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Transport Infrastructure Development, Tourism and Livelihood Strategies

An Analysis of Isolated Communities of Gilgit-Baltistan, Pakistan

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A thesis submitted in partial fulfilment of the requirements of the degree of
Doctor of Philosophy

at

Lincoln University

New Zealand

December 2019



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TE WHARE WĀNAKA O AORAKI

Abstract

Geographically isolated communities around the world are dependent upon the limited assets in local subsistence economies to generate livelihoods. Locally available resources shape and give identity to unique cultural activities that guarantee individual, family and community livelihood sustainability. The social structure provides community relationship networks, which ensure access to, and availability of, resources over long periods. Resources are utilised in ways that reduces vulnerability, stresses and shocks while ensuring long-term resilience. Preparedness and adaptation are embedded into cultural memory, enabling communities to survive in isolated, remote and harsh conditions. Communities' cultural memories, storytelling, traditional knowledge, interdependence and unwritten cultural norms that build resilience to sustain cultures that have limited interactions with the outside world.

This thesis aims to investigate the consequences of transport infrastructure development, mainly of roads, on livelihood strategies of isolated communities in a tourism context in Gilgit-Baltistan, Pakistan. The thesis incorporates a review of literature of transport infrastructure development and livelihood security in reference to vulnerability, resilience and sustainability. Research gaps are identified in terms of transport infrastructure development and tourism, the Sustainable Livelihood Approach, resilience and sustainability. The fieldwork was undertaken using qualitative research methods. Ninety-eight participants were interviewed using open-ended semi-structured interview questions to get an in-depth understanding of livelihood systems, livelihood activities and transport infrastructure development within the tourism context.

Gilgit-Baltistan is a disputed mountainous territory in the Asia Subcontinent whose ancient trade routes (*silk routes*) were severed during the geopolitical upheaval of the partition of the Indian Subcontinent in 1947. An alliance between Pakistan and China resulted in transport infrastructure development of the Karakorum Highway between 1958 and 1978, providing the only road access to the regions isolated communities. Karakoram Highway connects China with Pakistan through Gilgit-Baltistan. Gilgit-Baltistan is going through immense transport infrastructure development, including the China Pakistan Economic Corridor. The road infrastructure is expected to link China and other South Asian and Central Asian countries to the world and provide a direct link for Chinese goods to reach the Persian Gulf. China Pakistan

Economic Corridor is part of China's Belt and Road Initiative project, which aims to improve connectivity and cooperation between 69 Eurasian countries by investing in infrastructure development. Such an immense infrastructural development is expected to enhance the mobility of people, goods and services.

In order to understand the impacts of transport infrastructure development, this thesis has analysed livelihood capital status at macro, and micro levels are examined over two time periods (pre-road and post-road). Results show that sustainable farming practices provided long-term resilience to these geographically isolated communities. Transport infrastructure development has been a significant factor to ensure access and has resulted in changes to social inclusion, socio-political structures and livelihood opportunities with a subsequent dependence upon tourism, imported consumer goods and a monetary economy as people divert valuable farmland to building developments and cash crop monocultures. Gilgit-Baltistan is vulnerable to frequent manmade and natural disasters, such as terrorism, earthquakes and landslides. Shocks impact upon the livelihoods of those affiliated with tourism who are forced to revert to subsistence farming practices and alternative livelihood choices. The dependency on external resources and subsequent loss of the cultural memory and farming techniques has created a vulnerability to the unpredictable shocks and disasters that frequently close the singular access road.

The thesis finally presents the 'Livelihood Framework for Transport Infrastructure Development and Tourism (LF-TIDT)' a guiding tool to understand the impacts of transport infrastructure development at micro and macro levels for tourism planning, policy formulation and implementation and management. Attention is drawn to the newly introduced '*Location: a Meta Capital*' and its importance in terms of geographically isolated communities. The research also highlights that livelihood capitals are not equally essential to achieve sustainable and resilient livelihood outcomes.

Key Words: *Transport Infrastructure Development, Livelihood Strategies, Tourism, Isolated Communities, Gilgit-Baltistan, Pakistan*

Acknowledgements

A PhD is considered to be a solo journey that entails great sacrifices, distresses, surprises and rewards. It is a journey that teaches one to be resilient and learn from a wide range of experiences. My PhD journey involved the support, encouragement, cooperation, assistance, guidance and understanding of many people who helped me complete this journey.

Firstly, I would like to express my sincere gratitude to my supervisors Dr David Fisher and Dr Stephen Espiner, for their patience, motivation, and immense knowledge. Their guidance, comments and feedback on countless drafts of chapters taught me a great deal and helped me in all aspects of research and writing of this thesis. I am grateful to have them as my supervisors. I would also like to thank my advisors, Professor David Simmons and Associate Professor Tracy Berno, for their insightful comments and feedback in shaping my thesis. In short, I could not have imagined having better supervisors, mentors and advisors for my PhD study.

Besides, I would like to thank Roslyn Kerr, Emma Stewart, and Koji Kobayashi for their support, mentoring and advice in understanding Lincoln University academic culture and research. I want to thank Lincoln University administrative staff, especially Julie Ward, Douglas Broughton, Alyson Gardner, Debbie Park, Myra Manson, for their support and assistance in matters related to administration.

Special thanks go to my fieldwork facilitators Mohammad Taqi, Asgar Hussain, Tariq Ali, Ashiq Faraz, Basharat Ali, Ali Askole, Imtiaz Hussain, Abdul Wajid and Ishtiaq Hussain for helping me during my field research. Without their precious support and guidance, it would not have been possible to complete my fieldwork on time. I would also like to thank my brothers Irshad Husain and Dildar Hussain and my cousin Rahman Shan for his guidance and assistance during fieldwork. I always felt that when I needed help, I could count on them.

I thank my colleagues Walter Lewthwaite, Richard Moreham, Trudi Cameron, and Julie Clark (*informal PhD thesis writing group*) for your extraordinary support and simultaneous discussions on various topics which helped me in refining my thoughts during thesis writing processes. I would also like to thank my friends at Forbes 5, especially Yaa Mawufemor Akubiya, Zohreh Karaminejad, Mohammad Shoeb, Ashley Rudkevitch and Tilak Raj, who were always there to remind me that life does exist outside PhD.

My sincere thank goes to my family members for their prayers and supporting me spiritually throughout writing this thesis and my life in general. I am full of gratitude to my sisters, who would listen to me when I needed to share my feelings. Thank you for understanding!

I am thankful to my partner Marie Haley for showing particular interest in my research topic and sharing relevant literature. Thank you for your support and help with the preliminary editing of various chapters of my thesis and making yourself available whenever I needed help. Thank you!

I want to thank all the participants of this research whose knowledge and understanding helped me in materialising this thesis. I am grateful to two individual participants who passed away while I was writing this thesis. Your insightful thoughts are documented in this thesis, and I am glad to have met you and learn from your experiences. Thank you!

Finally, I would like to acknowledge Lincoln University for the Lincoln University Doctoral Scholarship. Special thanks to Morgan Foundation New Zealand for their encouragement and providing me with the scholarship to peruse my dream. Without the awards, it would have been impossible for me to complete such extensive research. Thank you!

List of Publications

The PhD research resulted in number of publications including;

- a. **Hussain, A., Fisher, D., & Espiner, S. (2017).** *Transport Infrastructure and Social Inclusion: A Case Study of Tourism in the Region of Gilgit-Baltistan.* *Social Inclusion*, 5(4), 196-208. doi:<http://dx.doi.org/10.17645/si.v5i4.1084>

- b. **Hussain, A. (2017).** *Transport infrastructural development and livelihood: A case of adaptation and diversification strategies in the face of tourism* Symposium conducted at the meeting of the CAUTHE 2017: Time For Big Ideas? Re-thinking The Field For Tomorrow

TO MY PARENTS

I wish they were alive to witness this day! Thank you for everything you taught me!

“Where pain walks today, there will be healing tomorrow. Where misunderstanding falls, tolerance will stand. There are sider horizons from the mountain tops and the sweeping shorelines. There are old trails that lead on to new worlds. It is time to gain inspiration from the past to guide us into the future. We journey with the vision that the traditions recorded in the land will become the shared inheritance of all who call it home.”

Te Uri o Te Pani Manawatu, Tuahiwi, 1989

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Chapter 1 Introduction

1.1 Introduction

Gilgit-Baltistan is a culturally rich, strategically located, disputed mountainous region in the north-east of Pakistan. In Gilgit-Baltistan traditional livelihood systems such as subsistence farming was the prime economic activity (Ehlers & Kreutzmann, 2000; Macdonald, 1998; Seong et al., 2009) until the construction of road infrastructure in 1978. Gilgit-Baltistan is culturally unique where oral folktales (*Shaloke*)¹, are used to preserve history. The region was geographically isolated and had limited contact with the rest of the world until the construction of Karakoram Highway due to difficult physical access. The territories of Gilgit-Baltistan are considered to be a kind of “ethnographic museum where archaic cultural traits are preserved because [of] extremely limited exchange with surrounding countries existed” (Sökefeld, 1997, p. 83). The geographically isolated communities of Gilgit-Baltistan were dependent on locally available resources to ensure a sustainable livelihood based on bartering and subsistence farming (Ehlers & Kreutzmann, 2000; Hussain, Fisher, & Espiner, 2017; Seong et al., 2009). Barter trade between these mountain communities was slow and seasonal as it was difficult to cross high altitude mountain passes in winter. While these communities had limited interaction with, and minimum aid from, the outside world, they experienced a sustainable lifestyle.

Between 1958-1978, in response to geopolitical rivalries in the region, an all-weather highway was built through Gilgit-Baltistan, removing the centuries-old isolation of these communities and attracting visitors from all over the world to explore the region (Hussain et al., 2017; Kreutzmann, 1991). This transport infrastructure development resulted in numerous livelihood changes in Gilgit-Baltistan as a result of the increased mobility of goods and services. Amongst these changes was the development of domestic and international tourist markets (Khan, 2012; Owen-Edmunds, 2013; World Bank, 2011). In the four decades since the road was built, tourism has become one of the significant livelihood choices for those previously engaged in farming and agricultural activities have diminished (Hussain et al., 2017;

¹ Traditional folktales, through which oral history, cultural norms and traditional knowledge were passed on from generation to generation in the form of stories.

Khan, 2012; Owen-Edmunds, 2013). Consequently, Gilgit-Baltistan is experiencing social, political, economic, environmental and institutional changes which have altered traditional livelihood systems (Hussain et al., 2017). Trade between China and Pakistan has already created a regional market hub in Gilgit-Baltistan. Gilgit town has become the economic and social centre resulting in a rapidly expanding population from 4,000 in 1961 (Kreutzmann, 1991) to 216,000 in 1998 (GoP, 2018a). According to Sökefeld (1997) the original people of Gilgit town, “who call themselves ‘*matulfae*’, those who prepare the soil of Gilgit, the sons of soil... are a minority of Gilgit’s population today” (p. 84).

It will be shown in this thesis that the introduction of tourism in these rural communities has created dependency upon the monetary economy as people have moved away from barter and sustainable farming towards the services sector. These communities are now heavily dependent on imported consumer goods. Such dependency on external resources has made people vulnerable as the highway is the only route by which food and other commodities can enter the region and which is prone to natural and man-made disasters.

1.2 Theoretical Basis of the Research

Current research tries to understand the importance of physical mobility in terms of resource allocation to achieve sustainable livelihood outcomes, resilience and reduce vulnerability. The outputs of livelihood strategies are linked with improving resilience and reducing vulnerabilities by improving income sources, socio-cultural stability, natural resource protection and enhanced public participation to improve well-being (DFID, 1999; Scoones, 2009; Shen, 2009). Physical mobility is fundamental to human well-being in providing access to available resources (Currie, Stanley, & Stanley, 2007; Kenyon, Lyons, & Rafferty, 2002; Wachs & Kumagai, 1973). Transport infrastructure, especially roads, have both direct and indirect impacts upon travel behaviour and the use of resources and providing local solutions to physical mobility (Estache, 2008; Olsson, 2009; Oswin & Yeoh, 2010; Peters, 2000). Transport infrastructure is a significant component of development in reducing logistics costs and enhancing regional integration (Khadaroo & Seetanah, 2008; Prideaux, 2000). It is argued that transport infrastructure development facilitates the flow of goods and services, and in providing income opportunities (Bourguignon & Pleskovic, 2008; Ghosh & De, 1998; Kumaraswamy & Zhang, 2001).

Development is a multidimensional concept and is used to enrich peoples livelihood, improve people's living standards, ensure growth and increase people's freedom (Edwards, 1993; Todaro & Smith, 2012). The global concerns of poverty, hunger and natural disasters drove attention towards sustainable livelihood, and its focus was stressed on rural areas developing countries (Harriss, 1982; World Bank, 1975). Global concerns resulted in the emergence of the Sustainable Livelihood Approach (Carney, 1998). The Sustainable Livelihood Approach incorporates all elements required for sustainable livelihood (DFID, 1999). However, it is argued that the Sustainable Livelihood Approach only focuses on micro-level analysis and does not encompass generalised trends at the macro-level (De-Haan, 2012; Morse & McNamara, 2013). The approach does not explain how external interventions in the form of policy formulations create and destroy livelihood capital(s) (Crouch & McKenzie, 2006; Morse & McNamara, 2013). The impacts of interventions in the form of development is beyond immediate localities (Morse & McNamara, 2013). According to De-Haan (2012) the impacts at every level, i.e. international, national, regional and local, scale must be acknowledged to understand the broader sustainable livelihood outcomes. Hence, it is vital to create linkages between micro-macro impacts as a result of external interventions (Clark & Carney, 2009). This study shows how livelihood capitals have been transformed, created or destroyed as a result of the foreign interventions in the form of a road infrastructure development in study area (see Chapter 5, 6 and 7). This study intends to understand the impacts of road infrastructure development on livelihood at the micro-level (local village and district level) while aggregating and broadening analysis at the macro level (regional and divisional level) in a tourism context.

Individual, household and community livelihood activities revolve around the availability and access to resources. Resource allocation in any setting is fundamentally mediated by institutional arrangements, diverse habits of utilisation of livelihood capitals, people's preferences, beliefs, life experiences and future plans (Chambers, 1988; Chambers & Conway, 1992; Ellis, 1998). Households respond, shape and give identity to various activities (farm, non-farm) to guarantee individual, family or community security, sustainability and to reduce stresses and shocks (Ellis, 1998, 2000; Hussain, 2017; Mbaiwa & Sakuze, 2009; Rahut & Micevska Scharf, 2012; Wang, Zhang, & Liu, 2010). In geographically isolated communities, individual, family or community security capitalises upon cultural memory, traditions and

belief systems to ensure resilience and long-term sustainability. The relationship and importance of resilience to ensure sustainable livelihood outcomes are characterised in terms of the survival strategy of individuals and communities in both the short-term and long-term (Béné, Newsham, Davies, Ulrichs, & Godfrey-Wood, 2014; Bradtmöller, Grimm, & Riel-Salvatore, 2017; Lew, 2014; Rosen et al., 2012; Weiberg, 2012). Both resilience and sustainability are vital to livelihood systems and long-term sustainability of livelihood outcomes (Espiner, Orchiston, & Higham, 2017; Hall, 2007; McCool, 2015; McCool, Butler, Buckley, Weaver, & Wheeler, 2013). Resilience embraces change and adapts proactively whereas sustainability resists change (Derissen, Quaas, & Baumgärtner, 2011; Espiner, Orchiston, et al., 2017; Strickland-Munro, Allison, & Moore, 2010).

The fundamental differences of resilience and sustainability can be used together in a planning approach by ensuring capacity building and addressing inevitable changes (Hopkins, 2015; Hopkins & Becken, 2014). It is widely argued that resilience needs to be incorporated in understanding the phenomenon of sustainability, the tourism industry, tourism planning and management (Espiner, Orchiston, et al., 2017; Higgins-Desbiolles, 2010; Lew, 2014; Luthe & Wyss, 2014; McCool, 2015; Strickland-Munro et al., 2010). Keeping in mind the impacts of tourism on destination development in terms of sustainability and resilience, it is vital to understand the nature of tourism industry and how it is impacting the livelihood(s).

Tourism has influenced and shaped livelihood diversification strategies in destination communities (Ashley, 2000b; Cohen & Cohen, 2012; Tao & Wall, 2009). Tourism destination communities, consciously or unconsciously, offer their culture, sense of place, natural landscapes, and natural resources to sustain the tourism industry and in return, tourism sustains the local communities by creating job opportunities through various factors of production (Mbaiwa & Sakuze, 2009; Tao & Wall, 2009; Tosun, 2002). Tourism is a form of trade, and transport infrastructure development is fundamental in creating a tourism product experience (Khadaroo & Seetanah, 2008; Prideaux, 2000). Tourists have to travel to the destination to consume the tourism product, which makes transport infrastructure vital for the delivery of a tourism product (Benson & Whitehead, 1985; Leiper, 1992). Since the 1970s tourism has been used as a tool for development because of its labour-intensive nature and the belief that tourism will benefit deprived communities in the long-run (Ashley & Mitchell, 2008; Ashley & Roe, 2010; Scheyvens, 2008; UNWTO, 2004). Although some research has

been conducted on transport infrastructure development, livelihood and tourism, there is a need to investigate the consequences of transport infrastructure upon livelihood diversification strategies of once geographically isolated communities, in a tourism context.

1.3 Study Area

Gilgit-Baltistan is a disputed territory between India and Pakistan. Gilgit-Baltistan, once a geographically isolated region, is going through immense transport infrastructure development to link China with the Middle East, South Asia and Central Asian countries through Gwadar Port in Southern Pakistan. This mega infrastructure development is part of China's Belt and Road Initiative project. With the Belt and Road Initiative, China aims to improve connectivity and cooperation between 69 Eurasian countries by investing in infrastructure development by 2030 (CPEC-LTP, 2017; DSA, 2017; PwC, 2018). The completion of these projects, such as the China Pakistan Economic Corridor, is expected to act as an economic corridor for China to Gwadar Port in Southern Pakistan, to fulfil China's oil and gas demands and access to trade through the Persian Gulf. Such focused infrastructure development in a disputed territory has raised concerns about social facilities, economic opportunity and political freedom (Hussain et al., 2017; Kreuzmann, 2015). Transport infrastructure development, mainly road networks, appears to have a significant effect upon livelihood and there is a need to investigate these impacts in relation to the tourism industry (Khadaroo & Seetana, 2007, 2008). This study examines the consequences of transport infrastructure development, in particular, roading infrastructure on livelihood diversification strategies in a tourism context in the region of Gilgit-Baltistan Pakistan.

1.4 Research Methods

The current study uses qualitative research methods to examine the research objectives. Semi-structured interview methods are used to collect data. Purposive sampling technique was used to select research participants based on their direct and indirect involvement and affiliation with tourism industry and influence in decision-making processes. The fieldwork was conducted between January 2016 and April 2016. A total of ninety-eight participants contributed to this research. Interviews were transcribed into English for analysis. The data was analysed and classified based on themes, open codes and focus codes using both Qualitative Data Analysis Software MAXQDA and manual thematic analysis techniques.

1.5 Research Objectives

This research assesses the impacts of transport infrastructure development on livelihood diversification strategies in the context of tourism in the region of Gilgit-Baltistan. Specific objectives of the study are to:

- i. Document transport infrastructure development in relation to tourism in the Gilgit-Baltistan region.
- ii. Document and analyse the evolution of livelihood strategies and resources of isolated communities in Baltistan, Gilgit-Baltistan.
- iii. Examine the consequences of transport infrastructure development on livelihood diversification in the context of tourism at macro and micro levels.
- iv. Understand and develop meanings attributed to the concepts of the community as a consequence of transport infrastructure.
- v. Analyse the role played by institutional arrangements in livelihood diversification strategies in the Gilgit-Baltistan region.
- vi. Provide insight to develop a framework for tourism policy and planning, capturing the contribution of tourism to sustainable livelihood in the Gilgit-Baltistan region.

1.6 The Organisation of the Thesis

This thesis is divided into seven chapters which include literature review, study setting, research methods, two result chapters and discussion and conclusion.

Chapter 2 presents a review of the literature on transport infrastructure development and related concepts, including livelihood sustainability, resilience and vulnerability. The chapter also discusses the Sustainable Livelihood Approach and its key features. The chapter identifies the gaps in the literature on transport infrastructure development, sustainable livelihood, and resilience and sustainability.

Chapter 3 discusses the research setting at regional, divisional and local (district) levels with a brief history of the governance of Gilgit-Baltistan. The chapter discusses the improvement in access to Gilgit-Baltistan in a historical context followed by the improvement in infrastructure development in Gilgit-Baltistan in relation to road infrastructure development. The strategic importance of Gilgit-Baltistan is also discussed in reference to transport infrastructure development and livelihood diversifications strategies in a tourism context.

Chapter 4 explains the selection and appropriateness of the research method. The chapter begins by discussing the theoretical foundation for the selected method. The chapter also discusses the qualitative research tools used to collect data, ethical considerations and methods of data analysis and concludes with research limitations.

Chapters 5 and 6 contain the research findings. Both chapters begin by discussing the status of institutional arrangements and physical access to Gilgit-Baltistan as perceived by the participants in different time periods. Chapter 5 focuses on the pre-road infrastructure development period (between 1947 and 1978), and Chapter 6 focuses on the post-road infrastructure development period (between 1978 and 2016). The chapters then analyse the livelihood capital transformation based on the improvement in access to Gilgit-Baltistan by-air and by-road. The chapters also discuss the livelihood diversification strategies at macro (Gilgit-Baltistan) and micro (Prano and Hushe in district Shigar and Ghanche) levels in response to an improvement in access in the context of tourism.

Chapter 7 discusses the consequences of roading infrastructure on livelihood diversification strategies at the macro (regional and divisional) and micro (local village and district) levels (pre and post roading infrastructure development) and analyses the livelihood security in terms of vulnerability, resilience and sustainability. Various livelihood capitals which contribute to the livelihood security in the form of livelihood diversification strategies are analysed to understand how livelihood capitals influence livelihood outcomes in a tourism context. The chapter also presents the conceptual framework for policy formulation discussing the key results findings and implications along with future research.

1.7 Chapter Summary

This chapter has set the foundation for the thesis by highlighting the theoretical bases of the research around transport infrastructure development, livelihood, tourism and livelihood diversification strategies. The chapter has presented the research objectives based on the theoretical foundation of the current study. The next chapter reviews the related literature on transport infrastructure development and sustainable livelihood in the tourism context.

Chapter 2 Transport Infrastructure Development, Sustainable Livelihoods and Tourism

2.1 Introduction

The goal of this research is to investigate the impacts of transport infrastructure development on livelihood strategies in a tourism context. This chapter reviews the literature on transport infrastructure development and related concepts, livelihood sustainability, resilience and vulnerability. The literature also examines the Sustainable Livelihood Approach and the key features which act as a guideline to investigate the impacts on livelihood in a tourism and transport infrastructure development context. At the end of the chapter, research gaps are identified.

2.2 Transport Infrastructure Development

Transport infrastructure has always been a significant component of development, and its importance was acknowledged in the 1950s by pioneers of development studies Hirschman, Myrdal and Sitohang (Ghosh & De, 1998). In 'The Annual Bank Conference on Development Economics' in 2007, it was argued that sustainable economic development requires a reduction in transportation and logistics costs to enhance regional integration (Bourguignon & Pleskovic, 2008). The World Bank suggested that the "poorest countries need to spend 9 percent of their GDP on the operation, maintenance, and expansion of their infrastructure to reach Millennium Development Goals" (Estache, 2008, p. 47). It is reasoned that transport infrastructure facilitates the flow of goods and services, raises productivity, increases investment, employment and income, which ultimately leads to further economic activities and has a positive 'knock-on' effect in catalysing continuous economic development (Ghosh & De, 1998; Kumaraswamy & Zhang, 2001).

The economic return on investment in infrastructure development is between 30-40 percent in general and 200 percent on transport infrastructure development such as roads (Canning & Bennathan, 2000; Estache, Briceno, & Shafik, 2004). It is reasoned that roads provide local solutions to poor communities, improves livelihoods and are significant for poverty alleviation by providing physical mobility (Estache, 2008). Physical mobility is fundamental to provide access to markets, education, leisure, employment and health care, which lead to social

inclusion, networking, economic well-being and the overall well-being of individuals (Church, Frost, & Sullivan, 2000; Currie et al., 2007; Hussain et al., 2017; Kenyon et al., 2002; Wachs & Kumagai, 1973). It is reasoned that road infrastructure has a significant impact on economies, through direct and indirect impacts on travel time and costs, and ensures effective use of resources (Garrison & Souleyrette, 1996; Olsson, 2009; Oswin & Yeoh, 2010; Owen, 1959; Peters, 2000; Phipps, 2000). The transport industry cannot be treated in isolation (Doorn, 1986; Prideaux, 1993, 2000). In the case of the transportation system, the operation, interaction and modes of transport are such that they cannot be discussed in isolation as these elements are interlinked and one complements the other (Prideaux, 2000).

2.3 Transport Infrastructure and Tourism Development

Transport infrastructure is one of the significant components of the tourism system and is responsible for connecting tourists to tourist destinations (Force, 2003; Khadaroo & Seetanah, 2008). In a tourism context transport systems can be defined as;

The operation of, and interaction between, transport modes, ways and terminals that support tourism resorts in terms of passenger and freight flow into and out of destinations, the provisions of transport services within the destination, and the provision of connecting transport modes in the tourism generating region (Prideaux, 2000, p. 56).

Transport infrastructure is considered to be the key to the attractiveness of a destination (Gunn, 1988; Inskip, 1991). Various components of transport infrastructure such as roads, seaports, and airports are essential to the tourism-based economy in any region (Khadaroo & Seetanah, 2007). This study focuses mainly on the road infrastructure component. A sound transport infrastructure provides accessibility to destination areas and provides a comfortable transition from the tourists' home to the tourism destination (Seetanah et al., 2011; Tang & Rochananond, 1990). It is argued that some tourists from developed countries may demand efficient and modern transport infrastructure when they visit a tourist destination (Cohen, 1979; Khadaroo & Seetanah, 2007; Mo, Howard, & Havitz, 1993; Prideaux, 2000). Hence, transport infrastructure creates demand and facilitates tourism product supply along with other tourism amenities (Murphy, Pritchard, & Smith, 2000).

The transport system is the foundation for tourism development, and transport infrastructure is the precondition for the travel industry (Prideaux, 2000). The tourism system comprises of tourists, generating region, transit routes, destination regions and the tourism industry

(Leiper, 1992, 2004). Transport infrastructure links various elements of the tourism system especially the tourist generating region(s) and the tourist destination(s). The complex consumption experience of the tourism product by tourists requires various services such as information, transportation, accommodation and recreation (Gunn, 1988; Khadaroo & Seetanah, 2007; Smith, 1994). Among these services, transportation is vital to creating a tourism product experience and makes it crucial to infrastructure-related services (Khadaroo & Seetanah, 2008). Prideaux (2000) argued that “the ability of tourists to travel...is inhibited by inefficiencies in transport systems” (p. 53).

The production and consumption of tourism product happen primarily in the destination area (Leiper, 1992). This is because a tourist must travel to the product and consume it on site. It is reasoned that sound transport infrastructure enhances the accessibility of tourists to different destinations (Khadaroo & Seetanah, 2007; Tang & Rochananond, 1990; Witt & Witt, 1995). Hence, “the transport system has provided the foundation for the development of both domestic and international tourism” (Prideaux, 2000, p. 53). The transport system also facilitates getting tourists to and from the destination along with a supply of goods and services required to promote and sustain the tourism industry (Khadaroo & Seetanah, 2007, 2008; Prideaux, 2000). This will contribute to destination development and ultimately impact the destination region and the livelihood system of the host community (Prideaux, 2000).

The tourism industry is involved with the movement of a range of materials, i.e. people, goods, services, ideas, technology and the flow of information, which are integral to political and economic development processes (Hannam, Butler, & Paris, 2014). In the 1970s tourism was introduced as a tool for development in response to Structural Adjustment Programmes imposed on developing countries to put them on the road to economic development (Scheyvens, 2008). It was thought that the labour-intensive nature of tourism will benefit deprived communities in developing countries (Ashley & Mitchell, 2008; Ashley & Roe, 2010; UNWTO, 2004). According to Meyer (2007), such strategies have created economic classes and inequality by assuming that economic growth benefits the poor in the long-run. Some authors argued that fundamental development policies were politically dominated over human welfare which resulted in a subsequent increase in the number of poor people through adverse impacts on their livelihood (Ashley & Mitchell, 2008; Inskeep, 1991; Prideaux, 2000).

In order to understand the impacts of transport infrastructure development on livelihoods, it is crucial to understand the concept of development and its associated fundamentals. Without a broader understanding of the context of development, the consequences of transport infrastructure development on tourism-related livelihood activities will not be clear.

2.4 Development and Livelihood

Development is an interdisciplinary subject, which has no single broadly accepted definition, but it incorporates social, economic, political and human dimensions of society (Davies & Hossain, 1997). According to Edwards (1993), development is specifically about the enrichment of the livelihoods of people in community. Todaro and Smith (2012) agreed with Edwards (1993) and suggested that development is a multidimensional process which involves recognition and reorientation of entire economic and social systems. Such systems are based on raising living standards, ensuring growth through social, political, economic and institutional systems, and increasing freedom of choice through variety of goods and services (Todaro & Smith, 2012).

Historically, the implementation of development policies in developing countries was politically dominant and was implemented based on geopolitical preferences (Allan, 1991; Hodge, 2007; Westad, 2005). Typical examples of such developments are the roads and railways development in Central Asia and South Asia by the Soviet Union and Great Britain, respectively (Lloyd, 1997). Hodge (2007) claimed that such focussed infrastructure development resulted in the rapid change in the geopolitical landscape of the world.

The provision of financial support for economic development overseas initiated in Britain through the Colonial Development Act (1929), followed by the Colonial Development and Welfare Act (1940) which allowed the government and private entities to provide economic funding overseas (Craggs, 2014). The concept of foreign aid for development expanded globally in the post-1945 era (Craggs, 2014). Post-World War II era rearmed moral development projects with concern for poverty in the colonies and aimed to improve colonial systems (Craggs, 2014; Hodge, 2007). The development “projects were based on a growing faith in the role of science and technology to combat poverty and diseases and focused on infrastructural improvements” (Craggs, 2014, p. 35). The idea was “to help these territories develop through following a path towards Western modernity” (Craggs, 2014, p. 34). Such a

belief system “coded the West as developed and the rest as developing, Western as normal and non-western as others” (Craggs, 2014, p. 38). The neo-liberal agenda in the 1980s advocated free trade and unregulated global markets to combat global poverty to help developing countries (Dodds, 2014). Such a form of trade liberalisation and development brought together many fields of a study researching poverty and inequality (Dodds, 2014; Sen, 1983; Sen, 1984b).

The global concerns such as poverty, hunger, malnutrition, and natural disasters drove attention towards sustainable livelihoods. As the majority of the poor people live in rural areas of developing countries, it was stressed that development project must focus on rural areas in developing countries (Harriss, 1982; World Bank, 1975). Since then, global development programmes were mainly focussed on rural areas, and there is a well-established literature on rural development (Aziz, 1978; Chambers, 2014; Conroy & Litvinoff, 2013; Ellis, 2000; Ellis & Biggs, 2001; Harriss, 1982; Hewes, 1974). The World Bank defined Rural Development as “a strategy designed to improve the economic and social life of a specific group of people – the rural poor. It involves extending the benefits of development to the poorest among those who seek a livelihood in the rural areas” (World Bank, 1975, p. 3).

The emphasis of development focussed on improved farming technology as a significant driver for production, the political economy of agrarian change (with a focus on equal job opportunities, income and power relations) and agriculture development (focused on small-farm agriculture) (Aziz, 1978; Ellis, 2000; Hewes, 1974). The newly emerged concept, Rural Development, led to a formal acknowledgement of poor communities and a need to measure and reduce global poverty, and improve employment, production and distribution (Aziz, 1978; Hewes, 1974). According to Ellis (2000), rural development policies remained successful for almost twenty years, and small farmers did increase agricultural productivity, but it did not reduce poverty. Lea and Chaudhri (1983) and Ho, Eyferth, and Vermeer (2004) maintained that the approach of agricultural development did not reduce absolute poverty. Instead, it made the poor worse-off by increasing social inequality and the income gap between rich and poor. One approach to combat concerns on poverty was the Sustainable Livelihoods Approach (Carney, 1998; Chambers & Conway, 1992; Conroy & Litvinoff, 1988). The concept tends to increase the effectiveness of interventions in developing countries and uses

elements of Rapid Rural Appraisal and Participatory Rural Appraisal tools (such as participatory approaches) to improve the efficiency of interventions in developing countries (Allison & Horemans, 2006; Morse & McNamara, 2013). In order to understand the Sustainable Livelihood Approach, it is important to explore the concept of livelihood in terms of livelihood sustainability.

2.5 Sustainable Livelihood

According to La-Blache (1911), cited in De-Haan (2012), the concept of '*livelihood*' was first used (1911) in French geography as "*genres de vie*, meaning the entity of livelihood strategies of a specific (human) group in a particular region" (p.348). In 1940, livelihood was used by Evans-Pritchard (1940), an anthropologist, to mean "a set of activities – mainly economic – through which people make a living" (De-Haan, 2012, p. 348). However, Polanyi and Pearson (1977) opposed the concept of livelihood being mainly an economic activity and stressed that it needs to be looked at from a socio-economic and historical perspective. Since then, the historical notions of what people do and what they have set the foundation of modern livelihood studies (De-Haan, 2012; Geiser, Müller-Böker, Shahbaz, Steimann, & Thieme, 2011).

Livelihood is a complex phenomenon with a mixture of aptitudes, material and social assets, and various activities that are required to ensure means of living (Ellis, 1998, 2000; Scoones, 1998). Livelihood systems are multidimensional which determine family/community lifestyle and the life-context within which people feel at home (Baumgartner & Hogger, 2004). People make livelihood choices by combining and using various assets to ensure livelihood outcomes such as more income, increased well-being, reduced vulnerability, improved food security, and more sustainable use of natural resource base (Babulo et al., 2008; DFID, 1999). These choices are made based on available "resources, skills and socio-economic status" (Owusu, 2007, p. 453).

In the 1980s, a decline in economic growth, drought, environmental degradation and population growth in sub-Saharan Africa raised concerns globally about population, resources, environment and development (Chambers, 1988). In this global concern, The World Commission on Environment and Development (the Brundtland Commission) played a crucial role in creating awareness about population, resources, environment and

development. The Brundtland Commission drew attention to the sustainable livelihood of the very poor (Brundtland, 1987). The Brundtland Commission report (1987) stressed that any practical implication or intervention (policy formulations) must start to ensure the fundamental rights of people and access to resources and capabilities. However, Chambers (1988) argued that "... none of the 24 items of the standard agenda [of the Brundtland Commission Report] started with people" (p. 6-7). Chambers (1988) claimed that top-down policy approach put pressure on deprived rural communities by exploiting rural resources. The Brundtland report stated that since most of the human population live in rural communities, which get less attention as compared to urban communities, people will migrate to urban centres, with more facilities and resources, which will result in pressure on urban resources and fragile urban environments impacting peoples livelihood (Brundtland, 1987). According to Chambers and Conway (1992),

A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with or recover from stress and shocks, maintain or enhance its capabilities and assets and provide sustainable livelihood opportunities for the next generation; and which contributes to net benefits to other livelihood at the local and global levels and in the short and long-term (Chambers & Conway, 1992, p. 6).

Carney (1998) defined livelihood as,

A livelihood system comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Carney, 1998, p. 2).

The concept of 'sustainable livelihood' first appeared in the World Commission on Environment and Development (1987) report which provided several definitions required for sustainable livelihoods;

Adequate stocks and flows of food and cash to meet basic needs. Security refers to securing ownership of, or access to, resources and income-offset risks, ease shocks and meet contingencies. Sustainable refers to the maintenance or enhancement of resource productivity on a long-term basis. A household may be enabled to gain sustainable livelihood security in many ways – through ownership of land, livestock or trees; rights to grazing, fishing, hunting or gathering; through stable employment with adequate remuneration; or through varied repertoires or activities (World Commission on Environment and Development, 1987, p. 3).

The concept of sustainable livelihood revolves around human needs and wants. According to Holden, Linnerud, and Banister (2017), various forms of basic needs can be expressed with the help of the capability approach. The capability approach is seen as the foundation for human development (Alkire, 2010). *“According to the capability approach, the need ends of well-being, justice, and development should be conceptualised in terms of people’s capabilities to function, that is their effective opportunities to act and do as they please, and to be whom they want to be”* (Holden et al., 2017, p. 217). Human needs for good health, autonomy, and the right for personal satisfaction were the basis for the capability approach (Doyal & Gough, 1991; Nussbaum, 2003; Nussbaum, 2011; Oosterlaken, 2009; Robeyns, 2005, 2006, 2011; Sen, 1993; Sen, 1999; Sen, 2005). The general understanding of the well-being of a person is what is good for him/her (Crisp, 2008; Raz, 1986). However, the standard expressions of well-being are articulated in terms of income and consumption patterns (Crisp, 2008).

De-Haan (2012) argued that the scholarship on livelihood is indebted to Amartya Sen’s and Robert Chamber’s work on capabilities and livelihood. In a household context capabilities is the ability to perform certain functions including nourishment, clothing, prevention of mortality, living a dignified life, freedom of mobility, and ability to communicate and general awareness (Chambers & Conway, 1992; Dreze & Sen, 1989; Sen, 1984a). The capability approach has been used to define individual well-being and social arrangements to formulate policies in areas such as development, welfare economics, policy, planning and political philosophy (Holden et al., 2017; Robeyns, 2005).

Chambers and Conway (1992) placed household livelihood into four categories, **a)** people (their livelihood capabilities), **b)** activities (what they do), **c)** assets (both tangible resources, i.e. land, water, trees, livestock, and tools) and stores (food stock, valuable goods such as gold, jewellery), and intangible (claims, demands and appeals – can be made on individual or agency basis) and access (opportunity to use, store/service/obtain information) and **d)** gains of outcomes (a living). The sustainability of livelihoods is determined by how the above-mentioned resources are utilised in conjunction with knowledge, skills, and creativity to generate livelihood and improve capabilities in the long-run, making life more sustainable (Chambers & Conway, 1992).

In order to gain a balanced perspective on sustainable livelihoods, it is crucial to understand the concept of poverty. The literature on poverty suggests that people are poor because of

lack of employment (Schumacher, 2011). Poverty is measured through indicators such as; income (wages or salaries) or consumption, but these may not determine individual well-being and do not reflect the reality of poor people (Chambers, 1995; Chambers & Conway, 1992). It is argued that poor people's livelihood systems are complex and dynamic in nature, which require access to resources mediated by institutional arrangements (Alary et al., 2014; Babulo et al., 2008; Baumgartner & Hogger, 2004; Bhandari, 2013; Chambers, 1995; Chambers & Conway, 1992; Ellis, 1998, 2000). According to De-Haan (2000), institutions/agencies have the power and capabilities to inspire poor people and provide solutions by enabling them to reshape social conditions and relationships.

Imperial (1999) defined institutions as *"an enduring regularity of human action structured by rules, norms, or shared strategies and the realities of the physical and biological work"* (p. 453). Institutional interventions are fundamental for poverty alleviation by ensuring access and availability through policy formulations *"which would bring the poor less vulnerability, more well-being and more sustainability"* (De-Haan, 2012, p. 347). According to De-Haan (2000), institutions need to ensure availability and access to resources. Access is defined as *"the process that brings stakeholders from the endowment to entitlement"* (Geiser, Bottazzi, et al., 2011, p. 317). Institutions ensure sustainable livelihood security by ensuring peace, providing basic necessities, right to ownership and use of various capital by managing available resources effectively (Chambers & Conway, 1992; De-Haan, 2000).

Chambers and Conway (1992) argued that the inheritance of assets such as skills, knowledge, land or tools transmitted from parents to their offspring through family apprenticeship is vital for ensuring inter-generational sustainability. Chambers and Conway (1992) added that the ability of the household to learn new forms of livelihood by investing in new aspirations such as modern education is critical to ensure livelihood sustainability at the household level. According to Church et al. (2000) such forms of investment are vital to connecting poor people with *"... jobs, services and facilities that they need to participate fully in society"* (p. 197). Levitas et al. (2007) explained such a lack of capabilities in terms of social exclusion, which is defined as:

The lack or denial of resources, rights, goods and services and inability to participate in the normal relationships and activities, available to the majority of people in a society, whether in economic, social, cultural or political arenas. It affects both the quality of life of individuals and the equity of cohesion of society as a whole (p. 9).

The holistic understanding of livelihoods needs to look beyond material and economic concepts (De-Haan, 2012; Kaag, 2004). Chambers and Conway (1992) claimed that rapid change, is occurring in every domain of human life and future conditions for survival and livelihood are becoming more uncertain and challenging. According to Chambers (1995), biases of development professionals, top-down approaches and poverty measurement (based on income) may contradict poor people's understanding of the concept of poverty. In a study in India and Bangladesh, where the rural poor were asked to list things which are essential to them based on their priorities, self-respect was put first, and income was listed later (Chambers, 1986, 1995; Jodha, 1986). Income as an indicator to measure poverty in wealthy parts of the world makes sense as "livelihood comes down to a wage or salary" (Morse & McNamara, 2013, p. 164). However, in poor parts of the world people have multiple sources of livelihood and not just wages and salaries (Chambers & Conway, 1992; Massy, 2017; Niñez, 1984; Tao & Wall, 2009). Similarly, in poor parts of the world, the consumption of various nutritious foods may not be the first priority in terms of sustainable livelihoods, instead of owning a mule/donkey may mean the most for the household to secure livelihood (Chambers, 1988). Hence, income and consumption criteria set by development professionals to measure poverty may not reflect poverty in a particular regional/location context (Chambers, 1988; Chambers & Conway, 1992; De-Haan, 2012; Jodha, 1986; Morse & McNamara, 2013). Certain locations may generate high income which is why people prefer to live in certain locations (Bilal & Rossi-Hansberg, 2018; Ma et al., 2018).

In order to understand the overall perspective of sustainable livelihood in a development context, it is essential to explore three fundamental concepts which are crucial to the subject under discussion. The concepts include; vulnerability, resilience and sustainability.

2.5.1 Vulnerability in a Livelihood Context

Human units such as individuals, household or families and communities are vulnerable to stresses (which are typically continuous, predictable and distressing) and shocks (which generally are sudden, unpredictable and traumatic) which are both internal (the capacity to cope) and external (the stress and shock to which they are subject to) (Chambers, 1989; Chambers & Conway, 1992). In a vulnerability context, the security of livelihood assets is the key element to ensure sustainable livelihoods as it safeguards access and availability of the resources required for livelihood (Chambers & Conway, 1992).

In the context of livelihood, the vulnerability has been highlighted in many studies such as Carney (1998); Chambers and Conway (1992); DFID (1999); Farrington, Carney, Ashley, and Turton (1999); Scoones (1998) and Shen (2009). Human life is exposed to numerous forms of vulnerability such as illness, injury, disability and death and often requires care for an extended time period (Mackenzie, Rogers, & Dodds, 2014a). It is argued that “the concept of vulnerability informs how we manage and classify people, justify state interventions in citizens’ lives, allocate resources in society and define our social obligations; it has important implications for ethics, social welfare and, ultimately, everybody’s life” (Brown, 2011, p. 313).

Alwang, Siegel, and Jørgensen (2002) argued that each discipline has its own understanding, definitions and measures for vulnerability. The World Bank was the first international organisation to recognise the need to define vulnerability in measurable and operational terms to facilitate policymakers and practitioners (Alwang et al., 2002). According to Brown (2011) in terms of “social citizenship and human rights...[vulnerability becomes]...part of the personal, economic, social and cultural circumstances within which all individuals find themselves at a different point in their lives, and is a fundamental feature of humanity” (p. 317). It is claimed that “the vulnerability of other human beings is the source of our special responsibilities to them” (Goodin, 1986, p. 107). Brown (2011) maintained that “someone is not vulnerable if they are plunging off the edge of a mountain to their death; they are vulnerable if they might...Undoubtedly [vulnerability is a] potentially powerful and significant notion for those interested in social justice, ethics and welfare” (p. 319). It is reasoned that increase in vulnerability will result in livelihood insecurities and which forces family members to take loans at high interest as a result of declining family support (Chambers, 1995).

Even though researchers acknowledge the difficulty in defining vulnerability they acknowledge the usefulness of the concept and have attempted to define the term (Blacksher & Stone, 2002; Brock, 2002; Nicholson, 2002; Rogers, 1997). According to Chambers (1995) vulnerability is “exposure and defencelessness...which could be both internal (lack of means to cope without damaging loss) and external (shocks, stress and risks)” (p. 189-190). Because of broad and poor definitions, the concept of vulnerability has attracted criticism (Hurst, 2008; Levine et al., 2004; Luna, 2009; Mackenzie et al., 2014a; Macklin, 2003). In response, Mackenzie, Rogers, and Dodds (2014b) “propose a taxonomy of three different sources of vulnerability (i.e. inherent [based on human need], situational [caused by personal, socio-

economic, environmental concerns] and pathogenic [based on ethics and moral]) and two different states of vulnerability (i.e. dispositional and concurrent)” (p.7). Livelihood vulnerability can be mitigated by livelihood resilience.

2.5.2 Resilience in a Livelihood Context

The United Nation acknowledged the importance of resilience in the livelihood literature after the global food crisis of 2007-08 and has been focusing on resilience as a critical element in socio-ecological systems (Bahadur, Lovell, Wilkinson, & Tanner, 2015; Pelletier, Hickey, Bothi, & Mude, 2016). Socio-ecological systems are the ability of a system to maintain a healthy structure (Bratdmöller et al., 2017; Folke, 2006; Gunderson, 2001; Johnson et al., 2011; Walker et al., 2006). Resilience is measured in terms of the degree of connectedness and potential of resilience of any community (Bratdmöller et al., 2017). The assumption is that stability and change are both integral components of socio-ecological systems and can absorb stresses and shocks from both internal and external sources (Redman, 2012). Various themes used to study resilience include agricultural intensity (Bratdmöller et al., 2017; Rosen et al., 2012; Weiberg, 2012), livelihood diversity (Nelson, Hegmon, Kulow, & Schollmeyer, 2006; Rosen et al., 2012), food storage (Nelson et al., 2006), subsistence specialization (Marston, 2015), trade and redistribution (Dunning, Beach, & Luzzadder-Beach, 2012), social organisation and networking (Cooper, 2012; Dunning et al., 2012; Nelson et al., 2006; Weiberg, 2012), change in demography and rate of population growth (Allcock, 2017; Marston, 2015) and mobility (Zimmermann, 2012).

According to Bratdmöller et al. (2017) “not all attributes influence the resilience value similarly” (p. 10). Some may have a positive impact, while others may have a negative impact and the contribution of each parameter differs depending upon the system and available livelihood capitals (Abel, Cumming, & Anderies, 2006). Details about the capitals are discussed in detail later in this chapter. The resilience of the socio-ecological system is determined by the robustness of mitigation and adaptation of the reorganisation phase of a system to a new equilibrium (Bratdmöller et al., 2017). It is argued that resilience translates the transformative processes to be better off in the long-run by responding to shocks and stresses and developing processes to support these transformations and capacities related to diverse capitals (Béné et al., 2014; Fan, Pandya-Lorch, & Yosef, 2014; Frankenberger, Mueller, Spangler, & Alexander, 2013; Pelletier et al., 2016). It is reasoned that as “individuals, groups, or systems

move through time, threats and stressors change as do specific historic situations, therefore resilience strategies change and flexibly adapt to the particular situation or emerge newly” (Lorenz, 2013, p. 12).

Resilience is not an end in itself. Instead, it is a means to other development goals such as poverty reduction, food security, equity and well-being (Béné et al., 2014; Davies, Robinson, & Ericksen, 2015). The challenge “lies in the fact that resilience is best understood as being embedded within dynamic and highly contextual processes”(Pelletier et al., 2016, p. 470). Diversification of farm and off-farm related activities are typical examples of building resilience in agriculture by building multiple functions in a farming system (Bailey & Buck, 2016; Bennett et al., 2014; Pelletier et al., 2016). Recent studies argued that resilience could be used as a useful tool to study socio-ecological systems, mobility, economic needs and social systems (Bradtmöller et al., 2017; Espiner, Orchiston, et al., 2017; Walker & Salt, 2012). There is also a need for comprehensive understanding of both livelihood systems at an individual and community level (Gronenborn, Strien, & Lemmen, 2017; Olson, 1971; Ritter, 1948; Turchin, 2003). If a socio-ecological system is more resilient it can absorb more significant disturbances (Walker et al., 2006) and may shift to a new stable level with more exceptional capabilities (Lorenz, 2013). Capabilities are the ability to perform certain functions including; nourishment, clothing, preventing mortality, living a dignified life, freedom of mobility, and ability to communicate and awareness (Chambers & Conway, 1992; Dreze & Sen, 1989; Sen, 1984a). This can be expressed in terms of sustainability in the livelihood context.

2.5.3 Sustainability in a Livelihood Context

The Brundtland Commission report defined the term ‘sustainability’ as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987, p. 43). The report acted as a catalyst and stirred a global movement to look at global concerns from a different perspective, placing value in the future was a key finding of the report (Scoones, 1998, 2007). Human ingenuity often rationalises short-term over long-term benefits, and it is a professional and political challenge to offset that thinking for the sake of generations to come (Chambers & Conway, 1992). Since then, sustainability has become a buzzword (Scoones, 2007). According to Gieryn (1999) sustainability is the place where every discipline meets and plays a vital role in policy formulation and development.

The Rio Conference (1992), convened by the United Nations became the global initiative in terms of sustainability. The conference was attended by 178 nations and over a thousand civil society representatives (non-government organisations). It was agreed to take practical measures to address global environmental issues such as climate change, biodiversity and desertification (Young, 1999). A reporting system (Agenda 21) was agreed to take actions from the bottom up by involving various key stakeholders such as local governments, community groups and individuals (Selman, 1998). Scoones (2007) argued that various international agencies, such as the International Institute for Environment and Development (London), Centre for Science and Environment (Delhi), World Resources Institute (Washington), and International Institute for Sustainable Development (Manitoba), influenced the global policy debate on sustainability with an aim to turn theory into practice. The result of such work can be seen in the form of policy formulation, planning frameworks and indicators to measure sustainability. The real key outcome of this exercise was that governments and non-government organisations hired/commissioned experts to conduct studies on the Sustainable Livelihood Approaches (Scoones, 1998). International non-government organisations such as Oxfam Great Britain, and the United Nations Food and Agriculture Organisation, developed their own approaches around the Sustainable Livelihood Approach to achieve objectives such as poverty reduction (Neefjes, 2000; Scoones, 2007).

2.5.3.1 Sustainable Livelihood Approach

The Sustainable Livelihood Approach evolved from the context of international development, and it uses elements of Rapid Rural Appraisal and Participatory Rural Appraisal tools (such as participatory approaches) to increase the effectiveness of interventions in developing countries (Allison & Horemans, 2006; Morse & McNamara, 2013; Tao & Wall, 2009). The Sustainable Livelihood Approach was used to analyse people's current livelihoods to avoid negative externalities of policy implementations and derive policy recommendations (Morse & McNamara, 2013). The Sustainable Livelihood Approach was the first attempt which combined various perspectives of development such as income, poverty, health, employment, education, agriculture and infrastructure (Krantz, 2001).

The Sustainable Livelihood Approach uses the Sustainable Livelihood Framework (see Figure 1 below) to analyse the livelihood of poor people becoming an operational vehicle for human development and enhancing capabilities (Singh & Gilman, 1999). The approach uses various

perspectives and engages with participants to understand current livelihood challenges and evolution of livelihood over time and what interventions should be taken to help improve livelihood (Morse & McNamara, 2013). The Sustainable Livelihood Approach is built upon people's involvement and engagement in the processes of multi-sector development (Butler & Mazur, 2007; Høgh-Jensen, Oelofse, & Egelyng, 2010; Tao & Wall, 2009). The critical contribution of the Sustainable Livelihood Approach is to include all livelihood components or aspects which contributes towards sustaining livelihoods (Allison & Ellis, 2001; Krantz, 2001) as people may have multiple sources of livelihood (Ellis, 1998; Tao & Wall, 2009). It is argued that the Sustainable Livelihood Framework provides a checklist of essential elements required for livelihood (Morse & McNamara, 2013).

The Sustainable Livelihood Approach can be used in multiple ways. For instance, Farrington (2001) and Morse and McNamara (2013) argued that the Approach could be used as a set of principles (to guide development interventions), an analytical framework (to understand what is and what can be achieved), and as a development objective. Similarly, it can be used to develop indicators towards gaining a sustainable livelihood (Bondad-Reantaso, Bueno, Demaine, & Pongthanapanich, 2009; Bueno, 2009), to plan and guide interventions, while "...the framework is designed to encourage an exploration" (Morse & McNamara, 2013, p. 164).

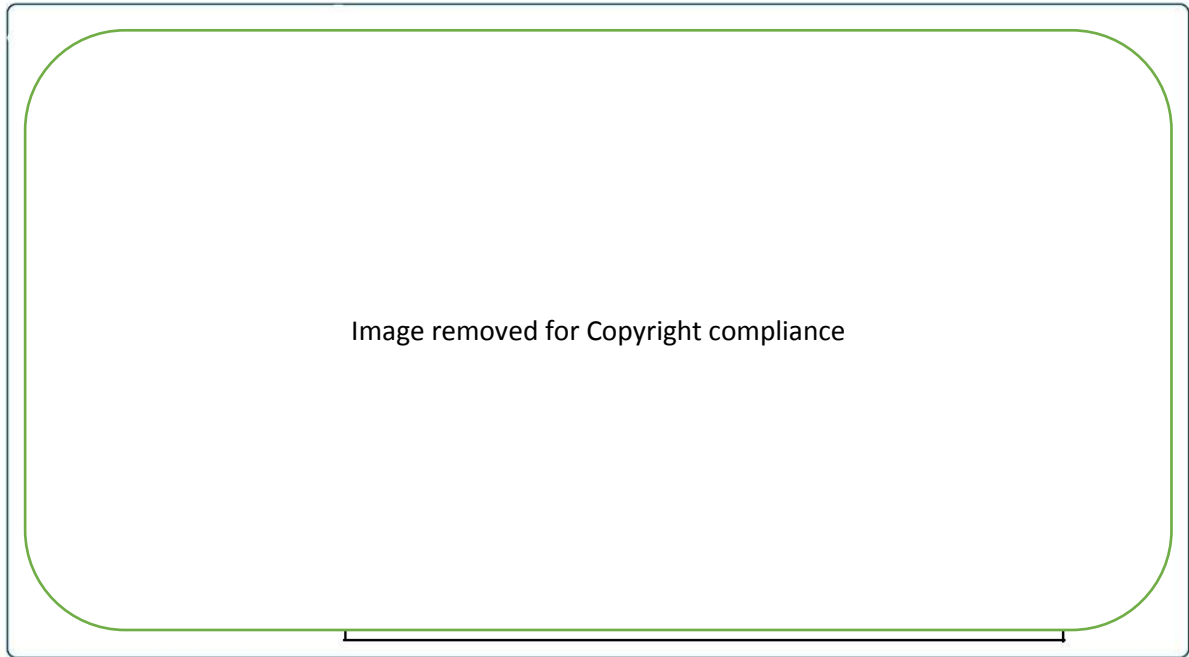


Figure 1 Department for International Development's Sustainable Livelihood Framework (Carney, 1998)

The Department for International Development's Sustainable Livelihood Framework is based on five key features which are: livelihood assets/capitals, transforming structures and processes, vulnerability contexts, livelihood strategies and livelihood outcomes. According to Morse and McNamara (2013), these elements are essential for sustainable livelihood. This study uses the Sustainable Livelihood Framework as a guideline to understand the impacts of transport infrastructure development on livelihood at the macro-level (regional and divisional level) and micro-level (local village and district level) in tourism context.

2.5.3.2 Tourism Context

The current study discusses livelihood diversification and transport infrastructure in development in a tourism context. A variety of factors shape tourism markets, tourism product supply and tourist demand (Griffin, 2013; Jafari, 1974, 1986; Murphy et al., 2000; Schollmann, 2003; Smith, 1994). The tourism product consumer profile can be divided into domestic and international tourists. According to Archer (1978), domestic tourist demand and consume locally produced goods and services which is why domestic tourists contribute more to local economies. However, in general, international tourists require high-quality products and services which require high investment and is beyond the capabilities of local (poor) communities (Shen, 2009). International tourists may also have high socio-cultural impacts

(Archer, 1978). Which is why tourism as a livelihood choice in rural communities needs examining (Akyeamong, 2011; Wu & Pearce, 2014).

The year 2017 was declared to be the “international year of sustainable tourism for development” (UNWTO, 2018b). It is argued that “tourism has the potential to contribute, directly or indirectly to [achieve Sustainable Development Goals]... to achieve the 2030 Agenda for sustainable development” (UNWTO, 2018b). Sustainable Development Goals which can benefit from tourism directly (UN, 2015) include: Goal 8 (promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all); Goal 12 (ensure sustainable consumption and production patterns); and Goal 14 (conserve and sustainably use the oceans, seas and marine resources for sustainable development). The tourism industry influences and interacts with economic, socio-cultural, political, and institutional factors impacting peoples’ choices in performing tourism and non-tourism related livelihood activities (Ashley, 2000a; DFID, 1999; Shen, 2009; Tao & Wall, 2009; Yang, Ryan, & Zhang, 2013). According to the United Nations World Tourism Organisations’ World Tourism Barometer,

International tourist arrivals grew by a remarkable 7% in 2017 to reach a total of 1,322 million... This is well above the sustained and consistent trend of 4% or higher growth since 2010 and represents the strongest results in seven years” (UNWTO, 2018a).

In the case of rural areas, where tourism is popular, non-farm activities may be closely linked with the tourism industry (Ashley, 2000a; Ellis, 1998, 2000; Tao & Wall, 2009). The livelihood choices made by people are influenced by interventions, government policies, vulnerabilities, availability and access to resources (Ashley, 2000a; Ellis, 2000; Shen, 2009).

2.5.3.3 Livelihood Assets/Capitals

Different organisations and agencies have grouped livelihood capitals in various ways, but this research adapts DFID (1999) capital grouping with the addition of Institutional Capital introduced by Brinkerhoff and Goldsmith (1992), also used by Chambers and Conway (1992) and Shen (2009). In a tourism context Shen (2009) presented attraction capital which constituted “various public and private-owned properties which can be used as tourism resources” (p.254). However, the definition of attraction capital does not fit with the holistic understanding of the tourism industry which overarches on all capitals. Tourism benefits and

preys on every single capital. Which is why tourism attraction cannot be confined to just one form of attraction such as 'public and privately-owned properties'.

The Department for International Development considered livelihood assets fundamental to sustain livelihood which were grouped in the form of livelihood asset/capital pentagon (DFID, 1999). The livelihood assets/capitals (henceforth capitals for simplification purposes) are the core of livelihood and gives meaning to an individual's world as people combine various livelihood capitals to create a livelihood (Bebbington, 1999). There is no ranking of the different elements of the livelihood capital pentagon (Morse & McNamara, 2013). For this study the livelihood capitals constitute six capitals including Human (H), Social (S), Natural (N), Physical (P), Financial (F), and Institutional (I).

The various capitals in the Sustainable Livelihood Framework have their roots in economics which can be termed as factors of production, or any input (both tangible and intangible) that can go into production (Morse & McNamara, 2013). Capitals can be defined as a *"means by which people can engage more fruitfully and meaningfully with the world, and most importantly, the capabilities to change the world"* (Morse & McNamara, 2013, p. 30).

Capitals are not confined to a set of fixed capitals (Serageldin & Steer, 1994), capitals can be traded, created and destroyed (Bebbington, 1999; DFID, 1999; Morse & McNamara, 2013). For instance, financial capital can be used to buy natural capital (land) and similarly, human capital (skills and education) can be used to create financial capital.

The livelihood capital pentagon shows the inter-relationship between the livelihood capitals based on access (DFID, 1999). The centre of the capital pentagon shows zero access to capitals, whereas the outermost parameter represents maximum access. If all the available livelihood capitals are balanced, they produce sustainable livelihood outcomes. In the pentagon the distance of the capitals from the centre is equal. This does not mean that capitals are of the same quantity, but rather, that the capitals are in a sustainable proportion with each other. The distance from the centre may change as the contribution of the capital changes as shown in Figure 2. If the proportions change equally then livelihoods remain sustainable (unless they reach zero). The distance from the centre may vary as the contribution of capital changes, i.e. increases or decreases.

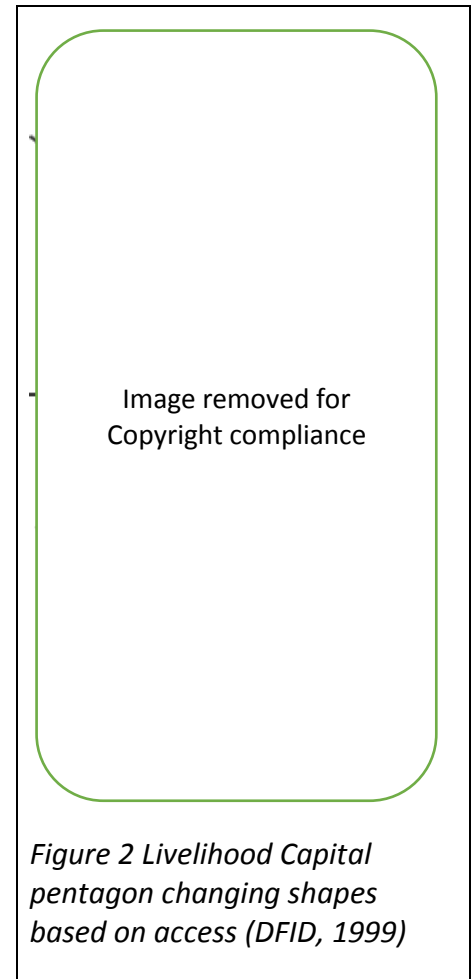
The livelihood capitals used for this study are discussed in terms of various themes highlighted in the literature. According to DFID (1999), improvement or degradation in access to these themes will result in an expansion or contraction of the livelihood capital pentagon (hexagon in this study). Livelihood capitals and respective themes used in this thesis are discussed as follow.

2.5.3.3.1 Human Capital

According to DFID (1999) human capital “represents the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives” (p. 17). Human capital themes highlighted by Scoones (1998), DFID (1999), Goodwin (1998), Abel et al. (2006) and De-Haan (2012) constitute labour, knowledge and skills, belief systems, experiences and innovation.

2.5.3.3.2 Social Capital

Social capital “is taken to mean the social resources upon which people draw in pursuit of their livelihood objectives” (DFID, 1999, p. 21). Social capital reduces transaction costs, improves efficiency and has a direct impact on other capitals. Social capital themes



highlighted by Scoones (1998) and DFID (1999), constitute social networks, formal and informal institutions, rules, norms and sanctions, quality of relationships, support, trust and reciprocity.

2.5.3.3.3 Natural Capital

Natural capital constitutes of natural resource stock which is useful for human livelihood (DFID, 1999, p. 23). Natural capital themes highlighted by DFID (1999) constitute of natural ecosystems that support human societies such as land, water, forest, pastures, wildlife and minerals.

2.5.3.3.4 Physical Capital

According to DFID (1999), physical capital constitutes “the basic infrastructure and producer goods needed to support livelihoods” (p. 25). Physical capital themes highlighted by DFID (1999); Goodwin (1998) and Scoones (1998) includes basic infrastructure (transport infrastructure such as roads and bridges), producers goods, houses, tools, farm equipment and machinery, technology, food stock or livestock and jewellery. According to DFID (1999)

“...Poverty assessments have found that lack of particular types of infrastructure is considered to be a core dimension of poverty. Without adequate access to services such as water and energy, human health deteriorates and long periods are spent in non-productive activities such as the collection of water and fuel wood. The opportunity costs associated with poor infrastructure can preclude education, access to health services and income generation. For example, without transport infrastructure, essential fertiliser cannot be distributed effectively, agricultural yields remain low and it is then difficult and expensive to transport limited produce to the market. The increased cost (in terms of all types of capital) of production and transport means that producers operate at a comparative disadvantaged in the market”(DFID, 1999, p. 25).

2.5.3.3.5 Financial Capital

Financial capital is the most versatile capital, which can be transformed into other capitals directly, to create additional assets directly (money to buy land), can be used to influence people for active political participation (e.g. lobbying through financial investments), and is the least available to very poor people (DFID, 1999). According to the DFID (1999) “financial capital denotes the financial resources that people use to achieve their livelihood objectives” (p. 27). Financial capital themes highlighted by the DFID (1999), includes access to money, e.g. savings (accounts or old stock), pensions, remittances and loans or credit.

2.5.3.3.6 Institutional Capital

Institutional capital is significant in terms of intervention, policy formulation, and smooth functioning of the healthy society and as noted by Brinkerhoff and Goldsmith (1992); Brown (1998a); Chambers and Conway (1992); De-Haan (2012) and Shen (2009). Institutional capital can be explained in terms of peoples access to the decision making and willingness to reflect on political decisions, participation in management, benefit-sharing and access to market (Ashley, 2000a; Goodwin, 1998; Shen, 2009).

Keeping in mind the focus of the research, tourism-related institutional capitals provide,

Access to tourist markets, tourism benefits sharing, and access and participation in the policy-making process, and the extent that people's willingness to be involved is reflected in political decisions to achieve better livelihood outcomes. It calls for strengthening people's participation in political governance" (Shen, 2009, p. 60).

The livelihood capitals explained above are not able to ensure a sustainable livelihood unless the access to these capitals is guaranteed. Institutional arrangements such as government, private and non-government organisations play a vital role in providing access to these resources. Institutional arrangements can be explained in terms of transforming structures and processes (DFID, 1999).

2.5.3.4 Transforming Structures and Processes

Transforming structures and processes can be explained in terms of institutional arrangements. Institutional arrangements are defined as *"the structure of relationships between the institutions involved in some type of common endeavours...which [regulates]...human action[s] structured by rules, norms, of shared strategies and the realities of the physical and biological world"* (Imperial, 1999, p. 453). Transforming structures and processes play a vital role in shaping livelihood capitals, providing access and ensuring livelihood outcomes (DFID, 1999; Shen, 2009). Which is why "successful growth and development requires...efficient institutions in all sector – public, private and non-government/non-profit" (Brown, 1998a, p. 57).

Transforming structures constitute public and private sector policy, laws and institutions which play a vital role in policy formulating and implementation (Brinkerhoff & Goldsmith, 1992; DFID, 1999). According to Torfing (2012) institutions (horizontal and vertical) steer

coordination and mobilise social actors at the global and local level to gain specific objectives.

Torfinn (2012) explained:

Many of these actors move freely between the subnational, national, transnational, and sometimes even global levels of governance. In such a highly complex web of governance, upholding traditional values of governance such as representation, accountability, demos, elective office, and administrative ethos becomes a challenge in itself (Torfinn, 2012, p. 101).

Keeping in mind the complexity of the tourism industry, Shen (2009) explains the specific institutional arrangements in a tourism context.

With tourism, institutional arrangements are reshaped. Vertically, tourism-related government sectors did not exist before tourism, are created, which reinforces the relationships between governments at the national, regional and local levels. Horizontally, tourists, external investors and (I)NGOs² move into the destination and change the local institutional structures (Shen, 2009, p. 61).

2.5.3.5 Vulnerability Context

The literature on livelihood proposes four types of vulnerabilities: shocks, trends, seasonality and institutions (Ashley, 2000a; DFID, 1999; Ellis, 1998, 2000; Shen, 2009). Shocks could be related to health (diseases), natural disasters, economic (financial crisis), and conflicts (war, sectarian clashes, terrorism). Shen (2009) argued that the livelihood literature rarely takes seasonality as a constraint which may also increase vulnerability. According to Shen (2009), in the tourism context, “vulnerability at different levels varies. At the national and regional level, trends are more of a concern than shocks, seasonality and institutions. At local levels, seasonality is a more direct risk” (p. 62). Seasonality is predictable, but according to Dercon and Krishnan (2000), consumption shortfall due to price hikes in the future may be termed as a vulnerability as it can not be predicted.

2.5.3.6 Livelihood Strategies

According to Shen (2009) “strategies are activities that people undertake to achieve their livelihood goals” (p. 59). There is substantial literature showing that poor people rely on a number of livelihood strategies (Alary et al., 2014; Ayanwale & Amusan, 2014; Babulo et al., 2008; Ellis, 1998; Rahut & Micevska Scharf, 2012; Soltani, Angelsen, Eid, Naieni, & Shamekhi, 2012). A rural livelihood comprises many activities including cultivation, keeping livestock,

² International Non-Government Organisations

hunting and gathering, wage labour, handicrafts and various forms of services (Chambers & Conway, 1992; Ellis, 1998; Ellis & Freeman, 2004). According to Gaillard, Maceda, Stasiak, Le Berre, and Espaldon (2009) “livelihoods rarely refer to a single activity. It includes complex, contextual, diverse and dynamic strategies developed by households to meet their needs” (p. 121).

One livelihood strategy commonly explained in the tourism literature is diversification (Hussain, 2017; Sharpley, 2002; Shen, Hughey, & Simmons, 2008). The concept of livelihood diversification strategies is defined as “*the process by which rural families construct a diverse portfolio of activities and social support capabilities in their struggle for survival and in order to improve their standards of living*” (Ellis, 1998, p. 4). According to Ellis (1998), some literature regard diversification as,

A matter of survival, emphasising the reasons for diversification born of desperation (poverty, lack of assets, vulnerability, disaster). Other branches of the literature focus, by contrast, on diversification as a matter of choice and opportunity, involving proactive household strategies for improving living standards (Ellis, 1998, p. 7).

Diversification opportunities include tourism seasonality, labour market availability, risk strategies and coping behaviours of those who are involved in off-farm diversity (Alderman & Sahn, 1989; Iorio & Corsale, 2010; Sharpley, 2002). According to Alderman and Sahn (1989), diversification attracts labour from the lower (farm-related) to higher economic return activities (non-farm), which is why people tend to migrate seasonally to non-farm activities to ensure future income sources and minimise risks (Bryceson, 1996). According to Ellis (1998), livelihood diversification components include “cash earnings from the stock sale, wages, rents and remittances” (p. 4). It is argued that tourism-related diversification activities may impoverish agriculture by attracting resources away from traditional agricultural activities (Low, 1986).

2.5.3.7 Livelihood Outcomes

According to DFID (1999) “livelihood outcomes are the achievements or outputs of livelihood strategies” (p. 37). Livelihood outcomes can be listed as; more income, increase well-being, reduced vulnerability, improved food security and more sustainable use of the natural resource base such as the environment (Ashley, 2000a; Carney, 1998; DFID, 1999). In a tourism studies context, Shen (2009) listed the benefits of tourism to livelihood outcomes as

long-term economic benefits in terms of income source; stable socio-cultural benefits; natural resource protection; and institutional development through public participation.

2.5.4 Research Gap

Based on discussion above research gap is identified and discussed in relation to transport infrastructure development, a critique on Sustainable Livelihood Approach in relation to Resilience and Sustainability.

2.5.4.1 Transport Infrastructure Development and Tourism

From the discussion above, it can be argued that transport infrastructure is vital to tourism development (Khadaroo & Seetana, 2008; Prideaux, 2000). However, the literature fails to identify the role of transport infrastructure development on livelihood diversification strategies. In reference to the central research question of the current study, billions of dollars' worth of projects related to transport infrastructural development are in progress for trade and security purposes in the disputed territory of Gilgit-Baltistan (Joseph, 2014). The transport infrastructure development has resulted in the growth of tourism, and many people have diversified from subsistence farming towards tourism-related monetary economies (Hussain et al., 2017). The literature has acknowledged the importance of transport infrastructure in the tourism sector, but the role of transport infrastructure on livelihood diversification strategies in reference to tourism has not been considered yet. There is no such study that links investment in road infrastructure development on livelihood diversification strategies associated with tourism. There is a need to investigate the consequences of transport infrastructure development projects on the livelihoods of these once geographically isolated communities of Gilgit-Baltistan in reference to tourism.

2.5.4.2 A Critique on Sustainable Livelihood Approach

Even though Sustainable Livelihood Approach incorporates all the elements required for a livelihood the framework has been criticised because of its focus on micro-level analysis and its failure to encompass generalised trends at the macro-level (De-Haan, 2012; Morse & McNamara, 2013). It is argued that global crises, such as financial and health-related, will have

severe impacts on global communities at the 'household-scale'³ (Morse & McNamara, 2013). It is reasoned that the complexity and multidimensionality of livelihoods need a holistic understanding in relation to development problems (Dillen, 2002). The current approach does not explain how livelihood capitals are created and destroyed through external interventions, how people respond and how they are involved in policy formulation (Crouch & McKenzie, 2006; Morse & McNamara, 2013). According to Morse and McNamara (2013) "all development is undertaken within a wider socio-economic and cultural context, the boundaries of which extend beyond the immediate locality of the project" (p. 61). Which is why there is a need to create linkages between macro and micro analysis with a focus on national-level interventions and their impacts by defining a precise mechanism of data analysis and evidence-based policy formulations (Clark & Carney, 2009). It is vital not to neglect the impacts at every level, i.e. local, regional, national and international level (De-Haan, 2012). Consequences can be analysed and understood by focusing on all the related indicators of livelihood, not just a few indicators such as income, health care and education as a measure of the Human Development Index (Morse & McNamara, 2013).

The Sustainable Livelihood Approach takes multidisciplinary, context-specific, complex, diverse and risk-oriented development strategies to understand people's access to resources and how social and institutional processes mediate that access at the community level. However, the Sustainable Livelihood Approach has failed to understand the long-term economic changes affected by organisational and political implications and how these different trajectories have changed at household and village level, which ultimately change livelihood opportunities and constraints (De-Haan, 2012). The approach does not seem to engage the question of economic globalisation (free movement of goods, capital, information etc), power politics (regional, national and international), long-term changes to the environmental and rural communities (De-Haan, 2000, 2012). According to De-Haan (2012), the preferred approach to analysis needs to narrow framing at the micro level while aggregating and broadening analysis at the macro level. Therefore, this study investigates the

³ Distinguishable social unit under the management of a household head. The household shares a community of life in that they are answerable to the same household head and share a common source of food (Morse, McNamara, & Okwoli, 2017).

impacts of road infrastructure on livelihood strategies at both the macro (regional and divisional levels) and micro levels (local village and district levels) in a tourism context.

2.5.4.3 Resilience and Sustainability

The literature has highlighted the importance of resilience, and there is need to emphasise on the importance of resilience to gain long-term sustainable livelihood outcomes (Béné et al., 2014; Bradtmöller et al., 2017; Rosen et al., 2012; Weiberg, 2012). Recently resilience has been used to understand nature-based tourism systems (Becken & Wilson, 2013; Lew, 2014). According to Espiner, Stewart, and Lama (2017) “there is no guarantee that the decision communities make in the interests of maintaining the short to the medium term economic viability of their tourism enterprises will lead to outcomes that are desired and sustainable in the long term” (p. 1386). Many authors see resilience as a new way to conceptualise sustainability (Lew, 2014; McCool et al., 2013; Moyle, McLennan, Ruhanen, & Weiler, 2014). There is agreement that both concepts are vital to the livelihood system (Espiner, Orchiston, et al., 2017; Hall, 2007; McCool, 2015). However, Espiner, Orchiston, et al. (2017) argued that “the two concepts deviate in important ways which, in the interests of both theory and practice, need to be critically explored” (p. 1386).

Hence, the need to incorporate resilience into tourism planning becomes crucial to understand uncertainties (Lew, 2014; Luthe & Wyss, 2014; Strickland-Munro et al., 2010). According to Espiner, Orchiston, et al. (2017) “failure to incorporate resilience measures into sustainable tourism discourse and future planning frameworks, including assessment of sustainable tourism, is to misrepresent the phenomenon of sustainability” (p. 1395). It is argued that resilience acknowledges complexities, adapts to change proactively and embraces change by capacity building whereas sustainability emphasis is upon mitigation to prevent change (Derissen et al., 2011; Lew, 2014).

Therefore, planning approaches need to change from maintaining a particular state to a responsive approach (by capacity building) to an unavoidable change at regional, national and international level (Farrell & Twining-Ward, 2004; Hall, 2005; Hall, 2007). Short-term response strategies of communities may not serve the purpose of sustainability. Instead, the strategy may increase vulnerabilities which can be resolved by incorporating resilience into long-term planning (Hopkins, 2015; Hopkins & Becken, 2014). It is important to note that both concepts,

sustainability and resilience, need effective management and governance systems to gain desired outcomes (Espiner, Orchiston, et al., 2017).

Keeping in mind the importance of both concepts, this study brings together both sustainability and resilience to measure livelihood outcomes in reference to transport infrastructure development in a tourism context.

2.6 Concluding Statement

This chapter has examined the relationship between transport infrastructure development and livelihood sustainability in a tourism context. In order to understand the overall context of development in rural areas, various concepts such as livelihood, vulnerability, resilience, sustainability and transport infrastructure development were explored. Various. In this thesis, multiple elements of the Sustainable Livelihood Approach are being used as a guideline to examine livelihood strategies and livelihood outcomes in a tourism context. The tourism studies have shown that tourism is contributing significantly towards livelihood sustainability of rural communities by providing off-farm tourism livelihood.

From the discussion above, it is evident that transport infrastructure development is a crucial element to successful tourism development and tourism-related livelihood strategies. In order to understand livelihood strategies adopted by people in tourism destinations, it is essential to comprehend the change in livelihood strategies in response to transport infrastructure development. Gilgit-Baltistan, a once geographically isolated region, is now connected with the rest of the world through transport infrastructure development. Therefore, Gilgit-Baltistan is a new and significant setting to study. Livelihood strategies before and after transport infrastructure are analysed in Chapter 5, 6 and 7 to comprehend the consequences of transport infrastructure development on livelihood strategies in a tourism context.

Chapter 3 Study Setting

3.1 Introduction

The focus of the study was to investigate the consequences of road infrastructure on livelihood strategies in a tourism context. Therefore, Gilgit-Baltistan was chosen as the study setting. Gilgit-Baltistan was once geographically isolated and was opened to the rest of the world due to the formation of road infrastructure development for trade and security purposes. The strategic importance of road Gilgit-Baltistan resulted in transport infrastructure development. This chapter outlines the geography and strategic importance of Gilgit-Baltistan, which resulted in the transport infrastructure development at the macro (regional, divisional) and micro levels (district/local level). Numerous historical events shaped the current administrative status of Gilgit-Baltistan (for details, please refer to Appendix A). Keeping in mind the focus of the research the study focuses on the post-partition scenario (after partition – 1947) with a little emphasis on the colonial and pre-colonial period. The chapter begins by discussing the study area at regional (Gilgit-Baltistan) and divisional (Baltistan) [macro levels] and local and district levels [micro levels]. The chapter then discusses the significant improvement in access to Gilgit-Baltistan, especially road infrastructure development and how it has resulted in tourism-related livelihood activities.

3.2 Gilgit-Baltistan: At Macro Level

Gilgit-Baltistan was selected to understand the consequences of transport infrastructure development at the macro level. Gilgit-Baltistan, a disputed territory under Pakistan administration, is strategically located in the heart of the Asian Subcontinent and acts as a gateway to the Southern, Central and Eastern Asian countries. Gilgit-Baltistan is located at 35°54'59.99" N 74°17'60.00" E connecting East to West through mountain passes and road networks. The region of Gilgit-Baltistan is situated along the ancient silk route. Gilgit-Baltistan covers an area of 72,496 square kilometres (IFAD, 2016; World Bank, 2011) and has an estimated population of 1.8 million (Burki, 2015). Gilgit-Baltistan borders Uyghur autonomous region of Xinjiang in the North-East (China), disputed Jammu and Kashmir to the South and South-East (Indian administered part of Kashmir), disputed Azad Jammu and Kashmir to the South (Pakistan Administered Kashmir), Khyber Pakhtunkhwa to the West (province of

Pakistan), and the Wakhan corridor to the North-West (part of Badakhshan province of Afghanistan) as shown in Figure 3 below.

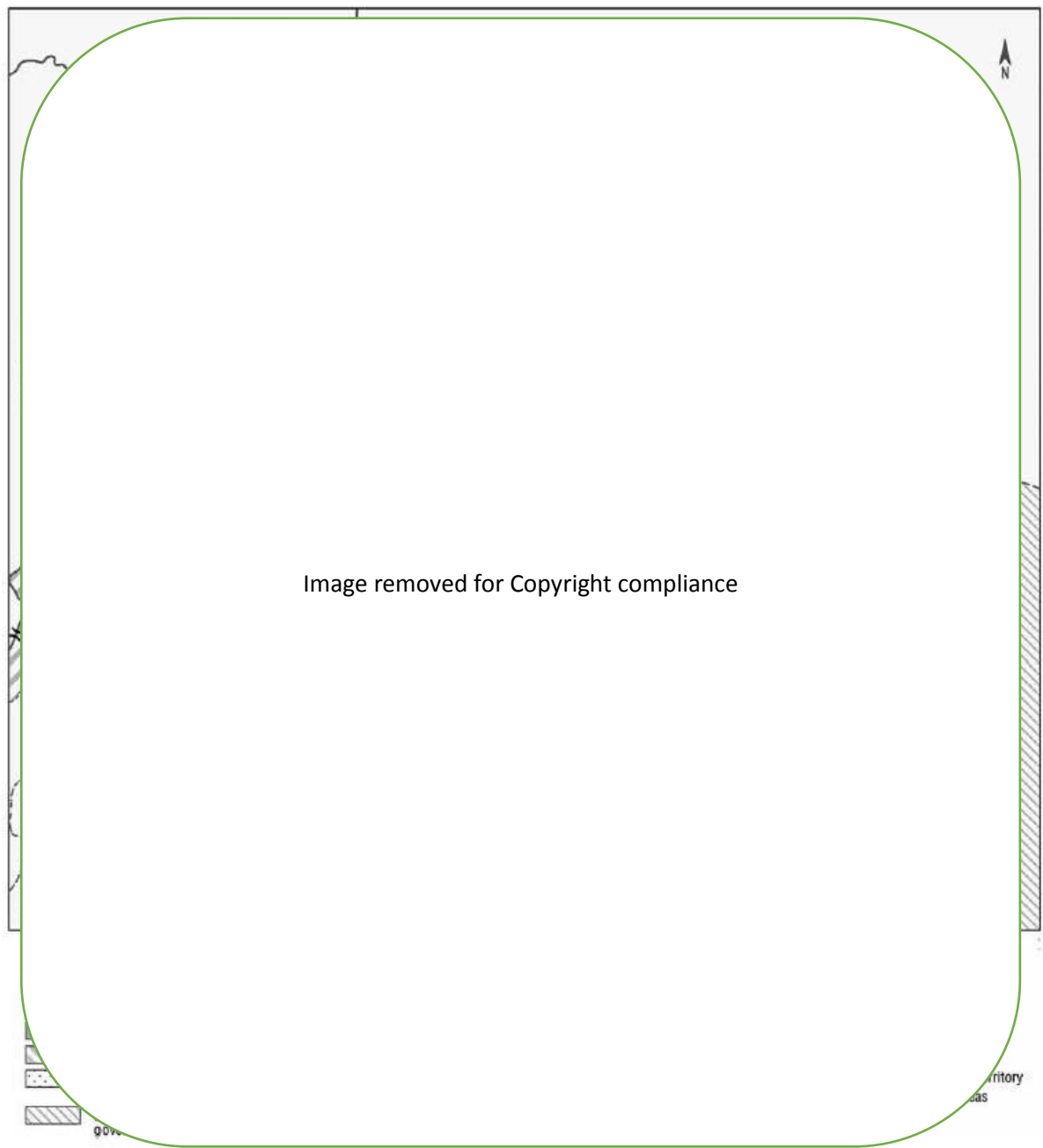


Figure 3 Disputed region Map showing disputed regions in Central Asia including Gilgit-Baltistan. Source: Kreutzmann (2015)

In an administrative sense, Gilgit-Baltistan comprises three divisions (Gilgit, Baltistan and Diamer), fourteen districts (Gilgit: Gilgit, Ghizer, Gupis-Yasin, Hunza and Nagar; Baltistan: Skardu, Ghanche, Shigar, Kharmang and Roundu; Diamer: Diamer, Astore, Darel and Tangir). The current research focuses on three administrative levels, such as regional (Gilgit-Baltistan), divisional (Baltistan division) and district level (Shigar and Ghanche district) (see Figure 3

below). In this study, analysis is done at macro and micro levels. Macro-level analysis constitutes of Gilgit-Baltistan (regional) and Baltistan (divisional). Whereas, micro-level analysis constitutes of Khaplu and Shigar (districts).

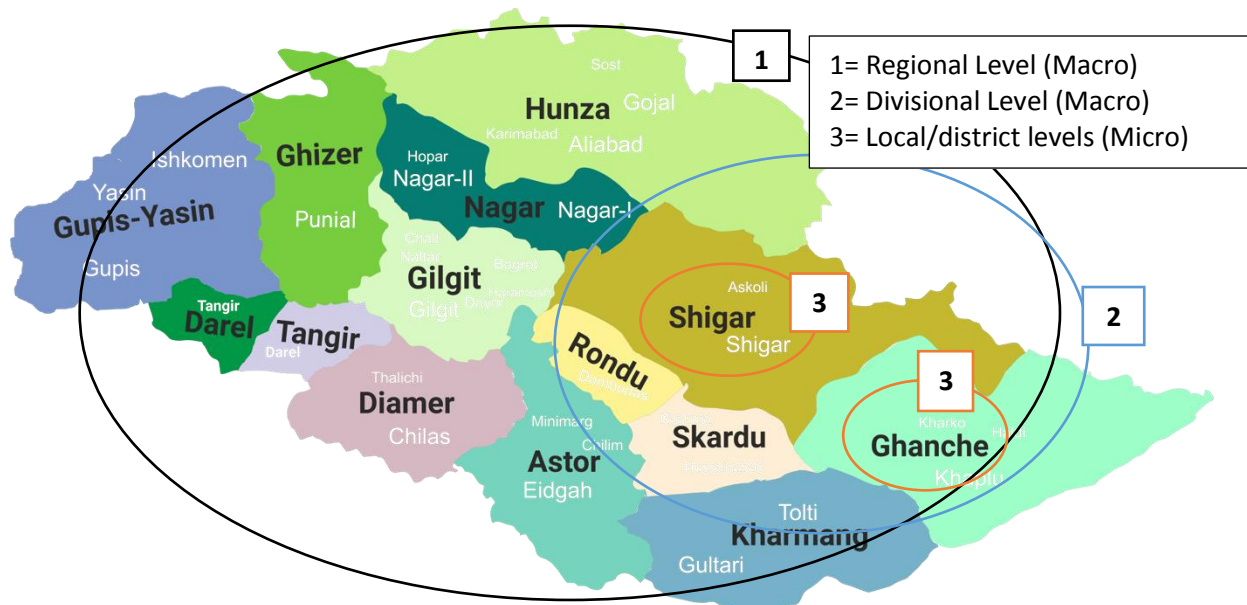


Figure 4 Gilgit-Baltistan Districts. Adapted from (Media, 2019)

The region of Gilgit-Baltistan contains the second largest plateau on Earth with an average elevation of over four thousand meters above sea level. Gilgit-Baltistan is characterised as one of the most formidable upland regions on earth, the most heavily glaciated region (5,100 glaciers) outside the poles (Middleton, 1984) with 33% of the surface area covered by glaciers. Gilgit-Baltistan holds one of the largest sources of pure water in glaciated form outside the Polar Regions (Ehlers & Kreutzmann, 2000; Kreutzmann, 1993, 2015; World Bank, 2011; Zain, 2010). Gilgit-Baltistan plays a significant role in the hydrology of Pakistan as the glacier meltwater accounts for 30 percent of the water in the Indus Basin Irrigation System (World Bank, 2011). Climatic conditions of Gilgit-Baltistan are harsh, with an average of 200 mm of precipitation annually, mostly falling as snow. Mountains are covered in snow throughout the year (Kreutzmann, 2015; World Bank, 2011). The region of Gilgit-Baltistan is a meeting point for the world's three great mountain ranges such as the Karakorum, Himalayas and Hindukush which adjoins the Pamir mountain ranges (Zain, 2010). Geologists believe that this area is the meeting ground of the Indian and Eurasian continents in a collision which formed the most chaotic landscape on earth (Arif, 2001; Raza, 1996).

3.2.1 Brief History of the Governance of Gilgit-Baltistan

Gilgit and Baltistan attained independence from the Dogra Raj on November 1, 1947, and August 14, 1948, respectively, as a result of Maharaja of Kashmir's decision to annex Gilgit, Baltistan and Kashmir with India after partition of Indian-subcontinent (Brown, 1998b; Dani, 2001; Sökefeld, 2005) (for details read Appendix A). After the independence of Gilgit 'The Republic of Gilgit' was formed, but only lasted for sixteen days. A political agent from Pakistan was appointed on November 16, 1947, to run administrative affairs of Gilgit-Baltistan (Brown, 1998b; Dani, 2001; Sökefeld, 2005). Since then, the region of Gilgit-Baltistan has been administered by Pakistan through ad-hock institutional arrangements and political reforms (for details see Appendix B). The political reforms so far have not empowered the people of Gilgit-Baltistan in terms of policy formulation and implementation. Nor have they defined the constitutional status of Gilgit-Baltistan (GoP, 2018b; Mir, 2018; Nagri, 2018b, 2018c; Rehman, 2018; Times, 2018a, 2018b; World Bank, 2011). Hence, there is no representation of Gilgit-Baltistan in the legislative institutes of Pakistan such as the National Assembly and Senate and the matters of Gilgit-Baltistan are not heard at the national level (Dani, 2001; Rehman, 2018; World Bank, 2011).

According to the United Nations Resolution 47, passed in 1948, the legal status of Gilgit-Baltistan is to be resolved through a referendum (Dani, 2001; OHCHR, 2018). On June 14, 2018, the United Nations High Commission for Human Rights issued the very first official report on Gilgit-Baltistan and Kashmir since 1948 and asked Pakistan and India to resolve the issue of Kashmir (OHCHR, 2018). The report argued that the unresolved disputed status of Gilgit-Baltistan and Kashmir has resulted in numerous human rights violation on both Indian and Pakistan administered territories (OHCHR, 2018).

Recently the Government of Pakistan has issued a new governance order 'The Government of Gilgit-Baltistan Order 2018'. There has been a series of protests against the new order, which has also been referred to as 'The Emperor Order' (Mir, 2018; Nagri, 2018b, 2018c; Times, 2018b). According to some commentators, the order issued by the government of Pakistan is undemocratic as the people of Gilgit-Baltistan were not consulted (Mir, 2018; Nagri, 2018b; Times, 2018a, 2018b). It was argued that the order was imposed without consultation which is against fundamental human rights and the international law as per United Nations Resolution 1948 (Nagri, 2018b; Rehman, 2018; Times, 2018a).

Some of the controversial subjects in the Gilgit-Baltistan Order 2018 include; ultimate autonomy given to the Prime Minister of Pakistan (who would oversee the management of Gilgit-Baltistan instead of the Gilgit-Baltistan council), who holds legislative powers to make laws for Gilgit-Baltistan, those laws made by the Prime Minister cannot be challenged in any court. According to the definition of citizenship all citizens of Pakistan became the citizens of Gilgit-Baltistan (as per Citizenship Act 1951) giving advantage to outsiders over indigenous people of Gilgit-Baltistan (GoP, 2018b). The Prime Minister is given the authority to appoint judges of Supreme Appellate Court and High Court of Gilgit-Baltistan, and the appointee must be a retired judge or chief justice of the Supreme Court or Chief Justice of a High Court of Pakistan. No citizen of Gilgit-Baltistan can become chief judge of the Supreme Appellate Court and High Court of Gilgit-Baltistan (GoP, 2018b; Rehman, 2018).

According to the governance structure, the powers of Gilgit-Baltistan Legislative Assembly are limited, while they may propose legislation, it must be approved by the federal government (GoP, 2018b; World Bank, 2011). Similarly, the Gilgit-Baltistan Legislative Assembly can pass an annual budget, but it must be approved by the federal government (GoP, 2018b; World Bank, 2011). The Gilgit-Baltistan fiscal budget is entirely dependent on central government grants and any revenues generated within Gilgit-Baltistan is deposited into federal government accounts (Gilgit-Baltistan Consolidated Fund) (GoP, 2018b; World Bank, 2011).

Improvement in education, social and electronic media has increased awareness among youth about the legal status of Gilgit-Baltistan. The youth of Gilgit-Baltistan are now actively conducting awareness seminars all over Pakistan and are questioning the disputed status of Gilgit-Baltistan (Mir, 2018). A recent seminar series was hosted by 'Gilgit-Baltistan Awareness Forum' in collaboration with 'Awami Action Committee Gilgit-Baltistan' and other civil society organisations.

3.2.2 People and Place

Gilgit-Baltistan constitutes of the diverse mountain ecosystem and home to multi-lingual communities (Dani, 2001; Jensen, 2007). The indigenous cultures and activities are centuries old (Arif, 2001; Dani, 2001). The population of Gilgit-Baltistan is believed to be a blend of many ethnic groups such as; Tibetans, Mughals, Dards and Persians which can be seen through various art, architecture and archaeological sites in the region (Arora, 1940; Dani, 2001; Murphy, 2011; Tarar, 1991; Wallace, 1996; World Bank, 2011). Recent DNA test showed that

the haplogroup of the people of Gilgit (*matulfae*⁴) and Chilas (*matulfae*) settled in the region approximately 30-50,000 years ago respectively and are the ancestors of the indigenous people of North and South America who migrated across the Bering Strait land bridge (Geographic, 2014). This DNA evidence shows continuous occupation of Gilgit and Chilas for 30-50,000 years. There are three major languages spoken in Gilgit-Baltistan, Shina, Balti and Burushaski, along with eleven other languages. All of which have no similarity with other languages being spoken in Pakistan (World Bank, 2011).

3.2.3 The livelihood of the People of Gilgit-Baltistan

Traditionally, the people of Gilgit-Baltistan relied mainly on subsistence farming (Ehlers & Kreutzmann, 2000; Kreutzmann, 1991; World Bank, 2011). Agriculture, livestock keeping (such as goats, sheep, cattle and yak) and forestry have been the main livelihood options for the people of Gilgit-Baltistan for centuries and are still the primary source of livelihood (AKRSP, 2007; Ehlers & Kreutzmann, 2000; MacDonald, 1996; World Bank, 2011). According to the World Bank (2011), 52 percent of the households rely on a subsistence basis, and commercialisation of agricultural produce remains very low (Kreutzmann, 1991; World Bank, 2011). Because of extreme climatic conditions, about 70 percent of the cultivable area has one cropping season, and 80 percent of household landholding is less than 0.05 hectares (World Bank, 2011). An estimated 1.2 percent of 72,496 square kilometres of the land in Gilgit-Baltistan is currently cultivable and another 0.83 percent land can be made arable (World Bank, 2011). However, it is argued that government investment in developing land for agriculture is limited due to the return on investment in land development and agricultural schemes (World Bank, 2011). Moreover, because of negligible precipitation, a farming sector in Gilgit-Baltistan is heavily dependent on traditional irrigation water channels which deliver water from glacier-fed rivers (World Bank, 2011).

Development of barren land is essential to overcome the acute scarcity of fertile arable land in Gilgit-Baltistan and can only be done by adequately utilising water resources (Ehlers & Kreutzmann, 2000; MacDonald, 1996; World Bank, 2011). The first government survey on production feasibility of Gilgit-Baltistan stated that the region could never be self-sufficient in agricultural production (Abdullah, 1972). According to Kreutzmann (1991), low farm

⁴ The indigenous people who first developed the barren land and settled permanently in a particular region.

production was the main obstacle in improving the living standards of the people as deficit food supplies. It was suggested that emphasis should be given to valuable products like fruit, nuts and potatoes which can be exchanged for grains (Abdullah, 1972). According to an estimate, Gilgit-Baltistan produces over 70 percent of dry fruits consumed inside the country (Pakistan) and some is also exported abroad (Zain, 2010).

To help the people of Gilgit-Baltistan, the then Prime Minister Zulfikar Ali Bhutto introduced subsidies (on transportation costs) on essential consumption items such as wheat, flour, kerosene oil, powdered milk and sugar (Jettmar, 1977). According to Ali (2017) *“subsidy is like a drug, which leads the indigenous agriculture-sector into dormancy as the natives were self-sufficient in food production before the 1970s”*. When the government tried to remove the subsidy, massive protests were recorded all over Gilgit-Baltistan (Ali, 2017). An increase in the population of Gilgit-Baltistan now means that Gilgit-Baltistan is not self-sufficient.

Furthermore, Civil Society Organisations⁵ have played a vital role in monetising crops (such as potatoes) and fruit (such as cherries and apples) which can easily be grown at high altitude (World Bank, 2011). However, not all roads in Gilgit-Baltistan are developed evenly. According to the World Bank (2011) *“43 percent of the population does not have access to all-weather motorable roads and 69 percent do not have paved access”* (p. 149). The road density in Gilgit-Baltistan is, 4,523 kilometres spread over an area of 72,496 square kilometres, which is very low on a global average (World Bank, 2011). Hence, lack of proper roading infrastructure to connect rural areas with urban centres is a products impediment for agriculture development. Other obstructions include lack of specialised refrigerated transportation, lack of electricity and cold storage capacity for excess produce (current storage capacity is 475 MT of potatoes out of 88,410 MT total production) and unsophisticated networking among producers and a lack of marketing and processing units (World Bank, 2011).

In terms of livelihood sustainability, there are limited social protection programmes implemented in Gilgit-Baltistan to help people in times of need or old age (World Bank, 2011). It is estimated that majority of the shocks (individual and community-related) in Gilgit-Baltistan are health-related (58 percent sickness and disability) followed by natural calamities

⁵ In this study, ‘Civil Society Organisations’ are referred to the collective name for international non-government organisations, non-government organisations and community organisations.

(30 percent) and economy/income-related (10 percent) (World Bank, 2011). It is argued that the physical geography, long distances, frequent natural disasters (land sliding, flooding), extreme climatic conditions and weak administration increases vulnerabilities as most goods and services are imported (World Bank, 2011).

Social security benefits are in numerous forms (Zakat⁶, Food Support Program, Benazir Income Support Program) however, these benefits are not available to the majority and are *“limited to those with formal employment in the government (roughly 18 percent) and the private sector (about 9 percent). This excludes all people employed in agriculture (estimated 45 percent) as well as informal jobs in the non-farm sector (estimated at 28 percent)”* (World Bank, 2011, p. 79). It is estimated that in Gilgit-Baltistan “one in every three citizens are either poor or vulnerable to experiencing poverty in the near future” (World Bank, 2011, p. 77). Hence, the only real support which is available is rooted in social capital such as inheritance (intergenerational transfers), family support, borrowing from relatives, neighbours and businesses (shopkeepers) (World Bank, 2011). During poverty, people cut down on daily consumption by 33 percent and an increase in child labour by 10 percent, which prevents children from going to school (World Bank, 2011).

Physical geography and lack of facilities also affect the delivery of education and health services. Road infrastructure has improved access to modern education. The literacy rate has increased from 14.5 percent in 1981 to 37.8 percent in 1998 to 50 percent in 2004 (World Bank, 2011). These estimates do not account for the efforts of Allama Iqbal Open University which provides distance learning opportunities, especially to female students, in the remote parts of Gilgit-Baltistan. The establishment of the Karakoram International University in Gilgit (2002) and the University of Baltistan in Skardu (2017) has a significant impact in providing access to higher education for the first time in the region of Gilgit-Baltistan.

Similarly, technical and vocational training (such as female health workers) has also improved through efforts by civil society organisations (AKRSP, 2005; World Bank, 2011). According to the World Bank (2011), vast distances and lack of facilities hamper the delivery of health

⁶ Islamic compulsory charity: A religious obligation where one must give 2.5% of the total wealth annually to the charity.

facilities in Gilgit-Baltistan. On average, in Gilgit-Baltistan, there are two doctors, six and a half beds, and five first-level care facilities per 10,000 people.

Road infrastructure development also resulted in livelihood diversification strategies in various parts of Gilgit-Baltistan. According to the Northern Areas Agricultural statistics from 2001 and 2005, because of available alternative livelihood opportunities, people were gradually shifting from subsistence farming towards cash crops and fruit production and services economies (World Bank, 2011). The Socio-Economic survey (2001 and 2005) suggested that the share of the household income from non-farm activities increased from 43 percent in 1994 to 63 percent in 2005 (World Bank, 2011). Similarly, livelihood transformation of non-farm activities increased from 49 percent in 2001 to 66 percent in 2005 (World Bank, 2011).

According to World Bank (2011), 33 percent of the people of Gilgit-Baltistan are reliant on public sector employment (out of which 42 percent are in the military) with a minimum contribution of the manufacturing sector which resulted in outmigration (World Bank, 2011). Many diversified their sources of income from subsistence farming towards the service sector such as the tourism industry (Ali & Benjaminsen, 2004; Ehlers & Kreutzmann, 2000; Jensen, 2007; Khan, 2013; Kreutzmann, 1991, 2004, 2006, 2013a; World Bank, 2011). According to the World Bank (2011), physical constraints and agricultural limitations in Gilgit-Baltistan suggest that growth and employment opportunities must come from economic transformation such as hydropower⁷, mining and tourism. However, it is argued that hydropower and mining and their associated projects need huge investments and the disputed status of Gilgit-Baltistan creates uncertainties that hinder private and foreign investment (World Bank, 2011). This leaves tourism as the sole industry other than agriculture to contribute towards livelihood of the people of Gilgit-Baltistan as the sector requires minimum investment (World Bank, 2011).

3.2.4 Tourism Related Livelihood Activities

Investment in roading infrastructure resulted in trickledown impacts and has created employment opportunities in the tourism sector in Gilgit-Baltistan (AKRSP, 2005; Hussain et al., 2017; Kreutzmann, 1991; World Bank, 2011). Attributes of Gilgit-Baltistan such as tall

⁷ Gilgit-Baltistan has got potential to produce 40, 000 Megawatt hydroelectricity (World Bank, 2011)

mountains, beautiful landscape, archaeological sites, a rich history and living indigenous cultures presented Gilgit-Baltistan as a unique tourism destination (Arif, 2001; Dani, 2001; Hussain et al., 2017; Hussain, 2016; Owen-Edmunds, 2013; Zain, 2010).

Historically, the Great Trigonometric Survey⁸ of British India played a vital role in precisely measuring the height of high mountains in the Indian Subcontinent such as Everest and K2 (Gill, 2001). According to Raza (1996), the region of Gilgit-Baltistan received international attention when people learnt of the presence of high mountains in the area, which earlier remained a mystery to many nations. Despite the remoteness of Gilgit-Baltistan, attempts were made to climb K2 in 1902 and 1909 (by Duke of Abruzzi - who declared K2 unconquerable) and in 1938. All attempts remained unsuccessful including the first expedition to arrive by air to Gilgit-Baltistan, in 1953. An Italian team successfully summited K2 in 1954 (Curran, 2013; Kauffman & Putnam, 1992). The successful attempt of K2 attracted mountaineers from all over the world and laid the foundation for the tourism industry in Gilgit-Baltistan. Later, adventure seekers from all over the world started visiting Gilgit-Baltistan to test their skills (ESCAP, 1993; Jensen, 2007; MacDonald, 1996). Consequently, according to Ahmed (2003), Gilgit-Baltistan became a popular tourist destination among international adventure tourists.

Heritage tourism in Gilgit-Baltistan is promoted through the renovation of cultural heritage sites such as Baltit, Shigar and Khaplu Forts. According to the Ministry of Tourism, Baltit and Shigar Forts were two of the most visited places (both domestic and international) in Pakistan (6th and 7th respectively) which increased employment, diversified livelihood, and provided income while preserving cultural heritage (World Bank, 2011). Although there has been a substantial decrease in international tourists due to security concerns, the improvement in roading infrastructure⁹ has dramatically increased the number of domestic tourists in Gilgit-Baltistan (AKRSP, 2007; DoTGB, 2014; Hussain et al., 2017; Hussain & Tariq, 2014; Owen-Edmunds, 2013).

Rural areas use tourism activities to fund conservation and environmental protection as well as ensure direct benefit to the local community, including potable water supply, roads and

⁸ A project aimed to measure Indian Subcontinent between 1802-1871 for demarcation purposes.

⁹ Including Karakoram Highway improvement and realignment project between 2012 and 2015 (CRBC, 2018).

health facilities (Marafa, 2007). Local produce such as local textiles; hand-made crafts and agricultural produce (fruit, vegetables, beverages and snack food) are sold to generate direct financial benefit to local communities (Carte, McWatters, Daley, & Torres, 2010; Torres, 2003). Funds generated from community-based trophy hunting are used for many community development projects such as building irrigation channels and building community centres (WLGB, 2014; World Bank, 2011). The peak tourist season in the history of Gilgit-Baltistan was 2004 (the golden jubilee of the first successful summit of K2) when 1,776 trekking expeditions visited Gilgit-Baltistan (World Bank, 2011). However, according to the World Bank (2011), it is difficult to quantify the contribution of tourism on the Gilgit-Baltistan economy because of limited data availability and surveys majorly cover international tourists (mountaineers and trekkers) who are only a fraction (ten percent) of visitor numbers (World Bank, 2011).

In rural areas of Gilgit-Baltistan, various national and international civil society organisations are working towards female empowerment, health, education and socio-economic participation (Ullah, 2014; World Bank, 2002, 2011). Civil society organisations also provide employment opportunities locally in the form of fruit drying and packaging, gemstone cutting and polishing and jewellery making which are sold to tourists in local markets (Ullah, 2014; World Bank, 2011).

3.2.5 Key Constraints to Tourism Related Livelihood Diversification

The security concerns are a significant hurdle in promoting tourism in Gilgit-Baltistan (Khan, 2013; Kreutzmann, 2015; World Bank, 2011; Zain, 2010). The incident of 9/11 hampered international tourism in Gilgit-Baltistan which discouraged people from travelling to Pakistan followed by strict visa policies (Jensen, 2007; Owen-Edmunds, 2013; World Bank, 2011). The decrease in international tourists forced many people to re-diversify (from tourism) or forced them to migrate to other areas in search of tourism-related job opportunities (Jensen, 2007). The open conflicts (military and insurgents/terrorists) in Swat and South Waziristan area (Northern Areas of Pakistan) in 2009 resulted in many casualties and displaced 2.7 million people (World Bank, 2011). The international perception of Pakistan being insecure and unsafe with open conflicts affected the tourism industry in Gilgit-Baltistan because of it being associated with the name 'Northern Areas' where the conflict occurred (World Bank, 2011). Additionally, Gilgit-Baltistan does not have a direct entry point (international airport), and every foreign tourist has to come through Pakistan (World Bank, 2011). Another impediment

to tourism is a weak administration which invests very little in promoting tourism in Gilgit-Baltistan; however, Civil Society Organisations are making reasonable efforts in this regard (World Bank, 2011).

It is argued that Gilgit-Baltistan would benefit from domestic tourism by improving travel predictability (both by air¹⁰ and by road) (Owen-Edmunds, 2013; World Bank, 2011). Road access to Gilgit-Baltistan is subject to natural and manmade disasters (World Bank, 2011). Furthermore, inadequate and limited tourism amenities are another impediment to tourism development in Gilgit-Baltistan. There are an estimated 140 hotels in Gilgit-Baltistan with a capacity of 2,450 rooms; the majority of these hotels are in Gilgit, Skardu and Hunza (World Bank, 2011). However, during fieldwork, it was observed that motels were being built/upgraded, but the official data is not available. There are a small number of boutique hotels (Shigar fort, Khaplu Fort, Serina Hotels – price between \$30-200 (USD) per night) and budget hotels in Gilgit, Skardu and Hunza costing \$10-30 per night) (DoTGB, 2014; World Bank, 2011).

3.2.6 Strategic Importance of Gilgit-Baltistan and Road Infrastructure Development

Gilgit-Baltistan is an area, which is going through immense road infrastructure development, including the China Pakistan Economic Corridor. The China Pakistan Economic Corridor constitutes several collaborative projects between Pakistan and China such as the development of infrastructure industries, livelihood improvement, socio-economic development and security improvements in the region (CPEC-LTP, 2017).

The road is expected to link China and other South Asian and Central Asian countries to the world through Gwadar Port (South of Pakistan) on the Indian Ocean and inland Kashgar Dry Port (China) via Sost Dry Port in Gilgit-Baltistan (Kausor, 2013; Khan, 2013). The distance to the Persian Gulf from Xinjiang (China) via Gwadar Port (Pakistan) is 2,500 kilometres and is expected to take around two days (48 hours) for Chinese goods to reach the Persian Gulf. The distance to Persian Gulf via Eastern ports of Shanghai and Beijing via the Indian Ocean is 14,500km and takes twenty days for Chinese goods to reach the Persian Gulf (Kausor, 2013;

¹⁰ Flights to Gilgit-Baltistan are subject to weather condition with 40-50 percent of flights gets cancelled because of 'Instrumental Flight Rules' that require visual guidance during take-off, landing and climbing stages (World Bank, 2011).

Khan, 2013; SAIR, 2013) as shown in Figure 5 below. This gives a comparative advantage to Gilgit-Baltistan in providing secure, easy, quick and cheaper access for Chinese goods to reach the international market. According to Pillalamarri (2014), the revenues generated by trade and customs duties with China in Gilgit-Baltistan was valued at half a billion US dollars. It is argued that the revenues will increase after the completion of various China Pakistan Economic Corridor affiliated projects (CPEC-LTP, 2017; Haider, 2016; Pillalamarri, 2014).



Figure 5 Pakistan Economic Corridor route from Gwadar Port (Pakistan) to Kashgar (China)
Source: Chowdhury (2013)

In 2013 Chinese President Xin Jinping announced Belt and Road Initiative (FMPRC, 2013) and in 2017 'Belt and Road Initiative' was embedded in the Chinese constitution which shows the importance of the project for the Chinese government (Reuters, 2017). According to an estimate, China would be spending \$1.2 to 1.3 trillion by 2027 and China will serve as 'pivot to Asia' via Belt and Road Initiative projects (Chatzky & McBride, 2019). The China Pakistan Economic Corridor is part of this mega project (CPEC-LTP, 2017; DSA, 2017; Post, 2017; PwC, 2018). With the Belt and Road Initiative, China aims to improve connectivity and cooperation

between 69 Eurasian countries by investing in infrastructure development as shown in Figure 6 below (PwC, 2018). The core of Belt and Road Initiative is 'The 21st Century Maritime Silk Road' and six economic corridors including; China Pakistan Economic Corridor, The New Eurasian Land Bridge, The China-Mongolia-Russia Economic Corridor, China-Central and Western Asia Economic Corridor, Bangladesh-China-India-Malaysia Economic Corridor and China-Indochina Peninsula Economic Corridor (PwC, 2018).

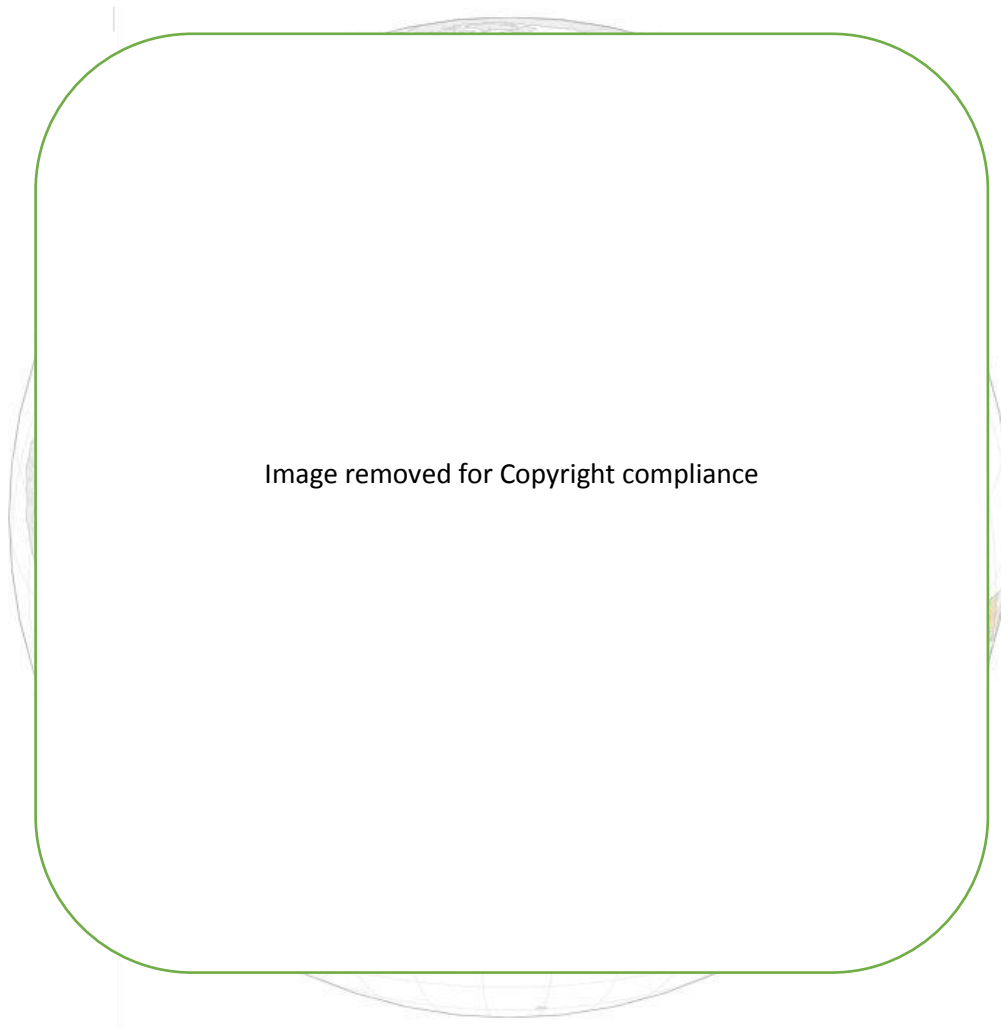


Figure 6 Belt and Road Initiative. Source: Guardian (2018)

Such an immense infrastructural development is expected to improve the mobility of people, goods and services (Chohan, 2017; FMPRC, 2013; Guardian, 2018; PwC, 2018; Reuters, 2017). This fast track in the mobility of objects, people, and information is anticipated to bring a massive number of people to the region (Kausar & Nishikawa, 2010; SAIR, 2013). It is argued that such mass movements of people will have huge implications based on beliefs, resources and power (Ashley, 2000a; Boggs, 2000; Neumayer, 2004; Sugiyarto, Blake, & Sinclair, 2003;

Wang et al., 2010; Yang et al., 2013). This study investigates the consequences of such externally created adjustments on the livelihood of the people of Gilgit-Baltistan in a tourism context. At the divisional level this study mainly focuses on Baltistan division because of its popularity as a tourist destination.

3.3 Baltistan: At Macro Level

Baltistan division was selected to understand the consequences of transport infrastructure development at the macro level. Baltistan is located south-east of Gilgit, south-west of Xinjiang (China), north-west Ladakh and north of Jammu and Kashmir (Indian administered) at an average altitude of 3,350 meters. After the partition of Indian-Subcontinent and the formation of Line of Control between India and Pakistan, Baltistan lost its traditional route with Jammu Kashmir and Ladakh. According to Stephens (1953) “politically Baltistan was a dead end, an Eastward-stretching tract of Pakistani held territory without an exit, pressed between Communist-controlled Tibet and the remote Buddhist corner of India-held Kashmir known as Ladakh” (p. 186). Similarly, Filippi (1932) writes that “the villages [of Baltistan], are oases in so far as they represent islands of vegetation and human habitation...lost in the midst of barren mountains” (p. 77).

The climate of Baltistan is cold in winter compared to Gilgit, which has moderate snowfall and consequently cultivation is confined with limited irrigation (Allan, 1991; MacDonald, 1996, 1998). The Indus River originates in Baltistan along with numerous other tributaries such as the Shayok and the Shigar river which provides critical water resources to Pakistan (Allan, 1991; Dani, 2001).

Baltistan is strategically located within the most extensive high mountain cluster in the world and rich cultural history (Allan, 1995; Bouzas, 2017; Chisholm, 1911; Jensen, 2007; MacDonald, 1996; Owen-Edmunds, 2013; Zain, 2010). High altitude mountains include; K2 (8,611 meters), Gasherbrum I (8,800 meters), Broad Peak (8,051 meters) and Gasherbrum II (8,035 meters). The most massive glaciers outside the Polar Regions are in Baltistan such as Baltoro (63-kilometre-long), Biafo (67-kilometre-long), Siachen (76-kilometre-long), Trango and Godwin-Austen Glaciers (Hussain, 2016; Hussain & Tariq, 2014; World Bank, 2011). Baltistan has been attracting foreign visitors since colonial times (Conway, 1894; Knight, 1895; Kreutzmann, 2005, 2013b).

The popularity of Baltistan as a tourist destination resulted in many people diversifying from subsistence farming towards tourism (Azhar-Hewitt, 1999; Hussain & Tariq, 2014; Jensen, 2007; MacDonald, 1996). According to an estimate over 4,000 Balti men, mostly subsistence farmers, work on the trails of the central Karakoram Mountain ranges as ‘*Khorpas*’ (meaning porter in the Balti language) (Hussain & Tariq, 2014). For many of these local households, three months of wage-earning in the tourist season constitute a significant portion of their annual disposable household income making tourism a major contributor to their economies (Hussain & Tariq, 2014). Numerous civil society organisations are working for porter welfare, tourism promotion, improving livelihood through tourism and dealing with tourism-related conflicts in the region (Hussain & Tariq, 2014). It is argued that tourism-related diversification strategies such as guided tours with a focus on resource protection will result in sustaining livelihood and minimise negative impacts on the natural environment (Mrak, 2014).

3.3.1 People and Place

The people of Baltistan are believed to be a mixture of Tibetan, Aryan and Dards origin (Arora, 1940; Murphy, 2011; Tarar, 1991). Before Islam (700 years ago), Tibetan Buddhism and Bon¹¹ were the primary religions in Baltistan and can be seen from archaeological remains such as Manthal Buddha Rock (Dani, 2001). People of Baltistan are commonly known as ‘*Balti*’. Balti architecture has been hugely influenced by Mughal and Tibetan architecture with numerous Buddhist style paintings (Dani, 2001; Tarar, 1991; Wallace, 1996). Examples include Chaqchan Mosque, – Khaplu and the Ambrurik Mosque Shigar, along with Shigar and Khaplu forts (see Plate 1 and 2 below).



Plates 1 (Left) *Chaqchan Mosque Khaplu*. (Right) *Ambrurik Mosque Shigar*

¹¹ A form of Tibetan religion.



Plates 2 (Left) Shigar Fort. (Right) Khaplu Fort. Both forts are being used as 'Boutique' tourist accommodation.

3.4 Ghanche and Shigar: At Micro Level

To understand the impacts of road infrastructure at the micro-level, two districts, Ghanche and Shigar, were selected. The two districts, Shigar (Population:140,000) and Ghanche (Population:160,000), are chosen based on people involved with tourism as the primary livelihood activity. Shigar valley is considered to be the gateway to the Karakoram mountain ranges. Ghanche is strategically located in Baltistan division as it provides access to Line of Control and Karakoram mountain ranges. One village was selected from each district based on people involvement with tourism as the primary source of livelihood. Other criteria in choosing these two villages include the same approximate distance from the main towns such as Khaplu and Shigar as shown in Figure 7. Based on households affiliated with tourism as their primary source of livelihood, most of the respondents at the village level came from two villages in both districts. The two villages included for this research were Hushe in sector Ghanche and Prono in district Shigar. Hushe is the last village of the Hushe Valley (elevation 3,154 meters) in the Ghanche district. The distance from a major town (Khaplu) is approximately 60 kilometres and travel time of 2-3 hours by road. There are 170 households in Hushe. Prono is a small village (elevation 2,990 meters) at the junction of the Braldu and Basho Valleys in Shigar district. The distance from the closest major town (Shigar) is approximately 55 kilometres with a travel time of 2-3 hours by road. Prono constitutes 50 households.

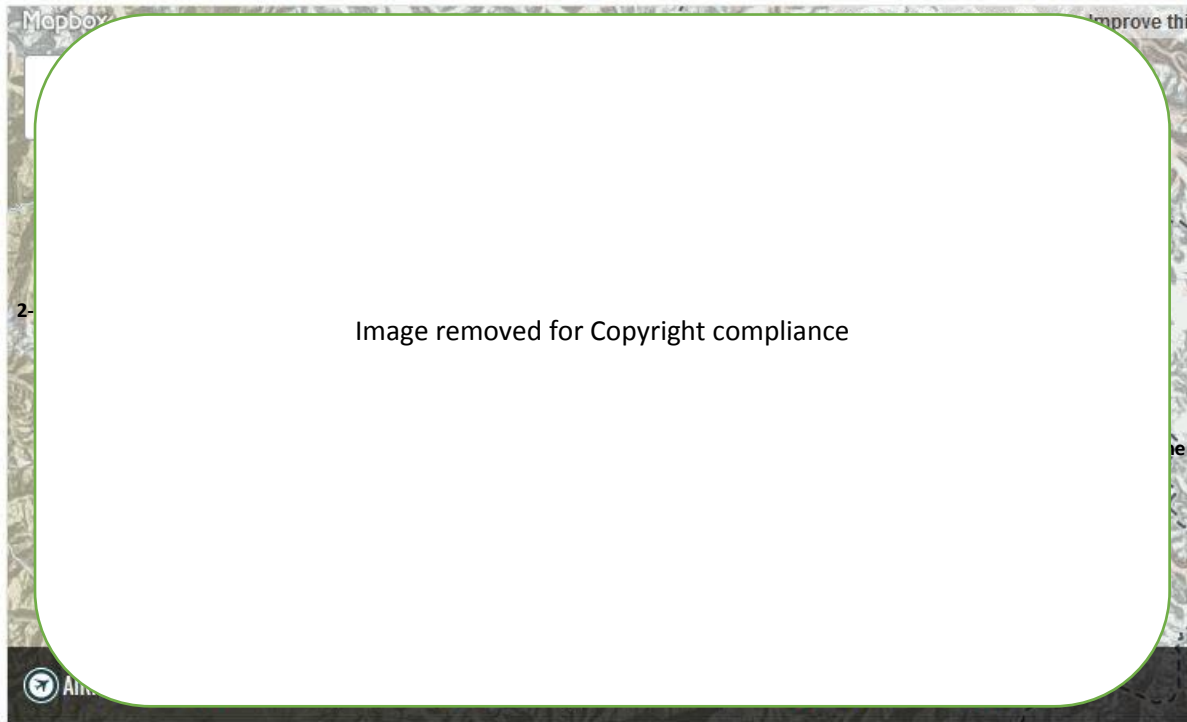


Figure 7 Study setting at divisional (Baltistan) and local levels (district). Adapted from KEAdventure (2018)

According to Jensen (2007) tourism industry has grown with the improvement in access through the construction of roading infrastructure, which has resulted in increasing the tourism base economy since the early 1960s (Azhar-Hewitt, 1999). People from Hushe and Prono have been affiliated with tourism since then. People from Hushe and Prono take up stations in Skardu, Askole, Hushe and Basho during tourist season (summer) and wait for foreign tourists to arrive. Income from tourism in two to three months in summer is enough to buy groceries throughout the year.

3.5 Transport Infrastructure Developments in Gilgit-Baltistan: An Historical Analysis

Historically, the region of Gilgit-Baltistan was naturally isolated for thousands of years due to difficulty in access and had limited connection to surrounding empires (Dani, 2001; Khalid, 2006; World Bank, 2011). According to Knight (1895) *“The distance from Leh to Gilgit by the road I decided to follow is, roughly, 370 miles, or thirty-two marches...the road is [a] rough one at its best, and a very up and down one, varying from 4,400 to nearly 17,000 feet above the sea...and track in many places is not practicable even for unladen animals”* (p. 231-232).

The contest between Great Britain and Russia over world domination, in the 19th century, led to 'The Great Game', which was fought "in the mountains of the Karakorum, Himalaya and Pamirs where their spies-cum-explorers met in unexpected locations" (Kreutzmann, 2005, p. 5) (for details see Appendix A). The fear of Russian expansionism was the main reason British opened an Agency in Gilgit in 1877. During the British rule in Gilgit Agency, the British improved a track to the princely states in the north-east frontiers (Nagar and Hunza) (Khalid, 2006). During the Great Game, Central Asia including Gilgit-Baltistan was viewed as a buffer zone between Russia and the British Empire (Kreutzmann, 2013b). The Great Game came to an end in 1907 without any military intervention and resulted in the boundary making and restricted trade relations (Kreutzmann, 2013b).

These geopolitical interventions, imposed by external agents, disrupted traditional livelihood methods by interrupting traditional trade routes and creating competition for natural resources, i.e. pastureland (Bouzas, 2017; Kreutzmann, 2008, 2013b, 2015). Afterwards, both Great Britain and Russia competed for dominance in barter trade in urban centres such as Kashgar and Yarkand for over forty years (1907-1947) (Kreutzmann, 2013b). The struggle for trade domination in the region played an important factor in cross-boundary relations which also affected local economies in the region (Kreutzmann, 2005, 2013b). During this time period, the Soviet Union had a natural advantage as access was easier with trade caravans having only to cross one mountain pass to reach Kashgar and Yarkand, while British trade caravans had to cross three trans-mountain passes, the Leh, Gilgit and Chitral, which were long and difficult (Kreutzmann, 2005).

British politician and mountaineer Martin Conway were the first to predict/suggest the construction of transport infrastructure through Gilgit in 1894. He indicated that "Gilgit must grow to be an important trade centre, and possibly...a railway junction on the line from [British] India to Kashgar [China]" (Conway, 1894, p. 144). During WWII, the importance of transport infrastructure increased in Central Asia due to improvements in automobile technology (Kreutzmann, 2013b). According to Kreutzmann (2013b)

The significance of road connections for territorial control, defence of established spheres of influence, and backing and rescue of affiliated and loyal allies dramatically increased. British blueprints existed for connecting Kashmir and Xinjiang in order to

support the armed units of the Guomindang and their leader General Chiang Kai-sekh
(p. 3).

However, the project did not materialise until after the partitioning of Indian-subcontinent in 1947 and the formation of Indian and Pakistan and a communist revolution in China (1949) (Kreutzmann, 2013b). The geopolitical rivalries in the region resulted in new political ties which brought Pakistan and China closer as they shared India as a common foe.

The geopolitical interventions in the region significantly changed physical access to Gilgit-Baltistan. Improvement in physical access to Gilgit-Baltistan can be discussed in two forms, e.g. by air and by road. Because of the focus of the study, I only focused on road infrastructure development. However, it is essential to highlight access to Gilgit-Baltistan by air from a strategic point of view.

The British realised the need for an air link to the Gilgit Agency to carry out their logistics and socio-political needs in the region (DAWN, 2010). In 1927 British first built a small runway in Chilas (Nagri, 2018a). Later in 1939, Royal Air Force and the British Army funded the development of runway in Gilgit (Konodas) (DAWN, 2010). After partition, in 1949, an alternative runway (current airport in Gilgit) was constructed with the help of local volunteers as the old runway was only suitable for light aircraft (DAWN, 2010). Later, Skardu runway was constructed. Skardu airport is being used by military and civil aircraft; however, Gilgit airport is only being used by civilian aircraft. Both Gilgit¹² and Skardu airports were constructed primarily for defence purposes (World Bank, 2011). Another mode to access Gilgit-Baltistan is helicopter which is expensive and is mainly used by the military (World Bank, 2011). The distance by air from Islamabad (Pakistan) to Gilgit and Skardu (approximately 50-60-minute flight) is 288 and 300 kilometres respectively.

3.5.1 Road Infrastructure Development in Gilgit-Baltistan

During the war with India in Kashmir and Gilgit-Baltistan front in 1947-1948 Pakistan military faced severe difficulties in access Gilgit-Baltistan which persuaded authorities to connect Gilgit-Baltistan with Pakistan with a road link (Khalid, 2006). On an emergency basis, the Pakistan Army improved the track between Chilas and Kaghan through Babusar pass (see

¹² Gilgit airport has limited space to be upgraded for Instrumental Flight Rules, however, Skardu airport has the potential to be upgraded to a category IV international airport (40 km long and 10 km wide) with modern all-weather landing equipment able to be installed (World Bank, 2011).

Figure 9 below), but due to weather (heavy snowfall in winter), the route was not effective as it would remain closed for nine months of the year (Khalid, 2006).

The geopolitical interventions in the region resulted in a change from the isolation that had characterised Gilgit-Baltistan, with the area being connected to the broader world through road infrastructure development (Hussain, 2017; Hussain et al., 2017; Khalid, 2006; Kreutzmann, 1991). Such geopolitical interventions affected the livelihood of the people who had no say in any decision-making processes (Kreutzmann, 1991, 2004, 2015). The road that removed the geographically isolated status of Gilgit-Baltistan was Karakoram Highway.

3.5.1.1 Karakoram Highway

The Karakoram Highway (1,300 kilometres long) is the highest paved road on earth (elevation 4,693 meters) built primarily for trade and security purposes to connect Pakistan (Khyber Pakhtunkhwa Province) with China (Xinjiang Province) through Gilgit-Baltistan (Khalid, 2006; Kreutzmann, 2013a, 2013b, 2015; Raza, 1996) as shown in Figure 8 below. The project was executed in 1958 by Pakistan Army Engineering, later renamed as the Frontier Works Organization in 1966 (Khalid, 2006). The sole responsibility of the Frontier Works Organization was the construction of the Karakoram Highway, strategic roads in Gilgit-Baltistan and the development of Skardu airport (Khalid, 2006; Raza, 1996).



Media 1 Scan to watch historic documentary on the construction of Karakoram Highway.

The road “took twenty years and the life of one worker every mile, to carve through towering mountains, glaciers and isolated valleys to build [the] 500 miles long Karakoram Highway” (Topping, 1979). According to Khalid (2006), the cost-benefit analysis of the Karakoram Highway, when built, was not worth the effort but for strategic reasons, it was crucial. The Karakoram Highway was inaugurated on June 18, 1978. However, the road was not opened to the general public until the late 1980s (Aerni, 1984). This is because the mountains were unstable due to the extensive use of explosives which caused frequent rock sliding, land sliding and glacier mudflow (Topping, 1979).

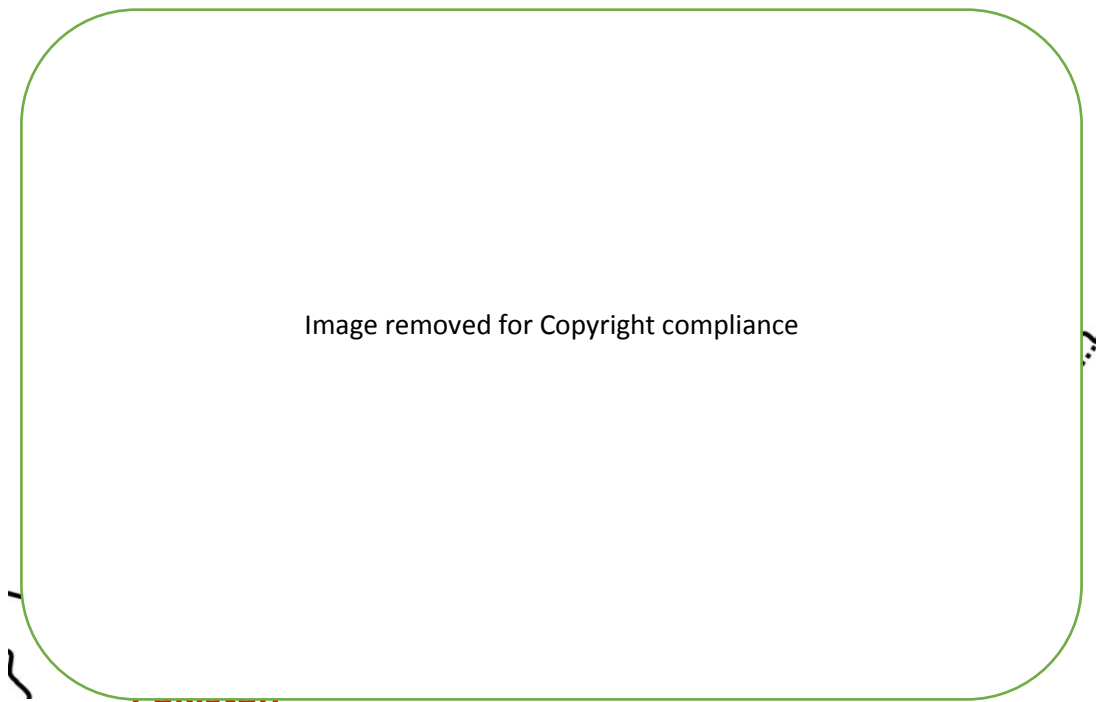


Figure 8 Karakoram Highway route from Pakistan to China via Gilgit-Baltistan. Adapted from Media (2018)

The Karakoram Highway opened hundreds of valleys of significant archaeological importance such as Chilas, Darel and Tangir valleys with distinct traditions, language and folklore (Dani, 2001; Khalid, 2006; Raza, 1996). Many stone carvings can be found from the 1st to 7th century A.D near Chilas, which are mentioned in old travelogues (Dani, 2001; Raza, 1996). Centuries-old isolation was removed with the construction of roading infrastructure (Dani, 2001; Khalid, 2006; Kreutzmann, 1991; Raza, 1996; World Bank, 2011). Hence, Gilgit-Baltistan was exposed to the outside world, which has had huge implications on this unique part of the world.

Settlements in Gilgit-Baltistan are spread out which requires extensive travel. Most of the roads are not paved, and severe weather conditions affect travel time (World Bank, 2011). Gilgit-Baltistan population density is twelve people per square kilometre, with 86% of the population living in rural areas and most of the income is generated in two urban centres, Gilgit and Skardu (World Bank, 2011). There are two main road arteries in Gilgit-Baltistan, one stretches from the South-West towards North-East (Karakoram Highway) – the other road network extends from the North-West towards the South-East (Gilgit-Chitral Road and Gilgit-Skardu Road). Both these arteries of road cross each other near Gilgit City as shown in Figure 9 (adapted from Google Maps). The road distance from Islamabad to Gilgit and Skardu is

approximately 620 and 740 kilometres respectively, with an average travel time of 12-24 hours (if not blocked) at an average speed of 50-60 kilometre per hour.

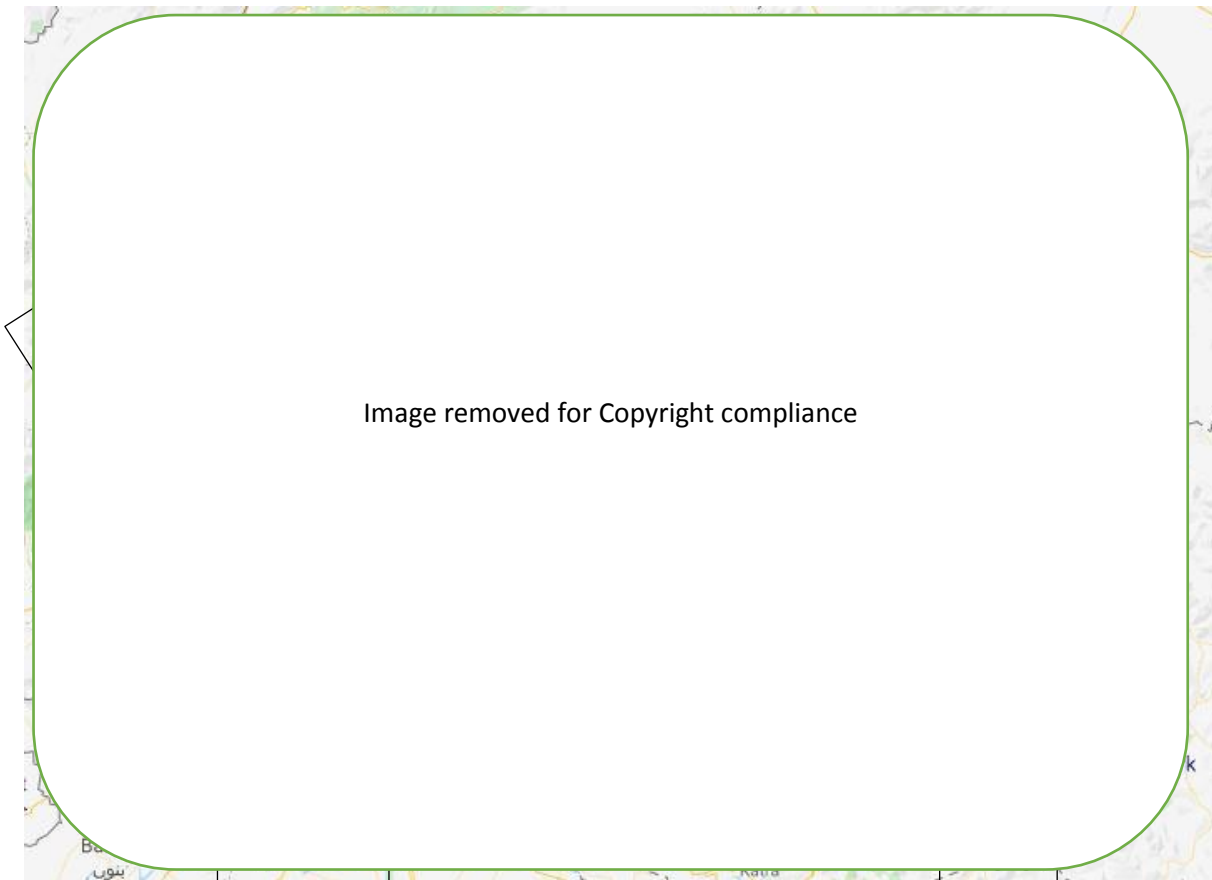


Figure 9 Major road networks in Gilgit-Baltistan

3.5.2 Overall Impacts of Road Infrastructure Development at Macro and Micro Levels

Road infrastructures have shortened the distances and reduced the cost of transportation by fifty percent to main towns such as Gilgit (Aerni, 1984). With time Gilgit City expanded with new buildings, markets and roads being constructed and has become the hub of economic activities and one of the largest trading centres in Gilgit-Baltistan (Ehlers & Kreuzmann, 2000; Khalid, 2006; Kreuzmann, 1991; Raza, 1996). The development in Gilgit-Baltistan is happening very fast without any proper planning (Raza, 1996). There has been no formal regional planning to create jobs, mobility and to open up resources in the region (Grotzbach, 1976) and this situation continues (World Bank, 2011).

With the improvement in access to Gilgit-Baltistan, people started looking for various livelihood opportunities, including exploring mineral wealth along with illegal and commercial

harvesting of forests (Kreutzmann, 1991). According to Ali and Benjaminsen (2004) illegal and commercial harvesting of timber in the 1970s and 1980s was the leading cause of forest depletion in Gilgit-Baltistan which resulted in ecosystem destabilisation. This also resulted in species loss and irreversible negative impacts on wildlife in Gilgit-Baltistan (Balmford, 1996; Lugo, Parrotta, & Brown, 1993; Whitmore & Sayer, 1992). According to Raza (1996) “after the development of the Karakoram Highway hunting, rather killing, became so easy...and loss of wildlife is shocking” (p. 163).

The forest cover in Gilgit-Baltistan has declined dramatically (World Bank, 2011). According to Anwar (2015) “forest area in G-B [Gilgit-Baltistan] has fallen to 298,000 from 640,000 hectares in the last 20 years due to the callous cutting of trees and illegal transportation down the country [Pakistan]”. The [estimated] demand for firewood/wood has increased from 425,000 cubic meters in 1993 to 724,000 cubic meter 2018 [estimated] (World Bank, 2011). Gilgit-Baltistan forest areas cover 5.2 (naturally so low because of geography) percent of the total area, and harvesting is prohibited by law; however, illegal timber harvesting is conventional, especially in the Diamer district (Anwar, 2015). The draft policy of forest and wildlife was developed by the government in 1995 but had not been implemented so far (World Bank, 2011). The improvement in road access to forests, availability of transport facilities, rising population, high costs of other fuel types and huge demand for firewood because of extreme weather condition has resulted in deforestation (Akbar, Ahmed, Hussain, Zafar, & Khan, 2011; Ismail et al., 2018; World Bank, 2011).

Because of improved road networks, Gilgit-Baltistan is experiencing outmigration (to Karachi, Lahore and Rawalpindi), regional migration (people moving from the peripheries to main towns such as Gilgit and Skardu) and immigration (outsiders moving to Gilgit-Baltistan and settling permanently) (Jensen, 2007; Stöber, 2001). For instance, trade opportunities with China resulted in a rapidly expanding the population of Gilgit town from 4,000 in 1961 to 30,000 plus in 1981 (Kreutzmann, 1991) and 216,000 in 1998 (GoP, 2018a). The total population of Gilgit-Baltistan grew from 870,347 in 1998 to 1,800,000 in 2015 (est.) (Burki, 2015). The census of Pakistan was conducted in 2017 after a gap of nineteen years, but the official census figures on Gilgit-Baltistan have not been issued at the time of writing. Such an increase in population has put pressure on natural resources such as forests for building, heating, and cooking purposes (Jensen, 2007; World Bank, 2011). According to the World

Bank (2011), the perception is that the primary cause of chronic obstructive pulmonary disease amongst children in Gilgit-Baltistan is caused by indoor air pollution due to wood burning for cooking and heating purposes.

The primary reasons for outmigration were poverty (Jensen, 2007; Stöber, 2001). It is argued that outmigration resulted in the transfer of agricultural burden to women and older people as young family members would be away seeking jobs in urban centres (Jensen, 2007; Kreuzmann, 1991). Another reason for outmigration is believed to be emerging socio-cultural concerns and non-consultative attitude of the government towards development projects (Ali & Benjaminsen, 2004; Altman, 1989; Jensen, 2007; Khan, 2013). For instance, the government formed national parks without consultation with local communities and retained all income generated from these parks (World Bank, 2011). This resulted in conflict between local communities and government over resource use and ownership affecting peoples traditional livelihood practices of hunting and gathering (World Bank, 2011).

Roading infrastructure has allowed ways for digital/telecommunication services to expand to Gilgit-Baltistan. Telecommunication services were introduced in Gilgit-Baltistan in 1976 when the Special Communication Organisation¹³ was established (SCO, 2018; World Bank, 2011). World Bank (2011) estimated that until 2004-05 only 10 percent of the population of Gilgit-Baltistan had access to telephones, and a call to Karachi would cost one dollar (USD) per minute. Mobile phone service was launched in 2006, and by 2011, 45 percent of the people had access to telecommunication and call costs have reduced significantly (AKRSP, 2005).

3.6 Chapter Summary

This chapter has examined the study area, the geostrategic importance, the complex political structure which has led to roading infrastructure development in Gilgit-Baltistan at micro and macro levels. Road infrastructure of Karakoram Highway resulted in the removal of centuries-old isolation of Gilgit and Baltistan, and the whole region has opened to the world resulting in numerous externalities (both positive and negative). The chapter also has shown that an improvement in roading infrastructure development has resulted in an increase in tourism-related activities, and many people have diversified from subsistence farming towards tourism. The following chapter discusses the methods used to collect data to understand the

¹³ A public-sector organisation maintained by Pakistan Army

consequences of road infrastructure development on the livelihood of these isolated communities in a tourism context.

Chapter 4 Research Methods

4.1 Introduction

The chapter begins with a discussion on the theoretical foundations of the research tool used to conduct this research. Followed by the detail explanation of the processes of the interview, sample size and participant recruitment and profile, data analysis processes, researcher's positionality and ethical consideration. The chapter concludes with the limitations of current study.

4.2 Theoretical Foundation

The research methods used for data collection and analysis is dependent on the research questions. The decision to choose a particular research method is reliant on the ontological and epistemological assumptions of the research (Jennings, 2009). Generally, methodologies are classified into qualitative, quantitative and mix methods to collect research data (Bouma & Ling, 2004; Creswell, 2013; Jennings, 2009). Quantitative research methods involve collecting limited information which is text-based data (e.g. census and government statistics) or questionnaire-based surveys (Jennings, 2009). Qualitative methods refer to gathering rich information through a smaller number of interviews and observation (Jennings, 2001, 2010; Jennings, 2012; Veal, 2006). Qualitative research is deeply associated with interpretivism and uses inductive methods to look for associated patterns or themes under discussion (Ritchie, Lewis, Nicholls, & Ormston, 2013).

Much debate exists regarding the use of various methodologies in tourism research. It is argued that quantitative methods have the merit of the validity of the hypothesis but may oversimplify reality (Jennings, 2001; Jennings, 2012; Simmons, 1983). On the other hand, qualitative methods allow an in-depth understanding of issues, but it may limit the generalisability of the research (Simmons, 1983; Veal, 2006). Qualitative research methods acknowledge the subjectivity of the researcher's questions and bring in contextual experience to understand the values and ethics of the research questions in a natural setting (Jennings, 2012). Qualitative methodologies focus on collecting data to explore the phenomenon in a real-world context (Jennings, 2010; Jennings, 2012). Qualitative research design is very flexible and enables the researcher to be responsive to the field setting. Themes are

developed from using non-probabilistic sampling methods to collect data in a textual form specific to the study setting (Jennings, 2010).

Jennings (2012) argued that the use of qualitative research methods in the field of tourism started in the late 1970s but became popular in the early 21st century because of the ability of qualitative research to provide an in-depth understanding of phenomena related to tourism (Banner & Himelfarb, 1985; Jennings, 2012; Jennings, 2009). According to Ritchie et al. (2013), qualitative research methods are the only appropriate method to use where researchers need to understand the nature of the issue, and when the phenomenon under discussion is deeply rooted in the participants' personal knowledge and understanding. Thus, addressing complex matters like culture, community, and forms of livelihood, qualitative research methods are appropriate (Patton, 2002; Ritchie, 2013; Snape & Spencer, 2011; Walker, 1985). The qualitative research design is adapted to learn about social settings, people's experiences and perspectives, history, and social phenomenon as experienced in a natural environment (Denzin & Lincoln, 2009).

4.3 Interview: A Qualitative Research Tool

Qualitative research has a wide range of methods to collect data. In qualitative research, interviews are favoured as a means of collecting empirical material (Bloch, 1996; Glaser, 1992; Jennings, 2005). Interviews are termed as the act of conversation between two people (Heron, 1981), and the researcher remains open both in terms of structure and the direction of the interviews and lets concepts or ideas to emerge (Glaser & Strauss, 1967). According to Riley (1996), semi-structured questions allow respondents to speak openly. Which is why in-depth, open-ended semi-structured interviews were conducted as a primary data collection method. The processes are described below.

4.3.1 Interview Guidelines

Before entering into the field, a thorough homework was done, and numerous gatekeepers were identified using my social capital. Jennings (2005, p. 107) argued that gatekeepers '...enable or prevent researchers from gaining access to the potential interviewees by way of sanction or veto'. When in the field, gatekeepers helped in locating informants, which was time and resource-efficient and helped to build trust and generate ideas in a focused way (Fontana & Frey, 1994). Key informant's identification helped in gaining and build a social

relationship, trust, and respect to collect rich information (Rogers, 1980), cited in (Jennings, 2005, p. 107). Jennings (2005) argued that reciprocity is another key element to gain trust and generate rich information. Some of the reciprocal actions include; participating in community work such as clearing debris from the road after a landslide, helping in clearing snow from the road, helping people by giving rides from a village to the nearest town, helping people fix electricity problems by using personal contacts.

4.3.2 Sampling and Sample Size

The study area was selected purposively based on people affiliation with tourism. Using snowball sampling technique participants were selected based on their direct and indirect involvement and association with tourism (Cooper & Schindler, 2008; Tashakkori & Teddlie, 1998). Snowball sampling is a subset of purposive sampling where informants were asked to nominate a potential participant who could participate in the research and contribute rich information (Mack, Woodsong, MacQueen, Guest, & Namey, 2005). To ensure the representativeness of the respondents from the community a range of participants were recruited which included; government officials, civil society organisations, tourism enterprise, household heads, and tourism beneficiaries. For details please refer to Table 1 below.

Qualitative research is not about a specific set of numbers instead it is about targeted research (Jennings, 2012). Qualitative research does not produce quantified findings or tests hypotheses instead it generates theory (Brockington & Sullivan, 2003; Bryman & Burgess, 1999; Denzin & Lincoln, 2009; Phillimore & Goodson, 2004; Snape & Spencer, 2011). It is argued that qualitative research tends to achieve a deep understanding of the phenomenon under discussion in a cultural context (Jennings, 2012; Maykut & Morehouse, 1994). Qualitative research methods help understand the meanings people attach to phenomena such as action, decision making, beliefs and values which would reflect human behaviour in natural settings (Snape & Spencer, 2011). For this reason, the number of interviews were not set in the beginning. The process of interviews continued until the researcher reached a saturation point where no further insights into the study were found (Lincoln & Guba, 1985; Mack et al., 2005).

4.3.3 Participate Recruitment

A simple research information sheet (see Appendix G) was produced, in Urdu and English, to recruited research participants to inform them about the research along with consent form

(see Appendix H). Depending on the participant ability to read and understand the information provided, when required, the research information sheet was read orally or translated into other languages (Balti and Shina) as well. Participation in this research was voluntary.

The duration of the interviews was generally between 45 and 60 minutes. Interviews were mainly conducted in Urdu, Shina, Balti and English. Translator services were acquired for four interviews where people only speak Balti. I could understand a little Balti which gave me confidence in the quality of the translation. Two translators were hired and recruited under the Lincoln University code of conduct including privacy, confidentiality, and protocols of research and interpretation. All interviews were recorded with the help of a digital voice recorder and a cell phone. Hand notes were also taken during the interview as appropriate.

4.3.4 Fieldwork and Participant Profile

The fieldwork was conducted from January 2016 to April 19, 2016, approximately 14 weeks (12 weeks in Gilgit-Baltistan and 2 weeks in Islamabad/Rawalpindi). Snowball sampling technique was used to select research participants. A total of 115 attempts were made, and 98 successful interviews were conducted (see Appendix C). Details about key challenges and strategies adapted are documented in Appendix D.

Table 1 Participant Profile and Respective Sample Size

| Government | | Civil Society Organisation | Community Representatives |
|--|--------------------------|---|--|
| Administration | Planning and Development | Non-Government Organisations | Community Leaders |
| Local administration, planning and development representatives | | Non-government organisation representatives | People who were identified as community leaders at divisional and district level |
| Code ¹⁴ names and range = P1 to P9 | | Code names and range = P10 to P23 | Code names and range = P69 to P82 |
| Total = 2 | Total = 7 | Total = 14 | Total = 14 |

| Tourism Enterprise | | | | | Households | Tourism Beneficiaries |
|--|---------------------------------|-----------------------------------|---|--|---|---|
| Accommodations | Food and Beverages | Shops | Transportation | Activities | Household Heads | Students |
| Hotels ¹⁵ , motels and campsite | Restaurants | Grocery stores and gift shops | Public and private transportation facilities at regional, divisional and district level | Tour activity operator (tourist companies), guides, porters (both high and low altitude), Porter chief (Sardar), cooks and helpers | Household respective of selected villages at the district level | Students who get direct scholarships from tourist to get higher education |
| Code names and range = P24-P30 | Code names and range = P31, P32 | Code names and range = P33 to P36 | Code names and range = P37 to P43 | Code names and range = P44 to P68 | Code names and range = P83 to P96 | Code names and range = P97, P98 |
| Total = 7 | Total = 2 | Total = 4 | Total = 7 | Total = 25 | Total = 14 | Total = 2 |

The primary themes of the interview include livelihood systems, livelihood assets, activities, vulnerabilities, institutional arrangements, transport infrastructure development, tourism and livelihood diversification strategies (for details see Appendix E). Primary themes were used to project 44 conceivable questions to collect empirical data (see Appendix F).

¹⁴ Participants code names

¹⁵ Some of the hotels had restaurant as well.

4.4 Data Analysis

In terms of content analysis the textual data (in this case: travel diaries, notes and interviews) (Hsieh & Shannon, 2005; Stepchenkova, Kirilenko, & Morrison, 2009) was classified systemically into codes, themes and patterns (see Figure 10 below) (Elo & Kyngäs, 2008; Hsieh & Shannon, 2005). The *themes* derived were then broken down into small units (*open codes*) of meaning through the process of codification (see Figure 11 below) (Goulding, 2002). Glaser and Strauss (1967) suggest to start with the open coding of the empirical material and then focus on core themes (*focus codes*) central to emerging theory (see Figure 11 below). During this whole process, I was open to new ideas and new directions and ready to follow up on new ideas as suggested by Glaser (1978).

The recorded interviews were transcribed into English for analysis. Transcripts were classified and indexed based on themes, open codes and then into focussed codes. Figure 10 below illustrates open and focus codes for livelihood capitals/assets¹⁶ theme.

¹⁶ 'Capitals' and 'Assets' are being used interchangeable.

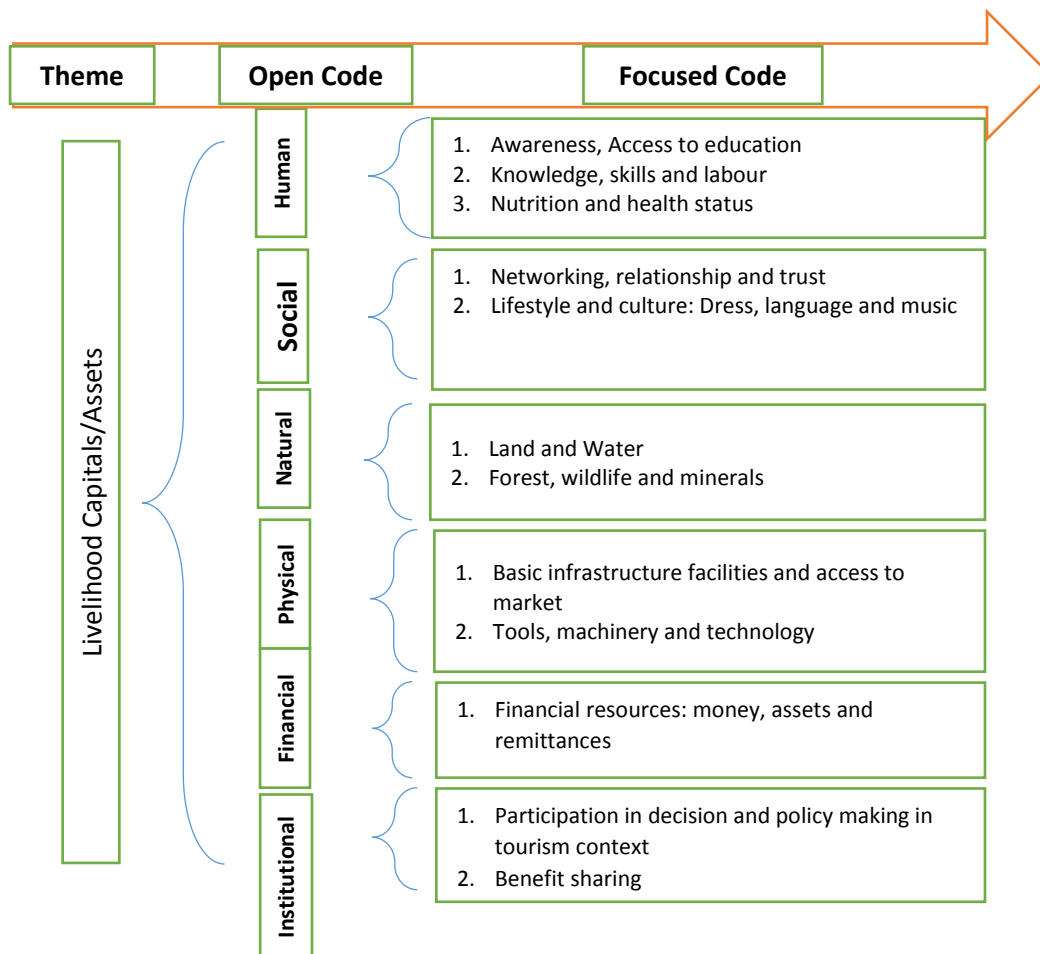


Figure 10 Data analysis indexing by theme, open code and focus code.

There has been a growing interest in the use of Qualitative Data Analysis Software (such as NVivo, MAXQDA, ATLAS, QDA Miner, AQUARD etc) and over the past decade. It is argued that such software assist researchers in analysing a large amount of qualitative data, reduce time, and provide the ability to present data in the visual form (John & Johnson, 2000; Lu & Shulman, 2008). However, it is argued that the software packages may hinder the in-depth understanding and rigorous analysis of the qualitative data (Bong, 2002; Davis & Meyer, 2009). Qualitative Data Analysis Software MAXQDA version 12 was used for textual analysis along with a manual thematic analysis as required (see Appendix J). Quotations used in this thesis from a particular interview had been corrected for grammar only. If more than one participant made the same argument, the participants were attributed in the bracket.

4.5 Researcher Positionality

Savin-Baden and Major (2013) argued that researchers positionality should be discussed in relation to the subject under discussion, the participants and the research context and processes. Sultana (2007, p. 376) argued that ‘...this occurs from the beginning to the end of the research process.’ During fieldwork, I tried to play an insiders approach but at times I was both insider and outsider or neither. Gilbert (1994) and Mullings (1999) noted these complexities.

and have been crossing borders in between. I had to reflect back on my positionality many times during fieldwork and during the data analysis process.

My ability to speak fluently in many local languages, ability to interact and entertain, engage and understand the complex local cultural and political situation, provide me with an opportunity to be accepted in those remote localities. Many times, during the fieldwork, people would say ‘there is nothing to hide from you as you are one of us’ or something like ‘you know the situation’ and so on, helped me in gaining access to information easily but I would be disingenuous to say that my research took an insider approach throughout my research processes. There were times when people would refuse to be interviewed just because I did not belong to a particular sect. For them, my religious affiliation was more important than the research under discussion. There were times when people confused me with some non-government organisations representative who would conduct surveys. In places, people were of the view that non-government organisations conduct surveys to apply for funding for themselves and do not deliver the promises they make.

Power relations was another important factor which needed to be considered. Because of the remoteness of the area, I had to hire a 4WD Jeep and in remote places possession of such a vehicle is considered as a symbol of wealth and power. Because of which people would often call me ‘sir’. I tried my best to mingle with them as much as I could and often insisted that they call me by my name, instead. After a few days in the area, people would get used to this, but I did feel some sort of reservation in some areas. It was harder for me to interact with people in rural areas as compared to major towns. To interact with people in cities, major towns, and government offices, a strong local recommendation was required. On the other hand, access to civil society organisations was easy but I noticed that they would often ask for some sort of donation for their cause.

4.6 Ethical Considerations

The proposed research involves human participation for empirical material collection purposes, hence, ethical issues were considered during every step of the research processes (Brydon, 2012; Veal, 2006). During and after the research, confidentiality of information provided was kept in accordance with Lincoln University, Human Ethics Committee protocols. Interview themes/questions were approved by the Human Ethics Committee before commencing fieldwork (see Appendix I). Interviews were conducted face-to-face in a suitable location convenient to both participant and researcher. Direct quotations from the interviews were coded to ensure the anonymity of research participants. Research participants were asked for written or verbal consent before the interview. Upon permission of the participant, interviews were recorded using a voice recording device. Hand notes were also taken as appropriate during the interview. The participants were also informed that they could leave and withdraw from the interview for any reason during the interview. Participants could withdraw the information provided before a certain date indicated on the research information sheet at the time. Permission to record the interviews was obtained from the participants.

4.7 Limitations of the Research

During the fieldwork, attempts were made to ensure that the data generated was robust. However, in social science research, there are numerous limitations to doing so. I want to acknowledge some of the barriers which may have affected the processes of data collection and its robustness.

Gilgit-Baltistan, being a patriarchal society, only three women participated in the research. All three participants were accompanied by a male chaperone(s). I suspect that the women were hesitant to answer some questions. In one case, the male member left the room briefly, and the woman participant changed her answer, which she had given earlier. Therefore, current research is not representative of the female population.

In some parts of Gilgit-Baltistan, the literacy rate is very low, and there is a chance that respondents may not understand questions and the use of a translator and the process of translating may affect the authenticity of specific responses. Limited research has been conducted in the Gilgit-Baltistan region and respondents may not have fully understood the

methods of study and may not have adequately responded. Because of the complicated political and security situation of Gilgit-Baltistan some participants may not have spoken publicly (see Appendix C). Time and financial constraints are also the main limitations to this research which has limited the scale of the study.

4.8 Chapter Summary

The study aims to investigate the consequences of road infrastructure on livelihood strategies in a tourism context. The research objectives required the use of qualitative research methods, as discussed in this chapter. In order to understand the change in livelihood strategies in tourism and road infrastructure context the research chapters have been divided into two chapters. Chapter 5 examines the status of livelihood capitals and livelihood diversification strategies (1947-1978) at macro (regional and divisional) and micro (local village and district) levels due to improvement in access (by air) to Gilgit-Baltistan. Chapter 6 examines the status of livelihood capitals and livelihood diversification strategies (1978-2016) at regional, divisional and local levels due to improvement in access (both by air and by road) to Gilgit-Baltistan. It took twenty years to construct Karakoram Highway to open Gilgit-Baltistan, which is why some of the impacts may overlap between two time periods being examined in this study.

Results: Part I

Chapter 5 Pre-Road Access to Gilgit-Baltistan: Livelihood Capital Status in Tourism Context between 1947-1978

5.1 Introduction

This is part one of the two result chapters. The chapter begins by discussing the status of institutional arrangements and physical access to Gilgit-Baltistan between 1947 and 1978 as perceived by the participants. The chapter then presents the impacts of improvement in access to Gilgit-Baltistan (by air) on livelihood capitals. Besides, the chapter discusses livelihood diversification strategies adopted by the people at macro (regional and divisional) and micro (local village and district) level as a result of livelihood capital transformation in response to an improvement in access (by air) in a tourism context. Livelihood capital transformation discussed in terms of focus codes highlighted in Figure 10 in Chapter 4. Information presented in this chapter refers to the time period between 1947-1978. Because of the duration of the road construction (20 years), some of the pre-road livelihood impacts may overlap with the post-road livelihood impacts.

5.2 Access to Gilgit-Baltistan at Macro and Micro Levels: An Overview of Livelihood Status

After the partition of the Indian-subcontinent in 1947, the region of Gilgit-Baltistan came under Pakistan administration. The changing political structure in the Indian-subcontinent caused border transformation resulting in the isolation of Gilgit and Baltistan (P70, P72, P71). The seasonal access routes available were from Gilgit to Azad Kashmir via Astore and Naran and Kaghan through Burzil pass, on horse and camel caravans (P37, P9, P70). Baltistan, on the other hand, lost all traditional access routes to Jammu and Kashmir and Ladakh except a few very physically dangerous routes such as Skardu-Gilgit via Haramosh and Skardu-Astore-Gilgit via Deosai (P23, P70).

After partition, the Pakistan administration gave local Rajas the sole authority to maintain law and order and run the affairs of local government as noted by community leaders (P78, P70, P71, P82, P72). According to some community leaders (P78, P72), the primary function of Rajas was to act as the eyes and ears of the government and to collect taxes on agricultural

produce. Some community leaders (P71, P72, P70) argued that the independence of Gilgit and Baltistan in 1947/1948 from Dogra Raj changed nothing but the face of rulers from Dogras to Pakistan administration as local Rajas came under the suzerainty of Pakistan administration instead of Dogra Raj (for details see Appendix B).

Rajas worked in close relationship with the army and government officers, and anyone visiting (tourist) the region was facilitated by Rajas (P94, P78, P19, P40, P9). Local historians stated that the people of Gilgit and Baltistan, along with Pakistani troops, fought a war with India on the Baltistan front (P70, P71). A planning and development representative (P9) argued that during the war (1947-48) troops faced a shortage of food and the supplies dropped by air were not enough. Rajas collected food, with the help of volunteers (both men and women), from neighbouring valleys and delivered rations to the Line of Control¹⁷ risking their lives (P78).

Some participants argued that the power abuse by local rulers resulted in out-migration and economic regression in Baltistan (P59, P51, P48). It was reasoned that an ordinary person could not escape their existing social circle because of suppression from local Rajas, which came in the form of sanctions, heavy taxation on agricultural produce, forced labour and restriction of movements. Failure to pay taxes would result in severe physical punishments and deportation (P12, P48, P51, P38). However, a community leader (P78) argued,

Rajas used to collect taxes for the government, and in return the government allowed Rajas to rule. Rajas were only allowed one percent of the total tax revenue of Rs. 12,000.

Another community leader (P82) argued,

People think that at that time, Rajas used to do injustice with people, but that was not the case. What Rajas did be our custom. For instance, there was a designated area for housing and cultivation and people were not allowed to build houses on agriculture land and if someone does he would get punished. If one makes a house he will keep animals, chickens etc and they will destroy people's crop. All this effort was to protect the second crop.

In terms of the social behaviour of Rajas, a community leader (P82) explained:

When you visit Shigar fort, you will see that in the courtroom there was no concept of a raised chair for Raja. Raja did not use to wear a gown or crown. Raja used to sit among the commoners and maybe he had some nice carpet to sit on. They used to

¹⁷ The military control line between Pakistan and India.

listen to people and solve their problem...In those days, every announcement was made from Raja's house, e.g. Eid.

According to community leaders (P78, P82), there were no formal community organisations. However, every village had a local representative of the government known as 'Lambardar' who held a strong position. Religious leaders in the community acted as knowledge managers and would enjoy many privileges from the Raja (P82, P70, P78). According to tourism enterprise representatives (P48, P45) and household heads (P89, P84, P96) household heads enjoyed high respect in the family and would be responsible for addressing any concerns of the family. All decisions were made to ensure a family's welfare and individual preferences were surpassed over family preferences in all matters including, social and economic choices (P75, P69, P51). Participants recalled that life was tough during and after the war and many people faced extreme poverty forcing people to migrate to bigger towns such as Gilgit, Skardu, Rawalpindi, Lahore, and Karachi as a coping strategy (P63, P79, P63, P70, P71, P77). A household head from Hushe (P63) recalled that "because of poverty, we had to migrate to Skardu." A non-government organisation representative (P23) claimed that because of partition, war and no access with the outside world Baltistan became a dead end. He explained:

If you compare Baltistan and Hunza between the 1940s and the early 1980s, forty years apart, you will notice the difference. Baltistan had a rich civilisation, culture, and development as compared to Hunza because it was accessible. After partition, Baltistan becomes remote, inaccessible and a dead-end [until 1965] and people started moving out, the only way being by air. By the 1980s Hunza was way ahead because of the Karakoram Highway, and Baltistan was falling backwards because of no easy access (P23).

According to local administrative representatives (P1, P2), planning and development representatives (P4, P3, P7), tourism enterprise representatives (P29, P38, P55, P42) and local historians (P70, P71) the political reforms of the 1970s resulted in a change in local governance structures like the State Subject Rules and Frontier Crime Regulation was dismantled and Gilgit and Baltistan came under direct federal influence (Pakistan).

Local historians (P70, P71) argued that the benefit of the political reform was that taxation on agricultural produce was lifted and the government introduced a subsidy on nine items including wheat, kerosene oil, petrol, and diesel, which helped people to prosper. A guide (P51) from Hushe argued that after political reforms, a court system was established in Gilgit

and Skardu to resolve legal matters, but people had to walk for days to get there. A prominent community leader (P72) from Baltistan claimed that there were setbacks to the political reforms of the 1970s. He maintained,

Many government officials allocated hundreds of Kanal of valuable land in Gilgit-Baltistan under their name and rest of the [barren] land/area was declared as state land. Hence, our land was divided haphazardly after the elimination of the State Subject Rule. Some locals have also sold their land because of poverty. Which is why locals have very limited land now (P72).

Before road infrastructure development, non-government organisations were not operating in Gilgit-Baltistan, mainly because of difficult access and government restrictions. Maraini (1961), writes about various forms of restrictions including taking photographs of strategic locations, restrictions on any geological material/data, expedition members were not allowed to keep a record of maps, and a chaperone from the government of Pakistan was always to accompany every expedition. A hotel owner (P29) argued that, after the improvement of air access to Gilgit-Baltistan, faith-based development organisations started forming a network and started working towards the development of a selected community by providing modern education and facilities. Some non-government organisation representatives (P14, P23, P10) credited to this very faith-based development organisation in the whole Gilgit-Baltistan.

The livelihood of the people was based on agropastoral activities and barter trade with neighbouring villages and valleys (P9, P70, P74, P77). Participants recalled that traditionally, the people of Gilgit-Baltistan had two to three dwellings (P78. P9, P85, P83, P60). The first dwelling was usually beside the river, and the second and the third dwellings were in the pastureland or halfway up the mountain. As the temperature rose in the summer, half of the family members would move up the hill towards the pasture with their livestock and remaining family members would be busy in subsistence farming. Some family members would walk back and forth to collect milk, butter and firewood between the permanent settlement and the summer pasture. As the winter approached, people would come down the valley to their permanent settlements. Such a lifestyle can still be observed in most remote and rural valleys of Gilgit-Baltistan.

Planning and development representatives (P9, P6, P3, P8) and community leaders (P74, P79, P78) reasoned that during the war of 1948, the government of Pakistan felt the need to improve access to Gilgit-Baltistan for strategic reasons. This resulted in the development of

runways in Gilgit and Skardu (P58, P12, P20, P85). The absence of road infrastructure created labour demand at divisional and district levels as the development work was labour intensive (P79, P78, P43). According to community leaders (P79, P78), the comparative advantage of local people being able to work in extreme climatic conditions resulted in the conception of economic activity including working for the army, airport construction, and road construction towards Line of Control.

Although the airports in Gilgit and Skardu were constructed for security purposes, improvement in air-access attracted international mountaineers to Gilgit-Baltistan (P58, P12, P20, P85). The primary purpose of improving air-access to Gilgit-Baltistan had no intention to promote tourism; however, tourists were able to use these facilities (P85, P71, P72). According to non-government organisation representatives (P21, P17, P12, P23), tourism enterprises (P44, P33, P36, P54, P51, P34, P45), community leaders (P69, P70, P72) and household heads (P84, P88, P81, P95) availability of air-access resulted in creating new non-farm livelihood activity by providing income opportunities to poor and unskilled people.

A local historian (P70) and tourism enterprise representatives (P78, P85, P21, P12, P38, P88) argued that the first ascent of K2 acted as a snowball and tourism started to grow in Gilgit-Baltistan. Since there were no roads and no means of providing tourism amenities, the tourist had to bring everything with them, and porter demand was very high (P85, P88). It was argued that high demand for porters attracted many subsistence farmers from all over Gilgit and Baltistan as reported by community leaders (P78, P81), non-government organisation representative (P12, P20, P16), tourism enterprise representatives (P38, P48, P58, P61, P63, P64, P66) and household heads (P88, P85, P84, P91). High altitude porters (P85, P91) argued that although the number of expeditions was lower, the tourists used to bring a lot of equipment which subsequently required more porters - at least 300 to 1,000 porters per expedition. A high-altitude porter (P88) from Hushe claimed that his father used to go to Skardu, in the 1960s, seeking tourism-related employment opportunity in the tourist season. Some high-altitude porters (P85, P70, P71) recalled that because of remoteness and unique culture and landscape, tourists used to make movies, write travelogues, newspaper articles which resulted in growth in tourism in Gilgit-Baltistan. A tour operator (P48) and a household head (P84) from district Ghanche argued that the people who got involved with tourism were the ones who were poor and had less developed farmland. However, a non-government

organisation representative (P20) and a different household head (P90) from Shigar district argued that because of many social and cultural restrictions very few people from got involve with tourism at first. A household head (P91) from Prono, Shigar argued that since '*Angrez*' (tourists) were non-Muslims which were the reason religious leaders prohibited people from mingling with them freely. On the contrary, people of Ghanche seemed more open in their interaction with outsiders, especially tourists (*Angrez*) as compared to the people of Shigar. Although it was not mentioned by any participant publicly, but the observed difference suggested that the difference could have been because of different sects of Islam in Ghanche and Shigar.

Changing institutional arrangements, along with improvement in access to Gilgit-Baltistan by air, resulting in the transformation of livelihood capitals. Since livelihood capitals are fundamental to livelihood, it is crucial to understand how livelihood capitals were transformed under the changing circumstances.

5.3 Livelihood Capitals Status Transformation

Modification in the institutional arrangements after partition and improvement in access by air resulted in tourist inflow providing alternative livelihood opportunities to the people of Gilgit-Baltistan. This resulted in the transformation of livelihood capitals. This section discusses the status of livelihood capitals in Gilgit-Baltistan between 1947-1978 and how various capitals were transformed as perceived by the participants. Livelihood capitals can be discussed with the help of focus codes identified in Figure 10 in chapter 4. The livelihood capitals are discussed without any sense of priority but are discussed in the order used by Shen (2009). Each livelihood capital transformation was discussed separately in alignment with the timeline of this chapter (1947-1978).

5.3.1 Human Capital Transformation

Focussed codes for human capital include: awareness and access to education; knowledge, skills and labour; health status and nutrition.

5.3.1.1 Awareness and Access to Education

According to community leaders (P78, P82) and a household head (P89), knowledge managers such as local rulers and religious scholars influenced the knowledge and information available to the public. Community leaders (P77, P74) claimed that in Gilgit-Baltistan, there were two

types of educational institutions, formal and informal. Informal institutions played a significant role in keeping their culture alive by educating people about their culture, beliefs, and customs. Evening sessions at the household or village level were the primary source of knowledge where the elderly, drew conclusions from day to day activities and history and conveyed this message to youngsters in the form of oral folk tales (*Shakoley*) or songs (P77, PP74, P76, P29). Community leaders (P77, P74) and a guide (P52) argued that these informal gatherings were the principal social activity, which preserved history, traditional knowledge about farming techniques, livestock and natural resource management, weather reading, handicrafts, hunting and gathering, traditional medicine and music. According to a community leader (P77),

The elders were considered an asset to a family and sources of knowledge and guidance for the youngsters.

A different community leader (P82) argued,

Formal education was only available to ruling families who organised various sessions to learn music, religion and fighting/war tactics.

It was argued that a very few ordinary people could afford to get formal education as they either had to go to bigger towns such as Skardu, Gilgit, Azad Kashmir or elsewhere in Pakistan for education (P48, P70, P78, P79).

According to some community leaders (P72, P82), local Rajas used to promote language, literature, education, and poetry. However, some participants argued that local rulers discouraged people from gaining a formal education and the only place one could get an education was religious seminaries, where one could learn to read the Quran (P90, P75, P48, P70, P12, P58). This made sense when I visited a remote valley, '*Siksa*' in Ghanche district, which had the highest literacy rate in the whole district. A local tour operator (P48) claimed that access to education depended on the views of particular Raja. He explained:

It is because that village was ruled by Raja of Ladakh (now part of India), who was very generous towards his subject and would allow people to get a modern education (P48).

According to some participants, the number of educated people at the time was less, and there were very limited facilities available locally to gain a formal education both in Gilgit and Baltistan (P69, P77). However, according to some community leaders (P78, P70, P71) people

who had been outside Gilgit-Baltistan became aware of the importance and benefits of modern education and upon returning they started investing in education.

5.3.1.2 Knowledge, Skills, and Labour

Even though Gilgit-Baltistan was isolated, the skills, knowledge, and the ability to labour is evident from the art and architecture existing in the form of monuments, forts, water channels and agricultural techniques, food preservation, and traditional medicine (P82, P70, P48, P3, P11). According to a community leader (P74) before partition, sericulture was an everyday activity in Gilgit and Baltistan, which used to feed the silk industry in Kashmir, the then top silk industry in British India. However, a prominent community leader (P72) argued that the silkworm production skills and knowledge were only known to Hindus¹⁸ and they did not transfer their skills to locals. Hindus and Sikhs left Gilgit-Baltistan after the partition (P70, P72).

Some household heads (P90, P84, P95, P86, P85) argued that the availability of tourism-related jobs provided alternative livelihood opportunities to the people of Gilgit-Baltistan. A household head and high-altitude porter (P85, P86) reasoned that it was because three months of work with tourists in one season as a porter was enough to buy subsidised consumption items from the government depot. Similarly, the frequent availability of labouring jobs during the construction of numerous roads networks at local levels resulted in the introduction of a monetary economy (P91, P79, P70, P51).

5.3.1.3 Nutrition and Health Status

It was argued that people used to consume healthy organic food which was produced locally, fewer spices and other healthy items such as apricot, walnuts, grains and fruits, (P62, P71, P78, P51, P94, P50, P83, P12, P89, P24). Some participants argued the reason for good health was because people could rarely consume items such as rice, sugar, tea and spices until they had a monetary income (P32, P90, P82).

Majority of the participants argued that, before road access, people were healthy, lived long, physically strong, tolerate extreme climatic conditions and there was traditional medicine available for most of the locally known diseases (P71, P58, P78, P60, P62). A prominent

¹⁸ Gilgit-Baltistan has been predominantly Buddhist before the arrival of Islam (700 years ago) (Dani, 2001).

community leader (P83) claimed that “there was less sickness and I can say with confidence. I have seen myself that our elderlies used to live at least 80-100 years easily”. A community leader (P78) explained:

The reason people were healthy and used to live long was that people used to make and use wooden utensils which were healthy and did not use to have any germs in them.

According to household heads (P88, PP84, P85), community leaders (P80, P77, P76), tourism enterprises (P67, P38, P34, P57) and a non-government organisation representative (P17) animal and human waste was used as fertiliser and there was no concept of using synthetic fertiliser, which is why people used to keep a lot of livestock. Some participants (P94, P41, P34, P77, P24) argued that human waste was considered very beneficial for healthy crops. Which is why the use and collection of animal and human manure was crucial to growing food in summer as nothing would grow in winter (P88, P89, P83, P84, P87).

5.3.2 Social Capital Transformation

Social capital can be discussed in the form of focused codes include: networking, relationships and trust; and lifestyle and culture.

5.3.2.1 Networking, Relationships and Trust

According to community leaders (P70, P74, P77, P69) and non-government organisation representatives (P23, P22, P12, P14), the people of Gilgit-Baltistan lived in small communal setups with strong networking and connectedness. These gave them a collective identity and built their resilience. Participants argued that because of extreme dependency on each other people supported each other, and mutual exchange of facilities reduced their vulnerabilities through kinship and friendships (P77, P70, P1, P48, P24, P12, P58, P80, P74). According to community leaders (P69, P77), cooperation and networking helped people to managed assets effectively by keeping in mind the common interest of civil society through informal community gatherings. A planning and development representative (P8) argued that,

Our society has got more cohesion, and our culture is such that we have a lot of community participation. These are our capital and assets. If a water channel was washed away, people gathered as they all need water, and rebuilt that channel.

A guide (P52) explained:

In the past, when some poor people did not have enough food to eat, they used to use the grain seeds they kept for next year. But it was considered a shame to do so as they won't have enough seed for next year. There is a story, this rich man notice that poor people ran out of their food storage for the year and they were facing food deficit. He started using his grain seeds which he kept for next year so that poor won't feel bad in using their seed grain. He did so because he did not want poor people to starve or feel ashamed of using grain seed.

During this time, the identifiable social groups include, the ruling family (Raja), Wazirs and Lambardar (administrators) and ordinary people. Community leaders (P83, P78) argued that networking among these groups was based on strong hierarchical links and relationships. According to a prominent community leader (P78), all the ruling families in Gilgit-Baltistan are related to each other and often intermarry. Some participants (P82, P78) argued that the strong relationship among the ruling class made their respective kingdoms stronger. However, a community leader (P72) claimed that in the past, these kingdoms have fought amongst each other.

Many participants argued that the strong mutual relationships, trust, reciprocity and exchange of goods and services helped in building a robust collective society which built communities coping strategies (P77, P70, P1, P12, P58, P77, P80, P74, P11, P65, P94, P89). Culturally, the eldest male member of the family would be head of the family, and everyone else would treat him with respect (P77, P70, P69). According to a community member (P77),

Elder family members had significant responsibilities towards family security. Which is why, when the family land is divided among siblings, as a custom, the oldest brother was given the privilege to choose/keep certain assets such as a gun, ox, big tree etc. Elder brothers enjoyed a status just like a father.

According to some tour operators (P48, P44), the status of women in the family was defined at the household level. According to a tour operator (P48):

In the absence of a grandfather, a grandmother enjoyed high prestige in the household matters as she used to manage the grain distribution. Our grandmothers would often wear a necklace full of keys and whosoever, in the village, had more keys [food basket keys] was considered the most powerful grandmother in the village.

On the contrary, as a cultural norm, the family land would only be distributed among male siblings, despite the fair share for women in Islam (P77, P74, P78).

5.3.2.2 Lifestyle and Culture: Dress, Language and Music

Despite the problems caused by the partition, it was argued that the lifestyle of the people of Gilgit-Baltistan, in general, was rich and full of recreational activities, and festivals throughout the year (P70, P78, P75, P75, P74). A community leader (P74) explained:

Our life was full of agriculture, sports, entertainment, food, and pleasure. In summer, everyone worked hard all day. Men, women, children, they all had their place, and everyone was engaged. If there were any dispute, it would end the same day. Youngsters were engaged in romance. When the prayer time comes everyone would go home, eat, sleep and back to work the next day...After cultivation, some elders would work in developing agriculture land, and youngsters would go for hunting or trade. At the time of harvesting, everyone would come back to help and then eat, sing, and listen to Zrung/Shalokey (stories from older people), beat the drum and dance.

According to a community leader (P78), before the political reforms of 1971 Rajas used to organise polo matches followed by music festivals, to entertain officials and visitors (mountaineers) during their stay in their territory.

Community leaders (P74, P71, P76) and non-government organisation representatives (P12, P14) argued that before the road, people would wear a traditional dress made of wool and would live in simple houses. A tour operator (P48) claimed that only rulers were allowed the use of fine clothing (cotton, silk and white cloth) and common people were prohibited from wearing such dress.

According to some participants, there were fewer resources, and people were generally poor (P51, P85, P58, P87, P89, P94). A household head (P94) from Prono explained:

Without the road, our condition was like a sick man who could not get out of his bed and spends the rest of his time wiggling in his bed. At that time, nothing could come from Punjab as there was no road. People used to eat whatever they could produce. If it finished, then it is finished! Poor people used to borrow some wheat from rich people to survive their family before the harvest of next crop. Here, we can only grow one crop. People did not have enough to feed themselves throughout the year. People even used to go to Askoli, to borrow wheat as they used to have enough grain and there was always plenty in stock. There was no direct road to Askoli, which is why people had to climb the mountain which used to take 4-5 days to reach Askoli by foot. We used to go there to barter and bring a bag of wheat (30kg).

On the other hand, a household head (P84) from Hushe argued that one of the reasons for poverty was because of heavy taxation on agricultural produce and grazing restrictions. However, a community leader (P82) reasoned that those restrictions were mainly to protect

agricultural land, forests, water and biodiversity, which provided food production for communities' survival. He explained:

There was a designated season (one month) to bring livestock back to the village. One was not allowed to bring livestock before the designated time. Every month had a step to follow. People used to take livestock to pastureland in May/June and used to bring back in September. People could bring the livestock back step by step. The main reason behind this was to protect the second crop of the year (P82).

During this time, very few people could speak languages other than local languages. Very few people learned to read Arabic to recite the Quran, which is in Arabic (P75, P90). A household head/ prominent leader (P90) from Prono claimed that the reason local people did not learn any other language was because local religious leaders considered English and Urdu as the language of non-Muslims. People were only encouraged to learn Arabic and Persian. However, after mingling with road contractors, army men and tourists a very few learned other languages and could speak broken Urdu and English (P77, P70, P9, P45, P48, P58, P79, P38).

In Baltistan, music before the road seemed to be very rich. According to a community leader (P82) music acted as an anchor point in preserving cultural traditions and musicians enjoyed

a special status/class in the society. The same community leader (P82) argued that music was part of the culture, was unique¹⁹ and had historic meanings²⁰ attached to it.

¹⁹ “My grandfather, Raja of Khaplu Raja Nasir Khan used to play polo, but his eye sight got weak and stopped playing polo. One day, he was sitting by the window, drinking tea and listening to polo music. My grandmother was sitting in-front of him. Suddenly he screamed, dropped the tea and started running towards the polo ground bare feet. One servant grabbed his shoes and the other his gown and hat and started running after him. When he arrived near the polo ground, the music changed. He then stopped, wore his shoes, gown and hat and walked back home and sat down on the window and asked my grandma for another cup of tea. My grandma asked the reason why he ran like that? My grandpa replied Fatah Ali Khan (the eldest son) was fallen off the horse in the ground and I knew it through the music which is why I ran towards the ground. When I was near the ground the musician changed the music and I knew that Fatah Ali Khan had got back on the horse, so I came back as I did not need to go there... My grandpa had three sons and this incident happened with the elder son. If the other sons had fallen off the horse, then there was different music for them as well. Similarly, if someone had got injured or died then there was different music for all three sons. Now, this whole musical trend has gone. Such music is not found everywhere in the world and this is my challenge.

At the dawn of Eid-e Nouroz, after Fajar [morning] prayer, someone played a music from the fort. My father called the cook and scolded at him that why he hadn't sent the breakfast yet. People asked him how did you know? He told them that because of the melody they played. You cannot do this in any other music in the world. In the war of 1971 India captured six villages of Khaplu, even now they are in India. During the war those six villages used to play a certain type of music and people on this side would tell the commandant that they (India) had got another tank, cannon, amount of new armed men etc. The Commandant, instead of listening to them used to accuse them of being Indian spies and used to capture and torture them. It was nothing but the music. Even now, that music is still alive in those six villages in Ladakh in India” (P82, a community leader).

²⁰ “We have a famous melody called *Gashupa* where people of Baltistan used to dance with a sword. People of Hunza took that dance from us. They do not have the history behind but we [Balti] do. When *Gashupa* is played only seven people will come forward to dance [see Plate 3]. *Gashupa* is a name of a Ruling family of Baltistan, now they are in Kargil. Once Ladakhi attacked *Gashupa* and defeated them. The king of *Gashupa* had seven sons were taken prisoner after killing their father in a big massacre. The Ladakhi Raja wanted to celebrate his victory. Hence, they made a big open fire, drinking and dancing. He wanted to make his victory memorable hence he gave order the seven imprisoned princes to dance. When the princes asked their hands were unknotted. The princes requested that since they were princes and it was their tradition to dance with a sword in their hand. The Raja of Ladakh, who was drunk, ordered to give them swords thinking that they won't harm a big army. Since, the princes had lost everything they decided to fight one last time. The dance is such that the participants walk to the outer circle and then they gather back at the centre. They chant a slogan and disperse again and start dancing. When they meet at the centre they used to consult/advice on their next moves and think of plan of attack. The music is slow at first and then it gets faster. Once, the plan of attack was finalised, they all attacked main players and rest ran away. That was how these seven brothers got their kingship back. Hence, every word in our music has got meaning” (P82, a community leader).



Plates 3 Gashupa Dance Khaplu. Photo by: Raja Hidayat Ali Khan

5.3.3 Natural Capital Transformation

Natural capital can be discussed with the help of focus codes such as: land, water, forest, wildlife and minerals.

5.3.3.1 Land and Water

The people of Gilgit-Baltistan used to derive almost all their livelihoods from natural resource-based agropastoral activities. People were cautious and would perform land development activities with minimum impact on the environment (P78, P14). Because of the arid, extreme weather condition, and limited production of arable land, the primary job of every household member was to develop agricultural land (P83, P88, P63, P69). Before road infrastructures, people were self-sufficient as they used to grow oats, wheat, maize, potatoes, keep livestock and occasionally hunt (P50, P83, P12, P78, P51, P94).

Since subsistence farming was the primary livelihood activity, the value of the land was determined by its age²¹, soil fertility, and its location (P20, P1, P2, P52, P23, P14, P8). Land

²¹ The land which has been cultivated for long time. Such land is more productive as compared to newly developed land as it as got more nutrients.

close to the water and away from walking tracks was considered valuable because of the availability of water and crops could not be damaged easily by people and animals walking by (P1, P14, P11, P69). According to a historian (P70) and a non-government organisation representative (P14), the siblings would prefer to acquire land, which was away from walking tracks. According to a porter (P60)

Siblings in the past preferred to inherit land far from the riverside and close to glacier runoff to avoid loss of land during any natural disasters such as flooding.

Some participants argued that because of the extreme importance of land for a livelihood, the land close to the river or glacier runoff was divided equally amongst male siblings so that every sibling would get a fair share of loss in case of flooding (P78, P1, P4, P77, P74, P49). Other factors that determined land value were the land with fruit trees, temperature and sunlight to grow two crops (P72, P78, P48, P8).

5.3.3.2 Forest, Wildlife, and Minerals

Because of the total dependency on agropastoral activities, all community members had access to natural resources such as pasture, forest, and wildlife (P77, P94, P70, P51). Individual and communal access to natural resources was secured by cultural and religious norms and were defended collectively against any encroachments (P1, P3, P38, P78, P82). It was believed that access and the sound quality of natural resources were essential for healthy food production for all living beings, which is why natural assets were preserved and protected collectively (P1, P3, P38, P78, P82). Because of extremely cold weather, people had to collect firewood throughout the summer from pasture land/forest and trees were considered an asset (P98, P38, P85, P9, P87, P44). Before roads, there was no concept of mining; however, in a few places, people used to extract salt from the saline soil as salt was rarely available locally and challenging to import (P12, P82, P38, P84, P83).

5.3.4 Physical Capital Transformation

Physical capital codes used in this study include: basic infrastructure facilities; access to market; producers' goods such as tools, machinery and technology.

5.3.4.1 Basic Infrastructure Facilities and Access to Market

The basic physical infrastructure constitutes forts, palaces, houses, water channels, developed agricultural land, and tracks (foot and mule). Participants argued that, at the village

level, there were many tracks developed to access pastureland as needed, and all such infrastructure was owned and maintained by the communities themselves (P77, P78). According to two household heads (P88, P85) and a tourism enterprise representative, crossing a river was a big challenge, especially in winter and people often used rope bridges and locally formed rafts as shown in Plate 4. A planning and development representative (P9) and a community leader (P69) argued that in certain strategically important areas, traditional bridges were replaced with small wooden bridges with metal wires by the army to ensure reliable mobility.

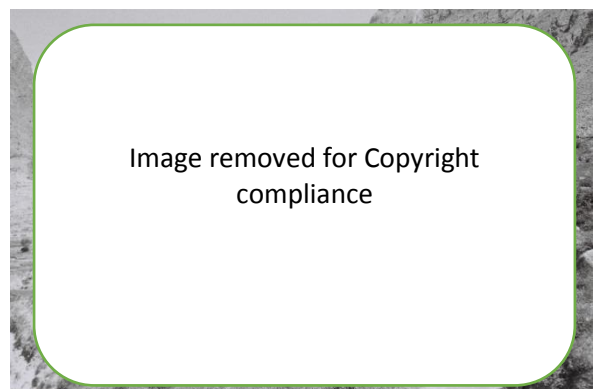


Plates 4 Kharmang bridge Crossing (Left) and Ferry Crossing in Baltistan (Right) in 1940. Photo by Ralph R Stewart

Many respondents, such as non-government organisation representative (P16, P15, P12, P11, P20, P18), tourism enterprise representatives (P48, P47, P38, P37, P34, P33, P28, P27, P26, P24, P61, P64, P63, P51, P52), community leaders (P79, P75, P71, P70, P69) and household heads (P83, P85, P95, P94, P93, P90, P89, P86) explained that as there was no road infrastructure and people had to walk. According to a local historian (P70),

There was no concept of roads. People used to walk along 1-3 meter track which had formed of habit and was not planned... [if people had to go further] they had to climb a mountain, come down, then cross the river. It was very difficult to cross the river during flood season as everything would wash away. [see Plate 5]

Since subsistence agriculture was the prime livelihood activity, communities put special efforts towards the construction and maintenance of



Plates 5 A walking track. Photo source: Anonymous

irrigation channels, and to develop barren land for agriculture purposes (P96, P83, P51, P10, P94). A planning and development representative (P3) and community leaders (P69, P70, P71) argued that the two water channels in Gilgit (Ajini and Khirini Dalja), Hargisa Nullah to Kachura (Skardu) and a dam on Sadpara Lake (Skardu) were built to sustain the livelihoods of the people of Gilgit and Skardu. These water channels were vital for agriculture because of minimum precipitation and irregularities in glacier meltwater supply during the spring season (P38, P3, P78). A community leader (P74) stated that,

We built several miles long and several meters-wide water channels by cutting the mountains with basic tools and without using any machinery. We irrigated barren lands and grew two crops.

According to some participants in Baltistan, the traditional housing architecture in Baltistan was unique (P24, P14). A local historian (P71) claimed:

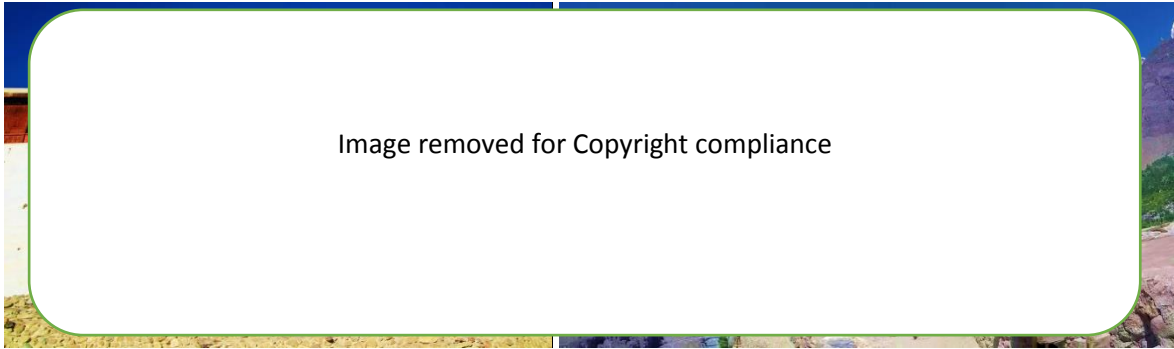
In 782 Ameer Kabeer Syed Ali Hamadani, came from Iran [Hamadan] to preach Islam in this region. He was accompanied by 700 scholars and members of the holy family. There were lots of skilled people in that caravan including, tailors, carpenters etc. Those people not only gifted Islam, but they also transferred skills such a handicraft and promoted civilisation here...Which you can see even today.

A hotel owner (P24) maintained:

Balti traditional building style is Tatail (also known as Tibetan style) which uses criss-cross wooden structures and can bear nine magnitude earthquakes. Stones are put together using mud. The property of stone and clay was such that it acted as an insulator and maintained a steady temperature in winter. Wooden pillars were placed to keep the structure embodied. Baltit and Altit forts in Hunza were made by Baltis.



Plates 6 Tatail Style Buildings in Chu Trun – Basho Valley Shigar



Plates 7 Baltit Fort (Left), Altit Fort (Right). Photo source: Anonymous

During fieldwork, I found many buildings with such construction style. It is important to note that all such buildings either belonged to Raja families or they were community centres such as mosques and shrines (see Plate 6 and 7).

The houses of the ordinary people were without thermal qualities mentioned above (see plate 8 below). Household heads (P95, P94, P88, P83), explained that traditional houses of ordinary people were made up of clay and animal dung and were very basic. A household head (P83) reasoned,

In Baltistan, there was no concept of using Bali (a long piece of wood used to make a roof). Our houses were not made properly. In places, people could look through walls.



Plates 8 Traditional wall of a house in Prono, made up of mud and clay.

Traditional Balti houses usually two-story houses. The first story was usually underground, and entry was from upstairs only (see Plate 9 below), upstairs was used by human and livestock was kept underground (P95, P12, P83, P94, P78). A community leader (P78) explained:

In winter, we used to live underground with all our animals. We used a wooden room in the centre with an open fireplace in the middle, and all household members would surround that fire to keep them warm.



Plates 9 Typical Balti House: Entrance and Inside

In an informal gathering, one of my facilitators from Shigar commented that the reason for keeping the livestock so close was to protect livestock from theft as livestock was a significant livelihood asset for a household. However, this was not mentioned by any of my participants.

The houses in Hushe were built in a way that they lean on each other. At places, the buildings were very close to each other and formed tunnels. It was reasoned that such construction style kept the walking tracks clear of snow in winter, and one could visit neighbours/relatives in time of need and perform daily chores comfortable during heavy snowfall. Such tunnels can be seen in places even today (see Plate 10 below).



Plates 10 Tunnels in Hushe

A community leader (P77) from Gilgit commented that the houses in Gilgit were not properly ventilated. He explained:

The traditional houses did not have proper ventilation and there was only one door. Because of which diseases could spread quickly... We were given tasks in Gilgit town to identify and mobilise the community and create awareness. We also built model houses with proper ventilation.

The above statement contradicts with participants who claimed that people were healthy, and there were few diseases (P71, P58, P78, P60, P62). The consensus about good health status and fewer diseases suggested that the housing construction style, despite the apparent unhygienic conditions as per modern standards, did not result in spreading diseases and I could not find any historical evidence which supported this argument. Perhaps, this could

have been the efforts of the government of Pakistan to transform the indigenous lifestyle of the people of Gilgit-Baltistan by influencing their lifestyle in the name of awareness. It was argued by some community representatives that people in Gilgit-Baltistan built houses according to the climate of the region, but gradually people started copying the housing style from other parts as they travelled outside (P78, P82, P71).

5.3.4.2 Tools, Machinery and Technology

In Gilgit-Baltistan, basic agricultural equipment comprised of working animals such as donkeys, mules, horses, oxen: and farming tools such as shovels, spades, forks, and rakes which were made locally of wood and animal hooves (mainly Ibex) (P12, P48, P70, P77, P78, P82). According to some participants not everyone could afford to keep working animals such as oxen as they were relatively expensive to feed throughout the year which is why people would borrow an ox from their neighbours or relatives (P85, P38, P84, P90, P62, P91, P93).

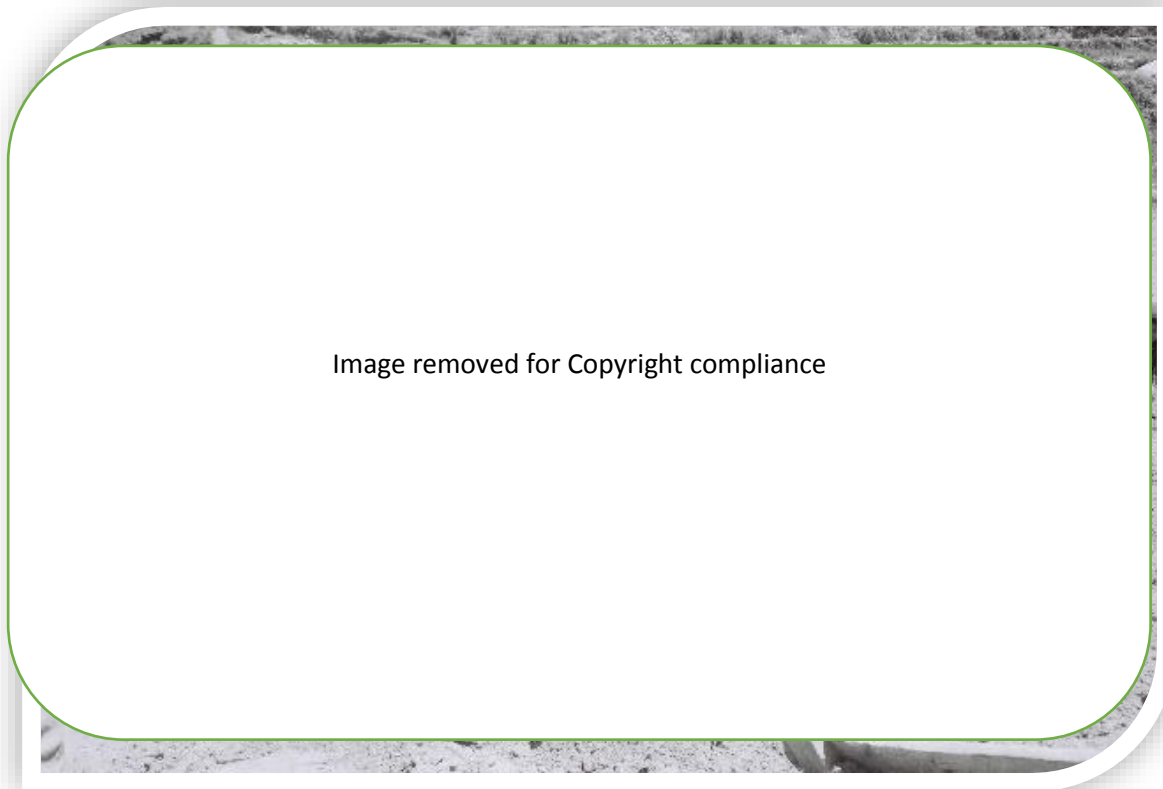


Figure 11 Subsistence farming using traditional tools. Source: Anonymous

Some participants argued that, since heavy machinery could not be brought in to Gilgit-Baltistan, most of the work was done manually with the help of basic tools (P38, P78). During the construction of various infrastructure in the Gilgit and Baltistan division, local people showed particular interest in metal tools, especially the metal bar, shovel, and spade, as these made them more productive in developing farmland (P78, P73, P72, P12, P83, P91, P51). It is argued that metals tools revolutionised land development and agriculture techniques (P12, P51). Income generation from working as a labourer or porter, helped people to afford to buy such equipment (P51, P12, P69). A planning and development representative (P9) claimed:

During road construction processes, our canteen contractors were instructed to import various goods from the down country and made them available. You would be amazed to hear that they even bought lipstick, talcum powder etc.

After the improvement of tracks locally, a few 4WD jeeps were brought in to Gilgit and Skardu by the military, political agents and contractors (P70, P72, P71).



Plates 11 First Jeep Arrival After the Improvement of Gilgit Airport (Source: Anonymous)

5.3.5 Financial Capital Transformation

Financial capitals can be discussed with the help of focus codes which include: financial resources such as money, assets and remittances.

5.3.5.1 Financial Resources: Money, Assets, and Remittances

During the Raja period, taxes were collected in the form of agriculture produce (P82, P38). Some tourism enterprise representatives (P51, P38) and community leaders (P78 P82) claimed that if people could not afford to pay taxes, they would sell land to the Raja and would eventually become dependent on the Raja or other people. It was argued that such charges promoted poverty, inequality, landlessness and made people dependent on rich people and the poor could not escape poverty (P63, P48, P38).

Local historians and community leaders argued that because of the unavailability of financial institutions, the concept of money was not popular and domestic economies were dominated by a bartering system, which is why accounts and the details of goods traded were not maintained (P70, P82, P71, P72). Common barter trade goods included dried fruits, nuts, agricultural land and livestock (P51, P12, P69, P38). Because of the traditional barter system, there was no demand for money from paid jobs, and there was no concept of job (paid) creation or money (P38, P68, P69). A local guide (P57) recalled an oral story.

During Mustang Pass crossing in 1903 when Balti porters were offered money at the end of the expedition, they asked for flour instead of money as they did not know what to do with the money.

A non-government organisation representative and high-altitude porter (P12) maintained that:

People did not know what to do or where to spend the money they earned. If my father needed a shovel, he could not buy a shovel in Hushe. He had to go to Khaplu, which would increase the expenses. People used to earn money to be happy and think that they had money. There was no place to spend it. Sometime, by the time they go to Khaplu currencies would change.

Some participants claimed that the concept of money came during the construction of roads where people got paid during the construction of the road and especially when tourists started coming and hiring local people and paid them money (P60, P78, P94). Before roads, there was no concept of pensions or any social benefits (P70, P69). Before roads, the only

entity that provides some monetary transaction services was the Pakistan Post Office and National Bank of Pakistan in Gilgit and Skardu only (P84, P70, P71, P85).

5.3.6 Institutional Capital Transformation

Institutional capital codes used for this study included: participation in decision and policy-making and benefit-sharing of the tourism market.

5.3.6.1 Participation in Decisions and Policy-making

According to community leaders (P78, P82, P70, P71, P72, P77), non-government organisation representatives (P12, P21) and tourism enterprise representatives (P43, P48) there was no public participation in government affairs due to the imposition of the State Subject Rule and the Frontier Crime Regulation. Community leaders (P72, P71) argued that the State Subject Rule prevented selling land to outsiders in Gilgit-Baltistan. A community leader (P72) claimed that “despite having the authority, even a non-local officer could not allocate the land to anyone”. However, a local historian (P70) argued,

One could sell 1/3rd of landholding in case of any severe compulsion of the family, e.g. to celebrate family marriages. Which is why a few outsiders [Pathans] were able to buy land in Amphary Gilgit [Pathan Mohalla].

According to a tourism enterprise representative (P43), the imposition of the Frontier Crimes Regulations, denied three fundamental rights which suppressed public participation in Gilgit-Baltistan. He explained:

You could not raise your voice against any decision made, you could not write against anyone, and you could not make any organisation. For instance, when I was in school. Four boys failed in 9th grade. They thought there had been an injustice to them. They wrote an application to the political agent, seeking justice and asked to re-examine their papers. In response to that application, the political agent got upset and gave them exemplary punishment.

Furthermore, local Rajas were given authority to rule and, according to some participants, they misused their powers (P59, P51, P48). Community leaders (P78, P74, P82) and a tour operator (P48) reasoned that Rajas acted as knowledge managers and ordinary people were discouraged from gaining access to any other sort of information on their own (P48).

According to a community leader (P72) and a porter (P59) for a commoner during this period, life in Baltistan was stressful as Rajas might impose obligations, sanctions, and taxes and restrict movements. Because of no participation in decision making and atrocities committed

by local Rajas, the time between 1947 and political reforms of the 1970s was considered the dark era in the lives of the people of Gilgit-Baltistan, especially Baltistan (P78, P88, P70, P71, P77, P48, P60, P80, P32).

The Raja system, State Subject Rule and Frontier Crimes Regulation were abolished in 1972 (for details see Appendix A), which had huge implications in the institutional arrangements and changed the fate of the people of Gilgit-Baltistan (P72, P70, P71, P43). It was reported by participants that older people in the whole region of Gilgit-Baltistan still love and respect the then Prime Minister of Pakistan, Zulfikar Ali Bhutto, who abolished the Raja system and people still vote his political party for that reason (P1, P51, P58, P77).

5.3.6.2 Benefit Sharing of Tourism Market

The improved air access to Gilgit and Baltistan after partition resulted in a few mountaineers and adventure seekers visiting Gilgit and Baltistan which introduced livelihood opportunities in the tourism industry (P12, P16, P15, P41, P44, P52, P58). Older high-altitude porters and guides recalled that every year one or two expeditions would come, and people opted in to work as porters (P85, P88, P58, P90, P86). A community leader (P71) and a household head (P85) claimed that people were already used to carrying loads in harsh terrain and gradually it became their primary livelihood activity. Participants argued that the direct benefits reached people who were involved with tourism and other people also witnessed the benefits of the tourism industry in their area (P85, P86, P88, P58P91, P98, P66). It was claimed that increased interaction with tourists helped in creating awareness among the people about formal education, different cultures, tools and equipment, and various food items such as rice and sugar (P85, P88, P86). Tourism not only provided a monetary income, but it also provided information and opportunity to spend that income.

5.4 Pre-Road Livelihood Diversification Strategies at Macro Levels

Improvement in access to Gilgit-Baltistan (by air) and tourist inflow created seasonal, regional economies by providing alternative livelihood opportunities for the people of Gilgit and Baltistan (P51, P67, P48, P52, P51, P12, P21, P91, P93, P98). According to community leaders (P70, P71, P72), the political reforms of 1972 resulted in the freedom of movement of the people of Gilgit-Baltistan. The labour demand in various tourism destinations attracted labour from all over Gilgit-Baltistan. Some participants argued that the people who saw

opportunities in tourism were poor and they saw an opportunity in the tourism industry and worked as porters (P85, P56, P86, P78, P48, P70, P84, P12). A guide (P56) and household heads (P85, P84) reported that after gaining experience and national recognition in tourism a very few people guided tours in Gilgit-Baltistan (P86, P56, P84). A guide (56) explained:

For instance, Ashraf Aman summited K2 in 1977, got national recognition and formed the first tour operator company in Gilgit-Baltistan... During this time, the concept of tracking was also introduced, and many track routes were discovered.

According to a local historian (P70), air access to Gilgit and better livelihood opportunities (business and education) attracted many people from neighbouring valleys to Gilgit. He recalled:

In those days, there was a trend to migrate to Gilgit. Families who could afford to send their children to school in Gilgit and those who could afford migrated to Gilgit permanently. We migrated to Gilgit from Hasan Abad Hunza in 1960. I still remember, we travelled on a jeep and it was my first experience of travelling in mechanize traffic. It took us six hours to reach Gilgit. When we arrived Gilgit there was a small bazaar in Gilgit, and there was no market, plaza and luxurious houses.

The trend of migrating to bigger towns and cities accelerated with an improvement in road infrastructure at the regional level. For instance, with the development of Gilgit-Nagar-Hunza road, people from Hunza, Nagar and peripheries started migrating to Gilgit as noted by (P70). Similarly, with an improvement of Khaplu-Skardu road, people from Khaplu and peripheries began to migrate to Skardu as pointed out by (P32, P74, P71). Similarly, people from Astor started migrating to Skardu and Gilgit due to the availability of job opportunities, education and warm climate as noted by (P73). He explained:

The reason for our family migration from Astore to Skardu was because of no road access. Before partition, the road was from Kashmir. Trading goods use to come from Kashmir, and my forefathers were happy there. Before partition, our village, just after Burzil pass, used to be the key point became the remotest part of Gilgit-Baltistan as the traditional road got closed after the partition. After the formation of Line of Control, our area became the most isolated as we had limited contact with Gilgit and even Astore. At that time there was no proper road, no bridges, and we had minimal tracks...There were lots of communication barriers. They had issues such as communication, transportation, and job opportunities... It used to snow a lot in Astor and the ground used to cover in the snow for eight months, and we had very limited cultivable land. There were no big markets nearby, and we were not close to a bigger city to earn some income. Keeping this in mind they migrated to Skardu. In Skardu there are lots of opportunities such as agriculture (two cropping season), business, growth and other learning opportunities. My father was already in the Army Education

Core. Hence, our whole family completed this migration gradually in around 30 years one after another.

Improvement in air access opened doors for faith-based organisations to Gilgit-Baltistan. The very first-ever visit of a prominent religious leader (Aga Khan)²² to meet his followers in Gilgit, Hunza, Ghizar and Chitral in 1960 led the foundation of faith-based organisation in Gilgit-Baltistan. The establishment of Diamond Jubilee schools in Gilgit-Baltistan and Chitral with a focus on the Ismaili community is a typical example. Furthermore, some tourism enterprise representatives (P36, P57, P38) argued that tourism was used a tool and Hunza was promoted as a culturally unique and must-visit place where people live a long life (Erich & Genzlinger, 2012) as they eat 'Hunza Bread'²³. Hence, the 'regional culture' was commodified and propagated as 'Hunza culture', even though the Hunza people shared same genealogy, same culture, and same atmospheric conditions with the neighbours Nagar and Gilgit as noted by Biddulph (1880). Before improvement in access to the outside world, the people of Hunza were called 'Wild Freebooters', 'Wild Hunza Raiders', 'Blackmail[ers]' by Younghusband (1896, p. 186) as they used to raid upon neighbours and every trade caravan. A tourism enterprise representative (P50) claimed that "the guidance of the spiritual leader helped in intellectual development". After interaction with the outside world and guidance through faith-based organisations, the people of Hunza became the early adopters of modern lifestyles.

On the other hand, people of Baltistan were involved with tourism even before partition. A non-government organisation representative (P21) stated that;

My grandfather arranged transportation, horses, and porters, for tourists during the British Empire [through the Raja]. People used to come for sightseeing and escape the heat in British-India. However, after partitioning our family business plummeted, and we went back to farming and livestock... When tourist started coming again, after the improvement in access, we got involved with tourism again.

After the improvement of air access to Gilgit-Baltistan tourism provided job opportunities to unskilled people in Baltistan division, which attracted people from subsistence farming towards service sectors (P21, P81, P12, P58, P88). During this time, Skardu became the hub

²² A British citizen, businessman (race horse owner and breeder), philanthropist, and religious leader of Ismaili/Agakhani community (Minahan, 2013; Wood, 2008)

²³ The traditional bread of Gilgit-Baltistan has different names in different languages. In Shina it is called 'Chupati' and in Brushaski it is called 'Fiti'.

for adventure tourism and tourism-related job opportunities (P12, P20, P87, P93, P98, P60). Some participants argued that people from other parts of Gilgit-Baltistan (e.g. Khaplu, Hushe, Sadpara, and Hunza) used to migrate temporarily or permanently to Skardu because of job opportunities and prospects in the tourism industry (P20, P87, P93, P98, P60, P88, P84, P93, P94, P63). A household head (P88) claimed:

My father was a high-altitude porter for the expedition from New Zealand in 1957 and for an American expedition in 1960 and an expedition from England in 1961.

It is evident from the historical records that after the first summit of K2 in 1954, there was an expedition almost every year, sometimes even two or three expeditions a year (P91, P85, P38). Participants argued that because of the continuous inflow of tourist, people affiliated with tourism started relying more on the tourism industry and less on subsistence farming (P94, P91, P85, P84, P12, P48, P63, P98). The flow of tourism in the region was observed keenly by the poor people and monetary offers, and instant pay was the main attraction of tourism industry (P20, P87, P93, P98, P60, P88, P84, P12, P48, P58, P59, P93, P94, P63).

According to community leaders (P87, P60, P12, P15, P16), and household heads (P93, P88, P98, P91, P85, P84, P88) at the local level in district Ghanche and Shigar tourism-related activities reduced dependency on subsistence farming by providing alternative livelihood opportunities. For instance, the people of Braldu valley used to be self-sufficient in grains; however, tourism-related monetary opportunities and subsidy on grains resulted in a reduction in farming activities (P98, P81, P89).

The data suggested that the intensity of tourism-related livelihood diversification strategies was more distinct at micro-level (district and village levels) as compared to macro-level (divisional and regional level). Which is why the following section discusses livelihood strategies at the micro-level, with a focus on selected villages, Hushe and Prono.

5.5 Pre-Road Livelihood Diversification at Micro Levels

In the 1950s there were 40 households in Hushe, and the livelihood was mainly based on agropastoral activities. Hushe has one cropping season because of the altitude (3,154 meters above sea level). Participants argued that because of which, there was a lot of poverty and people did not have decent food, shelter and clothing (P88, P89, P83, P84, P87). According to a household head (P83):

There was not much to eat, especially in winter. People used to play games and play music to pass the time. The only things which were available, in small amounts, were oats, wheat, beans and potatoes.

Participants recalled that people used to eat whatever was produced locally, which is why they were intensely involved with subsistence farming, and developing agricultural land in summer (P89, 84, P83). Households' heads argued that the significant activity of the people of Hushe was to develop agricultural land, just like their forefathers (P84, P83, P88). According to a household head (P86), households with few male members tend to lag behind in land acquisition and often had to work on someone else's land to meet their consumption demands. It was argued that whosoever had most agricultural land were able to keep more livestock and would have enough fertiliser to grow enough crops in one season (P12, P59, P83). Hence, there was a lot of disparity based on the ownership of natural resources, especially cultivable land. The poor could not escape the spiral caused by having few resources to compete, and there were few opportunities available or people were not aware of those opportunities because of lack of awareness (P86).

A household head (P86) claimed that life was tough without roads, especially if someone got sick, for example, a severe childbirth case, or even if someone had to go to Khaplu. Such a strict lifestyle forced people to migrate to bigger towns such as Karachi, Lahore, Rawalpindi, and Islamabad on a permanent and temporary basis looking for skilled (cook) and unskilled jobs (labourer, working in the field) (P63, P62, P84, P32, P60, P90, P95, P97). A household head (P88) from Hushe recalled:

Before the road, I used to go to Gilgit and Skardu for labouring jobs on foot. I carried the 25kg load from Gilgit [360km] and Skardu [170km] to Hushe. It was a routine to go to Khaplu [60km].

It was argued that before road infrastructure, people were illiterate, and there was no concept of getting a formal education (P84, P12, P59). A community leader (P78) claimed that there were only three people who could read and write in the whole Ghanche district.

When tourists arrived in Baltistan, word of mouth reached Hushe and people from Hushe went to Skardu [170km] seeking to work as porters during the tourist season (P84, P58, P83, P86, P87, P89, P59, P60). Meanwhile, the army started building a road towards the Line of Control, and many people got employment working as a porter to deliver ammunition to the border (P78, P79). Since the essential consumption items became available in Skardu market,

people preferred working for tourists or the army and earning money as it was convenient as compared to working in the field (P98, P12, P78, P79, P20, P19).

In village Prono, the livelihood constituted agropastoral activities where both men and women were engaged in working in the field and developing farmland (P90, P96). A household head (P95) recalled that before the road, people were poor and used to consume simple meals such as Khachi, dried vegetables, and apricots. The houses were simple and made of clay or mud bricks, and almost every house in the whole village would lean upon one another (Plate 12).



Plates 12 The Outlook of the Houses in Prono

Prono is strategically located at the junction of Basho and Braldu valley and provides access to four out of five 8,000-meter peaks in Gilgit-Baltistan. Both valleys are close to Skardu (which had air access) acted as a corridor to mountaineers. This attracted people from Prono who got involved with tourists going to either valley (Braldu and Basho). Before the road infrastructure, the interaction of the people of Prono was predominantly up the valley (Askole) as noted by a household head (P94). According to a household head (P94), although, Prono had two cropping seasons; however, the second crop was not that productive, and people had to buy or barter grains from Askole [60km]. However, after the improvement of air access, increase in tourism-related job activities attracted people of Prono towards the monetary economy. People from Prono used to go to Skardu [90km] to meet and collect loads, and they would carry the load from there on (P90, P92, P94, P91). Without road access to Askole and Arando (last villages) the expedition tracks were dangerous. According to a household head (P94),

Without the road, it was hard for people to go with tourists even. As people had to climb dangerous places like 'Tarabar' and 'Muchan'. Many porters and tourists died there because of land sliding. Which is why only very strong men could go with tourists and if there was only one son in a household, then he would not go as it was too dangerous.

With an increase in tourist inflow, local people of Braldu and Basho valley started interacting with outsiders (P90, P94, P91, P93). However, because of the increased influence of knowledge managers, people were quite reserved for a long time. According to a household head (P90) some knowledge managers such as;

Religious leaders preached against interacting with tourists... Tourists were considered impure, and people were advised against mingling with them.

It was argued that, after spending time with tourists, people realised that tourists were clean, so they started interacting with them (P98, P90, P94). With time, a few people managed to learn to speak broken English which helped them to move up the ladder in providing tourism services such as from working as a low-altitude porter to a high-altitude porter²⁴, porter Sardar (chief), and guide and so on (P90, P92, P94, P91, P60, P62). Meanwhile, some learned to cook a variety of meals by observing tourists and some gained these skills during their winter jobs in cities like Lahore and Rawalpindi (P60, P62, P90, P95). A cash income allowed people to buy subsidised consumption goods from Skardu (P90, P62, P92, P95, P96). Hence, people of Prono started interacting with people down the valley (Skardu) more as compared to up the valley (Askole) as they used to in the past.

5.6 Chapter Summary

The discussion in this chapter reflected on the primary changes to the livelihood capitals and livelihood diversification strategies because of improvement in access to Gilgit and Baltistan division by air and increasing off-farm livelihood activities related to tourism. The following chapter revisits the livelihood capitals and analyses how livelihood capitals have been transformed in response to externally created adjustments, including road infrastructure development and tourism between 1978 to 2016.

²⁴ High-altitude porter, porter chief (sardar), cook and guide require language skills as compared to low-altitude porter and a helper.

Results: Part II

Chapter 6 Post-Road Access to Gilgit-Baltistan: Livelihood Status in Tourism Context between 1978-2016

6.1 Introduction

This is part two of the two result chapters. The chapter begins by discussing and an overview of road infrastructure development at the regional and divisional level in Gilgit-Baltistan between 1978 and 2016. Road infrastructure development in Gilgit-Baltistan is overviewed at macro (Gilgit-Baltistan and Baltistan) and micro (local and district) levels. The chapter then presents the impacts and transformation of road infrastructure development and institutional arrangements on livelihood capitals. The chapter concludes by discussing the livelihood diversification strategies at regional, divisional and local levels as a consequence of road infrastructure development and tourism.

6.2 Access to Gilgit-Baltistan at Macro and Micro Levels: An Overview of Livelihood Status

According to planning and development representatives (P9, P2) and local historians (P70, P71), the Pakistan-India war(s) (1947/48) on the Gilgit-Baltistan and Kashmir front demonstrated the desperate need for proper access to Gilgit-Baltistan. A planning and development representative (P9) explained:

In 1948, the Pakistan Army was ordered to convert the Babusar track into a jeepable [driveable] road to transport 300 tonnes of machinery and rations to Chilas and then onto Gilgit. Around 200 jeeps with trailers dumped everything in Balakote, and two field companies started working. After the project was completed it became apparent that trailers could not navigate the sharp corners... Only jeeps were to be used to transport the merchandise. When it started snowing in October the operation had to be abandoned... The main objective was to connect Gilgit with the mainland so that merchandise could easily reach.

It was argued that during the excursion, the need for an all-weather road infrastructure was highlighted, and a survey was carried out in 1949 but the project got delayed due to bureaucratic hurdles and was eventually executed in 1958 when the first Chief Martial Law Administrator General Ayub Khan assumed the power (P9, P3, P70). This ambitious road infrastructure development project was the construction of the Karakoram Highway.

The development of Karakoram Highway connected Gilgit-Baltistan with Pakistan and removed the geographically isolated nature of Gilgit-Baltistan (P70, P9, P71, P3, P78, P74). According to planning and development representatives (P9, P3), the construction of the Karakoram Highway (the original title was 'Indus Valley Road') started in 1958 and took more than twenty years to complete. Planning and development representative, P9 said that the construction processes of Karakoram Highway got disrupted many times due to wars with India (1965 and 1971), unavailability of explosives for rock blasting, international sanctions, aid restrictions and operational constraints. The shared rivalry China and Pakistan had with India brought the two countries closer, which resulted in the formation of the Karakoram Highway (KKH) (P3, P9, P31, P70, P71, P6). A planning and development representative (P9) explained:

After the war of 1962 (Sino-India) and 1965 (Pakistan-India), both China and Pakistan felt the need for a road network in these high mountain terrains to support each other. With free machinery from China, the Pakistan army built a new organisation called the Frontier Works Organization²⁵ and renamed the 'Indus Valley Road' to 'Karakoram Highway... The construction process involved working in different sections at the same time. A company [military unit] was flown to Khotan (China) to work from Khunjerab pass (4,700m) downward towards Gilgit. However, Pakistani troops could not work because of altitude sickness. They were replaced with Chinese workers (between 1966 to 1971). Four Pakistan army battalions were working from Gilgit towards the Khunjerab pass. Both parties met at Shishkat, in 1971 and the first caravan came through from China to Pakistan... A protocol was signed between China and Pakistan to jointly improve the road to a highway level involving 9,000 Chinese technicians and 10, 000 Pakistan labour to complete the project.

During the construction period of the KKH, a portion of the Frontier Works Organization improved the Strategic Highway-1 popularly known as Gilgit-Skardu road which connected Gilgit division with Baltistan division (P9, P14, P3, P6). According to planning and development representatives (P4, P7, P3, P9), non-government organisation representatives (P14, P11, P18, P21, P23), community leaders (P74, P72, P86) and tourism enterprises (P46, P31, P45, P48, P37, P42, P44, P47) road infrastructure in Gilgit-Baltistan, especially the KKH, was for trade and security purposes. A prominent community leader (P72) explained:

The main reason was to strengthen road access between China and Pakistan. The moment Pakistan got independence, India became the enemy... Under challenging circumstances the only country which fully supported Pakistan was China, and the single road access to China was through ancient silk route which was narrow and in

²⁵ Pakistan military's engineering organisation and a construction firm founded in 1966

terrible shape... After the China-Pakistan border agreement in 1963, the construction process was expedited.

Some prominent community leaders (P72, P73) claimed that Pakistan signed the Sino-Pakistan border agreement (1963) at the cost of donating land which belonged to Gilgit-Baltistan, resulting in the construction of the road. A planning and development representative (P1) argued that the land exchange was part of an agreement between China and Pakistan, which built trust, friendship and mutual understanding. He explained:

At the time of General Ayub (1958 to 1969), the area until Tashkurgan [now in China] belonged to Gilgit-Baltistan [Pakistan]. Shimshal onward [now in Pakistan] was part of China. The land in Shimshal was given to Pakistan and Tashkurgan to zero points in Khunjerab pass [Pakistan-China border] was given to China, and against it, China has made this road [Karakoram Highway] (P1).

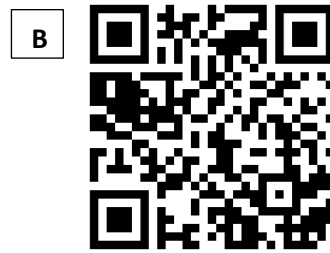
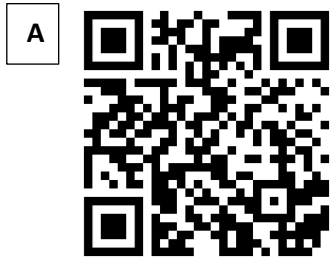
Upon review of the actual Sino-Pakistan border agreement, there was no such condition which stated that China had to build Karakoram Highway as a result of the agreement (BABCP, 1963).

According to the planning and development representatives (P6, P9), the development of Gilgit-Skardu Road (Strategic Highway-1) in the 1960s connected Baltistan division with Gilgit division. Community leaders argued that the Gilgit-Skardu Road acted as a corridor for development in Baltistan (P73, P71, P72). Some argued that the formation of the Gilgit-Skardu Road resulted in regional and divisional migrations (P73, P14, P63). A community leader (P73) explained:

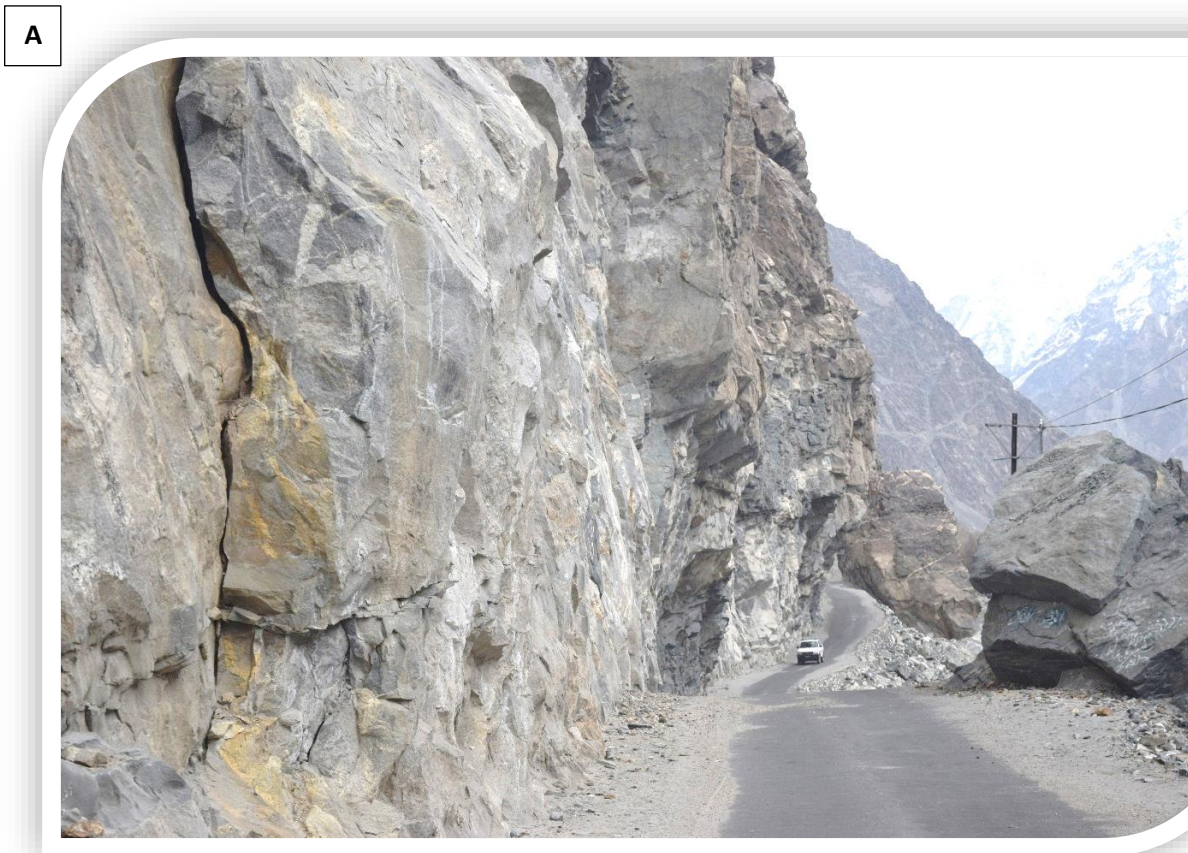
The main reason our family migrated to Skardu from Astor was that there was no road access to Astor. Partition resulted in the closure of ancient trade routes, and Astor became a dead end. It took thirty years for our family to migrate to Skardu gradually as Skardu offered good opportunities as comparisons to Astor. And different [warm] climate allowed two cropping season, job opportunities (working for the army), education and above all easy access to the outside world [by air and by road].

It was argued that because of the road link with Gilgit and the presence of the army, Skardu developed quickly into an urban centre (P12, P73, P2). The formation of the military airbase and airport in Skardu resulted in the requirement of a road link to the Line of Control for defence purposes (P14, P38, P39, P40, P42, P43, P82, P78). Some participants argued that if the road had been built for the people then it would have been developed right after the partition in 1947 (P7, P21, P28).

The major road infrastructure developments in Baltistan division were mainly the development of road networks towards the Line of Control. Building the road provided employment opportunities to many people. Consequently, very few people got permanent jobs after the completion of the project (P59, P58). It was observed during fieldwork that all the major roads towards the Line of Control were sealed, wide and in very good condition compared to the roads to Hushe, Braldu and Basho valley (see Media 2 and Plate 13).



Media 2 A) The condition of road condition to Braldu, Basho and Hushe valleys. B) Road condition from Skardu to Khaplu and onward towards Line of Control.





Plates 13 **(A)** Sealed road to the Line of Control – 90km away (all sealed) from the main town (Khaplu) **(B)** Shingle road to Hushe (Hushe valley) – 60km away (all shingle) from the main town (Khaplu). **(C)** Shingle road to Askole (Braldu valley) – 78km away (all shingle) from the main town (Shigar).

Additionally, numerous link roads were developed within the Baltistan region to connect the valleys with major towns such as Skardu and Khaplu (P48, P79, P12). Such roads include Shigar Valley Road, Braldu Valley Road, Satpara Road, and Hushe Valley Road (see Table 2 below).

Table 2 Types of roading infrastructure in Gilgit-Baltistan

| S/N | Name | Example(s) | Description |
|-----|-------------------|--|---|
| 1 | National Highways | -National Highway 35, popularly known as Karakoram Highway -National Highway 15 | -The highway connecting Pakistan with China through Gilgit-Baltistan -The highway extends from Mansehra to Chilas – also bypasses Karakoram Highway from Mansehra to Chilas (shortcut) |
| 2 | Strategic Highway | Strategic Highway, popularly known as Gilgit-Skardu Road | The strategic highway connects Gilgit with Skardu along the Indus river. |
| 3 | Connecting Roads | -Shandur-Gilgit road -Astor valley road | -The road connects Chitral with Gilgit -The road connects Astor with Gilgit |
| 4 | Strategic Roads | Shyok River Valley Road, Skardu-Khaplu Road, Khaplu Road, Saltoro Valley Road, Kargil-Skardu Road, Shingo river road, Astor-Kargil road, Gilgit-Baltistan road, Deosai park road and Deosai plain road | -Strategic roads connect Skardu Airbase, army units in Skardu and Gilgit with all tactical units of Pakistan Army along the Line of Control |
| 5 | Link Roads | Braldu Valley Road Shigar Valley Road, Hushe Valley Road | These roads connect various valleys to the nearest urban centre(s) |

According to community leaders (P74, P72, P81), tourism enterprise representatives (P47, P48) and a household head (P86) wherever the army needs a road, the road will be developed. A community leader (P81) and a porter (P65) claimed that the reason behind the improvement of track between Askole to Concordia was because the army needed supplies to their newly developed security post. Furthermore, it was reported that the military was planning to build a road to Payu/Paiju (Braldu Valley pass Askole). It was argued that this road would reduce the number of stages to K2 base camp for local porters. As a result, porters would earn less money as they get paid based on a number of stages (P55, P64, P65). It was argued that the road to Askole was beneficial for them, but the road beyond will hurt their livelihoods (P55, P81, P27, P64, P65). However, a community leader (P81) claimed that the road to Payu benefited the area in a different way such as providing transportation (jeep) facilities. Nonetheless, it was observed during the fieldwork that very few people in those valleys seemed to be able to afford to own a vehicle.

A non-government organisation representative (P14) argued that the construction of major roads in Gilgit-Baltistan triggered the development of numerous other roads in Gilgit-Baltistan which was facilitated by non-government organisations. For instance, the last part of Askoli road and link road in Prono was constructed by a non-government organisation (P60, P81). It was observed during fieldwork that during winter the access to some valleys would be cut off for days. I managed to get to Askole on my third attempt and faced road blockages on the way back to Skardu. The government has employed some road labourers to maintain the road and keep it open, but it was observed that because of the limited manpower and a shortage of resources in many places the local communities would volunteer to keep the road clear (see Plate 15).



Plates 14 Village volunteers clearing snow from the road

Despite the reason for the formation of roading infrastructure in Gilgit-Baltistan, the provision of road access had connected remote valleys with rest of the world, and now people can travel easily (P48, P52, P88, P85, P61, P34, P3, P4, P31, P58). According to household heads (P88, P84, P83, P85, P86, P87, P88, P90, P91, P92, P93, P94, P95, P96), the road infrastructure had brought facilities to their doorsteps. It was explained that patients could be transported to a health centre easily (P88, P86, P87, P90, P91, P94). However, a planning and development representative (P6) and a non-government organisation representative (P19) claimed that the condition of roads in the valleys was not good and the link roads were prone to natural disasters and ambulances cannot reach villages when needed. A hotel owner (P28) maintained that the reason tourists do not come is because of the dangerous and poor condition of the road.

On the contrary, people at local levels argued one can travel comfortably now as compared to the past (P54, P12, P48, P98, P68). A household head and shop owner (P34) from Hushe explained that “with the help of this road (thank God), one could go to Khaplu in the morning and come back in the evening which is evident and exceedingly convenient”. A community leader (P72) maintained:

Road and transportation had made it easier to import goods from outside. Before the road, people were bound to wear woollen clothes, and now there are so many varieties out there. This is all because of the road. Whatever fashion is being adopted [in cities] come into these markets, and things became part of our local culture.

According to a local administrator representative (P1) argued that not everyone welcomed roads in Gilgit-Baltistan. He explained:

Not everyone welcomed road development... I remember when this Karakoram Highway was being built. I remember people used to pray that this Karakoram Highway must not pass through Nagar. I think our prayers were heard and Karakoram Highway was diverted from Nagar to Hunza Aliabad through to Ganish. I had prayed, which was led by Shaikh sahibans [religious leaders] ... People were of the view that the road will bring impurities and spoil their belief systems.

The roading infrastructure in Gilgit-Baltistan resulted in the removal of the isolation of Gilgit-Baltistan and various communities within Gilgit-Baltistan by providing access through roads, link roads, bridges and highways which increased the mobility at regional, divisional level and local levels (P33, P8, P72, P98, P70, P9, P63). The roads have increased mobility and resulted in cultural exchange (P9, P3). A planning and development representative (P3) claimed that the presence of Chinese contractors and labour in this area for a long time resulted in a positive cultural exchange. Another planning and development representative explained:

We witnessed the change right in front of us. For instance, locals were not used to taking a regular shower. If a person was standing there, you could smell him. When they saw our people, our way of living, they started adopting gradually... Now, their culture is the same as any other part of Pakistan (P9).

The road facilitated a change in every sphere of life and livelihood including culture, customs, cousins and fashion (P61, P8, P14, P6, P9, P24, P70, P72, P71, P98, P97, P1, P33, P61, P90, P85). A non-government organisation representative (P14) explained:

The road not only brought flour and other goods, instead it brought changes from outside through the exchange of culture, education, language and diseases.

A community leader (P48) claimed:

This salt tea (with soda) is not a Balti tradition, it was introduced from Kashmir. The reason it became common here was, in old times Rajas [rich people] used to drink tea, and people saw the Raja is having tea. So, people thought that the one who drinks tea is a rich man. Among the community, people went to Ladakh and brought tea, and ordinary people started having tea, it became part of our culture. There was no such thing in the Balti culture 30-40 years ago, and it became conveniently available in the market because of the road.

A porter (P61) argued, “look at Arando [the last village of the Bhasha valley in district Shigar] even their lifestyle has changed because of this road”. A porter (P68) added that

The reason Balti traditional dresses are being replaced with modern dresses is that it takes 8-9 days to make one Balti dress which would cost around²⁶ PKR 2,000-3,000. Now, one can buy a quality dress in the market for PKR 150 and a jacket for PKR 150.

It is perceived that the road was the medium through which development has arrived, and the areas have seen schools, hospitals, electricity and markets (P7, P37, P52, P86, P87). Because of the availability of such facilities people's living standards improved (P40, P98, P12). Participants observed a progressive change in cleanliness, diet, clothing fashion, business, and education (P8, P14, P9, P24, P43, P61, P98). Some people argue that change in diet has resulted in illness (P78, P67, P87, P17, P21). Others reasoned that because of the road, the painful act of carrying a heavy load and walking for days has come to an end and deliveries are made at the doorstep (P37, P12). A community organisation representative (P14) argued that the most significant change that happened because of the road infrastructure was the change in the concept of resources, their nature, and uses. He explained:

In the old days people's houses were close to the mountains because resources were there. People used to keep livestock, carry grass/hay, wood, etc. Which is why people wanted to live close to the resources because it was easier. Since roading infrastructure, people started moving closer to the roads because resources started coming from there. Now wood comes via the road, flour comes through the road, grass/hay comes via the road, and now people have changed their living pattern. Hence, the road has played a vital role as it takes you close to the resource.

Road infrastructure also led to numerous job opportunities, during and after road construction in the form of businesses (imports and exports), transport-related services and tourism (P33, P37, P86, P92, P12). A transport organisation representative (P37) argued that,

In our company, ten to fifteen vehicles operate at once. Eight thousand vehicles run on Karakoram Highway at a time. Thousands of passengers buy a ticket every day, stay in a hotel buy food etc. All these economic activities make the road significant for the livelihood of the communities in Gilgit-Baltistan. The road is advantageous for people wherever it passes through.

However, a planning and development representative (P8) and a non-government organisation representative (P28, P37) stated that the Karakoram Highway was the only way in and out of Gilgit-Baltistan making people heavily dependent on the highway as almost every consumption item is imported from outside. A planning and development representative explained:

²⁶ People now compare the costs based on monetary economic systems.

If the road is blocked there will be a shortage of food items. Our dependency is on the Karakoram Highway, and there is no place else to go. We conducted a survey, and it was estimated that on yearly basis, Gilgit-Baltistan consumes, PKR 1.5 billion²⁷ worth of dairy products from down country.

A private transport operator (P37) stated:

Because of a blockade of the road for two or three days, people face lots of problems including the shortage of gas, flour and staple food. You can say that this Karakoram Highway is a lifeline for Gilgit-Baltistan.

According to community leaders, increasing interaction with the outside world was affecting indigenous cultures, and some cultural aspects, such as language and music were dying (P78, P82, P70, P72, P73). However, a non-government organisation representative (P17) argued that change was part of the development and that the loss of some of the old traditions was not altogether bad, as some ancient traditions were very costly. A prominent community leader (P74) reasoned that changing culture was a natural process. He explained:

Outsiders came here, and we also travelled and saw different cultures, dresses and we were influenced. If tomorrow a road to Ladakh and Kashmir is opened, we will see the Ladakhi culture here, and you will see Gilgit-Baltistan culture in Ladakh. Look at the people of Hunza, because of the road and trade with China, and they are adopting Xinjiang culture.

Based on the discussion above, it was evident that institutional arrangements had a significant influence on the development of road infrastructure in Gilgit-Baltistan. Since livelihood capitals are the building block of a livelihood, each livelihood capital is now analysed.

6.3 Livelihood Capitals Status Transformation

Road infrastructure development in Gilgit-Baltistan resulted in the transformation of livelihood capitals. According to a planning and development representative (P7), a non-government organisation representative (P14), community leaders (P70, P77, P79) and tourism enterprise representatives (P43, P45), investment in road infrastructure development resulted in numerous trickledown effects and had created and destroyed various capitals. This section discusses the transformation of livelihood capitals in detail because of road infrastructure development and tourism. Livelihood capitals can be discussed with the help of focus codes identified in Figure 11 in chapter 4. The livelihood capitals are

²⁷ Exchange rate at the time of fieldwork was \$1 (USD) = 104 PKR

discussed without any sense of priority. Each livelihood capital transformation was discussed separately in alignment with the timeline of this chapter (1978-2016).

6.3.1 Human Capital Transformation

Focussed codes for human capital include: awareness and access to education; knowledge, skills and labour; health status and nutrition.

6.3.1.1 Awareness and Access to Education

Improvement in transport infrastructure has provided an opportunity for the people to get access to many facilities such as education and created awareness about places, people and territories beyond their imagination (P67, P98, P97, P17, P9, P63, P55, P58, P26). According to a non-government organisation representative (P22),

The education window in Gilgit-Baltistan was opened in the 1980s when Raja System was abolished, and the first college was formed. In Peshawar, Islamic University was established during the British Empire. You can imagine how ignored we were... We had potential, but we were not given the opportunity.

The abolition of Raja system followed by road infrastructure resulted in the increased involvement of non-government and private sector in creating awareness and providing opportunities to gain modern education (P22, P44, P48, P46). The awareness programs in numerous valleys of Gilgit-Baltistan convinced and motivated, even the most remote communities, to send children to school (P50, P22, P48, P20, P72, P16, P15, P89).

Increased mobility resulted in local people interaction with outside world resulted in increased awareness about modern facilities such as medical centres, schools and colleges, which were a positive change (P8, P14, P24, P70, P72, P1, P33, P61, P90). Participants argued that the sense of curiosity of locals and craving for learning from travellers resulted in the intellectual development of the people in remote valleys (P56, P59, P69, P70, P9, P85, P98, P97, P45, P67).

It was argued that tourists also played a vital role in creating awareness about modern education in remote tourism destinations such as Braldu, Basho and Hushe Valley (P15, P68, P55, P15, P16, P81, P82, P75, P79, P14, P12). In rural areas, tourism-related jobs and working with tourists had given them awareness about the power of education, and now they did not want their children to do labouring jobs (P26, P58, P59, P64, P98, P97, P63).

Some participants gave credit to tourists in creating awareness about education as they used to bring books, pens, shoes, shirts and donate money for educational purposes (P84, P82, P81, P82, P48, P81, P66). A household head (P89) explained:

By spending time with tourists, people realised that their children should not carry the load (as porters) instead they could do something more comfortable to make a living.

Tourists not only provided income, but they also empowered people to educate their children so that they enjoy lifelong benefit (P87, P33, P88, P27). With the help of tourists and non-government organisations such as the Central Asia Institute, many schools were built in remote valleys and locals contributed openheartedly (P63, P68, P58, P64, P15, P16, P48, P98). A shopkeeper (P33) in the remote valley of Hushe explained:

I donated my land because illiteracy was deeply rooted in our region, and no one could speak English. When the road was formed, tourists started visiting, and the trend of speaking English also prevailed. We have got an English medium school in every village now. It is a matter of pride for us that even though we are uneducated our children are not. Education is a great advantage for us.

Some participants claimed that tourists' contribution towards education was uneven as they only donate money to the last villages in every valley (Askole, Arindo and Hushe) and they did not stop on the way and in this way dozens of villages were being ignored (P90, P60). According to a tourism enterprise representatives (P48, P66), the reasons many communities are being ignored was because of misguidance and conservative mindedness of non-local tour operators and guides who wanted tourists to donate/invest money for the benefit of the specific community that dominates the tourism industry in Gilgit-Baltistan (P48, P66). Such domination has resulted in uneven distribution of social benefits of the tourism industry on sectarian grounds.

Furthermore, the hospitality, kindness, and care for guests of these remote valleys have resulted in many long-lasting friendships with tourists and ongoing correspondence (P58, P16, P15, P12, P32, P88, P85). Before tourists, very few people could read and write. A community leader (P78) recalled that "when a letter was received, one had to travel miles to ask someone to read and reply to a letter". It was noticed that the only people who could read and write were the ones who had been to a formal educational institution (school). Hence, people started realising the importance of education and schools in their lives and made efforts to

send their children to a formal institutions (e.g. schools and colleges) (P78, P89, P84, P85, P48).

Some argued that people benefited from the road differently (P50, P9 P14, P23). According to a non-government organisation representative (P14):

The Karakoram Highway runs through Gilgit-Baltistan. Now, Hunza is developed, Nagar has developed, Gilgit developed a bit but Kohistan, Chilas remained the same. Road also passes from there, the same road, same Karakoram Highway. Why they did not develop? If we look at that, then the main role was played by the Aga Khan Rural Support Program. The Aga Khan Rural Support Program made link roads and connected villages to the Karakoram Highway and gave awareness to the people in places which are developed. Now, wherever roads are formed development starts immediately.

A planning and development representative (P9) argued that the difference was in their traditional culture as some people could grow crops and keep livestock while others could only keep livestock. He Explained:

People in Chilas, Patton and Bunji area do not have enough plain land where they could grow any crop. The valleys are like a gorge. They had to climb up the valley and then the top of the mountain and find a place where they could keep livestock. On the other hand, Gilgit and areas beyond, they had many plain patches of land where they could grow wheat, barley and fruit trees.

6.3.1.2 Knowledge, Skills and Labour

In general, there has been an enormous increase in modern knowledge, skills, and labour (P7, P37, P52, P86, P87). However, a planning and development representative (P8), a non-government organisation representative (P14), community leaders (P74, P70, P84, P78) and tourism enterprise representatives (P24, P43, P61) claimed there has been a decrease in traditional knowledge and skills including wool related cottage industries, handicrafts, traditional medicine and music. Some participants argued that the loss of informal education because of modern facilities resulted in the loss of traditional knowledge (P77, P85, P77, P12, P79, P72, P14, P10). Similarly, the sources of information gathering changed from informal evening gatherings to print, electronic, social media and mobile phones (P76, P77). A community leader (P77) explained:

In old times children used to learn from their parents. Now they learn from TV. Which is why our customs and traditions changed.

Increasing opportunities in tourism industry resulted in people choosing mountaineering as a profession (P12, P15). With advanced climbing skills, several high-altitude porters got an opportunity to travel abroad and started several projects upon returning (P15, P16, P58). A high-altitude porter/non-government organisation representative (P15) explained:

During our Everest expedition in the 1980s, I saw a climbing school in Nepal. I thought to open one here and train our low altitude porters to become a high-altitude porter as a high-altitude porter earn more money. After coming back, in collaboration with friends, we opened a climbing school in Matchulu [Hushe valley] with the primary resources we had available, e.g. a Carabiner, harness and a rope. We convinced and motivated others and completed the training. Nine out of ten participants summited many mountains successfully including K2.

People still feel the need for a climbing school, just the way they thought in the late 1980s. A different high-altitude porter/non-government organisation representative (P12) explained:

I started working with tourists as low altitude porter, but soon realised the financial benefits of high-altitude porter, which is why I learned the skills and started working as a high-altitude porter in 2003. The main reason people go for low altitude portering roles is that it requires no skill. Hence, I decided to open 'Hushe Welfare and Mountaineering School' to train low altitude porters in my village. I was hoping to earn a good income through training in the winter, which will build skills of low-altitude porter and then they will be able to make more as a high-altitude porter. Members of our school completed an expedition on Broad Peak in 2013 and in 2014 we summited K2 as the first entirely Pakistani team.

6.3.1.3 Nutrition and Health Status

Participants claimed that because of the availability of various consumption items in the market, there has been a significant change in consumption at the regional, divisional and local level (P61, P94, P92, P89, P78, P79, P82, P51, P52, P70). For instance, Balti tradition of eating boiled apricots, use of Sattu (sweet barley flour) and drinking of soup for breakfast had been replaced with salt tea, paratha and bread made of fine flour from Punjab (P48, P85, P86). During fieldwork, I was served biscuits, cookies and cake with soft drinks (coca-cola, Pepsi, Fanta and 7-Up) even in remote valleys. This was the standard offering for guests and such items were available in the shops.

A household head (P95) claimed that:

Before the road, we used to eat Khachi, dried veggies, and apricot meal. Now, all those things are gone. Now, everyone makes sweet and salty tea and all sorts of vegetables. Items which are common in cities have arrived here, and there has been a lot of change in what we eat.

A prominent community leader (P79) stressed that:

There was no concept of lunch at noon. We only used to eat two times a day, breakfast and dinner. Now, everything has changed; we eat five times a day.

There was a consensus among planning and development representative, non-government organisation representatives, community leaders and household heads that health status of the people of Gilgit-Baltistan was declining because of the formation of the road and availability of impure consumption items (P24, P78, P67, P94, P92, P78, P51, P52, P70, P87, P17, P21, P79, P82, P89). It was argued that road infrastructure facilitated the infiltration of processed food, causing numerous health issues in the region (P24, P78, P67, P87, P17, P21).

A restaurant owner/manager (P24) explained:

After the formation of the road, the chemical fertiliser started arriving here which replaced our traditional organic compost. I am aware of many diseases as I am a restaurant manager as everyone has special dietary requirements. Some ask for less salt, some ask for fewer spices and so on because of cardiac and abdominal diseases caused by excessive use of salt and spices.

Some participants reported that they have never heard of diseases such as diabetes, blood pressure, liver problems in the past, as people ate organic food which has been replaced by inorganic, impure and cheap imported food which result in death at a younger age (P78, P82, P24, P21, P17, P57). However, these reported beliefs need to be tested using medical evidence. The World Bank (2011) stated that the majority of shocks in Gilgit-Baltistan are health-related (58 percent).

Referring to the good health status of the people of Gilgit-Baltistan in the past, a non-government organisation representative (P21) explained:

Around 15 years ago, we used to use apricot oil for cooking purposes in our house, which was healthy. Now, we buy canola oils from the market, because it is convenient and cheap.

A non-government organisation representative (P17) argued:

Diseases are caused by cheap, processed and impure foods in the market. The use of items such as soda in tea and market bread has weakened our bones.

A restaurant owner/manager (P24) reasoned:

Diseases are caused due to inorganic and impure consumer goods, i.e. spices, cooking oil, flour etc. Our area is poor, so everyone demands cheap products. It is evident that goods are cheap due to the addition of impurities. Because of poverty (and lack of

education around healthy diet), people are only conscious of price, not the quality. Even shopkeepers buy cheap goods to increase their profit margin.

6.3.2 Social Capital Transformation

Social capital can be discussed in the form of focused codes include: networking; relationships and trust; and lifestyle and culture.

6.3.2.1 Networking, Relationships and Trust

According to community leaders (P77, P72, P73, P78, P82), non-government organisation representatives (P14, P13, P12, P20, P23), household heads (P94, P84, P82, P86) and tourism enterprise representatives (P48, P60, P38P52, P53, P29), with the formation of road infrastructure the notion of dependency on each other locally which has a negative impact on networking, relationship and trust. It was argued that because of easy contact with the outside world, people had becoming affiliated with introduced formalised regional and national groups based on religion, politics and regional identities (P82, P94, P77). Such affiliations lead to apparent divisions in the society, which can be seen in the form of regional and sectarian tensions (P33, P69, P70, P48, P1, P2, P29). During fieldwork it was observed that migrants from in Gilgit town lived in colonies and maintained their distinct regional identities.

According to community leaders (P69, P78) and a tourism enterprise representative (P38), the terrorist raid on Gilgit in 1988 (Murphy, 2013)²⁸ via newly formed road (Karakoram Highway) fuelled sectarian divisions in Gilgit-Baltistan. Similar incidents happen on Karakoram Highway near Kohistan/Chilas (February 2012) and Lulusar (August 2012)²⁹. Sectarian based conflicts are a common phenomenon in Gilgit-Baltistan (Feyyaz, 2011; Hunzai, 2013; Qadri, 2012; Sadaqat, 2012).

²⁸ "Shias in the district of Gilgit were assaulted, killed and raped by an invading Sunni lashkar – armed militia – comprising thousands of Jihadis from the North West Frontier Province [Khyber Pakhtunkhwa], who had travelled a long distance to wage the attack" (Murphy, 2013, p. 134). The raid massacred hundreds of people in dozens of villages (unofficial casualties figure vary from 150 to 700) in Gilgit and not a single culprit of that incident has been caught or punished to date (Agha, 2014; Hunzai, 2013; Mahapatra & Shekhawat, 2007).

²⁹ Militants, dressed in army uniform, stopped buses on Karakoram Highway, identified sectarian affiliation (Shia) and killed 18 people (included three children) (in Kohistan/Chilas) (Qadri, 2012) and 19 people in Lulusar using the same strategy (Sadaqat, 2012).

Some participants argued that before roads, people belonging to different sects had been living side-by-side in peace for centuries without any armed conflict and would even intermarry (P1, P3, P95, P33, P94). A community leader (P78) explained:

There was peace before road as people belonged to the same ethnic group and the area was governed by local people. Now, the area is being ruled by outsiders, and there are people from different background.

The sectarian division was felt strongly during the fieldwork and a number of interview got cancelled just because I belonged to a different sect.

According to community leaders (P70, P77, P71, P76, P78), non-government organisation representatives (P12, P20, P26, P14), tourism enterprise representatives (P60, P48, P59, P50, P38) and household heads (P88, P89, P90) there had been a significant decrease in the level of trust in relationships, reciprocity and exchange/cooperation which has increased the costs of social transactions. There was an agreement that there had been a significant shift from a collective society towards an individualistic society where everyone focuses on individual benefits (P12, P26, P77, P59, P90, P94, P78). For instance, in the past people used to borrow a yak or bull for ploughing but after the road and because of the availability of money and machinery such as tractors, there was no need for this as a tractor does the job quickly and cheaply (P59, P60).

Some participants argued that the new individualistic nature of the society resulted in a reduction of the communal system in Gilgit-Baltistan, especially in urban centres (P12, P26, P77, P59, P90, P94, P78). However, others argued that, in remote places, people still supported each other in the time of need and during farming, cultivation, and harvesting (P14, P20, P82, P26). Community leaders argued that the main reason for individualistic culture was the diminishing concept of extended family system where families used to live in a communal set up, share knowledge, preserve and protect culture which provided people with a strong sense of identity and belonging (P77, P74, P75, P76, P94, P60, P78, P69). It is argued that the monetary economy is the main reason for the altered social structure as people are no longer dependent on each other and everything can be bought from the market (P12, P77, P48, P77, P94, P69, P70, P78). Others argued that the decline in mutual love and respect had arisen with politics, the use of a monetary system and the ability to purchase luxuries items from cities (P68, P69, P38, P69, P86, P32, P65, P92, P80, P37, P60, P94).

6.3.2.2 Lifestyle and Culture: Dress, Language and Music

According to non-government organisation representatives (P14, P12, P19), the road infrastructure has changed from nature-based to market-based livelihood practices. It was reasoned that the availability of labour jobs and the introduction of the monetary economy through a services sector has enabled people to improve their living standards by allowing the people to diversify the sources of income (farm and off-farm) (P24, P85, P21, P40, P43, P97, P12, P14, P83, P39, P88, P38). A public transport operator (P37) explained:

Because of road infrastructure, the painful act of carrying a heavy load on our backs has come to an end and deliveries are made at your doorstep.

Participants argued that people's living standards improved because of road infrastructure and tourism inflow (P14, P66, P49, P15, P48, P90, P98, P34, P77, P38, P47, P97). Government representatives, shopkeepers, guides, and many household heads argued that the road acted as the medium through which development arrived in Gilgit-Baltistan, and people saw schools, hospitals, electricity, and markets (P7, P37, P52, P86, P24, P98, P97, P87). It was argued that because of these facilities there had been a progressive change in hygiene, diet, clothing, fashion, business and education (P8, P14, P24, P40, P43, P97, P98, P61). It was argued that in the past it was hard to import things from outside but with road one can import anything from outside (P48, P38, P68 P74, P69). Others claimed that along with the road, television and tourism has influenced the culture and now the majority wear modern clothes from outside including trousers, shirts, jeans and suits (P68, P74, P69).

It was reported that there had been a considerable change in music such as the use of new musical instruments, melodies, tunes and styles (P74, P74). It was observed during fieldwork that Indian, Pakistani and even English songs were commonly listened to in Gilgit and Baltistan. Modern musical instruments such as the guitar and keyboards were being used to compose traditional songs. Some participants argued that the change was a natural process and we must accept it (P85, P61, P86, P74). A community leader (P74) explained:

Musical instruments like Sitar/Rubab were not part of Hunza culture but have become so because of their interaction with Xinxiang culture... Similarly, because of this road, Kohistan culture is penetrating Chilas culture. Molavism [referring to religious extremism] and terrorism came from there [Kohistan]. People from Chilas did not use to kill others; they had their enemies but also their ways to deal with them. Similarly, look at Astore culture which had trade links with Kashmir, there are so many things in Astori culture from Kashmir as the traditional route was from Kashmir.

This can be noted in the change in the number of dance partners in traditional Gashupa dance. When Gashupa was played in the past only seven people used to come forward to dance, now the number of dance partners change and is often even numbers (see Media 3 below).

The road infrastructure also facilitated the transportation of subsidised goods to remote valleys of Gilgit-Baltistan which affected the traditional subsistence farming practices making people reliant on subsidised consumption goods (P1, P18, P35, P70, P71, P75). A local administrator (P1) argued that subsidies were a temporary solution as they make one reliant on others in the long-run and people become dependent. The introduction of the monetary economy through service sectors raised concerns about people becoming dependent on imported goods as it was easy to buy products from the market as compared to going through the effort of growing food (P48, P35). A prominent community leader (P75) explained:

When you became used to free things, then you become lazy. Generally, in Gilgit-Baltistan, the sense of self-sufficiency is falling away, you don't think to stand up on your own feet...People do not work hard enough in agriculture. There is fertile land on either side of the river, and by building channels and dams these lands could be irrigated and grow vegetables and fruits.

6.3.3 Natural Capital Transformation

Natural capital can be discussed with the help of focus codes such as; land, water, forest, wildlife and minerals.

6.3.3.1 Land

In the rural areas of Gilgit-Baltistan subsistence farming is still the primary sources of livelihood as compared to urban centres (P7, P14, P1, P48, P11). Before road infrastructure, Braldu Valley (Askole) used to be self-sufficient in terms of grains (P98, P81, P90, P81, P84) are now reliant on subsidised grains from Skardu and people only prefer to work with tourists (P88, P98, P81, P90, P81, P84, P94, P79). A tourism beneficiary (P98) explained:

Before roads, people of Skardu used to bring wheat from Braldu to Skardu. Now people of Braldu buy wheat from Skardu which is being imported from outside Gilgit-Baltistan. This is because the male of a household in Braldu does not participate in farm work



Media 3 Scan to watch transformed version of Gashupa dance

anymore. They prefer working with tourists only as wheat is conveniently available in the market in Skardu.

Some participants argued that there was limited land for agriculture (P3, P83, P1, P14), while others argued that people are becoming lazy and they do not develop new farmland anymore (P96, P98, P83). Some argued that there had been a decrease in agriculture production because of declining soil fertility because of non-traditional farming techniques and the use of synthetic fertiliser (P85, P84, P88). According to community leaders, new seeds were introduced by non-government organisations, but the production decreased over time as the seeds were not suitable for the high altitudes (P85, P77).

In places like Surmu (Khaplu) and Machlu (Khaplu), people generate funding from tourism to develop their barren land (see plate 15 below) with the help of machinery and improve their economic conditions (P24, P74). A community leader (P79) explained:

In Surmu [Khaplu] many people have lost their agriculture land (2162 Kanal³⁰) because of flooding. Traditional pastureland has been taken by the army as they have converted it into army shooting range. Now, no one is allowed to go there...It has been 28 years since I started this project of developing the land with a donation from a lady (tourist) from Karachi. But we have to rebuild the water channel and reservoir every second year because of flooding. We have planted sea buckthorn, timber and fruit trees and vegetables. Even in winter, we grow vegetables from our greenhouses. Myself and my villagers have built our houses using timber harvested from the newly developed land.

³⁰ One Kanal is equivalent to 5445 square feet or 1/8 acre or 510-meter square.



Plates 15 Newly developed land and Greenhouse in Surmu, Khaplu.

According to planning and development organisation representatives (P1, P3) and a non-government organisation representative (P10), in urban centres like Gilgit, Skardu and Khaplu agricultural land was being used to construct houses, shops, and markets. Some participants claimed that they try not to build a shop or hotel on agriculture land (P50, P64, P24). However, it was observed that houses, hotels and shops were being built on agriculture land (see Plate

16 below). In the picture, all three buildings were constructed on fertile farmland. A tour operator representative (P48) explained:

There has been a decrease in the available agricultural land as houses and shops are being built upon it. After roads and the formation of link roads, people looked at cost-benefit analysis in monetary terms. i.e. if one constructs a shop, he can get more money as compare to farming the same piece of land. The drawback is that the fertile and agricultural land becomes a residential area and barren land is left aside. This has raised concerns related to food security, people do not see it now, but after 100 or 200 years this will become a massive challenge as all the fertile land is being used to make houses or shops for rent. I have told the Felix Foundation as well as the government to formulate some policies in this regard so that we can protect the farmland.



Plates 16 (A) Modern Style Buildings in Chu Trone in Basho Valley Shigar. (B) A guest house in Askole, Braldu Valley Shigar. (C) A hotel built in the Hushe, Hushe Valley Ghanche.

According to a local historian (P71), the decrease in farmland in Skardu is because of the migrants from border areas (Kharmang, Khaplu, Chorbat and Gultari) due to conflicts with India since partition and especially after the war of 1971 and 1999. Because of the high demand land prices in Skardu has gone up.

However, according to non-government organisation representatives (P14, P10), the overall percentage of cultivable land in Gilgit-Baltistan has increased. A non-government organisation representative (P14) explained:

Firstly, non-government organisations have invested a lot in irrigation channels which enabled people to develop the barren land. Secondly, after land division among siblings, siblings have developed the barren land. Thirdly, because of the road and availability of machinery and other equipment's such as tractor and explosives has facilitated land development. Where I live today was a boulder field. My brother and I have got eight Kanal³¹ developed land which was once barren.

Some participants argued that the shortage of agriculture land is because of the population increase (P64, P51, P14). For instance, the households in Hushe increased from 70 (1995) to 170 (2016). The developed agriculture land had been divided and subdivided among siblings, while new agriculture land had not been developed at the same rate (P86, P88). Some participants revealed a significant change in the traditional land division trend among siblings which was linked to road development. Siblings once preferred land away from routes or walking tracks (P11, P12, P92) now prefer land near the road-side (P92, P77, P10, P83, P60, P70, P1, P69, P78). It was argued that land near roads had a more significant impact on household economic conditions as one may want to build a shop or a house near the road to rent or to start a business, and it allowed easy access to facilities such as the hospital (P10, P83, P70, P60, P69, P78). A non-government organisation representative (P14) explained:

When roads were formed, people noticed that things are linked to the market. If your land is close to the road than you are close to the market. When you are close to the market you can do more things with the land, e.g. making garages or shops. It is easy to bring and transport farm produce. In this way, people gained the awareness that barren land close to the road is more important than fertile land away from the road.

The notion of owning land close to the road raised conflicts among siblings as the nature and the use of land has changed (P70, P60, P14). There have been many conflicts related to the distribution of barren land as roading infrastructure has increased the value of barren land,

³¹ One Kanal is equivalent to 5445 square feet or 1/8 acre or 510-meter square.

which was once worthless (P14, P21, P70, P72, P73). The government of Pakistan claims the ownership of all arid areas including mountains, but indigenous people of Gilgit-Baltistan disagree (P7, P30, P3, P72). A planning and development representative (P7) argued that after the China Pakistan Economic Corridor agreement, barren land along the Karakoram Highway and in critical places in Gilgit-Baltistan is being distributed among various government departments, military and paramilitary groups. The indigenous people of Gilgit-Baltistan claimed the right for historical and traditional owners of the land, but the demands are not being approved by the government (P7, P6, P70, P30).

During fieldwork, I encountered an armed conflict related to land ownership which resulted in severe injuries to protesters followed by riots and road blockages for many days. It was also observed during fieldwork that the most popular way of protesting in Gilgit-Baltistan appeared to be to block main roads or intersections to gain government attention for major issues (see Plate 17). People used mobile services and the internet to propagate such protests while mainstream media appears to remain silent and did not report such matters.



Plates 17 Road Blockage: Gilgit-Skardu Road

Because of increase in tourist numbers various tourist destinations are facing an increase in land pollution which was observed and reported by research participants (P12, P20, P21, P5, P4, P64, P49, P85, P84). It was argued that pollutants were not being collected and disposed of properly (P49, P82). Some claimed that the Civil Society Organisations launched clean-up campaigns in collaboration with government and tourism enterprises in various tourist destinations (P82, P20, P85). Such campaigns only focussed on the trail to K2.

6.3.3.2 Water

In terms of livelihood generation, water played a significant role in the livelihood of the people of Gilgit-Baltistan as subsistence farming relied on irrigation channels (P64, P8, P1, P2, P85, P79). Some participants argued that there had not been a significant development of water channel schemes since the construction of ancient water channels by the forefathers in Gilgit and Baltistan (P3, P76, P75). However, in Skardu (Baltistan) there had been an improvement in water channels alongside the formation of Satpara Dam (built-in 2011) which aims to generate electricity and irrigate the barren land of Skardu. It was observed during fieldwork that because of local disagreements regarding water distribution, only the Eastern arm of the water channel was functional while the North-Western arm was not functioning.

In Gilgit, there was no such project being developed to date. The only water channel project that could irrigate Khomer and Jutial from Kargah valley was not completed because of some unsubstantiated reasons. Participants argued that in remote rural areas, civil society organisations have heavily invested in irrigation schemes (P88, P83, P85, P84, P81). A non-government organisation representative (P15) explained:

Through our organisation, we have started a lift irrigation system. We have a 60 horsepower motor that lifts water from the river to the fields. There is less water in our area. We have installed a water supply system in Marzi Gond, Saling and Bale Gond. This year flood damaged the water channels in Marzi Gond. We raised funding and installed the water supply system and saved their farms, crop and trees.

Similarly, there was no drinking water supply system installed in valleys such as Hushe and Prono. In Hushe there are only three water taps for the whole village (170 households) which was established by a foreign tour company in collaboration with the local community (P88, P58, P84, P12, P39). During fieldwork women and children were seen collecting water in cans and drums for cooking and drinking purposes from these water taps (see Plate 18). The situation was even worse in Prono where there was not a single tap in the whole village of 50 households. People would collect water in open wells and ponds and then scoop water for drinking and cleaning purposes. Livestock was also noticed drinking from the same place and people lived in very unhygienic conditions. One of my local facilitators mentioned that a few years ago the villagers got approval for a water supply system from a spring few kilometres away, but the project got politicised and was shut down. The water pipe was seen abandoned on the roadside (see Plate 18).



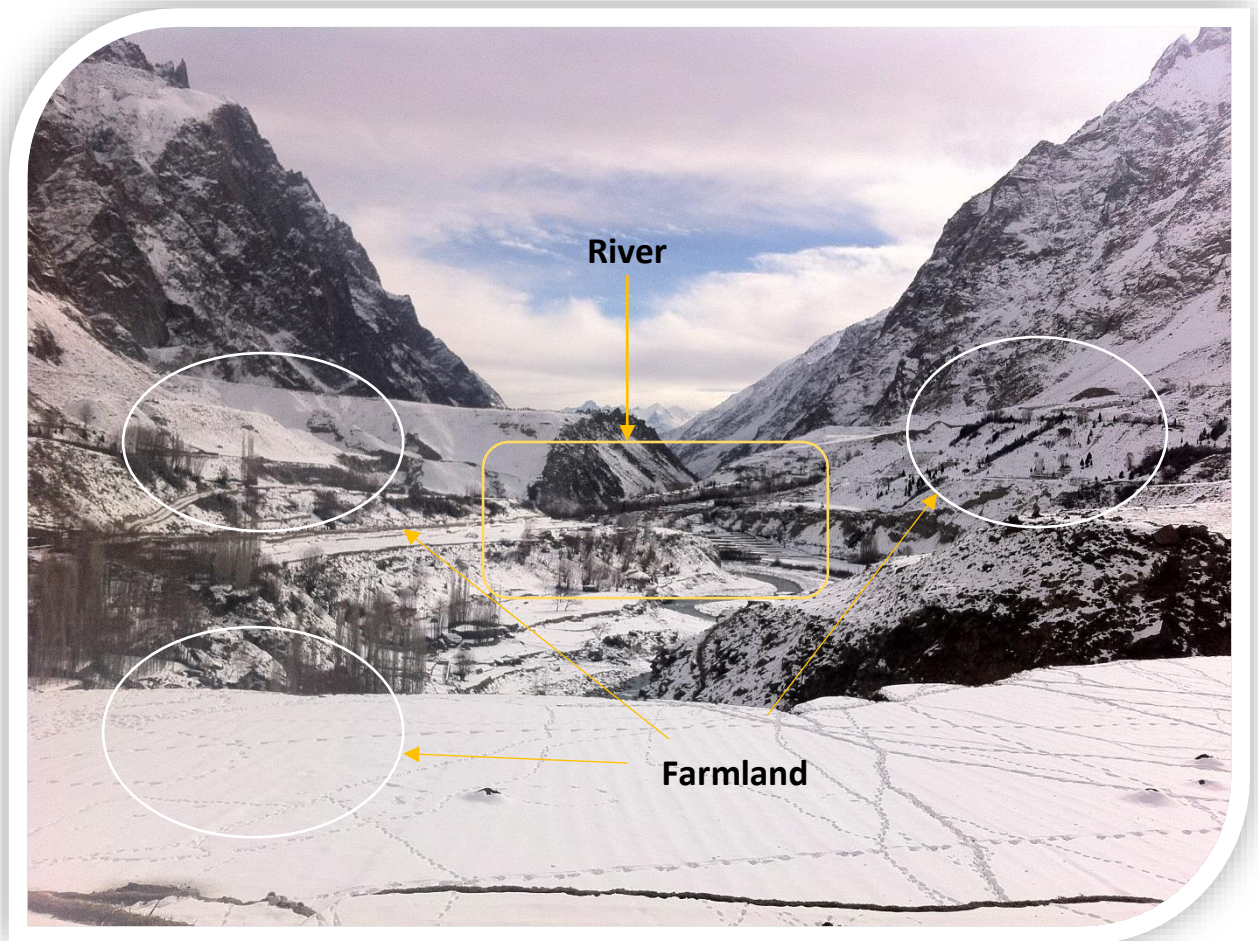
Plates 18 **(A)** Women collecting water from the taps (Hushe). **(B)** PVC pipe left behind by the contractor (Prono)

In major towns like Gilgit and Skardu, there is a water supply system. A planning and development representative (P7) noticed a decrease in the water quality because of pollution and mismanagement of wastewater (P7). It was argued that because of the absence of a sewerage system, people dumped their wastewater into irrigation channels which caused pollution in the whole township (P7, P77). A planning and development representative (P7) explained:

In Gilgit city, salinity is another major issue which needed to be addressed. If the problem is not tackled appropriately diseases will spread. In Gilgit City, the groundwater level has risen to 1.5 to 2 feet and is continuously rising and will keep rising until we install a sewerage system. In five years from now, Majini Mohallah and Kashrote will drown in water... In Gilgit the powerhouses are located upstream, and drinking water reservoirs are downstream which supply water to Gilgit City. Chemicals and dirty oil from the powerhouses are dumped directly into the water which mixes with our water supply system. There are seven such powerhouses, and there is no proper management.

Despite enormous water resources in the region, the whole of Gilgit-Baltistan suffers from water shortages both for drinking and irrigation purposes. It was argued that the agricultural land level was above the water level which requires either the building of a dam or pumping

water using electric motors and such resources were not available locally (P3, P7, P8) (see Plate 19). In summer all the rivers flood from snowmelt and caused damage to water reservoirs, hydropower generators and drinking water supply systems along with damaging agricultural land close to the riverside (P3, P74, P48, P78).



Plates 19 The picture showing the difference between water level and developed agriculture land on the side (Hushe)

6.3.3.3 Forests, Wildlife and Minerals

The formation of the road had a negative impact on forest and wildlife (P14, P12, P85, P83). According to community leaders (P83, P70) and planning and development representatives (P5, P4), road infrastructure provided transportation facilities which resulted in deforestation (smuggling) and illegal hunting. In Gilgit-Baltistan, firewood is the primary source of energy (cooking and heating) because of unavailability of hydroelectricity and substantial costs (P12, P85, P12, P39, P70, P33, P82, P1, P2, P6, P5).

Although the use of natural resources as a livelihood choice decreased over time, they were still being used for recreational purposes due to tourist activities such as; mountaineering, tracking, site seeing and trophy hunting (P83, P85, P12, P13). Some participants reported that because of trophy hunting, there had been an increase in biodiversity protection and ecological services in areas of high natural biodiversity through the formation of village conservation committees (P83, P12, P39). A significant increase in income-earning opportunities in the form of trophy hunting has put these village conservation committees to act as custodians of wildlife as eighty percent of the income from trophy hunting went to the community (P12, P85, P88). A non-government organisation representative (P12) explained:

The community gets eighty percent of the trophy share. The funds are used for community development projects such as hiring a school teacher, helping poor people, building a mosque, develop/improve water channels and drinking water supply and the construction of the hydroelectric power plant.

Some argued that due to trophy hunting, the traditional practice of hunting had come to an end as it is now illegal to hunt wildlife in Gilgit-Baltistan (P38, P4).

It was argued that there is significant mining potential in Gilgit-Baltistan, but the natural resources are not being explored because of large-scale investment and skill shortages (P11, P10, P24, P36, P31, P77). In a few places like Shigar, Sumayar and Haramosh, small-scale mining has occurred over the last decade and, in places mining is being facilitated by non-government organisations (P1, P31, P36).

6.3.4 Physical Capital Transformation

Physical capital codes used in this study include: basic infrastructure facilities and access to market; tools, machinery and technology.

6.3.4.1 Basic infrastructure Facilities and Access to Market

The major infrastructure development in Gilgit-Baltistan was the construction of Karakoram Highway. Which resulted in a significant improvement in basic infrastructure facilities and access to the national and international market (P2, P1, P3, P7, P6, P72, P79, P71, P31, P67, P69). People from Gilgit-Baltistan become involved in trade with China as the people of Gilgit-Baltistan are given a special pass, and they can visit Kashgar (China) without requiring a visa (P3, P2, P70, P14, P36).

According to some participants, numerous link roads are still in poor condition (P7, P73, P44, P2). A planning and development representative (P7) claimed that around seventy percent of the Gilgit-Baltistan population do not have road facilities. However, a government representative (P8) argued that fifty percent of the people of Gilgit-Baltistan have access to the road.

The improvement in road infrastructure has also resulted in the availability of cement and other building material in the market which has altered the traditional house constructions patterns (P98, P83, P11, P71, P74, P94, P14, P95, P87). A household head (P94) explained:

After visiting cities, we saw different types of houses with proper toilet facilities with walls. In some places, you do not have to go out of the room even as they have attached bathrooms/toilets.

Some participants argued that due to the availability of cement and changing trend of building infrastructure, the use of timber for building houses has reduced in main towns (see Plate 20 below) (P14, P87, P11, P70, P51, P32, P81). However, in rural areas, the use of timber for building houses continues. A non-government organisation representative (P11) explained:

In rural areas, people still use wood because of its cost-effectiveness. Out of 800 households in Bar, Khaplu, very few have afforded to build houses with concrete. Transportation cost of a bag of cement is very high because of remoteness as it has to be imported.

During fieldwork, it was observed that old shops are being replaced by concrete shops and plazas as shown in Plate 20 below.



Plates 20 The picture shows a modern three-story building next to some old traditional shops (Skardu)

Although there has been a significant change in building style, a non-government organisation representative (P14) argued that the trend was changing. He explained:

We have formed a company to revive our traditional construction style. We have built ten old-style homes for poor people and make some commercially as well. The houses look beautiful from the outside and are warm inside and include all new modern facilities. Some of these houses are an even second story. I think the trend is changing and people want to build old houses in a unique style with modern facilities, and we have been asked by some prominent politicians as well to build such houses for them.

In terms of mega infrastructure development projects, the disputed status of Gilgit-Baltistan is major impediment. It was argued that mega projects such as dam building and power generation projects require mega investment and the disputed status of Gilgit-Baltistan does not provide investment security to investors (P2, P3, P7, P8). Some participants argued that because of no electricity-related industries such as cold storage, food processing units could

not be installed (P8, P2, P1, P3, P81, P7). During fieldwork power outage was in all over Gilgit-Baltistan was common. In some places I was not even able to charge my phone correctly.

6.3.4.2 Tools, Machinery and Technology

After the formation of road infrastructure, one of the prime additions to rural communities' livelihood systems is the use of machinery such as tractors and threshers which have revolutionised livelihoods (P14, P12, P34, P51, P26). It was argued that with the help of a tractor and other machinery, people had developed barren land and harvest crops quickly and easily (P34, P12, P14, P26, P51, P60, P84, P61, P52). A non-government organisation representative (P14) explained:

Machinery such as tractors and threshing machines have brought changes in agriculture. Otherwise, you had to wait for a month(s) for good weather, as we used to use cows and bulls for threshing. Apart from some remote valleys, the majority of the people now use machinery for agricultural purposes.

A household head/hotel owner (P24) maintained:

With the help of tractors and threshing machine, harvesting is completed in one day which usually would take several days as we had to borrow or rent a yak from others. Now if one has got money, he can rent a thresher, and there is no need to beg or borrow.

Some participants argued that because of the use of machinery, agricultural production has increased and one can make good money by selling cash crops such as potatoes (P50, P1, P48, P83). However, a guide (P51) argued:

The tractors have ruined the land by making it uneven. Which is why in 2015, we started to plough the fields with Zoh [cross breed yak and bull] again which we had abandoned earlier. Tractors are not suitable for our land.

A household head and a cook (67) argued:

We have been using thresher since 2008-9, but we have started using a tractor this year [2016] as it saves time and is inexpensive. Earlier we used to use 12 yaks for threshing and those yaks needed care throughout the year.

The trend of using various machinery appears to be in transition, which may take some time to settle in. A porter (P61) argued that tractors could also be used for transportation. He explained:

Not every household has got road access, and the tractor can be driven on uneven surfaces. With the help of a tractor, one can bring anything from outside easily including the firewood.

It was observed as well as reported by participants that roading infrastructure has improved digital and telecommunication services in Gilgit-Baltistan and people are now connected with rest of the world through print, electronic, social media and use of the internet (P85, P24, P37, P43, P60, P32) (see Plate below). A household head (P85) explained:

Before road infrastructure in Gilgit-Baltistan, we used to go to Skardu to contact a Gora (tourist) and ask about their program. If we had to send an email, then we had to go to Pindi [Rawalpindi – 800 km away]. Now, we can contact them from here (Hushe). Which is a significant development.



6.3.5 Financial Capital Transformation

Financial capitals can be discussed with the help of focus codes which include: financial resources such as money, assets and remittances.

6.3.5.1 Financial Resources: Money, Assets and Remittances

With an improvement in road infrastructure and off-farm job opportunities resulted in the introduction of a monetary economy in Gilgit-Baltistan (P31, P37, P65, P51, P92). Participants argued that with money, they could get everything they need to comfort their families (P65, P92). Some participants argued that job opportunities with tourism raised the financial and social status of people who were once poor (P12, P86, P48, P37, P20, P7).

Some participants argued that there was no concept of selling locally produced goods in the market, now one can sell excess local produce to the market and reduce waste (P14, P1, P51, P48, P12, P35). Road infrastructure has turned once abundant and often wasted produce such as potatoes and apricots into a valuable commodity and a significant source of income (P85, P1, P36). A private tour operator reasoned explained:

Because of improved roading infrastructure potatoes are sent to Pakistan at PKR 1500 per sack, and the money is used to meet various household needs such as winter clothing, medicine and food items.

According to a non-government organisation representative (P14),

Agricultural production decreased about ten years ago, but now the trend is changing again. Vegetables are getting expensive in the market as all vegetables are imported and people have realised that they can sell their extra produce on the market for an additional cash inflow.

These vegetables are also sold to tourists in the tourist season as they prefer to buy vegetables locally (P35).

Because of monetary incentives, the trend of growing cash crops such as potatoes and fruit trees (cherries, apples and pears) has increased all over Gilgit-Baltistan which has resulted in the decline in cereal production (wheat and maize) (P1, P8 P3, P2, P48, P55). A government representative (P1) explained:

People who used to grow a couple of sacks of wheat from a field are now earning about PKR 50,000 from fruit production, which can buy a lot more wheat in the market than they could grow from the same field.

Some participants reported the fluctuation of the market price of potatoes as in 2016 people had to sell potatoes (perishable good) at a cheap rate because of the unavailability of cold storage in Gilgit-Baltistan (P8, P1).

Many participants argued that people now buy imported wheat and other consumption items which are the low quality by selling local organic food items such as apricot, walnuts, mulberry and other highly nutritional produce in the market and to the tourists (P24, P36, P41, P57, P1).

With an increase in the notion of monetary economy and services sector in Gilgit-Baltistan, the number of financial institutions increased since the late 1970s. Today in Gilgit alone there are over 24 banks and several cooperatives societies. It was argued that people accumulated wealth and are financially sound as compared to the time before roading infrastructure because of trade, tourism, mining and other businesses (P3, P1, P31, P36). There are numerous financial resources available that enable people to adopt different livelihood strategies, for instance, cash savings and bank deposits (P71, P41).

Roading and transport facilities allowed many people from remote valleys to migrate to cities and abroad who regularly remit income (P15, P48, P14). Some argued that almost every family in Baltistan has a family member outside Baltistan (seasonal and permanent migration) who sends money back through banks and informal money transfer businesses. This money is then invested in education, health, purchasing goods and building houses or business ventures to secure future income (P33, P63, P88, P98, P97, P14, P71). These remittances are not reliable in most cases as they were vulnerable to the political and security situations in Pakistan and difficulty in finding jobs and inadequate bank services (P74, P3, P17, P74, P48, P81).

Participants argued that there is no government-level revenue generation at Gilgit-Baltistan level and Gilgit-Baltistan is dependent on the annual budget set by the federal government of Pakistan (P7, P8, P6). None of the revenue collected from Gilgit-Baltistan via tourism, Chinese border taxes, water or airspace royalty is spent on Gilgit-Baltistan development (P7, P8, P6, P56). This shows the complete dependency of Gilgit-Baltistan on Pakistan financially impacting the livelihoods of the people of Gilgit-Baltistan as they have no control over the financial decisions made.

6.3.6 Institutional Capital Transformation

Institutional capital codes used for this study included: participation in decision and policy-making in the tourism context and benefit-sharing of the tourism market.

6.3.6.1 Participation in Decision and Policy-making

It was argued that the disputed status of Gilgit-Baltistan jeopardises people's access to various resources, participation in public governance, policy-making and involvement in core political decisions (P1, P2, P7, P30). Some respondents believed that the current political structure in Gilgit-Baltistan had limited the power of local people and the citizenship of the people of Gilgit-Baltistan has not been recognised (P7, P30, P6, P48, P70). The elected government must work in collaboration with bureaucracy (a chief secretary who acted as a political agent of Pakistan and headed regional administration). The Chief Secretary was appointed by the Federal government, and every critical recommendation by the Gilgit-Baltistan Assembly must be approved by the Chief Secretary (P43, P6, P7).

The fate of Gilgit-Baltistan was argued to only be able to be defined through United Nation resolution 47 (1948) through a referendum in both Jammu and Kashmir and Gilgit-Baltistan. Since Gilgit-Baltistan is a disputed territory and its political status is yet to be determined, participants argued that through political reforms local demography is changing abruptly which will eventually alter any referendum outcomes if conducted in the future (P72, P30). It was observed during fieldwork and reported by some participants that immigrants were settling in Gilgit-Baltistan, doing business and considering themselves local as they had Gilgit-Baltistan domiciles (P69, P1, P72, P30, P6).

While the formation of the road has not changed the political status of Gilgit-Baltistan there has been an increase in awareness about the disputed status, illegal tax collection, revenue generation and unlawful distribution and allotment of land of Gilgit-Baltistan to various government departments and related to royalty fees generated from Gilgit-Baltistan resources (P72, P3, P6, P30, P29, P70). A participant (P6) argued that "if Gilgit-Baltistan is not part of Pakistan then how can China be the neighbour of Pakistan?"

Being a disputed territory, Gilgit-Baltistan has always been under the military influence, but due to the China Pakistan Economic Corridor agreement the military influence has increased (P7, P6). It was argued that barren land in Gilgit-Baltistan along the China-Pakistan Economic

Corridor route is being distributed among various security agencies (P6, P7, P30). This raises local concerns with many respondents arguing that such an act is seen as a threat to the fundamental rights of the citizens of Gilgit-Baltistan (P6, P7, P30). During fieldwork, numerous protests were witnessed demanding the ownership rights of land, minerals, the right to self-government and illegal tax imposition and a governmental decision to lift subsidies on various consumer goods (P7, P1, P2, P30).

Some participants argued that the security agencies in Gilgit-Baltistan control the movement of tourists within Gilgit-Baltistan and can deny/dismiss any foreigner's entry and exit without any reason (P48, P45, P43). It was reported that there are strict visa policies if foreigners want to visit Gilgit-Baltistan and require high-level security clearance to acquire a visa (P45). Tourists have to report to every police station they pass, and security agencies can investigate them whenever, wherever and however they want (P45, P20, P47, P50, P56, P61). Due to security concerns foreign tourists are accompanied by an armed escort during their stay in Gilgit-Baltistan, and they must pay the expenses of the security guards (P29, P45, P20, P47, P30, P50, P56, P61).

Top-down policy approaches have always been implemented in Gilgit-Baltistan, prime examples include the construction and extension of the Karakoram Highway and the implementation of new tax policies (P7, P30). It was argued that the people of Gilgit-Baltistan were never consulted in terms of any change in the governance system, rather legislation was passed in Pakistan and then implemented forcefully in Gilgit-Baltistan (P7, P6, P8, P45, P20).

The improvement in access to Gilgit-Baltistan by road opened doors for non-government organisations in Gilgit-Baltistan (P14, P10, P16, P22, P15). Non-government organisations have played a significant role in community development and wellbeing, tourism development in Gilgit-Baltistan through community participation (P81, P14, P15, P16, P12, P98, P29, P58, P82, P48, P83). A non-government organisation representative (P14) claimed that,

The government has formed the main highways, but it was non-government organisations which have mobilised rural communities and participated directly in rural development which enabled them to benefit the most from roading infrastructure... Non-government organisations are specialised in engaging community and are cost-effective, which is why government seek assistance from non-government organisations.

During fieldwork, it was observed that after the massive tourist inflow in 2015, it was non-government organisations which conducted tourism surveys to address issues faced by tourists.

6.3.6.2 Tourism Context

Roading infrastructure opened doors for tourism development by improving easy access to tourist destinations (P10, P82, P3). After the improvement in access to Gilgit-Baltistan, tourism grew haphazardly, and there has been no proper planning to promote or propagate the tourism industry, and the tourism development was all because of the efforts of private and civil society organisations (P5, P20, P50, P73, P21, P45, P14, 56). The first stakeholder meeting conducted in Baltistan after a massive tourist inflow in the year 2015 was organised by a non-government organisation, which I also attended during my fieldwork. In the meeting, it was reported that eighty-seven percent of the tourists accessed Gilgit-Baltistan via the Karakoram Highway. Despite such substantial tourist inflows, many stakeholders maintained that the investment in the tourism sector was risky and past experiences showed investment in tourism made people financially vulnerable (P30, P69, P28). In the past, many investors went bankrupt, and they reasoned that there was no support from the government to provide security for investment (P7, P30, P5, P69).

Seasonality was another factor which influences investment in the tourism sector as most of the hotels in Baltistan were closed in winter and only operate in summer (P5, P7, P30, P45, P48, P8). Some claimed that the tourism industry of Gilgit-Baltistan needed a large investment in training tour operators, hotel management, guides and porters along with developing tourism destinations (P20, P31, P56). According to tourism enterprise representatives (P28, P30, P29, P48, P45) and non-government organisation representatives (P20, P12) tourism is not the priority of the government, which puts investors in a difficult situation when it comes to investment in the tourism industry. A prominent community leader (P73) explained:

Pakistan has not given a serious thought on tourism. They have appointed some assistant directors in tourism, but they do not have innovative ideas to promote tourism. They have not done anything since the establishment of the tourism department. There is no tourism desk in Islamabad airport even. We need revolutionary developments within the tourism industry.

The first draft of the Gilgit-Baltistan tourism policy was completed in 2014 with support from USAID and is still being developed. During fieldwork when tourism stakeholders were asked

about the tourism policy and if they had participated in the policymaking, almost everyone said no, and they had no idea if the tourism policy was being drafted (P50, P45, P20, P30, P44, P81). However, a government representative (P5) claimed that stakeholders were consulted during the process.

Some participants did believe that tourism policy was essential and every stakeholder should be involved to achieve the full potential of the industry (P5, P20, P50, P21, P45). A non-government organisation representative (P20) argued that;

In Gilgit-Baltistan, there is a tourism board to give suggestions on tourism, but it has no authority, and they cannot formulate any policy, nor can they represent us [Gilgit-Baltistan] in the national assembly. Every province has given the power to develop tourism policy but in our case officials in Islamabad have the authority who have not even been to or met with any tourism-related stakeholders in Gilgit-Baltistan.

6.3.6.3 Benefit Sharing

It was argued that Government of Pakistan is generating huge revenues from various sectors (water, minerals, tourism, border trade, royalties, visas fee, permits) in Gilgit-Baltistan, but the benefits were not being shared with Gilgit-Baltistan (P56, P20, P28). Moreover, there was massive potential for income generation from hydropower, fresh water, minerals, a communication network (toll tax), Sost Dry Port (custom tax) and tourism (P10, P8, P56, P20, P21, P45, P75, P49, P61, P79, P15, P94, P13, P56, P57, P38). For instance, a government representative (P8) claimed that

In Bunji (Gilgit) we can make 7,100-megawatt electricity, but it needs billions of dollars investment and because of the disputed status of Gilgit-Baltistan big investors [like the World Bank] are not investing.

Tourism is one of the many investment opportunities in Gilgit-Baltistan. It is argued that the tourism industry alone can generate considerable revenues to Gilgit-Baltistan as it does not require huge investments (P8, P77, P56, P10). For instance, a local guide (P56) claimed that;

If we develop tourism in Gilgit-Baltistan, we can generate seventy percent of Gilgit-Baltistan [current] budget. I initiated a project once, but it needed some legislation. Gilgit-Baltistan has over 600 peaks above 5000-8000-meter height, and most of them are unmanned (not been climbed yet). If we auction those unnamed peaks to companies, or individuals (worldwide) who are interested in mountaineering then we can generate massive income for Gilgit-Baltistan.

Some participants also stressed about the need for an international airport in Gilgit-Baltistan which would benefit the tourism industry as international tourists had to land in Pakistan first

before they enter Gilgit-Baltistan (P20, P72, P43, P74, P24). Others argued that the main reason tourist does not go to specific tourist destinations (Skardu) was because of the dangerous road conditions (Gilgit-Skardu road) (P2, P28).

From the discussion above, it can be argued that road infrastructure development and tourism has had a significant impact on livelihood capitals and the livelihood capitals have been transformed. Furthermore, livelihood capital transformation has evidently impacted on livelihood diversification strategies.

6.4 Post-Road Livelihood Diversification Strategies at Macro Levels

Livelihood activities in Gilgit-Baltistan constituted a mixture of tourism-related, non-tourism related, farm-related, and non-farm related (P1, P7, P3, P8, P30). It is argued all diversification strategies were risk-minimising strategies based on available resources (P98, P88, P85, P86, P90, P92, P62, P12, P56, P81, P96). As discussed earlier in this chapter, the post-roading infrastructure development suggests that the volume and the intensity of livelihood diversification strategies from farm to tourism activities increased dramatically. Some even claimed that almost ninety percent of the people were affiliated directly with tourism in Prono and Hushe (P83, P84, P85, P86, P87, P88, P90, P91, P92, P93, P94, P95, P96). The acquisition of diverse portfolios of livelihood was possible because of the availability of a labour market in the tourism sector (P87, P88, P90, P12, P92, P93, P94). In the case of Gilgit-Baltistan, non-farm livelihood activities are closely linked with the tourism sector.

The unique natural beauty, landscape, beautiful lakes, waterfalls, the Indus River and glaciers attract many visitors (P28, P20, P70, P75, P83, P78). There was a consensus among planning and development representatives, non-government organisation representatives, tourism enterprise and community leaders that the number of tourist arrivals to Gilgit-Baltistan increased after the construction of the Karakoram Highway. A high-altitude porter (P85) argued that after road infrastructure in the 1980s 150 expeditions used to come every year as compared to very few expeditions per year previously (by air). According to government representatives (P1, P6, P2, P7), non-government organisation representatives (P12, P11, P14, P22), community leaders (P69, P74, P70, P78, P71), tourism enterprise representatives (P30, P24, P37, P34, P45, P65, P33, P39) and household heads (P95, P90) an increase in tourism numbers led to various tourism-related job opportunities which have become the

main livelihood activity in numerous households. Participants argued that by observing the labour market opportunities and monetary incentives many people got involved with the tourism industry and among them many made tourism a profession by specialising in various roles, such as high-altitude portering, guiding, tour operating, hotel and restaurant operating (P85, P88, P90, P98, P51, P55, P59, P65, P44, P36, P46, 39, P41, P42, P50).

People got involved with tourism because of poverty, lack of employment opportunities and the benefit of instant payments by tourists (P84, P86, P88). Months of hard work in the field were replaced with a few hours of a labouring job for tourists, which would enable them to buy groceries from the market (P84, P98). Opportunities provided by the road and tourism has diverted people from agricultural activities to monetary economies (P98, P37, P48). At the regional and divisional level, it was observed that very few people were involved in traditional land development processes limited agriculture land was being utilised for building tourism amenities, also reported by (P18, P65, P84, P88). Others argued that people have made and hotels as a livelihood diversification strategy to earn money (P50, P37).

Some household heads argued that with improved road infrastructure, the amount of load to carry has decreased as tourists no longer need to carry everything. There are now alternative facilities available such as transportation and accommodation (P91, P92). In general people in Baltistan were happy to see the development of the road to remote valleys so that one can access these remote valleys easily and, in less time, as compared to the past (P85, P87, P51, P70, P78, P12, P91).

Before road infrastructure, only specialised tourists such as mountaineers used to come (P85, P84, P12). However, after the development of road infrastructure, the concept of trekking was introduced which attracted tourists with moderate climbing ability thereby offering the exploration of the rugged physical beauty and dramatic sceneries of the mountains (P83, P24, P50). Among many treks is the world-famous Gondogoro La Pass (5,585 meters) track which connects Askole (the last village of district Shigar) with Hushe (the last village of district Ghanche) via Concordia³² as shown in Figure 11. The track offers breath-taking views of the

³² From Concordia one can access the base camp of K2 (5–6 hours), Broad Peak (2–3 hours) and the Gasherbrum I & II (7–8 hours).

mountains of Karakoram, Himalaya and Hindukush mountain ranges. According to a local transport operator (P38):

When Ghandogoro La was opened, tourists came in huge numbers. Tourist would trek between Askole and Hushe and go up to K-2 base camp. From Hushe, it was a more leisurely trek, but one had to cross the pass which requires clear weather. If the weather was not clear people would trek from Askole... There is five days trek from Askole to K-2 base camp and three days track from Hushe to K-2 base camp.

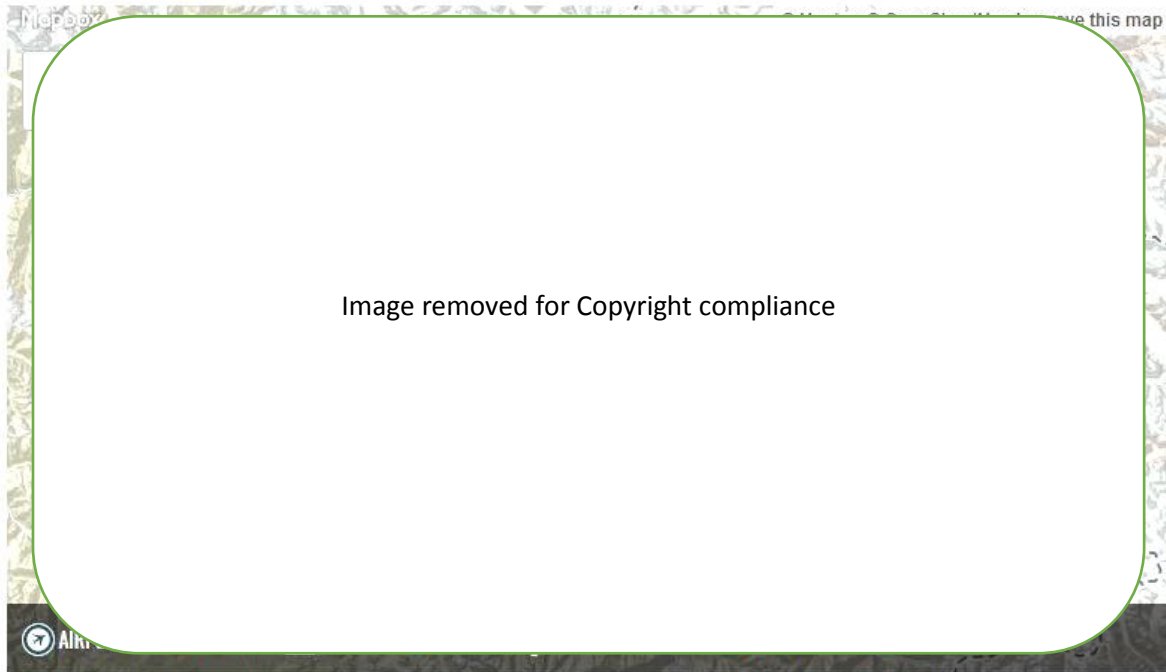


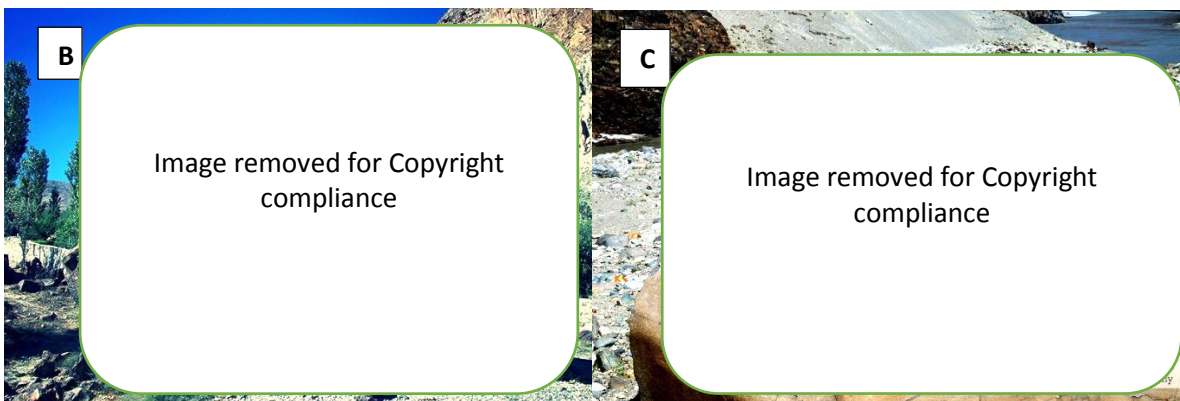
Figure 12 Trekking from Braldu to Hushe valley across the Gondogoro La Track in the Karakoram Mountain ranges. Source: (KEAdventure, 2018)

The people of Hushe, Braldu and Basho valley worked on the trails of Gondogoro La. Many people worked on Gondogoro La crossing to facilitate tourists, and some had started rescue team, restaurants and shops on the trails of K2 and Gondogoro La (P85, P84, P12, P86, P58, P59, P82, P72, P56, P51, P38, P40, P45). However, due to some security reasons Gonodogoro La has been closed since 2013, which has affected the livelihood of the people affiliated with the trail (P85, P84, P12, P86, P58, P59, P82, P72, P56, P51, P38, P40, P45). According to a guide (P56),

At least 70% to 80% of tourism (trekkers) has declined because of the closure of Gondogoro La. Mountain expeditions still come as they have got different objective...But for the trekkers, as they have less climbing skills, they used to take pictures and show off that they have gone up to 6000-70000ft height. Which is why many people used to come, to check their stamina as well.

Gilgit-Baltistan also offers heritage tourism in the form of rich history and culture, ancient and traditional architecture, and archaeological sites, such as the Gilgit Buddha, Manthal Buddha and numerous rock carvings (P20, P42, P28, P78) (see Plate 21). A non-government organisation representative (P23) claimed:

Mountains have much more cultural diversity than any other physical setting. Each valley is different from the other valley, including the heritage, traditions, culture, languages, music, and ethnicity.



Plates 21 A) Gilgit Buddha. Photo by Rowan Castle. B) Manthal Buddha. Photo by Raja Islam. C) Rock Carvings in Chilas. Photo by Tanwir Jogi

Non-government organisations have made a significant contribution in preserving the cultural heritage of Gilgit-Baltistan such as Alti, Baltit, Shigar and Khaplu forts. A non-government organisation representative (P23) explained:

Culture has got various dimensions. It was decided to use tangible heritage because that is the most physical form and is most lasting and has been there for hundreds of years compared to the other elements of culture. Language changes over time, dresses change, cuisine changes, the music changes, you name it. But all that can only come together if you have got a physical place, platform or an anchor point for it. Therefore, this thought came to have these anchor points. These are fabulous places, and if you can revitalise it, we can conserve, preserve and represent these. Then we'll get places and spaces for all these other aspects of culture also to be revived... Our thought was let's create critical mass around these forts. These are beautiful, visible and valid. Otherwise these would have been lost. That's why we have this partnership with the owners, Rajas and Mirs. They understood that it was not feasible for them to restore them and bring them back into reuse. Therefore we stepped-in and our agreement with them was that we are willing to invest money into this and the intention is to revitalise these things and get them back in operation and reuse in its original form where people would go there and stay there. So, that's the one part and the essential part because around that everything has to be moved on. I was talking about the skills. We were able to bring back carpentry to Baltistan. You would have noticed that the jali work [wooden art work in the form of netting] is outstanding and someone has been documenting it, which also depicts the flow of water. The Jali work up north [referring to Gilgit-Baltistan] is much better and richer than whatever Mughal Jali work you see in South Asia. So, we were able to give new life to these old skills of Jali work and carpentry using green popular wood.

Some participants claimed that the wildlife of Gilgit-Baltistan such as snow leopards, brown bears and other exotic wildlife also attracts tourists from all over the world (P12, P24, P4, P83). Trophy hunting seemed to be the only tourist attraction in winter (P12, P4, P83).

The Karakoram Highway is the highest paved road in the world at 4,693 meters above sea level had become a tourist attraction (Burki, 2015; DangerousRoads, 2018; DAWN, 2016). The Karakoram Highway improvement project has made travel to Gilgit-Baltistan easier, faster, more comfortable and safer. The jeep safari concept seems to be gaining popularity (P24, P74, P78, P16). A government representative (P5) explained:

We used to get 50,000 to 60,000 domestic tourists per-annum, but last year [2015] we received 600,000, and we are expecting around 1,000,000 tourists this year [2016] ... One reason is that the tourism department of Gilgit-Baltistan has shifted annual festival venues from Gilgit-Baltistan to major cities of Pakistan such as Islamabad, Lahore, and Karachi and represented Gilgit-Baltistan at national festivals to attract more people to Gilgit-Baltistan.

This showed a significant shift in tourism trends from international to domestic to Gilgit-Baltistan. Participants reasoned that it was primarily due to the security situation in Pakistan after 9/11 tightening visa restrictions for Pakistani's international travel creating increased inward visitation of overseas Pakistani's (P50, P37). While others claimed that it was because of the political reforms of Gilgit-Baltistan in 2009 and reassigning of the name 'Gilgit-Baltistan' instead of 'Northern Areas' which was often affiliated and misunderstood with the troublesome tribal areas. Additionally, promotional coverage of Gilgit-Baltistan on national media (print and electronic) (P24, P50, P5) increased visibility. It was argued that for the first time in the history of Gilgit-Baltistan the disputed political status of Gilgit-Baltistan was highlighted on national media, and a political representative from Gilgit-Baltistan shared views on live TV talk shows and encouraged people to visit Gilgit-Baltistan (P77, P70, P24, P50, P5).

In 2011 Hassan Sadpara a high-altitude porter and mountaineer from Gilgit-Baltistan became the first [Pakistani] to climb six 8,000-meter-high peaks including Mount Everest, without supplementary oxygen. Later in 2013, Samina Khayal Baig a mountaineer from Gilgit-Baltistan became the first and the only [Pakistani] female to climb Mount Everest and following the scaling of the seven highest mountains on seven continents for the cause of gender equality and women empowerment (P50, P3, P5). These successes were cherished at national and international level (in print, electronic and social media) followed by Baig's appearance in many commercial ads on national TV. Tourism enterprises made documentaries to promote Gilgit-Baltistan with the help of social media to create awareness at the national level (P24, P50, P5). A private tour operator (P50) argued that the increase in domestic tourism was because of the increase in awareness about Gilgit-Baltistan as a tourism destination at the national level. She reasoned:

I think there was no awareness and people did not know that our country has such beautiful places as well. People used to go overseas on holiday, e.g. America, London, and France. When we started mountaineering, we started making small documentaries and used to post on social media which created awareness, and they could see that they too can-do mountaineering and hiking.

Many participants claimed that increase in domestic tourism maybe because of the electricity crisis (almost 18 hours power cut per day) and heat waves in other parts of the country, which drove people towards colder areas such as Gilgit-Baltistan (P70, P37). A non-government

organisation representative (P10), reasoned that domestic tourists have a limited budget and they could not go abroad which encouraged them to visit Gilgit-Baltistan. While others claimed that people came to Gilgit in search for physical, emotional and inner peace (P71, P83, P52). A non-government organisation representative (P22) argued that,

When a person is tired of pollution, then he comes here in this vast clean land and gets cured. People come in search of silence and peace, and this area offers that. It starts with hospitality, we welcome people from outside, and the guests do not feel hesitant. They think that their inner fear has gone, and they do not fear their life because of the peoples' hospitality. Where there is no fear for life and government gives some attention, then tourism will be boosted.

People affiliated with tourism stressed the significant loss if tourists have stopped coming to Gilgit-Baltistan (P59, P85, P98, P90, P78, P97). Some argued that without tourism there would not have been any development (P82, P6, P42, P16, P16, P84, P51, P58, P64). The trickle-down benefits of tourists were acknowledged by many participants (P7, P15, P72, P74). A prominent community leader (P73) claimed that,

Without tourists' eighty percent of the hotels will become useless, and similarly, ninety percent of tourist destinations will be of no use. This Kharpucho Fort has got no tourists; it cannot attract tourists and is turning into a ruin. Shigar and Khaplu Fort's got renovated because they have got tourists and people visit those places. Similarly, markets will remain old fashion, and people won't bring new things, no one will be able to buy or sell goods, and there will be no economic activity nor economic growth. Furthermore, there will be no mental growth as local people won't meet outsiders and there won't be an exchange of learning. I think fifty years of development will be lost without tourists.

Others reasoned that there would be massive unemployment without the tourism industry as its trickle-down benefits reach everybody in a community, directly and indirectly (P4, P71, P17, P12, P36, P27). Many participants argued that people affiliated with tourism had suffered a lot due to fluctuations in tourist inflow as a result of terrorism in the country (P49, P1, P19, P19, P72, P37). A prominent community leader (P82) explained:

Because of a decrease in tourism, people who were affiliated with tourism, have lost their businesses such as hotels and restaurants. Some had taken loans from the government and could not return those loans. They can only make a living if tourists come. Local people cannot stay in those hotels because those hotels have got lots of facilities and are very expensive.

A transport operator (43) argued;

We have invested so much in this hotel. But we did not get a return on our investment as tourists come only in season. Road infrastructure needs to be improved so that tourists could come.

However, some participants claimed that if tourists did not come, then people will go back to old traditions, i.e. subsistence farming (P47, P21, P65, P47). It was also reported by many respondents that, sometimes, they explored new tourism enterprises such as transportation, food, and accommodation or even migrated temporarily to find a similar job to gain skills (P12, P54, P51). Most of the people who were affiliated with tourism had adopted tourism as a full-time profession, and many have abandoned their traditional livelihoods such as agropastoral activities (P12, P33, P20, P46, P48, P50, P45, P44, P49, P55, P39). Table 3 documents various livelihood activities adapted by different households and individuals in Gilgit-Baltistan about tourism. People who diversified towards tourism are now facing some concerns related to the security of livelihood activity. The details about numerous tourism-related activity, reason for diversification and interests are documented in Table 3 below.

Table 3 Livelihood diversification strategies in the tourism context

| | Description | Reason | Concerns |
|-----------------------------|---|--|--|
| Porters/Cook/Helpers | <ul style="list-style-type: none"> Most of the people directly affiliated with tourism were porters, cooks, and helpers. These are less skilled jobs which do not require any formal qualification or certification and their demand is high when it comes to adventure tourism (P40, P85, P57, P84, P86, P88, P89) In Hushe, Askole, Arando and Prono majority of the people were affiliated with tourism, and they work as porters/helpers (P91, P26, P12). High-altitude porters require less skills. | <ul style="list-style-type: none"> Poor economic conditions and the instant payment trends of the tourism industry attracts people (P96 P74, P82, P81, P5) Low altitude porters managed to learn to cook a variety of dishes as cooks earn more money and were considered as comfortable compared to portering. All the cooks were self-taught. They learned the skill of tourists and winter jobs in various restaurants in big cities (P51, P54, P32). Because of roading infrastructure and availability of various facilities, porter requirement for an expedition has decreased, i.e. about 2,000 porters per expedition to 100 porters per expedition (P55). Others argued that because of roading infrastructure the number of expeditions increased which had balanced the equation (P86, P85, P91, P1, P4, P5). | <ul style="list-style-type: none"> When the track between Askole and Concordia was improved people saw an opportunity in using mules as they carry 75 kilograms of load and a porter only carries 25 kilograms. In this way, one person can make three times his regular wages in one trip (P27, P81, P90). Many participants argued that the use of mule had been a significant loss for the local economy and the porters (P90, P60). According to a community leader (P81), there was a shortage of porters which resulted in the use of mules at first hand. Some participants reported porters' misbehaviour with tourists as they protest in the middle of an expedition and blackmailed tourists (P74, P82). |
| Guides | <ul style="list-style-type: none"> Tourists used to hire local guides as tourists used to come directly (P40, P85, P88, P84, PP92, P84). But when road tour operators got involved, they started hiring non-local guides (P40, P85). | <ul style="list-style-type: none"> Because of biases in the tourism industry, some participants started recruiting local guides (P44, P54). | <ul style="list-style-type: none"> Some participants argued that guides from Hunza were reported misguiding tourists³³ as they dominated the tourism industry of Gilgit and Baltistan (P46, P30). Similarly, many participants mentioned false advertisements about numerous tourist destinations, i.e. pictures with wrong labels had become common (P48, P57). The unprofessional attitude of non-local guides has affected tourism development in Baltistan (P20, P56, P57, P48). After 9/11 tour companies could not afford to keep permanent guides (P54, P55, P44) Some participants argued that guides were behind the porters' protests in the middle of an expedition. Porters cannot speak English and were being swayed by guides to demand higher wages. Hence, the longer the strike lasts it was better for a guide as he gets paid on a daily basis and porters only get paid on per stage basis (P20, P57). A local porter welfare organisation is working on resolving such issues. |

³³ "One day, I was doing flood survey in Khand after huge land sliding had destroyed half of Khand. While I was having rest, I was approached by some local people as a foreign couple (tourist) was horrified to see the degree of flood damage and they wanted to speak to someone local who could understand English. While I was explaining

| | | | |
|-----------------------|---|--|--|
| Tour Operators | <ul style="list-style-type: none"> • According to an estimate, at present, there are more than 300 tour operating companies in Gilgit-Baltistan (P20) out of which 45 companies are registered in the Baltistan division (P59). • Foreign tour operators are also operating in Gilgit-Baltistan (P85, P86). | <ul style="list-style-type: none"> • Some participants started their own companies in response to favouritism and dominance by one specific community (P44, P48) while others wanted to promote Gilgit-Baltistan nationally and internationally (P45) and some see tourist potential for Gilgit-Baltistan (P58, P70, P74, P48). • Some of the new tour companies were working as a social enterprise (P48, P50). For instance, a tour operator (P48) had introduced a solidarity group package where he contributes a percentage of his profits for community development projects (mainly education). • A female mountaineer (P50) from Gilgit-Baltistan had started her own company to encourage youth, especially women, towards mountaineering. She worked towards women empowerment and gender equality. | <ul style="list-style-type: none"> • Some participants argued that some tour operators were unprofessional as they started working with tourists as porters, then high altitude porters, then guides, they started their own tour companies (P20, P24, P48). Such tour operators had minimum operational costs (no office and administrative expenses), and they often operate the company with the help of a laptop and would often offer good deals as compared to other formal tour operators. It is alleged that these companies do not pay porters on time (P20, P64, P65). |
| Accommodation | <ul style="list-style-type: none"> • After road infrastructure and tourist inflow, many local entrepreneurs have invested in accommodation (P8, P50, P30, P4, P60, P46, P50, P69) | <ul style="list-style-type: none"> • We were affiliated with tourism for a long time, but by observing tourism inflow last year [2015] people started to complete their pending projects (P28). | <ul style="list-style-type: none"> • After the incident of 9/11, international tourists number plummeted³⁴, and many investors got bankrupt as they could not return loans (P69, P30). • There were limited accommodation facilities³⁵ in Gilgit-Baltistan (P5, P28, P30) • There were concerns related to the status of the tourism industry in Gilgit-Baltistan. It was argued that if tourism was given the status of the industry than people affiliated with the tourism industry will benefit from discounts in tourism amenities which will attract investment in tourism industry (P5, P30, P7). • It was observed during fieldwork that souvenir shops in Gilgit-Baltistan were dominated by one community, which had a monopoly. |

the situation to them, their guide spoke me in Urdu, angrily, to wrap things up! The couple sensed the situation and asked me to tell them exactly what he said. I translated, and they got angry at him and were very disappointed with his behaviour. Anyway, they got our details and later contacted us and helped us in building fifty houses” (P48, a tour operator).

³⁴ “We built this building for accommodation and to run the climbing school. But after the Kargil war with India, 9/11 and terrorist activities in Pakistan tourist number declined. That affected our accommodation and mountaineering school. We then converted the accommodation into a guest house so that it could be a source of income for our organisation that would sustain projects related to education. But tourist number kept declining due to the security situation and then Gondogoro La track was closed by the army. Hence, we were forced to close that guest house as well. Now, it is only being used as our office” (P46, a non-government organisation representative).

³⁵ “Since few tourists used to come, hence the hotel industry grew accordingly. Last year [2015] 600,000 tourists visited Gilgit-Baltistan and we did not have rooms to accommodate. The government had to close some destinations like Hunza as it was too crowded. In some places, the government had to open school, mosques and community halls to accommodate tourists. Because of which, on an emergency basis we are developing campsites as the estimated tourist arrival next year is around 1000,000” (P5, tourism department representative).

| | | | |
|-----------------------|--|--|--|
| Transportation | <ul style="list-style-type: none"> • Because of the remoteness of Gilgit-Baltistan transportation facilities attracted investments. | <ul style="list-style-type: none"> • People felt the need for transportation facilities and saw that there is an opportunity to make money. | <ul style="list-style-type: none"> • There is only one public transport facility in Gilgit-Baltistan which only operates to significant towns. • Because of the cost of operations to rural valleys such as Hushe, Askole and Arando public transportation facilities is not available. • At the local level only, private transportation facilities are available. Private transportation facilities are costly, which is why people tend not to travel quite often unless one has to. |
|-----------------------|--|--|--|

6.5 Post-Road Livelihood Diversification Strategies at Micro Levels

It was argued that the majority of the people in Prono and Hushe were affiliated with tourism and it was reported by several participants that tourism-related diversification has disintegrated the traditional livelihood practices. People now wait for tourist season and do not perform livelihood chores as before (P84, P89, P94, P98). Others argued that because of easy access and availability of food items in the market people did not work hard in the fields nor develop barren land for agriculture (P83, P24, P81). This showed an increased dependency on tourism which has increased the workload of women, children, and the elderly as they have to perform household chores, farm-related activities (watering the field) and looking after livestock while as male members were busy with tourists (P98, P90). In winter, people of Hushe and Prono buy consumption items from local shop on credit with a promise that they will pay in summer when they earn money from tourists (P90, P61, P62, P33). It was reported that there is significant uncertainty in tourism-related jobs, but people seemed to be addicted to this cycle (P98, P20, P12, P51).

After the roading infrastructure and an increase in tourism numbers, the trend of keeping livestock has also changed. According to household heads, people used to keep a lot of livestock, but now the trend is a decline (P84, P86, P83, P89, P90, P91, P96). For instance, in Hushe participants claimed that because of tourism they had lost almost fifty percent of their pasture land as they cannot send their female members and children to pastureland in summer (which was a tradition) (P88, P96, P87). This was because local people cannot trust tourists, porters, and outsiders and there have been many incidents where people have drunk milk off their animals, stolen vegetables, burned firewood and so on (P96, P83). Consequently, the tradition has changed. A household head (P87) explained:

There are more than 250 households in our village. We, employ someone we trust who takes our cattle to pastureland for grazing. We only go with milking cows for about two months to collect milk, make butter and come home with firewood.

Another household head (P83) argued that intensive grazing in one area puts pressure on pasture land and animals had become feeble. This trend was only noticed in Hushe.

In Prono, although many people were involved in tourism-related activities, they considered their meadows/pastureland safe as tourists do not go there (P90, P60). Similarly, a prominent community leader (P81) in Bradu valley (Askole) explained:

Tourism-related activities have not affected our pastureland as the route to K2 is not via our pasture... In fact, because of the income from tourism people have bought more livestock and the number of livestock-keeping has increased, and people often sell livestock to tourists and in the market in Skardu.

The above commentaries suggest that tourism has both negative (in Hushe) and positive (in Askole) impacts on traditional use of pastureland. In Hushe, in the tourist season, some people occasionally supply goods and services temporarily, for example, selling soft drinks, fruit and provide spillover accommodation (camping sites) when tourists descend to Hushe. However, since no tourists stop in Prono, occasional engagement with related tourist activities is not an option (P90, P95, P60, P62).

6.6 Chapter Summary

It is evident from the above discussion that roading infrastructure development and tourism have had a significant impact on livelihood capitals which ultimately resulted in livelihood diversification strategies at the macro (regional and divisional) and micro (local village and district level). The following chapter reflects on the findings in pre-road and post-road scenario. Based on the results in Chapter 5 and 6, the chapter then discusses the combined impacts of livelihood capital transformation on livelihood strategies and livelihood security in terms of vulnerabilities, resilience and sustainability at macro and micro levels.

Chapter 7 Concluding Discussion: Transport Infrastructure Development, Tourism and Livelihood Strategies

7.1 Introduction

The results in chapter 5 and 6 suggested that external factors such as transport infrastructure development and tourism have different impacts at the macro and micro levels. Hence, it is crucial to investigate the status of livelihood capitals and the extent of access to various livelihood capitals at the macro and micro levels. This chapter discusses the transformation of livelihood capitals at the macro and micro levels and the impacts upon livelihood diversification strategies, before the formation of the Karakoram Highway (1947-1978) (referred to as pre-road) when there was an improvement in air access and post-formation of the Karakoram Highway (1978 to 2016) (post-road). Livelihood diversification strategies are discussed in terms of livelihood security. In order to understand the consequences of road infrastructure development on livelihood outcomes, livelihood securities are discussed concerning vulnerability, resilience and sustainability. The key findings suggest that road infrastructure development has impacted the livelihood capitals status and livelihood diversification strategies adopted by the people. There is a significant inclination towards the monetary economy. The social inclusion with the outside world has resulted in the change in the concept of community from a collective to an individualistic society, resulting in changing the nature of vulnerabilities and resilience. The chapter presents a conceptual framework and discusses the elements of the framework in a tourism context. Elements of the conceptual framework include; institutional arrangements, livelihood capitals, vulnerabilities and resilience context, livelihood activities and livelihood outcomes. Research implications are discussed at the end along with opportunities for future research. In the discussion the term 'macro' refers to regional (Gilgit-Baltistan) and divisional (Baltistan) levels. Whereas, 'micro' refers to the selected districts (Shigar and Ghanche) and the local villages (Prono and Hushe) chosen for the inclusion of this study which are those affiliated with tourism.

7.2 Pre-Road Infrastructure Development and Livelihood Capitals Status

The improvement in access to Gilgit-Baltistan, by air, has changed the status of livelihood capitals and the relationship between livelihood capitals. Livelihood sustainability can be achieved by allocating and utilising livelihood capitals strategically through institutional arrangement interventions and through policy formulation. Depending upon the individual or communities' preferences, access and availability of livelihood capitals, the livelihood capitals contribution towards livelihood are different. Hence, it is important to understand the impact and transformation of a particular type of livelihood capitals which determines an individual or a community livelihood strategy. As discussed in Chapter 2, the pentagon may be of different shapes but to ensure a sustainable livelihood outcome. Every livelihood capital contributes in balance; hence, the distance from the centre to all livelihood capitals in livelihood capital pentagon (hexagon in this case) was equal. Uneven and different shaped hexagons represent uneven access and uneven contributions of that capital towards the livelihood, which is why the distance of capital from the centre changes as the contribution of the capital changes. Livelihood capital transformations ultimately impact upon the shape of the livelihood hexagon and livelihood strategies. Livelihood capitals are crucial to sustaining livelihoods.

The improvement in access (by air) to Gilgit-Baltistan impacted upon the livelihood capitals resulting in a change in a livelihood capital hexagon shape. The hexagon becomes unbalanced as a capital contribution increases (outward trend) or decreases (inward trend). It is clear from Chapter 5 and 6 that external alterations (such as road infrastructural development and tourism) have impacted upon livelihood capitals by providing easy access, trade opportunities, political awareness, financial incentives and the opening of the non-government sector organisation. The examination of each capital with the help of themes presented in this study has given an idea if there has been a general increase or decline in the access to any capital(s) as a result of the road. Livelihood capital transformation is discussed in pre and post road scenarios.

7.2.1 Pre-Road Livelihood Capital Status at Macro and Micro Levels

Access to Gilgit and Baltistan by air provided a link between the Gilgit-Baltistan and Pakistan before road infrastructure. Provision of air links with Pakistan was a significant change, which had a significant impact on livelihood capital statuses at macro and micro levels, as shown in Table 4 below. Based on livelihood capital themes, the data suggest that, at macro levels, there has been a significant improvement in access to Human, Social, Natural and Physical capital between 1947 and 1978 (see Section 5.3.1, 5.3.2, 5.3.3 and 5.3.4). However, people had minimal access to Financial and Institutional capital (see Section 5.3.5 and 5.3.6). An increase in the Physical capital was mainly because of the formation of the airport and link roads at macro levels. Similarly, at the micro-level people had ample access to Social and Natural capital (see Section 5.3.2 and 5.3.3). However, people had limited access to Human, Physical, Financial, and Institutional capital (see Section 5.3.1, 5.3.4, 5.3.5 and 5.3.6). This clearly shows that the shape of livelihood hexagon has changed at macro and micro levels.

From Table 4, it is evident that, at the macro level, the contribution of Human, Social, Natural and Physical capitals have improved. This is because, there was an improvement in access to education, awareness, nutrition, networking, access to natural resources, and improvement in access to basic infrastructure facilities such as bridges and producer goods at macro (regional and divisional) levels. The capitals hexagon shape suggests that people had limited access to Institutional and Financial capitals. From the hexagon shape, it appears that people regarded Human, Social, Natural and Physical capital important to sustain livelihood. With the improvement in access by air at macro levels, the geographic area in which people could access various capitals increased. In order to gain sustainability at macro levels, it is important that access to financial and institutional capital be improved. This would result in an increase in the size of the hexagon as compared to its size before improvement in access. This is because at the macro levels people are connected to the broader geographical area and they need more resources to be sustainable.

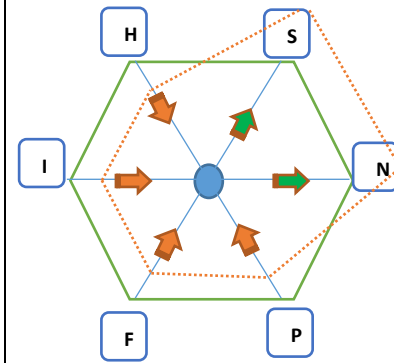
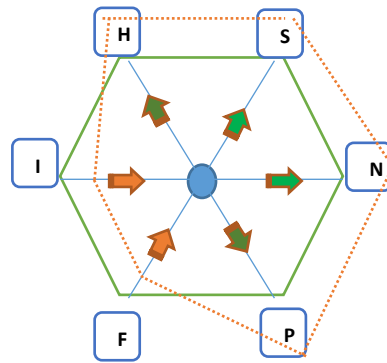
At the micro-level, there was ample access to Social and Natural capital as is evident from Table 4. Both capitals were mandatory for livelihood as people were living in isolation and all livelihood activities were dependent on natural resources. Because of geographic isolation and limited access to the outside world, the contribution of Human, Institutional, Financial and Physical capital was scarce. People capitalised on Social and Natural capital to gain

sustainability as they were readily available locally and society did not require inputs from all the capitals to achieve sustainability and resilience.

Table 4 Pre-Road (improved air access) Livelihood Capital Status at Macro and Micro Levels

| Livelihood Capitals/Themes | Focus Codes | Livelihood Status at Macro Levels | Livelihood Status and Micro Levels |
|---|---|--|--|
| Human (H) | i. Awareness, Access to education ii. Knowledge, skills and labour iii. Nutrition and health status | Because of the improvement in access (by air), there was an improvement in access to education, awareness and nutrition, knowledge (formal, traditional knowledge), skills (innovations). Labour and health care. | Because of the isolated nature, there was limited access to education, health care, awareness and nutrition while people had ample access to informal, traditional knowledge, skills and labour. |
| Social (S) | iv. Networking, relationships and trust v. Lifestyle and culture: Dress, language and music | There was improved access to networking and connectedness and relationships, which resulted in an improved lifestyle. Because of limited interaction with outsiders, culture, dress, language and music remained intact. | There was improved access to networking and connectedness and relationship. Because of limited interaction with outsiders, culture, dress, language and music remained intact. |
| Natural (N) | vi. Land and Water vii. Forest, wildlife and minerals | People had access to land, water, forest and wildlife. | People had access to land, water, forest and wildlife. |
| Physical (P) | viii. Basic infrastructure facilities and access to market ix. Tools, machinery and technology | There was improved access to basic infrastructure facilities, access to market and producers' goods (tools, machinery and technology). | People had limited access to basic infrastructure facilities, markets and producers' goods (tools, machinery and technology). |
| Financial (F) | x. Financial resources: e.g. money, assets and remittances | People had limited access to financial resources (money, assets and remittances) but the trend was changing. | People had limited access to financial resources (money, assets and remittances) but the trend was changing. |
| Institutional (I) | xi. Participation in decision and policymaking xii. Benefit-sharing of the tourism market | People had limited access to participation in policy and decision making and benefit-sharing of the tourist market. | People had limited access to participation in policy and decision making and benefit-sharing of the tourist market. |
| Livelihood Capital Hexagon Shape | | At Macro Levels | At Micro Levels |

**PRE-ROAD LIVELIHOOD CAPITAL ALLOCATION AND
HEXAGON SHAPE**



7.2.2 Pre-Road Livelihood Strategies at Macro and Micro Levels

The livelihood of the people of Gilgit-Baltistan was based on subsistence farming. The improvement in the air access to Gilgit and Baltistan attracted adventure seekers to mountains such as K2, Broad Peak, Nanga Parbat and Gasherbrum I and II, etc. Tourist inflow resulted in an increase in labour demand from the tourism industry in Gilgit-Baltistan (see Section 5.4 and 5.5). Lack of available employment opportunities in Gilgit-Baltistan and monetary rewards of tourism industry attracted many subsistence farmers to work as porters whenever the tourists visited Gilgit-Baltistan. Livelihood diversification strategies can be examined with the help of Figure 12 below, which shows the livelihood diversification strategies people used in response to the improvement in air access to Gilgit-Baltistan, within a tourism context.

Livelihood diversification strategies at the macro levels can be explained with the help of Figure 13 A. The figure shows that the majority of the people were initially involved in subsistence farming (Q3), some diversified to work with tourists (Q1) to generate income in the tourist season. Because of the limited requirement of specialist skills, tourism attracted people from subsistence farming. It is also evident from the figure that as tourist number increased, employment in tourism also increased. Other than tourism, very few job opportunities were available (Q2). At the macro levels, livelihood diversification strategies included government jobs, working as labourers, and working for the army as porters to carry ammunition to the Line of Control, and outward migration to bigger cities in Pakistan such as Karachi, Lahore, Rawalpindi. Because of the degree of involvement with tourism, people in Q1 take up more tourism-related career opportunities as compared to people in Q2 and Q3.

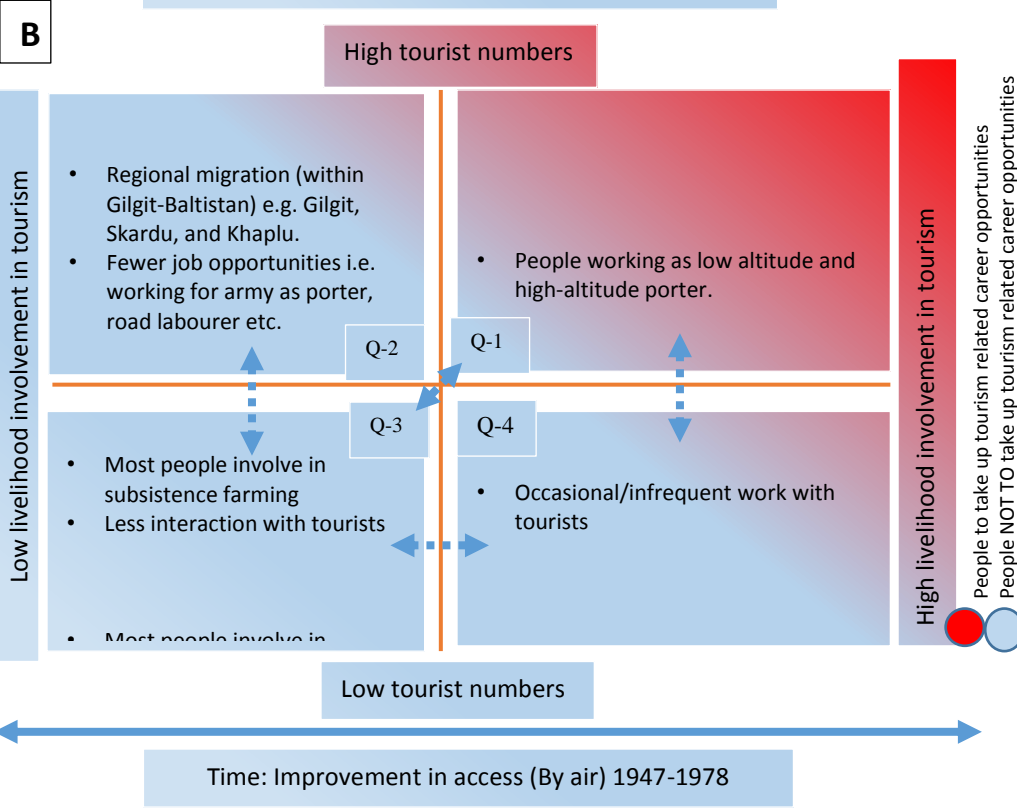
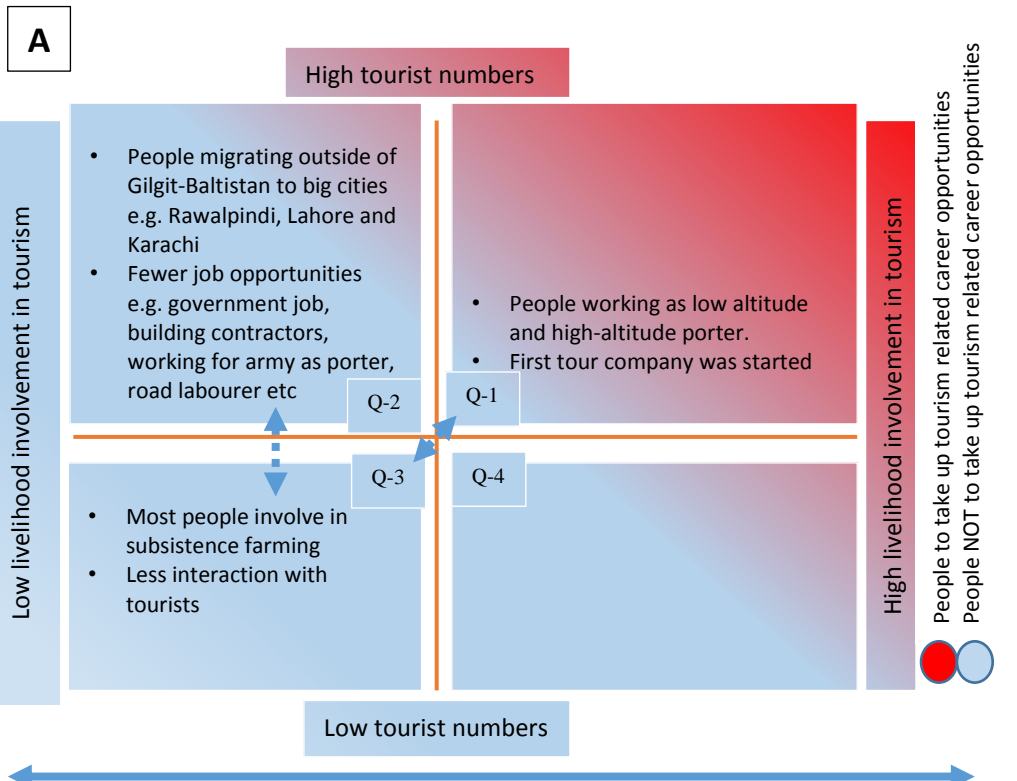


Figure 13 Pre-Road Livelihood Diversification Strategies. A) At Macro, B) At Micro Levels

The livelihood diversification strategies at the micro-levels can be explained with the help of Figure 13 B. With an increase in tourism inflow local people saw livelihood opportunities in the tourism sector as an alternative to the traditional subsistence farming activities. There was a cluster of people who diversified their livelihood from subsistence farming towards tourism (Q1). Among them, many worked in the tourism industry on a seasonal basis, while a few diversified majorly towards tourism. The main reasons for diversification towards tourism (services sector) included monetary rewards and provision of rations during the expedition (e.g. sugar, rice, and lentils). The diversification strategies were such that people would work with tourism on a seasonal basis (in summer: the tourism season) depending on the opportunities available. Some sought career opportunities in tourism. Some people diversified livelihood activities towards tourism as a risk minimising strategy, but they would be involved with tourism occasionally (Q4). It is important to note that not every household responded similarly when tourism was introduced.

People who initially diversified into the tourism industry were those who had limited resources such as developed farmland and livestock and were less privileged in local society (P12, P85). The remaining people in Q3 interacted very little with tourists, and they did not see any opportunity in getting involved with the tourism industry and thought that it was too risky because of inconsistencies in tourism due to inadequate access. These were the people who had enough developed/agricultural land and were happy with their farm production and saw farming as their long-term livelihood option. Hence, only some families were involved in tourism (P88, P85, P51, P58). However, people from Q3 would often sell livestock and fruit locally to tourists and were, therefore, be involved with tourists to a limited extent. These people would not travel anywhere else to provide such services. They saw income from tourism as a temporary addition to their livelihood because of the seasonality and the inconsistencies in tourist flows. On the contrary, people who were actively involved with tourism (Q1), such as high-altitude porters, used to travel far to generate income from tourism (for example, people affiliated with tourism from Hushe and Prono used to go to Skardu). People who moved to Q1 and Q4 did so because they saw an opportunity in tourism and would engage in tourism seasonally and occasionally.

Some people started relying more on tourism by moving towards specialised occupations related to tourism such as high-altitude portering Q1. However, in doing so, they did not

abandon subsistence farming, instead they diversified partially towards tourism. Respondents recalled that families diversified in a way that if one brother worked with tourists others would continue farming (P85, P12). In this way, the household could earn money to buy goods or services that required money alongside the non-monetary keeping of livestock and development of land as expected. This can be regarded as a risk minimising strategy. In case of any shocks or change in the trend of tourism, people could smoothly go back from Q1 and Q4 to Q3 and continue subsistence farming (as reported by P21).

Non-tourism off-farm employment (Q2) included porters for the army, and labourer's in maintaining mule tracks or in the construction of link roads towards the Line of Control (P78, P79). Some had obtained a government job while others worked as skilled labourers (P87, P89). Another diversification strategy includes migration from rural areas to urban centres such as Gilgit, Skardu and Khaplu. This type of employment was also seen as a temporary solution, and they could revert to subsistence farming in case of any shocks or change in the employment opportunities (as noticed by P79). Subsistence farming was still seen as the primary source of living and no one wholly abandoned subsistence farming.

7.2.3 Pre-Road Livelihood Security at Macro and Micro Levels

Even though there was improved access to Gilgit-Baltistan by air, there were limited transport facilities and mobility. At macro and micro levels, there were 'known vulnerabilities'³⁶ as people reported being aware of vulnerabilities such as lack of access, lack of transportation facilities, shortages of the food supply because of extreme weather and unpredictable natural disasters (P34, P39, P69, P90, P60, P14). Thus, they made contingency plans, which relied on Social capital. The contingency plans were based on collective solidarity resulting in more significant benefit to the community in the long-run, which consequently improved the livelihood of individuals. Every household was reported to store food for an extensive period (i.e. at least a year) and would support each other in the time of need. The food was both produced locally and stored locally, resulting in the increase in collective food storage capacity and in times of crisis people would share and borrow from one another. The only unexpected livelihood shock experienced in the living memory of the participants before the development of roading infrastructure was the partition of the Indian subcontinent which had a significant

³⁶ Factors (shocks, trends and seasonality) known to people which may affect livelihood sustainability.

negative impact on the livelihood of the people of Gilgit-Baltistan, particularly Baltistan. Introduction of subsidies on grains and other food items in the early 1970s reduced people's immediate vulnerabilities as grain was accumulated in regional centres (Khaplu, Skardu and Gilgit).

Figure 13 above illustrates that people relied mainly on subsistence farming. With the improvement in air access to Gilgit-Baltistan, at macro levels, people had improved access to opportunities to develop Human, Social, Natural and Physical capital which resulted in enhanced communities' resilience. Research findings suggest that communities at the micro-levels were relatively more resilient in the past as compared to the present time. This was because people held traditional knowledge and understanding about survival strategies, had limited needs and above all many consumption items were either grown or traded locally (P9, P78, P70, P1, P2, P85). Because of the isolated nature of Gilgit-Baltistan and limited access to rural communities, the impacts of air access at micro-level were very limited as compared to impacts at macro levels. At micro levels, people were dependent on each other and lived in a communal structure. Society had an explicit collective nature. It was reported that people had strong relationships and networks which made them resilient. Participants argued that resilience in the past was mainly because of the collective nature of the society which enabled them to live for centuries in harsh climatic conditions (P15, P68, P55, P78).

Livelihood capital transformed through improved access (by air), has increased individuals' capabilities to diversify sources of income as a risk minimising strategy and thereby ensure the general well-being and sustainability of communities. As discussed above, the data suggests that pre-road, at both macro and micro levels, most vulnerabilities were known, and they created contingency plans to ensure a sustainable livelihood. The communities also required limited capitals to function. At the micro-level people relied on maximum access to social and natural capital and had limited access to human, institutional, physical and financial capitals.

7.3 Access to Gilgit-Baltistan and Tourist Visitation

It is evident from the literature that various institutional arrangements resulted in improvement in access to Gilgit and Baltistan, which resulted in an increased number of visitors, as illustrated in Figure 13 [not scaled]. Because of the disputed nature of Gilgit-

Baltistan, the numerical data on tourist visitation to Gilgit-Baltistan is either not available and can not be relied upon (for details see Chapter 3 and Appendix A). Figure 14 below [not scaled] is drafted based on the information provided by the participants, which relied on oral traditions of Gilgit-Baltistan.

The study focuses on improvement in access to Gilgit-Baltistan through transport infrastructure development under Pakistan administration (between 1947 and 2016). Access to Gilgit-Baltistan was improved in two phases; first by air (1947-1978), then by road (1978-2016). Improvement in access by-air to Gilgit-Baltistan attracted specialised tourists (mountaineers). The number of tourist arrivals before the road infrastructure was limited. The number of tourists increased significantly with the formation of the Karakoram Highway into Gilgit-Baltistan and the Gilgit-Skardu road between Gilgit and Baltistan division and other road networks within Gilgit-Baltistan (Azhar-Hewitt, 1999; Jensen, 2007; Kreuzmann, 1991; Owen-Edmunds, 2013; World Bank, 2011).

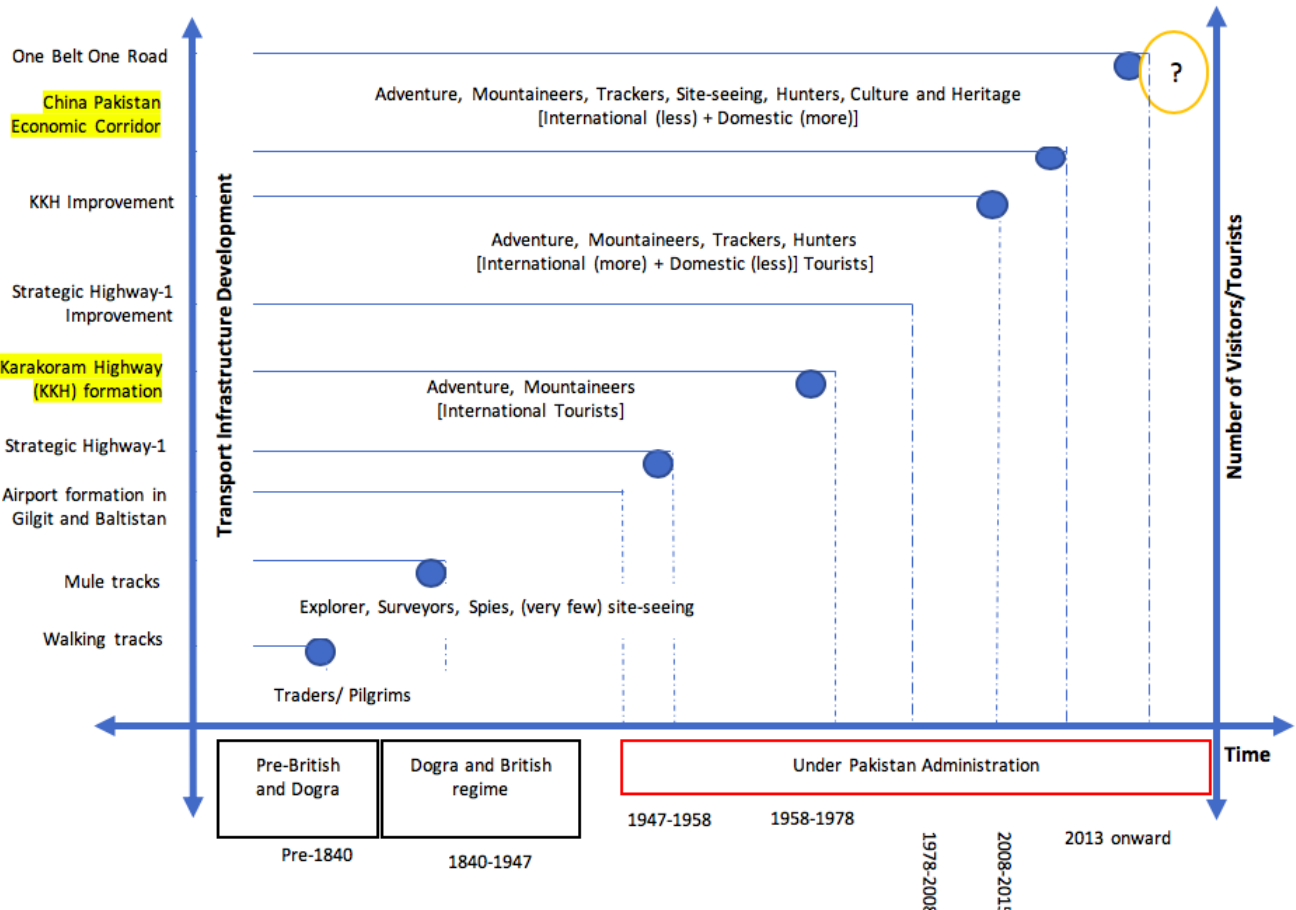


Figure 14 Improvement in access to Gilgit-Baltistan over the course of history and visitors/tourist's inflow

The majority of the tourist visiting Gilgit-Baltistan were international tourists with participants reported that international tourist inflow was at its peak from 1985 until the late 1990s due to the development of roading infrastructure in the region, especially the Karakoram Highway (P69, P42) (see Figure 15 below). With an increase in tourist inflow, numerous tourism-related jobs were created, and people started making money and demanded various goods (sugar, rice and other consumer goods), which then became available in the market (P69, P12).

7.4.1 Post-Road Livelihood Capital Status at Macro and Micro Levels

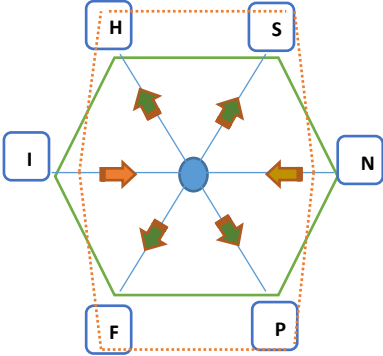
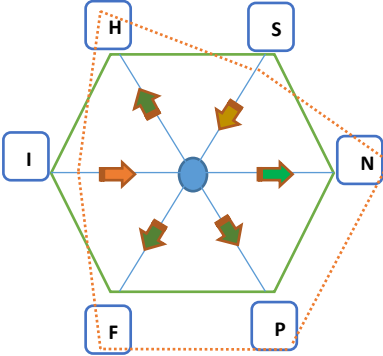
The results show that the roading infrastructure development in Gilgit-Baltistan has a significant impact on livelihood capital status at macro and micro levels, as shown in Table 5 below. The results in Chapter 6 suggest that at macro levels there has been a significant decline in access to Natural (see Section 6.3.3) and Institutional capital (see Section 6.3.6). Road infrastructure resulted in deforestation, loss of wildlife, an increase in pollution (air, water and soil) and a decline in agriculture landholding. At macro levels, there has been a decline in public participation in decision making and benefit-sharing of the tourism market (see Section 6.3.6). However, at the macro levels, there has been a significant improvement in access to Human, Physical, Financial and Social capital.

Because of improved road access to Pakistan and China, the residents of Gilgit-Baltistan felt socially connected regionally, nationally and internationally. The sense of community and its boundaries have expanded and have grown so that people are now part of a greater world. The expanded boundaries have brought in new cultures and ideas, and people can move relatively freely. The improvement in social capital elements such as networking and connectedness, relationships at the macro level resulted in an increase in political awareness (see Section 6.3.2, and 6.3.6). People at the macro level are more aware of constitutional rights as compared to pre-road (see Section 6.3.6 and 6.3.3). Use of social media and print media have played a vital role in creating awareness regionally, and many political movements have sprung up, such as 'No Taxation Without Representation' (see Section 6.3.6) and 'Right to Ownership and Right to Rule'. At macro levels, there has been an increase in such protests because of easier access into/between the major towns of Gilgit-Baltistan and the availability of mobile phone and social media. Before the road, it was a lot harder to create awareness or mobilise people at the Gilgit-Baltistan level. At macro levels, there has been an improvement in education awareness, access to education, knowledge, skills, labour and nutrition. However, it was argued by participants that the health status is declining due to the consumption of cheap and inorganic food (see Section 6.3.1). Among many changes at macro levels, it was reported that physical capital played a vital role in providing necessary infrastructure facilities such as roads, bridges and access to the market, bringing in tools, machinery and technology (see Section 6.3.4). These facilities helped isolated communities to socially connect with the broader world and expand the sense of inclusion.

However, at the micro-level, there has been a significant decline in access to Social and Institutional capital. It was reported that people are becoming socially excluded as they are losing their sense of community, trust and relationships as people are no longer dependent upon each other locally (see Section 6.3.2). The results show that the community is moving towards an individualistic society. Since the road, social capital has lost the paramount importance, and people are of the view that there are other mechanisms to handle shocks. The improvement in access to remote valleys has expanded the geographic area in which people could access the various capitals, changing the number of capitals available to people at micro-levels. At micro levels, access to Institutional and Social capital is becoming vital as the society has expanded requiring more resources to ensure sustainability. Since the geographic area has expanded at the macro level, it is important that the access to Institutional and Natural capital must be improved to gain sustainability at macro levels. This would result in an increase in people participation in decision making, access to the tourism market, land development, improvement in water usage, a decrease in pollution, and preserve natural resources. People participation in decision making at the micro-level is negligible.

Table 5 Post-Road Livelihood Capital Status at Macro and Micro Levels

| Livelihood Capitals/Themes | Focus Codes | Livelihood Status at Macro Levels | Livelihood Status and Micro Levels |
|----------------------------|---|---|--|
| Human (H) | <ul style="list-style-type: none"> i. Awareness, Access to education ii. Knowledge, skills and labour iii. Nutrition and health status | <p>People have improved access to awareness, education, formal knowledge, skills and innovations, labour, nutrition and healthcare. However, there has been a decline in health status. Inorganic and impure food is thought to be the leading cause of the decline in general health condition.</p> | <p>People have improved access to awareness, education, formal knowledge, skills and innovations, labour, nutrition and healthcare. However, there has been a decline in health status.</p> |
| Social (S) | <ul style="list-style-type: none"> iv. Networking, relationships and trust v. Lifestyle and culture: Dress, language and music | <p>People have improved access to networking, connectedness, membership, affiliations and associations. Improvement in association and affiliation to formal institutions is mainly based on political and sectarian affiliations. The level of trust, reciprocity and exchange is declining. Because of improved interaction with outsiders, culture, dress, language and music is changing abruptly.</p> | <p>Because of difficulty in road access, people have limited access to networking, connectedness and relationships. Improvement in membership and affiliation to formal institutions is mainly based on political and sectarian affiliations. Whereas the level of trust, reciprocity and exchange is declining. Because of improved interaction with outsiders, culture, dress, language and music is changing abruptly.</p> |
| Natural (N) | <ul style="list-style-type: none"> vi. Land and Water vii. Forest, wildlife and minerals | <p>Due to population expansion and immigration into Gilgit-Baltistan, there has been an improvement in land development, but there has been decreased in per household landholdings. Houses, markets, plazas and tourism amenities are being built in limited developed agriculture land. In terms of agriculture systems, there has been a decrease in water supply systems (irrigation water channels), and the quality of water is declining because of pollution and mismanagement. Due to improved access to the forest, deforestation and illegal smuggling are considered a significant issue. Minerals are also being extracted in many places.</p> | <p>With the availability of roading infrastructure development, people have maximum access to land (developing land with the help of tractors etc.), the formation of water channels by civil society organisations (development of water channels and installation of water tap water). The trend in rural areas is changing from cereal crops to cash crops. There has been an increase in wildlife protection due to the formation of conservation groups (for trophy hunting).</p> |
| Physical (P) | <ul style="list-style-type: none"> viii. Basic infrastructure facilities and access to market ix. Tools, machinery and technology | <p>There has been an improvement in access to basic infrastructure facilities, access to the market (road infrastructure development), and producers' goods (tools, machinery and technology).</p> | <p>There has been an improvement in access to basic infrastructure facilities, access to the market (road infrastructure development), and producers' goods (tools, machinery and technology).</p> |

| | | | |
|-------------------|--|--|--|
| Financial (F) | x. Financial resources: i.e. money, assets and remittances | There has been an improvement in access to financial resources, e.g. money, assets and remittances. | There has been an improvement in access to financial resources, e.g. money, assets and remittances. |
| Institutional (I) | xi. Participation in decision and policymaking xii. Benefit-sharing of the tourism market | People have limited access to participate in policy and decision making and benefit-sharing of the tourist market. | People have limited access to participation in policy and decision making and benefit-sharing of the tourist market. |
| | |  |  |

7.4.2 Post-Road Livelihood Strategies at Macro and Micro Levels

Improvement in access to Gilgit-Baltistan (by air and by road) resulted in an increase in farm, non-farm, tourism and non-tourism related economic activities in the whole Gilgit-Baltistan (see Section 6.4 and 6.5). Both skilled and unskilled jobs reportedly to gained popularity as livelihood activities. In the services sector, government and private sector jobs are the significant employment opportunities followed by the tourism sector, as also reported by the World Bank (2011). Participants various livelihood diversification strategies can be examined with the help of Figure 16 below, which analyses each livelihood diversification strategy concerning tourism in response to road infrastructure development. Figure 16 A explains livelihood strategies at the macro level and Figure 16 B illustrates livelihood strategies at micro-levels.

At macro levels, before road infrastructure, the majority of the people in Gilgit-Baltistan were affiliated with subsistence farming. At macro levels diversification strategies constituted (see Figure 16 A); farm diversification, employment in the services sector (skilled and unskilled jobs), migration and tourism-related employment opportunities. It was reported that farming activities at the macro level are diminishing as fewer people are involved with agriculture (Q3) because of lower rates of return. Post-road, subsistence farming is not considered the primary livelihood source. Many of the people involved in agriculture have diversified their farming practices from cereal to cash crops such as potatoes and fruit.

Urban centres/towns are expanding, and farmland is being used to construct houses, markets and plazas (see Section 6.3.3). A similar trend is seen in rural areas also, as the population grows, more houses are being built, and the tradition of land division among siblings has reduced the total amount of landholding per person. Even though barren land is being developed with the help of machinery, population growth and immigration have increased dramatically and land developed for agriculture is under increasing pressure. With the improvement in access to Gilgit-Baltistan, there has been a significant improvement in Human capital in the form of literacy rates and availability of skilled labour (see Section 6.3.1). This has resulted in the movement of people from Q3 to Q2. More educational facilities are now available since the formation of the Karakoram Highway and link roads to the remote valleys of Gilgit-Baltistan. Hence, it is more likely that more people will move from traditional farming (Q3) to specialist employment (Q2).

It was reported and observed that people with unskilled jobs were keen to gain modern education, and they were sending their children to school. It was also reported and observed during the fieldwork that numerous private schools have been opened in Gilgit-Baltistan. According to the World Bank (2011), private schools in Gilgit-Baltistan contribute ninety percent of the education infrastructure. Results also show that the window of modern education was introduced after roading infrastructure (see Section 6.3.1). Since modern education has been introduced recently, there are still a large number of uneducated and unskilled people in Gilgit-Baltistan. In this regard, the tourism industry is seen as a vital employment opportunity for these uneducated and unskilled people.

There was a cluster of people involved with tourism (Q1) who reported to be uneducated with no formal education. Out of the forty-five participants from the tourism enterprise, only seventeen had some formal education. These were the people who have moved from Q3 to Q1 and were majorly involved with tourism as their primary source of livelihood. By observing an increase in tourism, after the Karakoram Highway improvement, some people also reported to move from Q2 to Q1. For instance, a businessman (P28) (Q2) has built a motel, and a private school teacher and non-government organisation representative (P48) (Q2) started a tourism company.

Because of growth in the tourism market in Gilgit-Baltistan, the number of people involved only occasionally with the tourism industry has increased (Q4). Likely, these people will either move to Q1 or Q2. It was also reported that people also moved from Q1 to Q2. For instance, P12 and P58 gained a government job which they consider is more secure as compared to working in tourism. Some people who have worked in the tourism industry for an extensive period of time are of the view that there is no long-term future in the tourism industry as one can only work when they are young and fit (as reported by P85, P84, P48).

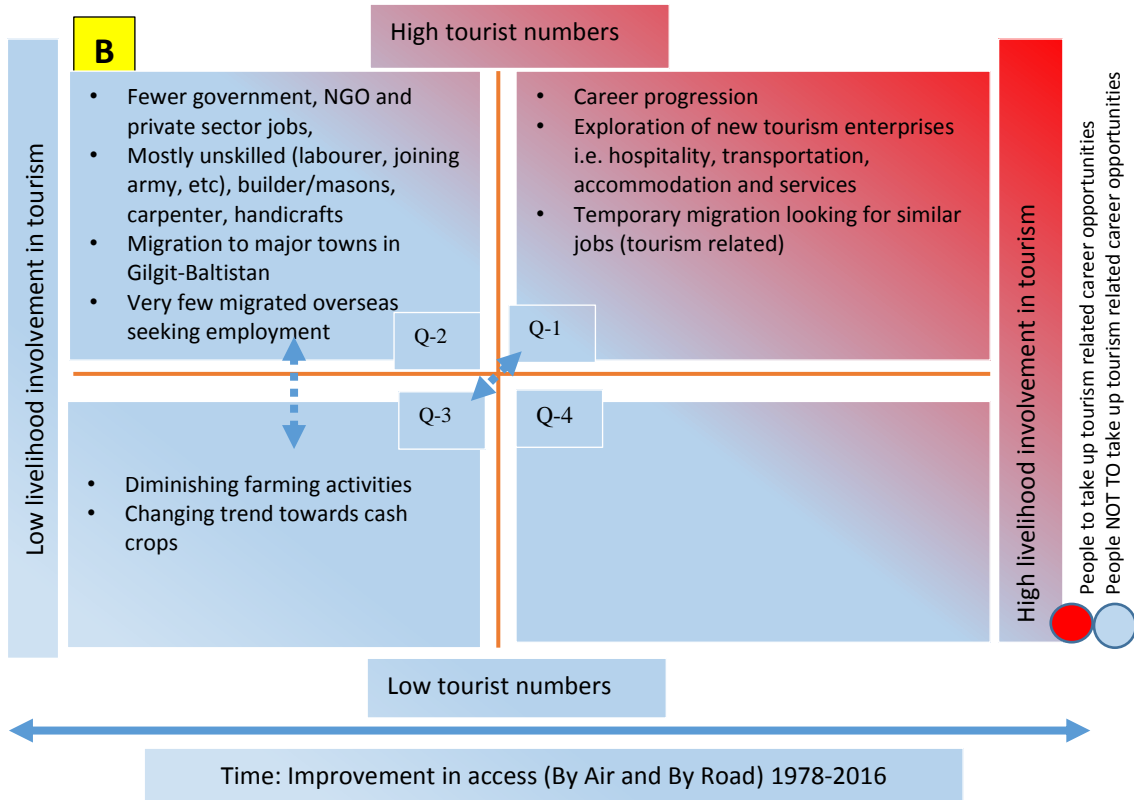
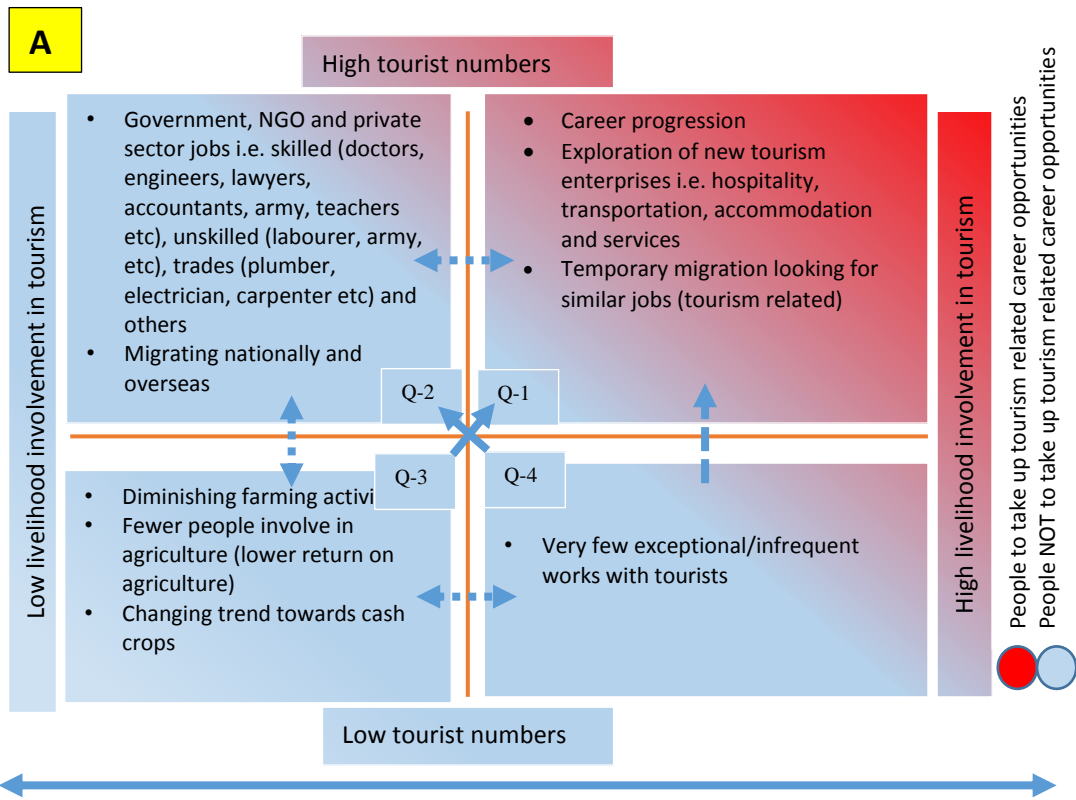


Figure 16 Post-Road Livelihood Diversification Strategies. A) At Macro, B) At Micro Levels

At macro levels, one major factor which is noticeable is the significant cultural changes in agro-pastoral activities, which are no longer as important as they used to be, as almost all the necessary items are now available in the market. The primary resource allocation choices are transformed compared to the time before roads. Households must use their resources differently with the increase in the availability of various consumer goods in the market people's wants have changed. The trade-off between a service economy (e.g. tourism) and subsistence farming can be observed in urban centres, because of the availability of the more job opportunities in major towns (Gilgit, Skardu and Khaplu), many people have distanced themselves from subsistence farming as compared to people in rural areas. However, in rural areas, people opt-in and out of agro-pastoral activities based on other available opportunities.

At micro levels, apart from agro-pastoral activities, tourism is the foremost lucrative employment opportunity available for the most unskilled labour force in rural communities. One of the main attractions of tourism-related employment is an immediate payment by tourists. The majority of the population in Prono and Hushe were affiliated with tourism, and many of them have distanced themselves from agro-pastoral activities. Hence, people have become specialised in specific skills, e.g. high-altitude porters, guide or a tour operator, to maximise their incentives and are dependent on the monetary economy. In doing so, people are abandoning their traditional agro-pastoral activities and leaving behind the cultural memory which has enabled them to survive for thousands of years (P78, P74, P82, P71). It is evident that people participated in diverse activities due to the improvement of access (by road and by air) and tourism inflow.

Livelihood strategies at micro levels can be explained with the help of Figure 16 B above. Participants had three types of livelihood strategies; subsistence farming with the trend towards cash crops, non-farm services sector employment, including migration both within Gilgit-Baltistan and abroad or tourism-related career opportunities. The majority of the participants engaged with subsistence farming (Q3) and tourism-related activities (Q1). Subsistence farming activities (Q3) were reported to be declining as compared to pre-road. Because of the popularity of the monetary economy, many subsistence farmers in Q3 have diversified from cereal to cash crops such as potatoes and fruit. It is reasoned that money acquisition is important and one can buy almost anything from the market (P12, P58). People

in Q3 have invested in education; hence, their tendency to move from Q3 to Q2 is very high. The reason that people tend to move to Q2 and not to Q1 is because of the sense of security of a job in the non-tourism related sector. People in Q1 work towards high returns from the tourism industry as they progress their career in tourism by providing specialised services such as high-altitude portering, guide or tour operator.

People in Q2, either have abandoned subsistence farming or their involvement in subsistence farming is very low or limited. On the other hand, many people have moved from Q3 to Q1 permanently and have abandoned subsistence farming. Another reason subsistence farming is diminishing is that people have moved either to Q1 or Q2. People also tend to move between Q1, Q2 and Q3. For instance, P16 started working as high-altitude porter after retirement from the army, a former porter P38 begun working as a transport operator, and an old high-altitude porter (P58, P84) coordinated several development projects in collaboration with foreign donors, community representatives and non-government organisations. They also participated in improving crops production by introducing a variety of seeds and planting fruit trees. People from Q1 have also moved to Q2 after being offered government jobs due to their achievements in the tourism industry, e.g. P12 and P58 were offered a full-time government job as a road inspector and road worker respectively. The remaining people in Q3 interact very little with tourists, but they still sell livestock to tourist expeditions occasionally when they needed some cash.

7.4.2.1 Gender

The data suggest that tourism-related employment activities have attracted men away from agriculture activities and women work in agriculture has become expressively visible as noted by all three participants (P50, P97, P98). Farm work includes taking animals to pastureland in summer, collecting firewood, watering the field, milking cows and making cheese etc. Azhar-Hewitt (1999) noted this phenomenon in the Karakoram and Himalaya ranges and one of the case study village of this thesis, Hushe. The literature on female participation in agricultural activities for the survival of households is termed as 'feminisation of agriculture' (Lastarria-Cornhiel, 2006; Ravula, 2019). Tourism-related livelihood diversification strategies at macro and micro level have impacted the role of women in agriculture and the impact is more visible at the micro-levels (rural) as compared to micro levels (urban). This is because agriculture is

the primary livelihood activity in rural areas as compared to urban areas where services sector dominates livelihoods.

7.4.3 Post-Road Livelihood Security at Macro and Micro Levels

After roading infrastructure development and the growth of tourism, new forms of vulnerabilities have been noticed by many participants. At micro levels (local village level), tourism is seen as the prime industry, employing unskilled people. Participants argued that the incident of 9/11 and a wave of terrorist activities in Pakistan had caused uncertainty in the tourist demand because of security concerns. This has impacted upon the livelihood of the people affiliated with the tourism industry (see Table 3) (as noted by (P86, P85, P91, P1, P4, P5). However, at macro levels (Gilgit-Baltistan) the non-tourism services sector is seen as the prime industry.

Pre-roading infrastructure development, people at micro levels mainly relied on subsistence farming as they had experienced long-term security in subsistence farming. After roading infrastructure development, people at micro levels diversified towards the monetary economy. The degree of vulnerability and resilience of the community at micro levels can be explained with the help of Figure 17 below. Figure 17 is the close examination of Q1 of Figure 16 A and B above.

Figure 17 below describes the relationship between the number of tourists and the tourism-related career progression opportunities concerning vulnerability. For an individual, an increase in career progression and opportunities in the tourism industry has increased the level of dependency upon the tourism industry. The more specialised a person is in a tourism job, the more they will be dependent on the tourism industry for their livelihood. The gradient scale in Figure 17 below shows the degree of specialisation and in reference to potential vulnerability. For instance, a tour operator, guide and high-altitude porter are more specialised as compared to a low altitude porter or helper. It is more likely that they will abandon traditional farming practices and rely on a monetary economy. It was reported that people make as much money from tourism in a few months as compared to hard physical work in the field all year round (P98, P12, P58). Some argued that there is no long-term security in the tourism industry as one can only work with tourists when one is young, as no pension or social benefits are provided by the government or the tourism industry (P85, P12).

Furthermore, the tourism industry is vulnerable and is prone to stresses, shocks and trends and other vulnerabilities (see Appendix K). Since people at the micro-levels (local village level) are more dependent on tourism, they are more vulnerable if something goes wrong, such as security concerns and changing popularity of tourism destinations. This degree of vulnerability is expressed with the help of a gradient scale in Figure 15 below. Post-road, local Social capital has lost its paramount importance for resilience because of road infrastructure; people think that there are other mechanisms to handle shocks. However, since the road, there appears to be a growing dependency on the outside world. It is argued that if an unknown vulnerability (shock) is triggered the communities may not be able to remain sustainable or resilient.

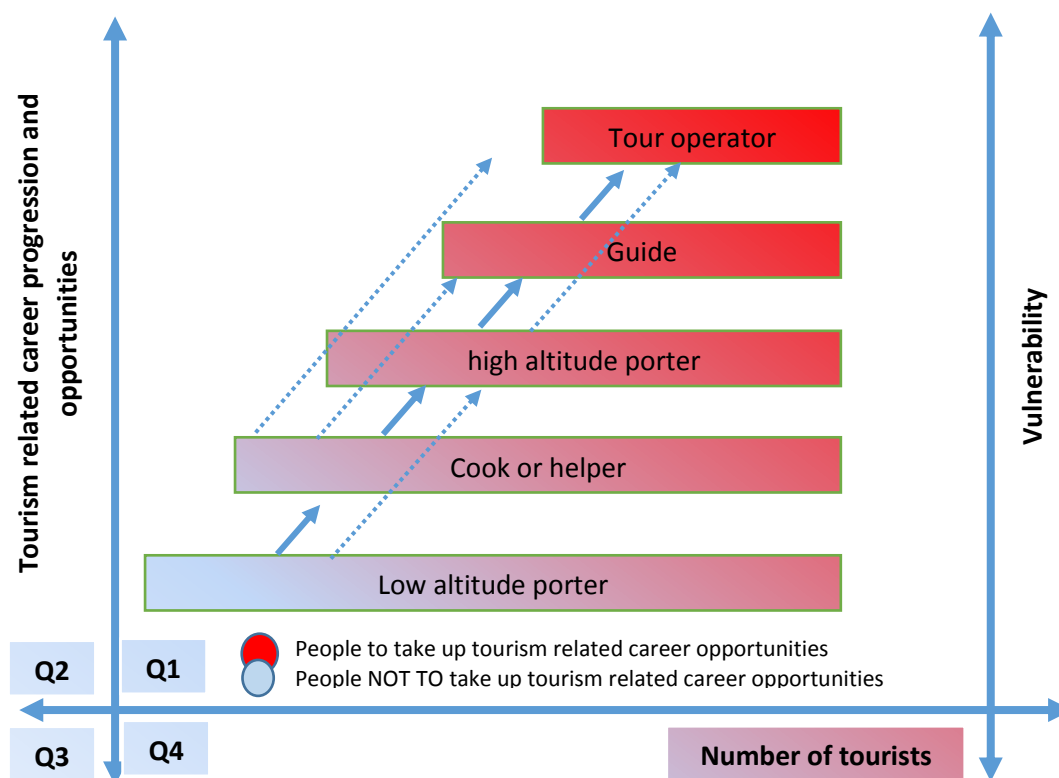


Figure 19 Post-Road Degree of Vulnerability and Resilience of People Affiliated with the Tourism Industry (at micro levels)

With more large road networks, telecommunication and other infrastructure, social capital have expanded at the macro levels. Participants have made friendships and visited foreign countries. For instance, P58, P15, P16, P47, P50 and P85 are reported to have decades-long

friendships with climbers and have travelled to foreign countries, among these P47 (high-altitude porter and tour operator) has married a German climber. However, it was reported that the social connection has weakened at micro (local village) levels over the same period. Results show that roading infrastructure development resulted in reduced access to social capital (see Section 6.3.2), resulting in a deformed social structure, the loss of traditional knowledge and skills and the alienation from conventional ways of subsistence farming (see Section 6.3.2). With the decline in social capital and the introduction of a monetary economy, the sense of community cohesion is decreasing, and people are highly dependent on the market economy and imported consumer goods rather than a culture of sharing.

The major drawback of dependency upon the road and market economy affects the potential resilience of the communities in case of potential vulnerability. It is feared that the new generation is losing the cultural memory of traditional knowledge such as farming techniques, food preservation and storage and the conventional survival techniques, which may affect their long-term sustainability if Gilgit-Baltistan faces new externally created adjustments. Before the road people had the means to learn, preserve and protect traditional knowledge. The declining trend from subsistence farming suggests that traditional knowledge will be lost. Local historians and community leaders mentioned that they had experienced a loss in traditional medicine systems, traditional handicraft skills, carpentry, folk songs, and even languages are dying (P71, P70, PP76, P75, P72) (see Section 6.3.1 and 6.3.2). Furthermore, after getting a modern education, youngsters are no longer interested in farming activities, preferring office jobs that provide wages for products bought from the market (P77, P3). It can be argued that some of the traditional knowledge may have been replaced by modern knowledge such as modern medicine which may increase resilience.

It was observed that post-road household food storage habit and capacity decreased, meaning that the collective food storage quantity has also reduced. People believe that they can access the market and buy groceries at any time. It was observed that in urban centres people buy groceries on a daily/weekly basis as compared to rural areas where people buy groceries monthly. In the case of an unknown vulnerability people become less resilient as they believe that they can get humanitarian aid. The dependency is now on an external supply chain increasing vulnerability through reliability and additional external costs.

Another significant change that has occurred in social capital is behavioural change. People are more reliant on governments now. The typical example is subsidies on consumption items. People who were once self-sufficient now willingly giving away their self-control to external structure (e.g. central government). In doing so they are making themselves vulnerable and less resilient as they have no control over their food supply chain. Understanding the scale of frequency of road blockages due to both manmade and natural disasters, it is the responsibility of the government and the local communities to produce a contingency plan to decrease vulnerability and improve resilience both in the short-term and long-term. It is difficult to measure how resilient a community is until a shock occurs, but it is likely that the potential resilience of people has decreased at micro and macro levels. It was observed that, in case of disaster, people seek help from governments and non-government organisations first, instead of utilising their cultural memory and social capital. Pre-road, people used to plan and implement such projects locally and would use locally available resources to maintain the project in every household.

Local communities have diversified their sources of income and become innovative in transforming traditional livelihood activities. At micro levels, civil society organisations are working towards skill development programs, micro-businesses and greenhouses to provide local solutions to local problems. Such activities are regarded as a useful addition towards the potential long-term resilience. However, the increasing trend of dependency on external actors for facilitation/aid and dependence on foreign food sources is a crucial element which needs attention. At micro levels, the main decision for growing food locally seems to be because of difficult access to market and expensive transportation costs.

Since working in the service sector is becoming more common in Gilgit-Baltistan, some people are now heavily dependent on monetary economies and subsidised external (from Pakistan) food sources. The reason people are dependent on foreign food sources is that per household agriculture landholding has decreased, compared to early times (see Section 6.3.3). The land is now being used for houses, markets and cash crops such as potatoes and fruit (P1, P18, P3, P38, P70). The Karakoram Highway is the only all-weather route which connects Gilgit-Baltistan, and the population of Gilgit-Baltistan is heavily reliant on it for most consumer goods. Government and community organisation representatives argue that subsidies have diverted the majority of people from agriculture towards services or wage earnings (P8, P3).

Historically, people required very few financial assets as the society was dominated by cultural transactions such as word of mouth, handshakes, and barter trade. The institutional and financial assets have become substantial capitals, which now determine individual and community vulnerability and resilience status.

The Karakoram Highway is being termed the lifeline for Gilgit-Baltistan (P8, P37) (see Figure 20 below). Before the opening of Gilgit-Baltistan to the broader world, vulnerabilities were known, and people used to plan and implement contingency plans. Post-road there have been changes in other factors such as modern agriculture, demographics and social organisation, all of which have affected the sustainability of the people of Gilgit-Baltistan as a distinct and self-sufficient community. Every year Gilgit-Baltistan faces significant land sliding and is often cut-off from Pakistan. Because of extreme dependency on food supply sources, at times Gilgit-Baltistan faces food shortages. The government has not initiated any food storage facilities to combat this issue (P8, P6, P3). During fieldwork, I experience road blockages, and shortages of food supplies in Gilgit (three times) and Skardu (five times) times. People appear to complain about the situation and there is no concrete systems in place by the government not by the public to address mitigate such situations. Before road infrastructure there used to be concrete plans in place to reduce potential vulnerabilities. Participants argued that there is no long-term planning to make Gilgit-Baltistan sustainable for the healthy functioning and maintenance of socio-ecological systems and to address internal or external stress, shocks and adjustments. Part of the absence of long-term planning in Gilgit-Baltistan is because of the disputed status of Gilgit-Baltistan.



Figure 20 Word Map showing dependency on road infrastructure and potential vulnerabilities

With the improvement of road infrastructure and connection with the outside world, the sense of community at the macro and micro level has transformed. With the road network, the micro (local) communities of Gilgit-Baltistan have merged and have become part of a macro (divisional, regional, national and the global) community. This can be explained with the help of Figure 21 below.

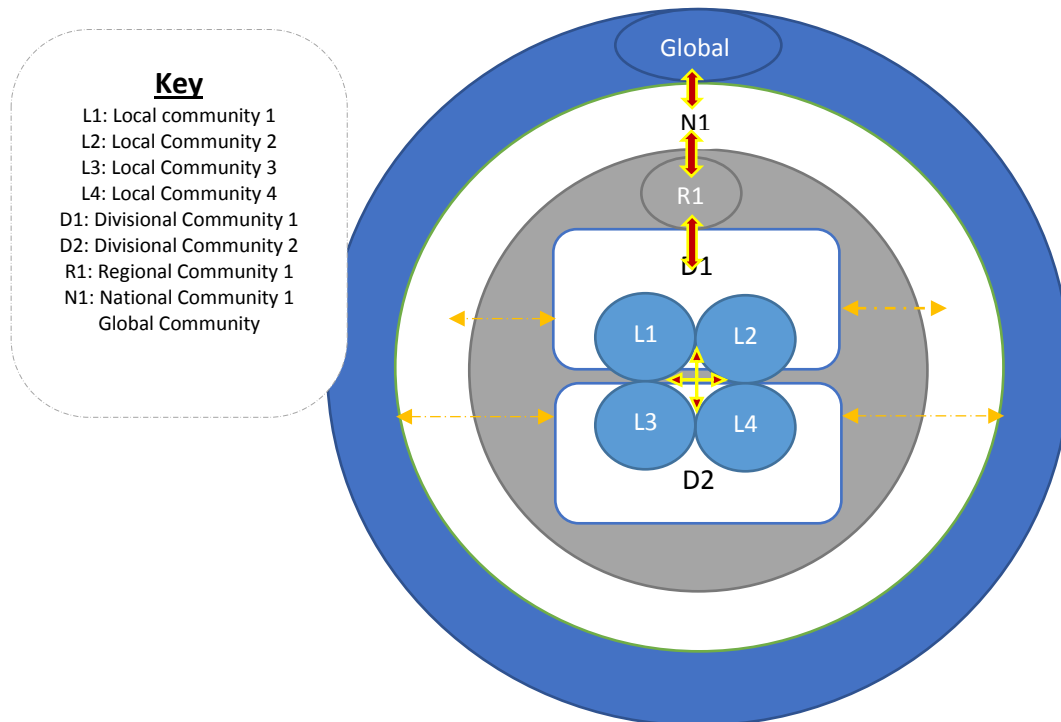


Figure 21 Stratification of communities at the micro (local) and macro (divisional, regional, national and global) levels

Before the road, communities of Gilgit-Baltistan at the micro (local) L1, L2, L3 and L4, were isolated and were unique and self-sufficient often with distinct languages or dialects. The roading infrastructure development has resulted in frequent, easy, cheap and fast mobility between these communities and they interact with each other. Communities have unique divisional identity. Gilgit (D1) and Baltistan (D2), have now merged into a broader community which is regional, i.e. Gilgit-Baltistan (R1). Distinct cultures, language, dress, music, etc. are blending with regional cultures, languages, dresses and music. There is also a broader community at the national (N1) and international (global) level. These communities are not just connected rather they are being influenced by one another at different levels, i.e. divisional, regional, national and international. In this context, macro communities (national and global) act as ‘Dominant Communities’ which are influencing regional, divisional and local communities as their isolated nature has been removed. This merging and conversion of cultures is termed as transculturation. The term was first coined in 1940 by a Cuban anthropologist (Ortiz & Fernández, 1995; Taylor, 1991). ‘Transculturation suggests a shifting or circulating patterns of cultural transference’ (Taylor, 1991, p. 93). In Gilgit-Baltistan, the inclusion of local (micro), divisional and regional communities (macro) with wider

communities has significantly impacted the indigenous cultures of Gilgit-Baltistan, which needs to be investigated in future research.

As discussed above, the livelihood capitals transformation has eventually impacted livelihood strategies, vulnerabilities, resilience and sustainability at every level (regional, divisional and local). This can be explained with the help of a conceptual framework (see Figure 22 below).

7.5 The Conceptual Framework

In order to get the overall picture of the consequences of transport infrastructure development on livelihood diversification strategies in a tourism context, it is crucial to organise various themes identified in this research. The relationship between multiple themes explained thus far can be described with the help of conceptual framework. The conceptual framework is useful in terms of scale and context of the research so that it can be applied elsewhere. The framework shows the relationship between various concepts and principles that holds together the core idea of the research.

The 'Livelihood Framework for Transport Infrastructure Development and Tourism' (Figure 22 below) provides insight to understand the complexity and multidimensionality of livelihood systems and tourism policy and planning. The framework is an adaptation of the model presented by Carney (1998). The framework discusses the status of livelihood capitals, vulnerabilities, resilience, sustainability and livelihood diversification strategies (activities) in the context of transport infrastructure development and tourism. The conceptual framework is set to understand the consequences of road infrastructure at a micro and macro level. The framework is designed to explain desired livelihood outcomes based on a micro-macro analysis of livelihood system. The conceptual framework can be used for tourism policy and planning, capturing the contribution of tourism to a sustainable livelihood.

The framework comprises of Institutional Arrangements, Livelihood Capitals (also includes location as meta capital), Vulnerability and Resilience Context, Livelihood Strategies and Livelihood Outcomes in a Tourism Context in relation to Transport Infrastructure Development. The elements of the framework are positioned based on the way they impact the livelihood system to ensure livelihood outcomes. The framework reads from left to right. The institutional arrangements are the crucial factor that impacted capitals, access and availability of capitals, vulnerabilities and resilience which, then, impact livelihood

activities/strategies to ensure livelihood outcomes. The framework shows the dynamic nature of sustainable livelihoods and the ability of communities to ensure sustainable livelihood outcomes.

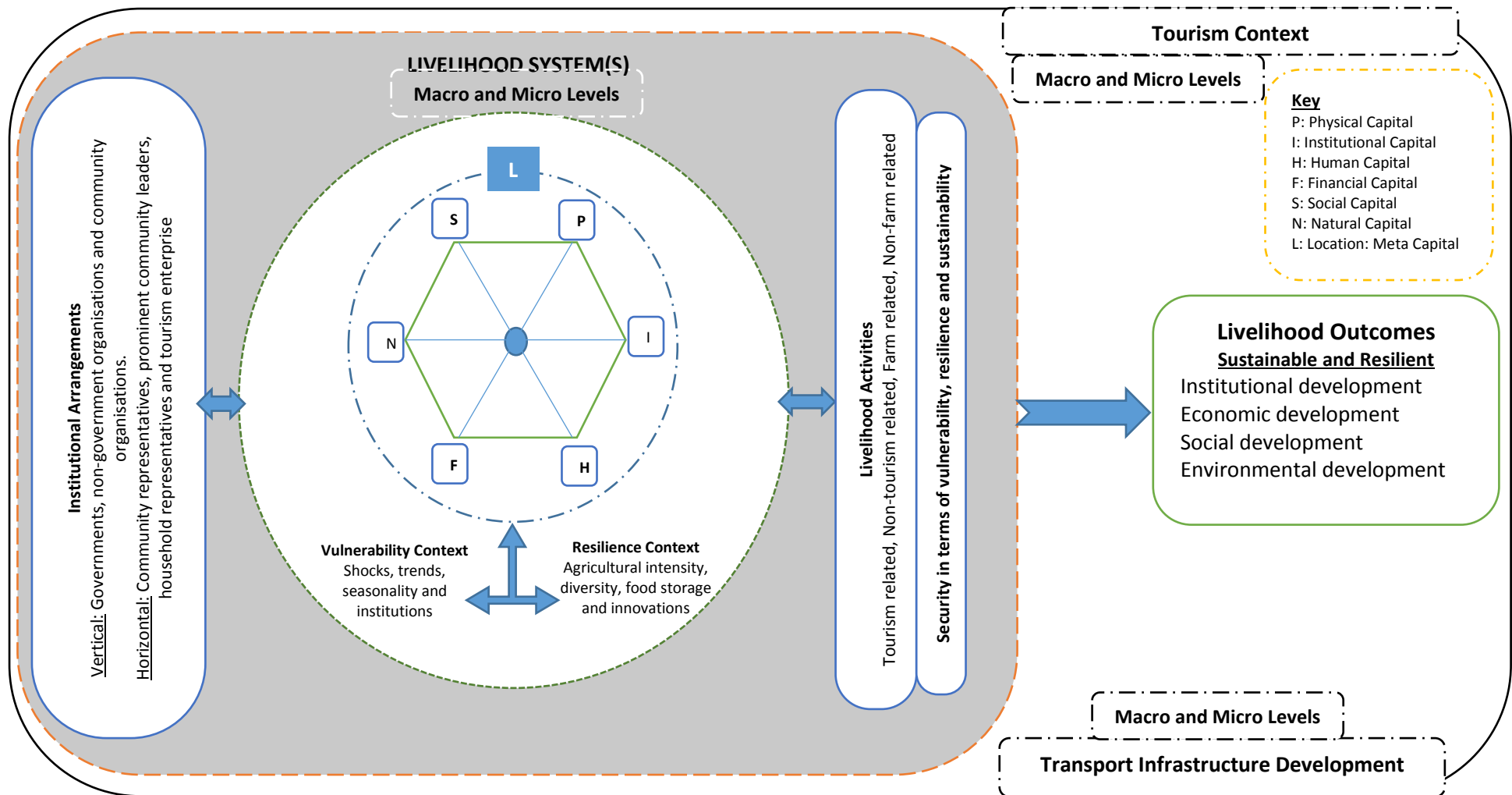


Figure 22 Livelihood Framework for Transport Infrastructure Development and Tourism (LF-TIDT): A case of Gilgit-Baltistan

7.5.1 Institutional Arrangements in Tourism Context

Institutional arrangements are required to coordinate and mobilise social actors at macro and micro levels to gain particular objectives (Torfing, 2012). Institutional arrangements are of two types, horizontal and vertical. '*Vertical*' organisations are defined as ones which have defined a chain of command and has a top-down structure, whereas '*horizontal*' organisations do not have defined a chain of command (Quain, 2018). For this research, vertical institutions constitute structured entities such as governments, non-government organisations and community organisations. Whereas, horizontal institutions represented entities such as community representatives, prominent community leaders, household representatives and tourism enterprises (see Figure 22 above).

Gilgit-Baltistan is a disputed state. In this regard, both national and international governments have a say in defining policies related to Gilgit-Baltistan's prospects. However, at the moment Gilgit-Baltistan is a de facto part of Pakistan, not de jure, and Pakistan laws are applied in Gilgit-Baltistan. It is argued that the tourism industry in Gilgit-Baltistan can be used to gain development goals such as poverty reduction, reduce food insecurity and increase well-being (Owen-Edmunds, 2013; Rana, 2014; World Bank, 2011). However, there has not been any significant improvement in terms of tourism development both in Pakistan and in Gilgit-Baltistan (Adnan Hye & Ali Khan, 2013; Rana, 2015; Rana, 2014). The first National Tourism Policy was drafted in 1990 and tourism was given the status of an industry with a promise to provide numerous benefits for people affiliated with the tourism industry. However, the policy never functioned fully (Rana, 2015). In 2006, provinces were given autonomy over the tourism industry. However, the Gilgit-Baltistan tourism industry remained in limbo as Gilgit-Baltistan is not the constitutional part of Pakistan nor eligible for the membership of National Finance Commission Award³⁷. Hence, Gilgit-Baltistan cannot generate revenues from the tourism industry. Income generations from Gilgit-Baltistan tourism industry, by the federal government, are not spent on tourism development of Gilgit-Baltistan. Gilgit-Baltistan government is dependent on a lump-sum budget to execute various development projects. Gilgit-Baltistan tourism policy is in the process of formation; the draft policy is under review (Rana, 2014) and has yet to be passed by the Gilgit-Baltistan Assembly at the time of writing this thesis. The absence of tourism policy may eventually affect the sustainability of the

³⁷ Planned economic programs in Pakistan which manages financial resources in the country.

tourism industry, resilience and vulnerabilities related to livelihood outcomes. According to Orozco (2015) “tourism policy is to guarantee and safeguard the effective standardisation of processes and practices within the respective tourism industry in which the policy is implemented. This standardisation fosters uniformity and consensus regarding practices which can result in increased sustainability and an overall improvement in the quality of the tourism product”.

At the micro-level, horizontal institutions have played a vital role in terms of creating awareness, access to education, provision of business and employment opportunities (cash crop, dry fruit and handicraft cottage industries), building networks and memberships, and above all connecting rural areas to main roads through numerous community participation projects (see Section 6.3.6 and 6.3.4). At local levels, many tourism enterprises and tourists have initiated several projects in Braldu, Basho and Hushe valleys. The most prominent contributors are the Felix Foundation and the Central Asia Institute. People, such as Greg Mortenson (author of ‘Three Cups of Tea’), who came as a tourist, have built dozens of schools in rural Gilgit-Baltistan and is providing scholarships and financial aid to numerous students and schools in the region (Mortenson & Relin, 2006). During fieldwork, I visited three schools, and it was reported that Greg Mortenson still provides financial support to those schools regularly. Moreover, various other tourism enterprises have built drinking water supply systems, power stations and a hotel to facilitate tourism in the region (see Section 6.3.3).

7.5.2 Livelihood Capitals

Livelihood capitals constitute of Human, Social, Natural, Physical, Financial and Institutional capitals (see Figure 22 above). Before the road, communities in Gilgit-Baltistan were isolated and they required limited capitals except for social and natural capital. Large amounts of social and natural capital were needed to counter known vulnerabilities. Since the road has increased the geographical area in which people can access and obtain resources widely meaning that the high levels of local social and natural capital are no longer required. Transport infrastructure development in Gilgit-Baltistan has altered the geographic area in which people could access various resources.

Since the road, the requirement of each capital available to people has increased significantly at both macro and micro levels. Before the road, capitals available at the macro (Baltistan and Gilgit-Baltistan) and micro (local and district) levels were similar. However, after the road, the

amount of each capital available at micro (Prono and Hushe) and macro levels (Gilgit-Baltistan) has changed.

As per the discussion above (see Section 7.2 and 7.4), livelihood capital transformation and strategies at macro and micro levels were subject to the geographical area in which people could access various capitals. In terms of potential access to resources, geographical area is crucial to ensure a sustainable livelihood. The geographic size of the place, the community and the society determined how resource allocation is seen at micro and macro levels. However, the size of the place becomes vital to determine the availability and access to resources at a given area and must be incorporated in reference to access and availability of resources. Based on the size of the place (macro or micro) livelihood capitals transformed differently in a specific given time, so as the livelihood diversification strategies. Hence, it is not just the access and availability of livelihood capitals that matter; rather it is crucial to incorporate the geographical areas/locations in which resources access, and availability is mitigated. This makes the consideration of geographic area/location into the livelihood capital pentagon very important. The geographic area is specified in terms of location, and the Sustainable Livelihood Framework has under-estimated the importance of location. Bilal and Rossi-Hansberg (2018) and Ma et al. (2018) have discussed location as a characteristic to generating high income, which is why people prefer to live in certain locations. Because of which one location is better than the other. However, I argue that a location is not just linked to generating high income rather a location has specific features based on its geographical area, geographic location and resources access and availability. Bilal and Rossi-Hansberg (2018) further argued that “location asset should not be confused with ‘an asset at a location” (p. 2).

The partition of the Indian subcontinent resulted in the closure of the traditional barter trade routes to Astore, Khaplu, Skardu and Gilgit, resulting in the shrinking of resources available. Places like Astor and Khaplu, which were once the centre of trade suddenly faced a resource deficit. This resulted in a change to livelihood capital formation. When the road infrastructure was developed people at the macro, and micro level felt connected with the rest of the world. Unlike partition, this time the geographical areas expanded as did the number of available resources. Places which were once isolated developed faster as compared to areas which became inaccessible due to partition and road closure (P23). Resources availability, use and

access changed at micro and macro levels and had a significant impact on resource transformation and sustainable livelihoods.

Because of easy access and the notion of maximum availability and access to resources, communities at the micro-levels are being pulled towards urban centres. Similarly, people now demand more resources at micro-levels. As discussed earlier in this chapter, some of the diversification strategies included migration from valleys to major towns such as Skardu (P73, P2, P28, P63, P97) while others reverted to agro-pastoral activities (P21). The diversification strategies resulted from the notion that Skardu was connected with the rest of the world by air and offered more resources to ensure a sustainable livelihood. Similarly, at the macro level, people of Gilgit-Baltistan are being pulled towards major cities in Pakistan where resources are believed to be in abundance, and people feel secure in terms of being connected with major cities. It is the road infrastructure which expands and shrinks the geographical area/location with the rest of the world. Hence, the inclusion of location is required in the framework to understand the capital transformation which triggers a variety of livelihood strategies at the micro and macro levels. Location can be regarded as a meta capital which incorporates all other capitals in the context of geographical area and perceived activities. In the context of this study location: meta capital can be defined as *characteristics embodied in a specific geographic location which warrants/demands distinct attention in terms of a variety of development activities that are location reliant and context-specific*. The location as meta capital integrates aspects of Social, Human, Natural, Physical, Financial and Institutional capital which are linked to geographical area/location.

Although the Sustainable Livelihood Framework does not have any hierarchy of livelihood capitals, in any given place, some capitals may be considered more critical than other capitals. This is because individual, household and community endowment regularly change based on access and availability of resources. Which is why people's preferences in acquiring livelihood capital changes. In a case study in India and Bangladesh, when people were asked to list capitals based on their priority list, they listed 'self-respect' (Social capital) first and 'income' (Financial capital) later (Chambers, 1986, 1995; Jodha, 1986). This shows that people's preferences vary in gaining access to livelihood capitals change. The discussion on 'livelihood status and security' pre-roading infrastructure and post-roading infrastructure development has altered the priorities of livelihood capitals. Once, Social and Natural capital was

considered vital to ensure a sustainable livelihood, but now it has lost that level of importance and has been replaced by physical and institutional capital.

For livelihood diversification strategies, Physical capital (road) is seen as very important to improve livelihood outcomes. The road has improved livelihood opportunities, and now, people are relatively outward-looking compared to the inward-looking perspective of the past. This is why physical capital has become crucial to sustaining livelihood as it ensures access to other capitals by expanding the geographical area/location. This shows that the local community prioritised one capital to be able to utilise other capitals fully. With the expansion of a geographic area, resources availability changes. The hexagon expands, but it cannot grow equally. After one capital is seen as being more important, another capital will then become more critical to achieving a regular heptagon. To achieve a sustainable state at a new level, the communities, now become outward-looking, looking for more opportunities. It has been argued in this thesis that the outward-looking behaviour of the people may have resulted in new forms of vulnerabilities. This could be in the form of increasing dependency on a monetary economy and imported consumer goods via a singular road, which is subject to manmade and natural disasters.

Another reason Physical capital such as infrastructure facilities is seen as the most critical livelihood capital is that physical infrastructure acted as a means by which other capitals such as Human and Financial capital can be enhanced. Social and Natural capital was seen as subsistence elements to contribute to livelihood opportunities and outcomes. Since person's reliance on Natural and Social capital has declined its contribution has moved further down the priority list. Participants of this research see Physical capital as crucial for livelihood outcomes, followed in order by Institutional, Human, Financial, Social and Natural capital.

7.5.3 Vulnerability and Resilience Context

As discussed above (see Section 7.2.2 and 7.4.2), mitigating vulnerability and building resilience are core to achieving a sustainable livelihood. Tourism-dependent communities often consider the tourism industry as a vulnerability due to the majority of the people became heavily dependent on tourism as livelihood source (Shen, 2009). Both external (shocks, stress and risks) and internal (lack of means to cope) will result in livelihood insecurities and make people defenceless (see Section 2.5.1). Vulnerabilities can be mitigated in terms of community resilience. Resilience empowers communities to absorb shocks and

stresses from both internal and external sources and reorganisation of the whole livelihood system (Bradtmöller et al., 2017; Redman, 2012). In the case of Gilgit-Baltistan, people at micro-level appear to be dependent on tourism and are likely to be vulnerable if they face any shocks, stresses, seasonality and change in the trend of the tourism market.

Similarly, both at macro and micro levels, people are dependent on external food sources, which makes them vulnerable and the road itself is vulnerable to manmade and natural disasters. The vulnerability can be mitigated by building the resilience of the social-ecological systems. The more resilient a social-ecological system is, the more resistant a livelihood system is as it can absorb significant disturbances (Walker et al., 2006). Resilience and vulnerability are an integral part of sustainable livelihood and must be included when reviewing a livelihood system as shown in Figure 22.

Before the road infrastructure development, vulnerabilities were known but remained within the geographical location. However, after the road, unexpected shocks have resulted in unreliable access to livelihood capitals that are within the broader geographic area. Some capitals were substituted to gain access to other capitals whereas the influence of Institutional capitals in mitigating vulnerabilities is yet to be tested. This can only occur when an unknown vulnerability is triggered. Unexpected shocks, such as the partition of Indian subcontinent, is a typical example which resulted in a sudden reduction in access to livelihood capitals and places like Baltistan lost access to many resources (see Section 5.2). The immediate decrease in the geographical area reduced available capitals. The road that expands and shrank the location appears to be vulnerable within itself. This puts the notion of livelihood sustainability at stake at the macro and micro levels. As most of the consumption items at micro and macro level are imported into Gilgit-Baltistan. The questions remain if institutional arrangements is to secure sustainable livelihood if an unknown livelihood shock is triggered.

7.5.4 Livelihood Activities

Livelihood activities are strategies to achieve desirable livelihood outcomes. People in a tourism destination rely on diverse and multiple livelihood activities (Shen, 2009). According to Shen (2009), livelihood activities can be divided into two categories, such as tourism-related and non-tourism related activities. Based on the discussion in section 7.4.2 and degree of involvement (direct and indirect), livelihood activities can be divided into four types:

tourism-related, non-tourism related, farm-related and non-farm related as shown in Figure 17 above. Tourism-related livelihood activities include; tour operator, guide, high altitude porter, low altitude porter, accommodation etc. Non-Tourism related activities include contractors, grocery stores, businesses (shopkeepers) etc. Farm-related activities include subsistence farming (both cereal and cash crops), and non-farm related activities include the government of non-government jobs and other skilled and unskilled employment. Since people desire diverse portfolios in a tourism destination, the livelihood activities overlap on each other depending on the availability and access to resources and employment opportunities.

7.5.5 Livelihood Outcomes in a Tourism Context

In the case of Gilgit-Baltistan, the immense diversification strategies in the recent decades show that the communities of Gilgit-Baltistan have not reached a point which would sustain a livelihood. Results suggest that the livelihood capitals transformed as the access to Gilgit-Baltistan were improved. Transport infrastructure development is an ongoing process in Gilgit-Baltistan including China Pakistan Economic Corridor project which is part of China's Belt and Road Initiative. Which is why the livelihood capitals are still in a transitioning phase as a response to externally created adjustments. Because of which livelihood strategies documented in this thesis are still in transition. Livelihood strategies adopted at present are risk minimising strategy in response to change in institutional arrangements rather than a long-term strategy to sustain a livelihood. The changing crop pattern from cereal to cash crop, cottage industry development, tourism enterprise development and working for porter welfare are typical examples. The changing access to resources has resulted in the frequent changing livelihood statuses. This reflects the insecurities of access to livelihood capitals and livelihood strategies in the long-run.

Gilgit-Baltistan has experienced numerous externally created adjustments (exogenous variables) such as colonialism, partition, regional political rivalries, change in regional political structure and power relationships with neighbouring countries (for details see Appendix A). Such externally created changes have opened or closed Gilgit-Baltistan to the world. Transport infrastructure (airport and road networks) resulted in significant changes in livelihood activities, regional demography, monetisation and consumerism. The opening up of Gilgit-Baltistan has ultimately affected livelihood activities and strategies. One of the

significant livelihood changes is related to the tourism industry. Communities of Gilgit-Baltistan, when isolated had developed strategies required to sustain themselves. The opening of these communities to the outside world and the introduction of tourism has resulted in a disturbance in the livelihood activities, and now they are developing new strategies for livelihoods. The degree of security/sustainability of livelihood outcomes is determined by the individual, family's or communities' access to livelihood capitals, which are fundamentally mediated by institutional, economic, social and environmental change as discussed below.

Institutional arrangements were the main reason behind the formation of roading infrastructure in Gilgit-Baltistan, the formation of Karakoram Highway and Gilgit-Skardu road was for trade and security purposes. However, the improved access to Gilgit-Baltistan has created awareness about rights and duties. The interaction with people from outside, especially tourists and the opening of schools and colleges by tourists, tourism enterprises and civil society organisations have helped in creating awareness about the disputed status of Gilgit-Baltistan. People of Gilgit-Baltistan are now well aware of participation in decision making and political rights. Print, electronic and social media were also creating awareness and helped to mobilise masses. Recent protests all over the Gilgit-Baltistan against the elimination of subsidies on wheat and Government Order 2018 are typical examples (see Chapter 3). It was observed that the mass mobilising of people all over Gilgit-Baltistan was possible because of the use of mobile phones, internet and social media such as Facebook. The mass mobilisation of people and protests against abolition of subsidy are a result of the monetary economy, as people are vulnerable and dependent on external food supply.

Transport infrastructure development provided a variety of economic opportunities at the macro (Gilgit-Baltistan) and micro (local) levels, which is why people diversified to tourism, non-tourism, farm and non-farm related livelihood activities. Compared to traditional livelihoods, tourism has encouraged cash economies. Numerous infrastructures were improved with the help of tourism enterprises and skill development. Education in Gilgit-Baltistan was improved and is being facilitated by tourism enterprises and tourists (see Section 6.3.1). Some negative impacts are that people are now reliant on market goods because of the introduction of a monetary economy. People are not focusing on traditional livelihood opportunities rather local subsistence economies have become monetised as noted

by Fisher (2000) in the case of Levuka, Fiji. Furthermore, because of the monetary economy, people have deviated from cereal crops to cash crops. There has been an improvement in access to financial capital, and now one can get financial support.

Social impacts of transport infrastructure development are more pronounced both at macro and micro levels. In some respects, there have been both positive and negative impacts on social capital. For instance, there has been an improvement in networking, connectedness, membership and affiliation at macro (regional and divisional) levels. People of Gilgit-Baltistan now feel socially included in the national and the international community (see Section 6.3.2). However, communities at the micro (local) levels are getting fragmented and are losing a sense of cohesion as a collective society. It appears that people are moving towards an individualistic society as they are losing the sense of community, relationships and trust. However, people are gaining financial benefits from tourism-related livelihood activities. In terms of gender development, tourism has been contributing well in creating awareness, education and motivating and providing scholarships for female students and building their skills such as handicrafts, food processing and building domestic enterprises such as dry fruit (especially apricot) sales. As discussed earlier, civil society organisations have played a vital role in this regard. Because of the efforts of tourism enterprises, a girl from Hushe valley is studying to be a doctor, and a girl from Braldu valley is completing her masters in the English language.

Transport infrastructure development has also impacted the natural environment of Gilgit-Baltistan. The natural environment, such as the landscape is the main tourist attraction in Gilgit-Baltistan. Tourism destinations in Gilgit-Baltistan are facing vulnerabilities such as pollution (solid waste), but the impacts are local (see Section 6.3.3). Due to improvement in roading infrastructure development, there has been an increase in deforestation, which is being seen as a significant concern at the macro levels. The lack of administrative management and corruption is one of the major causes of promoting such negative externalities. Flooding in every monsoon season is almost a routine in Gilgit-Baltistan. It was reported and observed that Glacier Lake Outburst Flooding has become a common phenomenon in Gilgit-Baltistan in the past decade. Formation of the Atabad Lake in 2010 and landslide and lake formation in the Ghizar district in July 2018 are typical examples (Nagri,

2018a). Gilgit-Baltistan also experiences earthquakes, and roads get often blocked unexpectedly.

7.6 Key Research Findings and Implications

The provision of road infrastructure has expanded the geographical area/location and the access and availability of resources. This has influenced and impacted the concept of community. Now, the communities influence one another at the micro (local/district levels) and macro levels (divisional and regional levels), and together they are being affected by the national and international levels. The Karakoram Highway has had impacts on livelihood capital and livelihood system at the micro and macro levels. Similarly, the China-Pakistan Economic Corridor, a part of China's Belt and Road Initiative, will have a significant impact on the livelihood of communities of the 69 countries who have signed the agreement.

Livelihood system(s) are being impacted upon by numerous other factors from within, e.g. vulnerabilities and resilience and external adjustments such as institutional arrangements, tourism and roading infrastructure development. All these elements influence one another, and sometimes one complements the other. In isolated communities, individual, family or community security can be made sustainable by utilising the strengths people have (cultural memory embodied in resilience) to reduce stress and shocks in case of any disaster (natural or man-made). In saying this, when the isolated nature of these communities is removed through external adjustments, it creates an imbalance in the social structure. When a sustainable livelihood system suffers an exogenous shock, such as the building of a major highway, livelihood capitals are altered. There are periods of uncertainty when livelihoods may not be sustainable due to the creation of new vulnerabilities or the destruction of previous strategies for resilience. New livelihood strategies for sustainability have to be developed, but this may take time.

Research findings suggest that sustainable livelihood cannot be understood without incorporating macro-micro analysis and without the emphasis on resilience. The 'Livelihood Framework for Transport Infrastructure Development and Tourism' (see Figure 17) presented in this research explains the broad and multiple development contexts to gain a holistic understanding of livelihood outcomes. The framework focuses on both micro and macro levels and incorporates resilience into livelihood system(s). The inclusion of location as a meta

capital is vital as it integrates all other livelihood capitals in the context of geographical area (macro and micro) and the livelihood activities which are location reliant and context-specific. This framework can be used elsewhere to carefully understand the impacts of institutional arrangement intervention at the macro and micro levels. The micro implications of external adjustments cannot be understood at the micro-levels without understanding the broader development context and vice versa. The model helps to understand and analyse the status of livelihood capitals and their transformation at the macro and micro levels. The relationship between the elements of the framework is complex, and it demands its application as a whole. Partial application of the model or elimination of any single component may not provide a holistic understanding of a situation. The behaviour, understanding and attitude of people change if factors within the framework change. The research acknowledges that livelihood is a complex phenomenon and communities hold diverse livelihood activities to generate a living.

7.7 Opportunities for Future Research

The impacts of institutional arrangements on Gilgit-Baltistan has both positive and negative impacts. Institutional interventions are positive in terms of creating an environment to exercise capabilities to adapt to change by offering ample access to resources. Whereas there are negative impacts such as creating stress, shocks and making people dependent upon imported consumer goods. This has impacted the inter-generational sustainability, which capitalised on the inherited capitals/assets such as skills, knowledge, culture, language, land or tool use transmitted from parents to their offspring's through family apprenticeship. The opportunities for learning from investing in modern education have enabled communities to embrace new skills at the cost of losing cultural memory. This highlights the need to investigate the impacts of mega-transport infrastructure development projects on isolated indigenous communities and their inter-generational sustainability. Studies must consider the effects at macro and micro levels on inter-generational inheritance in building resilience at the local levels.

The merging and conversion of various isolated communities within Gilgit-Baltistan, due to transport infrastructure development, has resulted in transculturation at the micro and macro levels. The social inclusion of isolated communities has resulted in ethnic-conversion of regional hubs, and the driving force has been transport infrastructure development. The

process of transculturation in the context of globalisation need thorough understanding, which has impacted the post-cultural identity crisis. The crisis has a multiplier effect which is reflected in terms of institutional and social change. There is need to understand the impacts of transculturation and its long-term impacts in reference to mega transport infrastructures development projects such as China Pakistan Economic Corridor and Belt and Road Initiative on indigenous communities.

In reference to the current study area, faith-based development organisations have played a vital role in influencing the social and political strata of Gilgit-Baltistan. It was reported that there has been an uneven distribution of development projects. Project implications were mainly based on religious and political affiliation and lacked proper planning. There is a need to investigate how such faith-based development organisations have impacted on community development and the sense of community in the long-run.

Finally, the removal of isolation nature and the introduction of a monetary economy resulted in the changing traditional diet of the people of Gilgit-Baltistan. Traditional organic food has been replaced with inorganic and cheap imported food items from Pakistan. It was reported that change in consumption patterns have affected life longevity and given rise to disease. There is need to study the consequences of the changing diet of indigenous communities about transport infrastructure development and monetary economies.

7.8 Concluding Statement

Transport infrastructure development has been subject to change everywhere and has influenced the lives and livelihood of communities by providing more accessible, faster and safer access and integrating isolated communities with the broader world. Communities, such as Gilgit-Baltistan, which were geographically isolated have experienced significant changes. As discussed above, the roading infrastructure development and tourism have resulted in the change in livelihood capitals which has ultimate impacts on tourism-related livelihood diversification strategies. The results have shown that there has been a profound (positive and negative) change in awareness, access, knowledge, skills, health, networking, trust, affiliation, culture, land-use, water, forest, infrastructure, financial resources and tourism market. The concept of livelihood is complex, but the strategic location and the resources of Gilgit-Baltistan have attracted many new stakeholders in the region making livelihood even

more complicated. The sustainable livelihood cannot be understood without incorporating macro-micro analysis, emphasis on resilience and the inclusion of location as a meta capital which integrates all livelihood capitals. The incorporation of resilience to ensure sustainable livelihood outcomes is crucial which can be strengthened by focusing on individual, family or community capabilities and cultural memory, traditions and belief systems.

The region of Gilgit-Baltistan plays a crucial role in international policy shifts through mega-projects such as Belt and Road Initiative and China Pakistan Economic Corridor. These global policy changes have a significant impact on the livelihood strategies of these mountain communities. The prime effect of road and tourism is seen as a shift from collective society towards an individualistic society. The opening of roading infrastructure in Gilgit-Baltistan has resulted in tourism and social inclusion at the macro levels while reducing the need for Social and Natural capitals micro-levels. Gilgit-Baltistan is in the transition from subsistent economy to a consumeristic society (Hussain et al., 2017) and monetised economy. Communities are diverse, and the behaviours and preferences change as access and availability of resources change. Gilgit-Baltistan is in the transition from nature and society base to monetary economy base; hence it is challenging to capture the livelihood status of the community within this moment in time as it is a continuum of change. The current study has investigated the consequences of transport infrastructure development in the tourism context, but the overall long-term impacts of mega-projects, such as the China Pakistan Economic Corridor, still need investigation.

Reliable physical mobility and access and availability of resources is crucial to ensure resilience and mitigate vulnerabilities at macro and micro levels. Physical mobility is fundamental to human well-being which provides access to resources and increases the capabilities by facilitating the flow of goods and services and providing livelihood opportunities. However, development interventions are beyond the control of local individuals, families and communities. Which is why policy and planning interventions are vital to mitigate the negative impacts and ensure the long-term sustainability of communities at grassroots level. It essential to understand the effects of road infrastructure development on livelihood at the micro level while aggregating and broadening analysis at the macro level.

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Chapter 9 List of Appendices

9.1 Appendix A: Governance of Gilgit-Baltistan: A Historical Context

Gilgit-Baltistan³⁸, formerly known as the Northern Areas (Abbas, 2009; Hussain & Ali, 2017; Kreutzmann, 2015) and the Gilgit Agency of British India (Leitner, 1893; Lorimer & Müller-Stellrecht, 1979; Sökefeld, 2005) is a disputed territory (as per United Nation Resolution 47 in 1948) between India and Pakistan (Abbas, 2009; Kreutzmann, 2005, 2015; Sökefeld, 2005). The region is currently being administered by Pakistan. The historical context is divided into pre-colonial (pre-1840), colonial (1840-1947) and post-partition (1947 to date).

Pre- Colonial Period

The strategic location of Gilgit-Baltistan made it a meeting place for traders and pilgrims, attracted emperors and conquerors from Central Asia and Persia such as Genghis Khan and Alexander III of Macedon (Alexander the Great). Numerous archaeological sites and monuments in Gilgit-Baltistan give evidence of these historical events (Dani, 2001; Khalid, 2006; Raza, 1996). Historically the region of Gilgit-Baltistan participated in various important Inner Asian trade routes through a variety of branches of Silk Routes, from the second century (B.C) to fourteenth century (A.C) (Richthofen, 1877). The trade route connected China (originated from Chang'an – now Xian) with the Roman Empire (Mediterranean). Gilgit-Baltistan played a vital role in providing trade links between the East (China) and the West (Roman Empire). One of the main arteries of ancient Silk Route passed through Gilgit-Baltistan and was used by Alexander the Great, Fa Hian (fourth century), Xian Zang (seventh century) and Marco Polo (thirteenth century) (Dani, 2001; Raza, 1996) as shown in Figure 23 below.

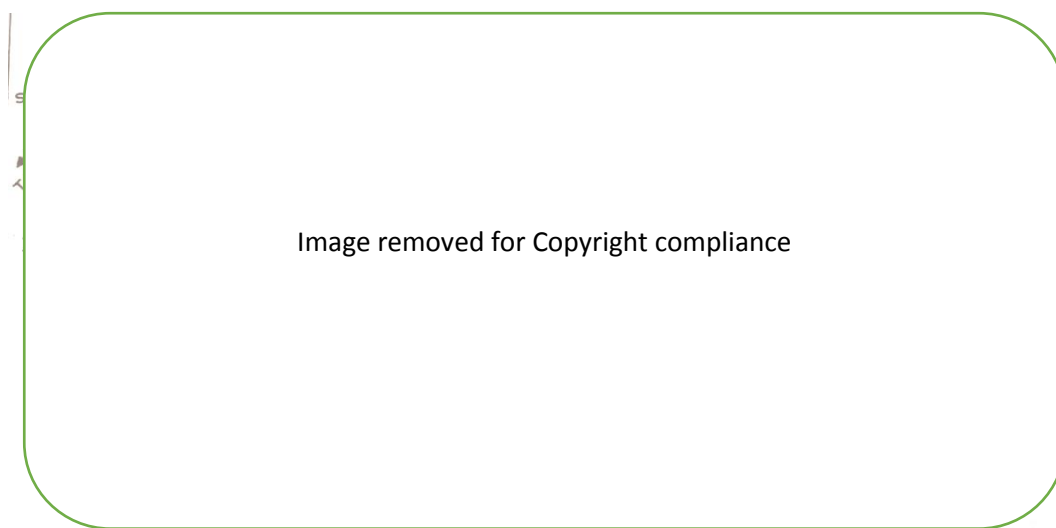


Figure 23 Ancient Silk Routes source: Raza (1996)

It can be seen from Figure 18 that the main route, which started in China, bifurcates into two main branches from Dunhuang (Gansu China) and runs westward. One route passed through Kashgar (Xinjiang China) and then on towards Bactria (a historical region that played a

³⁸ The traditional names, Gilgit-Baltistan were abolished in 1979 and was given a new name 'Northern Areas'. The original name was reinstated in 2009 (Hussain & Ali, 2017)

significant role in Central Asian politics – currently in Afghanistan, Tajikistan and Uzbekistan) and so on. The second routes pass through Khotan/Hotan (Xinjian China) towards Kashgar and also towards Gilgit and Chilas towards Taxila (Pakistan) and then on towards Bamiyan (Afghanistan).

It was these mountain passes over high mountain ranges of the Karakoram, Hindukush, Himalaya, Hindukush and Pamirs that acted as a gateway and flow of goods, ideologies, belief systems, culture and traditions from East to West and vice versa. Raza (1996, p. 37) argued that the Silk route ‘...was not merely a trading network that stretched from Spain to China. It also carried traffic of ideas, traditions and cultural components exchanged between eastern and western civilisations.’ It was these ancient cities such as Bokhara, Samarkand, Kashgar, Yarkand, Khotan, Kohkand, Aksu, Chilas and Gilgit which paved the pathway and connected East and West by providing staging posts along some of the roughest terrains and harshest conditions on earth. Arteries of Silk Routes connecting Eurasia and the Mediterranean also developed cultural relationships among people and states by offering contact and dialogue for mutual enrichment. Such cultural exchanges had a significant influence on the life, livelihood and belief systems (fire-worship, Buddhism and then Islam) (Dani, 2001).

Several trade routes passing through Gilgit (via various mountain passes) mentioned in numerous ancient catalogues (Raza, 1996). The comparative advantage of the mountain passes (Gilgit-Baltistan) increased when the two-thousand-year-old (16,000km long) network of the Silk Road was suppressed and replaced by sea routes in the 16th century; as the region of Gilgit-Baltistan helped to join the Silk route to sea routes (mainly the Arabian sea) along with connecting the Silk route with the spice route. For instance, the Zoji-La pass (11,570 feet above sea level), acted as a gateway for trade caravans. Invaders from Kashmir also entered through this pass and invaded Baltistan (Filippi, 1932). Trade caravans travelling between Kashmir, Tibet, Central Asia, Afghanistan and British India had to pass through seasonal mountain passes in Gilgit-Baltistan (Filippi, 1932).

The decay of Mughal power in the Indian subcontinent resulted in a growing nation (Sikhs) in Punjab. Ranjit Singh (Sikh hero), in collaboration with Europeans from the British East India Company, conquered Peshawar, which led to the conquest of Kashmir in 1819 (Filippi, 1932). Travellers to Kashmir during the Sikh domination found that the Sikh regime was cruel and predatory towards their subjects and the place was in a degraded condition. During this time, Gulab Singh Dogra (a noble and hereditary Raja of Jammu principality from Dogra Rajput family) conquered Ladakh and Baltistan with the help of General Zorawar Singh between 1835-1840 (Filippi, 1932).

The death of Ranjit Singh resulted in the Anglo-Sikh wars (1845-46 and 1848-49), and the British defeated the Sikhs. Gulab Singh Dogra was installed as Maharajah of the princely state of Jammu and Kashmir (the second largest princely state in British India) came under British suzerainty as a result of ‘Treaty of Amritsar’ was signed in return of the payment of 7,500,000 Nanak Shahi rupees (the ruling currency of the Sikh Empire) as war-indemnity along with annual tributes (Filippi, 1932; Rai, 2004; Treaty, 1846). The agreement resulted in many political reforms including: implementation of State Subject Rule to keep demography under control (and to discourage migration); imposition of land-tax (malia), opening of carriage road

(1890); and cottage industries such as silk-spinning, shawl-weaving and carpet knitting which was concentrated in Srinagar only (Filippi, 1932). Mughals emperors such as Shah Jahan and Aurangzeb loved the atmosphere of Srinagar and Kashmir, and it was their summer residence that they made into a place for personal rejuvenation (Filippi, 1932). However, after the establishment of Dogra dynasty, the development of a carriage road, and the development of cottage industries in Srinagar opened this whole region to European visitors and the trend of visiting this region became popular (Filippi, 1932).

Colonial Period

At first, the British Empire did not see any profit in the northern mountainous region (Gilgit-Baltistan). However, their policy changed when they came across rumours of the presence of Chinese and Russian spies in Gilgit-Baltistan. The British then established the Gilgit Agency (a political unit of British India) in 1877 and due to difficulty with transport and infrastructure they closed the agency until 1889 while they improved the foot track from Kashmir to Gilgit (Khalid, 2006; Raza, 1996). A British political agent and an assistant political agent to reside in Gilgit and Chilas, respectively (Arora, 1940). Gilgit Agency (see Figure 24 below) constituted of mainly Gilgit Wazarat and princely states of Nagar and Hunza, along with other political units such as Nagar, Chilas, Khu Ghuzar (Ghizer), Ishkoman, Yasin and Punial (Bangash, 2016; Dani, 2001; Lamb, 1991; Sökefeld, 2005; Trench, 1985).



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Figure 24 Gilgit Agency. Source: Trench (1985)

It is important to note that from the start the British, directly, administered the whole region of Gilgit-Baltistan since the establishment of Gilgit Agency, however, at times only Gilgit Wazarat and Skardu had been under the influence of Dogra regime in Kashmir. According to Sōkefeld (2005) “the dichotomy became blurred by intertwining histories of dominations [over various parts of Gilgit and Baltistan]: [however] until 1947 the area was subjected to British rule” (p. 940). This was also noted by Bangash (2010), Dani (2001) and Imtiaz-ul-Haque (2012). In 1935, for administrative reasons, ONLY Gilgit Wazarat was “leased to the government of India for a period of sixty years” (Bangash, 2010, p. 118). This argument was made clear in a letter from Colonel Fraser, who wrote in response (March 5, 1941) to Maharaja Sir Hari Singh about the decision of the Viceroy concerning Gilgit Agency. The letter states, “1) Hunza and Nagar: though these are under the suzerainty of the Kashmir State, they are not part of Kashmir but are separate states; 2) Chilas, Koh Ghizr [Ghizer], Ishkoman, and Yasin: Though these are under the suzerainty of Kashmir State they are not part of Kashmir but tribal areas” (Bangash, 2016). This was also noted by (Arora, 1940) “on the frontier of Ladakh and Gilgit, there are several chiefs of petty states, feudatory to His Highness the Maharaja of Kashmir. These states do not form a part of Kashmir state but acknowledge the

suzerainty of Kashmir and are under the direct charge of a Political officer of the Government of British India, residing at Gilgit” (p. 152). Bangash (2016) argued that the argument of the government of Pakistan to treat the whole Gilgit-Baltistan as part of ‘Gilgit Agency’ is not valid. Baltistan, on the other hand, was part of the princely state of Jammu and Kashmir (Arora, 1940) between 1840 and August 14, 1948 (Bangash, 2010; Dani, 2001). Baltistan and Ladakh were administered jointly under one Wazarat (district) that constitute of three tehsils, i.e. Skardu, Kargil and Leh (Arora, 1940).

In the nineteenth century, the region of Gilgit-Baltistan played a vital role in the Great Game between the rival colonial powers the Soviet Union (Russia) and Great Britain (Kreutzmann, 1991). It is important to note that, ‘the outbreak of the Second World War brought Gilgit Agency into focus, with the threat of Soviet intervention ominous once more. However, these fears were soon allayed by the German attack on the Soviet Union in 1941 which made Britain, and by extension British India, an ally of Stalinist Russia. By the end of December 1941, the British were also in alliance with the Chinese [against Japan], and hence all threats to the northern frontier seemed to have laid to rest for a while” (Bangash, 2010, p. 123).

The date of transfer of power of the partition of the Indian Subcontinent was finalised as of August 15, 1947, through Indian Independence Act of 1947, which allowed the formation of two independent dominions, i.e. India and Pakistan based on Hindu and Muslim majority respectively (Independence, 1947; Samanta, 2011). The decision resulted in the premature end of the sixty-year lease of Gilgit Wazarat (with 90 percent Muslim majority) was ‘given back’ to the Kashmir Darbar (Hindu ruler – Hari Singh) (Bangash, 2010; Brown, 1998b; Sökefeld, 2005). Brigadier Ghansara Singh was appointed and sent to Gilgit Wazarat as the governor.

At the time of partition, there were six hundred princely states³⁹, and they were “allowed either to remain independent or join India or Pakistan” (Samanta, 2011, p. 135). It was argued that the people of Gilgit were happy under British rule as it ended the atrocities of Dogra regime towards their Muslim subjects. The rebellion and accession of Gilgit with Pakistan also happened under the influence of British officers (the then commandant of Gilgit Scouts Major William Alexander Brown in Gilgit and Captain Jock Mathieson in Chilas respectively) (Bangash, 2010).

Post-Colonial Period

Partition of India subcontinent and formation of Pakistan and India on August 14th and 15th 1947 respectively gave birth to the freedom movements in Gilgit and Baltistan. It was argued that the “freedom struggle [was] not against the British, but against the rule of the Maharaja of Kashmir” (Sökefeld, 2005, p. 940). The decision of Maharaja of Kashmir to accede to India on October 27th, 1947 gave the impetus to the freedom movement in the region. Gilgit scouts rebelled against the Dogra regime because of their cruelty towards their Muslim subject in

³⁹ Native States with internal autonomy and they have accepted suzerainty of British Crown who control external affairs

Gilgit and Baltistan (Dani, 2001). Gilgit was liberated on November 1st, 1947 followed by the liberation of Baltistan on August 14th, 1948 (Dani, 2001; Sökefeld, 2005). Gilgit-Baltistan celebrates its freedom day which is November 1st (Sökefeld, 2005).

After the war of independence, followed by a cease-fire in 1948, Baltistan became a landlocked region as communication was cut off to the North because of the Karakoram mountain ranges (Arora, 1940) and from the South due to the formation of the Cease-Fire Line/Line of Control between India and Pakistan. "In this process of shifting territorial control, Baltistan was cut off from the rest of Ladakh, a territory with which it shared historical, economic, and cultural [ethnic] ties...[and] more importantly, from the adjacent areas of Kargil, with which connections had been even stronger...Later, in the aftermath of the 1971 Indian-Pakistan war, India also seized several villages in the Chorbat La region close to Khaplu" (Bouzas, 2017). Subsequently, Baltistan was linked to Gilgit with which it did not share much history, economy and culture (Bouzas, 2017; Dittman, 1996; Faggi & Ginestri, 1977). The partition of the Indian Subcontinent and the formation of the People's Republic of China (1948), affected the trade in Gilgit by closing ancient trade routes and the only route which remained open was from Chilas to Kaghan valley through Babusar pass (4,713 meters) which only remain open for three months of the year (Khalid, 2006).

9.2 Appendix B: Timeline of Political Transformation of Gilgit-Baltistan

| Important Dates | Administrative Details | Political Setup | Source |
|---|--|------------------------------|--|
| November 1, 1947 (Gilgit) and August 14, 1948 (Baltistan) | <ul style="list-style-type: none"> a. Independence of Gilgit-Baltistan from Dogra Raj b. Foundation of Republic of Gilgit-Baltistan | Frontier Crimes Regulation & | (Bangash, 2010; Dani, 2001; Hussain & Ali, 2017). |
| November 16, 1947 | <ul style="list-style-type: none"> a. The annexation of Gilgit-Baltistan with Pakistan b. Appointment of the political agent by Pakistan to run Gilgit-Baltistan. The political agent from Pakistan used to reside in Gilgit | State Subject Rule | |
| 1950 | <ul style="list-style-type: none"> a. Administrative responsibilities transferred to Ministry of Kashmir | | |
| 1967 | <ul style="list-style-type: none"> a. Resident in Northern Areas was created to administration and judiciary | | |
| 1968-1974 | <ul style="list-style-type: none"> a. Creation of Gilgit and Baltistan Advisory Council (1968) b. Gilgit-Baltistan was divided into two divisions, i.e. resident of Gilgit and resident of Baltistan was created | | (Dani, 2001; Hussain & Ali, 2017; Kreutzmann, 1991). |
| 1971-72 | <ul style="list-style-type: none"> a. Conversion of Gilgit and Baltistan agencies into districts (1971) b. Abolition of Frontier Crimes Regulation and State Subject Rule (the law which protected the local demographic composition of the region) (1972) c. Abolition of remaining princely states and subsequently ended Rajagiri Nazam (1972) d. Subsidies were introduced on essential items such as flour (wheat), kerosene oil, sugar, powder milk etc | | (Dani, 2001; Hussain & Ali, 2017; Kreutzmann, 1991). |
| 1974-1979 | <ul style="list-style-type: none"> a. Creation of Diامر district (1974) b. The traditional names, Gilgit-Baltistan was abolished, and the area was given a new name Northern Areas c. Gilgit and Baltistan Advisory Council was upgraded to 'Northern Areas Advisory Council' which constituted of sixteen elected representatives from Northern Areas, and local elections were held on the basis adult franchise d. Ghizer and Ghanche districts were annulled | Direct Federal Rule | (Dani, 2001; Hussain & Ali, 2017) |
| 1980 | <ul style="list-style-type: none"> a. In early 1980s Deputy Commissioner administrative setup was introduced in each district, to ensure administrative authority at the district level | | (Dani, 2001) |
| 1988 | <ul style="list-style-type: none"> a. The re-creation of Ghizer and Ghanche districts | | |

| | | | |
|-------------------|---|--|---|
| 1994 | a. Party based elections were introduced through the Legal Framework Order | | (Dani, 2001; |
| 1999 | a. Creation of Northern Areas Legislative Council which includes the post of speaker and increased special seat form women from 2 to 5 | | Hussain & Ali, 2017) |
| 2004 | a. Creation of Northern Areas Legislative Assembly with legislative powers (on 49 subjects – reduced women seats from 5 to 3 and introduced 5 technocrat seats) | | (Hussain & Ali, 2017) |
| September 9, 2009 | <ul style="list-style-type: none"> a. Gilgit-Baltistan (Empowerment and Self-Governance) Order, 2009 was introduced b. The name ‘Northern Areas’ was replaced with its traditional name ‘Gilgit-Baltistan.’ c. The office of Chief Minister and Governor was introduced d. The legislative assembly seats constitute 33 members (24 elected, 6 reserved for women, 3 reserved for technocrats) and the assembly would be able to legislate on 61 subjects e. Gilgit-Baltistan Council was also introduced, headed by Prime Minister of Pakistan as Chairman, which constitutes of 12 members (6 elected by Gilgit-Baltistan Legislative Assembly and 6 to be appointed by Prime Minister of Pakistan) headed by the Prime Minister of Pakistan. f. Introduction of Gilgit-Baltistan Rules of Business, Gilgit-Baltistan System of Financial Control and Budgeting Rules | | (GBESG, 2009; Hussain & Ali, 2017; World Bank, 2011) |
| 2016 | a. Formation of reform committee for Gilgit-Baltistan to recommend political reforms | | (Mir, 2016) |
| 2018 | a. The imposition of Gilgit-Baltistan Order 2018 | | (GoP, 2018b; Mir, 2018; Nagri, 2018b; Rehman, 2018; Times, 2018a) |
| 2019 | a. Formation of four new districts | | (Radio, 2019) |

9.3 Appendix C: Interview Cancellations and the Reasons

| <u>Interview Cancellations</u> | | | |
|--|---|--------|--------------------------------------|
| Reason | Details | Number | Where |
| Protests (Anti-tax movement) | I experienced a lot of protests in various parts of Gilgit-Baltistan during fieldwork. Protests were mainly regarding the imposition of taxes, constitutional status of Gilgit-Baltistan and allocation of barren lands to Army and other paramilitary groups on and along Karakoram Highway and Gilgit-Skardu road. Locals had reservations about government plan(s) to divide Gilgit-Baltistan. China had asked the government of Pakistan to declare the legal status of Gilgit-Baltistan before they start working on the Pak-China Economic Corridor. Locals think that government wants to divide Gilgit-Baltistan. The government has also imposed income and withholding taxes in Gilgit-Baltistan. Various segments of civil society were protesting in different parts of Gilgit-Baltistan during my fieldwork. Their demand was/is 'No taxation without representation'. | 5 | Gilgit (2), Skardu (3) |
| Road Blockage | Road blockage due to manmade and natural disasters was one of the causes to get interviews cancelled. Mostly interviews were cancelled by research participant as the participant could not make it interview venue. | 3 | Askole (2), Hushe (1) |
| Feeling insecure/lack of trust/not aware of research processes | Some respondents were feeling insecure as they think that participating in research may cause trouble for them and their families and they cannot trust a stranger. Usually they would say 'we will get in trouble as we live here'. Some fear that the information provided would be given to security agencies. | 3 | Skardu (1), Khaplu (1), Prono (1) |
| Sectarian division, favouritism and narrowmindedness | Sectarianism in Gilgit-Baltistan is a distinct phenomenon. Some participants only wanted to give an interview to someone from their community (religious sect) and did not want to share their ideas with others. At first the respondent will agree to participate, and then they will interview me first, and then they would say no and make excuses. I experienced this with one particular community (sect) on many occasions. This very community seems to be dominating tourism industry in the whole Gilgit-Baltistan. | 4 | Skardu (2), Hunza (1), Islamabad (1) |
| Not available/No show | Some participants were not available for interview as they were going somewhere or busy with other stuff. Some participants will give you time and did not show up. Once followed, they would have lots of excuses. | 2 | Gilgit (1), Skardu (1) |

9.4 Appendix D: Challenges Faced During Fieldwork and Key Strategies

| Challenges and Key Strategies | |
|---|---|
| Challenges | Strategies |
| Finding key informant(s) | Despite of excellent preparation for the fieldwork, being fluent in most of the local languages finding a key informant in the fieldwork was a big challenge and selecting respective study villages at local level due to geographic isolation and difficulty in reaching them because of severe cold (negative fifteen-degree centigrade), snowfall and frosts. I found the solution to hiring an experienced local driver. The driver (AH) I found was a government employee, and I used my contacts to borrow him for few days and recruited him for the research purposes. AH guided me throughout my stay in Khaplu and took me to remote tourist destinations. He was local and fluent in both Urdu and Balti. I also recruited him as my translator for some of my work in Khaplu. Through his connections, I met a local mountaineer and high-altitude porter MT. I became friends with MT, and he accompanied me during my several important field visits and helped me in selecting my case study villages in Khaplu and Shigar. Local connections were built gradually like a snowball, and within two weeks, I had chosen my case study villages. I think meeting the right contact person is significant which saved a lot of time and resources. |
| Coping with cultural differences | During any ethnographic research, local culture holds a significant place. Even though I was from the same area there were cultural differences within Gilgit-Baltistan. The most significant barrier for me was language. Although I was fluent in many local languages, I had to use the help of a translator where people could only speak Balti language. |
| Making connections and building friendships | My ability to adjust to a new environment and making new friends helped me in building connections. In a few visits, I was able to make friends who could offer me to stay at their place. I took this as an opportunity and stayed with families most of the time during my field visits to my case study villages. This has helped me in getting a good understanding of social structure. I was amazed to see the difference between various communities in the same valley. The connections I built during my stay in the community assisted me in shortlisting potential research participants which saved a lot of time and resources. I stayed as paying guest in various places. Furthermore, culturally it is considered inappropriate to pay someone money/cash when you stay at someone's house. I used to pay in multiple other forms such as buying groceries, gifts for children etc. |
| Participation in community activities | Winter is considered to be the quietest time of the year. I notice two major activities in winter which are; clearing the snow off the road(s) and sunbathing. Every village had a central meeting point, and people would gather there and chat about politics, religion, agriculture, livestock and tourism etc. I used to go to many of such activities when I got time. Such meetings have helped me to identify potential participants and verify some of my findings. As a guest, I was always welcomed to those meetings. Sometimes they will ask a question(s) about where I have been and about my research topic. |

9.5 Appendix E: Thematic grouping to extract interview questions

| <u>Interview Code:</u> | <u>Checklist</u> |
|---------------------------|--|
| Livelihood systems | |
| 1 | Various job opportunities |
| 2 | Traditional ways of making a living |
| Livelihood assets | |
| 1 | Impacts of tourism on a range of ways of making a living |
| a. | Natural capital e.g. Land, Water, Forests etc Infrastructure: Roads, irrigation, channels etc. and producer goods: Tools, machines |
| b. | Physical capital |
| c. | Economic capital Financial resources: Cash bank deposits, assets, pensions and remittances |
| d. | Human capital Skills, knowledge, good health, labour |
| e. | Social capital Social networking, group memberships, the relationship of trust, reciprocity and exchange People access to the tourism market, tourism benefits sharing, participation in |
| f. | Institutional capital Policy-making and political decisions |
| g. | Attraction capital Resources used to attract tourists i.e. Natural, cultural, social and other |
| Activities | |
| 1 | Means of making a living |
| a. | Related to tourism Non-tourism |
| b. | related |
| c. | Farm related |
| d. | Mom-farm related |
| Vulnerabilities | |
| 1 | Related to assets |
| a. | Natural capital e.g. Land, Water, Forests etc Infrastructure: Roads, irrigation, channels etc. and producer goods: Tools, machines |
| b. | Physical capital |
| c. | Economic capital Financial resources: Cash bank deposits, assets, pensions and remittances |
| d. | Human capital Skills, knowledge, good health, labour |
| e. | Social capital Social networking, group memberships, the relationship of trust, reciprocity and exchange People access to the tourism market, tourism benefits sharing, participation in |
| f. | Institutional capital Policy-making and political decisions |
| g. | Attraction capital Resources used to attract tourists i.e. Natural, cultural, social and other |
| 2 | Challenges related to means of making a living |
| a. | Geopolitics |
| b. | Natural disasters |
| c. | Trends |
| d. | Shocks |
| e. | Seasonality |

- f. Formal and informal institutions

Institutional arrangements

- 1 Type of job opportunities promoted
- 2 Job creation policies in Gilgit-Baltistan
- 3 Tourism in region
- 4 How tourism is being utilised in creating jobs
- 5 Role of government in promoting tourism
- 6 Role of non-government organisation in promoting tourism
- 7 Policies related to tourism development in the region
- 8 Does government encourage public participation
 - a. Related to tourism
 - b. Related to infrastructural development
- 9 Policies related to infrastructural development
- 10 Policies related to transport infrastructural development

Transport infrastructural development

- 1 Importance of fundamental facilities such as roads etc
- 2 How road facilities have changed the means of ways of making a living
- 3 In what ways roads has affected traditional ways of living
- 4 Why road was built
- 5 How important roads (Karakoram Highway) is to promote tourism

Tourism context

- 1 How tourism has created range of ways of making a living
- 2 How tourism has affected traditional livelihood systems
- 3 Who is a tourist?
- 4 Why do tourists come here?

Livelihood diversification strategies

- 1 Agricultural
 - Capital investment, labour, investment in new technology
- 2 Diversification
 - a. Natural resource base
 - a. Farm income (e.g. Crop, livestock, fruits)
 - b. Off-farm income
 - a) Labour, payment within agriculture
 - b) Local environment e.g. Firewood



- b. Non-natural resource base
 - c) Non-farm e.g. Weaving, handicrafts
 - Non-rural wage
 - a. Rural trade
 - b. Rural services
 - c. House rent
 - d. Urban and international remittances
 - e. Retirement pensions
- 3 Migration
 - a. Labour migration
 - Temporary
 - b. displacement

9.6 Appendix F: Conceivable Questions for the interview(s)

| Candidate Profile | | Interview Code: |
|---|---|------------------------|
| Name: | | Date: |
| Organisation: | | Consent type: |
| Address: | | Interview start: |
| Phone: | | Interview ends: |
| Email: | | Duration: |
| Possible prompt questions (In English) | | (In Urdu) |
| Introduction | | |
| 1 | Could you please introduce yourself? | |
| 2 | Where were you born, and where do you live? | |
| 3 | What do you do for living? | |
| 4 | Tell me about the job you are in? | |
| 5 | Tell me something about tourism in your area? | |
| 6 | In what ways you are involved in tourism? | |
| 7 | What is your ideal job to make a living? | |
| Livelihood systems | | |
| 1 | Various opportunities available to make a living? | |
| 2 | Highlight traditional ways of means of making a living? | |
| Livelihood assets | | |
| 1 | In what ways tourism has influenced on a range of ways of making a living? | |
| Institutional arrangements | | |
| 1 | How does government create jobs in the region? | |
| 2 | Is there any job creation policy at the regional level? | |
| 3 | How tourism-related jobs are created in the region? | |
| 4 | How government organisations promote tourism? | |
| 5 | How non-government organisations promote tourism? | |
| 6 | Does government promote public participation? | |
| 7 | How public participation is promoted related to tourism? | |
| 8 | How public participation is promoted related to transport infrastructural development? | |
| Vulnerabilities | | |
| 1 | How geopolitical situation of the region effects/influences ways of means of making a living? | |
| 2 | How the seasonality of tourism industry effects means of making a living? | |
| 3 | How institutions (formal and informal) effect means of making a living? | |
| 4 | Are there any conflicts related to the range of ways of making a living? | |
| Activities | | |
| 1 | What are the basic means of making a living related to tourism? | |

- 2 What are the basic means of making a living non-related to tourism?
- 3 What are the basic means of making a living related to farm?
- 4 What are the basic means of making a living not related to farm?

Transport infrastructure

- 1 How important fundamental facilities, such as roads, are to make a living?
- 2 How road facilities have changed the means of making a living?
- 3 In what ways fundamental facilities, such as roads, have affected traditional ways of living?
- 4 Why roads were built?
- 5 How important roads are to promote tourism?

Tourism context

- 1 How tourism has created a range of ways of making a living?
- 2 How tourism has affected traditional livelihood systems?
- 3 Who is a tourist?
- 4 Why tourists come here?

Livelihood diversification strategies

- 1 What are the range of means of making a living related to agriculture?
- 2 What are the range of means of making a living not related to agriculture?
- 3 What type of off-farm income sources are there?
- 4 What are the range of means of making a living related to tourism?
- 5 What are the range of means of making a living not related to tourism?

Other questions

- 1 Why tourism is important for Gilgit-Baltistan?
- 2 Can Gilgit-Baltistan survive without tourism?
- 3 What if there is no tourism in Gilgit-Baltistan?
- 4 How important fundamental facilities are to make a living?
- 5 What would have happened if Karakoram Highway (KKH) was not built?
- 6 Why Karakoram Highway (KKH) is important for tourism?
- 7 Why Karakoram Highway (KKH) is important to make a living?
- 8 What are the challenges faced by tourism enterprise?
- 9 In what ways tourism resources, i.e. mountains, meadows, etc, are being utilised?
- 10 How traditional means of making a living are affected by tourism?
- 11 How traditional means of making a living are affected by growth in transport infrastructure?

Sample

NGO

LULLOAGON

| | |
|-------------------------|-----------------------------------|
| Personal Profile | Interview Code: Feb 28, 18 |
| Name: [Redacted] | Date: [Redacted] |
| Age: [Redacted] | Consent type: [Redacted] |
| Address: [Redacted] | Interview start: [Redacted] |
| Phone: [Redacted] | Interview end: [Redacted] |
| Email: [Redacted] | Duration: [Redacted] |

AAAA

Introduction

1. Does your phone introduce you?
2. Where were you born and where do you live?
3. What do you do for living?
4. Tell me about the job you are in?
5. Tell me something about tourism in your area?
6. In what ways you are involved in tourism?
7. What is your ideal job to make a living?

Localhood systems

1. What opportunities have you to make a living?
2. How do you make a living?

Localhood assets

1. In what ways tourism has influenced a range of ways of making a living?

Institutional arrangements

1. How does government manage tourism in the region?
2. Is there any job creation policy at regional level?
3. How tourism related jobs are created in the region?
4. How government organizations promote tourism?
5. How non-government organizations promote tourism?
6. Does government promote public participation?
7. How public participation is promoted related to tourism?
8. How public participation is promoted related to transport infrastructure development?

Vulnerability

1. How geographical location of the region affects the effects of tourism ways of making a living?
2. How vulnerability of tourism industry affects ways of making a living?
3. How vulnerability of tourism industry affects other means of making a living?
4. Are there any conflicts related to range of ways of making a living?

Activities

1. What are the basic means of making a living related to tourism?
2. What are the basic means of making a living non-related to tourism?
3. What are the basic means of making a living related to tourism?
4. What are the basic means of making a living non-related to tourism?

Transport infrastructure

1. How your grand parents used to travel?
2. How you used to travel in the past before now?
3. How your living conditions travel now?
4. What happens when the road is closed?
5. How important to recreational facilities, such as roads, are to make a living?
6. How recreation facilities are developed in the area of making a living?
7. In what ways recreational facilities, such as roads, have affected traditional ways of living?
8. Why roads were built?
9. How roads were built?
10. How roads were built?
11. How roads were built?
12. How roads were built?

Tourism patterns

1. What type of people come to your area?
2. How tourism has created range of ways of making a living?
3. How tourism has affected traditional livelihood systems?
4. Who are tourists?
5. Why tourists come here?

Localhood development strategies

1. What type of jobs people have? What is the main source of income?
2. Why people have different jobs?
3. How people grow vegetables to make a living?
4. Do you grow vegetables at home? Did you grow vegetables to make a living?
5. What else do you grow? How enough for your family?
6. Where do you grow vegetables? How?
7. What else do you grow? How enough for your family?
8. What are the range of means of making a living related to agriculture?
9. What are the range of means of making a living non-related to agriculture?
10. What are the range of means of making a living related to tourism?
11. What are the range of means of making a living non-related to tourism?

Other questions

1. Why tourism is important to GAGB?
2. Can GAGB be an answer to the tourism?
3. What if there is no tourism in GAGB?
4. How important fundamental to be there to make a living?
5. What would have happened if GAGB was not built?
6. Why GAGB is important to make a living?
7. Why GAGB is important to make a living?
8. What are the challenges faced by tourism operators?
9. In what way tourism resources, i.e. mountains, mountains, etc. are being affected?
10. How traditional means of making a living are affected by tourism?
11. How traditional means of making a living are affected by tourism?
12. What type of tourism people use to visit in the past? How about now?
13. How land is divided among the people?
14. How land is divided among the people?

Read + we've
Tourist + we've

- khotpa care - ①
- why porters - ?
- Porters protect - ?
- Porter communication
- Porter weight
- Stages
- Retirement
- Adventure
- welcoming
- trickle down effects of tourism

Safety
Prof Kent MacDonald
Mountain welfare Org
Gordogor la
High Altitude Sustainability
Trust

⊕ Roads
⊕ Mountaineering institutes in Pk
⊕ Porters indirect hitting of porters
⊕ Professionalism - Guide/tour operators
⊕ Why people have two jobs/seasonality
⊕ Resources
⊕ More tourists - ① we've
⊕ Educate tourists
⊕ International trends airport
⊕ Security issues
⊕ Tourism policy (GR)
⊕ Access +ve
⊕ Political status of GR/Year

9.7 Appendix G: Research Information Sheet (English and Urdu)

Research Information Sheet [English]

*PhD Research
Department of Tourism, Sport and Society
Faculty of Environment, Society, and Design
Lincoln University New Zealand*

You are invited to participate as a subject in a project entitled: ***Infrastructural development, tourism and livelihood diversification in Gilgit-Baltistan***

The aim of this project is:

To analyse the impacts of road networks on means of making a living in tourism context.

Your participation in this project will involve:

You will be interviewed about the consequences of road networks on means of making a living. I am interested in your opinions, experiences of, and general outlook about the growth of basic amenities on various means of making a living. The interview will take between 45 to 60 minutes. Interviews will be conducted face-to-face at a time and location convenient to you.

If you are willing to participate in this research I need your consent. If you wish you can sign the attached consent form and return it to me. However a verbal consent will also be considered. Ideally the interview will be recorded using a digital voice recording device with your consent. Please tick the box in the consent form if you agree to the use of voice recording device. If you are not comfortable with it, handwritten notes will be taken instead.

There are no right or wrong answers and you have the right to stop or leave the interview at any time, for any reason and the data provided will be discarded.

The results of the project may be published in the form of a thesis, research articles or report, but you may be assured of your anonymity in those publications. The identity of any participant will not be made public, or made known to any person other than the researcher, his supervisors and the Human Ethics Committee in the event of an audit. To ensure anonymity and confidentiality the following steps will be taken:

- *Names and contact details will not be used as a part of data dissemination.*
- *Pseudonyms or code names will be used in any written or oral presentation.*
- *No individual identifying information will be presented in public.*

*Your participation in this research is voluntary. You may withdraw your participation and the information you have provided for the research by informing me prior to **(Date: _____)** by telephone or email.*

It is possible that I will seek a follow-up interview if new questions arise as part of my fieldwork. Please tick the box in the consent form if you are willing for me to contact you about a follow-up interview.

If you wish to know more about the project or have any questions, you are most welcome to contact me or my supervisors at any time. The project has been reviewed and approved by the Lincoln University Human Ethics Committee.

The project is being carried out by:

Asif Hussain: PhD Candidate

Email: Asif.Hussain@lincolnuni.ac.nz Cell phone: +92 311 44 88 456, +64 22 098 5812

Supervisor: Dr. David Fisher, Senior Lecturer in Tourism, Faculty of Environment, Society and Design, Lincoln University - Email: David.Fisher@lincoln.ac.nz Telephone: +64 3 423 0485

Associate Supervisor: Dr. Stephen Espiner, Senior Lecturer in Parks Recreation and Tourism, Faculty of Environment, Society and Design, Lincoln University - Email: Stephen.Espiner@lincoln.ac.nz Telephone: +64 3 423 0485

Advisor: Dr. Tracy Berno, Senior Lecturer in Gastronomy, Auckland University of Technology
Email: Tracy.Berno@aut.ac.nz Telephone: +64 9 921 9999 ext 5289

* The project has been reviewed and approved by the Lincoln University Human Ethics Committee.

Research Information Sheet [Urdu]

معلوماتی پرچہ برائے تحقیق

PhD Research
Department of Tourism, Sports and Society
Faculty of Environment, Society, and Design
Lincoln University New Zealand

آپکو اس منصوبے میں ایک شریک کے طور پر حصہ لینے کے لیے مدعو کیا جاتا ہے۔

منصوبے کا نام: گلگت بلتستان میں بنیادی ڈھانچے کی ترقی، سیاحت اور زریعہ معاش کی مختلف حکمت عملیوں کا تجزیہ

منصوبے کا مقصد: سڑکوں کے نیٹ ورک کا زریعہ معاش کی مختلف حکمت عملیوں پر اثرات - سیاحت کے تناظر میں۔

اس سلسلے میں آپکی شرکت مشتمل ہوگی:

اس سلسلے میں آپ سے سڑکوں کے نیٹ ورک کا زریعہ معاش کی حکمت عملیوں پر اثرات کے بارے میں پوچھا جائے گا۔ اس سلسلے میں آپ سے ترقی کی ظاہری خدوخال کے بارے میں آپکی رائے جانی جائے گی۔ انٹرویو کا دورانیہ ۴۵ سے ۶۰ منٹ تک کا ہوگا۔ انٹرویو کسی مناسب جگہ اور وقت میں آنے سامنے بیٹھ کر لیا جائے گا۔

اگر آپ اس تحقیق میں حصہ لینا چاہتے ہیں تو مجھے آپکی رضا مندی کی ضرورت ہوگی۔ اگر آپ چاہیں تو منسلک منظوری فارم پر دستخط کر کے مجھے واپس کر دیں۔ تاہم زبانی رضامندی کو بھی کافی سمجھا جائے گا۔ مثالی طور پر، آپکی رضا مندی سے، انٹرویو ایک ریکارڈنگ آلے کی مدد سے ریکارڈ کیا جائے گا۔ برائے مہربانی رضا مندی فارم کے متعلقہ خانے کو تک کریں۔ اگر آپ اسکے ساتھ پرسکون نہیں تو ہاتھ سے نوٹس بھی لکھ جا سکتے ہیں۔

یہاں کسی بھی جواب کو صحیح یا غلط کے طور پر پرکھا نہیں جائے گا اور آپ کسی بھی وقت، کسی بھی وجہ سے انٹرویو سے دستبردار ہونے کا حق رکھتے ہیں اور فراہم کردہ دیتا تحقیق میں شامل نہیں کیا جائے گا۔

اس منصوبے کے نتائج کو مقلے، مضمون اور رپورٹ کی شکل میں شائع کیا جا سکتا ہے لیکن آپکو اس تحقیق میں آپکا نام ظاہر نہ کرنے کی یقین دہانی کرائی جاتی ہے۔ کسی بھی شریک کی شناخت کو محقق، اسکے نگران اور آڈٹ کے دوران انسانی اخلاقیات کمیٹی کے علاوہ کسی پر بھی ظاہر نہیں کیا جائے گا۔ نام ظاہر نہ کرنے اور رازداری کے لئے مندرجہ ذیل اقدامات اٹھائے جائیں گے؛

(۱) نام اور رابطے کی تفصیلات کو ڈیٹا بازی کا حصہ نہیں بنایا جائے گا

(۲) کسی بھی زبانی یا تحریری پیشکش کے دوران مستعار اور کوڈ ناموں کا استعمال کیا جائے گا

(۳) کسی بھی شخص کی ذاتی معلومات کو عوام کے سامنے پیش نہیں کیا جائے گا

اس تحقیق میں آپکی شرکت رضاکارانہ ہے۔ آپ (تاریخ _____) تک، ٹیلی فون یا ای میل کے ذریعے، تحقیق کے لئے فراہم کردہ معلومات واپس لے سکتے ہیں۔ یہ ممکن ہے کہ انٹرویو کے بعد کچھ سوال ابھریں اور مجھے فالو اپ انٹرویو کرنا پڑے۔ برائے مہربانی رضا مندی فارم کے متعلقہ خانے کو ٹک کریں۔

اگر آپ اس منصوبے کے بارے میں مزید جانا چاہتے ہیں تو آپ کسی بھی وقت مجھ سے یا میرے نگران سے رابطہ کر سکتے ہیں۔ اس منصوبے کو انسانی اخلاقیات کمیٹی لیکن یونیورسٹی نیوزیلینڈ نے منظوری دے دی ہے۔

The project is being carried out by:

Asif Hussain: PhD Candidate

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Supervisor: Dr David Fisher, Senior Lecturer in Tourism, Faculty of Environment, Society and Design, Lincoln University - Email: David.Fisher@lincoln.ac.nz Telephone: +64 3 423 0485

Associate Supervisor: Dr Stephen Espiner, Senior Lecturer in Parks Recreation and Tourism, Faculty of Environment, Society and Design, Lincoln University - Email: Stephen.Espiner@lincoln.ac.nz Telephone: +64 3 423 0485

Advisor: Dr Tracy Berno, Senior Lecturer in Gastronomy, Auckland University of Technology
Email: Tracy.Berno@aut.ac.nz Telephone: +64 9 921 9999 ext 5289

9.8 Appendix H: Consent Form

Interview Code: _____

Consent Form

I have been informed of, and understand, the description of the project “*Infrastructural development, tourism and livelihood diversification in Gilgit-Baltistan*”. On this basis, I agree to participate in the project. I consent to reporting of the results for the purposes of research with the understanding that anonymity and confidentiality will be preserved. If I require any additional information about the project I understand that I may contact the student’s supervisors. I understand that I have the right to stop or leave the interview at any time, for any reason and the data provided will not be used.

- I consent to record the interview with the help of digital voice recorder
 I am willing to consider a follow-up interview

Signature: _____

Date: _____

Consent Form

رضا مندی فارم

مجھے اس منصوبے کی تفصیلات سے آگاہ کیا گیا ہے اور میں منصوبے: گلگت بلتستان میں بنیادی ڈھانچے کی ترقی، سیاحت اور زرعیہ معاش کی مختلف حکمت عملیوں کا تجزیہ کو سمجھتا ہوں۔ میں اس تحقیق کے نتائج کی رپورٹنگ میں اپنا نام ظاہر نہ کرنے اور رازداری کا خیال رکھنے پر اس منصوبے میں شرکت پر اتفاق کرتا ہوں۔ میں سمجھتا ہوں کہ مزید معلومات کے لیے میں محقق کے نگران سے رابطہ کر سکتا ہوں۔ میں سمجھتا ہوں کہ میں کسی بھی وقت، کسی بھی وجہ سے انٹرویو سے دستبردار ہونے کا حق رکھتا ہوں۔ اس صورت میں فراہم کردہ دیتا تحقیق میں شامل نہیں کیا جائے گا۔

میں اجازت دیتا ہوں کہ میرے انٹرویو کو ایک ریکارڈنگ آلے کی مدد سے ریکارڈ کیا جائے۔

میں فالو اپ انٹرویو کے لیے تیار ہوں۔

تاریخ _____ دستخط _____

Researcher Use Only

- Verbal consent for interview
 Verbal consent for use of digital voice recorder
 Verbal consent for follow-up interviews

Signature: _____

Date: _____

Sample

Interview Code: LU/SONG/11

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Consent Form

I have been informed of, and understand, the description of the project "*Infrastructural development, tourism and livelihood diversification in Gilgit-Baltistan*". On this basis I agree to participate in the project. I consent to reporting of the results for the purposes of research with the understanding that anonymity and confidentiality will be preserved. If I require any **additional information about the project I understand that I may contact the student's supervisors.** I understand that I have the right to stop or leave the interview at any time, for any reason and the data provided will not be used.

- I consent to record the interview with the help of digital voice recorder
 I am willing to consider a follow-up interview

Signature: 

Date: 28/02/2016

Consent Form

رضا مندی فارم

مجھے اس منصوبے کی تفصیلات سے آگاہ کیا گیا ہے اور میں منصوبے: گلگت بلتستان میں بنیادی ڈھانچہ کی ترقی، سیاحت اور زریعہ معاش کی مختلف حکمت عملیوں کا تجزیہ کو سمجھتا ہوں۔ میں اس تحقیق کے نتائج کی رپورٹنگ میں اپنا نام ظاہر نہ کرنے اور رازداری کا خیال رکھنے پر اس منصوبے میں شرکت پر اتفاق کرتا ہوں۔ میں سمجھتا ہوں کہ مزید معلومات کے لیے میں محقق کے نگران سے رابطہ کر سکتا ہوں۔ میں سمجھتا ہوں کہ میں کسی بھی وقت، کسی بھی وجہ سے انٹرویو سے دستبردار ہونے کا حق رکھتا ہوں۔ اس صورت میں فراہم کردہ دینا تحقیق میں شامل نہیں کیا جائے گا۔

- میں اجازت دینا ہوں کہ میرے انٹرویو کو ایک ریکارڈنگ آلے کی مدد سے ریکارڈ کیا جائے۔
 میں فالو اپ انٹرویو کے لیے تیار ہوں۔

تاریخ: دستخط:

Researcher Use Only

- Verbal consent for interview
 Verbal consent for use of digital voice recorder
 Verbal consent for follow-up interviews

Signature: _____

Date: _____

9.9 Appendix I: Human Ethics Committee approval letter

Research and Innovation

T 64 3 423 0817

PO Box 85084, Lincoln University

Lincoln 7647, Christchurch

New Zealand

Application No: 2015-50

8 December 2015

Title: Infrastructural development, tourism and livelihood diversification in Gilgit- Baltistan

Applicant: A Hussain

The Lincoln University Human Ethics Committee has reviewed the above noted application.

Thank you for your response to the questions which were forwarded to you on the Committee's behalf.

I am satisfied on the Committee's behalf that the issues of concern have been satisfactorily addressed. I am pleased to give final approval to your project.

Please note that this approval is valid for three years from today's date at which time you will need to reapply for renewal.

Once your field work has finished can you please advise the Human Ethics Secretary, Alison Hind, and confirm that you have complied with the terms of the ethical approval.

May I, on behalf of the Committee, wish you success in your research.

Yours sincerely



Grant Tavinor

Chair, Human Ethics Committee

PLEASE NOTE: The Human Ethics Committee has an audit process in place for applications. Please see 7.3 of the Human Ethics Committee Operating Procedures (ACHE) in the Lincoln University Policies and Procedures Manual for more information.

9.10 Appendix J: Coding in MAXQDA showing thematic analysis

The screenshot displays the MAXQDA software interface for thematic analysis. The top menu bar includes Home, Import, Codes, Variables, Analysis, Mixed Methods, Visual Tools, Reports, Stats, and MAXDictio. The toolbar contains various icons for project management, document handling, and analysis. The main workspace is divided into three panes:

- Document System:** A tree view showing a hierarchy of documents. The root is 'Documents' (3,757), with sub-categories like 'Local administration' (74), 'Planning and development' (315), 'NGO's' (576), 'Hotels/Motels/Camps' (207), 'Restaurants' (76), 'Grossory' (87), 'Gift shop' (23), 'Transport - Public' (32), 'Transport - Private' (206), 'Tour company (Old)' (151), 'Tour company (New)' (141), 'Guides' (264), and 'Porter - Porter Sardar' (304).
- Document Browser:** A text document titled 'P23-Interview - Salman Baig - NGO'. The document content is:

18 Rp - Roads are pretty important to get to these places. Baltistan was really opened up by Pakistan army because that was an active frontline. it was imprtant for Pakistan to get to the border to held theri tropps upon the Line of Control. how do you supply? you need road.The spill over benefits have been to the local community. These roads enable buses to travel down, opened these places up, so it was easy for people to visit there. Just like when Btirishers came to Pakistan and did therie colonial thina - put up these railway

 A red vertical line is positioned at the start of the text, with a label 'Reasons of the form' next to it.
- Code System:** A tree view showing a hierarchy of codes. The root is 'Code System' (3,757), with sub-categories like 'Bio/profile' (54), 'Gilgit-Baltistan/history' (63), 'Transport infrastructural development' (0), 'The concept of development' (56), 'status of transport infrastrucure in early days' (69), 'Importance of roading infrastructure/ GB with...' (59), 'Stories' (7), 'Benefits of roads/resources is how you use it' (122), 'Reason/importance of the formation of road/...' (91), 'Initial response towards roading infrastrucur...' (11), 'NGO and road infrastructure - why NGO's are ...' (9), 'Karakoram Highway improvement project' (3), and 'Alternative roading infrastructure' (7).
- Retrieved Segments:** An empty pane for displaying retrieved segments.

The status bar at the bottom shows 'Simple Coding Query (OR combination of codes)'.

9.11 Appendix K: Vulnerabilities in Gilgit-Baltistan: At Macro and Micro Levels

| Local level (micro-levels) | Divisional and Regional level (macro-levels) | National level (macro-levels) | International (macro-levels) |
|---|--|--|--|
| <ol style="list-style-type: none"> 1. Trends (population growth, resource, economic, governance, technology) 2. Shocks (human health, natural, economic, conflicts) 3. Seasonality (employment opportunity, price, health and production) | <ol style="list-style-type: none"> 1. Trends (population growth, resource, economic, governance, technology) 2. Shocks (human health, natural, economic, conflicts) 3. Seasonality (employment opportunity, price, health and production) | <ol style="list-style-type: none"> 1. Trends (population growth, resource, economic, governance, technology) 2. Shocks (human health, natural, economic, conflicts) 3. Seasonality (employment opportunity, price, health and production) | <ol style="list-style-type: none"> 1. Trends (population growth, resource, economic, governance, technology) 2. Shocks (human health, natural, economic, conflicts) 3. Seasonality (employment opportunity, price, health and production) |
| <ol style="list-style-type: none"> 4. Abandonment of subsistence farming 5. Dependency on imported goods 6. Dependency on tourism industry 7. Dependency on road (one way in and out – no alternatives) 8. Lack of access (poor road condition, no roads, road is vulnerable to natural and manmade disasters i.e. land sliding and riots/protests) 9. Travel restrictions 10. Monopoly of one community | <ol style="list-style-type: none"> 4. Abandonment of subsistence farming 5. Dependency on imported goods 6. Dependency on road (one way in and out – no alternatives) 7. Lack of access (Road is vulnerable to natural and manmade disasters i.e. land sliding and riots/protests, flights subject to weather) 8. Security (Extremism, terrorism, sectarian clashes) 9. Seasonality (employment opportunity, price, health and production) | <ol style="list-style-type: none"> 4. Security (war, extremism, terrorism, sectarian clashes) 5. Disputed status 6. Travel restrictions 7. Inaccurate reporting by media 8. Sectarian division | <ol style="list-style-type: none"> 4. Geopolitics 5. Disputed status 6. Visa restrictions 7. Travel restrictions |

11. Sectarian division
12. Conflicts (i.e. resource use related, use of pack animals (mules) to carry load, road carrying contracts)
13. Not enough tourism infrastructure (hotels, restaurants etc)
14. Pollution (Waste management)
15. Corruption

10. Disputed status
11. Travel restrictions
12. Monopoly of one community
13. No tourism policy (Lack of tourism management)
14. Not enough tourism infrastructure (hotels, restaurants etc)
15. Financial dependency on Pakistan
16. Corruption
17. Inaccurate reporting by media
16. Sectarian division

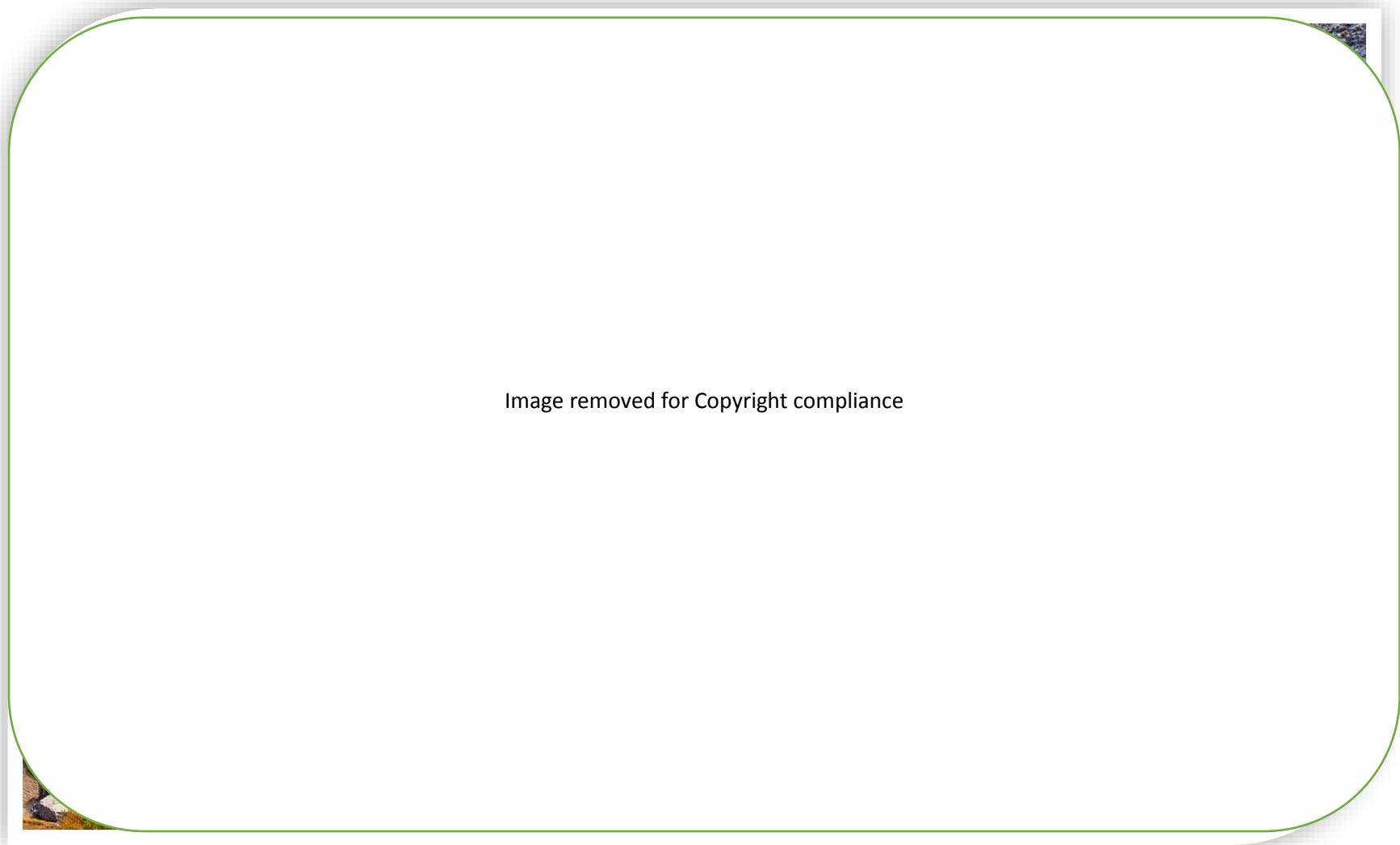


Figure 25 Karakoram Highway Gilgit-Baltistan (Source: Anonymous)