



The study of riparian areas in tourism: toward a conceptual framework of riparian tourism

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Abstract. Riparian areas serve as interfaces between terrestrial and aquatic (including glaciers and glacial lakes) ecosystems, playing a crucial role in shaping landscapes, supporting flora and fauna diversity, and supporting human communities. Thus, riparian areas maintain ecological, cultural, and socio-economic resilience, enriching communities dependent on these ecosystems. Riparian areas are of great ecological value and have immense potential for tourism. However, the touristic value of riparian zones has largely remained unexplored and is confined mainly to the area of river-based recreational activities. This paper proposes “riparian tourism” as a holistic and sustainable form of tourism that encompasses both consumptive and non-consumptive forms of tourism. The exploration of the subject and the conceptualization of this potentially globally appealing form of tourism have the potential to offer entrepreneurial and touristic opportunities, especially for local communities, thereby ensuring not only ecological but also socio-economic benefits. The paper delves into creating a conceptual framework for riparian tourism, e.g. cryo-tourism. The research in this sense contributes greatly to increasing the discourse on sustainable tourism and emphasizes the urgency to incorporate tourism and conservation actions in riparian areas which are greatly impacted by the changing climate.

1 Introduction

“Riparian” is an anglicized form of the Latin word “riparius” (Naiman and Décamps, 1997), meaning land areas and the biotic communities that surround lakes, rivers, streams, and water bodies (see Naiman and Décamps, 1997; Singh et al., 2021; Verry et al., 2004; Tufekcioglu, 2000). Although many argue that riparian areas demonstrate traits of wetlands (Singh et al., 2021), Naiman and Décamps (1997) stated that, due to their lower frequency of saturation compared to traditional wetlands, they cannot be fully classified as wetlands. Rather, these are areas that encompass wetlands in their domain. As per Gregory et al. (1991), riparian zones serve as transitional areas between land and water ecosystems, with the authors proposing a conceptual model that integrates physical processes, terrestrial plant community succession, habitat formation, and the production of nutritional resources for aquatic ecosystems. In the same vein, riparian zones are identified as highly active components of the landscape (Swanson et al., 1988; Glass et al., 2015), which in-

cludes “important water resources, plant communities, fisheries, and wildlife” (Gregory et al., 1991).

Riparian areas are very important ecological resources because they control the flow of water and the quality of water (Anderson and Masters, 2023). These zones are important for water and landscape planning, aquatic ecosystem restoration, and building institutional and societal collaboration for these activities because of their extreme variety of species and environmental processes (Naiman and Décamps, 1997). The region being a hotspot of biodiversity serves as the sole reason for proposing these areas as tourist destinations. However, a conceptual framework that integrates tourism and recreation with the preservation of resources and with an emphasis on a region’s socio-economic resilience is necessary for tourism in riparian areas.

2 Tourism in riparian zones

Riparian landscapes are “eco-symbols” because of their distinctive ecological and cultural characteristics, with a resemblance to features like hedgerows and paddy fields or to mountain features, embodying both ecological and symbolic significance for social groups and their surroundings (Berque et al., 1994, cited in Naiman et al., 2005). Furthermore, these landscapes, in the words of Jackson (1994), “come alive at certain periods of time” (Naiman et al., 2005, p. 239). In the same vein, Nassauer (1997) states that there is a dynamic interplay between natural environmental processes and cultural elements. Despite the great potential of resource-filled riparian areas, local communities living in and around these areas suffer from economic problems, and managers of these areas are burdened with balancing the economic benefits and social goals and ecological integrity. Therefore, when presenting riparian tourism, there are great opportunities for the development of small, medium, and micro enterprises (SMMEs), which helps greatly in job creation. This becomes essential for cultivating strong and beneficial relationships between communities and riparian areas.

3 Methodology

The objective of this paper is to propose a conceptual framework for riparian tourism, including cryo-tourism. In addition, the paper aims to analyse and advocate tourism opportunities in riparian areas, to adequately justify their resource opportunities, and to present strategies for showcasing the importance of integrating conservation efforts and tourism in these highly neglected areas. To meet the aims and objectives, the work employs a qualitative approach. We carry out a narrative literature review involving content analysis of the literature – peer-reviewed journal articles, conference proceedings and papers, and research work in the field of tourism and recreational and riparian areas – to explore the concept and facets of riparian tourism. The literature review helps to frame the meaning of riparian tourism and forms the basis for conceptualizing it.

4 Conceptualizing riparian tourism

Globally, riparian areas have proven to be full of resources for maintaining the ecological integrity of river landscapes. However, the touristic value of riparian areas has largely remained overlooked and detached from ecological, socio-economic, and conservation initiatives. Even though river and water resources have gained significant attention from the tourism industry, riparian areas’ unique tourism potential has been insufficiently reported. This paper aims to conceptualize and bring attention to touristic opportunities in riparian areas, addressing the appeal, resources, and strategies that

Table 1. Aspects of riparian tourism.

Focus	Consumptive and non-consumptive forms of tourism
Scale	Multiple
Goal	Integration of recreation with conservation policies
Outcome	Conservation of riparian landscapes

tourism could offer to enhance these areas and that have been overlooked in both academic and industry discussions.

Riparian tourism is holistic as well as broader and more resourceful than river tourism, lake tourism, or water-based tourism. In this sense, an effort has been made to elaborate on the meaning and concept of riparian tourism: *tourism is riparian-area-based when tourists travel to explore, understand, and appreciate riparian resources, thereby contributing economically and socially towards the conservation of such resources.*

To refine the meaning and concept of riparian tourism, four aspects and varieties are postulated (Table 1). Firstly, the focus of riparian tourism is on both consumptive and non-consumptive forms of tourism. Riparian areas have both consumptive and non-consumptive uses (Naiman et al., 2005). Non-consumptive uses include activities such as wildlife viewing, fishing, swimming, and natural aesthetics, whereas consumptive uses include consumptive activities that result in a decrease in the quality of environmental resources (Chen et al., 2019; Soman et al., 2007; Naiman et al., 2005). Riparian tourism is envisioned as having traits of both consumptive and non-consumptive forms of tourism.

From the scale point of view, there is a need for approaches, coordination, and scrutiny at the multiple levels of governance. The goal of riparian tourism is the integration of recreation with conservation policies. Finally, the outcome is the conservation and sustenance of riparian landscapes through tourism.

4.1 Riparian tourism framework

Riparian tourism centres around five themes and the interaction between them, i.e. (1) the environment (riparian resources), (2) community stewardship and solidarity, (3) institutional and public policy, (4) economic activity and rationality, and (5) recreational opportunities. The fundamental concept of riparian tourism is centred around the pristine and fragile riparian environment that forms resources for tourism. Besides their ecological value, riparian areas offer multiple recreational opportunities, such as hiking, cycling, golfing, horseback riding, bird watching, picnicking, camping, fishing, hunting, swimming, rafting, boating, and off-road vehicular travel (Zaimes, 2007). Thus, riparian tourism is one of the potential economic benefits of healthy riparian zones. The employment and diversified economic opportunities at the heart of the local-community approach make conceptualizing riparian tourism worthwhile. However, the success

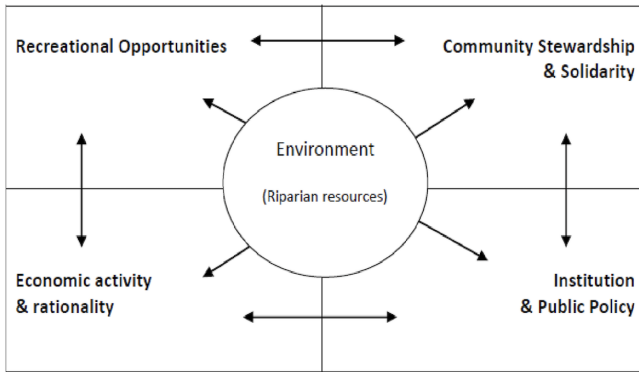


Figure 1. A schematic diagram of the riparian tourism framework.

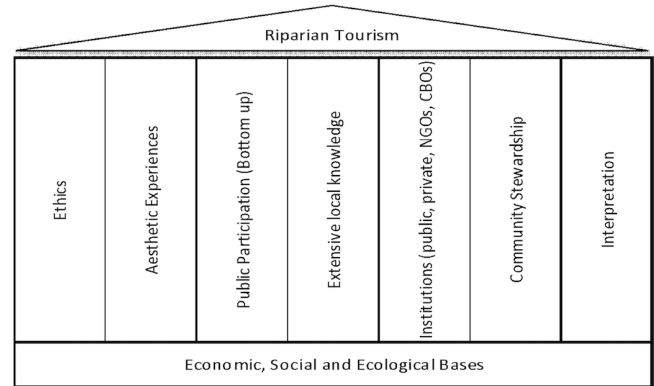


Figure 2. The seven pillars of sustainable riparian tourism.

of such riparian tourism hinges pretty much on community stewardship and solidarity becoming integral to the framework. Both community and riparian resources have benefited from each other since time immemorial.

Communities have been protecting their resources, either because these resources support their livelihood or because these places are symbols of spiritual and cultural bonds. Riparian resources provide clean air, water, and arable land for economic vitality to these traditional communities. Communities have long been recognized as stewards of riparian resources. Any inclination towards designing and developing riparian tourism should be centred around “community ownership and stewardship”, which is advocated as a cornerstone of institutional mandates and public-policy discourse. A review of the literature from Nepal, Japan, and around the globe shows that there is limited discussion of the facets of riparian areas and tourism in governmental and policy-making directives. A robust institutional mandate (either added to the current supervisory organizational set-up for water, forests, and glaciers or, ideally, separated from current bureaucratic forms) and a separate policy on riparian areas and tourism are of paramount importance. The arrows in Fig. 1 show the multi-headed dependence and influence of each factor on the others when working towards the sustenance of resources and tourism alike.

The associated impact of tourism and recreational use is immense in the fragile and exotic ecosystem, thus drawing the attention of policy-makers and planners to the sustainability of these important ecosystems. The sustainability of these resources plays a significant role in the sustainability of riparian tourism itself. The section below presents a brief discussion of the sustainability of riparian tourism.

4.2 Sustainability – riparian tourism

Riparian areas are considered useless, drained, and destroyed or are used as disposal areas (Naiman et al., 2005). Humans have long intervened in the riparian system, mainly for agriculture (such as vineyards, unsustainable occupa-

tion, or unsustainable development such as concretization and compaction) and recreation (Arif et al., 2023; Boucher and Hudson, 2023; Zingraff-Hamed et al., 2022; Zaimis and Iakovoglou, 2020; Zaimis, 2007). The cost of preserving the riparian system is very high compared to the economic value generated by humans through agriculture, recreation, and other activities (Lind et al., 2019; Stutter et al., 2019). Regarding the use of areas for recreation, Winter (1993) pointed out that, in the West, “recreationists” are lured to riparian areas because of water resources and lush vegetation. Contrary to popular belief, Nassauer (1997) argues that riparian landscapes, when they offer aesthetic experiences, stand a greater chance of conservation within the human-dominated world provided they evoke sustained interest in people (Naiman et al., 2005).

From the work of Nassauer (1992, 1997), it is evident that the sustainability of riparian areas depends on governance, management, and control, with a strong reliance on humans. Such dependence on humans requires active and meaningful attention to be paid to these landscape features (Nassauer, 1992). In this sense, the foundation of the sustainability of riparian tourism remains the economic, socio-cultural, and ecological integrity of riparian resources. Seven pillars for holistic development and promotion of riparian tourism are proposed, i.e. ethics, aesthetic experiences, public participation (bottom-up), extensive local knowledge use, institutions (public, private, non-governmental, and community-based organizations), community stewardship, and interpretation (Fig. 2).

5 Conclusions

The conservation of riparian areas is an invaluable contribution to wildlife, communities, and the environment and includes stabilizing and restoring riverbanks, supporting biodiversity, and increasing economic resilience. Riparian tourism integrated with local socio-cultural and environmental resources can help locals with much-needed cash flow, support-

ing both survival and resource conservation. Despite their economic value, recreational activities like camping, hiking, and off-road vehicle use threaten riparian systems, yet research on the prospects and impact of riparian tourism remains unexplored. Nepal and other developing nations have yet to fully assess and capitalize on the prospect of this new tourism type. Thus, this paper aims to introduce and advocate this novel concept with a focus on sustainability in riparian tourism to stakeholders, primarily policy-makers, planners, researchers, and industry practitioners. The model proposed centres around the community's ownership and stewardship, furthering robust institutional set-ups and active public-policy discourse. Placing ecological ethics and aesthetic experiences at the centre of riparian tourism, with a strong emphasis on the interpretation of these resources, frames the direction for further exploration and description. The value tourism brings to these fragile yet neglected resources is important not only for conservation, but also for supporting the resilience of the local economy and, ultimately, that of the community, who are the actual stewards of these resources.

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