

TOURISM

PIDE Working Papers

No. 2023:4

PIDE
Pakistan Institute of Development Economics

**The Impact of Tourism on the
Environment, Socio-culture and
Local Communities of
Gilgit-Baltistan, Pakistan**

Mohammad Armughan

Editorial Committee

Idrees Khawaja

Saman Nazir

Shahid Mehmood

Disclaimer: Copyrights to this PIDE Working Paper remain with the author(s). The author(s) may publish the paper, in part or whole, in any journal of their choice.

Pakistan Institute of Development Economics
Islamabad, Pakistan

E-mail: publications@pide.org.pk

Website: <http://www.pide.org.pk>

Fax: +92-51-9248065

Designed, composed, and finished at the Publications Division, PIDE.

PIDE Working Papers
No. 2023:4

**The Impact of Tourism on the Environment,
Socio-culture and Local Communities of
Gilgit-Baltistan, Pakistan**

Mohammad Armughan

Pakistan Institute of Development Economics, Islamabad.

PAKISTAN INSTITUTE OF DEVELOPMENT ECONOMICS
ISLAMABAD
2023

C O N T E N T S

	<i>Pages</i>
Abstract	v
1. Introduction	1
2. Literature Review	3
2.1. Tourism and Economy	3
2.2. Tourism and Environment	4
2.3. Tourism and Socio-culture	4
2.4. Tourism and Coronavirus (Covid19)	5
3. Methodology	6
4. Results and Discussions	6
4.1. Economic Impact	7
4.2. Environmental Impact	7
4.3. Socio-culture Impact	8
4.4. Impact on Businesses	9
4.5. Coronavirus (Covid-19) Impact	10
4.6. Role of Government	10
4.7. Gap Between Policy Formulation and Implementation	11
5. Recommendations	11
6. Conclusion	12
Appendices	13
References	16

List of Figures

Figure 1. Shows Year-wise Foreign Tourists Visiting Gilgit-Baltistan	2
Figure 2. Shows Year-wise Domestic Tourists Visiting Gilgit-Baltistan	2

ABSTRACT

Gilgit-Baltistan (GB) lies in the northern part of Pakistan and has immense potential for tourism due to the immense beauty of its mountain peaks and many valleys and rivers. Many foreign and domestic tourists visit GB every year, with both positive and negative impacts on GB's economy and its environment. However, the large influx of tourists affects the environment and local community. Thirty in-depth interviews were conducted to examine the perspective of the local community regarding tourism's impact and the role of government in protecting the community. The results showed that tourism in GB generates employment opportunities for the locals but negatively impacts the environment by increasing solid waste, littering, air pollution, noise pollution, water contamination, deforestation, and traffic congestion.

Moreover, tourism has a considerable socio-cultural impact on the local community as the mode of dress, food, daily routine, beliefs, and values change over time. Lastly, Covid19 has affected GB in terms of economy and socio-culture. Therefore, there is a dire need for ecotourism in GB to mitigate environmental concerns and promote tourism.

Keywords: Tourism, Environment, Pollution, Socio-culture, Economic, Covid-19.

1. INTRODUCTION

Tourism is considered a good source of employment, cultural promotion, revenue generation, and Gross Domestic Product (GDP) growth. Tourism has great potential for economic growth in developed and developing countries (Gumus et al., 2007). Tourism is acknowledged as a significant economic activity (Pham, 2012). It has positive and negative sides. Positively, it increases income per capita and living standards with employment and economic expansion (Hye & Khan, 2013). On the contrary, the cost of living for the local communities increases in due to crowds, traffic congestion, increasing crime rate, and environmental destruction by depleting natural resources (Nunkoo & Ramkissoon, 2010; Tohid, 2011). Several studies have explored the local community perspective on tourism and the socio-cultural attitudes associated with tourism (Wall & Mathieson, 2006; Saqib et al., 2019; Jehan et al., 2022). Keeping in mind that every community has its values, traditions, and cultures, tourism impacts the local community in specific ways.

Tourism impacts are divided into three categories economic, environmental and social. The economic category comprises financial inflow from direct or indirect actions like creating business opportunities, job opportunities, revenue generation, tax collection from the hospitality industry and foreign exchange (Sinclair, 1998; Hye & Khan, 2013). The environment category includes environmental degradation of natural resources, biodiversity, and ecosystems (Nigar, 2018). The social category covers the variations in cultural, traditional, and dogmatic standards connected with the local community's emotions (Fredline, 2002).

The ecological system plays a crucial role in tourism. Tourism plays a significant role in attaining Millennium Development Goals (MDGs), especially MDG 7, which is environmental sustainability (Lovric, 2011). For successful and sustainable tourism, local community perspectives and representations are crucial because every community has different attitudes towards tourism (Ahn et al., 2002).

Pakistan's tourism industry is growing fast and has vast potential; it can be classified into four categories: historical, religious, ecotourism, and adventure (Arshad et al., 2018). Pakistan has spectacular tourist potential due to its rich history, diverse culture, mountain ranges, deserts, glaciers, and beautiful sceneries: in 2020, Pakistan's tourism receipts were US \$765 million (World Bank, 2022). According to the Travel and Tourist Development Index (TTDI), Pakistan is ranked 83 out of 140 countries in tourism (Uppink & Soshkin, 2022).

Gilgit-Baltistan is the capital of tourism in Pakistan. Its landscape covers lakes, valleys, mountains, and glaciers. The province is famous for its glorious sceneries and culture and is home to some of the highest peaks in the world, including K2 (8611m). the second-highest mountain in the world. Moreover, it is also renowned for its history, culture, landmarks, and the local community. Tourists predominantly visit GB for adventure sports such as climbing, hiking, camping, and paragliding.

Tourism plays a vital role in the economic development of GB. However, increased economic activities have spiked pollution, noise and congestion levels and put an extra burden on gas, water, energy, and other natural resources. Furthermore, the diversity of GB's tradition, norms and culture are under threat due to the high influx of tourists. Unfortunately, over time, GB is losing its beauty, serenity, and culture due to the adverse effects of tourism on the environment and local community.

Figures 1 & 2 show foreign and domestic tourist trends visiting GB from 2007 to 2019.

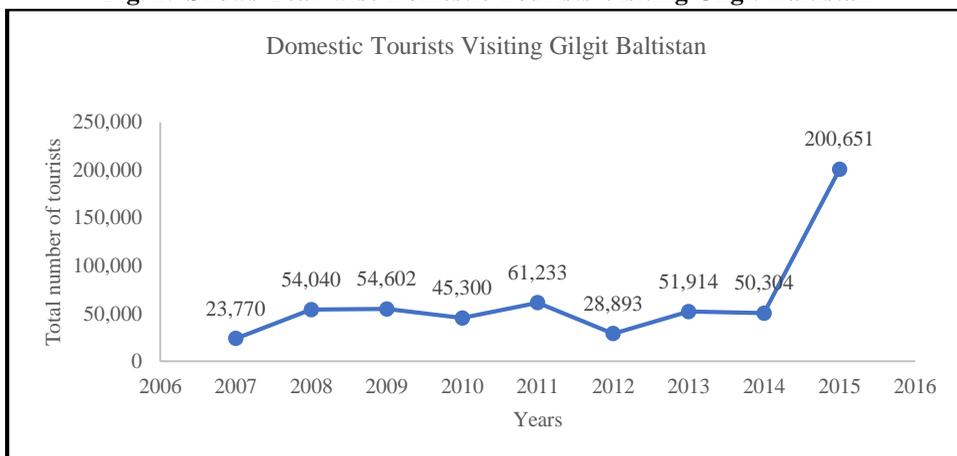
Fig. 1. Shows Year-wise Foreign Tourists Visiting Gilgit-Baltistan



Source: Gilgit-Baltistan Tourism Department.

Figure 1 shows that in 2007, the maximum number of foreign tourists visited Gilgit-Baltistan; the numbers started declining. The primary reason for declining foreign tourists was associated with security issues and the war on terror in Pakistan, damaging the tourism industry in Pakistan (Saqib et al., 2019).

Fig. 2. Shows Year-wise Domestic Tourists Visiting Gilgit-Baltistan



Source: Gilgit-Baltistan Tourism Department.

Figure 2 shows an increasing trend for domestic tourists. In 2015, the highest number of domestic tourists visited GB, significantly changing people's perceptions about security concerns. Social media also played a role in the increase of domestic tourism. People sharing pictures on social media and electronic media also reported GB's beauty, ultimately promoting domestic tourism (Saqib et al., 2019).

Although tourism is perceived as beneficial for the economy, it has serious consequences. The study attempts to examine the local community perspective on tourism in Gilgit-Baltistan. The study analyses the environmental and socio-culture costs associated with tourism in GB based on primary and secondary data. Additionally, the study explores tourism's effects on local communities in terms of environment, economy, society, culture, resource utilisation and government role in policy design and delivery. The study provides a gist of how Covid19 affected GB. Lastly, the study enlists some recommendations for future regional tourism plans.

2. LITERATURE REVIEW

During the previous few years, several studies have analysed the perception of native communities towards the impacts of tourism in their areas (Almeida-García et al., 2016). After studying the positive and negative impacts of tourism on native people, research scholars related to the tourism industry are curious about studying the impacts of tourism on a local level (Ko & Stewart, 2002). Researchers in the tourism industry have recognised favourable and unfavourable aspects of tourism on the local community and their environment (Buckley, 2011).

Generally, the economic impact of tourism is a financial benefit to a country, region, and community.

Generally, tourism is a significant contributor to economic growth, but various environmental, legal and socio-cultural impacts are considered harmful (Tosun, 2002). A study revealed that tourism's positive and negative effects are related to the attitudes and perceptions of residents in each community (Harrill & Potts, 2003). Environmental impact includes the devastation of natural resources and man-made settings (Shujahi & Hussain, 2016). Socio-culture impacts include variations in a community's culture, tradition and norms (Saqib et al., 2019).

2.1. Tourism and Economy

As discussed earlier, tourism is vital to a country's and community's economic welfare. It is an essential source of income and employment for local people (Andereck & Nyaupane, 2011). Tourism reduces poverty and increases economic growth (Lee & Chang, 2008). Moreover, one of tourism's most significant economic benefits is foreign exchange earnings. Some currencies are worth more than others, which is why some countries target tourists from specific areas (Tourism, 2022). Tourism creates job opportunities for locals, such as tour guide work, employment in hotels and restaurants and transportation services (Ghani, 2020). Lastly, tourism opens doors for entrepreneurship and encourages the local community to be self-employed (Ghani, 2020).

Tourism in Pakistan is a vital business opportunity where industries are unavailable. It promotes local livelihoods. In 2020, Pakistan's travel and tourism industry contributed 4.4 per cent to the GDP, a total of PKR 1874 bn; its contribution to employment was 4.8

percent, which translates into 3,063,000 jobs (Khan et al., 2022). Moreover, foreign and domestic tourists spent PKR 118 bn and PKR 1162 bn, respectively, in 2020 (Khan et al., 2022).

2.2. Tourism and Environment

Tourism and its effects on the environment are directly related to each other. Tourism directly impacts the area's air, soil, water, and biota, and manufacturing, production, and transportation of materials are indirectly affected by tourism activities (Aall et al., 2011; Charara et al., 2011). Moreover, solid waste and pollution are also associated with tourism which causes severe damage to the environment (Andereck et al., 2005). As tourism increases, native people start constructing buildings and premises without proper planning and legal permission, damaging man-made settings and natural resources. Such drastic changes impact local ecology and human lives (Alshuwaikhat, 2005).

Tourism cause pollution and produces carbon dioxide. Natural resources are easily and freely available to all. When these resources are used excessively, the resources start depleting. For example, European Union (EU) study exhibits that tourism causes carbon dioxide in Europe; over 20 per cent of polluting emissions are associated with accommodation (hotels, guest houses, etc.) (Sofronov, 2017). Moreover, a study concluded carbon dioxide is produced from several activities like heating, lighting, transportation, and generators (Sunlu U., 2003).

In Pakistan, tourism has adverse effects on the environment in case of mismanaged and unplanned tourism industry infrastructure (Sadiq et al., 2019). Shujahi and Hussain (2016) mentioned that economic and social growth can be achieved through tourism but at the expense of environmental sustainability, which is a considerable cost to bear. Tourism also harms the environment by increasing air pollution, noise pollution, and traffic congestion. Moreover, it puts an extra burden on water consumption, energy consumption, and other natural resources.

2.3. Tourism and Socio-culture

As tourism is increasing, it is affecting the socio-cultural lives of people living in specific areas. Tourism affects local customs, socio-cultural characteristics, social life, and religious beliefs of local community residents (Saqib et al., 2019). Whenever and wherever massive tourism, entertainment activities, and other events, places lose their originality and their culture is transformed (Garau-Vadell et al., 2018).

All around the world, various researchers have identified and discussed the adverse effects of tourism. For example, places become overcrowded and have parking issues for local people (Lindberg & Johnson, 1997; Almeida-García et al., 2016). Moreover, tourism may also cause catastrophic problems like drug use and alcohol consumption (Diedrich & García-Buades, 2009).

In Pakistan, tourism's socio-culture impact is significant on local communities; some tourists engage in unethical activities, and social problems (crime etc.) increase, disturbing the area's equilibrium because tourists are not aware of the culture and norms of the area (Saqib et al., 2019).

2.4. Tourism and Coronavirus (Covid19)

The Covid-19 pandemic disease has taken 6.60 million lives so far (WHO, 2022) and has proved a nightmare for the tourism industry. Its impact has been massive and beyond comparison to preceding crises (Uğur & Akbıyık, 2020). The collapse of tourism in 2020 due to Covid-19 adversely affected transport - airlines, railways and buses (Baum & Hai, 2020). After the slump, the industry's growth prospects are dependent on the health sector's development.

Pakistan is a country where thousands of tourists (domestic and foreign) visit its famous places. These visits are subject to seasons and law and order. These fluctuations affect Pakistan's tourism industry. However, this time, neither season nor the law and order situation has affected tourism: Covid-19 had a devastating impact on Pakistan's tourism industry.

2.4.1. Covid-19 Economic Impact

In the first lockdown in March 2020, tourism decreased by 56 percent; in the entire year, 74 percent of international travel plunged by 74 percent – a financial loss to the economy of US \$1.3 trillion in export earnings (UNWTO, 2021). The overall decline in international tourism cost an economic loss of US \$2 trillion in global product value, equating to more than 2 percent of global GDP (UNWTO, 2021). Moreover, around 100 – 120 million existing tourism jobs were lost during the pandemic, mainly affecting women and young people (UNWTO, 2021). Small and medium-sized enterprises were forced to halt business operations and lay off employees due to the pandemic (Eggers, 2020).

In Pakistan, the Covid-19 upsurge brought a sharp 4 per cent decline in 2019's GDP; the situation worsened in 2020 (Warraich, 2022). All major industries, from agriculture to services in Pakistan, were severely affected by Covid19 (Warraich, 2022). In March 2020, around US \$18 million in losses were incurred by the Pakistan Civil Aviation Authority (CAA) due to travel restrictions (KPMG, 2020). Moreover, the Khyber-Pakhtunkhwa (KP) tourism industry faced a US \$20 million revenue loss and 260,000 job losses during the pandemic (KPMG, 2020).

2.4.2. Covid-19 Environmental Impact

The effects of Covid-19 have been felt globally. But it has positively impacted the environment, as the air quality in different world cities has improved (Rume & Islam, 2020; Khan et al., 2021). Moreover, it has reduced greenhouse gas emissions, water pollution, noise pollution and tourism pressure, positively impacting ecological systems (Rume & Islam, 2020). Furthermore, water quality in rivers and aquatic life of water bodies have appreciated (Khan et al., 2021).

On the contrary, Covid-19 has adverse effects on the environment. The pandemic has increased biomedical waste generation with drastic medical safety supplies/equipment utilisation, causing significant healthcare waste and environmental issues (Rume & Islam, 2020). During Covid-19, people were isolated in their homes, and safety and precautionary measures urged them to use more water to protect themselves, which put an extra burden on water consumption. Moreover, in tourist-dependent areas Covid-19 resulted in no

income for residents and other people. Without any option, local communities may over-exploit natural resources for personal use or to generate income by selling resources (UN, 2020).

In Pakistan at the time of the lockdown, air quality in major cities of Pakistan showed a considerable decline in air pollutants like NO_x, SO_x, CO₂ and PM_{2.5} and PM₁₀ (Rasheed et al., 2021).

2.4.3. Covid19 Socio-culture Impact

Covid-19 had a sudden and substantial impact on culture. For example, cultural events were canceled, cultural institutions closed and cultural practices were suspended (UNESCO, 2020), with most cultural institutions facing financial losses (UN, 2020). Moreover, the closure of archaeological and heritage sites increased the insecurity of cultural property (UNESCO, 2020). Local women's income is affected by the closure of markets for handicrafts and other products (UN, 2020). The tourism industry is a sector built upon interaction among people, which helps to promote and understand different cultures (UN, 2020).

As with other parts of the world, Pakistan also faced a list of restrictions on socio-cultural events like marriages, mass gatherings, social events, cultural events, and contact sports. Gatherings were permissible only with proper guidelines and standard operating procedures (SOPs) (GoP, 2020). Due to the shutdown of these events, several event management companies faced financial losses.

3. METHODOLOGY

This qualitative research includes data from primary and secondary sources. For primary data, semi-structured interviews were conducted with 30 local community people living in GB belonging to various professions like social & environmental activists, tour guides, hotel managers, etc. Most respondents were from Diamer, Hunza, Naran, Khagan, Chilas and Karimabad areas of Gilgit-Baltistan. For details, please refer to Appendix 1.

Schwarz et al., (2007) mentioned that a well-established literature review is essential for quality work. A systematic literature review of tourism's effects on environment and socio-culture was conducted for secondary data. The study includes a comprehensive search of existing literature on published journal articles, independent/institutional reports, official websites and news articles covering the period from 2000 to 2022 on the relevant topic.

4. RESULTS AND DISCUSSIONS

According to the responses, a fundamental similarity of opinions was observed. At the beginning of the interviews, almost respondents discussed the benefits of tourism in their locality. On probing, they shared specific incidences that showed they were unhappy with the current tourism practices. Almost all respondents believed that the growing tourist activities are bringing challenges for local communities regarding environmental worries, resource depletion, privacy violations, and cultural shifts.

4.1. Economic Impact

Generally, it is a known fact that tourism is a great contributor to a country's GDP and overall economic development, but behind this, many negative impacts are neglected. The interviewees retorted more than 50 percent of families in GB depend on tourism earnings. The extreme financial dependency of the locals on tourism makes life hard for them during the off-season. Covid-19 also affected them greatly as tourism stagnated. The pandemic in GB paralysed tourism industry.

One of the interviewees, disappointed with the situation, commented:

“We all are living just to survive here. As beautiful as Gilgit-Baltistan is, it has made our lives equally miserable and tough”.

One of the interviewees mentioned that the influx of tourists is much higher in contrast to the local population, which makes it hard for the locals to host a large number of visitors, which is why hotels are fully occupied in the on-season. Seasonal tourism impacts them significantly, as there is high demand for goods while the supply is low, causing a price hike in basic food products for the locals. One of the restaurant owners mentioned:

“Due to a hike in price last year, we had to pay Rs 500 for a kilogram of chicken. You can imagine how costly it is when you have to buy 30 plus chickens a day”.

A resort owner revealed he prepares to host tourists for the rest of the year during the off-season. Also, due to extreme weather conditions in GB, people prefer travelling to other tourist destinations across Pakistan.

Many of those questioned mentioned that the harsh financial conditions have made them explore other areas of tourism now for all seasons; one of the tour operators talked about the growing demand for cultural and autumn tourism. They also plan to introduce winter tourism, where tourists can enjoy ice skating and skiing. The plan was successful in 2021 with the initiative of winter skiing in Deosai.

4.2. Environmental Impact

Tourism in GB has increased over the past few years, including domestic and foreign visitors. According to respondents, one of the most significant issues that need immediate attention is the environmental damage caused by tourism. The interviewees repeatedly mentioned that most tourists don't know how to dispose of garbage. Though bins are installed for utilisation, tourists do not use them and dump rubbish everywhere. Trekkers take oxygen cylinders with them and abandon them on mountain peaks. (Appendix 2 shows undisposed oxygen cylinders and garbage at mountain peaks).

Moreover, domestic tourists prefer to come in their cars which increases traffic congestion, directly contributing to air pollution in the area. According to one of the respondents, 5–6 significant accidents were reported last year, which took the lives of locals because of rash driving and over-speeding by tourists. Furthermore, due to the construction and development of infrastructure, many trees are being cut down and mountains are being mined, impacting the environment. A major forest area in the region was converted into Central Karakoram National Park by the government.

4.2.1. Unregulated Commons

The continuous interaction between tourism and the natural environment is undeniable. The common pool resources are being used by tourists and are becoming subject to massive degradation, resultantly highlighting the “tragedy of the commons”. The tourists and the local community have different attitudes towards the resources. In the case of GB, the respondents believed that the local community is well aware of growing environmental concerns. In contrast, tourists don't bother to pay attention to garbage disposal, noise pollution, over-speeding and growing concerns over climate change. The Environmental Protection Agency's (EPA) objectives in GB include protection, conservation, and improvement of the environment but lack of enforcement intensifies climate change worries. Moreover, the air quality is worsening day by day due to the infrastructure of mega projects, traffic, and deforestation.

Almost half of the respondents participated in voluntary campaigns or activities to cope with the growing environmental worries. In the absence of a proper sewage system, the hotel association members warn each other regarding sewage disposal into the fresh stream of water and the excessive use of gas cylinders. In addition, a hotel owner said that the local community voluntarily cleans up the whole of GB twice a year. Similarly, the restaurants' staff organise clean-up campaigns every week to dispose of the garbage in the surrounding areas.

4.3. Socio-culture Impact

There is a substantial social and cultural impact of tourism in GB. The trends and the originality of the place are changing due to the high inflow of tourists; the interviewees disclosed that they had observed a change in the local community's dressing, food, and daily routine over time, resulting from cultural hybridisation. The interviewees mentioned that foreign tourists come to GB to explore the culture and traditions of the place, whereas domestic tourists try to change their culture by imposing their beliefs. An inbound tour operator who only hosted foreign tourists was happy with the attitude of foreigners toward the local community and environment. In the case of domestic tourists, a hotel owner revealed that the families enjoy it when they visit GB. The younger people travelling without families disrespect the local community and their culture.

He stated that:

“The people visiting from Punjab don't know about our culture. They ask us if the food in our hotel is halal “.

Likewise, several respondents mentioned that the tourists question the religious beliefs of the local community. Moreover, the privacy of the locals is affected as domestic tourists try to enter the houses without respecting their boundaries. They also try to pluck fruits and vegetables grown by them without permission. Furthermore, the domestic tourists force the youth of Gilgit-Baltistan to try drugs which is disrespectful to the cultural beliefs of the area. I

The culture of Gilgit-Baltistan has always been gender neutral but the recent rise of tourism has changed things for the locals as the domestic tourists have a habit of harassing the girls of the area due to which the families are becoming more protective. Tourists take

pictures of people without their consent. One of the respondents said a few tourists take pictures of girls without their consent and share them on social media.

Another issue that was discussed was wall chalking. The forts and other famous sights of the area are cultural treasures, but domestic tourists have the habit of writing their phone numbers and names on such monuments. The tourists are also disrespectful towards the locals as they fight and argue with them, drive cars at high speed while hitting locals along the way and play loud music that disturbs the locality.

4.4. Impact on Businesses

Tourism affects almost all of the area's businesses in some way. It was mentioned by one of the interviewees:

“We know that tourism is disturbing our peace to the extent that it can get frustrating at certain times, but we still wouldn't want it to stop, as without it, we wouldn't be able to survive”.

Tourism is related to local shops, hotels, and businesses - big or small. But one of the major concerns of the locals is that the non-locals are investing mainly in the area to build their businesses which are affecting the small local businesses. Advanced developed hotels and superstores are replacing the existing ones, due to which the local businesses are suffering. Seasonal tourism also affects these businesses as they are compelled to close their restaurants and hotels in the off-season as tourists don't travel in such harsh weather conditions.

These big investors have links with the authorities and can get away with violations. For example, a hotel recently built on Attabad Lake has been reported for disposing of its waste into the lake. However, no one is acting against it as the owners have connections with authorities. The prevalence of *elitism* is creating issues for the survival of local businesses. The locals have associations, such as the Hunza Boat Association, which cleans up the lakes. The Hotel Association educates its members on sustainable tourism as they know that no one else will take responsibility for their area. One of the interviewees commented on a serious issue that local businesses face:

“Domestic tourists are in the habit of coming to shops and bargaining or stealing things like it's their right to do so. They also don't respect the standards or rules of any hotel as they will try to sneak in a large family inside a single room which can, at certain times, damage the hotel's property. Also, they deliberately misuse the items provided. For example, they try to clean their shoes with towels just because they paid for the room. If they don't like the hotel or its services, they try to stuff the toilet with tissues to block it. Eventually, adding to the expenses of the business owner”.

On the other hand, investors outside of Gilgit-Baltistan utilise the local community's land to compete with the local hotel industry, making the local industry weak, more competitive and increasing real estate prices exponentially high. Moreover, small local businesses are not provided financial help by the banks or government. A tour operator stated that:

“The biggest concern for small local landowners is they may become watchmen of their land in the future due to increased investments by businessmen from outside Gilgit-Baltistan.”

Regarding recommendations to protect local land, the local businessmen believed that the government should help locals establish their businesses through Public-Private Partnerships (PPP) and joining hands with non-local investors. The banks should give preference to the local community while giving loans, and more soft loans should be given to local businesses.

4.5. Coronavirus (Covid-19) Impact

4.5.1. Economic

Covid-19 had a catastrophic impact on the global tourism and travel industry. Similarly, Pakistan faced a drastic decline in foreign tourists and travellers. Gilgit-Baltistan also encountered a sharp decline in foreign and domestic tourists. An exponential decay of tourism in GB made the local community economically worse. Typically, tourism in GB starts from April and ends in October, but in the Covid-19 year it prolonged till August 2020. Since most of the local community depends on tourism, in the transitionary period (April to August), people were planning to shift to other places to make a living.

4.5.2. Environment

Covid-19 has brought several positive aspects to the environment, such as improved air quality, reduced gas emissions, noise pollution, and traffic congestion. In GB a reduction in tourism led to less utilisation of resources like gas, electricity and water. Moreover, the no/less traffic congestion meant better air quality and less noise pollution. Furthermore, it improved the water quality and aquatic life due to less littering in lakes and rivers.

4.5.3. Socio-culture

Socio-culture is one of the major segments affected by Covid-19, as several cultural events and practices were postponed or cancelled. In GB, many community events were cancelled, such as the Sports, Ice, Ginai and Blossom festivals, Jashan-e-Nouroz. Moreover, other regional festivals like Tour De Khunjerab, Rama Polo Tournament, and International Silk Route were postponed. Lastly, the closure of archaeological monuments and heritage places decreased the chances of cultural exchanges.

4.6. Role of Government

The current and existing policies on tourism are more inclined towards increasing tourism inflow without analysing its consequences. The interviewees discussed a similar issue: no attention is being paid to sustainable tourism, and the livelihood of the locals is being compromised in greed for financial benefits.

One of the highlighted issues was that tourism in the area is beneficial to the government, but the government isn't investing in it to protect the environment and culture. For example, the Central Karakoram National Park charges US \$100 per tourist, US \$50 for entrance and US \$50 for garbage deposit. However, no measures are taken by the authority to keep it clean. Moreover, the locals go through a major electricity shortage where they face 12 hours of load-shedding. Yet the government doesn't take any action to improve electricity conditions for the tourists and locals.

One of the investments made by the government was the introduction of tourism police which has proper management and aims to protect tourists through patrolling. However, it merely addresses the concerns of tourists, not locals.

Furthermore, tourism and government negligence are depleting the area's resources, with precious gemstones sold cheaply. Some of the respondents felt the need of government intervention in protecting minerals of GB, as respondents think the local mineral industry has the potential to grow.

4.7. Gap Between Policy Formulation and Implementation

One tour operator and some local representatives mentioned that they were consulted during the policy-making process. They were asked to join local meetings and present recommendations in 2012 under the Pakistan People's Party government. The recommendations were incorporated in a policy document Prime Minister Nawaz Sharif signed during his era, but nothing was implemented. The primary issue highlighted was implementation, which is highly centralised; the local community voluntarily set up associations to cope with growing threats without any support from the government.

Likewise, our study concluded that 30 per cent of local people think they are involved in tourism development planning and activities. Whereas 25% think they are not involved, and 45 per cent believe they are occasionally involved. They all have a consensus on centralised decision-making of the department which means whether to involve residents or not (Jehan et al., 2022).

5. RECOMMENDATIONS

The study's primary objective was to evaluate the environmental and socio-culture costs of tourism in Gilgit-Baltistan.

Based on the findings, we recommend the following:

- Foreign tourists can travel on local transport, so why not domestic tourists? Promoting local transport will open opportunities for local people to earn from transportation with minimising the chances of rash driving and accidents as local people are more aware about the routes. The government may restrict private transport to avoid traffic congestion and air pollution. Moreover, the government may fund infrastructure development to cater to tourists who want luxury transportation services.
- Seasonal tourism leads to price hike issues for local people due to the limited supply of goods and materials. The government and other private distributors in Gilgit-Baltistan design an efficient and effective demand and supply mechanism to cater demand-supply gap. Moreover, district officials may set, enforce and monitor a standardised price mechanism for selling and purchasing goods and commodities, to solve the problem of price hikes and bargaining power of domestic tourists.
- Littering was one of the major concerns of the local community, which has environmental effects. Therefore, the administration of places like mountain peaks, parks, hotels, monuments, and other tourist places should be held responsible for contaminating the environment. Besides that, the management of the relevant area may compel tourists to abide by the laws/ethics of ecotourism.

If tourists do not follow the rules, they must be charged with some legal actions. Moreover, to avoid chalking practices of tourists, the relevant administration may impose heavy fines and utilise collected fines to remove the chalking without compromising the quality of the sites.

- According to Bimonte (2008), resource sharing should be predefined for tourists and residents. Hence, with the support of the local community, the government may restrict tourists and other non-locals from exploiting natural settings. To avoid the problem of “tragedy of the commons”, an agreement on resource sharing might help define the resources available for non-locals and locals. Moreover, it will increase the accountability for both locals and non-locals for utilising resources.
- As Ali and Akhunzada (2015) mentioned, the worsening law and order situation has led to a sharp decline in the tourism industry in GB. Therefore, the government may strengthen the role of tourist police to have a strict implementation of policies and monitoring against the violation of privacy, littering, harassment, pollution, etc. The tourist police may set up a manual/online complaint system where locals can bring their tourism-related issues.
- Promoting local community partnerships with outside investors to remove the fear of incompetency in the minds of local businessmen. These joint ventures will aid in strengthening tourism businesses and make the local community better off financially.
- As a majority of the local community of GB depends on income from tourism, the government, with the local community, should devise a strategic plan for off-season tourism in GB, which can create off-season income for residents. Whether it is on-season or off-season tourism, the government may extensively promote ecotourism in Gilgit-Baltistan so that there should be economic well-being for the local community along with the protection of the environment. Moreover, the government can provide other economic opportunities for local communities to earn in the off-season to reduce their dependency on tourism. Other economic opportunities involve agriculture (livestock and fisheries), farming (medicinal herbs and dry fruits), minerals (gemstone mining), and trade (GB can serve as a land bridge for transit and trade between Pakistan, China, and other Central Asian regions).
- Last but not least, unplanned and mismanaged tourism has specific effects on the surrounding environment and local communities (Nigar, 2018). Environmental degradation and depletion of natural resources like water, air, and soil occur due to unplanned development, which affects the natural ecosystem (Alshuwaikhat, 2005). Therefore, in planning and execution for ecotourism, the government may involve all the relevant stakeholders to have a master plan where all the concerns, such as economic, environmental and socio-culture aspects, must be addressed.

6. CONCLUSION

In conclusion, the study shows the cognisance of the local community regarding the development of tourism and its effects on the environment and socio-culture in Gilgit-

Baltistan. Tourism is a well-known economic activity that creates job opportunities, increases economic growth, decreases poverty, and opens the door for local entrepreneurship. On the contrary, it negatively impacts the environment and socio-culture of the local communities. Covid-19 has affected tourism inversely by increasing poverty and decreasing economic activity. In contrast, it has some positive impacts on the environment.

All of the interviewees were of the view that tourism brings economic benefits to the local community. However, they were severely concerned about the environmental and socio-cultural impacts which are associated with tourism. Moreover, their concerns about the environment are also supported by secondary research. According to our research, tourism harms the local environment by increasing solid waste, littering, air pollution, traffic congestion, noise pollution, and water contamination, ultimately leading to health issues for local communities. Likewise, tourism also impacts the socio-cultural behaviour of the local community through dressing, food, daily routine, local beliefs, and values.

The role of government in mitigating the negative impacts on the local community is significant; there is a dire need to focus on an environment-centric and community-friendly tourism policy.

Appendices

Appendix 1

Interviewees Details

Name	Occupation
Saeed Hussain	Optometrist
Hameed	Educational Consultant
Zuhaib Khan	Doctor
Asif Sakhi	Politician (Awami Workers Party)
Assad Ullah Baig	Chinese Interpreter
Aziz Qurban	Doctor
Majida	Social Activist
Mehtab	Housewife
Sadiqa	Housewife
Bakhsh-Ur-Rehman	Student
Imran Ali	Student
Kareem Sulemani	Student
Arshad Jabbar	Tourist Police
Azam Sakhi	Tour Operator
Asgar Ali Porik	Owner (Jasmine Tours)
Raja Hussain	General Manager Marcopolo Inn
Wazir Aman	Fine Artist
Sabina	Restaurant Owner
Amin	Owner Silvia Resort
Jami Sakhi	Social Activist
Lal Shezadi	Owner (Hunza Food Pavilion)
Arbaz Alam	Social Activist (Environment)
Sakeena Ismail	Unheard voices (representative)
Sohail Ahmed	Hotel Manager/admin
Mumtaz Ali	Social Representative
Basit khan	Hotel Owner
Qurban khan	Tour Guide
Nazia Gilgiti	Waste management (rep)
Afaq Haider	Tour Guide
Anwar Khan	Wildlife and environment dept (reps)

Appendix 2

Improper Garbage and Oxygen Cylinder Disposal





REFERENCES

- Aall, C., Klepp, I. G., Engeset, A. B., Skuland, S. E., & Støa, E. (2011). Leisure and sustainable development in Norway: Part of the solution and the problem. *Leisure Studies*, 30(4), 453–476. <https://doi.org/10.1080/02614367.2011.589863>
- Ahn, B., Lee, B., & Shafer, C. S. (2002). Operationalising sustainability in regional tourism planning: An application of the limits of acceptable change framework. *Tourism Management*, 23(1), 1–15. [https://doi.org/10.1016/S0261-5177\(01\)00059-0](https://doi.org/10.1016/S0261-5177(01)00059-0)
- Ali, S. W., & Akhunzada, T. (2015). *Unheard voices: Engaging youth of Gilgit-Baltistan*. <https://rc-services-assets.s3.eu-west-1.amazonaws.com/s3fs-public/CR%20Unheard%20voices%20from%20Himalayas.pdf>
- Almeida-García, F., Peláez-Fernández, M. Á., Balbuena-Vázquez, A., & Cortés-Macias, R. (2016). Residents' perceptions of tourism development in Benalmádena (Spain). *Tourism Management*, 54, 259–274. <https://doi.org/10.1016/j.tourman.2015.11.007>
- Alshuwaikhat, H. M. (2005). Strategic environmental assessment can help solve environmental impact assessment failures in developing countries. *Environmental Impact Assessment Review*, 25(4), 307–317. <https://doi.org/10.1016/j.eiar.2004.09.003>
- Andereck, K. L., & Nyaupane, G. P. (2011). Exploring the nature of tourism and quality of life perceptions among residents. *Journal of Travel Research*, 50(3), 248–260. https://www.researchgate.net/profile/Kathleen-Andereck/publication/240703646_Exploring_the_Nature_of_Tourism_and_Quality_of_Life_Perceptions_Among_Residents/links/56e8330508ae9aecadb5a/Exploring-the-Nature-of-Tourism-and-Quality-of-Life-Perceptions-Among-Residents.pdf
- Andereck, K. L., Valentine, K. M., Knopf, R. C., & Vogt, C. A. (2005). Residents' perceptions of community tourism impacts. *Annals of Tourism Research*, 32(4), 1056–1076. <https://doi.org/10.1016/j.annals.2005.03.001>
- Arshad, M. I., Iqbal, M. A., & Shahbaz, M. (2018). Pakistan tourism industry and challenges: A review. *Asia Pacific Journal of Tourism Research*, 23(2), 121–132. https://www.researchgate.net/profile/Muhammad-Iqbal-67/publication/321633842_Pakistan_tourism_industry_and_challenges_a_review/links/5badb6ab92851ca9ed2b9041/Pakistan-tourism-industry-and-challenges-a-review.pdf
- Baum, T., & Hai, N. T. T. (2020). Hospitality, tourism, human rights and the impact of COVID-19. *International Journal of Contemporary Hospitality Management*, 32(7), 2397–2407. https://www.emerald.com/insight/content/doi/10.1108/IJCHM-03-2020-0242/full/html?casa_token=uV12GAHooLMAAAAA:5ccyhGDzTJ2rza4xcemARTE9BJa000FbIr6QTMEl-Patlu62UH4mo87oOvStVAW4l80WEafrTfKxbHvWGUGik4-aOYqTH1RWcdJNliO0pIMhLmh-RGmQ
- Bimonte, S. (2008). The “tragedy of tourism resources” as the outcome of a strategic game: A new analytical framework. *Ecological Economics*, 67(3), 457–464. <https://doi.org/10.1016/j.ecolecon.2007.12.020>
- Buckley, R. (2011). Tourism and Environment. *Annual Review of Environment and Resources*, 36(1), 397–416. <https://doi.org/10.1146/annurev-environ-041210-132637>
- Charara, N., Cashman, A., Bonnell, R., & Gehr, R. (2011). Water Use Efficiency in the Hotel Sector of Barbados. *Journal of Sustainable Tourism*, 19, 231–245. <https://doi.org/10.1080/09669582.2010.502577>

- Diedrich, A., & García-Buades, E. (2009). Local perceptions of tourism as indicators of destination decline. *Tourism Management*, 30(4), 512–521. <https://doi.org/10.1016/j.tourman.2008.10.009>
- Eggers, F. (2020). Masters of disasters? Challenges and opportunities for SMEs in times of crisis. *Journal of Business Research*, 116, 199–208. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7247971/>
- Fredline, L., (Elizabeth). (2002). *Social impacts of tourism on the Gold Coast / Liz Fredline*. Common ground publishing in association with CRC for sustainable tourism. <http://www.crctourism.com.au>
- Garau-Vadell, J. B., Gutierrez-Taño, D., & Diaz-Armas, R. (2018). Economic crisis and residents' perception of the impacts of tourism in mass tourism destinations. *Journal of Destination Marketing & Management*, 7, 68–75. <https://doi.org/10.1016/j.jdmm.2016.08.008>
- Ghani, S. (2020, March 30). Importance of tourism industry and its economic value. <https://pakistantraveltourism.com/2020/03/30/importance-of-tourism-industry-and-its-economic-value/>
- GoP, G. of P. (2020). Mass gatherings during COVID-19. Ministry of national health services regulation and coordination. https://www.nih.org.pk/wp-content/uploads/2020/10/20201013-Guidelines-for-Mass-Gatherings_5001.pdf
- Gumus, F., Eskin, I., Veznikli, A., & Gumus, M. (2007). Availability of rural tourism for Gallipoli villages: The potentials and attitudes, 157.
- Harrill, R., & Potts, T. D. (2003). Tourism planning in historic districts: Attitudes toward tourism development in Charleston. *Journal of the American Planning Association*, 69(3), 233–244. <https://www.tandfonline.com/doi/pdf/10.1080/01944360308978017>
- Hye, Q. M. A., & Khan, R. E. A. (2013). Tourism-led growth hypothesis: A case study of Pakistan. *Asia Pacific Journal of Tourism Research*, 18(4), 303–313. <https://doi.org/10.1080/10941665.2012.658412>
- Jehan, Y., Batool, M., Hayat, N., & Hussain, D. (2022). Socio-Economic and Environmental Impacts of Tourism on Local Community in Gilgit Baltistan, Pakistan: A Local Community Prospective. *Journal of the Knowledge Economy*. <https://doi.org/10.1007/s13132-021-00885-9>
- Khan, I., Shah, D., & Shah, S. S. (2021). COVID-19 pandemic and its positive impacts on environment: An updated review. *International Journal of Environmental Science and Technology*, 18(2), 521–530. <https://doi.org/10.1007/s13762-020-03021-3>
- Khan, J., Ali, A., Zada, M., Saeed, I., & Zada, S. (2022). *Pakistan's Tourism Industry: Full of potential, but still lagging behind*. <https://assets.researchsquare.com/files/rs-1261735/v1/b8094574-b21e-4238-97a3-f5d3d314b0ed.pdf?c=1649712730>
- Ko, D. W., & Stewart, W. P. (2002). A structural equation model of residents' attitudes for tourism development. *Tourism Management*, 23(5), 521–530. https://www.researchgate.net/profile/William-Stewart-29/publication/222535708_A_Structural_Equation_Model_of_Residents%27_Attitudes_for_Tourism_Development/links/5b4b568e45851519b4bd3c86/A-Structural-Equation-Model-of-Residents-Attitudes-for-Tourism-Development.pdf
- KPMG. (2020). *Impact of COVID-19 on Pakistan's Economy*. <https://assets.kpmg/content/dam/kpmg/pk/pdf/2020/05/Impact-of-COVID-19-on-Pakistan%27s-Economy.pdf>

- Lee, C.-C., & Chang, C.-P. (2008). Tourism development and economic growth: A closer look at panels. *Tourism Management*, 29(1), 180–192. https://dl.wqtxts1xzle7.cloudfront.net/50945337/j.tourman.2007.02.01320161217-6641-9ktyi5-with-cover-page-v2.pdf?Expires=1668493869&Signature=egQzZFRF0Bpzt~L8pDLVmgv54vf0RMeaoI9YZdeoJzNJTINx-dUffy4daJqijhRB08UvsjwcMJE19v247Zut0p33YqvJKaFG5iAXRX128UeVL3~SGdyFVPYmCc55XuHT3BbXUOzHxoE8t3kNsrALYEUC3REr44kCVUbfXWmGWfawqyE6nmPP-qпкиYg5hNyPuXRImWbWN8B0lW6ErKB51ioqpy0khka2WLh8~ceQWwuy~byhylYy8wCBYdKm1TN-C3jOWvt32QEVZSMe2W6cWiQLhbsNhH0qXD7g3h-HiNdRneWbGmiap84MDk9XWouWEGtaA1a2mU1f32BJ5Z44aw__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA
- Lindberg, K., & Johnson, R. L. (1997). Modeling resident attitudes toward tourism. *Annals of Tourism Research*, 24(2), 402–424. [https://doi.org/10.1016/S0160-7383\(97\)80009-6](https://doi.org/10.1016/S0160-7383(97)80009-6)
- Lovric, M. (Ed.). (2011). *International Encyclopedia of Statistical Science*. Springer. <https://doi.org/10.1007/978-3-642-04898-2>
- Nigar, N. (2018). Ecotourism for sustainable development in Gilgit-Baltistan. *Strategic Studies*, 38(3), 72–85. <https://www.jstor.org/stable/pdf/48539385.pdf>
- Nunkoo, R., & Ramkissoon, H. (2010). Small island urban tourism: A residents' perspective. *Current Issues in Tourism*, 13(1), 37–60. <https://www.tandfonline.com/doi/full/10.1080/13683500802499414?scroll=top&needAccess=true>
- Pham, L. (2012). Tourism Impacts and Support for Tourism Development in Ha Long Bay, Vietnam: An examination of residents' perceptions. *Asia Social Science*, 8. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2096974
- Rasheed, R., Rizwan, A., Javed, H., Sharif, F., & Zaidi, A. (2021). Socio-economic and environmental impacts of COVID-19 pandemic in Pakistan—An integrated analysis. *Environmental Science and Pollution Research*, 28(16), 19926–19943. <https://doi.org/10.1007/s11356-020-12070-7>
- Rume, T., & Islam, S. M. D.-U. (2020). Environmental effects of COVID-19 pandemic and potential strategies of sustainability. *Heliyon*, 6(9), e04965. <https://doi.org/10.1016/j.heliyon.2020.e04965>
- Sadiq, M., Othman, Z., & Keong, O. C. (2019). A study of interaction effects of political influences and earnings management on organisational performance. *Asian Economic and Financial Review*, 9(5), 642–653. <https://archive.aessweb.com/index.php/5002/article/view/1826>
- Saqib, N. us, Yaqub, A., Amin, G., Khan, I., Faridullah, Ajab, H., Zeb, I., & Ahmad, D. (2019). The impact of tourism on local communities and their environment in Gilgit Baltistan, Pakistan: A local community perspective. *Environmental & Socio-Economic Studies*, 7(3), 24–37. <https://doi.org/doi:10.2478/enviro-2019-0015>
- Schwarz, A., Mehta, M., Johnson, N., & Chin, W. W. (2007). Understanding frameworks and reviews: A commentary to assist us in moving our field forward by analysing our past. *SIGMIS Database*, 38(3), 29–50. <https://doi.org/10.1145/1278253.1278259>

- Shujahi, A. H., & Hussain, A. (2016). Economic and environmental costs of tourism: Evidence from District Abbottabad. *Islamabad: Pakistan Institute of Development Economics (PIDE)*.
- Sinclair, M. T. (1998). Tourism and economic development: A survey. *The Journal of Development Studies*, 34(5), 1–51. <https://doi.org/10.1080/00220389808422535>
- Sofronov, B. (2017). Impact of sustainable tourism in the travel industry. *Annals of Spiru Haret University Economic Series*, 4. https://scholar.google.com.pk/scholar?q=Impact+of+Sustainable+Tourism+In+the+Travel+Industry&hl=en&as_sdt=0&as_vis=1&oi=scholar
- Sunlu U. (2003). Environmental impacts of tourism. In Camarda D. & Grassini L. (Eds.), *Local resources and global trades: Environments and Agriculture in the Mediterranean Region*, 57, 263–270. Bari: CIHEAM. <http://om.ciheam.org/om/pdf/a57/04001977.pdf>
- Tohid, F. (2011). Economic Impacts of Tourism Industry. *International Journal of Business and Management*, 6. <https://doi.org/10.5539/ijbm.v6n8p206>
- Tosun, C. (2002). Host perceptions of impacts: A comparative tourism study. *Annals of Tourism Research*, 29(1), 231–253. https://dl1.wqtxts1xzle7.cloudfront.net/34035233/Host-perception-tourism-with-cover-page-v2.pdf?Expires=1668493717&Signature=JTazfkTpTWl6VjQbtrlAyAUQdXU7qY~Ar1YWobiOFkkg~bi-qCPyGCd7DZi4chT~4FNC6X6ozGro3wJXfmjObt-jEalaB~-eOKDC~DYn7Flgsv470L5KM-Nw9PcCPqZ2NHTNlvc6b2wtU-EI1aymHbY1JS5rwarlQyOuSR1bhrwiARKJnq1aW0zxTgtVraxKBg945bD5G4Av1Wbe9ZdiJPGDPsR779FcVGNP~FvHBAAVOcoJaCy1L8C~gS~rQlm9dA4T3V8Fpxu2FdC2w7S3ZJUPVVqDguYx3iDr8EQa9kNjyEbKKl6xuaokpe2g8c28xW0zP1rtX9Vcb6iuqlZoaw__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA
- Tourism. (2022, May 28). Economic impacts of tourism. <https://tourismteacher.com/economic-impacts-of-tourism/#:~:text=One%20of%20the%20biggest%20benefits,be%20reinvested%20in%20the%20economy.>
- Uğur, N. G., & Akbıyık, A. (2020). Impacts of COVID-19 on global tourism industry: A cross-regional comparison. <https://pubmed.ncbi.nlm.nih.gov/32923356/>
- UN, U. N. (2020). Policy brief: COVID-19 and transforming tourism [Policy brief]. https://unsdg.un.org/sites/default/files/2020-08/sg_policy_brief_covid-19_tourism_august_2020.pdf
- UNESCO. (2020). Culture & COVID-19: Impact and Response Tracker. <https://www.unesco.org/en/articles/culture-covid-19-impact-and-response-tracker>
- UNWTO. (2021). UNWTO world tourism barometer and statistical annex, January 2021. <https://www.e-unwto.org/doi/abs/10.18111/wtobarometereng.2021.19.1.1?role=tab>
- Uppink, L., & Soshkin, M. (2022). *Travel & Tourism Development Index 2021: Rebuilding for a sustainable and resilient future*. World Economic Forum. <https://www.weforum.org/reports/travel-and-tourism-development-index-2021/>
- Wall, G., & Mathieson, A. (2006). *Tourism: Change—Impacts and opportunities*. https://books.google.com.pk/books/about/Tourism.html?id=jisvN9N9aesC&redir_esc=y#:~:text=Tourism%3A%20Change%2C%20Impacts%20and%20Opportunities,impact%20assessment%20are%20also%20considered.

- Warraich, S. K. (2022). Socio-Economic Challenges of COVID-19 and its repercussions for Pakistan. *Journal of Indian Studies*, 8(1), 77–90.
http://pu.edu.pk/images/journal/indianStudies/PDF/6_v8_1_22.pdf
- WHO, W. H. O. (2022). WHO Coronavirus (COVID-19) dashboard.
<https://covid19.who.int/>
- World Bank. (2022). International tourism, receipts (current US\$)—Pakistan.
<https://data.worldbank.org/indicator/ST.INT.RCPT.CD?end=2020&locations=PK&start=1995&view=chart>

Pakistan Institute of Development Economics

Post Box No. 1091, Islamabad, Pakistan

www.pide.org.pk