PROJECT MILLENNIALS: CHANNELING LOCAL YOUTH FOR STRONGER HIMALAYAN COMMUNITIES

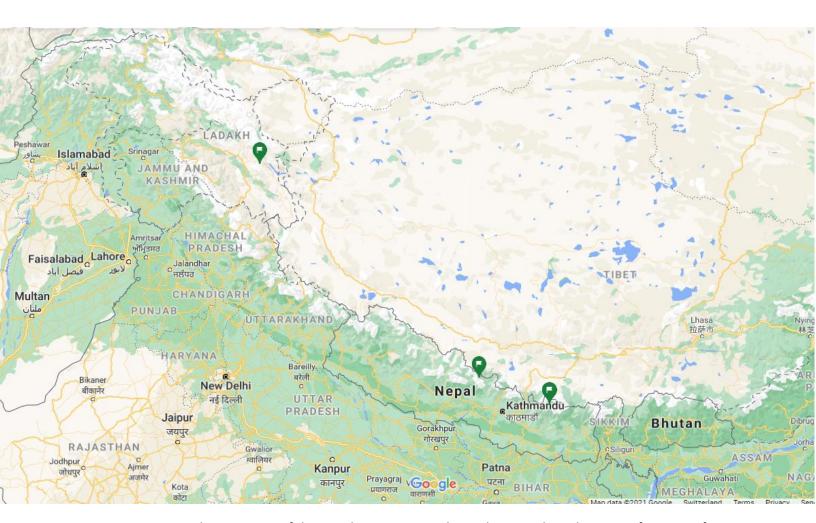


Figure 1: Google Maps view of the Himalayan region with teardrops marking the areas of interest of study in the project

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ABSTRACT

The Himalayan communities, one of the most marginalized people in the world, are currently at an exaggerated risk of becoming worse off after the COVID-19 pandemic along with climate change threats like increasing glacier melt. The region covers several national borders, ecosystems, and communities along the Himalayan range as shown in the map in the front page. The fragile ecosystem, low and unsustainable means of livelihood, and significant out migration, especially the youth, are some of the compounding factors that makes the region crisis-prone. Our project is thus an effort to work with the local youth who are both the intended targets of the crisis as well as part of the solution. The project is seeking to build a community of youth who are aware and committed to the sustainable development of the region, which they call their home.

By channeling the youth, our objective is also to conserve and promote the local traditional knowledge of living in harmony with the environment, which seems to be slowly phasing out from the minds of the people of the region themselves, and is being replaced by the foreign notion of development. We plan to install news avenues of youth engagement that aim to increase communication within the community through knowledge production, exchange, and dissemination through locally led social media campaigns.

Key words

Himalayan region, Youth, Sustainable development

OUR TEAM



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LIST OF ABBREVIATIONS

GOI Government of India GON Government of Nepal HHR High Himalayan Region

ICCA Integrated Community Conserved Areas

ICIMOD The International Centre for Integrated Mountain Development

INGO International Non-Governmental Organization
IUCN International Union for Conservation of Nature

NGO Non-Governmental Organization

PA Protected Areas

SDG Sustainable Development Goal

UN United Nations

BACKGROUND

The global commitment to mountains and the need for sustainable mountain development were first stated in Chapter 13 of *Agenda 21*, the outcome document of the first Earth Summit in Rio in 1992 and re-emphasized twenty years later in the final document of the 2012 United Nations Conference on Sustainable Development. The Rio+20 outcome document, *The Future We Want*, dedicates the following three paragraphs to mountains, where it recognizes¹,

- 1. the benefits derived from mountain regions are essential for sustainable development,
- the marginalization of mountain communities, including indigenous peoples and local communities, who have developed sustainable uses of mountain resources, and the need to strengthen cooperative action with effective involvement and sharing of experience of all relevant stakeholders, and
- 3. calls for greater efforts towards the conservation of mountain ecosystems, including their biodiversity, through long-term vision and holistic approaches, including through incorporating mountain-specific policies into national sustainable development strategies.

As respective locals of India and Nepal living near the Himalayan region, the severity of pandemic leaving the already vulnerable communities worse off was seen as an urgent crisis by the team members. The Merriam-Webster dictionary defines "Crisis" as "an unstable or crucial time or state of affairs in which a decisive change is impending, *especially* one with the distinct possibility of a highly undesirable outcome." The Cambridge dictionary defines it as "a time of great disagreement, confusion, or suffering." The Himalayan region is a picture of a crisis that has been unfolding for some time now and is waiting to explode. Despite innumerable studies and research on the fragility and the grave danger imminent on the region and its communities, biodiversity, natural resources, and traditional indigenous knowledge, their status has not changed. Wherever changing, the progress of addressing the multidimensional issues and problems associated with the region has been extremely slow and unsustainable. Be it the sustainable conservation efforts towards sacred landscapes, biodiverse-rich protected areas, channeling a community-led and community-owned governance, fighting climate change through enhanced mitigation and adaptation strategies, growing border disputes among the neighboring countries, among many others.

The mountains of the Himalayan region offer a wealth of natural resources that are vital for supporting the livelihoods of more than 1.4 billion people both in the mountains and in the surrounding lowlands. The region is rich in flora and fauna and are considered the water towers of Asia, with major river systems that originating in the Himalayas, along with the region's numerous other lakes and aquifers, which supports food production and energy generation in the region. It is estimated that Hindu Kush Himalayan

¹ Pg. 24-25, Ariza C., Maselli D. and Kohler T. 2013. Mountains: Our Life, Our Future. Progress and Perspectives on Sustainable Mountain Development from Rio 1992 to Rio 2012 and Beyond.

² https://www.merriam-webster.com/dictionary/crisis

³ https://dictionary.cambridge.org/dictionary/english/crisis

ecosystems provides services valued at USD 150–170 billion each year, including water purification and regulation; soil and water conservation; climate change mitigation; provision of food, fodder, forage, timber and non-timber forest products; as well as sacred sites and spaces for recreation. Healthy ecosystems in the region also ensure slope stability, thus protecting people and infrastructure against flash floods, landslides and avalanches⁴. Figure 1 gives an overview of the Himalayan Mountain ecosystem goods and services.

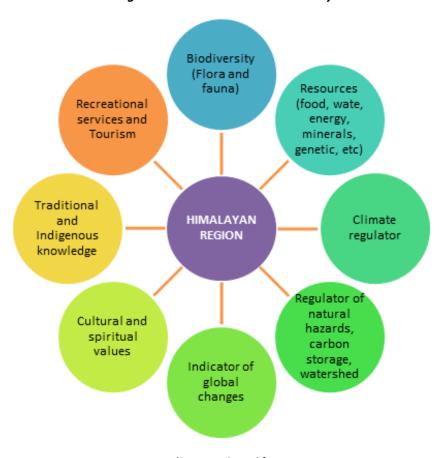


Figure 2: Environmental goods and services in the Himalayan Mountain ecosystem

(Source: Adapted from

 $\frac{https://sustainable development.un.org/content/documents/1915SDGs\%20 and \%20 mountains_forests\%20 and \%20 biodiversity_e_n.pdf)$

However, these invaluable ecosystem services are increasingly at risk. Rapid population growth, deforestation and climate change have had pronounced negative effects on mountain ecosystems. Within its mountains, geographic isolation, sociocultural marginalization, low investment in infrastructure and public services, as well as limited access to markets, technology, information and institutions are associated with poverty and constrain populations from sharing in the economic benefits of regional

⁴ Pg. 61-62, Ariza C., Maselli D. and Kohler T. 2013. *Mountains: Our Life, Our Future. Progress and Perspectives on Sustainable Mountain Development from Rio 1992 to Rio 2012 and Beyond.*

growth. Limited employment opportunities and economic insecurity in the mountains have triggered outmigration⁵. In addition, the region is challenged by food and nutritional insecurity as more than 30 percent of the population suffers from food insecurity, with women and children particularly vulnerable.⁶

Tourism, particularly ecotourism, is an important source of employment and economic revenue in the Himalayan region. Mount Everest, the world's highest mountain, is one of the most popular tourist attractions worldwide, and trekking in the Himalayan valleys and across passes is a popular and steadily growing tourist activity. However, tourist towns and trekking routes have suffered from this resource-intensive industry, which has led to over construction of resorts and other facilities. Moreover, unregulated access to fragile mountain landscapes has had the unintended effect of rendering the people who live there invisible. Many of them have ended up working as menials or porters. Their share in the benefits of tourism is negligible, as revenue largely flows to actors outside the region⁷.

Box 1: Factsheet of the Himalayan Region⁸

- It contains 488 Protected Areas (PAs) covering 39 percent of the region's terrestrial area.
- Close to 50 percent of all mountain people in the region earn their livelihoods from subsistence farming and animal husbandry.
- Changes in the land cover of key river basins are alarming: the Indus and Ganges basins have lost 90 and 85 percent of their original forest cover, respectively
- Over 40 percent of the world's poor live in the region.
- Close to 15 percent or 30 million Asia's economic migrants come from countries in the region, which receives the highest inflow of remittances of all regions in the world – close to US\$ 70 billion in 2007.
- Progressive warming at higher altitudes in the region is three to five times the global average and has led to rapid glacial retreat, shrinking lakes, diminishing river flows and reduced water availability in the river basins to meet agricultural and domestic needs.
- Tourism accounts for about 4 and 9 percent of the gross domestic product in Nepal and India, respectively.

Recognizing the significance of the Himalayas to the region as well as the need for urgent action to sustain mountain environments and improve livelihoods, the HKH Call to Action was charted in 2020. This provides a rallying call where different actors can undertake actions towards sustainable development of the region that is environmentally sustainable, mountain specific and focused on people's well-being and prosperity. The six actions outlined in the HKH Call to Action are: (1) Cooperate at all levels across the

⁵ Pg. 62, Ariza C., Maselli D. and Kohler T. 2013. *Mountains: Our Life, Our Future. Progress and Perspectives on Sustainable Mountain Development from Rio 1992 to Rio 2012 and Beyond.*

⁶ ICIMOD (2020). The HKH Call to Action to sustain mountain environments and improve livelihoods in the Hindu Kush Himalaya.

⁷ Pg. 64, Ariza C., Maselli D. and Kohler T. 2013. *Mountains: Our Life, Our Future. Progress and Perspectives on Sustainable Mountain Development from Rio 1992 to Rio 2012 and Beyond.*

⁸ Rasul, G. (n.d.). Green Economy for Sustainable Mountain Development. International Centre for Integrated Mountain Development (ICIMOD), Nepal; Pg. 61-64, Ariza C., Maselli D. and Kohler T. 2013. *Mountains: Our Life, Our Future. Progress and Perspectives on Sustainable Mountain Development from Rio 1992 to Rio 2012 and Beyond.*

HKH region for sustainable and mutual benefits; (2) Recognize and prioritize the uniqueness of the HKH mountain people; (3) Take concerted climate actions at all levels to keep global warming to 1.5 degree Celsius by 2100; (4) Take accelerated actions to achieve the SDGs and the nine mountain priorities; (5) Enhance ecosystem resilience and halt biodiversity loss and land degradation, (6) Regional data and information sharing and science and knowledge corporation.⁹

METHODOLOGY

We recognized the need to contribute to building the communities to face the post-pandemic world, and identified most with the youth and young children. The local youth will receive the immediate short end of this problem, but so will the young children who would grow up into this ecosystem soon to build livelihoods and identities. Merging our interdisciplinary backgrounds ranging from engineering, anthropology/sociology, and to international relations, the project tried to look into specific communities through various angles -- under the three main headings of environment, culture, and livelihood -- to bridge international gaps and issues of poverty and environmental destruction.

We looked at three communities in the Himalayan region to find some common threads across the region that speaks to the problem, and to prevent bias. Recognizing the transnational nature of this region, we tried to include two countries -- India and Nepal -- to strengthen our understanding of common features characterizing the local Himalayan community. In Nepal, we looked at the Sherpa community in Solokhumbu district, and ethnic Tibetan communities living in the Nubri and Tsum valleys in Gorkha district. In India, we looked at the Changpa community who inhabit the northern part of the country within the Leh district of the State of Jammu.

PROBLEM IDENTIFICATION

Mountain people have historically been marginalized politically, socially and economically by the dominant lowland powers. As a result, they have had little involvement with, or control over, national-level decisions.

- In general, mountain societies across the region exhibit similar patterns of land use, resource management and social organization;
- Owing to the low levels of infrastructure, mountain farmers are usually without many of the
 agricultural services and inputs available to lowland farmers and must, therefore, rely on natural
 seasonal patterns and their own knowledge and skills for survival;

⁹ ICIMOD (2020). The HKH Call to Action to sustain mountain environments and improve livelihoods in the Hindu Kush Himalaya.

- The significant, or even dominant, role of women in the sphere of production, as well as in the more conventional domestic sphere, is a common feature;
- Other commonalities include patriarchy, impacts of environmental degradation, imposition of new values and poor representation of women's interest at all political levels.¹⁰

In the tense balance between poverty alleviation and environmental biodiversity conservation, the question of local interest is thus important. However, this importance of local interests does not necessarily translate into local authority. In other words, the locals are considered stakeholders as opposed to active decision-makers. This reflects a gap that Naughton notes in his description of sustainability and therefore calls for social equity in achieving SDGs. As such, even though the locals may constitute the problem, their lack of participation in the decision-making continues to relegate them into the problem space and render them as alien or divergent elements in conservation terms. Also, the lack of participation in conservation debates means that their knowledge and experiences do not translate into solutions. Instead, the locals are guarded off from protected spaces such as biodiversity parks with military, local bureaucrats, and media monitoring which introduces a disconnect with real costs, like economic resources. The ensuing crises that emerge is this: local knowledge is undermined, and with it, poverty in terms of livelihood concerns either is left out or remains a secondary concern. Together, they risk entrenching social inequalities that leave locals worse off to meet global aims of conserving rich biodiversity. Such manner of conservation is couched in the current trend towards achieving SDGs that unfortunately carry the risk of creating further poverty while seemingly achieving biodiversity goals by 2030. It also points at the risk of one or more SDGs undercutting others due to the lack of localization of SDGs particularly in terms of priorities on ground (actors, timelines, scale etc.).

A striking feature of the Himalayan region is its multiple ethnic composition. We studied three such ethnic communities in the region to inform our proposal. Box 2, 3, and 4 provide brief case studies on three different communities living in the Himalayan region.

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¹⁰ Gurung, J. (1999). Women, children and well-being in the mountains of the Hindu Kush Himalayan region. *Unasylva* No. 196 Vol. 50.

Box 2: Changpa community¹¹

The Changthang region in the Indian Trans-Himalayan area of Ladakh represents the western extension of the Tibetan Plateau, an important highland grazing ecosystem. The Changpa, nomadic pastoralists who originally migrated from Tibet in the eighth century A.D., graze the rangelands of Changthang. The Changpa are Buddhists and share cultural and linguistic affinities with Tibet. They lost access to several traditional pastures on the Tibetan side when India and China fought a war in the region in 1962. Around the same time, the Indian side saw a heavy influx of Tibetan refugees, who, like the Changpa, rear a variety of livestock including horse, yak, sheep and goat. These livestock types are adapted to the hostile and marginal pastures of the region, and provide a range of products and services. The domestic goats of Changthang reportedly produce the finest cashmere wool or Pashmina in the world.



Figure 3: The prized Pashmina goats of the Changpas

Source: https://www.firstpost.com/india/for-ladakhs-pashmina-goat-rearing-changpa-nomads-change-comes-to-a-centuries-old-way-of-life-7380321.html

Recent studies of the people of Changthang suggest considerable social, economic and land tenure changes, particularly during the period after the war between India and China. These studies were conducted primarily in the Rupshu-Kharnak area that is relatively close to the district headquarters, Leh, and is an important tourist destination. However, there is virtually no information from other parts

¹¹ Namgail, T., Bhatnagar, Y. V., Mishra, C., & Bagchi, S. (2007). Pastoral Nomads of the Indian Changthang: Production System, Landuse and Socioeconomic Changes. *Human Ecology*, *35*(4), 497–504. https://doi.org/10.1007/s10745-006-9107-0

of Changthang, especially the eastern Hanle Valley bordering China, a remote area which is out of bounds for foreign nationals, and for which Indian nationals need a special permit. The Hanle Valley is an important area for wildlife conservation. It supports the last surviving population of the Tibetan gazelle in Ladakh, a species on the brink of extinction in India. Hunting in the past, and excessive livestock grazing in its high-altitude habitat, dwindled the gazelle population, from an area of 30,000 sq.kms to less than 100 sq.kms within the last century. The Hanle Valley also supports a relatively high density of a species of wild ass that grazes alongside livestock. Although traditionally tolerated, local people today believe that they compete with livestock for forage, and are thereby compromising cashmere wool production.

Box 3: Nubri and Tsum communities

The Nubri and Tsum valleys in Nepal's northern Gorkha district are situated along the country's border with Tibet and are populated by ethnic Tibetans who settled in these valleys more than 700 years ago. These valleys are part of the Manaslu Conservation Area (MCA) located in the northcentral region of Nepal. The MCA encompasses an area of 1,663 sq. km. and is inhabited by about 9,000 inhabitants.¹ The MCA encompasses three broad geographical areas, which include the Nubri valley, Kutang, and the Tsum valley. It is under the jurisdiction of the Department of National Parks and Wildlife Conservation and is managed by the National Trust for Nature Conservation (NTNC). The NTNC has established seven Conservation Area Management Committees in total in the area.¹

The Nubri and Tsum valleys are inhabited by ethnic Tibetans. The Tsum valley is divided into two village development committees (VDCs), which is comprised of 11 villages of approximately 1,500 people. The Nubri valley is divided into four VDCs.¹ These valleys are characterized by very high youth outmigration. Until recently, residents of these valleys made their living primarily through farming, herding and trans-Himalayan trade. However, in the recent decade, local communities have reaped varying levels of rise in incomes through the collection and selling of Yartsa gunbu (Caterpillar fungus). Tourism is another source of income for the communities as number of tourists as well as tourism supporting infrastructures in these valleys have grown in recent years. The Tsum valley houses two community-based organizations- Tsum Welfare Committee and Tsum Shyagya Conservation Committee- which provide institutional platforms for community development and cultural preservation. These organizations also build relationship with the government, political leaders as well as conservation agencies.¹

Box 4: Sherpa community

In the context of Nepal, the indigenous communities form about 40% of the population; these people are called 'adivasi janjati' and recognized as such under the national law.¹² The Sherpa community is indigenous to the high Himalayan region of Solokhumbu district located in the North-East part of the country. The region is a popular destination for tourism due to the Mt. Everest and the protected area (PA) of the Khumbu region which was designated as Sagarmatha (or Mt. Everest) National Park since 1976 under the National Park and Wildlife Conservation Act 1973; soon, it came to be recognized as a UNESCO World Heritage in 1979.¹³

Figure 5: Danuru Sherpa, a veteran guide, pulls his way up a fixed line between Camp 1 and Camp 2 on Ama Dablam.



Source: https://www.nationalgeographic.com/science/article/140426-sherpa-culture-everest-disaster

Under the monarchy when the nationalization of *kipat* (local/customary) land was decreed for conservation purposes to meet international biodiversity needs, the Sherpas too violently lost their

¹² Pg. 31, Stevens, S. (2013). National Parks and ICCAs in the High Himalayan Region of Nepal: Challenges and Opportunities. *Conservation & Society* 2013 Vol. 11, No. 1.

¹³ Pg. 69, Jeremy Spoon, J. & Drawp; Lhakpa Norbu Sherpa, L. N. (2008). Beyul Khumbu: the Sherpa and Sagarmatha (Mount Everest) National Park and Buffer Zone, Nepal. In Protected Landscapes and Cultural and Spiritual Values Volume 2. Ed. by Josep-Maria Mallarach. IUCN, GTZ and Obra Social de Caixa Catalunya.

land to conservation.¹⁴ This is what preceded the creation of the SNP. Regardless of the level of movement, like many PA across the globe, the SNP in Nepal are also guarded by the national army and facilitated by the Department of National Park and Wildlife Conservation (DNPWC) under the Ministry of Forests and Social Conservation, GoN.¹⁵ The locals are thus contained in settlements under a conservation arrangement called buffer zones, creating what is called the Sagarmatha National Park Buffer Zone. While next to SNP, the locals are still in the region and rely on the ecology for livelihood. And so, local Sherpas must seek permission (permits quotas) to access resources such as firewood from the DNPWC authorities and rely on cordiality of successive heads to allow such access.¹⁶ This is a cause of pain for the locals who are seeking more involvement in effectively co-managing the SNP through various ways including the introduction of Sherpa language curriculum in their schools.¹⁷

LITERATURE REVIEW

Through the process of problem identification, we have recognized three potential thematic areas across the three communities we have studied, as the project's focus area of work with the youth:

- 1. Mountain as resource for economic development
- 2. Impact of mountain resources on livelihoods
- 3. Spirituality of the region with respect to conservation and restoration

It is possible that the thematic areas will expand depending on the needs and demands of the youth we would like to work with in the region. Having said that we think that the scope of each of these thematic areas pan across the 2030 SDGs ranging from – SDG 1: No poverty, SDG 2: Zero hunger; SDG 8: Decent work and economic growth, SDG 10: Reduced inequalities, SDG 12: Responsible consumption and production, SDG 13: Climate action; SDG 15: Life on land, and SDG 17: Partnership for goals – and will cover at least some of the issues that the youth will want to work on and be associated with.

Mountain as resource for economic development

For centuries, mountain ecosystems and communities have played a critical role in maintaining a sustainable flow of mountain resources to the downstream users. The advent of new technologies, population increase and development pressures, increased these resource outflows dramatically. However, downstream beneficiaries have contributed little to reinvestment in their management or

¹⁴ Pg. 6, Stevens, S. (2008). The Mount Everest Region as an ICCA: Sherpa Conservation Stewardship of the Khumbu Sacred Valley, Sagarmatha (Chomolungma/Mt. Everest) National Park and Buffer Zone. IUCN.

¹⁵ Pg., 6, Dongol, Y. & Dongo

¹⁶ Pg. 35, Stevens, S. (2013). National Parks and ICCAs in the High Himalayan Region of Nepal: Challenges and Opportunities. Conservation & Department of the High Himalayan Region of Nepal: Challenges and Opportunities.

¹⁷ Pg. 39, Stevens, S. (2008). The Mount Everest Region as an ICCA: Sherpa Conservation Stewardship of the Khumbu Sacred Valley, Sagarmatha (Chomolungma/Mt. Everest) National Park and Buffer Zone. IUCN.

renewal, or compensation to the traditional stewards of these resources. Another major difficulty in valuation is that mountain resources are themselves inherently complex and interrelated so that they constitute a joint product rather than one. For example, forested watersheds not only provide clean water and forest products, but they also provide habitat for wildlife and erosion control, recreational opportunities, clean air and, in many places, sacred significance for surrounding populations. In addition, the complexity of mountain resources and the limitations of traditional pricing approaches, the resource value is typically not reflected in the product price. Consequently, mountain communities, as suppliers, do not derive appropriate benefits. As a result, natural assets are flowing downhill at unsustainable rates and mountain communities are becoming increasingly marginalized. However, traditional downstream beneficiaries are slowly starting to feel the adverse effects of the unsustainable extraction of mountain resources, and no longer receive the benefits of indirect environmental services they previously enjoyed¹⁸.

Impact of mountain resources on livelihoods

The collection and selling of forest and mountain products have resulted in transformative livelihood impacts across the world. One such mountain resource that has contributed to economic and social transformations across the Himalayan region and the Tibetan Plateau is the harvesting and trading of Yartsa Gunbu (Caterpillar Fungus).¹⁹ This medicinal fungus, often referred to as 'Himalayan viagra' in the media is widely traded as a strong tonic in Chinese medicine.²⁰ Over the years, as this commodity has increased in value, it has brought economic benefits to households across the Tibetan Plateau as well as in the highlands of Bhutan, India, and Nepal.²¹ In the Dolpa and Darchula districts of Nepal, which are the largest Yartsa Gunbu suppliers of the country, majority of the population is involved in the collection and trade of Yartsa Gunbu at various levels as their main source of income.²²

Despite the socioeconomic importance of this medicinal fungus, the future viability of this high value commodity is being threatened by unsustainable practices.²³ In recent years, the increase in demand and price has led to its overexploitation due to which it has been enlisted as vulnerable species in the ICUN's Red List of Threatened species since 2020. In many areas where Yartsa Gunbu is harvested, the weak management by the government is creating an environment of unhealthy competition among supply

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Childs, G., & Choedup, N. (2014). Indigenous Management Strategies and Socioeconomic Impacts of Yartsa Gunbu (Ophiocordyceps sinensis) Harvesting in Nubri and Tsum, Nepal. Himalaya, the Journal of the Association of Nepal and Hiamlayan Studies, 34. Retrieved from

https://digitalcommons.macalester.edu/cgi/viewcontent.cgi?article=1950&context=himalaya

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Pant, B., Rai, R. K., Bhattarai, S., Neupane, N., Kotru, R., & Pyakhurel, D. (2020). Actors in customary and modern trade of Caterpillar Fungus in Nepalese high mountains: who holds the power? Green Finance, 373-391. doi:10.3934/GF.2020020

¹⁸ The economics of mountain resource flows. http://www.fao.org/3/w9300e/w9300e07.htm

²¹ Ibid.

²³ Rana, P.& Basnet, S. (2019). Communities across the Mahakali agree in the sustainable management of yartsa gunbu. ICIMOD. Retrieved from https://www.icimod.org/communities-across-the-mahakali-agree-on-the-sustainable-management-of-yartsa-gunbu/

chain actors, which is leading to unequal distribution of benefits across actors as well as erosion of social relationships and trust.²⁴

While mountain resources such as the Yartsa Gunbu offer a huge potential for enhancing local livelihoods, there is a critical need to ensure effective management of such important bioresources. Bottom-up approaches that ensure integration of local communities in resource management and policy decision-making will be key to ensure conservation of critical mountain and forest products/resources.²⁵

Spirituality of the region with respect to conservation and restoration

The issue for mountain people is not simply about resources for livelihood or ecological preservation for biocentric reasons when we talk of high Himalayan regions and the communities that live there. The Himalayan region is also a rich trove of traditions and customary understanding. With the Sherpas, the Khumbu topography is seen as 'sacred' and inextricably tied to the religious beliefs and collective history of the Sherpa community. As such, the protection of the Khumbu land is in fact a local customary practice since any acts of harm are seen as going against the Sherpa beliefs.²⁶ Himalayan communities vanguardism like with the Sherpas have been read as 'environmental stewardship'. 27 The recognition of sacredness behind the Himalayas and related elements have also seen other initiatives by governments across the region such as the recognition of the Himalayas as a 'legal person' in 2017.²⁸ As with the progress in biodiversity conservation science, the ethical questions of costs of local livelihood also came to the foreground conservationists globally. The debate is best captured by the poverty alleviation and biodiversity conservation nexus - some view it as a binary that is antagonistic while some others see it as simultaneously achievable with varying degrees.²⁹ The science of conservation also determines how opaque the protected nature of a conservation area needs to be, and thus, seminal organizations like IUCN have gradations to determine the access to be given to the locals in the PAs. In the vein to co-manage the Khumbu consequently, the Sherpa community in this case called for recognition of their proposal to

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Pant, B., Rai, R. K., Bhattarai, S., Neupane, N., Kotru, R., & Pyakhurel, D. (2020). Actors in customary and modern trade of Caterpillar Fungus in Nepalese high mountains: who holds the power? Green Finance, 373-391. doi:10.3934/GF.2020020

²⁵Pradhan et. al. (2020). Distribution, Harvesting, and Trade of Yartsa Gunbu (Ophiocordycepssinensis) in the Sikkim Himalaya, India. doi:https://doi.org/10.1659/MRD-JOURNAL-D-19-00039.1

²⁶ Pg. 2, Stevens, S. (2008). "The Mount Everest Region as an ICCA: Sherpa Conservation Stewardship of the Khumbu Sacred Valley, Sagarmatha (Chomolungma/Mt. Everest) National Park and Buffer Zone." *IUCN*.

²⁷ Stevens, S. (2008). "The Mount Everest Region as an ICCA: Sherpa Conservation Stewardship of the Khumbu Sacred Valley, Sagarmatha (Chomolungma/Mt. Everest) National Park and Buffer Zone." *IUCN*.

²⁸ O'Donnell, E. & Talbot-Jones, J. (2021). "Will giving the Himalayas the same rights as people protect their future?" *The University of Melbourne*.

²⁹ Redford, K.H., Robinson, J. G., Adams, W. A. (2006). "Parks as shibboleths." Conservation Biology 20 (1) & Cernea, M. (2006). "Population displacement inside protected areas: a redefinition of concepts in conservation policies." In Poverty, Wealth and Conservation. *Policy Matters IUCN*.

consider the region as a Khumbu Community Conservation Area.³⁰ They sought to mobilize the conservation practices that have called for due recognition of Indigenous Community Conservation Areas (ICCAs) to appreciate indigenous knowledge to protect the area. However, despite Nepal's participation in international fora on conservation including the IUCN panel on importance of recognizing ICCAs, there is a state fragmentation: the local authorities decried this very ICCA proposal as illegal on the grounds that the Sherpas were calling to take over the SNP for private interests instead.³¹ This resulted in skirmishes which attracted negative press in the capital towards the Sherpas and an ensuring fear of cultural erosion and deepened marginalization.

OUR PROPOSED SOLUTION

Poverty reduction and environmental protection must be pursued simultaneously using indigenous local knowledge if the livelihoods of the mountain people are to be sustainable for the future. In addressing our problem, we will look at the youth as an avenue to address the issues of unsustainable consumption, conservation, livelihood, and cultural values – all of which encompasses the three thematic areas of – mountain as resource for economic development, impact of mountain resources on livelihoods, and spirituality of the region with respect to conservation and restoration, through various forms of interactions as shown in Figure 6. These interactions will vary between regions or within same region depending on the issues, factors and resources on field, among others.

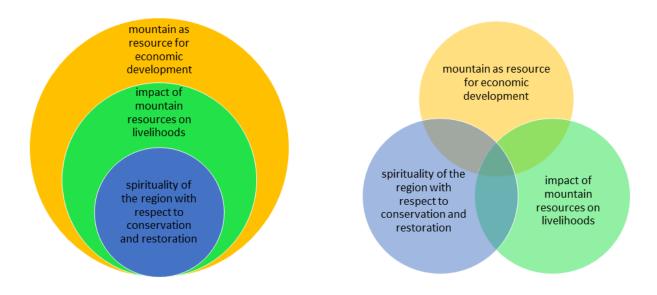


Figure 6. Interactions of thematic areas

³⁰ Pg. 4, Stevens, S. (2008). "The Mount Everest Region as an ICCA: Sherpa Conservation Stewardship of the Khumbu Sacred Valley, Sagarmatha (Chomolungma/Mt. Everest) National Park and Buffer Zone." *IUCN*.

³¹ Pg. 4, 5, Stevens, S. (2008). "The Mount Everest Region as an ICCA: Sherpa Conservation Stewardship of the Khumbu Sacred Valley, Sagarmatha (Chomolungma/Mt. Everest) National Park and Buffer Zone." *IUCN*.

For the interest of this project, we will begin by looking at one community, i.e., Sherpas in the Khumbu region. We believe that the lessons learned from this intervention can be scalable to other mountain communities - the Changpas, and the Nubri and Tsum communities, with necessary adaptations, since the themes that we tackle have been derived from concerns that characterize the trans Himalayan Mountain people at large. As you will note, our interventions are aimed at building capacity of the local youth for and through the linking of *existing* institutions and organizations in the region. We believe that being outsiders to the region, we are not well-aware and knowledgeable-enough to decide and manage what the local youth may prioritize as issues to address within their communities. Therefore, the project aims to provide a nurturing platform for the youth to determine the issues and modalities of addressing the most pressing challenges of the region – landscape, culture, and identity in the way they see fit, built on the foundation of the thematic areas shown in Figure 6.

Our project is about *catalyzing* effective and lasting mechanisms needed to address, conserve and maintain the environmental goods and services harnessed in the Himalayan region, and support the sustainable development of the people in the region, via the youth, with the help of formal and informal institutions and organizations working in the region so as,

- to inform, communicate and empower the youth based on the existing academic and research knowledge on mountain resources, conservatory efforts from around the world.
- to identify clear ownership, rights and responsibilities of the youth and their potential impacts.
- to introduce incentives so that solutions are introduced and implemented by youth are sustainable over the long term; and
- to harness and sustain the traditional and indigenous knowledge of the Himalayan communities through their youth.

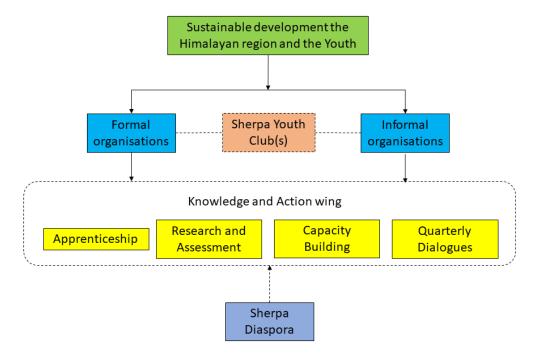


Figure 7: Schematic of the proposed solution

Formal organisations: Building a cohort of young conservation leaders in the Himalayas

Our solution is anchored in our belief that young people represent the next generation of conservation practitioners and leaders in the Himalayan region. We plan to engage, empower and inspire local youths so that they can be stepped up to champion local culture, conservation, and sustainable livelihood practices. To do this, our proposed solution entails establishing formal partnerships with different NGOs, INGOs, international agencies, as well as local and national governments that are working in the region to develop an **internship program for local youths** at these various organizations and state bodies. We have identified some organizations whom we want to partner with to co-develop the internship program. These organizations are presented in the table below.

International Organizations	Intergovernmental Organization	INGOs/NGOs	Government
Food and Agriculture Organization (FAO); Conservation of Nature (IUCN); UNDP	International Centre for Integrated Mountain Development (ICIMOD)	World Wildlife Fund (WWF)	Department of National Parks and Wildlife Conservation (DNPWC)

The internship program will comprise of three key thematic areas: (1) Conservation of mountain resources; (2) Sustainable livelihoods build around mountain resources; (3) Utilization and preserving the traditional and local knowledge and cultural values. At the pilot phase, 20 Sherpa youth will be selected to take part in six months-long research and/or policy internships with our different partner organizations. The selection criteria will involve participants' interest areas, background, and preparation for these positions. We will also hold virtual interview with short-listed candidates to understand their motivations and expectations.

The selected youth will be inducted into the internship program through a two-week long introductory period, which will be coordinated by us in partnership with representatives from different partner organisations. During this introductory period, we will hold training sessions on different topics related to the three internship program areas. We will also bring in external speakers to share perspectives on conservation and sustainable livelihood practices from other regions of the world. This period will also provide an opportunity for the youth to get to know each other as well as understand how different organizations and state bodies are operating in the region.

After the introductory phase, interns will work with respective organizations over a five-month long period where they will undertake research on topics related to conservation, livelihood and/or value culture. Partner organizations will be responsible for ensuring that the interns have a dedicated supervisor who will guide/support the intern for the entirety of their internship. They will also be responsible for providing a basic stipend for these interns. Throughout the six months long period, we will continue to hold bi-monthly training sessions on different topics, and we will encourage the participating youth to take advantage of different trainings and capacity building programs organized by our partner organizations. During the final two weeks of the internship program, we will hold concluding sessions in

partnership with respective organizations where interns will get an opportunity to share their research findings with each other as well as partner organizations

The need for more local representation inside various bodies that work in the region became clear during our problem identification phase. With this need in mind, the internship program will be designed as a two-way exchange between the participating youths and respective organizations -- youth will bring in perspectives on local culture and conservation practices and at the same time gain skills and knowledge on how different organizations are approaching these issues in their respective region of interest. Ultimately, by enabling a two-way exchange and learning, we want to emphasize on the need for integrating local perspectives and knowledge in regional, national, and global conservation and livelihood practices.

Informal organizations: Strengthening strategic youth associations and networks in the region

The mobilization of youth through apprenticeships with partner organizations, done solely, may not however be adequate. We recognize the limitation it may carry currently in two ways: a) they might limit the exchange of knowledge and thus, restricting capacity building to elite groups, i.e., well to do educated Sherpa youth at the cost of others youth across the Khumbu region; b) it may also risk creating an atmosphere of information learning without necessarily ground level mobilization that is made possible through campaigns. Here, we see the opportunity to not only overcome the problem of implementation with the knowledge created by the young Sherpa researchers, but also an avenue to involve other local youth in the region having recognized social heterogeneity within the local youth.

In order to enable this, we plan to forge a partnership with an existing body of Sherpa youth called the Sherpa Youth Club, who are active across the Khumbu district. We selected this body to act as a bridge that can serve as a meeting ground for all types of youth in the region. Within the context of our intervention, it is about creating a platform of dialogue between the young Sherpa researchers and other local youth to further share knowledge and mobilize them. In terms of exchange, our project will entail creating monthly group discussions among the youth on various topics of Sherpa conservation, culture, and other themes as facilitated by the Youth Club. This could also be an avenue for the research interns to make presentations of their work with the formal organizations and the lesson learning that took place. Such an exchange panel and group discussions could be the **'knowledge wing'** of our project.

The next order of things would involve mobilizing the existing network of resources of the Sherpa Youth Clubs to create the 'action wing'. In our part, the core element of intervention here would be the creation of a social media campaign that serves to bridge information gaps, opportunities, and Trans Himalayan local solidarity. Here, we also recognize the opportunity of involving the local youth from the Sherpa diaspora located in significant numbers in Queens, New York. This can also be another way to enhance the two wings of our project. The Sherpa diaspora community -- who is known to be active -- can also be mobilized to support this project through other resources like donations to finance campaigns, where needed, to supplement the current financial model of the Sherpa Youth Association.

Project Feasibility

- We are looking at creating partnership with already existing youth association. This means that
 we do not have to create new institutions in the absence of the ground knowledge as well as
 funding.
- The availability of a significant Sherpa diaspora community in Queens, New York, and their strong ties to the Khumbu region makes them an important stakeholder who can be mobilized effectively for funding and other resources.

PROJECT SUSTAINABILITY

The general flow of migration among youth are not wholly related to ecological factors though the turn to tourism and labor migration have been noted since the 2000s due to climate change.³² However, other reasons besides poor livelihood due to climate change also characterize the youth in Himalayan region, such as access to quality education in cities, health facilities.³³ Since it may not be ethical to propose solution that may suggest the local youth not to migrate, our project has sought to overcome this by designing relevant and rooted partnerships. In our very choice, we were interested in partnerships with formal and youth associations to keep the project going because they are already part of the Himalayan ecosystem and have advocacy power to influence policy, possibly even for affecting these long-term changes to better manage youth migration.

CONCLUSION

Through this project, we have sought to address the multidimensional concerns that the mountain communities in the Himalayan region face, namely, risk to environment, livelihood and culture. We also recognize how these communities form one of the most marginalized people in the world. The poverty of livelihood through the ongoing development and conservation practices at the cost of local agriculture, for example, have further risked their impoverishment. However, these communities are also rich repository of local and indigenous knowledge of living sustainably in the fragile Himalayan region, as they have for the past decades. This balance is important to maintain in light of the severe climate change threats to the region. Having noted these relationships, our project sought to build the capacity of the local stewardship by enhancing information creation and exchange across the region. The local

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³² Pg. 55, Shaoliang et al. (2012). Pastoral Communities' Perspectives on Climate Change and Their Adaptation Strategies in the Hindukush-Karakoram-Himalaya. In *Kreutzmann H. (eds) Pastoral practices in High Asia. Advances in Asian Human-Environmental Research.* Springer, Dordrecht, as cited in Adler, C. *et al.* (2021). Chapter 2: High Mountain Areas. In *A Plural Climate Studies Framework for the Himalayas. Current Opinion in Environmental Sustainability* (51).

³³ Adler, C. *et al.* (2021). Chapter 2: High Mountain Areas. In *A Plural Climate Studies Framework for the Himalayas. Current Opinion in Environmental Sustainability* (51),42-54: Pg. 55.

communities' fear of cultural loss among their youth coupled with the existing access to social media made local youth a fitting target for our project. By preserving and enlivening the indigenous culture (here, Sherpas who are one of the mountainous cultures at risk) by engaging the youth, our project seeks to challenge the crisis of loss of crucial mountain resources which have been the source of existence of the Himalayan communities, and will continue to draw their fates and those beyond the core Himalayan region .

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