

GREEN DREAMS IN URBAN BORDERLAND: THE ECOTOURISM DEVELOPMENT TRANSFORMATION UNDER THE CONTEXT OF POLICY IN XISHUANGBANNA, YUNNAN PROVINCE, CHINA

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ABSTRACT

This research evaluates the current status of ecotourism development and proposes strategic measures for sustainable growth in border urban areas. The motivation behind this research stems from the region's rich biodiversity and cultural heritage, offering substantial potential for ecotourism, coupled with the strategic significance of Xishuangbanna as a key node in China's Belt and Road Initiative (BRI). The primary research question addresses how ecotourism can be effectively developed in this region, leveraging the opportunities and navigating the challenges presented by policy. Using a qualitative research approach, the study employs documentary research, observation and in-depth interviews with 20 key stakeholders, including local government officials, tourism operators, and community members. Content analysis is utilised to interpret the collected data, highlighting key themes and patterns related to ecotourism development. Findings indicate that Xishuangbanna possesses significant potential for ecotourism, attributed to its rich biodiversity, cultural heritage and strategic location along the BRI route. However, challenges such as inadequate infrastructure, limited community involvement and environmental concerns must be addressed. The study concludes with recommendations for enhancing ecotourism development in urban borderlands, emphasising the importance of integrated planning, stakeholder collaboration, and sustainable practices to ensure long-term benefits for the local community and the environment.

Keywords: ecotourism, sustainable tourism, urban tourism, sustainable development, policy.

1 INTRODUCTION

Urban areas worldwide are experiencing rapid growth and development, leading to significant environmental, social, and economic challenges. Tourism is a crucial tool for enhancing and supporting environmental conservation [1]. As cities expand, integrating ecotourism into urban planning emerges as a critical approach to achieving sustainable development goals. Urban ecotourism, which combines the principles of ecotourism with the unique characteristics and needs of urban environments, offers a pathway to promote sustainability while enhancing the quality of life for urban residents and visitors.

Ecotourism, traditionally associated with natural and rural areas, focuses on responsible travel to natural areas, conserving the environment, and improving the well-being of local communities [2]. The concept gained prominence in the late 20th century as a response to the negative impacts of mass tourism on natural and cultural resources. It was globally identified as a means of achieving biodiversity conservation and sustainable development [3]. Initially, ecotourism initiatives were primarily concentrated in remote and rural areas, where pristine environments and indigenous cultures could be showcased and preserved. However, as urbanisation intensifies, there is a growing recognition of the need to adapt ecotourism principles to urban settings. Urban ecotourism seeks to balance the demands of urban development with the preservation of natural and cultural resources, providing opportunities for environmental education, cultural exchange, and economic benefits [4].



Consequently, the growth of urban ecotourism is driven by the increasing appreciation of nature and heritage sites and the recognition of tourism's role in promoting environmental conservation and socio-economic benefits [5].

In China, the rise of ecotourism took root in the 1990s, evidenced by the designation of 'China Ecotourism Year' by the China National Tourism Administration in 1999 and the subsequent declaration of 'China Ecotourism Year' in 2009 [6]. The significance of ecotourism was further underscored in the 'Outline of the Thirteenth Five-Year Plan for National Economic and Social Development of the People's Republic of China' published in March 2016, where explicit support for the development of ecotourism was outlined. Furthermore, the central government's reiterated emphasis on the development of ecotourism, as highlighted in the annual government work reports, has emphasised the need to align ecological civilisation with economic, political, cultural, and social development. This enriched perspective aligns with the concept that 'Lucid waters and lush mountains are invaluable assets' and underscores the importance of both tourism development and the preservation of natural environments [7].

Xishuangbanna Dai Autonomous Prefecture, as the border urban area in China, is strategically positioned at the station of the Belt and Road initiatives land-based routes. Its proximity to Southeast Asia and its role as a major transportation hub makes it a linchpin in China's efforts to strengthen economic ties with neighbouring countries [8]. The region's rich biodiversity, cultural heritage, and strategic location offer substantial potential for ecotourism development. The integration of ecotourism into urban planning in Xishuangbanna provides a unique opportunity to balance urban growth with the conservation of natural and cultural resources.

The objective of this research is to explore the integration of ecotourism into urban planning, particularly in the urban borderlands. The study seeks to understand how urban ecotourism can balance urban development with the preservation of natural and cultural resources, promoting sustainability in rapidly growing urban areas within the context of policies and strategy in the borderlands.

2 METHODOLOGY

The study employs a qualitative research approach to deeply understand the context of ecotourism and the situation of tourism development in Xishuangbanna. Data collection methods include documentary research, in-depth interviews, and observation, with content analysis conducted using Atlas.ti software.

2.1 Research design

The research design is structured to generate knowledge about ecotourism in Xishuangbanna through a qualitative lens. The specific methods employed are documentary research, in-depth interviews and observation.

1. In the documentary research part, this research employs a systematic review of peer-reviewed journals, governmental reports, case studies published, and relevant policy documents between 2000 and 2024 to identify the situation of ecotourism development in urban borderlands. This documentary research provides a solid theoretical foundation and background to support and contrast the data gathered from in-depth interviews method and observation method.
2. In the in-depth interviews research part, interviews are conducted with 20 key informants selected through purposive sampling. These interviews focus on gathering in-depth



information about experiences and perspectives related to ecotourism development. While these perspectives are subjective, they offer valuable insights that, when compared with documentary research, can reveal meaningful patterns and themes [9].

3. In the observation research part, systematic field observations are employed in selected ecotourism areas to collect qualitative data on the ground realities of ecotourism practices and the environmental, socio-cultural context. These observations are recorded to supplement the insights gained from interviews and documentary research.

2.2 Key informants

To gain a comprehensive understanding of tourism and ecotourism development in Xishuangbanna, key informants are carefully selected from different sectors through purposive sampling [10]. According to Marshall [10] and Babbie [11] about the qualitative methodology and key informants criteria, the key informants are divided into three main sectors:

1. Community sector: informants include residents, five people who have lived near ecotourism sites for over 2 years; and a community leader, one person involved in ecotourism projects, because they have deeper insights into the long-term impacts of ecotourism on the community [12].
2. Government sector: informants comprise central government tourism official, one person with experience in national policy-making; and local government tourism bureaus, four people responsible for implementing tourism policies. Because central government officials provide insights into national tourism strategies, while local bureaus offer perspectives on the practical implementation and challenges of these policies at the local level [13].
3. Private sector: informants include tour operators, five people with at least 5 years of experience in providing diverse ecotourism experiences; as well as tourists, five people who have visited ecotourism sites multiple times. Experienced tour operators can offer insights into the evolving trends and best practices in ecotourism, while repeat tourists provide valuable feedback on the quality and sustainability of ecotourism experiences [14].

This selection ensures a multi-faceted view of the tourism ecosystem, with a total of 20 key informants.

2.3 Research area

Xishuangbanna Dai Autonomous Prefecture, located in Yunnan Province, China (see Fig. 1), is notable for its rich ethnic diversity and biological resources, making it an example of ecotourism destination within the Greater Mekong Subregion. As an autonomous prefecture, Xishuangbanna has the authority to preserve and promote local culture, making it an ideal location to study the integration of ecotourism into urban planning.

The region is known for its tropical rainforests, which are recognised as a UNESCO Man and Biosphere Reserve enhancing its appeal as an ecotourism destination. The ethnic minority communities, especially the Dai people, maintain cultural traditions and sustainable living practices linked to the natural environment.

As a border region, Xishuangbanna serves as a confluence for diverse cultural influences and cross-border dynamics, adding complexity to its ecotourism development. This study





Figure 1: Location of Xishuangbanna Dai Autonomous Prefecture in Yunnan Province, China.

selects Xishuangbanna to explore how ecotourism can support conservation efforts, promote cultural heritage, and stimulate local economies. The established ecotourism industry, coupled with ongoing development pressures, makes Xishuangbanna an ideal model for studying the balance required for sustainable ecotourism.

The population of Xishuangbanna is 1,196,000 people, covering an area of 19,124.5 km² [15]. The region comprises two counties (Menghai and Mengla) and one county-level city (Jinghong).

2.4 Data collection

The data collection process includes the following methods:

1. Documentary research, sourcing information from relevant governmental reports, and peer-reviewed journals about ecotourism development, between 2000 and 2024. By covering more than two decades, the research can identify long-term trends and patterns in urban ecotourism development.
2. In-depth interviews are conducted with 20 key informants from the community, government, and private sectors to extract qualitative data on their experiences and perceptions. The in-depth interviews were conducted over a period from December 2023 to May 2024 in Xishuangbanna, Yunnan Province, China.
3. Field observations are carried out in selected areas to collect qualitative data on the environmental conditions and socio-cultural practices related to ecotourism.

2.5 Data analysis

Content analysis is employed for the study. The data undergoes qualitative analysis using Atlas.ti software, which aids in coding the data, identifying themes, and drawing patterns and relationships from the information [16]. The findings from documentary research, interviews, and observations are triangulated to ensure reliability and validity.



3 CONTEXT OF TOURISM DEVELOPMENT IN THE URBAN BORDERLAND

Xishuangbanna, located in the southern part of Yunnan Province, is renowned for its rich ethnic culture and biodiversity. Historically, it has been the homeland of the Dai ethnic group, with a long-standing cultural tradition and a distinctive way of life [17]. As early as the 1980s, Xishuangbanna began attracting both domestic and international tourists, primarily due to its unique natural landscapes and minority cultures [18]. With the development of China’s tourism industry, Xishuangbanna has gradually become an important tourist destination. The early development of tourism largely relied on the allure of its natural scenery and cultural attractions [19].

3.1 Historical background of tourism development in Xishuangbanna

Initially, in the 1960s, Xishuangbanna started to gain attention due to its unique tropical landscapes and cultural diversity. However, limited infrastructure and accessibility meant that early tourism was primarily limited to adventurous travellers and researchers [20].

The 1980s marked a turning point with the implementation of China’s reform and opening-up policies. These policies led to significant improvements in transportation infrastructure, such as the construction of highways and airports, facilitating easier access to Xishuangbanna [18]. The establishment of the Xishuangbanna National Nature Reserve in 1986 highlighted the area’s ecological importance, attracting ecotourists and researchers [21].

The 1990s and 2000s saw rapid expansion driven by further infrastructure developments and increased marketing efforts. The promotion of the region’s natural and cultural attractions solidified Xishuangbanna’s status as a major tourism destination in China [22]. During this period, large-scale rubber plantations were also established, significantly impacting the local ecosystems and the traditional agricultural practices of ethnic minorities [23].

The 2010s brought a focus on sustainable tourism, with efforts to balance development with environmental conservation [18]. Xishuangbanna has become a key destination for both domestic and international tourists, contributing significantly to the local economy. The integration of technology, such as digital tourism platforms and smart tourism initiatives, has further enhanced the visitor experience, making Xishuangbanna a modern hub for sustainable tourism [24].

For the timeline of tourism development in Xishuangbanna, see Fig. 2.

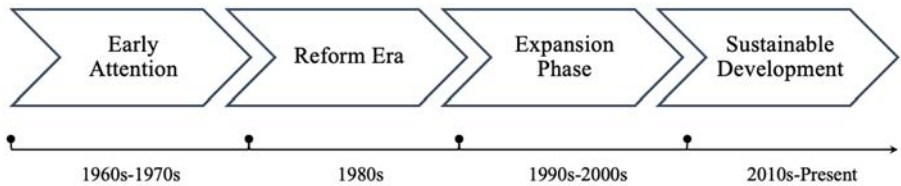


Figure 2: The timeline of tourism development in Xishuangbanna.

3.2 Current tourism landscape in Xishuangbanna

3.2.1 Theoretical information of current tourism landscape in Xishuangbanna

Xishuangbanna’s tourism landscape is diverse and can be categorised into several main types of attractions (see Fig. 3): Natural attractions include the Xishuangbanna Tropical Botanical

Garden and the Wild Elephant Valley, which are renowned for their lush tropical rainforests and a wide variety of plant and animal species [19]. Cultural attractions feature the Dai Minority Park and the Manting Park [17], showcasing the unique cultural practices and traditional lifestyles of the Dai and other ethnic groups. Historical attractions are highlighted by the Xishuangbanna Primitive Forest Park and the Jinuo Ethnic Village, offering insights into the region’s historical development and cultural evolution [18]. Ecotourism activities in the region encompass the scenic Nannuo Mountain Tea Plantation for hiking and the Bird Island for wildlife viewing, attracting nature enthusiasts from around the world. Modern amenities include luxury resorts like the Anantara Xishuangbanna Resort and the use of digital tourism platforms such as the Xishuangbanna Travel Guide app, enhancing the visitor experience by providing easy access to information and services [25]. This diverse array of attractions ensures that Xishuangbanna continues to be a popular destination for various types of tourists, from nature lovers to cultural enthusiasts.

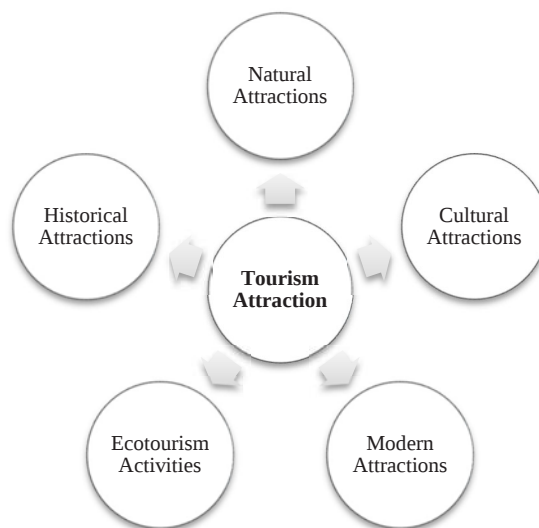


Figure 3: Current types of tourism attractions in Xishuangbanna.

Currently, tourism in Xishuangbanna primarily revolves around ecotourism and cultural tourism [26]. The region’s tropical rainforests, rare flora and fauna, and unique Dai culture attract a large number of visitors. However, the rapid development of the tourism industry has also brought about several challenges, such as inadequate infrastructure and increased environmental pressure. Rapid mass tourism expansion often outpaces the development of essential infrastructure and leads to significant environmental degradation, including habitat loss, pollution, and resource depletion [27].

3.2.2 Perceptions from key informants about landscape in Xishuangbanna

Residents expressed a mix of satisfaction and concern regarding the current state of tourism. In terms of infrastructure, Xishuangbanna has made some progress, but further improvements are still needed. For instance, one resident mentioned, ‘There have been some infrastructure improvements compared to before, but there are still many issues, such as the lack of public

restrooms and parking spaces. It's difficult to park when I want to go to the night market, I feel like I'm competing for territory with the tourists.' This comment underscores the persistent challenges in infrastructure, despite the region's popularity among tourists and expresses frustration over the competition for resources with tourists, particularly in crowded areas like the night market, where parking has become increasingly difficult. These perceptions highlight ongoing tensions between tourism growth and local needs. This indicates that while there have been advancements, more investment, and improvements are necessary to address these ongoing issues.

3.3 Policy in Xishuangbanna

The development of tourism in Xishuangbanna is supported and regulated by various policies aimed at promoting ecological tourism and sustainable development. As an important ecological tourism demonstration area, Xishuangbanna has received significant policy attention from the Chinese government. Policies are designed to balance economic development with environmental protection, ensuring the healthy growth of ecological tourism [27].

3.3.1 Local policy in Xishuangbanna

Local policies in Xishuangbanna focus on the preservation of cultural and natural resources while fostering community involvement in tourism activities. National policies emphasise sustainable development, aligning with broader environmental goals and promoting green tourism initiatives [28]. Locally, these provisions enforce conservation laws within the Xishuangbanna National Nature Reserve and introduce zoning laws to minimise environmental disruptions [29]. Additionally, they focus on empowering the community by funding local artisan cooperatives and establishing training centres that impart knowledge on hospitality and conservation practices [21].

3.3.2 National policy in Xishuangbanna

Nationally, the provisions prioritise environmental protection by banning single-use plastics in key tourist areas and advocating for renewable energy in hospitality facilities [30]. They also support sustainable development through incentives for businesses that achieve carbon neutrality and incorporate sustainable practices into national tourism recognition programmes.

3.3.3 International policy in Xishuangbanna

Internationally, Xishuangbanna benefits from China's Belt and Road Initiative (BRI), which enhances infrastructure, connectivity, and tourism opportunities through cross-border collaboration with neighbouring countries. The BRI plays a crucial role in Xishuangbanna's tourism landscape. By improving infrastructure and facilitating easier access, the BRI aims to boost tourism and economic development in the region [31]. The initiative encourages the development of new tourism routes and partnerships with countries along the Belt and Road, enhancing Xishuangbanna's attractiveness as a tourist destination.

3.3.4 Specific policy in Xishuangbanna

Specific policies include ecological tourism policies, the environmental protection regulations that enforce strict guidelines on waste management, pollution control, and conservation of natural habitats to minimise environmental impact [23]. Protected areas management policies establish and maintain protected areas, set the Xishuangbanna National Nature Reserve to conserve biodiversity and promote ecotourism. Sustainable development



policies include green tourism initiatives that promote eco-friendly tourism practices [28]. Sustainable infrastructure development policies invest in sustainable infrastructure projects that support tourism while reducing environmental degradation. Local community involvement policies include community-based tourism programmes that encourage local communities to participate in and benefit from tourism activities through training programmes and financial incentives [17]. Additionally, China's Five-Year Plans incorporate tourism development goals into the national Five-Year Plans, focusing on sustainable and inclusive growth. Tourism development plans develop specific tourism development plans that outline strategic priorities, investment areas, and regulatory frameworks [20].

Despite these policies, there are specific phenomena and negative impacts. Environmental degradation remains a significant issue as the rapid growth of tourism has led to deforestation, habitat loss, and pollution in some areas [32]. Cultural erosion is another concern, with the influx of tourists and commercialisation of cultural sites sometimes resulting in the erosion of traditional customs and practices. Economic disparities have emerged, as tourism has boosted the local economy but also led to rising living costs and income disparities, affecting the affordability of goods and services for local residents. Safety and management issues are highlighted by incidents like the falling accidents near the Lancang River, reflecting gaps in safety management and infrastructure maintenance.

4 ECOTOURISM DEVELOPMENT IN THE URBAN BORDERLAND

4.1 Ecotourism potential in Xishuangbanna

Xishuangbanna, with its rich natural and cultural resources, is an ideal location for ecotourism. Its tropical rainforests and biodiversity offer visitors a unique tourism experience, while the cultures of ethnic minorities such as the Dai add to the attraction [25]. As one government official stated, 'We hope to promote local economic development through ecotourism while protecting our natural resources.' Another local resident echoed this sentiment, saying, 'We hope more people will realise that "clear waters and green mountains are as valuable as gold and silver." The environment is very good now, with greenery everywhere. We hope tourists are attracted here but do not destroy our vegetation.'

The architectural style in Xishuangbanna also reflects the concept of ecotourism. In Meng Xing community, traditional stilted houses have been modernised while retaining their ecological features, using environmentally friendly materials in construction and showcasing the blend of ecology and culture. One interview excerpt mentioned, 'The third generation of stilted houses uses reinforced concrete but still retains the traditional design.'

4.2 Existing ecotourism initiatives in Xishuangbanna

Currently, Xishuangbanna has implemented a series of ecotourism initiatives (see Fig. 4), including the establishment of nature reserves and the promotion of ecotourism projects. According to local tourism practitioners, 'We have many environmental projects here, where tourists can participate in tree planting and wildlife protection activities.' These activities not only allow tourists to personally experience the importance of protecting the environment but also increase their engagement and satisfaction. As one scholar noted, 'Xishuangbanna's ecotourism projects not only attract a large number of tourists but also bring economic benefits to the local community.' This indicates that the implementation of ecotourism projects is beneficial not only for environmental protection but also for the economic development of the area.



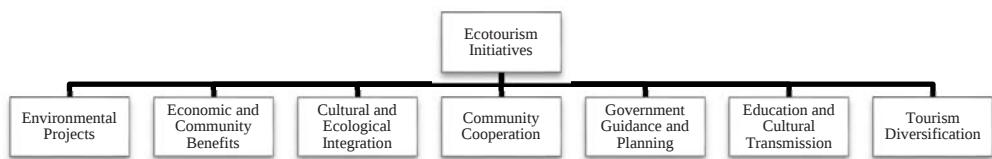


Figure 4: Existing ecotourism initiatives in Xishuangbanna.

In further interviews, local residents mentioned that although many tourism projects are led by external teams, local residents are gradually beginning to participate. For example, one resident stated, ‘Local people rarely participate, but as ecotourism develops, more local residents are starting to get involved, boosting the local economy.’ The involvement of local residents is also a crucial part of the development of ecotourism. Another resident noted, ‘These ecotourism projects not only increase our income but also create job opportunities.’ This active participation helps enhance the community’s support and recognition of ecotourism, thereby promoting the sustainable development of the projects.

Xishuangbanna places a strong emphasis on the integration of culture and ecology in promoting ecotourism. One local remarked, ‘When promoting ecotourism, we incorporate local cultural elements such as traditional dances and handicraft displays.’ This approach not only attracts more tourists but also enhances cultural heritage and protection. Many tourism projects in Xishuangbanna adopt a community cooperation model, where residents jointly operate and share the profits. For instance, a tour guide mentioned, ‘Residents here operate tourism projects collectively, and the income is distributed collectively.’ This model not only fosters community cooperation but also improves overall management efficiency.

The government plays a pivotal role in the development of ecotourism. Certain villages in Xishuangbanna are designated as ‘Centennial Villages’ or ‘Millennial Villages’ and are protected and developed accordingly. This approach not only preserves the original landscape but also promotes tourism development. One interviewee noted, ‘Through planning and regulation, the government designates villages with original landscapes as heritage sites and protects them accordingly.’

Xishuangbanna also emphasises education and cultural heritage. Schools and temples provide bilingual education to promote Dai culture. One interviewee mentioned, ‘Our schools and temples offer bilingual education to protect and pass on Dai culture.’ This educational model not only helps with cultural heritage but also improves residents’ cultural literacy. The ecotourism in Xishuangbanna not only stresses ecological protection but also considers economic development. One interviewee noted, ‘Tourism in Xishuangbanna primarily focuses on ecology, with cultural elements. In recent years, the government has vigorously developed the tourism industry, and infrastructure has gradually improved.’ Achieving this dual goal helps improve local residents’ living standards while protecting the natural environment.

4.3 Ecotourism impacts from environmental, socio-cultural, and economic dimensions in Xishuangbanna

While tourism has promoted economic development and cultural exchange, it has also introduced environmental pressures, cultural homogenisation, and income distribution

disparities. Effective management and planning are crucial for achieving sustainable development in the tourism industry.

In the environmental dimension, ecotourism in Xishuangbanna has enhanced environmental awareness but also created environmental stress. Xishuangbanna boasts excellent ecological conditions, with a resident describing, 'Xishuangbanna is a place where one could grow a plant by just sticking a chopstick into the ground, indicating its excellent ecological environment.' However, despite its favourable natural environment, infrastructure shortcomings remain a significant issue. According to a local driver, 'The traffic planning within the scenic areas is chaotic, and tourists often complain about not being able to find their way.' These issues not only affect the visitor experience but also negatively impact the overall image of Xishuangbanna. A local doctor also pointed out, 'This is one of the few places in Yunnan with a relatively humid climate In recent years, the increase in tourists has led to a noticeable rise in population, causing traffic congestion and increased waste.' Another resident added, 'The traffic planning is inadequate, especially around scenic spots where roads are frequently congested. Despite the improved environmental awareness brought about by ecotourism, challenges remain. Although we strive to keep the environment clean, the management pressure is significant.' Additionally, some tourists have complained, 'Some areas in the scenic spots have unclear signage, causing tourists to get lost, which is also a management issue.'

In the socio-cultural dimension, ecotourism has facilitated cultural exchange but also led to the commercialisation and homogenisation of culture. A local resident remarked, 'Tourism is massively commercialising our own culture. I switched to being a driver because the government pushed for tourism development.' This suggests that tourism might alter local lifestyles, making them more commercialised. Furthermore, tourism has impacted the local cultural life. A local doctor observed, 'As the number of people increases, businesses need to make money, which causes price increases. Cultural conflicts have also increased There are more instances of tourists fighting with each other and with locals.' A tour guide added, 'Many tourists are very interested in Xishuangbanna's culture, such as the Dai matrilineal society. However, tourists' behaviour sometimes disrupts local culture, and there is an increase in Han cultural influences.' A community leader noted, 'We strive to preserve Dai culture through tourism, but commercialisation sometimes brings cultural impacts.' Additionally, some tourists mentioned, 'The development of tourism in some areas has lost its original charm and become more commercialised, which is not what I expected.' Additionally, there remain the lack of management problem. Key informants provided critical reflections on the efficacy of policies in Xishuangbanna. A local resident, Mr. Dong, noted, 'Last year, 2022, tourism here just recovered. Over there by the Lancang River, you see those signs? There used to be only three because someone fell into the river, and then it happened again, so now there are more signs.' This account illustrates ongoing challenges in safety management within the tourism sector. Additionally, a tourism bureau employee commented on the disconnect between policy and practice, stating, 'The initiatives are good, but the capabilities of the local government leadership are really limited. They fail to meet targets every year. I think the local government's practice level is still not enough.' This critique highlights the difficulties in local implementation of central government policies, despite their well-intentioned design.

In the economic dimension, ecotourism is a crucial economic pillar for the region but has also led to issues of income inequality. One resident stated, 'If you are not involved in tourism, there are not many other industries here. Rubber production seems unfeasible, and fruit farming is even less viable.' Additionally, it has been noted that 'Local participation in ecotourism development is minimal, with most operations handled by outsiders.' This



reflects a problem where, despite the economic benefits brought by tourism, locals are unable to fully participate and benefit. An interviewee described the shift in Xishuangbanna's industrial structure, 'Xishuangbanna has traditionally relied on sugar, rubber, and tea as its economic pillars. Now, the order has reversed because tea culture has become a major attraction for ecotourism,' illustrating the impact of changing economic pillars on local industries. A local doctor further mentioned, 'Prices in this place are also rising There are more conflicts between people due to cultural collisions and economic competition.' A driver added, 'After tourism development, there are more tourists, but local people benefit very little. Most of the operations and profits are controlled by outsiders. The government should intervene to allow locals to participate and enjoy the benefits of tourism.' A tour guide noted, 'The development of tourism in Xishuangbanna has brought significant economic income, particularly with the promotion of small cooperative models, which has increased village income. However, issues of unfair distribution remain, especially during peak tourist seasons when hotel prices soar, leading to dissatisfaction among both tourists and locals.' Community leaders also pointed out, 'We have boosted village economies through tourism, but issues of distribution still exist and require a fairer mechanism.' Moreover, some tourists noted, 'Although tourism has brought economic development, it has also made locals increasingly dependent on tourism, lacking other economic sources.'

4.4 Existing ecotourism challenges and opportunities

Ecotourism in Xishuangbanna, while promoting economic development and cultural exchange, has also brought about several challenges. Environmental pressures are a significant issue, as the influx of tourists has led to traffic congestion, waste management problems, and infrastructure development that disrupts natural habitats. Socially, ecotourism has facilitated cultural exchange but also caused cultural commercialisation and conflicts. The traditional lifestyle of locals is being altered, and there are rising instances of cultural conflicts between tourists and residents. Despite efforts to preserve and promote Dai culture, commercialisation has diluted some of the cultural authenticity. Economically, while tourism has become a crucial pillar, it has also highlighted income disparities. Many locals are not fully benefiting from the tourism boom, with much of the industry controlled by outsiders. The rising cost of living and economic reliance on tourism are growing concerns. Despite these challenges, ecotourism presents significant opportunities for sustainable development. By addressing environmental, social, and economic issues through effective management and planning, Xishuangbanna can enhance its ecotourism model to benefit both its residents and the natural environment.

5 RECOMMENDATIONS FOR THE ECOTOURISM DEVELOPMENT IN URBAN BORDERLAND UNDER THE CONTEXT OF POLICY

To ensure the sustainable development of ecotourism in Xishuangbanna, the following measures need to be implemented:

- Improve the quality of tourism infrastructure, especially transportation and sanitation facilities, to enhance the residents and visitor experience.
- Encourage and support local community participation in tourism to ensure they benefit from tourism development.
- Promote green tourism certification and eco-labels, encouraging tourism businesses to adopt sustainable practices.



- Support and fund cultural activities and traditional crafts to avoid cultural commodification and preserve their original value.
- Leverage the Belt and Road Initiative and the construction of the China-Laos Railway to actively pursue international tourism cooperation, attracting more international tourists.
- Strengthen cooperation with neighbouring countries in ecological protection and tourism development to jointly promote regional sustainable development.

Xishuangbanna is poised to become a global model for ecotourism development in urban borderlands, achieving harmonious economic, social, and environmental development, and providing valuable experiences and lessons for other regions. As a local official stated, ‘The future of Xishuangbanna is full of hope. As long as we adhere to the path of sustainable development, we can certainly realise the beautiful vision of ecotourism.’

6 CONCLUSIONS

Through the study of ecotourism development in Xishuangbanna, it is evident that despite numerous challenges, the region has tremendous potential for ecotourism development due to its unique natural and cultural resources. Government, businesses, and communities need to strengthen cooperation to address the environmental and social issues brought about by tourism development and to promote sustainable ecotourism. Community participation is crucial in ecotourism, but development activities must be carefully managed to avoid negatively impacting the community’s way of life. Furthermore, in developing ecotourism in urban borderlands, it is essential to focus on cultural heritage preservation to prevent the cultural homogenisation that often accompanies over-commercialisation. Culture is a significant asset, and it is crucial to protect cultural heritage while promoting tourism development. In conclusion, urban borderlands unique position and resources present a valuable opportunity for establishing a sustainable ecotourism.

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REFERENCES

- [1] Baruah, P., Potential of urban wetlands for ecotourism development: A case of Deepor Beel, Guwahati. *NEPT*, **19**(2), pp. 611–625, 2020. <https://doi.org/10.46488/NEPT.2020.v19i02.016>.
- [2] Reimer, J.K. & Walter, P., How do you know it when you see it? Community-based ecotourism in the Cardamom Mountains of southwestern Cambodia. *Tourism Management*, **34**, pp. 122–132, 2013. <https://doi.org/10.1016/j.tourman.2012.04.002>.
- [3] Aversa, R. et al., Modern transportation and photovoltaic energy for urban ecotourism. *TRAS*, Special Issue, pp. 5–20, 2017. <https://doi.org/10.24193/tras.SI2017.1>.
- [4] Cheshmehzangi, A. et al., From eco-urbanism to eco-fusion: An augmented multi-scalar framework in sustainable urbanism. *Sustainability*, **13**(4), 2373, 2021. <https://doi.org/10.3390/su13042373>.
- [5] Antweiler, C., Urbanization and urban environments. *The International Encyclopedia of Anthropology*, 1st ed., ed. H. Callan, Wiley, pp. 1–10, 2008. <https://doi.org/10.1002/9781118924396.wbiea1585>.



- [6] De Jong, M., From eco-civilization to city branding: A neo-Marxist perspective of sustainable urbanization in China. *Sustainability*, **11**(20), 5608, 2019. <https://doi.org/10.3390/su11205608>.
- [7] Busbarat, P., Bunyavejchewin, P. & Suporn, T., China and Mekong regionalism: A reappraisal of the formation of Lancang-Mekong cooperation. *Asian Politics and Policy*, **13**(2), pp. 193–211, 2021. <https://doi.org/10.1111/aspp.12575>.
- [8] Yang, G., Gong, G., Luo, Y., Yang, Y. & Gui, Q., Spatiotemporal characteristics and influencing factors of tourism–urbanization–technology–ecological environment on the Yunnan–Guizhou–Sichuan region: An uncoordinated coupling perspective. *IJERPH*, **19**(14), 8885, 2022. <https://doi.org/10.3390/ijerph19148885>.
- [9] Thomas, J. & Harden, A., Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Med. Res. Methodol.*, **8**(1), p. 45, 2008. <https://doi.org/10.1186/1471-2288-8-45>.
- [10] Marshall, M.N., Sampling for qualitative research. *Family Practice*, **13**(6), pp. 522–526, 1996.
- [11] Babbie, E.R., *The Practice of Social Research*, 12th ed., Wadsworth Cengage: Belmont, CA, 2010.
- [12] Álvarez-García, J., Durán-Sánchez, A. & Del Río-Rama, M., Scientific coverage in community-based tourism: Sustainable tourism and strategy for social development. *Sustainability*, **10**(4), 1158, 2018. <https://doi.org/10.3390/su10041158>.
- [13] Palmer, N.J. & Chuamuangphan, N., Governance and local participation in ecotourism: Community-level ecotourism stakeholders in Chiang Rai province, Thailand. *Journal of Ecotourism*, **17**(3), pp. 320–337, 2018. <https://doi.org/10.1080/14724049.2018.1502248>.
- [14] Larhsoukanh, S. & Wang, C., Public–private partnership in land compensation for an eco-cultural park: Game theoretical analysis. Presented at the *SDP 2018*, Siena, Italy, Sep. 2018, pp. 459–467. <https://doi.org/10.2495/SDP180411>.
- [15] Yang, M., Van Coillie, F., Liu, M., De Wulf, R., Hens, L. & Ou, X., A GIS approach to estimating tourists’ off-road use in a mountainous protected area of northwest Yunnan, China. *Mountain Research and Development*, **34**(2), pp. 107–117, 2014. <https://doi.org/10.1659/MRD-JOURNAL-D-13-00041.1>.
- [16] Asian Development Bank, *Greater Mekong Subregion Atlas of the Environment*, 2nd ed., ADB: Manila, 2012.
- [17] Shen, S. et al., Agrobiodiversity and in situ conservation in ethnic minority communities of Xishuangbanna in Yunnan Province, Southwest China. *J. Ethnobiology Ethnomedicine*, **13**(1), p. 28, 2017. <https://doi.org/10.1186/s13002-017-0158-7>.
- [18] Liu, Y., Xu, W., Hong, Z., Wang, L., Ou, G. & Lu, N., Assessment of spatial-temporal changes of landscape ecological risk in Xishuangbanna, China from 1990 to 2019. *Sustainability*, **14**(17), 10645, 2022. <https://doi.org/10.3390/su141710645>.
- [19] Du, Y., Chen, J. & Xie, Y., The impacts of the Asian elephants damage on farmer’s livelihood strategies in Pu’er and Xishuangbanna in China. *Sustainability*, **15**(6), 5033, 2023. <https://doi.org/10.3390/su15065033>.
- [20] Jin, Y., Liu, Y., Liu, J. & Zhang, X., Energy balance closure problem over a tropical seasonal rainforest in Xishuangbanna, southwest China: Role of latent heat flux. *Water*, **14**(3), p. 395, 2022. <https://doi.org/10.3390/w14030395>.



- [21] Jianchu, X., The political, social, and ecological transformation of a landscape: The case of rubber in Xishuangbanna, China. *Mountain Research and Development*, **26**(3), pp. 254–262, 2006.
[https://doi.org/10.1659/0276-4741\(2006\)26\[254:TPSAET\]2.0.CO;2](https://doi.org/10.1659/0276-4741(2006)26[254:TPSAET]2.0.CO;2).
- [22] Ling, Z. et al., Estimation of applicability of soil model for rubber (*Hevea brasiliensis*) plantations in Xishuangbanna, southwest China. *Water*, **14**(3), p. 295, 2022.
<https://doi.org/10.3390/w14030295>.
- [23] Wen, Z., Li, X. & Li, T., Comprehensive study on freshwater ecosystem health of Lancang river basin in Xishuangbanna of China. *Water*, **12**(6), 1716, 2020.
<https://doi.org/10.3390/w12061716>.
- [24] Yang, Y., Bai, K., Li, G., Jarvis, D.I. & Long, C., Assessment of the resilience in SEPLS (socio-ecological production landscapes and seascapes) in Yanuo Village, Xishuangbanna, southwest China. *Sustainability*, **12**(9), 3774, 2020.
<https://doi.org/10.3390/su12093774>.
- [25] Xiong, Q., Sun, Z., Cui, W., Lei, J., Fu, X. & Wu, L., A study on sensitivities of tropical forest GPP responding to the characteristics of drought: A case study in Xishuangbanna, China. *Water*, **14**(2), p. 157, 2022.
<https://doi.org/10.3390/w14020157>.
- [26] Shi, Y., Hu, H., Xu, Y. & Liu, A., An ethnobotanical study of the less known wild edible figs (genus *Ficus*) native to Xishuangbanna, southwest China. *J. Ethnobiology Ethnomedicine*, **10**(1), p. 68, 2014. <https://doi.org/10.1186/1746-4269-10-68>.
- [27] Yan, M. et al., Construction of the ecological security pattern in Xishuangbanna tropical rainforest based on circuit theory. *Sustainability*, **16**(8), 3290, 2024.
<https://doi.org/10.3390/su16083290>.
- [28] Corne, P. & Zhu, V., Ecological civilization and dispute resolution in the BRI. *Chin. J. Environ. Law*, **4**(2), pp. 200–216, 2020.
<https://doi.org/10.1163/24686042-12340058>.
- [29] Yan, Z. et al., Spatio-temporal variations and socio-economic driving forces for wetland area changes: Insights from 2008–2017 data of Yunnan Province, China. *Water*, **14**(11), 1790, 2022. <https://doi.org/10.3390/w14111790>.
- [30] Liu, X., Zhang, S. & Ji, M., Mobility dilemmas: Conflict analysis of road constructions in a Tibetan tourism community in China. *Journal of Sustainable Tourism*, **28**(2), pp. 284–304, 2020. <https://doi.org/10.1080/09669582.2019.1665055>.
- [31] Lu, M., Corporate environmental responsibility: Another road to achieve ecological civilization and green BRI. *Chin. J. Environ. Law*, **4**(2), pp. 182–199, 2020.
<https://doi.org/10.1163/24686042-12340057>.
- [32] Sattar, A., Hussain, M.N. & Ilyas, M., An impact evaluation of Belt and Road Initiative (BRI) on environmental degradation. *SAGE Open*, **12**(1), 215824402210788, 2022.
<https://doi.org/10.1177/21582440221078836>.

