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Resilience of Traditional Ritual Practices in Bhutanese Mountain Farming Systems Amid Climate Change and Anthropogenic Activities

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Indigenous mountain people are often marginalized from mainstream development and are not able to express their concerns over the impacts of ecosystem changes on their livelihoods. Living in geographically

difficult terrains, they engage in traditional ritual practices concerning their livelihoods that build on generations of deep-rooted beliefs. Yet, the availability of literature on traditional rituals practiced in the context of farming systems is scant. We conducted an exploratory study, through structured survey questionnaires, to

document the traditional ritual practices observed in farming across the country of Bhutan. The study revealed the continuing practice of diverse and unique traditional rituals being propitiated to local deities for the welfare and wellbeing of individuals and communities across all ethnic groups in Bhutan. This study documented various tangible and intangible cultural values adopted in farming practices in Bhutan that are at risk of disappearing due to anthropogenic pressures.

Keywords: traditional rituals; farming practices; local deities.

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Introduction

The inhabitants of the Bhutan Himalayan regions largely depend on the mountain ecosystems for their livelihoods. However, these communities and the pristine mountain environment are experiencing a steady rise in temperature, erratic rainfall, extreme weather conditions, and increased pests and diseases, affecting their farming system and impacting their survival. According to studies conducted by Deneen (2018) and Wangchuk and Wangdi (2018) on the ways in which yak herders in northern Bhutan perceive global warming, the temperature rise in the Bhutan Himalayas over the last 15 years is reflected in changing rangeland management and a shorter period for crops to reach maturity. The key findings of the Hindu Kush Himalaya (HKH) Assessment Report 2019 from the International Centre for Integrated Mountain Development (ICIMOD) over the past 6 decades corroborate this rising trend of extreme warm events and falling trend of extreme cold events in the HKH region. In fact, the number of cold nights has decreased by 1 night per decade, while the number of cold days has decreased by half a day per decade. This has correspondingly increased the number of warm nights by 1.7 nights per decade, while the number of warm days has increased by 1.2 days per decade during the past 5 to 6 decades (Wester et al 2019).

Bhutan is known for both biological and cultural diversity. It boasts 19 languages (van Driem 2015), and individual valleys and hamlets have their own unique culture and traditional ritual practices. In our study, “traditional ritual practices” refer to religious services that have always been performed in the farming communities and are still thriving. However, there is also evidence in Bhutan that minor vernacular language is being lost as other popular and major vernacular languages are assimilated. For instance, Dorjee (2014) reported that the nomadic yak herders in the northern Bumthang District, who traditionally speak Brokkat, now communicate in the more dominant Bumthangkha language of the lower settlements. They are losing their traditional culture and, perhaps, losing location-specific traditional rituals of their yak farming.

Despite the threats to their biocultural system due to anthropogenic activities, the local communities in Bhutan still defend their deep-rooted traditional rituals in agriculture in order to sustain their livelihoods alongside socioeconomic development projects. All these rituals are able to thrive in each community due to the segregation of the country into different agroecological zones, ranging from subtropical to temperate regions, including alpine areas, which provide different microclimatic zones for subsistence farming. Recognizing the dangerous trend of losing both tangible and intangible cultural and linguistic

FIGURE 1 Districts of Bhutan, with locations of Thimphu city, as well as the sampled colleges and administrative districts (the latter shaded in darker grey). (Map by Marlène Thibault, based on TUBS and NordNordWest 2019)



elements, Bhutan hosted the Mountain Communities Workshop on Climate Change and Biocultural Heritage in 2014, inviting Indigenous communities of 10 nations from across the globe. Accordingly, an International Network of Mountain Indigenous Peoples (INMIP) was formed to promote community biocultural heritage rights and sharing of Indigenous knowledge for climate change adaptation in mountain environments. Bhutan's Declaration on Climate Change and Mountain Indigenous Peoples, endorsed by 25 communities of 10 nations, speaking 22 languages, called on governments to support traditional knowledge-based adaptation (INMIP 2014). This endorsement by more than 20 communities and languages was intended to protect the traditional rituals of the mountain communities and to maintain their identity and survival in the face of mainstream development. However, there is no evidence of the concerns of local people being integrated into mainstream climate change adaptation plans and policies. The difficult geographical terrain and harsh environment have also restricted the ability of Indigenous Peoples to travel to meetings and share their opinions, and thus they remain marginalized.

This study therefore aimed to compile and document relevant climate change adaptation rituals and practices in communities in Bhutan. These could be disseminated through mainstream communication channels, such as government plans and policies, academic discourse and publications, and knowledge sharing through mass media communication. The study will contribute to science-policy dialogue and assist in the preservation and promotion of ritualistic farming practices and cultural values amid a rapidly changing climate within the HKH region. For this, Bhutan joined the regional project on the Development of Adaptation Communication Framework Mainstreaming Indigenous and Local Knowledge for Hindu Kush Himalayan (HKH) region, along with some of the nations located in the HKH region, namely, India, Nepal, and Pakistan. The project

was funded by the Asia Pacific Network (APN) and coordinated and facilitated by the Institute for Global Environment Strategies (IGES), Japan. This regional multistakeholder project aims to enhance the regional capacity of adaptation communication of Indigenous and local knowledge, focusing on the traditional rituals in the HKH region. Accordingly, the research question was framed to document the types of traditional rituals that are practiced in Bhutanese farming systems in the context of socioeconomic and environmental changes, and how traditional ritual practices are viewed against increasing anthropogenic pressures.

Methodology

The study used an explanatory sequential mixed methods design wherein quantitative data were collected at 5 selected college campuses under the Royal University of Bhutan. These were the College of Language and Culture Studies in Taktse, Trongsa District; the College of Natural Resources in Lobesa, Punakha District; the Jigme Namgyel Engineering College in Dewathang, Samdrup Jongkhar District; the Samtse College of Education in Samtse, Samtse District; and Sherubtse College in Kanglung, Trashigang District (Figure 1). Respondents were from education, engineering, natural resources, language and culture, and arts and humanities programs.

Bhutan is a predominantly agrarian society, and all respondents were associated with rural communities and had experience of observing, or even assisting in, traditional rituals in their respective rural settlements.

The structured questionnaires were pretested, reviewed, and then administered online through Google Forms to the university academics and undergraduate students. Convenience sampling was adopted to identify potential traditional rituals for detailed description at a later time

with the assistance of civil service field officers serving in the rural communities.

Survey questionnaires were sent online in batches to each college campus and to the civil servants, based on the mutual consent of the focal person in each campus over a period of 1 month from July to August 2021. The focal staff members in the colleges were the research officers. Three administrative districts—Samtse, Zhemgang, and Trashigang Yangtse—were selected to represent the regions for identifying region-specific traditional rituals (Figure 1). Civil servants facilitated this because they serve directly with farmers as extension agents or rural development staff in these districts. The heads of the livestock sector in the identified districts were approached to further distribute survey questionnaires to their staff in the respective blocks. These groups of civil servants have experience with traditional ritual practices and observe them on an almost daily basis while providing rural development services to the farmers.

Data were collected through a set of structured questionnaires in Google Forms. Questionnaires asked the name of the community where the traditional ritual is practiced, the name of the traditional ritual performed in the community, reasons for practicing rituals despite modern anthropogenic activities, status of traditional practices in the community, perceptions on the protection of traditional ritual practices in respondents' respective communities, and reasons for the preservation and promotion of traditional rituals. The data were collected and compiled as a qualitative instrument for a focus group discussion with experts in the areas of culture and religion, and further analysis of the quantitative data.

Triangulation of data sources from the survey questionnaires and the focus group discussion were used for both deductive and inductive data analysis. All the traditional ritual practices were validated by the researchers during a culture and heritage conservation workshop that was held over 2 days. The principal author's extensive rural development experience and observations were used in the analysis and interpretation of qualitative data in addition to validation of perceptions from the focus group discussion.

Data were mainly qualitative. They were compiled and categorized into 3 components for analysis and interpretation. The first section dealt mainly with traditional ritual practices meant for appeasing the local deity and asking for rain before the farming season. The second component was celebration or acknowledgment of the local deity after harvesting crops, mostly in the lean season. The third section dealt with the traditional ritual practices for averting natural disasters in the farming communities and also praying for the wellbeing of the family and the community.

Results and discussion

Respondents

There were 211 respondents representing university undergraduates undertaking different programs, university academics, and civil servants in the 3 selected districts. Coincidentally, the survey captured 18 out of 20 districts in Bhutan, although it was not designed to represent all districts. Trashigang District had the greatest share of

TABLE 1 Number of questionnaire respondents from various districts in Bhutan.

District	Number of respondents
Trashigang	23
Paro	19
Samdrup Jongkhar	17
Dagana	15
Mongar	14
Wangdue Phodrang	14
Zhemgang	13
Pema Gatshel	12
Samtse	12
Trashigang Yangtse	12
Thimphu	11
Lhuntse	10
Punakha	10
Chukha	9
Sarpang	7
Tsirang	7
Bumthang	4
Trongsa	2
Gasa	0
Haa	0
Total	211

respondents (11%), followed by Paro District (9%). The smallest number of respondents was from Trongsa District (2 people), as shown in Table 1.

In our survey, the northernmost west-central district, Gasa, had no respondents, as there were no college students, staff, or civil servants from that district when the questionnaires were administered. Likewise, the extreme western district of Haa, bordering Chumbi Valley of southern Tibet, did not have any respondents in the categories considered.

Religious rituals were performed to invoking rain or request protection from crop pests and diseases, obtain a bountiful harvest for the season, or offer the first harvests to the local deity; all types of rituals were reported from both rural communities and peri-urban centers, where respondents have observed such farming practices in their own communities.

Traditional rituals performed for invoking rain in the farming practices

In the easternmost region of Bhutan, bordering the Indian state of Arunachal Pradesh, there is a unique religious dance called *Achilhamo Cham* believed to have originated from Tibet. Evidence from 11% of respondents from Trashigang District and 8% of respondents from Samdrup Jongkhar

FIGURE 2 The remaining prime paddy fields and dairy farming areas north of Thimphu city. Migration and development are destroying local traditional rituals and practices. (Photo by Phanchung Phanchung)



District indicates that this ritual dance is mainly seen in the Serthi, Zangthi, and Lauri communities in Samdrup Jongkhar and among the Sakteng, Galing, Changmi, Zordung, and Kangpara people of Trashigang.

According to respondents, this dance ritual is performed by 7 women in Tibet, depicting 5 characters. *Achilhamo Cham* is conducted to raise funds to consecrate, renovate, or initiate construction of sacred temples in the community, to celebrate ceremonial occasions, such as childbirth, and for health protection. That is why there is a need to respect and promote the biocultural heritage unique to these communities, as stated by INMIP (2014).

Achilhamo Cham is also enacted to ask the rain god to bless the crops with sufficient rain and to protect the community from famine. This dance ritual is generally performed for entertainment during the lean season, when the main annual crops have been harvested for the year. In earlier times, such traditional ritual dances were said to have been performed for 3 days, but they are now condensed into a single day. The reduced duration could be due to modernization and rural-urban migration, wherein many of the younger generation have migrated to urban centers, resulting in a lack of performers in the rural community. A similar tradition reported to be on the verge of disappearance is *Preu*, a religious offering of 9 items to Guru Rinpoche by the community of Jasabi in Kurtue Gewog in Lhuntse District on the tenth day of the third and fourth months of the Bhutanese calendar (Gyeltsen 2021). However, respondents reported that *Preu* is still practiced in many communities in Lhuntse District.

Anthropologically, *Achilhamo* is believed to have been introduced by a great yogi called Thangthong Gyalpo, and, since then, communities have continued to pay respect to his legacy by disseminating Buddha's teaching through performing arts. The significance of *Achilhamo* in the community is to ask the local deity for timely rain showers and for protection of community health and the crops from disaster, diseases, and pests during the year.

One case study on the traditional beliefs and cultural practices in the environmental conservation of a particular local community in west-central Bhutan recorded frequently mentioned protector or local deities, such as lakes and rivers, mountains and hillocks, old trees, cliffs and rock monoliths, either as destructive or disruptive, if not appeased regularly (Basnet Bahadur and Dendup 2020). It would be useful to understand the interrelationships between the mountains and biocultural diversity. Evidence indicates that some regional projects are attempting to understand the interrelationships between biocultural diversity and the mountains in the Greater Himalayan region (Stepp et al 2005). However, the influx of people to local communities, as seen north and south of the capital city, Thimphu, means that traditional ritual practices performed for local deities that were once revered are now threatened. As shown in Figure 2, the paddy fields and areas for dairy farming north of Thimphu city are declining because many ethnic communities across the nation have chosen to settle in this village, purchasing land and constructing concrete buildings. As the village is close to the capital city Thimphu, many public servants choose to live here and commute to Thimphu for work and other social services.

Kharphu, a ritual performed with a heap of grains to protect the entire community, is reported from central-south Bhutan, where it is practiced by the Bardo community in Zhemgang District. This *Kharphu* ritual is also observed in Wamling and Tsamang villages in Mongar District in the northeast part of Bhutan, where it borders Zhemgang District. After the crop harvest, the community gathers in a common place with each household bringing a fixed volume of grain from the field and stacking it on the matted floor. A local shaman then recites prayers to thank the local deities for giving timely rain during the farming season and enabling the harvest of bountiful grains during the year. Following a plentiful harvest, a festive mood prevails among the members of the community, with the exchange of home-brewed alcohol to create euphoria. The myth behind using

alcohol as part of this tradition in Bhutan was reported by Dorji (2007) with reference to Buddhist scriptures that allow the consumption of alcohol but forbid drinking alcohol to Buddhist saints. In general, the gathering of the community during the performance of rituals invariably involves sharing of alcohol to mark the festive occasion.

In central-south Bhutan, especially in the Gongphu and Trong villages in Zhemgang District, *Chhoekor*, *Kanjur Lingkor*, or *Korwa Jen* is yet another ritual practiced to ask the local deity for timely rain, prevention of natural calamities, pests, and diseases, and protection from famine. Every year, canonical texts representing 3 jewels (Buddha, Dharma, and Sanga) are carried around the communities. Such traditional rituals are intended to avert frequent impacts of climate change that affect their farming practices. The communities still pray to the local deity with reverence for their protection, despite local development-oriented anthropogenic activities and the increased accessibility of the community members to these activities.

Likewise, in central-west Bhutan, in Rukubji and Sephu, Wangdue Phodrang District, an annual ritual called *Sha Lochoe* is reported. In the far northeast of Lhuntse District, the survey revealed rituals called *Ha (lha)* and *Cha* in Tangmachu, Menbe, and Minjey. These are annual rituals for rainfall. Such traditional practices are also conducted to seek the protection of deities for crops and to protect livestock from pests and diseases. *Ha* is generally performed in the sixth month of the lunar calendar for the local deity and goddess by wearing masks at home, at the temple, or in the forest, and by visiting local individual homes where mouthfuls of roasted rice, called *Zaow*, are offered to the visitors.

Like *Lochoe*, rituals known as *LhaSoel/Lhasay/Kangsoel* are reported in almost all the communities of Pemagatshel District, in the Uzorong communities of Trashigang District, in Rikhey village of Samdrup Jongkhar District, in Mongar District, and in some block communities in Lhuntse District. According to one passionate respondent from Saling Gewog, Mongar District, *Kangsoel*, a cultural ritual practiced since the times of the forefathers, has been performed annually to please and to thank the local deities for a safe and happy year both now and in coming years. However, the respondent opined the loss of Indigenous culture in the locality due to modern development accompanied by technological advancements. The respondent therefore strongly feels that traditional ritualistic beliefs and practices associated with farming should be promoted and preserved. This argument can be justified, since such annual rituals could strengthen community vitality in conducting farming practices, leading to community development. This is why INMIP called upon government agencies, research institutions, and international partners to recognize the sacred traditional rituals and assist in promoting these unique cultures for inclusive sustainable development (INMIP 2014).

Among the ethnic communities of the southern districts of Samtse, Tsirang, Dagana, Sarpang, Chukha, and Samdrup Jongkhar, rituals for rain during farming seasons are performed by a Pujari, a Hindu priest, specific to the community's ethnic group. For instance, *Deva Puja* is conducted in Dorokha, Yoesel, Pelkithang, and Zuri Chiwog in the far southwest district of Samtse bordering the

Indian state of North Bengal, while *Goad Dhup* is performed in Dorokha village, Samtse District.

Likewise, *Devithan Puja* is offered in Donglagang communities, *Mahadev Than Puja* is reported in Batasay Menchuna, and *Gott Puja* is conducted in Barshong communities in the Tsirang District in central-south Bhutan for adequate rain before the farming season. In the nearby district of Dagana, the communities of lower Goshi and Tshendengang also reported performing *Devi Thani Sanchari Puja* asking the local deity for rain.

In the far central-southern district of Sarpang, the ethnic groups practice *Khola Puja* in Dovan village, *Dekijato* in the Toribhari, Hilley, and Surey communities, and *Chinta* in Singye Gewog.

In the communities of the extreme southern belt of Chukha District, where the ethnic Rai community is prevalent in Logchina village, *Bali Puja Udhauli* and *Bali Puja Ubhauili* are performed to ask the local deity for their community's protection from famine, diseases, and crop-pest infestation. In the communities of Darla, *Guru Puja* is practiced as an acknowledgment of gratitude toward the local deity for bountiful crop harvests during the year.

In the far southeast district of Samdrup Jongkhar, *Tulsi* is considered a god and also a medicine by Pemathang communities. Local rituals are performed using *Tulsi* to seek ample rain and good crop harvests for the year.

Traditional rituals practiced to acknowledge annual bountiful crop harvests

Although annual crop harvests are of subsistence level, Bhutanese adopt the rich tradition of propitiating the local deity for bountiful crop harvests irrespective of infestation of pests and diseases. Basically, Bhutanese, being god-fearing, protect themselves from deceitful actions and curses by performing several rituals and traditional practices after the annual crop harvest. Bhutan has an amazing variety of rituals to ward off evil spirits and please local deities. These rituals are performed by practitioners who are not trained Buddhist monks but lay practitioners. However, the male and female practitioners are devout Buddhists. Thus, according to Pommaret (2009), who has extensively studied the local community rituals of Bhutan, there is a wide range of rituals performed in the villages that have non-Buddhist and Buddhist features. Pommaret (2009) opined that rituals are believed to have a direct impact on the daily life and the prosperity of a family or community. Because the modern youth argue for the rationale of continuing such traditional rituals, it is likely that invocation of the local deity will continue, since Bhutanese lives are guided by the strong beliefs passed from generation to generation.

In the remote communities of Totokha, Boekunzang, and Bongo villages, Chukha District, a local ritual called *Am Yang Tam* or *Yang Chum* is performed, offering elaborate food (*Tshog*), a butter lamp (*Karmi*), wine (*Serkem*), incense, and prayers to the local deity, acknowledging the bountiful crop harvest. Such offerings to local deities are also reported from the Dagala, Getala, and Getana communities in Chukha District.

The western districts of Haa and Paro celebrate *Lomba*, to bring good luck to households, marking a new year with family gatherings (Figure 3). As the annual staple crop harvest ends, family members gather, with men playing a

FIGURE 3 *Lomba* is the new year festival celebrated by people of Haa and Paro in December when the entire family gathers at home. (Photo by Namgyel Wangmo)



traditional archery game and women singing and dancing. However, outdoor celebrations are declining and instead are becoming centralized within the households.

In central Bhutan, in Jongthang community, Trongsa District, and Bjena block, Wangdue Phodrang District, the community has a 3 day grand celebration of *Lhaboen* after harvest to acknowledge the bountiful annual crop every third year. During the first day, the community leaves in the early morning to go to the abode of the deity and to receive and welcome him. On the second day, the communities gather at a common place to celebrate with dancing and feasting, ending with rituals. On the third day, people form small groups and visit the family house to feast. Such rituals are also performed in summer over the shorter duration of 1 day to protect crops from diseases and pests.

Local deities have been incorporated into Buddhism in the Himalayas. The deities reside in rivers, rocks, forests, and mountains and are part of an extensive pantheon. Their worship through appropriate rituals constitutes an essential part of the religious life of the Bhutanese. Pommaret (2009) recounted the Bhutanese beliefs that deities have a volatile temperament. If local deities are pleased, they can grant prosperity, health, good harvest, and abundant cattle. However, if the local deities are angered, they will retaliate against the people by sending calamities. Unfortunately, the influx of migrants, increasing the population north of Thimphu and extending deep into the valley, has displaced rocks, cliffs, old trees, and perennial tributaries, threatening traditional farming. This could result in the abandonment of traditional rituals that once thrived in the foothills of Great Saint Zhabdrung Rinpoche's citadel (Figure 4).

Reverence and respect toward protective deities and local spirits in Bhutan were also recorded by Allison (2019), wherein every landscape is revered as the home of deities. This local spiritual belief appears to be central to the

maintenance and preservation of Bhutanese culture as the local spirits and deities are believed to be the original owners of the land.

Traditional rituals to avert problems with crops and promote community health

One effective traditional practice to avert crop problems is the culturally embedded environmental management practice called *Ridam* or *Ladam*, wherein the entire area or part of the mountain is closed to human entry, especially during the farming season from spring to autumn. According to Phuntsho (2018), during *Ridam* or *Ladam*, people are generally not allowed to enter the area to collect natural resources or to visit places within that area, to avoid polluting the environment and annoying the territorial deities who could react by bringing inclement weather, such as hailstorms or heavy rain, and destroy the crops. In Trashig Yangtse District, the Khamdang community members perform *Toensel*, which prohibits movement of people, to protect crops from diseases and pests.

Likewise, as stated by the villagers, the *Duiza* ritual is practiced by the Mongar and Drepong communities in Mongar District to appease local deities before crops are planted to protect the plants from drought, pests, and diseases, as well as to have a bountiful harvest.

In Paro District, where paddy plantations are mechanized, traditional rituals like *Damkar* are under threat (Dem 2021). Traditionally, farmers consider the importance of astrology in all aspects of their lives, even to determine when to begin agricultural work. Many respondents from Tsento, Shari, Geptey, and Doteng in Paro District reported the *Damkar* ritual, which is performed by a lead farmer transplanting paddy based on an astrological prediction. Generally, certain particulars of the lead farmer, such as age,

FIGURE 4 This area used to be important agricultural land but is now filled with new settlements. Important ritual sites have been destroyed by development north and south of Thimphu. The citadel of Zhabdrung Rinpoche is visible on the hilltop in the far background. (Photo by Phanchung Phanchung)



sex, and birth year, along with the timing and direction to face when transplanting the first paddy seedling, are advised by an astrologer. On the day of transplanting the paddy, an elaborate purification ceremony is performed by an astrologer, where community leaders gather in the morning with the lead farmer to celebrate. However, considering that a long period of inauspicious days often delays paddy transplantation, and mechanization with advanced technologies is accessible in Paro, traditional rituals like *Damkar* are in decline. Yet, many respondents reported that their communities still believe in their traditions and continue to perform *Damkar* before paddy transplantation, since the farmers cannot afford to disbelieve and cause deities to send inclement weather to destroy their staple paddy.

The communities of Trashi Yangtse celebrate *Hungla* to dispel evils by spreading pounded powder from rhododendron bark over fire embers. Likewise, the people of Eusa in Taktse, Trongsa District, perform *Lham Tso Jab* annually to avoid postharvest losses from pests.

An effective and efficient traditional practice to avert and absolve sins and to protect crops is the observance of *Sa Nyen*, where farmers refrain from working in the fields. *Sa Nyen* is basically giving the soil a rest from tilling. During the auspicious days (*Duezang*) of 1 month, farmers avoid working in the fields. These beliefs are ingrained deeply in the farming community and have become traditional rituals that are still practiced.

At Minje, Jaray, and Metsho villages in Lhuntse District, there is a typical tradition of erecting a phallus in crop fields, doorways of houses, and cowsheds, and even adding one to livestock collars, called *Kharam*. Respondents from Mongar, Trashigang, and Samdrup Jongkhar Districts also reported similar practices of erecting phalluses, where a local layman or shaman performs blessing rituals and offers amulet threads to prevent people, livestock, and crops from being cursed.

Similarly, as part of the *Phola* ritual practice in the Sengor and Saling communities, Mongar District, and Gungla in lower Zhemgang District, a flag is hoisted up a tree or house to ward off blasphemy and to ensure protection of the house, successful business dealings, and family health as the communities harvest their annual crops.

Conclusion

This study revealed that, despite anthropogenic interventions in the fragile mountain ecosystems, the mountain people in all hamlets in Bhutan continue to promote and preserve traditional ritual practices in their farming systems. Modern development activities have reached all corners of the nation through accessible road networks, social services, and local governance. However, the rituals that are performed to appease local deities, preventing dry spells, promoting bountiful harvests, and providing remedial measures irrespective of good or bad years, are still thriving in all communities in Bhutan.

The first component of the field study clearly demonstrated the practice of locally specific rituals being upheld by the mountain/Himalayan communities in Bhutan. The study indicated the need to document the details of such traditional knowledge in written form or as visual records, possibly by means of performing arts, and by observing and recording the practices in place-based situations. Since researchers conducting any anthropological study need to be immersed in the community to understand their specific rituals, detailed documentation in terms of written reports and audiovisual recordings is recommended for the next step of study. Recording traditional rituals is crucial, since climate change has impacted the farming systems, leading to the loss of many traditional rituals. Interrelationships between mountain environments and biocultural diversity should also be studied in order to incorporate them into development plans and policies.

Since the loss of tangible and intangible cultural values will impact the identity and sovereignty of people living in the mountain ecosystem, every effort must be made to maintain their livelihoods.

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MOUNTAINVIEWS IN THIS FOCUS ISSUE

Papers in the MountainViews section of this focus issue present Indigenous knowledge, local knowledge, or place-based perspectives. They were assessed by a Peer Advisory Circle formed by the Guest Editors of this issue and an Associate Editor of MRD.

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