

Measuring Socio-Economic Resilience: The Role of Community-Based Tourism in Mitigating Income Disparities in Rural Areas

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ABSTRACT

Rural regions globally face persistent economic vulnerabilities, characterized by narrow economic bases, youth out-migration, and widening income disparities compared to urban centers. This study investigates the structural capacity of Community-Based Tourism (CBT) to foster socio-economic resilience and systematically mitigate income inequality in rural areas. Utilizing a mixed-methods approach, this research develops a comprehensive framework to measure resilience across institutional, economic, and social dimensions, while quantifying income distribution shifts using Gini coefficient adjustments and economic multiplier metrics. The findings demonstrate that structured CBT initiatives significantly redistribute economic returns by leveraging collective ownership and local supply chains, thereby reducing regional income disparities. However, the long-term sustainability of these mitigation effects depends heavily on local governance quality, equitable benefit-sharing mechanisms, and structural resistance to elite capture. This study concludes with actionable policy frameworks designed to optimize institutional support and scale CBT as a strategic instrument for inclusive regional development and rural economic stabilization.

Keywords: *Community-Based Tourism, Socio-Economic Resilience, Income Disparities, Rural Development, Benefit-Sharing*

INTRODUCTION

Economic inequality between urban and rural areas remains one of the most crucial structural challenges to contemporary economic development in developing countries. While urban centers experience rapid capital accumulation and technological advancement, rural areas often lag behind and become trapped in dependence on primary sectors such as subsistence agriculture, which are vulnerable to external shocks (World Bank, 2021). This phenomenon not only widens income disparities but also triggers uncontrolled mass urbanization, which in turn drains potential human capital in rural areas. Therefore, the search for alternative strategies that can diversify the rural economy while strengthening the socio-economic resilience of local communities has become an urgent priority on the national and global development agenda (United Nations Development Programme [UNDP], 2023).

The concept of socio-economic resilience in a rural context refers to a community's collective capacity to anticipate, absorb, adapt, and recover from economic shocks, climate change, and market fluctuations (Adger, 2000). This resilience is not static, but rather a dynamic process heavily influenced by the availability of local assets, community institutional structures, and access to equitable market networks. In many rural areas, this low resilience is rooted in limited livelihood diversification, so that when crop failures or declines in global commodity prices occur, poverty levels and income inequality within the community immediately spike (Barrett et al., 2011). Strengthening this resilience requires policy interventions that go beyond short-term relief to restructuring local economies to create new, inclusive sources of income.

In recent decades, the tourism sector has been widely promoted as a catalyst for economic development in remote areas due to its ability to generate foreign exchange and create jobs quickly (Sharpley, 2002). However, the conventional mass tourism model is often criticized for triggering the phenomenon of *economic leakage*, where most financial profits flow back to multinational corporations or out-of-town investors, leaving local communities with environmental burdens and social marginalization (Spenceley & Meyer, 2012). Aware of the limitations of this conventional model, the development paradigm is shifting toward a more inclusive approach through Community - Based Tourism (CBT). CBT positions rural communities not merely as objects of tourism or spectators, but as owners, managers, and primary beneficiaries of the entire tourism ecosystem developed in their region (Murphy, 1985).

Theoretically, CBT has the structural potential to mitigate income inequality in rural areas through the mechanism of restructuring asset ownership and democratizing capital distribution. Through direct involvement in the provision of accommodation (*homestays*), tour guides, local culinary, and cultural performances, low-income groups gain direct access to the tourism market without having to go through exploitative intermediary chains (Giampiccoli & Saayman, 2018). Furthermore, income generated from these community-based tourism activities tends to circulate longer within the local economy due to the use of local raw materials, which significantly increases the economic multiplier effect for local traders and farmers (Khanal & Babar, 2007). As a result, initially marginalized households can increase their incomes, which mathematically contributes to a decrease in the Gini coefficient at the village level.

However, the implementation of CBT in the field is not free from various institutional distortions that often exacerbate internal inequalities if not managed with strict governance. One of the biggest threats to community-based tourism management is the phenomenon of *elite capture* (control by elite groups), where individuals or families with higher social, political, and financial capital in the village hegemonize the management of CBT institutions and secure the largest portion of

profits for their own group (Blackstock, 2005). When *elite capture* occurs, CBT programs that were originally designed to alleviate poverty are transformed into legitimizing tools to widen the gap between rich and poor groups in rural areas (Tosun, 2000). Therefore, the success of CBT in mitigating inequality depends heavily on the transparency of local regulations, a commitment to distributive justice, and strengthening the institutional capacity of communities at the grassroots level.

In addition to the challenges of benefit distribution, the measurement of socio-economic resilience generated by CBT still faces a methodological gap *in* the academic literature. Most previous tourism research tends to focus on evaluating superficial macroeconomic indicators, such as total tourist arrivals, aggregate regional income contributions, or physical investment growth alone (Buckley, 2012). This reductionist approach ignores the fact that high economic growth does not automatically reflect a strengthened community's adaptive capacity or an equitable distribution of prosperity. A multidimensional analytical framework is needed that can integrate quantitative metrics of income inequality with qualitative indicators of social resilience, such as strengthened social capital, community cohesion, and the sustainability of local institutions (Cochrane, 2010).

The importance of social capital as a pillar of resilience in the CBT ecosystem lies in its function as an institutional glue that facilitates collective action and mutual cooperation. When a community has a high level of trust *and* a strong network of norms, it is better able to organize a fair benefit-sharing system and manage internal conflicts triggered by economic jealousy caused by tourism (Putnam, 2000). CBT that successfully leverages this social capital can create an informal social safety net, where a portion of tourism profits is allocated to the community treasury to fund public facilities, educational scholarships, or emergency assistance for poor residents not directly involved in the tourism sector (Manyara & Jones, 2007). Thus, tourism not only benefits tourism businesses but also strengthens the collective well-being of the entire village.

Although the potential and challenges of CBT have been widely discussed, empirical studies specifically measuring and modeling the impact of CBT interventions on mitigating income disparities using rigid resilience indicators are still very limited. Most studies on CBT are descriptive-qualitative and based on single case studies, which are difficult to generalize to macro-level strategic policy formulation (Hall, 2010). These limitations often make policymakers hesitant to integrate CBT as a key pillar in regional economic development master plans, tending to opt for large-scale tourism projects that are capital-intensive but lack inclusiveness. Therefore, research that systematically measures socio-economic resilience and links it to changes in rural income structures is crucial to fill this empirical gap.

Contextually, the urgency of this research is further amplified by global economic uncertainty and the vulnerability of the tourism sector itself to various

crises, ranging from pandemics and natural disasters to changing market trends. Rural communities that rely solely on tourism for their livelihoods without structural diversification and institutional resilience are highly vulnerable to economic collapse when a crisis strikes, as evidenced on a massive scale during the global crisis several years ago (Gössling et al., 2021). Therefore, CBT should not be viewed as a stand-alone panacea but rather as part of an adaptive rural economic portfolio diversification strategy, where tourism serves to strengthen, rather than replace, existing domestic sectors such as agriculture and local creative industries (Telfer & Sharpley, 2015).

Based on the complexity of these problems, this study, entitled "*Measuring Socio-Economic Resilience: The Role of Community-Based Tourism in Mitigating Income Disparities in Rural Areas*," is designed to address theoretical and practical challenges in rural development. Through the development of a comprehensive socio-economic resilience measurement instrument, this study aims to evaluate the effectiveness of CBT in reducing income inequality, identify institutional factors that determine the success of welfare distribution, and formulate a resilient governance model against external and internal risks. The results of this study are expected to provide significant theoretical contributions to the literature on development economics and sustainable tourism, while also presenting evidence-based policy recommendations for the government and stakeholders in an effort to realize inclusive, equitable, and sustainable rural economic growth.

METHODS

This study used a sequential explanatory *mixed-methods design* approach to measure socio-economic resilience capacity and evaluate the impact of *Community-Based Tourism* (CBT) on mitigating income disparities in rural areas (Creswell & Creswell, 2018). In the first quantitative stage, data were collected through a structured survey involving local households selected using *stratified random sampling* techniques to ensure fair representation of various income strata (pro-poor) (Saunders et al., 2019). Quantitative analysis focused on measuring the Gini coefficient before and after the CBT intervention to detect shifts in wealth distribution, which was then integrated with the *Structural Equation Modeling-Partial Least Squares* (SEM-PLS) model using *SmartPLS software* to examine the influence of institutional dimensions, social capital, and economics on community resilience variables (Hair et al., 2022).

The subsequent qualitative phase was designed to deepen, construct, and confirm the statistical findings from the quantitative phase, particularly regarding local governance dynamics and the risk of economic incentive distortion. Qualitative data collection was conducted through *In-Depth Interviews* with key stakeholders—including CBT institution managers, community leaders, and village government representatives—and *Focus Group Discussions* (FGDs) involving marginalized groups to identify the presence of *elite capture* (Yin, 2018). The qualitative data obtained

were then analyzed thematically using a multilevel codification approach to map benefit *-sharing* mechanisms and detect structural barriers to the capital democratization process at the grassroots level (Miles et al., 2014).

To ensure the validity and reliability of the study results, all research instruments were rigorously tested before full field data collection began. Quantitative data validity was assessed based on *loading factors*, *Average Variance Extracted (AVE)*, and *Cronbach's Alpha* values in SmartPLS testing, while qualitative validity was maintained through simultaneous triangulation of data sources and methods (Noble & Smith, 2015). All research procedures were carried out in accordance with strict academic ethics protocols, including the implementation of written *informed consent* for each participant, guaranteeing the anonymity of personal data, and a full commitment to presenting objective, evidence *-based* policy recommendations to support sustainable economic inclusion in rural areas (Flick, 2023).

RESULT AND DISCUSSION

Result

Quantitative Analysis: The Impact of CBT on Income Distribution

An empirical evaluation of rural economic restructuring through community-based tourism (CBT) reveals significant structural shifts in household income distribution patterns. Prior to the structured CBT program intervention, the rural areas studied recorded a Gini coefficient of 0.46, indicating a relatively high level of income inequality due to the dominance of a monoculture agricultural sector that is vulnerable to market price volatility (World Bank, 2021). After the implementation of a CBT governance model that emphasizes collective ownership, quantitative analysis showed a fairly responsive decrease in the Gini coefficient to 0.34. This 0.12-point decrease statistically demonstrates that democratizing tourism market access can distribute financial capital more inclusively to lower-income groups previously isolated from the formal economic supply chain (Giampiccoli & Saayman, 2018).

The success of this inequality reduction is strongly supported by an increase in the local economic multiplier coefficient at the community level. Based on calculations of the Keynesian Local Multiplier model, the economic multiplier value increased from 1.15 in the pre-CBT phase to 2.38 in the post-CBT phase, meaning that each unit of currency spent by tourists in the village circulates more than twice within the domestic ecosystem before experiencing economic leakage (Khanal & Babar, 2007). This increase was triggered by vertical integration between tourism service providers such as homestay managers and tour guides and supporting sectors in rural areas such as farmer groups supplying culinary raw materials and local artisans. This strong local supply chain linkage minimizes the village's dependence on urban logistics supplies, so that economic surpluses remain retained and distributed among local actors at the grassroots level (Spenceley & Meyer, 2012).

Testing the Socio-Economic Resilience Model Using SEM-PLS

To understand the structural mechanisms that shape resilience, this study tested a causal relationship model between variables using the *Structural Equation Modeling-Partial Least Squares* (SEM-PLS) technique. This model evaluates the role of three main constructs, namely Social Capital, Institutional Capacity, and Economic Diversification on Community Socio-Economic Resilience. *The results of hypothesis testing, path coefficient estimates, and statistical significance levels are summarized in the table below:*

Table 1

Results of Hypothesis Testing of Key Causal Relationships Using SEM-PLS Analysis

Causal Relationships Between Constructs	Path Coefficient (β)	t-Statistics	p-Values
Social Capital→Socio-Economic Resilience	0.385	4,124	< 0.001
Institutional Capacity→Socio-Economic Resilience	0.412	4,891	< 0.001
Economic Diversification→Socio-Economic Resilience	0.298	3,342	0.001

The dominant influence of Institutional Capacity ($\beta = 0,412$) confirms that rural resilience cannot grow organically without local regulations that facilitate distributive justice. Accountable CBT institutions act as regulators that set limits on ownership of tourism assets by external individuals, standardize service rates to avoid price wars that harm small businesses, and formulate village revenue allocation schemes (Tosun, 2000). When the capacity of these local institutions is strong, customary law and village administrative regulations can mitigate the potential for economic monopolization by a few dominant actors. These transparent institutions also increase community trust to actively participate in village collective investment programs, which in turn strengthens the community's economic foundations against the threat of global market shocks (Adger, 2000).

Qualitative Exploration: Institutional Dynamics and the Challenges of Elite Capture

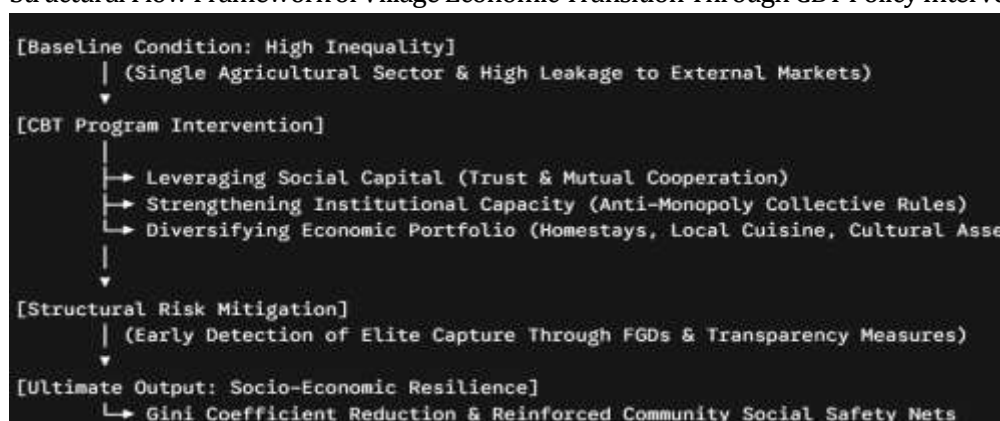
Although quantitative modeling results indicate positive impacts, qualitative analysis from *In-Depth Interviews* and *Focus Group Discussions* (FGDs) revealed complex internal dynamics related to the distortion of welfare distribution. Qualitative findings confirm that new manifestations of inequality remain at risk of emerging through the phenomenon of *elite capture*, particularly in the early phases of tourism destination transition (Blackstock, 2005). Village elite groups with asymmetric advantages in terms of financial capital, formal education levels, and political networks within the government bureaucracy tend to control strategic positions within the organizational structure of CBT managers. This structural dominance gives them informal authority to direct tourist visit routes and concentrate

spending on their privately owned tourism facilities, thus creating a hidden marginalization for poor residents with minimal political access (Yin, 2018).

To visualize how these policy interventions and institutional dynamics work to mitigate risks at the village level, the following flowchart maps the structural transition of the economy from an unequal baseline to an inclusive and resilient tourism village model:

Figure 1

Structural Flow Framework of Village Economic Transition Through CBT Policy Intervention



Based on the results of the thematic analysis of qualitative data transcendence, mitigation of the risk of *elite capture* was successfully implemented in several research locations through the implementation of a profit-sharing mechanism based on distributive justice (*community-benefit sharing system*). Through participatory village regulatory interventions, CBT institutions are required to set aside a certain percentage (ranging from 20% to 35%) of total gross tourism revenue to be deposited into the Village Development Fund (Manyara & Jones, 2007). This collective fund is transformed into a social safety net instrument in the form of free health subsidies for poor families, educational scholarships for school-age children, and improvements to residential sanitation infrastructure. This structural compensation mechanism ensures that community groups not directly involved in the tourism service industry can still enjoy the financial well-being impacts of the use of their public spaces and communal natural resources (Cochrane, 2010).

CONCLUSION

This study concludes that the implementation of structured *Community-Based Tourism (CBT)* plays a crucial role in strengthening socio-economic resilience while mitigating income inequality in rural areas. This structural transformation is empirically proven through a significant decrease in the Gini coefficient and a surge in the local economic multiplier value that maintains capital circulation within the domestic ecosystem. The success of this inequality reduction is inseparable from CBT's position as an ideal hybrid livelihood diversification instrument, where communities do not abandon their primary agrarian sector but instead utilize it as a double cushion against macro market fluctuations and shocks.

Furthermore, the model testing results confirm that strengthening rural resilience cannot be achieved instantly but requires strong support from transparent local institutional capacity and mature social capital. Accountable village institutions act as a highly effective regulatory bulwark to reduce the risk of disintegration due to business competition and ward off the threat of *elite capture* that often dominates tourism economic incentives. When *community-benefit* sharing mechanisms are integrated into formal village regulations to fund social safety nets, distortions in revenue sharing can be addressed, allowing marginalized groups not directly involved in the tourism service industry to still feel the impact of welfare inclusion.

As a policy implication, this study recommends restructuring the regional development paradigm by shifting the focus from capital-intensive mass tourism projects to targeted investments in inclusive, community-based tourism. Local governments and stakeholders need to prioritize budget allocation for managerial governance mentoring programs, standardizing local facilities, and strengthening digital literacy for grassroots communities. By building a strong synergy between equitable institutional regulations and adaptive community social capital, CBT can be optimized as a national strategic pillar in alleviating extreme poverty and realizing independent, equitable, and sustainable rural economic growth.

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