



Pentahelix Model in Community Based Tourism Development: Roles, Challenges, and Synergy Enhancement

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Rico Purnawandi Pane

Department of Government Sciences, Universitas Riau, Pekanbaru, Indonesia.
rico.ppane@lecturer.unri.ac.id

Hazqon Fuadi Nasution

Department of Government Sciences, Universitas Riau, Pekanbaru, Indonesia.
hafunasution67@lecturer.unri.ac.id

Agus Susanto

Department of Government Sciences, Universitas Riau, Pekanbaru, Indonesia.
agussusanto@lecturer.unri.ac.id

M. Rafi

Department of Government Sciences, Universitas Riau, Pekanbaru, Indonesia.
rafy060611@lecturer.unri.ac.id

Fatmawati

Department of International Relations, Universitas Riau, Pekanbaru, Indonesia
fatmawati@lecturer.unri.ac.id

ABSTRACT

Community Based Tourism (CBT) is a key strategy for sustainable tourism development, particularly in areas rich in natural and cultural resources such as North Rupat Sub-District, Bengkalis Regency. Despite its designation as a National Tourism Strategic Area, CBT implementation in North Rupat continues to face challenges including inconsistent community participation, limited mentoring, and weak program sustainability. This study employs a qualitative approach within the *pentahelix* framework government, academia, business, community, and media to analyze stakeholder roles in tourism development. Data were collected through in-depth interviews with eight purposively selected informants directly involved in tourism activities, supported by participant observation and documentation. Data were analyzed using the Miles and Huberman interactive model through stages of data reduction, presentation, and conclusion drawing. The findings reveal that while all actors contribute to tourism development, weak coordination and limited long-term mentoring hinder the effectiveness and sustainability of CBT initiatives. This study contributes by applying the *pentahelix* collaboration model to the context of North Rupat for the first time, integrating it with the concept of community based tourism. Strengthening community capacity, adaptive governance, and cross-sector collaboration is essential to achieving sustainable tourism development and inclusive local economic growth.

Keywords: Community Based Tourism; Pentahelix Model; Stakeholder Roles; Development; Participation

ABSTRAK

Pariwisata Berbasis Masyarakat (CBT) merupakan strategi kunci pembangunan pariwisata berkelanjutan, terutama di daerah yang kaya akan sumber daya alam dan budaya seperti Kecamatan Rupert Utara, Kabupaten Bengkalis. Meskipun telah ditetapkan sebagai Kawasan Strategis Pariwisata Nasional, implementasi CBT di Rupert Utara masih menghadapi tantangan, termasuk partisipasi masyarakat yang tidak konsisten, terbatasnya pendampingan, dan lemahnya keberlanjutan program. Studi ini menggunakan pendekatan kualitatif dalam kerangka pentahelix, yaitu pemerintah, akademisi, bisnis, komunitas, dan media untuk menganalisis peran pemangku kepentingan dalam pembangunan pariwisata. Data dikumpulkan melalui wawancara mendalam dengan delapan informan yang dipilih secara purposive, yaitu mereka yang terlibat langsung dalam pengembangan pariwisata, didukung oleh observasi partisipan dan dokumentasi. Data dianalisis menggunakan model interaktif Miles dan Huberman melalui tahapan reduksi data, penyajian, dan penarikan kesimpulan. Temuan penelitian menunjukkan bahwa meskipun semua aktor berkontribusi terhadap pembangunan pariwisata, koordinasi yang lemah dan terbatasnya pendampingan jangka panjang menghambat efektivitas dan keberlanjutan inisiatif CBT. Studi ini berkontribusi dengan menerapkan model kolaborasi pentahelix dalam konteks Rupert Utara untuk pertama kalinya, mengintegrasikannya dengan konsep pariwisata berbasis masyarakat. Penguatan kapasitas masyarakat, tata kelola yang adaptif, dan kolaborasi lintas sektor sangat penting untuk mencapai pembangunan pariwisata berkelanjutan dan pertumbuhan ekonomi lokal yang inklusif.

Kata Kunci: Pariwisata Berbasis Masyarakat; Model Pentahelix; Peran Pemangku Kepentingan; Pembangunan; Partisipasi

1. Introduction

Sustainable tourism has emerged as a significant global agenda because it promotes long-term development that integrates economic, social, and environmental dimensions (Bakker et al., 2023; Rebelo, 2022). This paradigm seeks to balance tourism utilization with conservation efforts, ensuring that tourism not only benefits visitors but also improves the well-being of local communities. Globally, sustainable tourism is recognized as a strategic instrument for achieving the Sustainable Development Goals (SDGs), particularly those related to decent work, responsible consumption, and environmental preservation. In the Indonesian context, the government has aligned its tourism development strategy with an inclusive and participatory model, emphasizing multi-stakeholder engagement to ensure destinations grow not only economically but also culturally and ecologically sustainable. The Ministry of Tourism has adopted a pentahelix collaboration model involving government, academia, the business sector, communities, and the media to realize community-centered and environmentally responsible tourism. At the regional level, Riau Province holds strategic importance within Indonesia's national tourism framework. The province has been designated with six National Tourism Development Areas (KPPN) Muara Takus, Pekanbaru City, Jemur Island, Bono, Siak Sri Indrapura, and Bukit 30 and one National Tourism Strategic Area (KSPN) Rupert Island (Isma, 2024). This recognition underscores Riau's potential to become a sustainable tourism hub that integrates coastal, cultural, and ecological assets. Within this framework, North Rupert District in Bengkalis Regency stands out for its geographical advantage, located near international trade routes that open up opportunities for tourism-driven local economic growth (Asmit, Syahza, Mahdum, & Riadi, 2020). The region is endowed with rich natural and cultural resources, exemplified by its three leading tourist villages Tanjung Punak, Putri Sembilan, and Teluk Rhu which harmoniously combine marine attractions, mangrove ecosystems, and traditional cultural expressions rooted in local wisdom (Pos, 2024). These characteristics make North Rupert a prime location for the implementation of Community-Based Tourism (CBT), where tourism

development not only provides economic benefits but also encourages cultural preservation and environmental sustainability.

Figure 1. North Rupert Beach



Source : disparbudpora.bengkaliskab.go.id (2021)

Community Based Tourism (CBT) has been widely studied as an effective approach in tourism development because it facilitates the empowerment of local communities while maintaining social, economic, and environmental sustainability (Asrida et al., 2025; Pane, Rafi, Yusri, & Alby, 2024). Community involvement in the tourism sector has received broad attention from academics and practitioners globally. Local communities play a crucial role as key stakeholders in tourism; therefore, their active participation and collaboration are essential to support the development of sustainable CBT (Bittar Rodrigues & Prideaux, 2018; Diana & Setiawan, 2021; Mohd Rasdi, Mat Som, Azinuddin, Nasir, & Khan, 2022; Salleh, Shukor, Othman, Samsudin, & Hajar, 2016; Widhianthini, 2017). CBT is also considered an effective mechanism for promoting rural tourism development, as it accommodates the social, environmental, and economic needs of local communities through tourism products and services for visitors. Numerous studies have demonstrated that active community involvement in tourism can positively impact economic well-being, socio-cultural preservation, and environmental sustainability. However, tourism development that is poorly directed and insensitive to local values can threaten cultural heritage and erode traditional wisdom (Ernawati, Arjana, & Sukmawati, 2019; Putra, 2019; Singh, Sibi, & Sharma, 2021).

Despite the extensive body of literature, there remains a lack of empirical studies examining how the pentahelix collaboration model functions in the specific context of CBT implementation at the local level, especially in areas that have been designated as National Tourism Strategic Areas (KSPN) but still face governance and sustainability issues. North Rupert Sub-District in Bengkalis Regency represents a unique case, as it possesses high natural and cultural potential yet continues to struggle with inconsistent community participation, weak cross-sector collaboration, and limited long-term mentoring. Existing research has not yet explored how multi-actor synergy within the pentahelix framework government, academia, business, community, and media operates and interacts in such contexts. Therefore, this study seeks to fill that gap by analyzing the roles, challenges, and collaboration patterns among these actors in advancing sustainable community-based tourism in North Rupert.

To address these challenges, multi-actor collaboration within a *pentahelix* framework involving government, academia, the business sector, communities, and the media is regarded as a key strategy for achieving sustainable tourism (Giampiccoli & Saayman, 2019). This model is

believed to foster synergy in the planning, management, and evaluation of tourism programs, thereby promoting not only economic growth but also job creation, local market expansion, and environmental sustainability.

In the context of North Rupert Sub-District, the local government has sought to develop community-based tourism through collaboration with academics and private companies. Several initiatives such as tourism awareness group training, capacity building for homestay owners, and mentoring for micro, small, and medium enterprises (MSMEs) have been introduced as initial steps. However, these efforts continue to face challenges, including weak program sustainability, limited long-term mentoring, and inconsistent community participation. This situation underscores the need for a comprehensive evaluation of CBT governance in North Rupert to ensure that tourism development strategies are not merely ceremonial but produce tangible benefits for local communities.

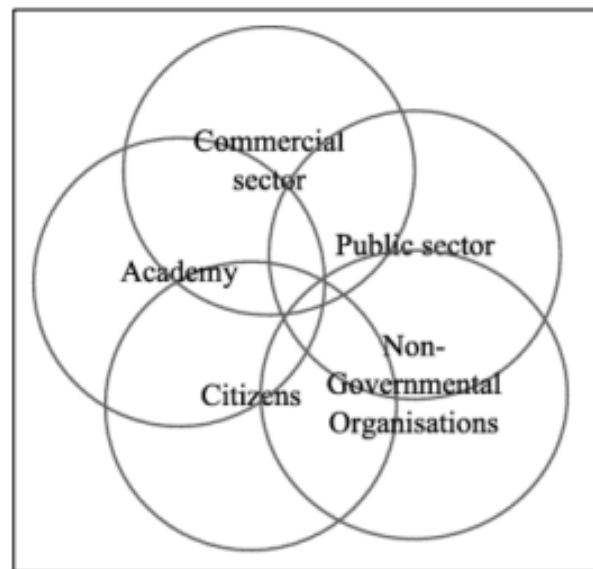
Based on this background, this study aims to: (1) Analyze the roles of *pentahelix* actors in the development of community-based tourism (CBT) in North Rupert Sub-District; (2) Identify key challenges in multi-actor collaboration that hinder sustainable CBT implementation; and (3) Propose a design for strengthening synergy and governance mechanisms among *pentahelix* stakeholders to enhance sustainable tourism outcomes.

2. Literature Review

2.1. Pentahelix

The Pentahelix model proposed by Calzada (2017) Bringing together the five main elements of government, academia, industry, civil society, and the media within a collaborative framework that provides synergy in achieving a goal. This concept is a development of two previous approaches, namely the Triple Helix theory (Galvao, Mascarenhas, Marques, Ferreira, & Ratten, 2019) involving government, business, and academics, as well as the Quadruple Helix theory, which adds a societal element. The Pentahelix model was further refined by including mass media as a fifth element (Shyafary, Pristanti, & Cahyadi, 2019). In its development, this approach is also known as ABCGM, which refers to the roles of Academics, Business, Community, Government and Media (Halibas, Sibayan, & Maata, 2017; Subagyo, 2021)

Figure 2. Pentahelix Model



Source : Forss et al (2021)

The Pentahelix model represents a shift from conventional, linear development patterns to a collaborative approach that involves multiple stakeholders and encourages dynamic knowledge

exchange (Capetillo, Abraham Tijerina, & Ramirez, 2021). The success of implementing this model is highly dependent on synergistic cooperation and consistent commitment from all parties involved (Hidayat, Rozak, Kembara, & Baihaki, 2021). Each actor in this model brings its own advantages in terms of expertise, resources, and perspectives, which when combined will produce a strong impetus for the creation of innovation and the achievement of sustainable development (Halibas et al., 2017).

1. Academic

Academics play an important role in human resource development, especially through efforts to produce quality graduates and provide the skilled workforce needed in the tourism sector.

2. Business

In the Pentahelix model concept, tourism business actors include investors or entrepreneurs in the tourism sector, travel agents, tour bureaus, as well as Micro, Small and Medium Enterprises (MSMEs), and other economic actors involved in the tourism industry.

3. Community

The community has an interest and also plays a role as an active development actor, with a willingness to be involved in the tourism sector through the process of planning, management, supervision, and sharing benefits from the results of tourism development.

4. Government

The government's role in developing community-based tourism (CBT) is crucial for strengthening the capacity of communities surrounding tourist destinations. The government is a key stakeholder with the authority to regulate the operation of tourism businesses (Muhyi, Chan, Sukoco, & Herawaty, 2017).

5. Media

The media has a strategic role as a promoter of tourist destinations, because its main function is to support tourism marketing efforts broadly (Widowati, Ginaya, & Triyuni, 2019).

2.2. Community Based Tourism (CBT)

Community-Based Tourism (CBT) is an approach to tourism development that positions local communities as both the primary actors and beneficiaries of tourism activities. The core of this concept is the active involvement of communities throughout the entire process, from identifying potential and planning to implementing and evaluating tourism activities. Thus, communities are positioned not merely as objects but as subjects with control over the direction of tourism development in their areas (Blackstock, 2005)

The aim of developing Community-Based Tourism (CBT) is basically to ensure that tourism can provide direct benefits to local communities, while maintaining social, cultural and environmental sustainability. Menurut Scheyvens (1999), CBT aims to empower communities through economic, social, political and psychological dimensions, so that they gain control over the resources and tourism outcomes in their area.

In addition, CBT aims to improve community welfare through fair distribution of benefits, reduce poverty, strengthen cultural identity, and preserve the environment (Manyara & Jones, 2007; Salazar, 2012) adding that CBT serves as a strategy to maintain the authenticity of local culture and avoid tourism practices that damage community values. Meanwhile, the political goal of CBT is to provide space for the community to have a voice in decision-making so that tourism development is not only dominated by external actors. (Blackstock, 2005).

Several important principles underlie the implementation of CBT, including full community participation in decision-making, local ownership of tourism businesses, equitable distribution of benefits, cultural preservation, and environmental sustainability. In this context, support from

external parties such as the government, NGOs, and academics is still needed, but the community must remain the center of control to prevent dependency that could undermine independence (Kontogeorgopoulos et al., 2014).

3. Method

This research uses a qualitative approach to in-depth explore the roles of various actors in the development of Community-Based Tourism (CBT) in North Rupat Sub-District. A qualitative approach was chosen because it allows researchers to holistically understand the complex social interactions and perspectives of these actors (Cresswell, 1998)

This research was conducted in North Rupat Sub-District, Bengkalis Regency, Riau Province, which has been designated a National Tourism Strategic Area (KSPN). The research lasted five months, from May to September 2025, encompassing data collection, field observation, and validation. This location was selected due to its high potential for marine and cultural tourism, but challenges remain in the coordination and collaboration of the actors.

The research subjects consisted of actors within the pentahelix framework: government, academia, the business sector, communities, and the media. A total of eight (8) key informants were selected using purposive sampling based on their active involvement in tourism management. The distribution of informants is as follows: Government (3 informants): Head of the Bengkalis Regency Tourism Division, Head of the Tourism Management Technical Implementation Unit, and Head of the Village Community Empowerment Section of North Rupat Sub-District. Academics (2 informants): lecturers and researchers from the University of Riau who have provided training and mentoring in tourism development to the community. Business sector (1 informant): homestay owner Community (1 informant): member of the Tourism Awareness Group (Pokdarwis) Media (1 informant): local journalist actively covering tourism activities and promotions in Rupat.

Informants were selected based on three main criteria: (1) direct involvement in tourism development activities, (2) at least one year of experience in related initiatives, and (3) willingness to provide detailed and reflective insights regarding collaboration between actors. Data collection was conducted using three main techniques. In-depth interviews explored the roles, experiences, and challenges of each actor in implementing CBT. Participant observation was conducted during community tourism activities in Tanjung Punak Village, Teluk Rhu Village, and Putri Sembilan Village to directly observe the dynamics of collaboration and tourism practices. The documentation study involved collecting official government documents, media articles, and academic publications relevant to tourism governance.

Data analysis followed the interactive model of Miles & Huberman (2007) which consists of three operational stages: Data reduction: coding and categorizing information from interviews and observations to identify relevant patterns related to actor roles, collaboration mechanisms, and challenges. Data presentation: organizing the reduced data into tables and thematic matrices that demonstrate the relationships between the elements of the pentahelix. Conclusion drawing and verification: continuously interpreting the findings while cross-checking with previous data and literature. Through this process, three main themes emerged: (1) the dominance of government-led initiatives in early tourism development; (2) the short-term involvement of academics and business actors; and (3) weak community self-reliance due to limited mentoring.

To ensure the credibility and validity of the data, triangulation was conducted in three ways: Source triangulation: comparing the perspectives of government officials, community members, and business actors on the same issue, such as the effectiveness of a mentoring program. Method triangulation: confirming interview findings with field observations (e.g., participation rates in training sessions) and documentation (e.g., attendance lists, activity reports). Researcher triangulation: conducting peer discussions with other researchers to review coding consistency and interpretation accuracy.

This combination of techniques strengthens the credibility, reliability, and transferability of the findings. Through this comprehensive approach, this study provides an in-depth understanding of the dynamics of multi-actor collaboration in community-based tourism governance in North Rupat Regency and contributes to broader academic discussions on sustainable tourism management in strategic tourism areas. The use of triangulation not only increases credibility but also strengthens the dependability and transferability of qualitative research findings. With this approach, the research is expected to provide a comprehensive understanding of the dynamics of multi-actor collaboration in tourism governance in North Rupat Sub-District, while also contributing to the academic literature on CBT development in strategic tourism areas.

4. Results

4.1. Government

Bengkalis Regional Government, through the Tourism Office, plays a strategic role as both regulator and facilitator in the development of community-based tourism (CBT) in North Rupat. This regulatory role is realized through macro policies such as the designation of Rupat Island as a National Strategic Tourism Area (KSPN). This policy affirms the government's commitment to making North Rupat a leading destination, oriented not only towards increasing tourist visits but also towards improving the welfare of the local community. Furthermore, the local government provides basic facilities and infrastructure, such as the construction of access roads, public facilities, and supporting tourism infrastructure.

However, this research findings indicate that the government's role tends to be more prominent at the initiation and implementation stages. In the initial stages, the government actively initiated various programs, including training for homestay management, tour guides, MSME product workshops, and tourism promotion activities at the regional and national levels. However, when entering the sustainability phase, the role of mentoring, evaluation, and monitoring remained suboptimal. For example, communities that had received training did not fully receive follow-up support, whether in the form of mentoring, market access, or integration with broader tourism networks. As a result, some programs only stop at ceremonial activities and do not contribute significantly to increasing community capacity.

Figure 3. Training activities for processing marine products in Bengkalis Regency by the Women's Empowerment and Child Protection Service



Source : bengkalisinfo.com (2024)

This gap creates a discrepancy between macro policies and the reality at the village level. Strategic policies formulated by local governments are often not fully aligned with the needs and capacities of local communities. For example, while road infrastructure development facilitates

tourist access, it is not accompanied by the strengthening of village tourism institutions, resulting in communities being unable to optimally manage tourism potential independently. This aligns with findings from community-based tourism research in other regions, which emphasize that top-down policies without intensive support often result in a low sense of community ownership. (Goodwin & Santilli, 2009; Manyara & Jones, 2007).

Figure 4. Homestay Management Training activities by the Department of Tourism, Culture, Youth and Sports



Source : disparbudpora.bengkaliskab.go.id (2024)

Furthermore, this study also identified challenges in inter-agency coordination. Although the Bengkalis Regency Tourism, Culture, Youth, and Sports Office plays a dominant role, synergy with other agencies, such as the Women's Empowerment and Child Protection Office (DPPPA), the Trade and Industry Office, the Cooperatives, Small and Medium Enterprises Office, and the Transportation Office, remains unintegrated. This limited coordination has resulted in weak cross-sectoral support for developing tourism as an ecosystem. For example, sea transportation access to North Rupat remains hampered, while digital tourism promotion, which should be facilitated by cross-agency collaboration, has not been optimally implemented.

This study confirms that the local government's role as regulator and facilitator is on the right track, but still faces challenges in sustainability, consistent mentoring, and cross-sectoral coordination. To address these gaps, a more adaptive, participatory governance model oriented toward strengthening the capacity of local communities as the primary stakeholders of tourism is needed.

4.2. Academic

Universities play a strategic role in supporting the development of community-based tourism in North Rupat. Through research and community service activities, academics contribute by providing tour guide training, mentoring MSMEs, and developing village tourism development plans. The University of Riau, for example, has sent teams several times to conduct field research and provide training in homestay management and local tourism products. Similarly, the Riau Provincial Tourism College has been involved in technical training related to tourism services and designing tour packages based on local potential. The presence of these academic institutions allows the community to gain access to knowledge, managerial skills, and insights into community-based tourism (CBT) that aligns with the principles of sustainable tourism.

However, field findings indicate that academic involvement remains fragmented and temporary, driven by programs such as Community Service Programs (KKN) or short workshops. This inconsistency limits the long-term impact of the training, as there is no transition mechanism from training to independent local institutions. Many training graduates return to their original state without improving the institutional capacity of tourism villages. This aligns

with priority findings in international literature that sustainability through long-term partnerships between academics and communities is key to ensuring knowledge transfer is not merely a fleeting initiative (Leal Filho et al., 2025)

Figure 5. University of Riau lecturers' dedication to the local community



Source : riaucerdas.com (2024)

In the context of sustainable tourism development, the continuity of academic mentoring is crucial. A long-term approach allows for strengthening community capacity not only at the individual level but also within the institutional aspects of tourism villages. Without sustainability, communities tend to revert to old patterns that are less adaptive to the dynamics of the tourism market. In other words, the success of a program is determined not only by the amount of training, but also by the consistency of mentoring, provided in a structured and continuous manner.

Furthermore, the involvement of academics is crucial in building networks between actors. Universities can act as liaisons between local governments, businesses, and local communities in establishing collaborative governance patterns. Through research, policy studies, and empowerment programs, academics can formulate development models that are both scientifically based and relevant to local needs. Their presence can reduce communication gaps between actors and strengthen community trust in tourism development initiatives.

Therefore, the role of academics in the development of CBT in North Rupat needs to be directed towards a systematic, long-term effort. Integrated collaboration, consistent mentoring, and strengthening local institutions are crucial elements for knowledge transfer to truly have a sustainable impact. If this can be realized, universities will not only be present as temporary facilitators, but will also become strategic partners for the community in building inclusive, competitive, and sustainable tourism.

4.3. Business

Businesses such as Pertamina Hulu Rokan (PHR), through its corporate social responsibility (CSR) program, have contributed to supporting tourism in North Rupat, particularly by providing souvenir product training, tourism promotion, and capital assistance to local MSMEs. These activities align with the economic dimension of community-based tourism (CBT), as they can increase income, open business opportunities, and strengthen local community involvement in the tourism supply chain. However, this still-dominant approach to the economic aspect has not fully accommodated the CBT principle, which emphasizes a balance between economic benefits, environmental sustainability, and the preservation of local culture.

Recent research confirms that CBT aims to create a fair distribution of benefits while strengthening communities' capacity to manage their resources independently. This concept

underscores the importance of business involvement not only in economic capacity building but also in environmental conservation and strengthening cultural identity. If private sector involvement is limited to training and capital assistance, the sustainability of community-based tourism becomes fragile, losing the ecological and social dimensions that are at the heart of CBT (Armstrong, 2012).

Figure 6. Collaboration between Pertamina Hulu Rokan and the Riau Tourism College



Source : riauberkabar.sigapnews.co.id (2023)

In international literature, the form of collaboration that best aligns with CBT principles is the Public-Private-Community Partnership (PPCP). This model positions the community as the primary actor, the government as the regulator, and the private sector as a facilitator and resource provider. Studies in Bali have shown that PPCP in tourism development can create long-term benefits by prioritizing conservation and involving the community in decision-making. (Adnyana et al., 2015). If implemented in North Rupat, this partnership will not only strengthen economic competitiveness, but also protect coastal ecosystems and maintain the sustainability of local culture.

Furthermore, CBT emphasizes that tourism success is measured not only by economic growth but also by increasing the capacity of local communities to control the destination development process. This implies that private sector contributions, such as those from PHR, should be directed towards strengthening community institutions, supporting coastal environmental conservation, and preserving the culture of the Malay community in North Rupat. Thus, CSR is not merely a corporate reputation strategy, but rather a long-term community empowerment instrument.

Overall, private sector involvement in CBT in North Rupat requires a paradigm shift from "charity-based CSR" to "empowerment-based CSR" rooted in the principles of sustainability. Through this approach, collaboration between PHR, the government, and the community can produce tourism that is not only economically competitive but also socially and ecologically resilient, enabling North Rupat to compete nationally and internationally.

4.4. Community

Local communities are key actors in the development of community-based tourism (CBT) in North Rupat. Community participation is evident in the involvement of tourism awareness

groups (Pokdarwis), homestay management, and the production of local crafts and culinary specialties. These activities have a positive impact by increasing household income while preserving inherited cultural values. In the context of CBT, community involvement extends beyond being merely beneficiaries to managers who determine the direction of sustainable tourism destinations.

However, the level of community commitment and capacity varies. Some groups demonstrate active participation, for example by developing homestays or managing local tourist attractions, while others remain low due to limited human resources, weak collective awareness, and a lack of ongoing mentoring. This aligns with field findings that indicate a disparity between community enthusiasm and their ability to manage tourism professionally.

Field research in Tanjung Punak Village, for example, found that although the community responded positively and enthusiastically to tourism outreach conducted by the University of Riau, tourism management still faces challenges. Supporting infrastructure such as road access to tourist locations is inadequate, and the facility management system is still sporadic so it does not optimally support sustainable tourism activities (Sadam et al., 2023).

Furthermore, research on strengthening community-based economic communication in the North Rupert tourism area also emphasizes the importance of systematic communication management. A participatory communication approach through planning, outreach, and the use of local media has been shown to increase the effectiveness of community empowerment. This model can strengthen the sustainability of CBT because it positions the community as an active subject in tourism management, not merely an object of development (Nurjanah, Firdaus, Samsir, & Awza, 2020).

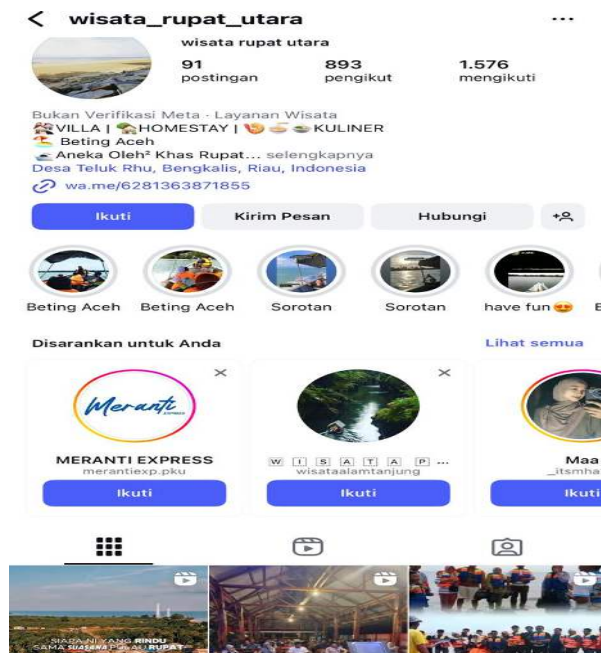
Thus, it can be concluded that the local community in North Rupert has significantly contributed to the development of CBT through economic activities and cultural preservation. However, the sustainability of this development still faces obstacles such as limited capacity and infrastructure, as well as weak coordination between stakeholders. Therefore, ongoing support from academics, the government, and the private sector is needed to strengthen community-based tourism governance in this region.

4.5. Media

The role of the media, particularly local media and digital platforms, in supporting the development of Community-Based Tourism (CBT) in North Rupert remains limited. While promotional activities conducted through social media by the community and Tourism Awareness Groups (Pokdarwis) have begun, their reach is often limited and they fail to reach a wider audience. The lack of support from mainstream media has resulted in North Rupert's tourism potential remaining under-recognized, both nationally and internationally.

However, recent literature confirms that digital media, particularly platforms like Instagram, Google Business, and booking apps like Traveloka, have significant potential to expand the reach of tourist destinations. In the Sumberbulu Tourism Village, the use of integrated digital marketing communications has proven effective in attracting tourists through participatory strategies supported by the local community (Maulana, Hanafi, & Azwar, 2023). This method includes systematic promotion through attractive visuals and digital search optimization that increases the visibility of the destination.

Within the CBT framework, media serves not only as a promotional tool but also as a medium for education and the development of a sustainable destination image. Content that highlights local cultural values, natural beauty, and environmentally friendly practices can more effectively build a positive narrative about a destination (Susanto et al., 2023). Unfortunately, currently, promotional content for North Rupert is limited to photos or basic information without any sustainability context, thus minimally attracting an audience interested in sustainable tourism.

Figure 7. Utilization of social media in tourism marketing

Source : (https://www.instagram.com/wisata_rupat_utara) (2025)

Therefore, the development of CBT in North Rupert can be strengthened with a more mature and professional media strategy. Recommendations include: (1) digital literacy training for community components and Pokdarwis; (2) creation of multimedia content such as video storytelling, virtual tours, and user-generated content; (3) collaboration with local influencers or travel bloggers; and (4) integration of promotions with official government platforms and travel agents. Through this approach, the media not only expands the reach of tourism but also emphasizes the values of sustainability and cultural preservation that are at the heart of CBT.

5. Discussion

The research results indicate that the roles of actors within the pentahelix framework in implementing Community-Based Tourism (CBT) in North Rupert remain fragmented, short-term, and project-oriented. Using Collaborative Governance Theory (Ansell & Gash, 2008) these findings suggest that coordination among actors has not yet reached a stage of shared governance where mutual trust, joint decision-making, and interdependence are institutionalized. The government plays a dominant role in program initiation and infrastructure provision, but weak facilitation mechanisms and policies that do not adapt to local socio-cultural contexts make their contribution less optimal. This reflects what (Ansell & Gash, 2008) term asymmetrical power relations, in which government dominance tends to limit genuine collaboration among stakeholders.

Academics contribute significantly through research, training, and dissemination of sustainable tourism concepts. However, consistent with (Mtapuri & Giampiccoli, 2017), academic involvement in CBT often remains project-based and does not evolve into long-term partnerships. From the perspective of Collaborative Governance, the absence of institutionalized collaboration forums such as multi-stakeholder councils or local tourism boards reduces opportunities for collective problem-solving and shared accountability (Emerson, Nabatchi, & Balogh, 2012).

In line with Capacity Building Theory (Morgan, 2006) the community's role as the main actor in CBT is constrained by uneven human resource quality and limited organizational capacity. Although communities participate in homestay management, culinary development,

and cultural preservation, the lack of leadership, entrepreneurship, and managerial skills has made implementation inconsistent. This aligns with (Sofield, 2003) who argues that genuine community empowerment in tourism requires strengthening local capabilities, not merely participation in externally designed programs. Therefore, long-term mentoring and institutional learning are essential to move from dependency to self-reliance in CBT management.

The business sector's involvement through capital, CSR programs, and MSME training has been valuable but remains primarily economic in focus. Drawing from Sustainability Theory (Elkington, 1997), sustainable tourism should balance economic profitability with socio-cultural preservation and environmental protection. However, business participation in North Rupat still lacks strategic integration into sustainability goals, resembling findings from (Bramwell & Lane, 2011), who emphasized that without alignment across the triple bottom line people, planet, profit tourism development risks being extractive rather than inclusive.

The media's role, meanwhile, aligns with the concept of destination branding (Pike, Steven, 2014) yet remains limited to local coverage and lacks amplification through national or digital platforms. Strengthening collaboration between the media and other pentahelix actors could enhance public awareness, attract visitors, and promote North Rupat as a sustainable community-based tourism destination.

In summary, the integration of Collaborative Governance, Capacity Building, and Sustainability perspectives reveals that CBT development in North Rupat requires a systemic governance transformation from short-term, project-based initiatives toward institutionalized multi-actor collaboration. Strengthening trust, enhancing local capacity, and ensuring long-term commitment from each actor are key to realizing sustainable tourism that benefits both people and the environment.

Table 1. Roles, Constraints, and Opportunities of Actors in CBT Development in North Rupat

Actor (Pentahelix)	Main Role	Obstacles Faced	Development Opportunities
Government	- Regulators and facilitators - Basic infrastructure providers - Community training through tourism department programs	- Focus is greater on program initiation and implementation, with less ongoing support. - Weak governance monitoring. - Policies are often out of sync with local conditions.	- Strengthening regulatory and supervisory functions - Creating a community-based tourism roadmap - Encouraging cross-sector collaboration
Academics	- Knowledge transfer and training - Strengthening the concepts of CBT and sustainable tourism - Community institutional mentoring	- Engagement is still project-based - Minimal long-term sustainability	- Integrating research with community needs - Establishing a local tourism study center - Encouraging publication and policy advocacy
Business	- Capital and CSR support - MSME product training - Tourism promotion through business networks	- Limited role in economic aspects - Minimal contribution to socio-cultural and environmental aspects	- Developing public-private partnerships - Long-term investment in destinations - Strengthening branding and marketing
Community	- Key actors in tourism management - Homestay, culinary, and craft managers - Guardians of local culture and traditional wisdom	- Human resource capacity is still diverse - Weak commitment from some communities - Minimal ongoing support	- Increasing tourism capacity and literacy - Strengthening tourism awareness groups (Pokdarwis) - Diversifying locally based tourism products
Media	- Tourism promotion through digital platforms and social media - Dissemination of public information - Building destination image	- Promotional coverage is still limited - Minimal mainstream media support	- Optimizing digital media for global promotion - Collaborating with national media - Sustainable tourism campaigns

The table above shows that pentahelix actors are already involved, but the intensity of their roles is not evenly distributed. The government and academics are relatively dominant in the initial stages, while the business sector, communities, and media still have significant room for improvement. Strengthening cross-actor coordination, continuous mentoring, and an integrated promotional strategy are crucial to ensure that CBT in North Rupert can drive local economic growth while maintaining socio-cultural and environmental sustainability.

These findings both support and extend previous studies. For example, Manyara & Jones (2007) emphasized that community participation often remains symbolic when government and external actors dominate decision-making. A pattern that also appears in North Rupert, where the government and academics are more visible than the local community or business actors. Similarly, (Goodwin & Santilli, 2009) found that the sustainability of CBT programs depends on continuous community empowerment rather than short-term interventions, which aligns with the observed need for ongoing mentoring in this study. However, unlike the contexts explored by Armstrong (2012) or Giampiccoli & Saayman (2019), this study highlights the *limited role of the media* as a crucial missing link in promoting and sustaining CBT networks.

Thus, the findings contribute new insights by emphasizing the media's underutilized potential in strengthening the synergy among pentahelix actors. This challenges the conventional view in CBT literature that mainly focuses on government–community–business collaboration, by introducing the importance of communication and publicity as a strategic driver of sustainable tourism. Consequently, this study not only reaffirms previous theoretical perspectives on the need for multi-actor collaboration but also enriches the pentahelix model by identifying new practical pathways to achieve balanced actor participation and sustained community empowerment.

6. Conclusions

This research concludes that the development of Community-Based Tourism (CBT) in North Rupert has involved multiple actors but remains constrained by uneven collaboration, limited community capacity, and insufficient long-term support. The success of CBT in this region depends on strengthening community empowerment, sustaining institutional mentoring, and improving coordination among actors. Strengthening synergy and integrated promotion strategies are essential to ensure that tourism development contributes not only to local economic growth but also to cultural continuity and environmental sustainability.

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9. Conflicts of Interest

The authors declare no conflict of interest.

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