

# Environmental Impacts of Spring Sport Tourism in Chitral, Pakistan

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**Abstract:** The tourism- environment nexus has been well documented in the literature. However, the environmental impacts of sport tourism in natural setting have rarely been investigated. Hence, the present study has attempted to assess the possible environmental impacts of spring sport tourism festival in Qaqlasht valley, Chitral. This festival attracts thousands of tourists and generates sustainable revenues for the locals. It also establishes social networking and contributes to the improvements of the local culture. Free style polo, Football, Cricket, Volleyball, and many other local sports are the main attractions of this festival. The possible environmental impacts of sport tourism were investigated through questionnaire survey and interview schedule. The data collected were subsequently analyzed through statistical tools i.e., Cronbach's Alpha test and factor analysis. Results revealed that the most tangible negative environmental impacts recorded are: habitat loss, air pollution, fertile soil erosion and noise pollution. In addition, mismanagement and lack of basic services for tourists are contributing towards environmental degradation of the area.

**Keywords:** Environmental impacts; Sport tourism; Revenue opportunities; Sustainability

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## Introduction

Tourism is defined as the phenomenon of social, cultural and economic involvement and the movement of people from one city to other cities and countries besides from their place of birth or residence and the visit could be private or professional (Mundt, 2011; Zarotis, 2019). The United Nations World Tourism Organization (UNWTO) defines tourism as the actions of people going outside from their normal physical environment for a particular duration with the aim of travel other than for an exercise of activity compensation from the area he or she visited (WTO, 1991). The definition was also endorsed by the UN Statistical Commission in 1993 states that tourism is that activity which enables a person travelling to places from the routine environment not more than one consecutive year for the purpose of leisure, business and other activities.

The analysts in tourism sectors are facing the challenges regarding the definition of tourism as the academic writers define tourism that best suits their need and purposes (Lickorish and Jenkins, 2007).

To overcome this problem, World Tourism Organization (WTO) has addressed this in their publication entitled “A Standard Industrial Classification of Tourism Activities (SICTA)” (Smith, 2014). However, the definition crafted by Burkart and Medlik is most preferably accepted which states that “*the phenomenon arising from temporary visits (or stays away from home) outside the normal place of residence for any reason other than furthering an occupation remunerated from within the place visited* (Burkart and Medlik, 1981). Whereas, the term “tourism” is originated from English and French word “tour” which means a return to the original place (Zarotis, 2019).

It has been reported by World Tourism Organization (WTO, 1991) that the definition of tourism involves interaction of people with some kind of geographical locations and most importantly with the environment. The consequences faced by the tourist with the interaction of people with places and environment referred to as impacts of tourism and those impacts can be either negative or positive (Holden, 2016). Tourism industry is multi-faceted, categorized as environmental, social, cultural, and economical components for its smooth functioning (Lickorish and Jenkins, 2007; Holden, 2016). The impacts of tourism on environment is unavoidable as tourist travels away from the usual habitat and subject to the condition that tourism doesn't exist without tourists and the impacts of tourism on the environment is certain (Mathieson and Wall, 1982). In addition, the impacts of tourists and the tourism industry could have either a negative or positive effect on the host's cultural, socio-economic and physical environment conditions (Jafari, 1981). In the late 20<sup>th</sup> century, it was renowned that tourism depends fundamentally on the environment. Environment is being largely considered as an important factor in tourism industry. However, the association between tourism and environment is principally more complex in many ways. There is a bilateral dependence present between the two, which is called a symbiotic (Holden, 2016). The development of tourism is dependent on various factors of natural, social and cultural environments (Zhong et al., 2011).

It can have more beneficial impacts subject to providing awareness of the essential need to preserve quality natural scenery and resources, which can be maintained by the revenue generated from visitor's charges that can be used to conserve and maintain endangered sites for tourism (Mason, 2003). Furthermore, it has been reported that if the activity is not managed, well planned and developed the development of tourism industry being a double-edged sword, not only have positive impacts such as jobs employment, image exploration of the area, etc., but can cause many negative impacts such as including biophysical loss (i.e., air pollution, noise pollution, biodiversity degradation), and social or cultural loss (i.e., loss of cultural norms) (Mason, 2003; Zhong et al., 2011).

Tourism industry has huge impact in accelerating economic growth and has been reported as one of the largest growing industry in the world (Worapinij et al., 2017). One of the fastest travels is related to sports and exercises and also, one of the extensively studied subject is sport tourism (Chalip and McGuiry, 2004). Sport and tourism are interrelated socio-economic phenomena's and it has been reported that the number of active participants in the sport industry are over 600 million which contributes to the development of economic functions (Bartoluci et al., 2016). According to United Nations World Tourism Organization (UNWTO), sport tourism is considered one of the swiftly growing sectors in the travel industry with impact able opportunities of general recreational activities that benefits both participants and host communities (Perić et al., 2022; Parker, 2019). In sport tourism, there are three types of tourists; those who participate, event-based tourists and those who celebrate (Parker, 2019). Sport tourism is defined as the interaction and imbricate between people with each other, places and activities that can be active (i.e., participatory) and passive (i.e., celebratory) (Weed

and Bull, 2009). Experts have reported that most of the sport tourism is occurred in summer but in winter sport tourism is also celebrated to overcome the seasonality and to promote tourism destinations (Đurkin Badurina et al., 2021).

In the present study, impacts of spring sport tourism on natural environment have been assessed through developing questionnaires and interviewing the participants in a spring festival organized in 2019 at Qaqlasht Chitral in northern Pakistan. Further, the aim of the study was to evaluate the potential environmental impacts of spring sport tourism and to assess those sport activities that are contributing towards environmental impacts.

## Material and Methods

### Study Area

The study area Qaqlasht in Chitral District in the most northern part of Khyber Pakhtunkhwa (Pakistan) is located at latitude of 36.1113° N and longitude of 72.1416° E, and at the elevation of 4921 feet from sea level. According to the recent census, Chitral total population is about 447,362 and among them 397,568 lives in rural and 49,794 lives in urban areas. Fig. 1 presents the study area map. The weather condition of Chitral is mostly cold winter and warm summer, but it varies in different valleys. In general, the average annual temperature is 15.9 °C (60.6 °F) recorded and the average annual rainfall of 414.9 mm is recorded (PMD, 2016).



Fig. 1: Map of the study area Qaqlasht (Chitral) in northern Pakistan.

### Data Collection and Statistical Methods

Firstly, personnel observation during the festival was the key information collection tool by observing different events and getting tourists' perception. Secondly, pre-designed questionnaires and pre-tested questionnaire survey was conducted. Questionnaire contains both close and open-ended questions. Thirdly, personnel interviews were organized with the key informants (KI) using the same questionnaire. During KI interviews different matters related to Qaqlasht festival was insightfully discussed and the information was documented. A total of 50 respondents were chosen about the tourist's visited in the last three years through random sampling technique. For accurate and valid interpretation of results from the survey sampling data, the data were analyzed through statistical tools

such as Cronbach's Alpha ( $\alpha$ ) test and factor analysis. Both statistical tools are called testing for goodness of measures regarding validity and reliability of scales used in questionnaire.

**Results and Discussion**

In the present study, data was collected on different environmental parameters for the purpose to evaluate the environmental impacts of the sport tourism. Afterwards, for reliable and valid interpretation of results the data were checked for inter-item consistency and validity and the questionnaire scales were found reliable and valid. Whereas, the data were summarized in different graphical forms for further inferences. Figure 2 and 3 shows the demographic indicators such as education level and profession of respondent tourist and it has been observed that majority of respondents belong to higher education level and hence, it is perceived that the provided more reliable and authentic information regarding environmental impacts of sport tourism. Also, regarding the profession of respondents, it was revealed that majority of tourists are students and teachers.

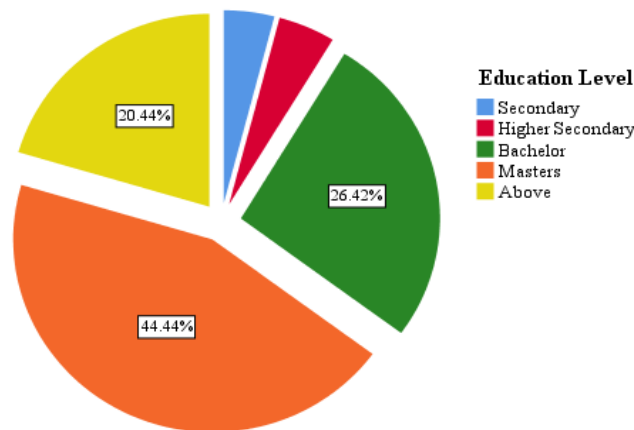


Fig. 2: Education level of various tourists in the spring sport tourism festival

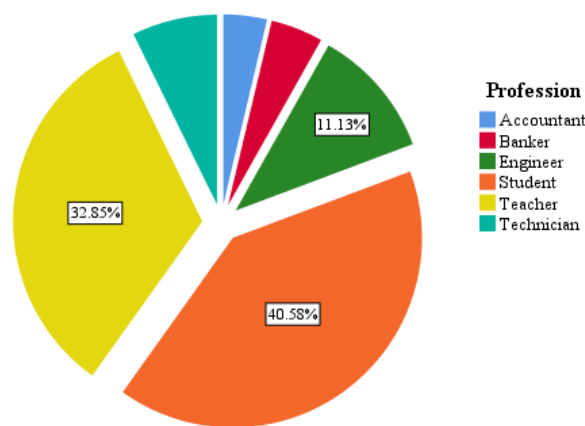


Fig. 3: Respondents profession who attended the spring sport tourism at Qaqlasht

Respondents were asked what the major natural resources are found in Qaqlasht. The responses were quite interesting as majority of them pointed out that natural resources, like forbs, herbs, landscape and mountains are more prominent natural resources in the study area, as shown in Fig.4.

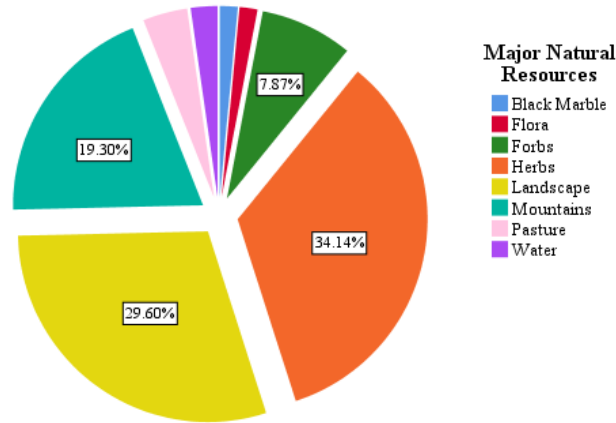


Fig. 4: Presence of natural resources in Qaqlasht area district Upper Chitral

In Qaqlasht festival, majority of people are fond of watching sport activities such as traditional sport events including horse polo, donkey polo, tug of war, and archery, and also, enjoying the traditional folk music of Chitral with the ascent of Qaqlasht seasonal greenery. Events which the respondents like the most during their visit to Qaqlasht festival is shown in Fig. 5.

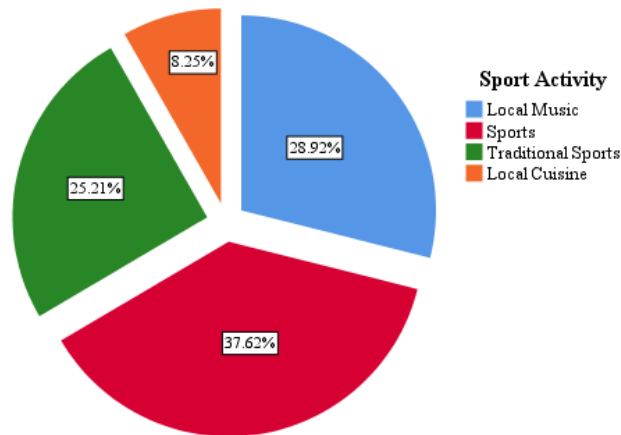


Fig. 5: Sport activities performed during the spring sport tourism in Qaqlasht festival

The environmental impacts of spring sport tourism during and after the festival are irreparable. It has been revealed that the festival has huge impact on the environment including anthropogenic activities, destruction of pasture and grazing area, and road destruction were prominently identified by the respondents as shown in Fig. 6. The festival has no positive environmental impacts; however, it has positive socio-economic impacts such as culture exploration, social gathering with friends and family, economic growth in terms of earning from food stalls, transportation and general stores. Further, it has been found that the sport activity that most contribute to the degradation of the scenic greenery and beauty of the area is horse polo and the least activity contributing is volleyball as shown in Fig. 7.

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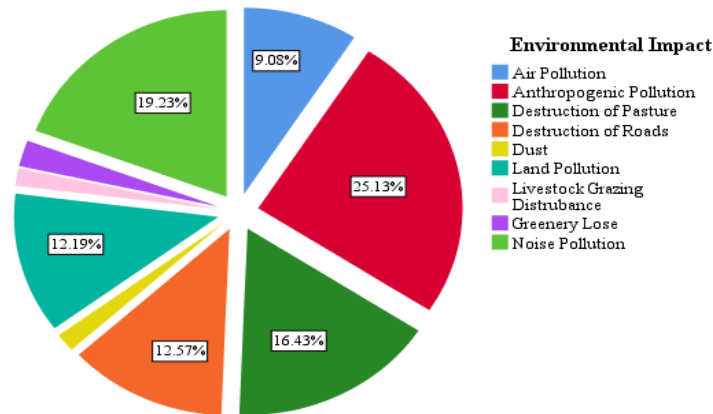


Fig. 6: Biodiversity loss and other environmental impacts of spring sport tourism

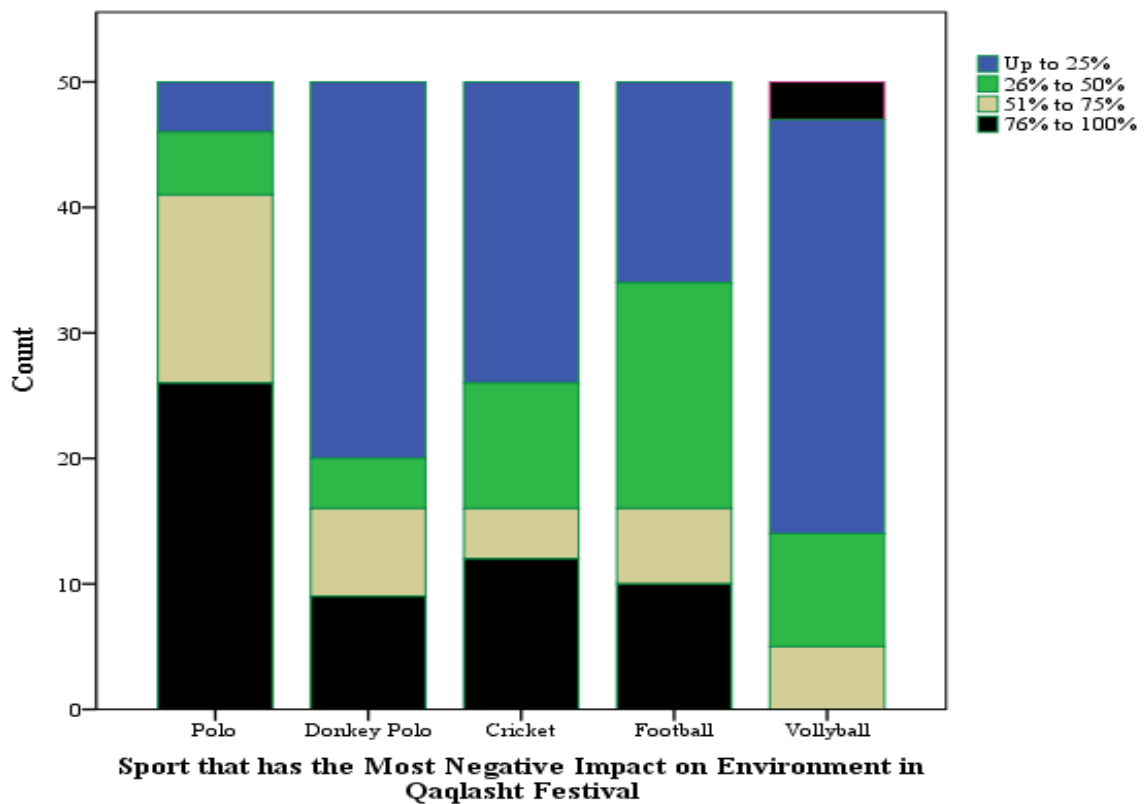


Fig. 7: Sport activities that has negative impact on environment during the spring sport festival

### Discussion

Tourism is derived from an English and French word “tour” which means a return to the birth or home place. Tourism seeks travel from one place to another place with a certain motivation, for instance, motivation to seek relaxation, leisure, religious journey, politically motivated journey, health and sport related journey. Whenever, a person seeks for some motivation of journey, they interacts with places and their surrounding environment (Zarotis, 2019). Tourism is an important human activity and can have positive and negative major impacts on natural environment (Jafari, 1981).. These impacts are more prominent in the destination area where the tourism activities indulged with the local society, their culture, economy and environment. The natural environment is the fundamental part of tourism.

The pleasant weather and peaceful environment attract visitors and hence improve tourism and livelihood. It is essential to perceive the positive and negative impacts that tourism may have on the physical environment, local culture and economic conditions in order to establish appropriate management plans for maintaining sustainability (Eagles et al., 2002; Job et al., 2017).

The three-day long festival at Qaqlasht (known as Jashn-e-Qaqlasht) in Upper Chitral includes different sport activities like horse and donkey polo, tug of war, archery, cricket, football, volleyball and local music being at the top. From the present study, it was revealed that due the spring sport festival the natural environment was badly affected causing the greenery lose due to the influx of vehicles floating to the area and parking in the pasture, production of dust in the environment and by hitting huge amount of garbage's in the area. This festival has multi-faceted effects on the natural environment, socio-economic and cultural norms of the region.

The scenic and attractive environment of Qaqlasht area attracts a large number of tourists but during the sport festival tourists and different activities lay immense pressure on the environment. The adverse environmental impacts includes soil erosion due to greenery lose, noise pollution, air pollution due to uncontrolled traffic, habitat lose for birds, local pastures destruction to support local livestock's and so on. It is proved by the questionnaire survey that sport activities such including horse polo lay most negative impacts on the environment. However, the visitors have the opinion that if the management and tourism plan are well organized by the organizers then it can satisfy visitors and also decrease the negative environmental impacts. This point has been emphasized by many researchers. For instance, Zhong and co-workers have investigated the environmental impacts of tourism in China and have reported that if it is not managed and well planned it could be a double-edged sword with positive and negative impacts (Zhong et al., 2011). The impacts of tourism on environment is considered to be the most prone activity as it is monitored in developed countries such as United States of America, United Kingdom, and China, and also in developing countries such as India and Nepal (Pickering and Hill, 2007). However, in the present study the tourists are not satisfied with management and availability of basic needs like drinking water and sitting area and are of the hope that better management plans can increase tourist flow in the area and improve tourism through this type of sports festival.

## **Conclusion**

In the present study, it is established that tourism in the local context of Chitral region is travelling for enjoyment, leisure and pleasure during Qaqlasht festival after the long hard and chilly winter season. Social survey indicated that tourism has a multi-faceted impacts including both positive and negative. Whereas, the present study focused on determining both the positive and negative environmental impacts of spring sport tourism. Domestic tourists at large number including student and teachers are more attracted by the sport activities held in Qaqlasht every spring season and it has been found that the festival has both positive and negative socio-economic and environmental impacts. The positive socio-economic impacts of the festival include culture exploration, earnings from transportation to the area, and from food stall and general stores. Whereas, the spring sport festival has no positive environmental impacts. There is a long list of negative environmental impacts of this sport festival such as land pollution, soil erosion, air and noise pollution, destruction of road and pasture land, and the greenery was seen to completely vanish out due to uncontrolled traffic moment and mismanagement of green belt. The sport activity that causes most environmental impacts is horse polo during the festival. The domestic tourists that mostly enjoy in the festival include traditional sports such as horse and donkey polo, tug of war and archery. From the study, tourist opinion was also recorded regarding the

management services, while, tourists were not satisfied with the management and availability of basic services like fresh drinking water, sanitation facilities, sitting and parking area etc. Findings from the present study suggested that better event management and availability of best facilities can certainly improve tourism and especially spring sport tourism in the area, which resultantly enhance local socio-economic conditions of the people.

### Recommendations

In the present study, recommendations and suggestions are listed here to promote spring sport tourism and to subdue the negative environmental impacts in order to save the biodiversity lose and environmental degradation. Given below are the listed recommendations:

- Government must allocate funds for the festival and should properly manage the infrastructure like proper road to the venue, proper area for installment of food stall and stores and management of solid wastes.
- The festival needs proper advertisement and promotion campaign, proper fund allocation and administration should help in improvising this festival up to the tourist satisfaction.
- Tourist's desk and facilitation centers need to be established. Festival need inclusion of sports other than local sports, so that people from other parts of the country could participate.
- Management should provide good facilities to tourists especially domestic tourists instead of the inbound tourists as it has been reported in scientific reports that festivals are countries largest domestic activities.

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