



Reflection of Environmental Changes in the Discourse and Ecological Vocabulary of Shina Speakers in Roundu: An Ecolinguistic Perspective

Muhammad Asif Javaid^a, Zahra Batool^a, Abdul Rehman Mir^a, Altaf Hussain^{*b}

a. Department of Languages and Cultural Studies, University of Baltistan, Skardu, Pakistan

b. Govt. Boys Middle School Chilum, Astore, Pakistan

ARTICLE INFO

Received:

January 22, 2026

Revision Received:

March 09, 2026

Accepted:

March 13, 2026

Available Online:

March 13, 2026

Keywords:

ecolinguistics, shina language, environmental change, indigenous knowledge, linguistic vulnerability, cultural erosion, language and ecology.

ABSTRACT

This study examines the relationship between environmental change, and the language practices of Shina speakers in the Roundu region of Gilgit-Baltistan. Using a qualitative research design, data were collected through semi-structured interviews with three generational groups: elders, middle-aged adults, and youth. An ecolinguistic approach was used to explore how environmental changes, including glacier retreat, irregular rainfall, changing agricultural practices, and resource scarcity, influence language and ecological knowledge. The findings reveal a strong link between environmental change and language use. Elders retain extensive ecological vocabulary and traditional knowledge, while younger speakers show a decline in indigenous ecological terms and oral traditions. The study concludes that environmental and socio-cultural changes are accelerating the erosion of ecological knowledge and linguistic heritage. It highlights the need to document and revitalize indigenous knowledge to support the preservation of the Shina language and culture.

1. Introduction

Language, culture, and the environment are closely interconnected. Language does not only show the interaction of man with nature but also influences the way communities think, categorize and act on ecological realities (Garner, 2017). This relationship is being stretched in high-altitude landscapes of Gilgit-Baltistan, especially in the Roundu area, where environmental changes are increasing day by day. With the retreating glaciers, changing weather patterns, and increasing incidence of natural calamities and the conventional lifestyle is being disturbed to a greater extent. To the native Shina-speaking people of Roundu, such transformations do not only pose a danger to their farming and pastoral activities, but also have far-reaching impacts on their language usage, oral traditions, and cultural identity. Shina language is the one of the oldest and most prominent regional languages spoken in northern Pakistan, which belongs to the Dardic group of languages to the Indo-Aryan branch of the Indo-European language family (Masica, 1993). It is mainly spoken in Gilgit, Astore, Diamer, and

* Correspondence to: Govt. Boys Middle School Chilum, Astore, Pakistan

E-mail address: altaf.hussain@uobs.edu.pk (A. Hussain).



some areas of Chilas, Kohistan and Kashmir and certain regions in Baltistan area, such as Kharmange and particularly in district Roundu. There are a number of dialectal varieties of Shina and it has conventionally been an oral tradition with minimal written literature. Although it has a rich expressive potential and long cultural tradition, Shina is not an officially recognized language in the national language policy in Pakistan. It is not a medium of instruction in formal education, and is not significantly represented in mass media, which makes it vulnerable against powerful languages such as Urdu and English (Mirza, 2025).

The Shina language has historically been important in defining the ecological and cultural worldview of its speakers. It has a rich ecological vocabulary, and there are special names of local flora and fauna, topography, weather, and seasonal markers (Rajapurohit, 2012). As an example, the glacial formations, the irrigation channels (*kul /eal or yap*), and the local methods of farming (*baan fareyono*, *khal fareyono*, *kacxh leyono*, *aloue palteyono*) have their own words in Shina, which are ecologically important. The terms are not descriptive only, but they form a larger cultural system that signifies sustainable interaction with nature. With the environmental changes taking place, most of these terms are in danger of becoming extinct and this is a sign of the traditional knowledge in the language being lost.

Objectives

- To examine how environmental changes are reflected in the discourse and ecological vocabulary of Shina speakers
- To investigate the loss or change in ecological vocabulary

Research Questions

1. How are environmental changes reflected in the discourse and ecological vocabulary?
2. What are the changes or loss in ecological vocabulary due to environmental changes?

Significance of the Study

This study holds significance in scholarly and professional terms, especially in the context of the emerging new field of science, ecolinguistics. It provides an empirical case study of the Gilgit Baltistan region, which has relatively little research, and especially to the Shina-speaking villages of Roundu. Through the analysis of the points of intersection of language, culture, and ecology, the study indicates that language practices are closely connected to environmental realities. It shows that ecological change, including the melting of glaciers, unpredictable precipitation and natural catastrophes are not only affect material livelihoods, but also affect the means through which communities represent their knowledge, discourse the natural world, and cultural continuity. This research addresses one of the most significant gaps in the existing knowledge, which has been largely concerned with environmental degradation and socio-economic consequences but has neglected or pay little attention on the aspect of language change which is a critical issue. It gives an understanding of how environmental changes can fasten the process of loss of indigenous language, particularly the eco-vocabulary, idioms, and oral culture of the Shina speaking community.

2. Literature Review

Introduction to Ecolinguistics

Ecolinguistics is a new interdisciplinary field, which examines the interaction between language and the ecological environment (LeVasseur, 2015). It was inspired by an increasing recognition that a language is key in molding the human cognition of the world around them and how we interact with nature. Scholars such as Arran Stubbe (2015) contend that language plays a role in enabling degradation and defense of the ecosystems in terms of the discourses in which our environmental behaviors are discussed (Re, 2024). Ecolinguistics explores the way that traditional languages reflect the relationship to nature sustainably and how ecological knowledge is encoded in such languages particularly as used by native people. Shina as a Dardic language used in Gilgit-Baltistan region is closely connected with the environmental conditions and cultural-knowledge systems of the speakers (Issa et al., 2023). The current research is an addition to the field of ecolinguistics as it explores the influence of environmental changes, particularly changes caused by climate change, on not only the material existence but also on the language in-use of the Roundu speech community of Shina.

Language is a cognitive and cultural filter, which helps individuals to conceptualize the world around them. The metaphors, stories, and words within a language direct how a group of people sees nature, as something to be used or something to live in harmony with. Arran Stubbe (2015) states that language has the stories we live by, which define how societies are justifying or questioning unsustainable behaviors. As an example, the industrial or exploitative metaphor like the conquest of nature or the harvesting of resources implicitly supports human control over the ecological systems, which justifies the harm to the environment. On the other hand, the native languages tend to reflect mutual and respectful relations to the environment and introduce the human being as a member of a broader ecological community instead of rulers of it. In this regard, ecolinguistics is aimed at discovering how the linguistic constructs reflect ecological values, and how linguistic change could be caused by the

change of the environment. The foundations of ecolinguistics were made by scholars such as Haugen (1972) with his theory of language ecology, which focused on the idea that any language is a part of an ecosystem of human and natural relations.

Theoretical Framework

This study is theoretically based on ecolinguistic approach that provide useful insights into the complex interaction between language, environment, and cognition. Einar Haugen was the first to coin the term language ecology to refer to the study of interactions between a language and its social and physical surroundings (Durrell, 1975). This model highlights the fact that languages are not self-contained but they operate in an ecosystem of human activity, natural environment, and cultural practices. Ecological context determines the use of language, its preservation and evolution. According to Eliasson, language ecology deals with the way in which environmental context constrains or empowers linguistic expression and the way in which language systems react to environmental changes (Romaine, 2009).

Environmental Changes in Gilgit-Baltistan

The geography of Gilgit-Baltistan renders it as a hotspot of climate changes as this region depends on glaciers to provide most of its water supply. A 2020 report by International Center for Integrated Mountain Development (ICIMOD) proves that glaciers are melting at a higher rate, the monsoon is particularly erratic, and natural disasters, such as cloud burst, flash floods, earthquakes and landslides occur more frequently (Mehta, 2024). These changes negatively affect communities whose livelihoods depend on agriculture and livestock such as in Roundu where agriculture and livestock are the major activities. A number of local studies, including Khan et al. (2022), report the shifting of cropping patterns, reduced production, and rural household displacement because of land degradation and water scarcity (Ahmed et al., 2022). The only thing that strikes me is that there is very little research on linguistic consequences of these changes. This project aims to address that gap by addressing the topic of climate change and its impact on the Shina language and cultural discourses inherent in it. Gilgit-Baltistan is one of the most ecologically sensitive and fragile regions in the world found in the northernmost region of Pakistan. It is enclosed by some of the largest mountain ranges such as the Karakoram, the Himalaya, and the Hindu Kush, and it hosts the largest cluster of glaciers outside of the polar latitudes, commonly known as the Third Pole (ICIMOD, 2020). These glaciers constitute the source of Indus River which supports millions of people in Pakistan. This ecological system is however taking unprecedented strain. Due to global warming, there is a rapid melting of glaciers in Gilgit-Baltistan that endangers water security, agriculture, and cultural lifeways of local people in the region.

Extreme weather events, like cloudbursts, flash floods, glacial lake outburst floods (GLOFs), and landslides, have become many times more frequent during the last 20 years. Such climatic changes have significant socio-economic and ecological consequences. Most vulnerable ones include villages like in the Roundu Valley that rely on subsistence farming and livestock. Unpredictable weather conditions and shifting soil conditions are replacing or abandoning crops that were previously stable, including wheat and barley (Rasul et al., 2017). These climatic changes are found to be changing the cropping calendar, irrigation systems, and movement patterns of livestock as confirmed by local research. Less glacial run-off in the seasons when farms are in need of water has been the cause of the scarcity of water, which cause the removal of old farming methods that have been sustained for the generations. The example of Gilgit-Baltistan is a reflection of the world trend. Environmental changes around the world are not only posing a threat to biodiversity but also linguistic diversity especially among indigenous communities whose languages are strongly connected to their ecological environment. Indicatively, in the Amazon Basin, plant and animal species that once formed part of the indigenous cosmologies and vocabularies have been destroyed due to deforestation and habitat destruction. Likewise, the melting of ice and evolving sea patterns in the Arctic have upset the linguistic terminology employed by Inuit groups to describe snow types, sea levels and animal migrations. The Himalayas are losing traditional knowledge of the glaciers, water and biodiversity in local languages as the young generations move to urban areas or learn the national languages. Globally, climate change is a linguistic stressor, as it increases the loss of minor languages, which do not have institutional support or written culture. According to the UNESCO Atlas of the World Languages more than 40 percent of the 7,000 languages in the world are facing the threat of extinction in the next century and most of the endangered languages represent communities that live in ecologically vulnerable areas. Over the past several years, linguists and environmental anthropologists have begun to acknowledge that the elimination of language diversity is a phenomenon that is parallel to the elimination of biodiversity, a process that has been termed by scholars like Skutnabb-Kangas (2009) as bio-cultural erosion. Globalization, economic development, and environmental exploitation are the forces behind these processes that have been destabilizing the sustainable knowledge systems the human-nature coexistence has experienced over centuries.

This erosion of bio-culture is manifested in various forms in Gilgit-Baltistan. The ecological rhythms and language of the community were devastated by environmental degradation of the traditional irrigation systems (locally known as *wayo gown*), seasonal herding paths (*laxhsa-pon*, *urzung*) and farming rituals (*goun kalyno*, *shxexha arayno*, *ban faryono*, *dalo douno*, *uko douno*, *wai thyono*, *khal faryono*). Such practices are fading out, and with them the linguistic repertoires that go with them also effects. The words describing the texture of snow (*furi-e-shul bigen*, *pazo-k-watano*, *hath-k-watano*, *kuta-mal began*) mountain

passes, or streams in the glaciers (*xar*, *oux*, *touq*) are being forgotten or translated by generic Urdu words. The destabilization of these linguistic categories is an indicator of an even greater cultural detachment to the environment, and the community may not survive an ecological crisis.

In ecolinguistic perspective, the case of Gilgit-Baltistan highlights the necessity to conserve linguistic ecological knowledge systems by documenting them. Environmental memory is stored in languages such as Shina which provide clues on sustainable land use, adaptation to climate, and conservation of biodiversity. Finally, the physical landscape is not the only area where the consequences of environmental and climate changes in Gilgit-Baltistan are felt, such as the melting of the glaciers, unpredictable rainfall, and increased occurrence of natural disasters. They are transforming cultural identities, social structures, and ecologies of languages. The situation is an example of a larger trend in the global context where climate change is not a scientific or environmental problem, but also a linguistic and cultural one. The disappearance of ecological knowledge stored in indigenous languages such as Shina is an unspoken aspect of climate crisis is an aspect that requires a sense of urgency by linguists, environmentalists, and as well as policymakers.

3. Research Methodology and Design

The research follows a qualitative research design which is informed by ecolinguistic research methods. Qualitative approach would be suitable as it concentrates on subjective experiences, interpretation and meaning-making and not measurement. Qualitative methods are appropriate to explore the depth of the research because the study aims to comprehend how individuals interpret changes in the environment and communicate it with the help of language.

Research Setting, Population and Sampling

The research was carried out in the Roundu valley of Gilgit-Baltistan. The region was chosen due to the strong impacts of the climate change, such as glacial recession, earthquakes, irregular rainfall, floods and landslides. These environmental forces have transformed the local ways of living and culture. This area has been selected as it has large population of Shina-speaking people and geographically vulnerable to climatic changes by making relevant for examining environmental impacts. It also retains rich ecological knowledge and traditions practices which is very essential for knowing the relationship of environment with language. At the same time, this region exhibits generational differences in language use which demonstrate apparent language changes between young and old people. Therefore, Roundu is a perfect place to explore the intersection of ecology and language due to the natural environment, cultural heritage, and evident changes in the environment. The population for this study consists of native Shina speakers living in Roundu region of Gilgit Baltistan. Purposive sampling was used as the research aims is to explore the change in language use, ecological knowledge, and generational differences. In this way, it is possible to choose the participants that are able to give rich, meaningful, and accurate information regarding the environmental change and the use of linguistic practices. The given sampling strategy is particularly significant due to the fact that not all the members of the community have an equal ecological vocabulary or traditional knowledge. Older people, might be having words and phrases that are not being used by young speakers. On the same note, one who is engaged in farming or in the practice of herding might possess ecological knowledge that is not possessed by a student or migrants living in the cities. The study provides a comprehensive perspective of the impact of the environmental changes on the language through premeditated use of the participants with varied age groups and social roles.

4. Analysis and Discussion

Perceptions of Environmental Change

The following excerpts from semi structured interviews with three generational groups indicated significant changes in their environment.

Table 1

Perceptions of Environmental Change

Groups	Extracts	Translation
Elders	Muxonu kahaneni asi gamane hin bodo wa ce. Hinu boday aki nomi ace, kachak maze ponay ban banec. Ash bila acak shidalo gha na ban, gamuk gha loka bilajan. Hinu ane nomi ace furi, dapay, ,muthoray, hinu-dodoray , soru chure, hinal, boyouk, gamuk, aur ane miqdarta thothilaw bilo hin, pazok-hin ,ga kotatay mal bono hin ace.	In past times, heavy snowfall, blocked tracks and paths, people use different names for snow and its concentration, now the weather is warmer and glaciers are melting rapidly. Their names were furi (flurry), dapay (snowflakes), muthoray (snowballs) hinu-dodoray , soru chure (sleet) hinal (avalanches), boyouk (blizzard), gamuk (glacier) for its names and for its concentration people use trems like thothilaw bilo hin, pazok-hin, and kotatay mal bono hin.
Middle	Ash bila Hin gha kaam wan, Gamuka gha loka bilajane, Saylabon gha lai khatra han.	Nowadays snowfall is very little, glaciers are melting at a very fast rate and there is very high risk of floods.

Aged Adults	Asot tu lal gha nush na bas adi environmental purana halat gha waqiyt, pashegans ka asay mala-dadas ranan. Xec ranan ki muxonu waqtar hin gha glacier lai aci, tan ani tamer kam bi gan, ani su wajah ya wai ga kam bi gan.	We do not completely understand how the environment used to transform in the past. Our older people inform us that there was once a heavy falling of snow and great, stable glaciers. They are now smaller in size and consequently the quantity of water available is also less.
Youth		

Analysis

The results show strong differences in perceptions and communication of environmental change between generations in the Shina community. The elders gave detailed descriptions that were rooted in their personal experience of a stable ecological environment. They remembered more snow, bigger glaciers, colder winters and regular seasons. Their narratives were enriched with a wide range of traditional Shina ecological terms such as Furi (flurry), Dapay (snowflakes), Muthoray (snowballs), Soru Chure (sleet), Hinal (avalanches), Boyouk (blizzard), Gamuk (glacier), and expressions describing snow concentration such as Thothilaw Bilo Hin, Pazok-hin, and Kotatay Mal Bono Hin. The use of this special terminology is an indication of their interaction with the natural environment, and their use of ecological knowledge was embedded in daily language. The middle-aged participants, on the other hand, identified the decreases in snowfall, glacier melting, and the risks of flooding, and their discussions were more concerned with the effects of these environmental changes on the economy, agriculture, and community safety. Their responses place them in a transitional group that embraces the inherited ecological knowledge and direct experience of the present environmental problems.

However, the younger participants' perception was different. Although they acknowledged glacier retreat, reduced snowfall, and decreasing water availability, they admitted that their understanding of past environmental conditions came mainly from the narratives of their parents and grandparents rather than from personal experience. Whereas the elders spoke with traditional Shina ecological vocabulary, they did not use it as much as elders did and instead used general expressions or borrowed words to describe phenomena in their environment. This is a sign of declining direct experiences of ecological knowledge and increased reliance on intergenerational transmission of ecological knowledge.

The researcher argue that the awareness of environmental change is different among generations, depending on experiences, and also on the extent of their interactions with the environment. Elders have the deepest knowledge as they have seen the slow changes of the natural world over several decades and have retained the ecological vocabulary connected to those changes. Middle-aged participants are in a transitional state in between customary ecological knowledge and awareness of the impact of current environmental change on agriculture, water resources and community life. However, the younger participant, have largely learned from their parents rather than through their own direct experience of the environment, which is reflecting a shift from experience-based learning to indirect knowledge acquired through family narratives.

This generational pattern suggests that, though awareness of environmental change is present in all age groups but ecological perception and linguistic knowledge decreases as from elders to youth.

From an ecolinguistic perspective, these results demonstrate the close link between language and ecological experience. A decrease in interactions with the traditional environment leads to a corresponding decrease in the ecological vocabulary and cultural knowledge tied to that environment being used in everyday communication. Therefore, environmental knowledge, moves from experience to memory and the native ecological discourse slowly disappears. In general, the comparison illustrates that all three generations are aware of change in their environment, but that ecological awareness and linguistic richness lessen as one goes from elders to youth. This indicates that environmental change is not only affecting the physical setting, but also how generations perceive, experience and relate to their environment and how they communicate about these different perceptions, experiences and relations, directly answering the research question of the impact of environmental change on language practice among the Shina speaking generation.

Overall Discussion

The above analyses of all group participants demonstrate that there is a generational difference in the understanding, remembering and expression of environmental change in language among Shina speakers. The elders give the most profound ecological memory, recounting a period when heavy snow fall, constant glaciers, seasons dominated the day-to-day life. The presence of a highly eco-vocabulary that is used to describe the various forms of snow and glacial state shows a strong connection between language and nature. There is a transitional view of middle-aged adults. They do not forget the previous ecological patterns but are more preoccupied with the disruptions today like less snowfall, melted glaciers, and the rising risk of floods. Their language demonstrates the practical issues of farming, water and safety and reveals the connections between the ecological consciousness and the adaptation and survival. On the other hand, youth are dependent on the stories of the elders, since they have not been exposed to the previous environmental stability. The fact that they do not use traditional Shina

eco-terms as much underscores that they are no longer strongly connected to ecological knowledge. Linguistic shift has been reflected where they use modern or Urdu words to describe changes. Combined these findings prove that climate change is transforming the reality about the environment and the linguistic resources to describe it. With the altering of the ecological conditions, the traditional vocabulary and cultural memory is vanishing, the generation gap is growing, and it is the manifestation of erosion of the indigenous ecological knowledge.

Loss or Change in Ecological Vocabulary

Ecological vocabulary is not a collection of words, it contains cultural information, observation methods of nature, and local history. The linguistic memory attached to both of these experiences gradually decays when the environment changes, or when young people lose touch with land-based activities. This change marks a larger cultural change, where ecological knowledge that had been the key to the life of a community is growing weaker. The data is a clear indication of gradual and subtle change or transition in the ecological vocabulary of the young Shina speakers. The vocabulary used to characterize the farming tools, herbs and types of soil or river conditions have been either forgotten or substituted with more generalized Urdu or English words.

Table 2

Loss or Change in Ecological Vocabulary

Group	Extracts	Translation
Elders	Ba cuna has khanene, Xchexo pona, Lasxch ponay, Manuxco ponay ga ane nomi asi, saset, Urzong, thanec, ka kato badi kalay ga, damore ga, bati gi sananec, ine pones, ajonay gak ga pyalota bojono dish pashanes. Ash bela na a ponay pashejne na jakot ano nomi lal han. Muxonu khanen, bringne, lacx dona, shong shwali, ga ti filili boda ace. Tom talos, chaxc buroie, pucxhe ga shayo xzabate nomi boda ase, lakin ash bila maholiyatontabdili wajah ghe pura notay.	In our childhood days there were separate pathways for various purposes: the tracks of herds, the tracks of mountains, the foot tracks of people, and the tracks of animals. The Urzung that were constructed out of huge wooden logs and even stones were used to guide shepherds as well as strangers. These paths are no longer there, and moreover their names are forgotten. In earlier times, there were numerous species of birds, wild animals, and insects were found near foothills and uplands. A wide variety of plants, medicinal herbs, shrub, and flowers also flourished but climatic changes decline this ecological diversity.
Middle Age Adults	Muxonu ponu nishan gha ena nomi asot lal han, asos lasx, dona, gaw, baxay ane ponotay harnessce. Ane pones lasx donay jakli queyta bojone raxhe churanes, ane tom taluch, jit, xexhey gha birdi (Zameen) rata churanes, lakin ash bila ine riwaj kam bigan aur ponay gha notayen.	We still know the old paths and their names, tracks that our fathers used to take their animals. These paths were to direct livestock and ensure they do not enter the other fields, pastures, or agricultural lands. And that tradition is becoming extinct, and the tracks are also gradually vanishing.
Youth	Purana ponay nomi sost achak lal nush, na ba achak a ponat yayanos, is zamanay ma tu har jagat harigan.	Most of the old tracks and pathways are now strange to us. There are only several names in our memory. Those routes never get used anymore and in the present day, roads have taken the place of them nearly all over.

Analysis

The findings demonstrate a clear generational shift in the knowledge and use of ecological vocabulary among Shina speakers. Elders have a lot of knowledge about nature that they have learned over their lifetime. Their stories feature many traditional Shina words for pathways (Xchexo Pona, Lasxch Ponay, Manuxco Ponay), guiding structures (Urzung), birds (bringne), wild animals (lacx dona, shong shwali), insects (ti filili), plants (tom), shrubs (chaxc buroie), flowers (pucxhe), and medicinal herbs (shayo xzabate). They also recalled numerous indigenous bird species such as kakaz, kunuli, barox, koti konulie, hopopo, katkho, khachep, wai tingri, and kwaro, along with medicinal herbs including shadon, tumoro, hayaw, mindoskur, makhoti, halizxe, mastali, batachong, fielel, chontul, fula, fatashour, funucxha, tiyado, and kashiro kacxh. According to the elders, many of these species have declined or disappeared because of environmental changes, and as these ecological elements vanish from everyday life, the vocabulary associated with them is also gradually being forgotten. This ecological vocabulary was partially retained by the middle-aged participants. They also knew the traditional grazing paths and their role in directing livestock and preserving farmlands. But they said these tracks were being lost because of the development of land, the new modes of transportation, and the transformation of the environment. The old terms for these routes are thus falling out of use. Their answers reflect a transitional period in which the knowledge they acquired from their ancestors continues to exist, but is not actively reinforced by their daily life practices.

The younger participants, however, had only limited knowledge of traditional ecological terms. Most of the old pathways and their Shina names were unfamiliar to them because these routes have been replaced by modern roads. They give answers suggesting they are no longer learning ecological terminology first-hand, but from an occasional narrative by elders. The frequent use of Urdu expressions with Shina also highlights the process of language shift as well as the reduction of indigenous

ecological terms. This shows how the opportunities to see the context in which these words once served a useful purpose have diminished in the younger generations.

The researcher believes that there is a close relationship between the loss of ecological terms and the transformation of the environment and social change. The Elders' language is the richest because they lived in a world where traditional pathways, biodiversity, medicinal plants, grazing systems and indigenous livelihoods have been an integral part of their daily life. This vocabulary is being passed on to the middle-aged, who know a lot of it but see it slowly being phased out. Younger people have only patchy knowledge, as many ecological characteristics have been lost from their experiences and traditional practices have been superseded by contemporary infrastructure, formal education, migration and the digital technology. This has led to a growing indirect transmission of ecological knowledge and not through interaction with the environment.

The analysis from an ecolinguistic point of view shows that language changes in relation to the ecological context. The community's close relationship with its landscape, biodiversity and indigenous livelihood practices led to the creation of traditional ecological vocabulary. The linguistic expressions of these ecological features lose their communicative function as biodiversity diminishes, grazing habits change, the use of medicinal plants is affected, and traditional trails are lost in favor of modern roads as a result of climate change. The lack of traditional pathway names, like Urzung, and the absence of indigenous names for birds or herbs and plants are indications of the diminishing language-environment connection. Ethnographically these vocabularies do not simply represent the words, but they are also stores of traditional knowledge, cultural memory, and traditional environmental practices from one generation to the next. Their disappearance is not just a language loss, but a gradual disappearance of the cultural identity, ecological understanding and community heritage.

Overall, the results show that the physical landscape and linguistic landscape of the Shina speaking community are undergoing transformation as a result of environmental change. The cross-generational analysis indicates a descending trend in ecological know-how from the elders to the youth as communication with the traditional environment has diminished, and so has the transmission of indigenous ecological knowledge. This directly contributes to the study's research questions by demonstrating the impact of environmental change to language practices, ecological knowledge, and Shina language and culture heritage.

Overall Discussion of Theme Loss or Change in Ecological Vocabulary

The general discussion of above theme, presents a pattern of clear intergenerational variation. Elders still possess abundant ecological information and Shina names of the characteristics of the environment like types of snow, grazing routes, irrigation systems, and ways such as Urzung that were used to direct livestock. Their words show an intimate and long-term interaction with nature, vocabulary was incorporated into their daily practices, livelihood and cultural activities. The adults of middle age show partial knowledge of this information. They know the ancient words and ideas yet more and more they resort to the practical explanations in Shina or Urdu to solve the existing environmental problems. They lie between the old ecological wisdom and the new adaptations and experiences of environmental change.

However, ecological vocabulary is drastically declining among young participants. Their exposure to the original features of the environment is limited and mostly they are dependent on the second-hand information given by the elderly. Much of the traditional language (even the names of old tracks, local herbs or particular farm equipment) is unfamiliar or forgotten and even the modern roads and other new technology and shifting livelihoods have altered the circumstances in which these terms could be used. Ecolinguistically, these changes depict how environmental changes have a direct effect on language. When the ecological characteristics disappear or become less significant, the vocabulary related to it reduces. The ethnographic perspective emphasizes the cultural aspect. The lower engagement of the youth with the traditional practices leads to the decline in inter-generational knowledge transfer. On the whole, the data show that the change of the environment is not just transforming the physical landscapes but is also removing cultural memory and language legacy. The generational comparison highlights an increasing amount of lack of ecological knowledge, which makes it difficult to preserve the Shina language and native environmental practices.

5. Conclusion and Discussion

This paper examined a correlation between language, ecology and cultural continuity among the generational ideologies of the Roundu region in Gilgit-Baltistan. The results prove that ecological knowledge was heavily rooted in the daily routine. It influenced words, oral history, the food patterns in each season, the ancient routes, and narration. Language served not merely as a medium of communication but of environmental recollection, moral codes and social patterns. Naming procedures, metaphors, proverbs and forms of narration revealed ecological interaction and showed that both language and landscape evolved with time. A sharp generational change is pointed out in the analysis. The elders are ecologically endowed and have a strong attachment to oral narrations and indigenous practices. They have a direct experience of land, livestock, agriculture and the seasonal cycles as the basis of their knowledge. The generation of middle-aged people is a transitional one. They still have

recollection and bits of knowledge on ecological terms and practices, yet they are no longer applied on a daily basis. Infection of younger members seems sporadic and disjointed. The young people show limited knowledge of the conventional ecological terminologies, folk storytelling, native food preparation techniques, and older trails. The language they use is mostly influenced by education, urbanization, migration and the internet. The interaction with the ecology has decreased greatly and along with it the active use of ecologically related wordings. This implies a loss of lexical content, as well as, the dilution of intergenerational narration continuity. In major motifs like decline of the ecological vocabulary, loss of the native food knowledge, loss of the traditional routes, degradation of the story telling tradition and the linguistic vulnerability due to the climate, a similar trend can be observed. Changes in ecological interaction patterns have been transformed by processes of modernization, infrastructural development, climate variability, economic migration and technological change. With the daily activities being related to agriculture, herding, seasonal movement, the language related to them shrinks as well. The results thus establish the fact that there is a direct correlation between ecological participation and linguistic vitality. The paper concludes that environmental and socio-cultural change has close links with linguistic weakness within the community. The language loss cannot take place in isolation, it is preceded by changes in livelihood, use of the landscape and social set up. As the ecological practices lessen, the semantic fields that are related to these practices become narrow. Without recording these trends, undulating their renewal, or community-oriented transmission procedures that one can expect the further degradation of ecological discourses and language. The language diversity in this situation can be preserved not only through language documentation but also restoring contact with ecological knowledge systems. The sustainability of culture relies on the preservation of the relationship of people with language and environment which is lived.

Intergenerational Variation

The statistics indicate a distinct intergenerational difference. The elders have a wide ecological vocabulary and rich narrative knowledge. They understand it through their own experience of farming, herding, seasonal migration, and life in the mountains. They remember certain words to describe the landscapes, behavior of the livestock, weather conditions, and nearby landmarks. Participants of middle age still possess the partial knowledge. They retain numerous childhood terms, stories but state that they use them less in everyday speech. They live their lives between the old ways and the new working trends. There is therefore inconsistent transmission to the younger generations. The young people are not very aware of the traditional ecological manifestations. They have a low attachment to native words and their language use is more dominated by formal education, media, and exposure to urban environment and less by direct contact with the environment.

Decline of Ecological Vocabulary

The mountain names, high pastures, livestock tracks, waterways, local crops, and the traditional housing types are not used in daily language actively any more. A lot of ecological names are present in the minds of the older generation. This is not only a decline of lexical nature. As some practices like seasonal grazing or communal harvesting diminish, words that are associated with these practices are not needed in everyday conversation. Unused words eventually disappear out of active memory and are substituted by generalized or borrowed words.

Climate Change and Environmental Shifts

The participants record the observed changes in the patterns of snowfall, the availability of water, the behavior of glaciers and the time of the seasons. These environmental transformations influence farm, pastoral systems and settlement. Seasonal rhythms shift and vocabulary related to the predictable ecological cycles are less relevant. Words used to identify particular types of snow or types of irrigations or different times of migration can lose their utility, and as a result, language will erode gradually.

References

- Ahmed, M., Hayat, R., Ahmad, M., Ul-Hassan, M., Kheir, A. M. S., Ul-Hassan, F., Ur-Rehman, M. H., Shaheen, F. A., Raza, M. A., & Ahmad, S. (2022). Impact of climate change on dryland agricultural systems: a review of current status, potentials, and further work need.
- Durrell, M. (1975). Einar Haugen, "The Ecology of Language", ed. by Anwar S Dil (Book
- Garner, M. (2017). Language Ecology As Linguistic Theory. *Kajian Linguistik Dan Sastra, International Journal of Plant Production*, 16(3), 341–363. 17(2), 91–101. <https://doi.org/10.23917/kls.v17i2.4485>
- Issa, M., Khan, H. K., Hussain, M. S., & Ali, M. A. (2023). Language erosion: an overview of declining status of indigenous languages of Gilgit-Baltistan, Pakistan. *Language*, 25(2).
- LeVasseur, T. (2015). Defining "Ecolinguistics?": Challenging emic issues in an evolving environmental discipline. *Journal of Environmental Studies and Sciences*, 5(1), 21–28.

- Mehta, M. (2024). Existing and Potential Changes in Himalayan Glaciers: In Climate Change
- Mirza, A. H. (2025). *Language Shift Phenomenon : A Case Study of Shina Language*. January.
<https://doi.org/10.32350/llr.111.03>
- Perspective. In *Natural Hazards and Risk Mitigation: Natural Hazards in Himalaya and Risk Mitigation* (pp. 149– 172). Springer.
- Rajapurohit, B. B. (2012). *Grammar of Shina Language and Vocabulary*. Tokoyo.
- Re, A. (2024). *Discourse analysis and the environment: Ecolinguistic perspectives*. LED Edizioni
- Review). *The Modern Language Review*, 70(1), 125.
- Review). *The Modern Language Review*, 70(1), 125.
- Romaine, S. (2009). Biodiversity, linguistic diversity and poverty: Some global patterns and missing links. *Language and Poverty*, 141, 127.
- Romaine, S. (2009). Biodiversity, linguistic diversity and poverty: Some global patterns and missing links. *Language and Poverty*, 141, 127.
- Romaine, S. (2009). Biodiversity, linguistic diversity and poverty: Some global patterns and missing links. *Language and Poverty*, 141, 127.
- Skutnabb-Kangas, T. (2009). The stakes: Linguistic diversity, linguistic human rights and mothertonguebased multilingual education-or linguistic genocide, crimes against humanity and an even faster destruction of biodiversity and our planet. *Keynote Presentation at the Bamako International Forum on Multilingualism, Bamako, Mali*, 19–21.
- Stibbe, A. (2015). *Ecolinguistics: Language, ecology and the stories we live by*. Routledge.
- Universitarie di Lettere Economia Diritto.