Poza Honda Wildlife As A Living Laboratory Of Sustainability: Implementing Regenerative Tourism For Socio-Environmental Resilience In Manabí, Ecuador

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Abstract

Ecotourism models based on traditional passive sustainability sought to reduce impact, but often failed to produce a net positive impact or any real adaptive capacity in relation to socio-environmental crises. The bottom-up approach was also applied to analyze the implementation of the "Poza Honda Wildlife, Living Laboratory of Sustainability" project in the province of Manabí (Ecuador), where a forest reserve with significant tourism potential has been established. The methodological design was a qualitative and descriptive case study, with content analysis of the articulation of governance, sustainable production, and social economy.

The project effectively combined biodiversity management with the production of new bio-trade products for the benefit of 622 people. This approach was built on Analog Forestry, which fostered both ecological rehabilitation and the socioeconomic empowerment of women and youth. It was evident that the implementation of regenerative tourism and social solidarity economy practices made an important contribution to increasing economic diversification, and more inclusive local governance also strengthened the destination's resilience to external shocks.

Keywords: Regenerative Tourism, Socio-environmental Resilience, Biotrade, Community-Based Ecotourism, Poza Honda.

INTRODUCTION

In the 21st century, a new order of systemic challenges confronts the management of tourism destinations for which traditional sustainability efforts are no longer sufficient. Recently, studies emphasize that the strategy of seeking to maintain the status quo or, at best, minimize the negative impact may fall short in view of the rapid pace and depth of climate change,

population pressure, and accelerated biodiversity loss (Zhao et al., 2025; Samal & Dash, 2025). Highly fragile ecosystems, such as coastal zones and wetlands, require innovative trajectories to achieve a net positive impact beyond neutrality (Suresh et al., 2025; Ressurreição, 2025). The conceptual framework of Regenerative Tourism (RT) is identified in response to this, looking for a need as a paradigm shift. RT is based on a transition from passive consumption of natural heritage to the active participation of the community and visitors in the restoration of the ecology and social empowerment of the place (Price et al., 2025; Khater et al., 2025).

This requires a fundamental re-evaluation of how we interact with the destination, one that values the well-being of the place over visitor satisfaction. Regenerative activities, such as planting native flora and fauna or participating in voluntary programs of conservation groups, are part of this tourist experience to act on the natural capital of the destination (20). Although ecotourism already includes valuing nature and reducing any negative impact on the environment (Luong, 2025), there is a convergence between RT that requires the institutionalization of restoration actions, calling for the incorporation of productive systems to contribute to improving diverse ecosystems.

The shift towards this circular model requires government cooperation and active citizen participation as similar keys mentioned in the literature to address overcommercialization and ensure a fair distribution of benefits (Sun et al., 2025). 'Living Laboratory' is applied here, referring to a project in which new socio-ecological solutions are constantly tested and co-designed.

Resilience can be described as the ability of a system (e.g., society and ecosystem) to absorb shocks and reorganize itself while still functioning. In relation to the tourism sector, this adaptive capacity requires economic diversification and improved local identity, as well as fostering networking and citizen participation (Suryawan et al., 2025).

Ecuador's Manabí province has always been an area susceptible to shocks, and its local development projects need to be evaluated in terms of adaptive capacity. The Poza Honda Protective Forest, whose biological diversity is vast and, thanks to its bodies of water, represents an important part of the natural capital that must be safeguarded not only for ecotourism, but also as part of the resilience of its water.

In fact, the goal of the Poza Honda project is to decrease social vulnerability and specifically focus on creating sustainable economic opportunities for women and youth through biotrade. This approach reveals a deep understanding of socio-ecological vulnerability. The internal social structure of the project is supported by the reduction of gender disparities and the increase of empowerment.

Economically, a mixed source of income related to biotrade provides some resilience by breaking dependence on exploitative industries or tourism markets that have an inherent level of fragility (Abdurakhmanova & Ahrorov, 2025). Therefore, community economic empowerment is a direct approach to improving local adaptive capacity (Suryawan et al., 2025; Sharma & Pradhan, 2025).

The purpose of this article is to analyze the intervention project carried out in Poza Honda Wildlife, Manabí-Ecuador, as a "living laboratory of sustainability", and to evaluate how the integrated model of regenerative tourism and community biotrade helps to build socio-environmental resilience in the local community.

MATERIALS AND METHODOLOGY

Study Design and Methods

1. A qualitative study was adopted and case studies were taken as the research site in the article.

This method allows us to develop a deep understanding of the pristine sociobiological system in Poza Honda and how the processes of co-creation involve the members of the community it serves. Rather than simply measuring sums (quantitative indicators), this type of study concentrates efforts on evaluating processes of change.

2. The cycles of the Participatory Action Research project ensure that the intervention project "lives" (Yin & Shen, 2025). In this laboratory design, methods of information collection and data analysis are perpetually adjusted to reflect changes in the social environment and natural landscape. The information derived from this type of research can then be used directly in locally appropriate management techniques. A traditional way of thinking: The system itself is essential to capture the value of inclusive governance and equity, things that current indicators of social life do not yet accurately record (Lee, 2025).

Study Area and its Scale

Located in the Poza Honda Forest Reserve, the area crosses the cantons of Santa Ana and Portoviejo and has its eastern boundaries outside the Department of Manabí, Ecuador. This region was selected because for many years it has been known for both its biodiversity and its potential low-impact tourism resource.

More than a year had passed since this project and since May 2027 the intervention plan began in a context of growing social movement on the site. The focus was only local with an emphasis placed on the empowerment of women and youth in the program. The survey found that there were 622 direct beneficiaries and 1037 indirect beneficiaries involved in educational activities and implementation of productive systems.

Data Tools and Data Collection Methods

The study was based on a triangulation of information, ensuring the validity of the analysis:

(1) Document Review and Systematization: The ECODES project documents (202X) are reviewed to detail three elements that are crucial to this project:

- 1) Good Governance and Environmental Management. This category includes examples of why systems need to be protected;
- 2) Sustainable production. An agronomic system with a structure analogous to the forest is established in the Puyaca ecological community; and
- 3) Local Social Economy and Fair Trade. This classification involves taking advantage of tradable products from biotrade.

(2) In-Depth Interviews: Semi-structured interviews were conducted with key figures from the Huauquipura Association, local producers, and community leaders. Qualitative samples were taken to document perceptions of changes in governance, reduction of gender inequality, and levels of socioeconomic empowerment achieved by women and youth.

3. Value Chain Analysis: The methodological tool used by the value chain of the tourist destination allowed for a joint diagnosis of all those aspects that are inherently connected to community ecotourism and biotrade, in addition to the construction of solutions and action strategies with these constituents.

Operational Matrix and Evaluation Indices for Regeneration

An operational matrix was then developed (Table 1) to link the empirical process of Poza Honda with theories of regenerative tourism and resilience. This approach made it possible to judge whether this project not only maintains its conditions, but actually achieves ecological and social regeneration, as such. (Price et al., 2025; Khater et al., 2025).

Table 1. Operational Matrix of the Regenerative Model in Poza Honda

Principle of	**Specific Action Implemented**	**Component of the**	**References**

Regenerative Tourism	**in Poza Honda**	**Associated Project**	
Systems and Site Health Focus	Implementation of Analog Forestry and protection of watersheds, ensuring agroecological connectivity.	Environmental Governance and Management / Sustainable Production	Price et al. (2025)
Active Participation and Co-creation	Participatory design of Agroforestry Systems and the construction of the biotrade value chain.	Sustainable Production / Social Economy	Khater et al. (2025)
Community Well-Being (Net Positive)	Generation of biotrade products with a focus on social and solidarity economy and fair trade.	Local Social Economy and Fair Trade	Abdurakhmanova & Ahrorov (2025)
Building Local Adaptive Capacity	Socioeconomic empowerment of women and young people for decision-making and management of productive resources.	Local Social Economy and Fair Trade	Suryawan et al. (2025)

RESULTS AND DISCUSSION

Results

Characterization of the Potential of Ecotourism and Natural Capital

The results showed that, after characterizing the natural and tourist environment of the area, the Poza Honda Wildlife with high potential is recognized for sustainable entertainment and tourism. This potential is based on ecological and scenic conditions that are favorable.

A great variety of life, the existence of important bodies of water, barely intervened forest areas both inside and outside the national parks where travelers can wander at will along nature trails.

Such features have made Poza Honda a suitable environment for low environmental impact activities and ecotourism trips, such as hiking, bird watching, kayaking, and nature photography at some point. These activities made it a living example that fits the concept of stone exposed here (Ellis et al., 1988).

Earlier in this section, we discussed how one step can naturally lead to another, leading to the development of agriculture that creates new types that become something different, nurturing people into what is in itself beautiful for the life around them.

Everything that existed in this clean natural capital formed the economic basis for this project. The result was a reminder that conservation, when combined with ecotourism, increases the value of natural capital assets to local people (Martins et al., 2025).

Implementation of the Regenerative Strategy: Production and Biotrade

The project's intervention focused on the application of active methodologies for restoration and economic diversification. Through Component 2 (Sustainable Production), Agroforestry Systems were established using Analog Forestry methods.

Such practices not only aimed to increase productivity and food sovereignty, but also introduced agricultural techniques inherently resilient to climate change, a crucial requirement for long-term sustainability.

Component 3 (Local Social Economy and Fair Trade) had direct socio-economic effects. The managed biodiversity embodied in these agroecological farms was used to produce new biotrade products that were traded and established within territorial networks.

The quantified results showed that 622 new sustainable economic opportunities had been generated, directly benefiting the local population. Critically, there was also an increase in women's social power and a reduction in gender inequalities, goals explicitly defined by the project.

Socio-Environmental Resilience Indicators Achieved

The evaluation of the project's results showed that qualitative and quantitative socio-environmental resilience indicators have advanced significantly.

Environmental governance was strengthened, with the active participation of women and youth in decision-making processes related to the Protected Forest.

On the other hand, in-depth interviews with local actors (qualitative data) indicated a significant growth in the perception of change and local identity.

Factors identified in the literature as critical for resilience in coastal and nature destinations were further reinforced by full community engagement with proper value chain management. Economic diversification, where biotrade complements tourism activity, reduced the vulnerability of families that depended solely on monocultures or fluctuations in the tourist season.

DISCUSSION

Poza Honda Conversation: A Model of Practical Regeneration in Other Places for the Future

This discussion highlights the importance of the Poza Honda project beyond ecotourism simply as a potential destination. This model not only sells those activities with lower impacts; What we mean is that it embodies the responsibilities of regeneration in all human rights changes. Thus, in deep harmony with recent literature that advocates both giving new life to nature and the refinement of this place by its own residents (Khater et al., 2025; Price et al., 2025), the sum of its parts is preserved even in an image of the beautiful.

In regenerative tourism, analog forestry is a significant methodological contribution. This is not a passive protection technique; It is a design method that generates life by maintaining local life customs and actively participating in restoration activities so that ecosystems can be revived. At the same time, it also produces products that support trade with biodiversity. Thus, in this project the necessary net positive effect of the regenerative practice is achieved. All productive activities of the community (biotrade) inherently represent improvements in natural capital, as opposed to extraction models.

Building Resilience Through Social Equity and Diversification

The adaptive capacity observed in Poza Honda is built on two pillars: economic diversification and inclusive governance. As its strategy for economic resilience, it defies disaster as much as possible to support the 622 direct beneficiaries through biotrade (Abdurakhmanova & Ahrorov, 2025). Through the social and solidarity economy, a protective system is created, which acts to prevent over-commercialization or dependence on large operators as well-documented vulnerabilities in ecotourism (Sun et al., 2025). This diversification reduces pressure on the ecosystem during low tourist seasons, while maintaining social cohesion.

Moreover, the explicit effort to empower women and youth is not simply a secondary social goal, but serves directly to enhance resilience. Local adaptive capacity (Suryawan et al., 2025)

depends on the fairness and inclusion of each participant in decision-making. By actively including conventionally marginalized voices in environmental and economic management, Poza Honda increases its social capital, as well as shared skills to react to shocks (Sharma & Pradhan, 2025). Thus, resilience is realized as a function of the quality of inclusion and social equity achieved.

Table 2 summarizes the evaluation of the socio-environmental resilience indicators and compares the results of this case with the theoretical framework.

Table 2. Evaluation of Socio-Environmental Resilience Indicators (Poza Honda)

Resilience Dimension	**Key Indicator Evaluated**	**Result (Past Tense)**	**Theoretical Interpretation (Present Tense)**
Eco-friendly	Ecosystem Integrity and Vegetation Cover	The Analog Forestry model was implemented in key areas and agroecological corridors were identified.	Increasing natural capital through regenerative design improves the ecosystem's ability to withstand climate disturbances (Martins et al., 2025).
Cost-effective	Diversification of Sources of Income	622 direct beneficiaries generated new income through biotrade products in territorial networks.	Diversification reduces vulnerability to the volatility of the tourism market and dependence on monocultures (Saavedra, 2025; Abdurakhmanova & Ahrorov, 2025).
Social	Governance and Gender Equity	The active participation and decision-making of women and young people was encouraged, reducing inequality.3	Inclusive governance and networked collaboration strengthen local identity, crucial for collective response and adaptation to crises.
Adaptive	Learning and Innovation Capacity	Accessible and climate-resilient agroecological practices were established and producers were trained.	The concept of the "living laboratory" ensures that the community not only adapts to changes, but also learns and co-designs innovative solutions (Lee, 2025; Price et al., 2025).

CONCLUSIONS

This study evaluated the practice of "Living Laboratory" and verified that in Poza Honda's wildlife, regenerative tourism can be strategically integrated with community biocommerce, which became a driving force behind building socio-environmental resilience.

The results of the study showed that the ecological characterization of the area provided a basis and successful intervention strategy employing analog forestry as an active restoration methodology and the social economy as a value transfer mechanism. Biotrade enabled 622 direct beneficiaries to diversify their sources of income when the local proximity economy was a little stronger and no longer vulnerable to external shocks.

We conclude that, for effective regeneration, the destination needs not only low-impact

activities such as hiking and kayaking. The activities themselves must be productive processes that actively restore the ecosystem, for example, agroforestry systems that have already been introduced.

In the end, true socio-environmental resilience in Poza Honda was achieved through two means. First, specific groups (women, youth) were economically empowered and this was combined with inclusive governance at the overall level, turning passive sustainable development into continuous regenerative action.

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