



EXPLORING LIVELIHOOD STRATEGIES AND SUSTAINABLE DEVELOPMENT INITIATIVES IN BROGHIL VALLEY, KHYBER PAKHTUNKHWA

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Abstract

This qualitative study investigates the livelihood strategies employed by the communities in Broghil Valley and also analyses the role of sustainable development programs that are supporting community resilience. Broghil valley contains 12 valleys and a total number of 165 households. The valley's residents rely heavily on traditional livelihoods like pastoralism and agriculture, which are vulnerable to climate change and socio-economic shifts. The study concludes with recommendations for improving development initiatives in Broghil valley.

The study adopted a qualitative approach, using open ended questionnaires for interviews and focus group discussions. The In-depth Interviews (IDIs) were conducted with 11 local residents including 6 males and 5 females and one Focus Group Discussion (FGD) was conducted with a community-based organization.

Thematic analysis was used to identify patterns and key concerns emerging from the data. The main findings of the research include, Livelihood strategies, Challenges in sustaining livelihood challenges, Existing sustainable development initiatives, Challenges preventing socio-economic well-being and sustainability, Social and Cultural Change; and Accessibility and Connectivity Challenges.

In conclusion, while existing initiatives have provided some support gaps in accessibility, climate resilience and economic diversification persist. To improve the community's wellbeing the following interventions are needed: (i) access to healthcare communication and education; (ii) construction of proper roads to improve accessibility; (iii) establishment of reliable power supply system and micro hydropower projects for sustainable electricity; (iv) food security programs and improved access to essential food items; (v) investment in agricultural projects and advanced machinery provision; (vi) internet access and mobile network expansions; and (vii) climate resilient infrastructure and community based disaster risk management programs.

1 Introduction

1.1 Statement of the problem

Sustainable development refers to meeting the needs of the present without compromising the ability of future generations to meet their own needs.¹ It's about making sure everyone has enough to get by and live a decent life. Different people define sustainable development in different ways. One way is to say it's about meeting our needs now without stopping the next generations from meeting their needs later. Another definition says it's about creating a way of living that lets people in the future have at least as good a life as we have now. Sustainable development is all about balancing our needs today with what the planet can provide, while also making sure that future generations will have what they need too. Sharma, R., Katohar, H. A., & Gul, S. (2023)

A livelihood strategy is like a plan for how someone lives their life. It includes the choices they make about how to live, what they want to achieve, and what's important to them. This plan is shaped by lots of different things, like the environment, laws, money, society, culture, and how they feel emotionally.

Broghil Valley is situated in the northern part of Pakistan, specifically within the Chitral District of Khyber Pakhtunkhwa province. It's nestled amid the Hindu Kush Mountain range and shares a direct border with the Wakhan District of Afghanistan. Broghil valley is a remote and isolated area and difficult to access especially during winters when heavy snowfall blocks the mountain passes. The valley is known for its natural beauty, lush green meadows, streams and snow-capped peaks. It provides the best trekking and mountaineering opportunities.

¹

 $https://sustainabledevelopment.un.org/content/documents/5839GSDR\%202015_SD_concept_definiton_rev.pdf$

The area is home to Wakhi people who have their distinct culture, language and traditions. The valley is also home to various species of wildlife like Marco polo sheep, snow leopards, Ibex and various other birds. Broghil valley people lead a semi-nomadic lifestyle. In summer they migrate with their herds of livestock to highland pastures and lower valleys in winters.

Broghil valley is not as popular as some other tourist destinations in Pakistan; Broghil Valley is gradually gaining attention among adventure seekers and nature lovers due to its untouched beauty and opportunities for outdoor activities. The majority of the population in Broghil Valley speaks Wakhi, and they lack basic facilities. Summers are mild to warm, while winters are cold and snowy, making travel challenging due to heavy snowfall blocking mountain passes. Along with many other challenges, the communities living in Broghil also struggle to eliminate the menace of opium addiction that affects a significant part of the population.

With its rugged landscape and scarce population, the valley's people have long relied on traditional livelihood strategies, including pastoralism and subsistence agriculture, to navigate the harsh environmental and socio-economic conditions. This study helps in understanding how people make a living, and how different projects help the environment and community development work in Broghil Valley, despite the lack of basic government support.

The goal is to help researchers and policy-makers understand more about sustainable development and to help make real-life projects in the valley better.

1.2 Research objectives

This qualitative study investigates

- Identify the main livelihood activities (livestock, farming, trade) and their seasonal patterns in Broghil Valley.
- 2. Assess how existing development projects have impacted household income, education, and food security.

- Document how cultural traditions and languages shape livelihood choices across ethnic groups.
- Analyze tourism growth and government projects' effects on jobs and gender roles since 2018.
- 5. Propose culturally appropriate initiatives to improve healthcare, energy access, and environmental protection.

1.3 Research questions

The main two research questions for the study include:

- 1. What are the livelihood strategies employed by the communities in Broghil Valley?
- 2. Which existing sustainable development initiatives help to enhance the resident's socioeconomic well-being.
- 3. How do current government policies and interventions influence the socio-economic well-being and livelihood strategies of Broghil Valley locals?

1.4 Significance of the study

The significance of this study lies in the potential to address the everyday challenges faced by the people of Broghil valley. By exploring the living strategies of the inhabitants of the harsh valley, this research revealed the valuable insights of the daily life activities, economic, resource utilization pattern of the population. This would also help in understanding the strengths and vulnerabilities of the community's current life situation. This study is the voice of the people of Broghil valley and will help different institutions in making better plans for the valley, its people's well-being and the valley's future. Through this qualitative research method that includes in-depth interviews, focus group discussions, and participatory observations, the study captured the voices and experiences of local residents, community leaders, and development practitioners.

2 Literature review

Broghil valley is a remote area in the northern area of Pakistan and faces many challenges every day. Sadly, not much research has been done to make life better for the villagers. The literature review part in this study gives a quick overview of some studies done before about how rural people can have better lives, what kind of challenges they face in their day to day lives.

2.1 Sustainable development

Discussing the concept of sustainable livelihoods, the importance of communities being able to withstand and recover from various challenges while still maintaining or improving their resources for the future. It sheds light on the vulnerability of rural livelihoods in developing nations, using Afghanistan as a prime example, where a large portion of the population lives in poverty. We must highlight the critical nature of livelihoods in providing basic necessities like food, water, and shelter, particularly in rural areas which form the backbone of many developing economies. Despite their crucial role in economic growth through labor and resource provision, rural areas often face neglect and are plagued by issues such as food insecurity, unemployment, poverty, and lack of essential services. There is an urgent need for focused attention and intervention to support rural livelihoods in developing countries, addressing their vulnerabilities and ensuring the well-being of millions who rely on them for sustenance and economic stability. Miani, A. M., Hamayoun, H., & Hemat, M. (2022)

According to the development theory of Environment and Sustainable Development, there's a strong link between human and physical assets and the level of development. In Pakistan, it's been observed that as human assets, like education and health, improve, the level of development also increases. This means that when we invest in improving things like education, health, and the workforce, it leads to sustainable development. The positive growth of human assets in Pakistan has played a significant role in the country's development. Khan, S. J. I., Awan, A., & Khan, M. M. (2013)

2.2 Impact of climate change on livelihood

In August 2020, a sudden flood hit Yarkhun Lasht, a village in Upper Chitral, Pakistan, destroying homes, crops, and taking a young girl's life. Yarkhun Lasht, is known for its agriculture and is usually considered safe. However, heavy rains and floods changed that. The flood didn't just affect Yarkhun Lasht it also caused problems in nearby areas and even stranded tourists. In mountain areas prone to disasters, like the one where the flood hit Yarkhun Lasht, it's really important to have plans in place to reduce risks and help people when disasters happen. These areas can be hard to reach quickly, and communication often doesn't work well during emergencies. It is important to have a stable rescue system to help people during disasters. Involving local volunteers in official rescue plans is a good decision. The locals can be trained to help evacuate people and also to provide basic necessities like food and medical care. One more important thing for local governments is to make sure that communities have what they need to recover and become stronger after any natural disaster. Which includes financial help and to rebuild damaged infrastructure in a better way to prevent future disasters. Rasul, G., Muhammad, S., Hussain, A., Ismail, M., & Shrestha, M. S. (2020, September 25).

2.3 Education and Skill Development for Livelihood Enhancement

Education makes a huge difference in rural areas, if it is connected to people's life and jobs. Education helps develop skills and fight poverty and find jobs in rural communities. Trainings for capacity and skill buildings are important for keeping livelihood strong globally and nationally. It helps transform societies, making it prosperous and also stops people from moving to other cities. Many institutions government and non-government and NGOs provide these kinds of trainings to youth in rural areas to help them learn skills and improve their own lives and benefit their communities. Binayek Pasa, R. (2017)

2.4 Healthcare Access and Livelihood Resilience

In Broghil Valley, where resources are scarce and livelihoods depend on the land and animals, access to healthcare is limited. Only two dispensaries run by Aga Khan Health Services (AKHS) serve the local communities, and one of the main health issues they face is opium addiction. This addiction problem affects the well-being of individuals and families in the valley. People rely on these dispensaries for basic medical needs, but the options are few, and addressing health challenges like opium addiction requires targeted interventions. Shah, K. A., & Ahmad, H (2013)

2.5 Socio-economic Landscape of Broghil Valley

Water is really important for the people living in Broghil. It helps them grow crops and raise animals like cows and sheep. They have built channels that carry water from streams, which they use to water their crops and give to their animals to drink. When it's dry, and there isn't much rain, the springs where water comes from can dry up quickly. This makes it hard for people to move their animals to the high pastures, so they have to keep them closer to where they live. People need the most water between June and October because that's when they do a lot of farming. Sometimes, there are small arguments about who gets how much water. But these arguments are usually sorted out by the elders in the villages. Overall, water is super important for the people of Broghil because it helps them grow food, take care of their animals, and live their lives Mir, H. A. (n.d.)

The Broghil Valley, situated within the diverse ecosystems of Chitral district, showcases a rich array of flora and fauna owing to its unique climatic conditions and varying altitudes.

Endangered species like the Snow Leopard and Golden Marmot thrive here, alongside numerous migratory bird species. Although forests are scarce, scattered patches of juniper and birch trees dot the landscape, complementing vast alpine pastures and rangelands. The soil is primarily loamy, with some areas featuring shallow or acidic soil unsuitable for vegetation. Traditional Wakhi houses, constructed with mud, stones, and minimal wood, are designed to withstand harsh weather, with centralized living spaces surrounded by storage rooms and animal shelters. Settlements adapt to seasonal resource availability, with some serving as winter bases and others as summer pasturelands. Bridle trails connect villages, while within them, informal pathways link individual households. The house construction throughout the valley has a consistent pattern, containing lantern ceilings and a narrow roof opening for smoke ventilation. These patterns and structure also reflect the harmony between people and nature in Broghil valley. Mir, H.A (n.d)

3. Theoretical Framework

Sustainable livelihood framework (SLF)

The theory developed by the Department for International Development (DFID) delivers a holistic approach of understanding livelihood strategies and their effects on sustainable development. The theory also identifies five key aspects of livelihood: human, social, physical, natural and financial capital. By studying how these aspects are transformed and utilized by communities in Broghil valley. We assessed the valley's vulnerability and resilience for environmental, economic and social changes.

Socio-ecological systems (SES): This framework which is rooted in resilience theory highlights the connection of social and ecological systems and their co-evolution over time. The framework helped to clarify the relationship between human activities in Broghil valley,

their agriculture and pastoralism and their natural environment. Through this theory we identified strategies promoting sustainable development that will help both human and environmental conservation.

Capability approach: this theory was developed by Amartya Sen and Martha Nussbaum. This theory shifts the focus from material resources to individual capabilities to live their lives as they value. This research assessing the opportunities and freedom available for individuals in Broghil valley explores the different livelihood strategies that contributed to individuals' capabilities to achieve their goals and contribute to their own and the community's well-being. This approach also highlights the importance of empowering marginalized societies like Broghil valley enabling social justice in sustainable development.

The theories best matched the research by using these theoretical perspectives. The research provided an inclusive understanding of the complex relationship between livelihood strategies and sustainable development in the valley and also informed us about policy and practice interventions that aimed to enhance equity, resilience and environmental challenges in Broghil valley.

4 Methodology

4.1 Research design

The study used a qualitative approach, the methods employed were In-depth interviews (IDIs) and Focus group discussion (FDG) these methods helped for a deeper understanding of the livelihood strategies and sustainable development initiatives in Broghil valley. The IDIs allowed to collect rich and appropriate data according to Fontanna and Frey (2000) open ended interviews help in understanding the complex behavior of members of a community without imposing any prior categorization that may limit the field of inquiry. Studying people in Broghil's marginalized society required meaningful conversations, observation and building genuine human connection while uncovering the hidden and accurate narratives. Focus Group Discussion (FGDs) included planned discussion with a selected group of people. It helped gather information about their perspectives and experiences of the study and also revealed information about how individuals are influenced by others in group situations. As different individuals shared their perspective at the same time. The approaches were used for their ability to provide detailed insights into participants' thoughts, feelings and experiences.

4.2 Research site and Sampling

Broghil valley contains 12 valleys and a total number of 165 households. These valleys are relatively small with some having less than four houses. For this study, five valleys were purposely selected with the largest populations detailed in the table below. Non probability sampling approach was employed, after identifying all the valleys and then selecting five valleys. From the five valleys, nine local residents were chosen, comprising five males and 4 females based on their availability. Additionally, two outsiders working for the valley were interviewed, one female and one male. Bringing the total number of IDIs to 1.

Moreover, for Focus group discussion (FGD), a non-profit organization currently operating in the valley was selected, and the FGD included the organization's president and 3 members, three males and one female.

Village Name	Total Households	Sampled Participants
Kishmanja Broghil	3	0
Koiy Salimabad	1	0
Garumchashma	42	2 participants
Chikar Broghil	32	1 participant
Koi	7	0
Jungle	3	0
Vadhinkhat	3	0
Arqaon	3	0
Ishkarwaz	18	2 participants
Chilmarabad	27	3 participants
Gharil	10	0
Lashkargaz Broghil	16	1 participant
Total (12 Valleys)	165	9 participants
Gender Breakdown		5 Males, 4 Females

Table 1Villages in Broghil Valley - Summary of Sampled Households by Village

• Shah, K. A., & Ahmad, H. (n.d.). Peatlands of Broghil National Park, Pakistan: Human use and management strategy.

4.3 Data collection

In-depth interviews were conducted with key informants, including local residents, community leaders and representatives from a non-governmental organization (NGOs) and development agency in both the IDIs and FGDs. These interviews allowed for studying complexity and exploration of individuals' experiences, perceptions, and practices related to livelihood strategies and sustainable development in the Broghil Valley. Interview questions were openended and flexible to encourage participants to share their perspectives freely. For data collection, in-depth interviews were conducted to gather detailed information directly from individuals. In these one-on-one interviews, each participant was asked questions about their experiences, opinions, and perspectives on the topic of research. The questions were openended, allowing participants to share their thoughts freely. Depending on their responses, participants were asked follow-up questions to explore topics further. The IDIs were conducted with 11 local residents including 6 males and 5 females. The IDIs were conducted in person at the houses of each participant lasting approximately 30-40 minutes. Additionally, one FGD was conducted with a community-based organization specifically, Community based rural support organization (CRSP) comprising 4 members, 3 males and 1 female. The FGD was conducted at a meeting hall at Jamatkhana (praying area) of Broghil valley people which is used by the organization for their meetings and other purposes. Each interview with the group lasted 60 minutes, for 3 consecutive days.

By employing these data collection methods, the research captured multiple perspectives and dimensions of livelihood strategies and sustainable development in the Broghil Valley, enriching the analysis and contributing to a detailed understanding of the research topic.

5 Data Analysis

5.1 Data Familiarization

The first step involved becoming familiar with the data collected, including transcriptions of interviews, notes from focus group discussions, and field notes were taken. Data was thoroughly studied to gain a detailed understanding of the content and framework.

5.2 Data Coding

Coding involved the systematic categorization and labeling of data based on repeating themes, concepts, and patterns. Both deductive coding (based on predetermined categories from the theoretical framework) and inductive coding (emerging from the data) were utilized.

5.3 Theme Development

After completing the coding, I developed themes by grouping related codes which helped identify the main patterns and tendencies within the data. The themes were related to livelihood strategies and sustainable development practices, challenges, opportunities and the Broghil valley's community dynamics

5.4 Interpretation and Analysis

After interpreting I analyzed the themes in relation to the research questions and theoretical framework. The research examines how the themes clarify the dynamics of sustainable development and livelihood strategies in the valley and also draws a connection between different parts of the data and theoretical concepts.

5.5 Triangulation

In this study, I used triangulation to check the accuracy and reliability of my findings by comparing data from different sources. I conducted interviews with 11 local participants (6 men and 5 women) and held one focus group discussion (FGD) with members of the

Community-Based Rural Support Program (CRSP). By analyzing both the individual interviews and the group discussion, I was able to see if the key themes and responses matched or differed. This method helped reduce bias, confirm important patterns, and provide a deeper understanding of the community's perspectives.

5.6 Reflexivity

The central part of the analysis of the data was reflexivity by critically reflecting on my own biases, assumptions and positionality. I studied the data and reflexivity helped create awareness of the influence on the data analysis process and interpretation.

5.7 Member Checking

To authenticate the accuracy and interpretation of the researches data, I shared the initial findings with the participants which helped in raising the participants' involvement and also improved the reliability of the findings.

5.8 Reporting

Finally, the findings of the qualitative data analysis were synthesized and presented in an intelligible narrative that addresses the research aims and contributes to the present knowledge on livelihood strategies and sustainable development in the Broghil Valley. The report includes illustrative quotes, descriptive statistics, and a discussion of the suggestions for policy, practice, and for future studies.

5.9 Ethics

While acknowledging these personal ties, the research methodology prioritized objectivity and mitigated potential biases through rigorous adherence to ethical principles, ensuring impartiality in both data collection and analysis. During the study strict measures were taken to make sure the confidentiality and privacy of the participants were not violated. All of the

data was anonymized, the participant's identifying information has been removed. to safeguard the data, security protocols were established. Which includes digital and physical data, which are secured safely and access to sensitive information is restricted. The participation of all the locals were voluntary. The participants provided informed consent before taking part in the interview. They were informed of their right to withdraw from the research at any time without any consequences. Detailed information was provided about the research objectives; risks benefits and procedure before conducting interviews. (Appendix A) they were also given the chance to ask questions and were also included in the research upon providing voluntary informed consent.

5.10 Trustworthiness and reliability

I had a deep understanding of the cultural value and also share the same language as broghil valley people which gave me benefit, also I had connections within the region. These preexisting relationship with the valley people facilitated me to access participants and provide a sense of security during data collection.

Variable	Frequency (N = 10)	Percentage (%)
Gender		
Male	6	60%
Female	4	40%
Education		
No Education	2	20%
5th Grade	1	10%
10th Grade	1	10%
FSc	1	10%
FA	1	10%
BA	3	30%
MA	1	10%
Occupation		
Community Leader/Teacher	1	10%
Midwife	1	10%
Tour Guide/Community Leader	2	20%
Shopkeeper	1	10%
Shepherd	3	30%
Restaurant Owner	2	20%
Household Income (PKR)		
15,000 - 20,000	2	20%
30,000 - 50,000	2	20%
100,000 (1 Lac)	1	10%
Unknown	5	50%

Table 2Demographic data categorizing IDI participants by age, gender, education, occupation, Household Income(HHI).

Note. Percentages are rounded to the nearest whole number. Some participants had multiple occupations.

Table 3

Variable	Frequency (N = 4)	Percentage (%)
Gender		
Male	3	75%
Female	1	25%
Education		
No Formal Education (N/A)	2	50%
5-Month Training	1	25%
BA	1	25%
Occupation		
Tour Guide/President CRSP	1	25%
Shepherd	2	50%
Ward Servant	1	25%
Household Income (PKR)		
Unknown	4	100%

Demographic data categorizing Focus Group Discussion participants by age, gender, education, occupation, Household Income (HHI)

Note. Percentages are rounded to the nearest whole number. Some participants had multiple occupations.

Findings

The study reveals several livelihood strategies and sustainable development initiatives in Broghil valley as reported by responses of the participants. The findings are based on the experiences of the people interviewed. Despite being a legal part of the country, the government has not done any developmental projects in Broghil valley, to this day there is no proper electricity or power supply. Solar panels are used when possible but they are not sufficient especially when the valley experiences winter half of the year. The flour used to make bread (roti) that is given as a subsidy by the government costs triple if compared to other areas of the country. They are not even given proper flour but the grain which they grind using the old traditional style of making flour because there is no machinery available in the area by the local people to make flour. There are very limited fruits and vegetables in the valley and there are no transportation systems by any agency, government or non-government to make arrangements. No mobile phone network or any other technology in the valley. Takes two days to reach the valley through dangerous and not properly constructed roads.

The socio demographic characteristics of all the participants IDIs (11) and FGD (4) are given in tables 2 and 3.

The whole findings of this research revolve around the following main themes

- 1. Livelihood strategies
- 2. Challenges in sustaining livelihood challenges
- 3. Existing sustainable development initiatives
- 4. Challenges preventing socio-economic well-being and sustainability
- 5. Social and Cultural Change

6. Accessibility and Connectivity Challenges

6 Summary of thematic findings

Table 4

Summary of thematic findings for study, showing broad theme, sub-themes, and one relevant quote

Broad Theme	Sub themes	One relevant quote
6.1 Livelihood strategies	6.1.1 Livestock and Agriculture6.1.2 Food security and Farming6.1.3 Small business	Quote for 5.1.1 (Livestock and agriculture) "We sell our cattle's yaks, sheep, cows, and goats but it's very difficult because people in the valley have little money." (<i>Respondent 3, Male, Age 28, BA</i> educated, Tour Guide IDI)
6.2 Challenges in sustaining livelihood	 6.2.1 Limited access to education as a challenge to sustainable livelihood 6.2.2 Lack of Community based educational initiatives and its impact on livelihoods 6.2.3 Gender barriers in education restricting livelihood opportunities 6.2.4 Lack of Education, Healthcare and barriers in Women empowerment affecting sustainable livelihood 	Quote for 5.2.3(Gender barriers in education restricting livelihood opportunities) "There is a problem with girls' education, as many believe girls should marry at a young age." (Respondent 2), Female, Age 29, FA educated, Midwife, IDI
6.3 Existing sustainable `development initiatives	 6.3.1 Community-led saving systems and organizations 6.3.2 Community involvement in Development Projects 6.3.3 External Aid and Support from institutions 6.3.4 Dependence on External Aids 6.3.5 Inability of external Aids 6.3.6 Long Term Solutions and Equal distribution of Aids 	Quote from 5.3.3 (External Aid and Support from institutions) "AKRSP and other institutions helped us by constructing roads and providing relief materials like food and medical supplies." (Respondent 8), Male, Age 32, 10th grade education, Shepherd. IDI
6.4 Challenges preventing socio- economic well-being and sustainability	 6.4.1 Livestock Marketing Challenges 6.4.2 Opium as a Coping Mechanism 6.4.3 Recovery Programs for Addiction 6.4.4 Social and Economic impacts of Addiction 6.4.5 Less Healthcare Facilities 6.4.6 women's Health and Midwifery 6.4.7 Health issues and Opium Addiction 6.4.8 Improvements of Livestock Value 6.4.9 Concerns Regarding Market access 	Quote from 5.4.1 (Livestock marketing challenges) "Transporting cattle to the market takes us 5-6 days by foot, and people don't want to buy from us due to the distance." (Respondent 3) Male, Age 28, BA educated, Tour Guide IDI
6.5 Social and Cultural Change	 6.5 .1 Gender Roles and Expectations 6.5.2 Resistance and Cooperation 6.5.3 Traditional Practices and Living Styles 	Quote from 5.5.3 (Traditional practices and living styles) "The lack of activities, especially during the long winters, often leads to drug use. People sleep for 10-12 hours a day, and this inactivity contributes to addiction." (Respondent 1) Male, Age 34, Teacher, FSc educated, Teacher/Community Leader, IDI
6.6 Accessibility and Connectivity Challenges	 6.6.1 Transportation Barriers and Road Access 6.6.2 Impacts of Remoteness on Health and Education 6.6.3 Lack of basic Infrastructure 	Quote from 5.6.1 (Transportation barriers and road access) "There are no facilities here—only one vehicle comes to the town every 15-20 days. Those who need to leave the valley

either go on foot or, if they are fortunate enough, use horses to travel." (Respondent
4) Female, Age 42, 5th grade education,
Shopkeeper, IDI

Themes and Sub-Themes (With Quotes from the interviewees)

The analysis of qualitative data gathered through in-depth interviews and a focus group discussion with community members in Broghil Valley shows a diverse range of livelihood strategies, development challenges, and sustainability initiatives that distinguish the remote mountainous region. Through comprehensive fieldwork including diverse community stakeholders, such as teachers, shepherds, shopkeepers, community leaders, and women of varying educational backgrounds, this study recognizes four primary thematic areas that define the socio-economic aspects of the valley. The findings show how residents navigate the intersection of traditional livelihood practices, such as livestock farming and subsistence agriculture, with emerging opportunities in small-scale entrepreneurship and community-based development initiatives. The data reveals continuous structural barriers, especially in education access, gender equity, and sustainable resource management, that obstruct the long-term socioeconomic well-being of the people. The perspectives of community members, captured through direct quotations and detailed ethnographic observations, provide important insights into the resilience strategies of residents and the external dependencies that have emerged through various aid interventions. This detailed analysis offers a clear understanding of how marginalized communities in Broghil Valley adapt to environmental constraints while working to build sustainable futures for the coming generations.

6.1 Livelihood Strategies

Livelihood strategies refer to activities, assets and resources that households, communities and individuals employ to sustain themselves and their well-being (Chambers and Convey, 1992). These strategies include different income generating activities, formal informal employment, farming, social support networks and access to natural resources (Elis,2000). These strategies

are important especially for marginalized communities like Broghil valley that rely on livestock and agriculture to overcome the poverty, food security challenges and small businesses.

6.1.1 Livestock and Agriculture

Livestock farming and agriculture are the backbone of the economy in Broghil Valley. The raising of animals such as yaks, sheep, cows, and goats provides a source of income and sustenance for many families but the economic realities of the region present significant challenges.

"We sell our cattle's yaks, sheep, cows, and goats but it's very difficult because people in the valley have little money." (Respondent 3, Male, Age 28, BA educated, Tour Guide/Community Leader/Owns a guest house, IDI)

Limited purchasing power within the valley restricts market opportunities, making it difficult for livestock farmers to turn a profit. This economic challenge forces farmers to compete for a small pool of buyers, resulting in lower prices and reduced income. The struggles of livestock farmers show the economic vulnerabilities of communities heavily reliant on animal husbandry as their primary source of income, requiring diversification and market development strategies to improve their livelihoods.

6.1.2 Food Security and Farming

The harsh climate of Broghil Valley impacts the food security and agricultural practices. A long winter season limits the growing season, limiting the variety of crops that can be cultivated. As a result, communities often rely on hardy crops like peas ("shakh") that can stand the conditions.

"Shakh (Pea) is the only crop we grow here because of the lasting winters" (Respondent 6, Female, Age 75, No Education, Shepherd, IDI)

This dependence on a single crop, coupled with dairy products from livestock, forms the local diet throughout the year. While meat from cattle provides sustenance during the winter months, it is not accessible to everyone because of affordability. This limited range of food sources raises concerns about nutrition and food security of the community, highlighting the need for strategies to diversify agricultural production and enhance access to good food.

6.1.3 Small Business

Small businesses are sources of economic support for rural households in Broghil Valley. These enterprises such as sweet and garment shops, offer income opportunities for families seeking to improve their livelihoods. Initiatives like the Aga Khan Rural Support Programme (AKRSP) play a role in building and growing these small businesses.

"I own a small shop for garments and sweets. The shop was given to me from AKRSP and I am happy and earning" (Respondent 6, Female, Age 75, No Education, Shepherd, IDI)

By providing access to capital, training, and market linkages, AKRSP empowers individuals to become self-employed and contribute to community development. The success stories of small business owners show the transformative potential of micro-enterprise initiatives in improving local economies and creating financial stability.

6.6 Challenges in Sustaining livelihood

Broghil valley faces significant challenges in sustaining livelihoods. The people heavily rely on natural resources and agriculture and are easily affected by climate changes. The major challenges Broghil valley people face is:

6.2.1 Limited access to education as a challenge to sustainable livelihood

The Broghil Valley faces significant challenges in providing adequate educational opportunities to its residents. Limited resources, coupled with the valley's remote location,

result in overcrowded classrooms and a shortage of qualified teachers. Teachers often manage multiple grades levels in one class which weakens the overall learning experience and also reduces the chances of students pursuing higher education.

(P2)"We have three different grade levels being taught in the same classroom." (Respondent 2, Female, Age 30, ECD trained teacher, IDI)

The lack of access to quality education creates a long-term difficulty for individuals seeking livelihood sustainability as they are unable to acquire the necessary skills for stable employment. Youth play a crucial role in economic development. They contribute to the workforce and stimulate economic development. The absence of quality education directly affects the youth of Broghil valley leaving them unable to get higher education. Which is significant for development and by empowering youth through education it is possible to prepare youth by teaching them skills for a long-lasting sustainable change in the region.

6.2.2 Lack of Community based educational initiatives and its impact on livelihoods

There is a great need for advanced educational models. There is a lack of sufficient community based educational initiatives to support sustainable livelihoods. While some grassroot efforts have emerged to address this gap, they remain limited in scope and resources.

"I started high school and now we have 15 students in different job sectors which for an isolated area like us is a huge success" (Respondent 1, Male, Age 32, Teacher, FSc educated, Teacher/Community Leader, IDI

Without structured and well-funded community based or external projects for quality education the locals are unable to develop vocational skills, entrepreneurship abilities or cultural preservation that would help sustain their livelihood. No formal support for such initiatives restricts the potential of youth to contribute to the valley's economic development.

6.2.3 Gender barriers in education restricting livelihood opportunities

Despite progress in promoting education for all, gender disparities still exist as a major challenge in Broghil Valley. These cultural norms and traditional beliefs limit educational access to girls preventing them from acquiring knowledge and skills needed for sustainable employment.

"There is a problem with girls' education, as many believe girls should marry at a young age." (Respondent 7, Female, Age 29, FA educated, Midwife, Income-20,000)

Parents prioritize male education over female and they also face higher dropout rates because of early marriage and household responsibilities. and these restrictions negatively impact their ability to contribute to economic development emphasizing the cycle of poverty and dependence. To address these issues requires giving awareness and supporting female education.

6.2.4 Lack of Education, Healthcare and barriers in Women empowerment affecting sustainable livelihood

In any part of the world whether developed or under-developed, women play a crucial role in the community's development. Economically, socially in every aspect of life as equals to men. Unfortunately, we observe women are always treated unfairly. In many parts of the world the ideology has changed to some extent but the women in marginalized societies like Broghil valley face extreme level of challenges in accessing education which impacts their ability to make informed decisions, pursue economic opportunity and their contribution in sustainable development. Additionally, the reproductive health, hygiene, nutrition, and awareness programs for women are equally important for their own wellbeing and for community participation. "I taught women hygiene and educated them on keeping themselves clean, which was a crucial step in improving their lives. I also donated sanitary pads and showed them how to use it but there is a need of permanent solutions for the women" (Respondent 10, Female, Age 40, MA educated, Owns a restaurant, Income 100k)

These initiatives remain insufficient and restrict women's potential to improve their livelihood strategies. As one of the women who visited Broghil valley and tried helping in educating the women stated that:

The rigid cultural norms and traditions are the barriers to women empowerment, limiting their participation in leadership roles. Although women participate in different community-based organizations like Tanzeem, a saving program for women is led by a woman.

"The lack of education and strict social norms make it difficult for women to become empowered in our community." (Respondent 2, Female, Age 30, ECD trained teacher, , IDI)

Yet the participation of women in leadership is equal to none. The inflexible norms and limited economic opportunities continue to restrict women's empowerment and leadership. Which leads to an unstable sustainable livelihood.

6.7 Existing Sustainable Development Initiatives

Besides having difficulties, the educated people and the leaders of the valley are eager and working hard to bring changes and to create a secure future and to give quality life for the future generation. There are limited initiatives, few are community based and others come from external help. The government plays no role in the development. Which has made it more difficult for the people. The few initiatives taken in the valley's development are:

6.3.1 Community-led saving systems and organizations

With limited access to formal financial institutions, community-led savings systems have become a vital mechanism for promoting economic self-reliance in Broghil Valley. Organized around traditional social structures, these initiatives enable individuals to share their resources and give access to credit for small businesses, agricultural inputs, and other essential needs.

"We started 'Tanzeem,' a community-based savings initiative, which is now benefiting both men and women across the valley." (Respondent 1, Male, Age 32, Teacher, FSc educated, Teacher/Community Leader, IDI)

By creating a culture of savings and community action, these community-based organizations empower residents to take control of their financial future and build stronger livelihoods. The success of initiatives like "Tanzeem" proves the potential of local solutions in addressing economic challenges.

6.3.2 Community involvement in Development Projects

Sustainable development in Broghil Valley requires the active participation and ownership of community members. Recognizing this, development organizations give priority to inclusive decision-making processes that involve residents in planning, implementation, and monitoring of projects.

"We make sure everyone participates in decision-making, for example with Tanzeem, to help with loans and savings." (Respondent 4, Female, Age 42, 5th grade education, Shopkeeper, IDI)

This participatory approach ensures that development initiatives are associated with the needs and priorities of the community residents, creating ownership and increasing the likelihood of long-term success. By empowering community members to create their own development, these projects work towards sustainability and building resilience. The reason why participation in initiatives like "Tanzeem" is so important is that it creates a sense of community involvement in sustainable development.

6.3.3 External aid and support from institutions

External aid and support from governmental organizations and NGOs are extremely important in promoting local sustainable development efforts in Broghil valley. Institutions such as these take on the responsibility to bring important resources, like technical and financial assistance in improving infrastructure, eliminating food insecurity and improving healthcare access. However, in order for external aid to be successful and effective, it must be in line with local needs and it must contribute to building the residents' capacity to be autonomous. It can help with sustainable advancement to improve the quality life in Broghil valley by partnering with local organizations and empowering community members.

"We received help from AKRSP and some other organizations in the construction of roads and we also received relief materials like food and medical supplies." (Respondent 8, Male, Age 32, 10th grade education, Shepherd/Community Leader, IDI)

The importance of external support by AKRSP and other institutions is shown by the constructed roads and distribution of relief materials. These developmental efforts demonstrate the effectiveness of such organizations in addressing immediate needs and creating lasting change.

6.3.4 Dependence on External Aids

External aid and relief programs are only supposed to offer temporary assistance to communities in need. However, they can sometimes create a culture of dependency if not executed properly. In some cases, the distributed relief materials have created a sense of
dependency and shown a decrease in willingness to work and engage in productive activities in Broghil Valley.

"Some people depend too much on the relief materials distributed, which makes them feel like they don't really need to work." (Respondent 8, Male, Age 32, 10th grade education, Shepherd/Community Leader, IDI)

This dependency can have a direct effect on the locals' autonomy and lasting sustainable development. In order to break dependency, it's very important to promote self-sufficiency and empower community members to improve their own livelihoods. External aid can potentially be damaging when dependence on relief materials and a decrease in motivation to work can be observed.

6.3.5 Inability of external aids

The purpose of free food distribution is to eliminate hunger and food insecurity but it has had the opposite effect in Broghil Valley. There have been reports of some people choosing to stop working and depending heavily on the free food provided by relief programs.

"Because of the free food distribution, some people have stopped working and started relying too much on relief efforts." (Respondent 8, Male, Age 32, 10th grade education, Shepherd/Community Leader, IDI)

This dependency on external aid can have a negative effect on local agriculture and demotivate people from hard work. It is fundamental to design relief programs that promote sustainable livelihoods and enable the community to produce their own food. The willingness to stop working because of free food distribution shows the importance of designing effective relief programs.

6.3.6 Long-term solutions and equal distribution of aids

There must be a focus on long-term solutions and fair distribution of aid in direction to face the challenges of dependency and to promote sustainable development in Broghil valley. This includes designing small community projects that allow community members to take control of their own livelihoods, providing resources to education and training opportunities, and creating awareness of sustainable agricultural practices.

"We want to create awareness and help people become independent by creating small community projects that empower everyone long-term." (FGD Respondent 1, Male, Age 50, BA education, Tour guide/President CRSP,)

Achieving social justice and reducing inequalities can be made possible by ensuring that aid is distributed adequately among all the members of the community, especially the most vulnerable ones. Encouraging the community to become self-sufficient and providing better access to resources can help create a more sustainable future for Broghil Valley. Creating awareness and helping people become independent thanks to small community projects demonstrates the need to focus on long-term solutions.

6.4 Challenges Preventing Socio-Economic Well-Being and Sustainability

6.4.1 Livestock Marketing Challenges

Livestock marketing is one of the most important sources of livelihood for many families in Broghil Valley, and faces severe challenges because of the area's remoteness and the poor transportation facilities available. Transporting livestock to the market requires a long and difficult journey that takes several days on foot, and it discourages potential buyers to make a deal. This reduces profitability significantly. "Transporting cattle to the market takes us 5-6 days by foot, and people don't want to buy from us due to the distance." (Respondent 3, Male, Age 28, BA educated, Tour Guide/Community Leader/Owns a guest house, IDI)

In addition, the lack of proper storage and handling facilities can lead to spoilage and lower prices. These challenges require investments in transportation infrastructure, improved market access, and training for livestock producers. The long transportation times and reluctance from buyers highlight the challenges faced in livestock marketing.

6.4.2 Opium as a Coping Mechanism

The historical use of opium as remedy for various ailments has made its use common as a coping mechanism in Broghil Valley. While opium was initially used to alleviate pain and treat conditions such as coughs and diarrhea, its addictive properties have led to dependence and abuse. Individuals turn to opium as a way to cope with physical pain, emotional distress, and economic hardship.

"Opium is used to cure many diseases, but we got addicted to it and lost everything." (Respondent 9, Male, Age 45, BA educated, Restaurant Owner, IDI)

This reliance on opium can have devastating consequences, leading to addiction, health problems, and social isolation. Addressing the root causes of opium use and providing access to alternative coping strategies is important in fighting addiction and promoting well-being. The use of opium to cure diseases and the addiction highlights the dangers of relying on it as a coping mechanism.

6.4.3 Recovery Programs for Addiction

Recognizing the consequences of opium addiction, community organizations and religious institutions have established recovery programs to support addicts in becoming sober. These

programs offer the afflicted people a mixture of medical treatment, counselling, and social support to help overcome addiction and improve their own lives and those of their families. Religious institutions like the Imamti also provide rehabilitation services, which makes the approach to addiction recovery more comprehensive and effective.

"The Imamti institutions helped us heal by sending us to rehab centers." (Respondent 9, Male, Age 45, BA educated, Restaurant Owner, Unknown Income)

These programs help addicts gain freedom from addiction and live healthy lives by addressing the physical, psychological, and spiritual aspects of recovery. Imamti institutions often send individuals to rehab centers, which shows the effectiveness of community-based recovery programs.

6.4.4 Social and Economic impacts of Addiction

Opium addiction has deep social and economic consequences for people, families, and communities in Broghil Valley. Addiction can lead to financial ruin, as individuals spend their limited resources on opium instead of essential needs such as food, clothing, and education. It can also lead to family breakdown, as addiction strains relationships and undermines parental responsibilities. Additionally, opium addiction can reduce productivity and economic output, as addicts become less able to work and contribute to the community.

"Many have become too reliant on opium, which has drained our resources and reduced our productivity." (Respondent 8, Male, Age 32, 10th grade education, Shepherd/Community Leader, IDI)

Addressing the social and economic impacts of addiction requires a comprehensive approach that includes prevention, treatment, and social support services. The reliance on opium and the subsequent drain on resources highlight the social and economic impacts of addiction.

6.4.5 Less Healthcare Facilities

It is challenging to access proper healthcare services in Broghil Valley because of the limited number of healthcare facilities and their unbalanced distribution across the villages. The existing healthcare infrastructure is made up of small dispensaries and staffed by a very limited number of healthcare facilities, and is not sufficient to meet the complete needs of the population. Residents have to go on long and seriously challenging journeys to reach hospitals or specialized medical centers, especially when the weather is harsh most of the year.

"We have a dispensary, but it's not enough to meet the needs of the community. People still need to travel far for days on end to get any kind of medical treatment." (Respondent 8, Male, Age 32, 10th grade education, Shepherd/Community Leader, IDI)

The difficult access to adequate healthcare makes it difficult to solve health issues, increasing the community's vulnerability to preventable diseases. There is an urgent need for investments in healthcare infrastructure, which is obvious from the state of existing facilities.

6.4.6 Women's Health and Midwifery

Another common concern in Broghil Valley is women's health, which is severely affected by cultural norms and limited access to healthcare services. This leads to high rates of maternal mortality and morbidity. There is also a lack of skilled birth attendants and emergency obstetric care, which increases the risk of complications during pregnancy and childbirth. Some women have had to train to become midwives who provide essential healthcare services to pregnant women and newborns.

"I became a midwife because I lost three female relatives during childbirth. Now I try to save others." (Respondent 7, Male, Age 50, BA educated, Tour guide/Community leader, IDI

These midwives have to operate in challenging conditions with limited resources, and dealing with cultural barriers. However, their dedication and expertise are fundamental in saving lives and helping women in need. Many midwives themselves have endured the loss of loved ones during childbirth, which shows the importance of strengthening maternal healthcare services in Broghil Valley.

6.4.7 Health issues and Opium Addiction

Opium addiction is a significant public health challenge in Broghil Valley, with a long history of use for medicinal and recreational purposes. While opium was traditionally used to alleviate pain and treat various ailments, its addictive properties have led to widespread dependence and associated health problems. The social and economic consequences of opium addiction are farreaching, contributing to poverty, family breakdown, and social stigma.

"Opium use is common, but we have educated the youth, and now only a few older individuals continue using it." (Respondent 1, Male, Age 50, BA education, Tour guide/President CRSP, FGD)

Recognizing the severity of the issue, community leaders and organizations have implemented educational programs and rehabilitation services to combat opium addiction and promote healthier lifestyles. These efforts have shown some success in reducing opium use among younger generations, but continued vigilance and sustained interventions are needed to address the root causes of addiction and support individuals in their recovery journey. The decline in opium uses among the youth following educational initiatives demonstrates the potential for positive change.

6.4.8 Improvements of Livestock Value

Selling livestock at fair market prices has the potential to significantly increase the income and improve the livelihoods of livestock producers in Broghil Valley. However, limited market access and the lack of bargaining power often force producers to sell their livestock at below-market prices.

"Selling cattle at market prices would significantly increase the value of our livestock." (Respondent 1, Male, Age 50, BA education, Tour guide/President CRSP, FGD)

Improving market access, providing training on livestock management and marketing, and empowering producers to negotiate fair prices are also important for unlocking the economic potential of the livestock sector. The potential increase in livestock value through market-based pricing proves the importance of improving market access.

6.4.9 Concerns Regarding Market access

The geographical isolation of Broghil Valley and the lack of market access for locally produced goods create poverty and limited economic opportunities for residents. The inability to sell their products at fair prices discourages investment and innovation in local industries. This challenge requires improving transportation infrastructure, promoting market linkages, and supporting the development of products that can be sold at higher prices.

"We are very isolated, and the lack of a market for our products keeps us in poverty." (FGD Respondent 3, Male, Age 28, BA educated, Tour Guide/Community Leader/Owns a guest house,)

Connecting Broghil Valley to wider markets is important for economic development and livelihoods of its residents. The isolation and lack of market access highlight the difficulties in economic development.

6.5. Social and Cultural Change

6.5.1 Gender Roles and Expectations

Traditional gender roles and expectations shape social dynamics in Broghil Valley, limiting opportunities for women and girls. Deep-rooted cultural norms often reserve distinct roles for men and women, with women primarily responsible for domestic duties and childcare. Early marriage, often seen as a social obligation, restricts girls' access to education and limits their opportunities for personal and professional development.

"Girls often marry at 16, and boys at 18, with many still believing girls should only be housewives." (Respondent 1, Male, Age 50, BA education, Tour guide/President CRSP, FGD)

Challenging these traditional gender roles and promoting gender equality is important for empowering women and creating a more just and equitable society. The prevalence of early marriage and the belief that women should primarily be housewives shows the belief in traditional gender roles.

6.5.2 Resistance and Cooperation

Implementing new ideas and development initiatives in Broghil Valley is challenging because of the traditional beliefs and a lack of formal education. This can manifest as skepticism towards external interventions or a reluctance to adopt new practices. Overcoming this resistance requires building trust with community members, engaging them in decision-making processes, and proving the benefits of proposed changes.

"The people are often stubborn and have no education, which makes it hard to implement new ideas." (FGD Respondent 4, Female, Age 35, Shepherd, No Education, Creating cooperation and collaboration is important for the successful implementation of development projects and promoting positive social change. The difficulties faced in implementing new ideas highlights the importance of community engagement and education.

6.5.3 Traditional Practices and Living Styles

Traditional practices and living styles play a significant role in the lives of the people of Broghil Valley. Many residents rely on pastoralism and agriculture for their livelihoods, living in close harmony with the natural environment. These traditional practices are deeply rooted in the community's cultural identity and social fabric. However, they also present challenges in climate change, resource scarcity, and increasing competition for land and water.

"In my village, from when I was young till now, we need to live off pastures, and survival was a daily struggle." (Respondent 4, Female, Age 42, 5th grade education, Shopkeeper, IDI)

Balancing the preservation of traditional practices with the adoption of sustainable development strategies is essential for ensuring the long-term well-being of the community. The reliance on pastures and the daily struggles for survival reflect the traditional practices and lifestyles of the community.

6.6. Accessibility and Connectivity Challenges

Infrastructure and connecting with people globally are significant, broghil valley faces lack of mobile services and is totally isolated from the rest of the world. Which directly effects the valleys progress and development. Local people who travel for education or work are not able to connect with their families for months or years. The condition of the roads makes it more difficult takes two days or sometimes more, because there are no vehicles travelling on daily basis, for the residents to visit their families.

6.6.1 Transportation Barriers and Road Access

The difficult terrain and remote location of Broghil Valley present transportation challenges, reducing access to essential services, markets, and opportunities. Poor road infrastructure with unpaved roads, landslides, and seasonal closures, makes travel difficult and time-consuming. The lack of reliable transportation options isolates the valley from the rest of the country, limiting economic activity and access to healthcare and education.

"It takes 7 hours to reach the nearest city, and the road is still rough and unpaved." (Respondent 1, Male, Age 50, BA education, Tour guide/President CRSP FGD)

Improving road access and transportation infrastructure is essential for connecting Broghil Valley to the wider world and enabling sustainable development. The lengthy travel times and rough road conditions highlight the urgent need for infrastructure improvements.

6.6.2 Impacts of Remoteness on Health and Education

Broghil Valley's geographical isolation makes it challenging to access healthcare and education services. The long distances on a difficult terrain make it very challenging for residents to reach help, especially during emergencies. Students have to travel long distances to go to school, especially in areas with limited educational facilities available. These issues result in poor health outcomes and the region's low education levels, creating more poverty and severely limiting the opportunities available to the community.

"Sometimes it's impossible for people to reach healthcare centers. We sometimes need to travel on foot or by horse." (Respondent 7, Male, Age 50, BA educated, Tour guide/Community leader (FGD)

There is a need to implement innovative solutions like mobile healthcare clinics, telemedicine services, and community-based education programs. The difficulties in accessing healthcare facilities demonstrates the urgent need to make healthcare solutions more accessible.

6.6.3 Lack of basic Infrastructure

The quality of life and economic development in Broghil Valley is threatened by the lack of basic infrastructure. Basic needs like clean water, electricity, and sanitation facilities are not available to many communities. The challenges faced by the residents are further multiplied by the infrequent delivery of essential goods. Even basics like clothing, shoes, and food can be a luxury in the valley.

"We don't have clothes, shoes, or other essentials; the vehicle comes only once every 15-20 days." (Respondent 4, Female, Age 42, 5th grade education, Shopkeeper, IDI)

It is fundamental to address these infrastructure challenges to improve the living conditions and promote the well-being of the people. Infrastructural improvements are urgently needed because of the shortage of essential items and difficult vehicle access.

7 Discussion

The findings of this research highlight the significant interaction of challenges and the coping mechanisms in Broghil valley. An extremely remote region which lacks basic necessities and faces socio economic hardships. The area is severely underdeveloped with no significant governmental interventions. This study analyzed how the local residents of Broghil valley navigate these challenges while they attempt to create sustainable solutions for their survival.

The primary livelihood strategies that are employed by the people in Broghil valley depend on livestock farming, small scale agriculture and micro business. However, these very strategies contribute to environmental degradation, as the peatlands in Broghil National Park have been over extracted, resulting in shrinkage of grazing lands and degradation of wildlife habitat.² The harsh weather in the valley highly affects agriculture. The residents only rely on peas and potatoes that are suitable for prolonged winters. The only source of income in the valley relies on the selling of goats, sheep and yaks which is affected by difficult market access that remains a major hurdle due to the valley's isolation and challenges in transportation.³

There is an important need for external interventions such as improved network, transportation and market accessibility to ensure economic stability. There is a small business, a shop, but due to the low purchasing power of the locals its growth and economic stability are limited. Yet the people of Broghil valley residents employ these strategies despite the harsh climate, environmental and economic conditions.⁴

The Aga khan rural support program (AKRSP) plays a vital role in the infrastructure development such as road construction, tap water supply, washroom construction bridge

² https://lib.icimod.org/record/28907

³ https://repository.graduateinstitute.ch/record/300991?v=pdf

⁴ https://www.academia.edu/14278068/Socio_economic_baseline_report_of_Broghil

constructions and also provided Solar panels and provision relief materials. These initiatives indicate a strong community driven approach to development and demonstrate the resilience of Broghil valley people. The Aga khan agency for habitat (AKAH) in 2020 provided clean water to the people by building water taps at their doorstep but before that the people used to drink water that was brought in drums and fetched from the river it was hazardous and used by both animals and humans. Aga Khan Agency for Habitat. (2020, March 19).

Women's involvement in development programs contributes significantly to communities' well-being. The women in Broghil are in serious need of getting education and livelihood opportunities. Hygiene is one of the very important issues that needs to be addressed for improved healthcare outcomes. Skill development initiatives are needed for a better future.

All the initiatives taken or currently working in Broghil valley remain limited in scope and require greater governmental and non-governmental support to scale up and solve broader socio-economic challenges effectively.

7.1 Limitations

This research was conducted with a number of limitations that can potentially affect how widely applicable the findings of the study are, and its interpretation. There was a small sample size with 9 local residents and 4 NGO participants, in addition to a gender imbalance with 5 males and 4 female respondents. This can potentially limit the representation of perspectives on livelihood strategies and development challenges. The lack of education across the community also made it difficult for the researcher to explain certain questions effectively, often having to repeat complex questions for the participants' understanding. Additionally, the study was also restricted by the locations' remoteness and difficult accessibility. Only 5 of Broghil's valleys were a part of the research, which may have excluded a diverse range of experiences from more remote communities. The reliance on non-probability sampling and the

researcher's existing ties to the locals may have created room for methodological biases. It may have influenced the selection of the study participants and the interpretation of the collected data, irrespective of efforts to maintain objectivity. Finally, due to the study being self-funded, there were time and resource constraints that kept participants from staying motivated to participate in the study. This also affected the implementation of a comprehensive historical analysis of development initiatives. Despite the challenges in its execution, the study's qualitative value offers important insights for future research in Broghil Valley, or other similar geographical locations.

7.2 Conclusion & Recommendations

Broghil valley remains one of the most underdeveloped and neglected regions. This study highlights the struggles faced by the local people in sustaining livelihood strategies. The socioeconomic well- being remains at high risk due to climate change. The challenges faced by the residents are lacking basic necessities healthcare communication and education.

Immediate intervention is needed from both government and non-government organizations. Investments in infrastructure education and healthcare and livelihood opportunities will improve quality of life for the residents and contribute to long term stability. Addressing these issues will pave the way for a more prosperous and self-sufficient valley.

Based on this study we have some critical recommendations for the government to prioritize infrastructure projects that includes constructing proper roads to improve accessibility in Broghil valley. It will help in tourism which will help in the economy of the valley and establish reliable power supply system micro hydropower projects for sustainable electricity throughout the years. The government should introduce food security programs to improve access to essential food items. Agricultural projects for the lands that can grow crops and advanced machinery should be provided to them.

Mobile healthcare units should be sent at least once in six months for the checkups. After diagnosis medicine should be sent according to the common illnesses in the valley.

Well-equipped schools and trained teachers need to be sent to the valley for improving education access for children in the valley. Skill based training programs should be initiated to empower locals in sustainable livelihoods such as handicrafts agriculture and eco-tourism.

Internet access and mobile network expansions to improve connectivity and provide economic educational and emergency opportunities

Additionally, there should be climate resilient infrastructure and alternative energy sources to mitigate the challenges posed by extreme weather conditions. Community based disaster risk management programs will prepare the locals for harsh winters and natural disasters.

The external projects and help from different outside institutions would strengthen the community-based organizations and help the leaders to make a progressive future for their community. NGOs and governments should collaborate to create sustainable development programs.

These recommendations aim to improve the socio-economic challenges and quality of life of Broghil valley people.

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8 Appendix

Appendix A consent form for residents and community leaders

Dear Participant,

My name is Sania Jabbar and I am conducting a research study for my thesis paper on livelihood strategies and sustainable development initiatives in Broghil Valley. I would like to invite you to participate in this study, which aims to understand the means of livelihood, the challenges, and the possibilities of sustainable development in Broghil Valley.

By participating in this study, you will have the opportunity to share your experiences and perspective, which will contribute to a better understanding of the issues faced by Broghil Valley residents. your responses will help inform policies and interventions aimed for improving socio-economic wellbeing and to develop sustainable initiatives.

There are no known risks associated with participation in this study. Your participation is completely your own choice, and you can choose to stop at any time without any consequences. Your personal information will be kept safe and confidential, and your identity will not be disclosed in any reports or publications resulting from this study.

Please let us know below if you consent to participate in this study:

I have read the information and voluntarily agree to participate

Signature: _____

Date:

Sincerely,

Sania Jabbar

Širin Žui/Vrut/Voč/Bač

Žu nungi Sani Jabbar. Wuzeš yi tehqiq carəm askem mozu ki khalgišt de Broghil cərəng xu zindagi remin, woz cərəngəš xu khunə nufoqat gotən.

Wuzəš hayəm khat nivšem, savər dawat ruδowər ki sašt bə hadəm tehqiq šomil wocit, kumdeš ki hayəm dišnə kušiš cart ki nufqotəš čiz wost, woz taraqi hatni de Broγil čiz mumkin təy, woz čis muškilišt trə prut wəzin.

Dəmtahqiq shomil wocnənəp saavər muqa rand ki saštxu fikr, woz xu tajrub bayon xak bas wəzit ki Broyil murdumeş čiz mušqatiy winən. Saavə ilmənəp foida durzən xə zərəng policy woz projavəp khalgišt xak bas wəzin cə kumdenəp ki khalgvə maishat baaf wost.

Hadəm tahqiq shirkat xakni saavər čiz kaž nə wizit. Dəm shirkat xaki saavə zoqər. Kum wakht ki saavər suðoidə ki sašt dəm širkat xak zoq nə carit, saštəs baγər čiz nuqsonən nəy xenak bas wəzit. Saavni ki čiz bə molumot təy, yowəp hamiš mušetk wərəšt, woz saavə šinokhtəp sak thaag kuyər nə randən, woz neyəp yo də kum kitob yoy report zohir carən.

Agar saštəš ki dəm sar nivšətk hisahən iti

Maž yəm molumot joyətk/kəšəng, woz wuzeš hadəm xu zoqər sarik wocəm.

Signature: _____

Date: _____

Sincerely,

Sania Jabbar

Appendix B Questionnaire for residents and community leaders

Demographic data

Which specific area of Broghil Valley do you belong to?Age of Respondent:Gender of Respondent:Occupation:Monthly Household Income or Annual Household Income:Education Level:

Research Questions

1. Can you tell me about the different ways you earn a living in Broghil Valley?

2. Have these livelihood strategies changed over time, and what factors have influenced these changes?

3. What challenges do you face in pursuing your livelihood activities, and how do you cope with them?

4. Are there any community-led initiatives or projects aimed at promoting sustainable development in Broghil Valley? If so, can you describe them?

5. How do you think your livelihood activities impact the environment and natural resources in Broghil Valley?

6. What support or resources do you think are needed to enhance the sustainability of livelihoods and development initiatives in Broghil Valley?

7. Can you discuss any traditional or indigenous governance systems that play a role in managing natural resources and promoting sustainable development in the Broghil Valley?

8, How do education and capacity-building initiatives contribute to enhancing livelihood resilience and promoting sustainable development in the Broghil Valley?

9. Can you provide examples of successful collaboration or partnerships between community members, NGOs, government agencies, and other stakeholders to address livelihood challenges and promote sustainable development?

10. In what ways do cultural heritage and traditional practices contribute to the resilience and sustainability of livelihoods in the Broghil Valley, and how are they being preserved or revitalized?

Appendix C Informed Consent and Questionnaire for development organizations

Informed cover letter for Development Organization

Dear Officers,

My name is Sania Jabbar and I am conducting a research study for my thesis paper on livelihood strategies and sustainable development initiatives in Broghil Valley. I am writing to invite you to participate in this study, which aims to understand the livelihood means, challenges and possibilities for sustainable development in Broghil Valley.

By participating in this study, you will have the opportunity to share your organizations experiences and perspectives, which will contribute to a better understanding of the issues faced by Broghil Valley residents. Your insights will help inform policies and interventions aimed at improving socio-economic wellbeing and developing sustainable development initiatives.

There are no known risks associated with participating in this study. Your participation is completely voluntary, and you can choose to stop at any time without any consequences.

Your personal information will be kept confidential, and your identity will not be disclosed in any reports or publications resulting from this study.

Please indicate your consent below:

I have read the information and voluntarily agree to participate

Signature: _____

Date: _____

Sincerely,

Sania Jabbar

Demo Data

Name of development organization:

Years since it has been working:

Aim of development organization:

Officer(s) and their designations being interviewed:

Questions

1. Do you work for a development organization or NGO? If so, which one?

2. How much do you know about the projects your organization does in Broghil Valley?

3. How does your organization help people in the Broghil Valley?

4. How does your organization make sure everyone, especially those who need it the most, can be part of the good things happening in the Broghil Valley?

5. What do you think are the biggest problems or good things for making things better in the Broghil Valley?