 35 percent of clients think as well as say canyoning gears are the most expensive to them. To buy canyoning gears guide needs to pay huge amount of money to out of the country. Also, nine percent of clients think that to grow canyoning marketing is also an important component. To do marketing or to make the field of canyoning wider lot of things will have to be done which cost lot.

Health challenges

Adventure can be done by any personality who are mentally and physically fit. Theos who are willing to do adventure but not mentally prepared may get an accident due to the pressure on mind that he/she is going to be in problem. Also, who doesn’t have any medical issue in the past like any fracture or any physical disorder they can do adventure canyoning.

Table 3
Different health problems related to adventure canyoning before doing it.

<table>
<thead>
<tr>
<th>Health problems before the canyoning</th>
<th>No of clients</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Mental</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Both</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>No Problems</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Source: Field Visit, 2023*
20 percent of clients have physical health issues; it means they want to be participated in the canyoning, but they still need to be strong hand power whereas another 20 percent clients have mental health issues and 10 percent of clients has both issues by which guides were having to be more careful about an accident may happen. To overcome these kind of health issues, they need to do more practice and more adventure in their lifestyle. Also, 50 percent of clients have no issues.

Table 4
Different health problems related to adventure canyoning after doing it.

<table>
<thead>
<tr>
<th>Health problems after the canyoning</th>
<th>No of clients</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Itching Problem</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Diarrhea Problem</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accident Problem</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No Problem</td>
<td>38</td>
<td>95</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Field Visit, 2023

When the clients do canyoning, guides are the responsible person for beginning to the last of the trip. Guides always there for before any risk. Guides briefly describe about what should they do and what they shouldn’t. Every client needs to listen and be disciplined during the trip otherwise they may get rush. Usually, Clients comments about sanitation of water of the waterfall, but in this case only 5 percent of clients had skin Itching problem after canyoning but there was no any diarrhea and and accidents casualties.

Access to training opportunity

Figure 2
Number of guides access for training

Source: Field Visit, 2023
Adventure canyoning is a new adventure sport in Nepal. It was just introduced around 2000 AD from French citizen. Then now many peoples have been trained from both foreigner and Nepali trainers. There have been Nepal Canyoning Association formed back in 2007 AD, which also started to organize training for canyoning guides in Nepal.

Figure no 2 shows that among the respondent 70 percent have access to training provided by concerned agencies whereas 30 percent does not have access to any such training. The above figure also explained that all trained respondents are not working as a canyoning guide. Among them, 70 % guides are not working as canyoning guide because of the hindrances in the market whereas only 30 % are doing good work in the canyoning with difficulties.

**Participation in the canyoning events as a guide after training**

**Figure 3**

*Number of canyoning guides*

![Image of a pie chart showing 60% participation and 40% absence.]

*Source: Field Survey, 2023*

60 % of peoples who have taken canyoning training they participate in the canyoning event organized by Nepal Canyoning Association and any other organization. They also work as part time canyoning guide from any registered company

40 % of peoples became passive and don’t participate in any event around the nation even after taking canyoning guide course. They have mentioned that canyoning is an expensive sector for them, they are even not able to buy a set of gear for them.

**Barriers/ challenges of adventure canyoning**

Old preservative believes and way of operation in the canyoning sector were creating problems to the newcomers and those who wants changes in the canyoning. So, 90 % of guides, companies and clients have desire to change these old preservative thoughts on adventure canyoning. Some of the barriers or challenges are:
• Low access to training opportunities.
• Lack of technical guidelines, gears, and insurance policies.
• High cost for trainings
• Lack of awareness program in the local community about adventure sports.

**Benefits of canyoning**

Adventure sports are taking tremendous space in the current world. Adventure sport needs adventurous place to be played or done. Adventure tourism can, in fact, be one of the most powerful tools for protecting the environment and raising economic background as well. Adventure canyoning offers numerous benefits, including income, employment, public enjoyment, and environmental protection. Countries are developing guidelines and standards, focusing on pre-trip preparation, resource, and wildlife impact.

Adventure canyoning, a community-based tourism activity, benefits rural poor communities by utilizing technical knowledge and promoting sustainable development in Nepal. It balances economic growth with environmental preservation, requiring minimal impact and management, and potentially offering national, regional, and local economic benefits.

**Discussions**

Adventure canyoning had an impact on tourism and livelihood through increased stresses placed on it as well as the development adventure tourism system. The research was done with the help of local people, canyon guides, canyoning companies and people who have canyoning experience or clients. Majority of the respondents are involved in canyoning as guides and clients. People have more canyoning sites and the opportunity to take part in adventure tourism activities like guiding and exploring more canyoning sites. People involved in canyoning are motivating others to be part of adventure canyoning and they organize guide meet ups. This shows the high prospect and potential of canyoning in the study area. With the lack of a code of conduct people with little knowledge also involved in canyoning and they create accidents. Poor management or passive leadership of the related organization is the problem of the canyoning.

Canyoning in Nepal can be an exciting adventure, following are some barriers to canyoning:

1. **Accessibility**: Many of the canyoning spots in Nepal are in remote or mountainous areas, which may not be easily accessible. This may pose logistical challenges for the transportation and equipment.
2. **Equipment and Expertise**: Canyoning requires specialized gear and expertise. Absence of equipment and expertise (experienced guides) may problematic.
3. **Weather**: The weather in Nepal, particularly in the Himalayan region, can be unpredictable. Heavy rains or landslides can impact canyoning activities.
4. **Permits and Regulations**: Necessary permits and adhere to local regulations for canyoning activities are required in Nepal. Some areas may require permits even from local authorities.
5. **Physical Fitness**: Canyoning can be physically demanding, so participants should be in good physical shape. It may not be suitable for individuals with certain medical conditions.
6. **Language Barrier**: Depending on the place in Nepal, there might be a language barrier, as English may not be widely spoken. This can add complexity when arranging activities and communicating with guides.
There is both a negative and positive impact of adventure canyoning. Adventure canyoning tourism increases income and household consumption, influencing land ownership and consumption patterns. Canyoning is the adventure sports that directly can be run in the periphery of the local community. Locals can be the skilled canyoning guide which stops bringing of the foreigner guides which helps to stay currency in own country as well as to have foreigner currency and helps to GDP. Also generates new ideas and methods of natural waterfall resources management which directly and indirectly helps to nature.

**Conclusion**

Adventure tourism benefits local communities through economic and social benefits, sustainable development, resource conservation, cultural and environmental interaction, and encouraging active participation from locals and tourists. The study shows that adventure canyoning is famous worldwide, but Nepal is the country with heavy potential. With the favor of natural geographical diversities, there are thousands of canyoning destinations. Canyoning, as well as adventure tourism, are influencing households to be involved in tourism. Canyoning participation is helping locals and guides earn money and improve their living standards despite a decrease in agricultural production due to climate change. Also, inspire local people to stay in their own country rather than go to Middle East to do work for money.

The canyoning changes was perceived as an increase in the frequency of employment, as increase in income rather than another field, satisfaction in the work sector for the young generation, getting the opportunity to explore more, interaction and guide meeting with international people and talking about issues to grow adventure tourism via canyoning. As canyoning has a direct positive effect on influencing people towards adventure tourism, initiation of education and awareness related to adventure tourism would be beneficial for local people and the tourism industry in Nepal. It would encourage and attract the interest of local people in the adventure of canyoning. Adventure Canyoning can play an important role in the use of natural resource or to natural resources management and the economic growth of Nepal. Exploring ways to integrate adventure tourism with poverty reduction is crucial, as Nepal is a key player in tourism and a potential economic development source.

**References**


