

Evolving Relationship Between Tibetan Buddhists and the Environment: A Case Study of Kehe Township, Sichuan Province

Wendi Wu

Shanghai American School Pudong Campus, Shanghai, 201201;

Abstract: This study examines the shifting relationship between Tibetan Buddhism and the environment in Kehe Township, Sichuan Province. Traditionally, Buddhist beliefs promoted ecological protection through reverence for sacred sites and moral principles. However, recent socio-economic changes—such as market expansion, secular education, and cultural dilution—have weakened these practices. Based on a qualitative case study, the research highlights both the environmental impacts and cultural erosion resulting from modernization, and proposes that integrating religious values into conservation efforts may enhance ecological and cultural resilience.

Keywords: Tibetan Buddhism; environment; Kehe Township; socio-economic change; sacred sites

DOI:10.69979/3041-0843.25.01.043

Introduction

Often referred to

as “the roof of the world”, the Tibetan Plateau is the most extensive high-elevation region on Earth (Miller, 1990). The region holds profound ecological and cultural significance to the environment of China, Asia, and the world. As the water tower of Asia, the Tibetan Plateau is the source of five major rivers, providing water resources for more than 1.4 billion people (Xiao et al., 2021). Home to over 12,000 species of vascular plants and 1,500 genera, including epiphytes, mammals, birds, and fish, the Tibetan Plateau is one of the global biodiversity hotspots (Bai-ping et al., 2002). These geographical features make the region a key area for environmental conservation (Dekhang, 2000).

As one of the main ethnic groups inhabiting the Tibetan Plateau, the Tibetan People, most of whom are followers of Tibetan Buddhism, have traditionally maintained a revered and spiritual relationship with the environment, informing beliefs and practices related to environmental protection (Shen et al., 2012; Spoon, 2015; Palni et al., 2019). However, recent decades have seen a series of revolutionary socio-economic reforms in the Tibetan areas, resulting in a shift in religious beliefs and behaviors that significantly altered this relationship (Allen, 2009; Woodhouse, 2015; Sulek, 2016; Spoon, 2014). Therefore, this study aims to address the research question: In what ways has how Tibetan Buddhists and the environment evolved over the past 20 years?

This research contributes to the understanding of the socio-economic transformations that Tibetan areas of China have undergone and the consequences of these developments on both the religious beliefs of local Tibetan Buddhists and the environment. This would provide guidelines on future environmental policymaking and conservation efforts in the Tibetan Area.

1 Literature Review

1.1 Tibetan Buddhism and Environmentalism

Tibetan Buddhism, a branch of Buddhism that evolved in Tibet since the 7th century, has a rich history and cultural integration of environmental protection (Woodhouse, 2012). Tibetan Buddhism shapes in influencing its followers’ perceptions and behaviors regarding environmental conservation. Tibetan Buddhists’ reverence for nature is driven by

various factors, including a) local deities and spirits in the landscape, and b) Buddhist moral principles (Woodhouse et al., 2015).

1.1.1 Sacred sites and local deities

Throughout history and indigenous communities worldwide, sacred sites have been recognized for their religious, historical, and cultural significance (Salick et al., 2007). They are known as the most ancient form of habitat conservation and continue to establish a vast global network of sanctuaries (Dudley, 2005). Previous studies have shown that sacred sites are highly successful in the conservation of biodiversity (Dudley, 2005).

The beliefs surrounding sacred sites in the Tibetan Buddhist culture originated from the Bön, a pre-Buddhist religion in Tibet (Shen et al., 2012). The Bön religion provided the ancient Tibetan civilization with rich and sophisticated culture that demonstrated a profound awareness of nature and respect for the natural environment in which people lived (Palni et al., 2019). Tibetan sacred sites are associated with local deities and nature spirits. These deities and spirits occur in several forms, including sacred mountains, lakes, forests, and forbidden areas (Shen et al., 2012). Firstly, lhu are spirits in trees, under rocks, and in water sources. Belonging to the underworld beneath the domain of humans, lhu's physical appearance is half human and half snake (Woodhouse et al., 2015). There are strict norms surrounding logging and polluting water sources that inhabited the lhu, and violating these rules was believed to cause sickness, bad luck, and short life (Spoon, 2015; Woodhouse, 2012). In the Kharwa Karpo region in Tibet, sacred forests were found to increase tree size and cover compared to surrounding areas (Salick et al., 2007), indicating that sacred forests have been successful in promoting conservation efforts. Moreover, yul-lha are mountain protector deities who were once powerful people whose spirits continued to inhabit local villages (Palni et al., 2019). There are various religious taboos associated with the yul-lha, including the digging of the earth, like the caterpillar fungus, and the killing of wildlife on site (Sulek, 2016; Woodhouse, 2012). Conducting violations by local villagers could trigger the deities and cause misfortunes (Palni et al., 2019). These local deities and spirits have sparked conservation efforts among Tibetan Buddhist communities to collectively protect the sacred sites.

1.1.2 Sin, Karma, and Buddhist moral principles

Traditional Buddhist moral teachings, including sin, karma, and other principles promote a sense of environmental stewardship among its followers. Karma refers to the fundamental principle of cause and effect, and that every action has its corresponding result (Tucker & Williams, 1997). The accumulation of negative karma, through conducting evil deeds, is often associated with adverse impacts on future rebirths (Sulek, 2016). The concept of sin is essentially committing misbehaviors associated with bad karma, which is the opposite of merit and leads to suffering, usually associated with the hunting and killing of wildlife animals (Sasaki, 1979; Woodhouse, 2012). Finally, Buddhist moral doctrines promote the teaching of interdependence between nature and human beings. Rather than isolated entities and hierarchical categories, Buddhism sees all beings, including humans and the natural environment, as interconnected (Tucker & Williams, 1997). They believe that all sentient beings are fundamentally similar, in that their basic urge is to avoid suffering and experience well-being (Tucker & Williams, 1997). Together, the notions and teachings of Tibetan Buddhism promote a sense of moral obligation to pursue environmental conservation among its followers.

1.2 Impacts of Changing Socio-economic Conditions on the Environment

1.2.1 Historical Context

Prior to the profound changes in socio-economic conditions, Tibetan society systematically integrated religion into its political system (Zhang, 2023). The 1950s saw the establishment of a socialist system from a feudal regime, which transformed a deeply religion-integrated society into a secular one (Gould et al., 2009; Yan and Chen, 2024; Zhang, 2023).

1.2.2 Urbanization and Economic Liberalization

Initially, economic liberalization and railroad construction allowed for private trade and incentivized the overexploitation of the caterpillar fungus due to drastically boosting prices (Winkler, 2008; Woodhouse, 2012). The caterpillar fungus, *Cordyceps sinensis*, is a costly medicinal mushroom that mainly serves as a treat for exhaustion, respiratory and pulmonary, and cardiovascular diseases (Winkler, 2008). The recent transition to a cash economy in the

Tibetan Area has made the gathering and selling of the caterpillar fungus more accessible and valuable. Railroad construction projects also enabled the private trade of the caterpillar fungus, allowing the private trade to become increasingly popular and the primary source of income for many Tibetan families today (Sulek, 2016).

Furthermore, although the Chinese government began initiatives to protect forest areas by abolishing commercial logging in 1998 (Bennet, 2008), recent socio-economic developments have stimulated illegal harvest and transport of timber (Woodhouse, 2012). Transportation corridors, enabled by railroad construction, allowed for the reduced isolation of resources (Allen, 2009). This allowed for the flow and transport of various resources that stimulated the economy, including large volumes of timber, which could be sold at higher prices, stimulating illegal logging and other informal practices (Gould et al., 2009). These practices demonstrate the realities of economic incentives that often take precedence over traditional religious beliefs around sacred sites, indicating how socio-economic conditions have altered the traditionally harmonious human-nature relationship.

1.2.3 Influence of Secular Education and Cultures

The implementation of the socialist system also resulted in significant transformations in the education systems of Tibetan areas. Before these changes, Tibetan society primarily received education in monasteries (Zhang, 2023). Monasteries taught monks Buddhist doctrines and traditional Tibetan cultural ideas. However, modern education has shifted the focus from religious beliefs to science, which has transformed the values and worldviews of young Tibetans (Zhang, 2023). They also attend schools with a new education system that supports the learning of Mandarin Chinese and values compatible with the Chinese Communist Party (CCP) (Härkönen, 2007), distancing them from traditional Buddhist beliefs and teachings. Furthermore, the influx of Han Chinese through tourism and Population Transfer programs initiated by the Chinese government caused cultural dilution due to the overpopulation of the Han (Allen, 2009). As a result, Tibetans have been largely marginalized and the influx of cultures has caused the rich traditions of Tibetan Buddhism to disappear rapidly (Dekhang et al., 2000).

1.2.4 Impacts

The change in the daily practices of Tibetans, including logging and the extraction of caterpillar fungus has severely deteriorated the grassland ecosystem. Deforestation causes soil compaction and erosion, loss of fertility, and flooding (Allen, 2009). Moreover, the unsustainable extraction of caterpillar fungus leads to biodiversity loss and ecosystem degradation (Shrestha, 2013). According to investigation analysis, severely degraded grassland area accounts for 58% of the available land on the Tibetan Plateau. Grassland degradation decreases vegetation coverage, leading to disrupted ecosystem services (Wen et al., 2013) and ultimately desertification (Liu et al., 2008). Desertification is considered to be one of the most significant ecological issues, with implications including environmental degradation, food insecurity, and more prone to natural disasters (Abdi et al., 2013) in surrounding regions. In early 2000, 20% of the TP was desertified (Fang et al., 2007). Therefore, increasing extraction practices have led to severe ecological damage.

1.3 Justifying the Gap

Many existing studies in the broad literature have examined the complicated relationship between Tibetan Buddhists and the environment under changing socio-economic conditions. Previous studies have been conducted in Daocheng County, Sichuan Province (Woodhouse, 2012); Hongyuan County, Sichuan Province (Gaerrang, 2017); Golok Prefecture (Sulek, 2016); and the Sagarmatha National Park (Spoon, 2015). However, there is no prior investigation of this situation in the Kehe Township of Aba County, Sichuan Province, which addresses a geographical gap in the literature. Kehe Township is a good case for studying the influences of socio-economic conditions on traditional beliefs due to its unique characteristics. The region embodies a diverse ecosystem, including a transition from forests to grasslands, which influences how local villagers interact with their environment. At the same time, the economic landscape of the Kehe Township is characterized by a mix of farming and pastoral livelihoods, and such economic diversity allows a more comprehensive analysis. The unique geographical and economic characteristics contribute to filling a gap in the existing literature.

2 Method

2.1 Study Site

The Kehe township is located in the Aba County, Ngawa Tibetan and Qiang Autonomous Prefecture, Sichuan Province. It is situated within the Markog River Forest Area and the Three-River Headwaters Protection Area in the Southeastern part of the Qinghai-Tibetan Plateau. Located in the Tibetan Cultural Area, the Kehe Township consists of approximately 1,000 villagers (Ldong Tsong Conservation, 2024). With 99% of the population as Tibetans, the majority worship Tibetan Buddhism. The Ye'ou Monastery, the main Nyingma Sect Monastery of Tibetan Buddhism, has a history of nearly 300 years (Ldong Tsong Conservation, 2024). This is ideal for my study because it indicates that religious beliefs stemming from Tibetan Buddhism make up a rich history of local perceptions and practices.

2.2 Study Design

The methodology I chose is a qualitative approach of a case study, "an intensive analysis of an individual unit stressing developmental factors in relation to environment" (Merriam-Webster, 2018). This methodology has been widely used within the body of literature to collect data from specific villages, counties, or prefectures to make broader generalizations about the situation under similar political or social contexts. Researchers like Allen (2009), Gaerrang (2017), Lanier (2005), and Woodhouse (2012) have utilized this methodology to investigate the impacts of socio-economic transformations in a specific region. A case study is a logical choice for my research since it allows for an in-depth examination of a specific region and an analysis of the impacts of reform policies on the local Tibetan Buddhists. This in-depth analysis reveals the nuances behind the evolving relationship between Tibetan Buddhists and the environment in response to various socio-economic factors. Furthermore, a case study can provide broader implications for trends in other regions with similar social and political contexts, which can allow for a more comprehensive analysis of the broader contexts of the Tibetan Area.

3 Conclusion

This study reveals the evolving relationship between Tibetan Buddhism and environmental values under the pressures of modernization. While traditional religious practices once supported sustainable ecological behaviors through spiritual reverence and moral restraint, these systems have weakened amid economic liberalization, urbanization, and secular education. The case of Kehe Township illustrates how grassroots ecological ethics rooted in Buddhist cosmology are eroded when exposed to market incentives and weakened ritual institutions.

However, the research also suggests a potential revival through hybrid strategies that combine localized religious narratives with state-supported conservation. As sacred landscapes and deities retain symbolic authority, engaging them in contemporary ecological governance may enhance legitimacy and participation. Ultimately, the findings indicate that cultural continuity and ecological resilience are deeply intertwined. Policy efforts aimed at preserving biodiversity in the Tibetan Plateau must therefore consider not only scientific planning but also the lived religious and moral worlds of its inhabitants.

References

- [1] Abdi, O. A. , Glover, E. K. , & Luukkannen, O. (2013). Agroforestry, Desertification, Drought, Drylands, Natural Resources, Rainfall Trends, Sudan. 2013.
- [2] Allen, T. H. (2009). Tibet: Landscape of Tradition and Change. *Focus on Geography*, 52(2), 23 – 29.
- [3] Bai-ping, Z. , Xiao-dong, C. , Bao-Lin, L. , & Yong-hui, Y. (2002). Biodiversity and conservation in the Tibetan Plateau. *Journal of Geographical Sciences*, 12, 135-143.
- [4] Battaglia, M. (2008). Purposive sample. In *Encyclopedia of survey research methods*, 645 – 647.
- [5] Bennett, M. T. (2008). China' s sloping land conversion program: Institutional innovation or business as usual? *Ecological Economics*, 65(4), 699 – 711.
- [6] Dekhang (Ed.). (2000). Tibet 2000: Environment and development issues. Environment and Development Desk, DIIR, Central Tibetan Administration.
- [7] Dudley, N. & World Wide Fund for Nature (Eds.). (2005). Beyond belief: Linking faiths and protected areas to support biodiversity conservation. WWF.

- [8] Fang, H., Zhao, F., Lu, Y., Zhang, L., Zhang, Z., Sun, Y., & Jiang, Q. (2007). Remote sensing survey of ecological and geological and environmental factors in Qinghai-Tibetan plateau. *Remote Sens. Land Resource*, 4, 61-65.
- [9] Gaerrang, K. (2017). Tibetan Buddhism, Wetland Transformation, and Environmentalism in Tibetan Pastoral Areas of Western China. *Conservation and Society*, 15(1), 14.
- [10] Gould, J. E., Carttar, P. L., & Frazier, J. W. (2009). *The New Tibet*. 2009.
- [11] Härkönen, M. (2007). The Changing Place of Religion and the Question of Secularization in the 'Modernization' of Tibet. 2007.
- [12] Lanier, F. (2005). The Role of Tibetan Buddhism and Culture in Sustainable Development (A Case Study of Yubeng Village).
- [13] Ldong Tsong Conservation. (2024). Brief Introduction to the Kehe Township. Unpublished manuscript.
- [14] Liu, J., Xu, X., & Shao, Q. (2008). Grassland degradation in the "Three-River Headwaters" region, Qinghai Province. *Journal of Geographical Sciences*, 18(3), 259 - 273.
- [15] Magaldi, D., & Berler, M. (2020). Semi-structured Interviews. *Encyclopedia of Personality and Individual Differences*, 4825 - 4830.
- [16] Miller, D. J. (1990). Grasslands of the Tibetan Plateau. *Rangelands*, 12(3), 159-163.
- [17] Palni, L. M. S., Dhar, R. B., Tandon, O. P., Academic Foundation (New Delhi, India), & Foundation for Non-Violent Alternatives (Eds.). (2019). The state of ecology of the Tibetan Plateau. Academic Foundation in association with The Foundation for Non-Violent Alternatives.
- [18] Riger, S., & Sigurvinsdottir, R. (2016). Thematic Analysis. In L. Jason & D. Glenwick (Eds.), *Handbook of methodological approaches to community - based research: Qualitative, quantitative, and mixed methods* (pp. 33 - 41). Oxford University Press.
- [19] Salick, J., Amend, A., Anderson, D., Hoffmeister, K., Gunn, B., & Zhendong, F. (2007). Tibetan sacred sites conserve old growth trees and cover in the eastern Himalayas. *Biodiversity and Conservation*, 16(3), 693 - 706.
- [20] Sasaki, G. H. (1979). The Buddhist Concept of Sin and its Purification.
- [21] Shen, X., Lu, Z., Li, S., & Chen, N. (2012). Tibetan Sacred Sites: Understanding the Traditional Management System and Its Role in Modern Conservation. *Ecology and Society*, 17(2), art13.
<https://doi.org/10.5751/ES-04785-170213>
- [22] Shrestha, U. B., & Bawa, K. S. (2013). Trade, harvest, and conservation of caterpillar fungus (*Ophiocordyceps sinensis*) in the Himalayas. *Biological Conservation*, 159, 514-520.
- [23] Spoon, J. (2015). Everyday Buddhism and Environmental Decisions in the World' s Highest Ecosystem. *Journal for the Study of Religion, Nature and Culture*, 8(4), 429 - 459.
- [24] Sulek, E. R. (2016). Caterpillar fungus and the economy of sinning. On entangled relations between religious and economic in a Tibetan pastoral region of Golog, Qinghai, China. *Études Mongoles et Sibériennes, Centrasiatiques et Tibétaines*, 47.
- [25] Tucker, M. E., & Williams, D. R. (Eds.). (1997). *Buddhism and ecology: The interconnection of dharma and deeds*. Harvard University Center for the Study of World Religions : Distributed by Harvard University Press.
- [26] Wen, L., Dong, S., Li, Y., Li, X., Shi, J., Wang, Y., Liu, D., & Ma, Y. (2013). Effect of Degradation Intensity on Grassland Ecosystem Services in the Alpine Region of Qinghai-Tibetan Plateau, China. *PLoS ONE*, 8(3), e58432.
- [27] Winkler, D. (2008). Yartsa Gunbu (*Cordyceps sinensis*) and the Fungal Commodification of Tibet' s Rural Economy. *Economic Botany*, 62(3), 291 - 305.
- [28] Woodhouse, E. (2012). The role of Tibetan Buddhism in environmental conservation under changing socio-economic conditions in China.
- [29] Woodhouse, E., Mills, M. A., McGowan, P. J. K., & Milner-Gulland, E. J. (2015). Religious Relationships with the Environment in a Tibetan Rural Community: Interactions and Contrasts with Popular Notions of Indigenous Environmentalism. *Human Ecology*, 43(2), 295 - 307.
- [30] Xiao, Y., Xiong, Q., Liang, P., & Xiao, Q. (2021). Potential risk to water resources under eco-restoration policy and global change in the Tibetan Plateau. *Environmental Research Letters*, 16(9), 094004.
- [31] Yan, R., & Chen, R. (2024). Sustainable Development and Transformative Change in Tibet, China, from 1951 to 2021. *Land*, 13(7), 921.
- [32] Yundannima, Y. (2017). Rangeland Use Rights Privatisation Based on the Tragedy of the Commons: A Case Study from Tibet. *Conservation and Society*, 15(3), 270.
- [33] Zhang, X. (2023). A Discussion on the Reasons for the Change of Tibetan Buddhism Cultural Status in Modern Tibetan Areas. *Journal of Humanities, Arts and Social Science*, 7(4), 810 - 817.