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Conciliating conservation and development in an Amazonian Biosphere Reserve, Ecuador?

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Abstract

Biosphere reserves are protected areas with extraordinary natural and cultural values, conceived as places for reconciliation between conservation and development. The Sumaco Biosphere Reserve (SBR), located in the Northern Ecuadorian Amazon basin is the home of local indigenous communities which have lived in this area for centuries carrying out different subsistence activities (e.g. shifting cultivation, hunting, fishing, and home gardening). During the past decades, tourism initiatives have been implemented as strategies to promote environmental conservation and socio-economic development. In this research, the principal aspects of the management and governance of tourism was examined, as well as its contribution to biodiversity conservation and development. In-depth semi-structured interviews were used to get qualitative information from the main stakeholders. The study shows that tourism is perceived as an important sustainable alternative to mining, oil extraction and hydroelectric projects, which are currently seen as the main threats to conservation in the area. However, tourism in the Sumaco area also faces some problems, which are related to the lack of adequate management and governance strategies, the worst among them being illegality and informality triggering uncontrolled competition, lowering of prices, and decrease in the quality of services. Altogether, these factors could ultimately lead to the overall decline of the destination. To improve the sustainable development of tourism, more efforts on coordination between different sectors (e.g. environment, mining and oil, and tourism) and levels of governments (local, regional, and national) are needed.

Zusammenfassung

Biosphärenreservate sind geschützte Gebiete mit außergewöhnlich hohen natürlichen und kulturellen Werten, die als Orte des Ausgleichs zwischen Naturschutz und Entwicklung konzipiert sind. Das Sumaco Biosphärenreservat im nördlichen Amazonasbecken in Ecuador ist die Heimat lokaler indigener Gemeinschaften, die in dieser Region bereits seit Jahrhunderten leben und Subsistenzwirtschaft auf unterschiedliche Art und Weise betreiben (Wanderfeldbau, Jagd, Fischerei und Gartenbau). In den vergangenen Jahrzehnten wurden Tourismusaktivitäten gefördert, um Naturschutz und sozialwirtschaftliche Entwicklung voranzutreiben. In dieser Forschungsarbeit wurden die wichtigsten Elemente von Tourismus-Management und -governance sowie ihr Beitrag zu Biodiversitätsschutz und Entwicklung untersucht. Halbstrukturierte Interviews wurden durchgeführt, um qualitative Informationen von den wichtigsten Stakeholdern zu erhalten. Die Studie zeigt, dass Tourismus als wichtige nachhaltige Alternative zu Bergbau, Ölförderung und hydroelektrischen Projekten wahrgenommen

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wird, wobei letztere zurzeit als größte Gefahren für den Naturschutz in der Region gesehen werden. Allerdings weist der Tourismus in der Sumaco-Region auch Probleme auf, die mit dem Fehlen angepasster Management- und Führungsstrategien in Verbindung stehen. Die gravierendsten Probleme sind Illegalität und Informalität, die einen unkontrollierten Wettbewerb, Preisverfall und eine Abnahme der Service-Qualität auslösen. Insgesamt könnten diese Faktoren letztlich zu einem Verfall der gesamten Destination führen. Um die nachhaltige Tourismusedwicklung zu verbessern, sind größere Anstrengungen in der Koordination der verschiedenen Sektoren (z.B. Umwelt, Bergbau, Öl und Tourismus) und Regierungsebenen (lokal, regional und national) vonnöten.

Keywords Ecuador, Amazonia, protected areas, conservation, development, tourism

1. Introduction

Tropical ecosystems like Sumaco, located in the Ecuadorian Amazon basin, could be ideal places for the local development of tourism and for the maintenance of biodiverse areas. Various tourism activities have been developed in the region since the 1980s with a moderate increase in tourism in the area (Rojas López 2005). Since 2008, with the improvement of highways in the area, an important increase of domestic tourism has occurred, growing from more than 50,000 tourists in 2008 to more than 140,000 tourists in 2014. At the same time, some mining and oil projects have been promoted by the national government in the region, which could menace further development of tourism in the area. This situation leads to an incompatibility between national interests (the central government) through extractive activities and local interests (residents of Sumaco Biosphere Reserve, SBR and local governments) depending on activities like tourism. Moreover, the national government is nowadays promoting Ecuador as a green tourism destination. The area of Sumaco (Tena) is one of the most visited areas in the country for bird watching, trekking, rafting and different activities in the jungle (e.g. Möller-Holtkamp 2004). Since colonial times, the region has been experiencing a process of natural resource extraction with different exploitation products. A major extraction process began in the 1970s with the oil boom and the consequent settlement and increase of the agricultural frontier (Izko 2012). At the moment, Ecuador is facing new development strategies based on a primary export model that includes the reinforcement of oil production, mining and agricultural exports (Villalba 2013). In the following paper, an analysis about the management and governance of tourism in the Sumaco Biosphere Reserve is presented and its main implications on the conservation and socio-economic development are evaluated.

2. Theoretical framework

The creation of protected areas (PAs) is an attempt of humanity to conserve significant places of cultural and ecological importance. Yellowstone and Royal parks in the USA and in Australia were the first modern protected areas established in the 19th century (Reyers 2013). The concept of PAs constituted a further step in the environmental arena (McNeely 2008). Over time, reasons for the creation of PAs have become diverse, such as game species in colonial Africa, the protection of wild landscapes in North America, sacred places, sources of food and other natural resources, recreation, and esthetic values (Reyers 2013; Boucher et al. 2013). Nature conservation *per se* is a recent approach for the creation of PAs based on the idea that they should to a great extent be free of human presence (Boucher et al. 2013). Nevertheless, this paradigm has evolved to a "multiple uses" concept, which includes human presence within PAs, as the Biosphere Reserve concept (Palomo et al. 2014). Currently, there is a broader array of PAs from locally managed fishing reserves to landscapes where people intend to balance conservation and development (Boucher et al. 2013).

Today, 13% of terrestrial ecosystems and almost 1.5% of marine ecosystems are represented in PAs worldwide (Boucher et al. 2013). The number has been rapidly growing in the last decades: from around 10,000 protected areas in the 1950s to more than 130,000 in the present (IUCN and UNEP-WCMC 2012). This growth is a response to the global environmental awareness and also the current pressures upon the remnant natural forests in the world (Reyers 2013; Stoll-Kleemann 2010). However, the origin and the concept itself are criticized because its implementation is considered as an imposition in favor of the enjoyment of some elites or in many cases even as a strategy against indigenous people (Jacoby 2001). Moreover, despite the

change of paradigm of PAs to be more inclusive and participatory areas, there is still some skepticism about the genuine contribution to the development of local communities living there (*Bravo and Moreano 2015*). Nevertheless, the expansion of nature-based tourism (e.g. ecotourism) in the last decades has been considered a substantial contribution to the improvement of well-being of local people, particularly for those living in and around PAs, which at the same time can help to achieve the objectives of conservation (*Ferreira 2004; Eagles and McCool 2003*). But, there are some obstacles to deal with. The major issues affecting tourism in PAs are political (e.g. land rights, government policies), economic (e.g. economic downturns, significant currency fluctuations, access to new markets, welfare structures), infrastructure related (e.g. construction of access roads, tourist accommodation and recreation facilities), technological (e.g. increased access to Internet resources and online booking systems, sophisticated marketing techniques), demographic (e.g. fluctuation in visitor numbers, population density in protected area surroundings), and environmental/ecological (e.g. floods, droughts, species extinction). Definitely tourism is a factor of change for the respective host destination, both in social and economic terms. Local people are often excluded, except as guides, waitresses, and taxi drivers. This exclusion is typically associated with a loss of rights, disruptions of traditional agriculture and the generation of poverty (*Strickland-Munro et al. 2010*).

3. Methodology

In-depth semi-structured interviews were realized to get qualitative information from the main stakeholders working directly or indirectly within the tourism and conservation sectors. The interviewees were chosen using the snowball sampling method. This method consists in letting the sample merge through a process of reference from one person to the other until a theoretical saturation is achieved (*Denscombe 2007*). A total of 79 semi-structured interviews were conducted. The interviews (30-60 minutes) were taped and transcribed for further analysis. The program *ATLAS.ti* was used for qualitative analysis taking into consideration a content analysis using codes and quotations related with the proposed objectives. The interviews were held in Sumaco Biosphere Reserve in two phases: July-September 2010 and 2011. Surveys were also applied to residents, but for this short contribution, the results presented below correspond

exclusively to the qualitative analysis. Further information regarding the quantitative analysis can be obtained from the author.

4. Main findings

Five categories of analysis were determined based on the main objectives of the study: environmental, socio-cultural, economic, management, and governance. From the environmental point of view, many of the residents are aware of the ecological problems, mainly linked with the contamination of water resources. Such pollution imposes risks to the health of both, residents and tourists. Moreover, deforestation in combination with illegal logging and mining activities is one of the main threats in Sumaco, not only for tourism but also for other activities like agriculture. Furthermore, there are conflicts of land use between different sectors, where the places dedicated to tourism and mining activities are in many cases the same. As one tour operator said: "well-conserved nature is the base for tourism in Sumaco, but when the forest is destroyed or there is noise and pollution, tourism will be gone". In terms of sociocultural factors, a significant portion of residents are indigenous communities living in the forest. Many of these communities manage tourism operations. Unfortunately, there is an absence of environmental awareness. Development logic based on subsistence and usage is present, as one of the residents said "use it today and do not worry about tomorrow". In many cases tourism has been implemented by NGOs or the government and communities are not fully empowered. In this context, tourism services offered by residents have, in the majority of the cases, low quality standards and are targeted on a market segment consisting of tourists with a low budget. Thus, from an economic perspective, the community revenues obtained from tourism are generally only a small percentage of the total tourism market. An additional concern are the temporary and illegal tourism activities, which are often the norm: taxi drivers who offer tours without being in possession of permits, unregistered houses that offer rooms for tourists, tourist boat owners, tour guides and even large tourist companies that operate without legal licenses. This situation inevitably leads to a decrease of the quality of services, an uncontrolled increase in businesses, a consequent dumping of prices and the overall decline of the destination. On the contrary, the amount of money received from other economic activities (e.g. mining or oil extraction) is larger. As one

community-based tourism member said: “in one day I can get 500 USD collecting gold while with tourism I can get only 100 USD”.

In the current situation, there are still some management aspects to be solved in coordination with all stakeholders. For many residents, planning and regulation are key issues. One hotel owner said: “illegal logging is an everyday situation, authorities know about it, but they are not controlling”. There are also barriers of communication and articulation between residents and the government in Quito. As one community member stated: “It does not matter if we want to develop tourism in the area, because in the main quarters of government in Quito they are taking decision to start with mining or oil extraction projects”. This situation reveals the exclusion of local communities by the national government. The argument is based on the progress and development logic. The briefly described situation could mean fewer tourists in the middle and long term, more environmental degradation and less economic benefits for residents. In this context, there is a serious conflict between development and conservation, but not only within the tourism sector but also between different activities: mining, oil extraction and agriculture.

5. Some Conclusions

In theory, tourism is an activity that could be developed in accordance with conservation and development goals in a biosphere reserve. Tourism should be an important sustainable alternative to mining, oil extraction and hydroelectric projects, which are currently national projects, intended to improve socio-economic development in the area. However, tourism itself has some troubles regarding the adequate management of the activity. The money obtained from extractive activities mainly goes to the local population through infrastructure building (high schools, highways, hospitals, etc.), while the economic benefits obtained from tourism sometimes are less than the benefits derived from working in these industries.

With the current progress model implemented in Ecuador it is difficult to reconcile conservation and development. Nature is not only the base for the development of tourism but also for extractive activities. Nowadays there is a severe contradiction between nature conservation and socio-economic development. There is a need to encourage and ensure integrated

planning and coordination, not only within the tourism sector but also with respect to other industries like mining and agriculture at different stages of government: locally, regionally, and nationally. For this purpose, a comprehensive analysis of the different economic activities and scenarios performed in the area is required.

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