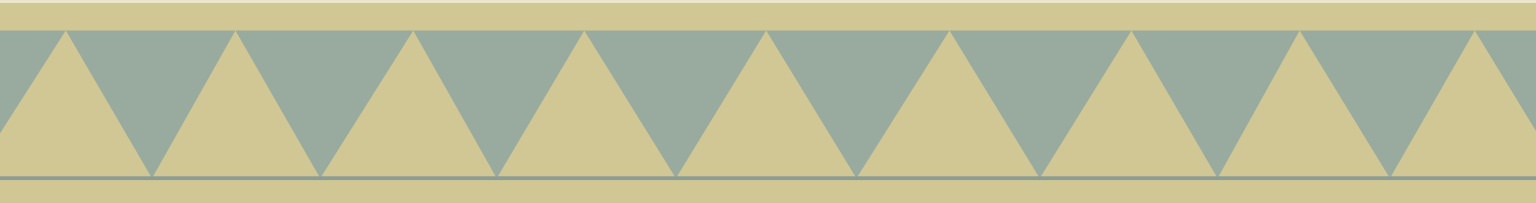
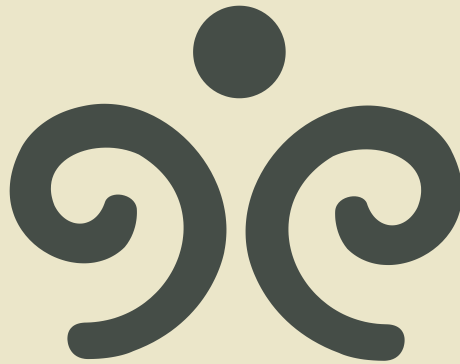




IJWATCH

**International Journal of World's Ancient
Traditions and Cultural Heritage**

Volume 2 || Issue 2 || 2026 || ISSN : 2998-7199



INDIGENOUS KNOWLEDGE AND SUSTAINABLE FUTURES: COMPARATIVE STUDY OF SOUTHWEST CHINA AND NORTHEAST INDIA

*Kush Kumar Gayasen**

ABSTRACT

The paper examines the impact of indigenous knowledge systems on community resilience, environmental sustainability, and cultural preservation by comparing two of the most important regions: Southwest China and Northeast India. Two of the oldest civilisations, China and India, have several indigenous communities that have nurtured advanced knowledge systems related to biodiversity conservation, water use, forest management, agriculture and medicinal practices. However, the acceptance of such traditions has met with scepticism and a lack of scientific rigour, especially in the modern context where globalisation looks forward to a homogenised existence. The global economic forces have brought the indigenous culture at the crossroad. The study uses qualitative and comparative methods to highlight the indigenous practices of Southwest Chinese and Northeast Indian communities, discerning the patterns of nurturance, preservation of local knowledge systems and environmental sustainability.

Keywords: Indigenous knowledge, sustainability, Southwest China, Northeast India, tribal communities.

INTRODUCTION

The purpose of the study is simple: to examine the impact of indigenous knowledge systems on community resilience, environmental sustainability, and cultural preservation. The cases chosen for comparison are Southwest China and Northeast India. These cases represent abundant repositories of cultural heritage and offer alternative epistemologies that provide distinct ways of understanding human-nature relationships. China and India offer diverse platforms to study such systems. In the context of tribal communities of these regions, indigenous knowledge encompasses varied practices related to agriculture, forest management, biodiversity conservation, water resource management, traditional medicine and social organisation. These knowledge systems are not merely repositories of cultural heritage but represent alternative epistemologies that offer distinct ways of understanding human-nature relationships. The interconnectedness, reciprocity, sustainability and collective responsibility therefore provide valuable insights to address contemporary environmental challenges.

Indigenous knowledge cannot be single-handedly defined but is referred to as a cumulative body of knowledge, practices and worldviews by local communities. It can be seen as an extension of the long-term interaction of these indigenous communities with their natural and social environments.

**Assistant Professor, Janki Devi Memorial College, University of Delhi, Delhi, India.*

It is generated through the lived experiences, observation, oral traditions, cultural practices and collective memory that is transmitted across generations within the specific socio-cultural contexts. It deviates from the universalised scientific knowledge systems that often seek objective and standardised explanations. Indigenous knowledge is deeply rooted in local ecologies, cultural values and community life. Researchers have time and again recognised indigenous knowledge as a dynamic and adaptive system rather than a static tradition. The tribal communities, including those in southwest China and northeast India, continually negotiate, modify and reinterpret their knowledge in response to the changing environmental, political and economic conditions. This adaptive character acts as an enabling factor, contributing to community resilience and sustainable resource governance, yet maintaining cultural continuity.

In order to understand the diverse paradigms and parameters of the subject at hand, the paper is divided into four sections. The first section discusses sustainable and ecological practices and impediments faced due to rapid urbanisation and modernization process. The next section explores tribal communities and indigenous wisdom in Northeast India. The third section digs into the same in the tribal communities in Southwest China. The final section employs a comparative analysis of indigenous knowledge practices in Northeast India and Southwest China and assesses the sustainability aspects and related practices.

Sustainable Livelihood and Ecological Practices vis-à-vis Growing Urbanisation and Modernisation

Sustainable livelihood and ecological practices are integral to indigenous knowledge systems. It demonstrates a robust relationship between communities and their natural environments. Indigenous societies have evolved resource management strategies that facilitate biodiversity conservation and the sustainable use of land, water and forests. Such exercises are guided by the idea of reciprocity, collective responsibility and ensuring that resources are harnessed without jeopardising their access for future generations. It is argued that “indigenous knowledge can be defined as the sum of experience and knowledge of a given ethnic group that forms the basis for decision-making in the face of familiar and unfamiliar problems and challenges”. (Chikaire, et. al. 2012).

Challenges of Urbanisation and Modernisation

Urbanisation and modernisation have seriously challenged the continuity of indigenous knowledge systems. One of the main concerns is the loss of transmission of traditional knowledge as younger generations move to urban centers for education, work and better economic opportunities. This undermines the intergenerational learning processes that have historically preserved ecological knowledge, oral traditions, customary laws and cultural practices (Battiste, 2005; United Nations, 2009). Through modern development projects such as infrastructure expansion, industrialisation, mining and commercial agriculture traditional landscapes can be transformed and community access to natural resources that underpin indigenous livelihoods and knowledge systems reduced. Such interventions often undermine age-old relationships between communities and their environments, leading to the erosion of traditional ecological practices (Nakashima et al., 2012).

The extension of market economies further stimulates the transition from subsistence and community-based resource management practices to commercial production and resource extraction practices. While these changes may create economic opportunities, they can also undermine traditional systems of environmental stewardship and collective governance (Berkes, 2018). In addition, formal education systems and dominant scientific paradigms tend to foreground Western conceptual frameworks, often pushing indigenous epistemologies to the margins. This leads to

the idea that indigenous knowledge is old-fashioned or less applicable in contemporary society. Globalisation, mass media and technological change, further accelerate cultural homogenisation and threaten indigenous languages, belief systems and cultural practices which are important vehicles for the transmission of knowledge (Smith, 2021).

Urbanisation and modernisation thus bring about complex tensions between economic development and cultural preservation. As indigenous communities continue to evolve and innovate, there is an urgent need for policies that recognise, protect and integrate indigenous knowledge into broader frameworks for sustainability and development.

Tribal Communities and Indigenous Knowledge in Northeast India

Northeast India is home to one of the richest diversities of tribal communities in the world. The indigenous systems of these tribes have evolved through centuries of interaction with the region's unique ecological landscapes. The seven sisters, primarily the states of Arunachal Pradesh, Nagaland, Mizoram and Meghalaya, are inhabited by communities such as the Naga, Mizo, Khasi, Garo, Adi and Apatani, to name a few. Each of these communities possesses distinct cultural traditions and sophisticated environmental knowledge. Sustainable livelihood and community-based resource management are interwoven in daily life practices.

One of the most striking manifestations of indigenous ecological knowledge in Northeast India is shifting cultivation, locally called the *jhum*. Practised by several tribes, including the ones mentioned above, jhum cultivation involves rotational use of agricultural plots, allowing forests and soils to regenerate during fallow periods. Debated as environmentally destructive in the mainstream development discourse, scholars have often argued that traditional jhum systems are based on intricate ecological knowledge and can contribute to biodiversity when practised with adequate fallow cycles (Cairns, 2007; Ramakrishnan, 1992). These practices reflect a deeper and holistic understanding of soil fertility, rainfall patterns, crop diversity and ecosystem regeneration.

Forest management is another important aspect of indigenous knowledge. For example, in Meghalaya's Khasi and Garo communities, sacred groves have traditionally been community-conserved forests, regulated by customary rules and spiritual beliefs. The groves are stores of biodiversity and represent practices older than modern environmental policies (Tiwari et al., 1998). Furthermore, many Naga villages have community forests which are governed by traditional institutions that set rules for resource extraction, hunting and land use.

Oral traditions play a central role in preserving and transmitting indigenous knowledge across generations. Cultural artefacts, folktales, myths, songs and storytelling practices are encoded in ecological wisdom, historical memory, ethical values and social norms. For example, among the Adi and Apatani communities of Arunachal Pradesh, narratives often contain detailed knowledge of local biodiversity, agricultural cycles and human-nature relationships. Such cultural practices function as informal systems through which communities maintain ecological balance and environmental awareness.

The closed-knit communities often maintain systems of customary governance that regulate social relations and resource management. Traditional institutions, such as village councils, tribal elders and clan-based decision-making bodies, continue to play important roles in conflict resolution, land allocation and environmental governance. These systems highlight collective responsibility and community participation, providing legitimate mechanisms for managing common resources. Researchers have highlighted that customary institutions contribute significantly to social cohesion and ecological stewardship in many tribal societies of Northeast India (Karlsson, 2011). One fine

example of community-based ecological management can be found among the Apatani people of Arunachal Pradesh. The Apatani have developed an internationally recognised agricultural system that integrates rice cultivation with fish farming and sophisticated water management techniques. This system provides high productivity without compromising sustainable management through chemical inputs. (Dollo et al., 2009).

In sum, indigenous knowledge among tribal communities in Northeast India represents a dynamic and adaptive system of environmental understanding, cultural practice and social organisation. Contrary to being knowledge of the past, these systems offer informed practices of community resilience with unique perspectives on development and environmental governance.

Indigenous Knowledge Systems in China

Southwest China is one of the most ethnically diverse regions in Asia and home to numerous communities whose indigenous knowledge systems have evolved through long-standing interactions with mountainous landscapes, river valleys, forests and agricultural ecosystems. Communities such as Hani, Yi, Miao and Dong people have vast and rich knowledge related to agriculture, water management, medicine, environmental stewardship and cultural preservation. These indigenous systems represent an enmeshed socio-ecological adaptation that has enabled these communities to sustain livelihoods in ecologically fragile environments for centuries. It is of interest to scholars and policymakers to not only bring these systems into the mainstream discussions as cultural traditions but also as matters to be deliberated for contemporary sustainability, biodiversity conservation and climate change.

Yunnan Province in China is considered a “rich in cultural and biological diversity, also known as the ‘roof of Southeast Asia’”. It is home to 45 million people from 25 distinct ethnic minorities, most of them living between 1000 and 3000 masl” (He et al., 2009). As per one source, “the project Support of Indigenous Knowledge for the Use and Conservation of Biological Diversity of Ethnic Minorities in Three Ecological Regions in Yunnan, Southwest China,” completed in 2006, was based in three regions of Yunnan Province in Southwest China and supported by the German international technical cooperation agency GTZ (Gesellschaft für Technische Zusammenarbeit)” (Jianchu, 2015). One of the most celebrated examples of indigenous ecological knowledge in China is the Hani terraced farming system in Yunnan province. It is an intricate agricultural landscape characterised by thousands of terraced rice fields integrated with forests, villages and water channels. The system reflects a sophisticated understanding of ecological interdependence while excellently regulating water flows that nourish terraces below. The Hani terraces are recognised as a UNESCO World Heritage Site. It serves as a fine example of indigenous practices that can maintain productivity while conserving soil, water and biodiversity (Min, Sun, & Yuan, 2013). The Hani system exemplifies a holistic approach to land management that integrates ecological sustainability with cultural and spiritual values.

Another closely related practice to that of terraced agriculture is the extensive knowledge of water management found among the Hani and Dong communities. Traditional irrigation systems employ gravity-fed channels, bamboo conduits and community-managed water allocation mechanisms that ensure equitable distribution of resources. Much like the northeast Indian tribes, these systems in Southwest China are governed by customary traditions and collective norms that regulate maintenance, usage and conflict resolution. Such practices are very efficient in managing scarce environmental resources without relying on centralised technological interventions.

Traditional herbal medicine constitutes another significant domain of indigenous knowledge in

Southwest China. In particular, the Tibetan medical practices represent one of the most developed indigenous medical traditions in Asia. The holistic practice combines empirical observations, spiritual philosophy and extensive knowledge of medicinal plants found in high-altitude ecosystems. Similarly, Yi and Miao communities possess rich ethnobotanical knowledge regarding the use of local plants for treating illness, promoting health and maintaining community well-being. Xu and Wilkes (2004) suggest that this knowledge has been accumulated through generations of experimentation and observation and continues to provide important healthcare resources, particularly in rural and mountainous regions.

An emphasis on ecological ethics in Southwest China is a defining characteristic of indigenous knowledge of the region. Many ethnic communities perceive humans as part of a broader web of relationships encompassing animals, forests, rivers, mountains and spiritual beings. It has been argued that the “utilisation of indigenous knowledge can increase the family cultural livelihood capital, optimise the choice of family livelihood strategy and improve the level of environmental governance, which ultimately affects the sustainability of family livelihood.” (Shang, et al. 2021). A defining characteristic of indigenous knowledge systems in Southwest China is their emphasis on ecological ethics. Many ethnic communities perceive humans as part of a broader web of relationships encompassing animals, forests, rivers, mountains, and spiritual beings. The sacred forests, ritual landscapes, and customary restrictions on hunting and resource extraction among the Yi, Dong, and Miao peoples reflect ethical frameworks that promote environmental stewardship. These worldviews contribute to conservation practices that align with contemporary sustainability goals while emerging from distinct cultural and philosophical traditions.

The preservation of ethnic culture is also closely related to indigenous knowledge. Ecological knowledge and collective memory are handed down through the generations via language, oral traditions, rituals, festivals, songs, crafts and agricultural practices. But the rapid pace of modernisation, urbanisation, tourism development and market integration have posed serious challenges to the continuity of these traditions. Many communities have responded by adapting their practices but also trying to preserve cultural identities. State initiatives to promote intangible cultural heritage and ethnic minority traditions have further underscored the importance of indigenous knowledge as a resource for cultural resilience and sustainable development.

Overall, indigenous knowledge systems among the Hani, Yi, Miao and Dong illustrate sophisticated forms of environmental understanding and social organisation developed outside dominant Western scientific paradigms. These systems demonstrate that local knowledge traditions can contribute meaningfully to sustainable agriculture, biodiversity conservation, climate adaptation, and community well-being. As such, they provide valuable alternative epistemologies for addressing contemporary environmental and developmental challenges in China and beyond. Some scholars have emphasised the need for “a conservation policy for China that includes the indigenous knowledge and values needed to maintain the environment and the traditional cultures themselves. There are seminal signs that the government is beginning to support indigenous cultures in China.” (Xu, et al. 2005).

Comparative Analysis of IKS in Northeast India and Southwest China: Environmental Sustainability and Practices

The indigenous knowledge systems of Northeast India and Southwest China offer an important platform to compare and contrast the conceptualisation of man-nature relationship developed historically through close interactions with their environment. Despite the differences in geographical spaces, language, culture and socio-political structures, both regions demonstrate

sophisticated ecological knowledge that supports biodiversity, conservation and resource management. Together, these practices also highlight community bonding and resilience that shape readiness for any climatic catastrophes. A critical comparison is incomplete without highlighting the significant differences in the organisation, adaptation and contemporary recognition of these knowledge systems within the national development frameworks.

In terms of a holistic worldview, both regions philosophically underpin interconnectedness with nature. Communities such as the Naga, Khasi, Garo, Adi, and Apatani in Northeast India and the Hani, Yi, Miao and Dong peoples in Southwest China traditionally perceive humans as an extension of their ecological systems rather than being separate entities. This paradigmatic position emphasises reciprocity, restraint and collective harmony. As discussed above, the sacred groves among the Khasi and Garo serve as protected biozones. Whereas the concept of sacred mountains, as seen in Hani forests and other similar tribes, regulates the overexploitation of natural resources. Both these examples are rooted in spirituality and cultural traditions rather than being treated as an environmental practice only.

However, the two regions are quite different in their dominant forms of agricultural sustainability. Indigenous environmental knowledge in Northeast India is commonly linked with shifting cultivation (jhum), a rotational farming system that allows for ecological regeneration through fallow cycles. Jhum supports biodiversity, mixed cropping and soil recovery in its traditional form. But its ecological sustainability has been increasingly degraded by population pressures, scarcity of land and reduced fallow periods. In contrast, the indigenous communities of Southwest China, especially the Hani, developed very intensive and permanent terraced farming systems, which optimise productivity with a minimum of soil erosion and water conservation. The Hani rice terraces are a more stable agro-ecological model and have been globally recognised as a sustainable agricultural heritage system. Both systems are therefore ecological adaptations, but the Chinese terraced model has generally achieved better productivity. The Hani rice terraces are an example of a more stable agroecological model that is known around the world as a sustainable agricultural heritage system. Both systems are thus ecological adaptations, but the Chinese terraced model has generally received more institutional recognition as a sustainable practice than shifting cultivation, which continues to be viewed with policy scepticism in India.

Another key point of comparison concerns water resource management. Native communities in both regions have complex ways of regulating water use. In Arunachal Pradesh, the Apatani maintain integrated systems of rice-fish culture with carefully managed irrigation networks. The Hani and Dong of Southwest China have complex gravity-fed water distribution systems associated with forest conservation. However, Chinese indigenous water management systems have been more extensively documented and integrated into state-sponsored heritage conservation programs. Indigenous water management in Northeast India is highly effective at the local level, but has received comparatively less policy attention and institutional support.

Both regions have strong traditions of community-based environmental governance in terms of conserving biodiversity. Sacred groves, community forests and customary restrictions on the extraction of resources are common features throughout Northeast India. Similarly, many indigenous societies in Southwest China have sacred landscapes, community-managed forests, and conservation practices embedded in their culture. But the governance context is very different. In Northeast India, conservation practices are mainly sustained by decentralised customary institutions such as village councils and clan organisations. In Southwest China, indigenous conservation practices are increasingly performed in a context of state policies, heritage programmes and

ecological modernisation initiatives. This creates opportunities for recognition and risks of state appropriation and/or cultural commodification.

A crucial difference also appears in relation to the transmission of knowledge and preservation of culture. Indigenous knowledge in both regions is traditionally transmitted through oral traditions, rituals, customary laws and community practices. But these transmission mechanisms have been eroded by modernisation, urbanisation, formal schooling, and market integration. While these challenges are shared between both contexts, the Chinese state has put significant effort into recording and promoting certain forms of ethnic cultural heritage, especially those related to tourism and national cultural diversity. Whereas indigenous knowledge in Northeast India is often poorly documented and still relies heavily on community-led preservation. This difference brings up important questions about whether state recognition actually empowers indigenous communities or turns living traditions into cultural artefacts for administrative and economic purposes.

From a sustainability perspective, both regions challenge dominant Western development paradigms by presenting alternative models of environmental governance grounded in local knowledge, collective responsibility, and long-term ecological stewardship. But neither setting is free of tension. Infrastructure development, deforestation, resource extraction and changing agricultural practices are endangering traditional ecological systems in Northeast India. The traditional ways of life of Southwest China also come under threat from rapid modernisation, urbanisation and state-led development projects. Hence, indigenous knowledge systems in both regions should be understood not as static traditions but as dynamic and adaptive systems negotiating the requirements of contemporary development.

In conclusion, there are both convergences and divergences in the indigenous approaches to environmental sustainability in Northeast India and Southwest China. Each region places importance on community-based resource management, ecological ethics and culturally embedded conservation practices. Yet, indigenous sustainability practices have been more institutionally acknowledged and incorporated into national heritage and development frameworks in Southwest China, while indigenous systems in Northeast India are more closely related to customary governance and local autonomy. Indigenous knowledge in both regions provides important lessons for sustainable development, climate resilience and environmental governance and highlights the complex challenges of protecting local epistemologies in the context of rapidly modernising societies.

Conclusion

The purpose of the study was to examine the impact of indigenous knowledge systems on community resilience, environmental sustainability, and cultural preservation. The cases chosen for comparison were Southwest China and Northeast India. These cases represent abundant repositories of cultural heritage and offer alternative epistemologies that provide distinct ways of understanding human-nature relationships. In the qualitative discussion above, it can be seen that ecological practices form a very integral part of the indigenous communities and their livelihoods. Indigenous knowledge in both regions provides important lessons for sustainable livelihood, climate resilience and environmental governance. At the same time, it highlights the complex challenges of protecting local epistemologies in the context of rapidly modernising societies. There are both convergences and divergences in the indigenous approaches to environmental sustainability in Southwest China and in Northeast India. Each region places importance on community-based resource management, ecological ethics and culturally embedded conservation practices. There is a scope for further research in this area to explore evolving practices related to indigenous knowledge systems in both China and India.

References

- Battiste, M. (2005). Indigenous knowledge: Foundations for First Nations. *WINHEC Journal*, 1(1), 1–17.
- Berkes, F. (2018). *Sacred ecology* (4th ed.). Routledge.
- Cairns, M. (Ed.). (2007). *Voices from the forest: Integrating indigenous knowledge into sustainable upland farming*. Resources for the Future Press.
- Chikaire, J., Osuagwu, C. O., Ihenacho, R. A., Oguegbuchulam, M. N., Ejiogu-Okereke, N., & Obi, K. U. (2012). Indigenous knowledge system: The need for reform and the way forward. *Global Advanced Research Journal of Agricultural Science*, 1(8), 201–209.
- Dollo, M., Samal, P. K., & Sundriyal, R. C. (2009). Traditional knowledge and biodiversity conservation: The Apatani plateau of Arunachal Pradesh. *Indian Journal of Traditional Knowledge*, 8(3), 432–442.
- Harrell, S. (Ed.). (2001). *Ways of being ethnic in Southwest China*. University of Washington Press.
- He, J., Zhou, Z., Weyerhaeuser, H., & Xu, J. (2009). Participatory technology development for incorporating non-timber forest products into forest restoration in Yunnan, Southwest China. *Forest Ecology and Management*, 257(10), 2010–2016. <https://doi.org/10.1016/j.foreco.2009.01.041>
- Jianchu, X. (2015, July 9). *Indigenous knowledge, biodiversity conservation, and poverty alleviation among ethnic minorities in Yunnan, China*. Terralingua. <https://terralingua.org/stories/indigenous-knowledge-biodiversity-conservation-and-poverty-alleviation-among-ethnic-minorities-in-yunnan-china/>
- Karlsson, B. G. (2011). *Unruly hills: A political ecology of India's Northeast*. Berghahn Books.
- Kolås, Å., & Thowsen, M. P. (2005). *On the margins of Tibet: Cultural survival on the Sino-Tibetan frontier*. University of Washington Press.
- Menzies, N. K. (Ed.). (2006). *Traditional forest-related knowledge: Sustaining communities, ecosystems and biocultural diversity*. Springer.
- Min, Q., Sun, Y., & Yuan, Z. (2013). The Hani rice terraces system: A globally important agricultural heritage system. *Journal of Resources and Ecology*, 4(4), 303–308.
- Nakashima, D., Galloway McLean, K., Thulstrup, H., Ramos Castillo, A., & Rubis, J. (2012). *Weathering uncertainty: Traditional knowledge for climate change assessment and adaptation*. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000216613>
- Ramakrishnan, P. S. (1992). *Shifting agriculture and sustainable development: An interdisciplinary study from North-Eastern India*. UNESCO and Parthenon Publishing.
- Santasombat, Y. (Ed.). (2026). *Bio-cultural diversity, ethnicity, and local knowledge: From Lanna to Northeast India*. Springer Nature Singapore. <https://doi.org/10.1007/978-981-95-4242-0>
- Shang, Q., Li, M., & Wang, H. (2021). Environment governance, sustainable livelihood and indigenous knowledge in ethnic tourism villages of China. *E3S Web of Conferences*, 272, 01027. <https://doi.org/10.1051/e3sconf/202127201027>

- Singh, R. K., Pretty, J., & Pilgrim, S. (2010). Traditional knowledge and biocultural diversity: Learning from tribal communities for sustainable development in northeast India. *Journal of Environmental Planning and Management*, 53(4), 511–533. <https://doi.org/10.1080/09640561003722343>
- Smith, L. T. (2021). *Decolonizing methodologies: Research and indigenous peoples* (3rd ed.). Zed Books.
- Tiwari, B. K., Barik, S. K., & Tripathi, R. S. (1998). Biodiversity value, status and strategies for conservation of sacred groves of Meghalaya, India. *Ecosystem Health*, 4(1), 20–32.
- UNESCO. (2013). *Honghe Hani rice terraces cultural landscape: World Heritage nomination and management documentation*. UNESCO World Heritage Centre. <https://whc.unesco.org/en/list/1111/documents/>
- United Nations. (2009). *State of the world's indigenous peoples*. United Nations Department of Economic and Social Affairs. <https://www.un.org/development/desa/indigenouspeoples/publications/2009/09/state-of-the-worlds-indigenous-peoples-first-volume/>
- Upadhyay, K. K., Japang, B., Singh, N. S., & Tripathi, S. K. (2019). Status and socio-ecological dimensions of sacred groves in Northeast India. *Journal of Applied and Natural Science*, 11(3), 590–595. <https://doi.org/10.31018/jans.v11i3.2121>
- Xu, J., & Wilkes, A. (2004). Biodiversity impact analysis in northwest Yunnan, southwest China. *Biodiversity and Conservation*, 13(5), 959–983.
- Xu, J., Ma, E. T., Tashi, D., Fu, Y., Lu, Z., & Melick, D. (2005). Integrating sacred knowledge for conservation: Cultures and landscapes in Southwest China. *Ecology and Society*, 10(2), Article 7. <https://doi.org/10.5751/ES-01413-100207>
- Yu, R., & Mu, Q. (2023). Integration of indigenous and local knowledge in policy and practice of nature-based solutions in China: Progress and highlights. *Sustainability*, 15(14), 11104. <https://doi.org/10.3390/su151411104>