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Reconciling conservation and local sustainable development: A case study on ecotourism alternatives from Los Tuxtlas Biosphere Reserve, Veracruz, Mexico

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Introduction: The Los Tuxtlas Biosphere Reserve (LTBR)

Located in the eastern Mexican State of Veracruz the LTBR is a geologically and ecologically diverse area, associated with steep altitudinal gradients (from 0 to 1.720 m a.s.l), the presence of ca. 300 inactive volcanoes and maritime influences from the Gulf of Mexico (Figure 1). It is one in five ecological hotspots in Mexico. Despite being located between two important poles of economical activity, the Harbour City of Veracruz and the conurbation of Coatzacoalcos-Minatitlán, the centre of the Mexican oil industry, it remains an economically marginal region, which has undergone enormous socio-ecological changes in the last 60 years. Among other important drivers has been the decision of the state to redistribute land to local indigenous and immigrated landless peasants to found agricultural communities (so-called ejidos under collective land tenure) and colonies (under private land tenure) in the spirit of the agrarian reform (Paré & Fuentes, 2007). Together with the development of private cattle ranching, this has led to the loss of ca. 85% of the original forest cover (Dirzo & García, 1992), but failed to significantly raise the living standards of most of the local population. Conservation efforts since the 1980s have had in substantial successes, though restrictions to resource use are often negatively perceived by the local population (Durand Smith & Ruiz Cedillo, 2009). In 2006, the area was designated UNESCO Biosphere Reserve, a protected area concept, which in particular since the 1990s seeks to reconcile the multiple use of natural resources with conservation goals, while fostering local participation (Figure 1). The process of designation of the LTBR was associated with land expropriation, which significantly affected the local cattle ranchers and timber industry and reduced employment (Viñas Oliva, 2010). Local development alternatives centred on ecotourism have been launched to provide new sustainable development opportunities, and thereby foster environmental awareness and improve acceptance of conservation measures (Díaz Carrión, 2010).

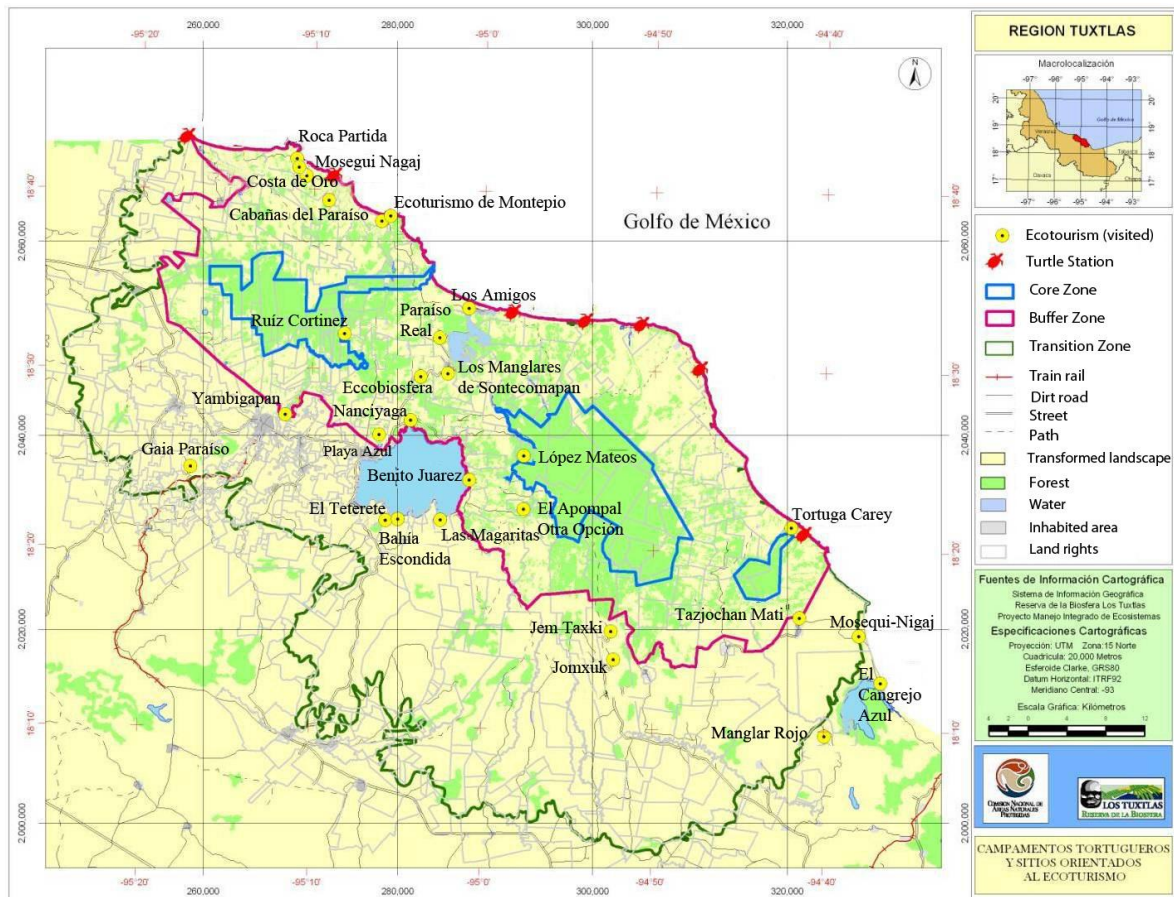


Figure 1: Los Tuxtlas BR and ecotouristic sites analysed (Source: INEGI, CONANP and fieldwork)

Objectives and Methods

We present a case study on the possible impacts of ecotourism on local perception of the LTBR. Drawing on an empirical social sciences approach, three research questions were examined:

1. *what kind of ecotourism initiatives have been developed in the LTBR so far?*
2. *is support from public institutions to ecotourism initiatives effective?*
3. *do ecotourism initiatives effectively help to change residents' attitudes towards the LTBR and enhance conservation efforts?*

To address these issues, 30 ecotourism projects were visited (Figure 1). 20 interviews were carried out among ecotourism business and another 15 interviews among tourism experts from governmental institutions and non-governmental organisations. Interviews were recorded, transcribed *verbatim* and coded following accepted procedures in qualitative content analysis methods (Flick, 2007). Coding and analysis of the interview contents was processed using the software Atlas.ti (www.atlasti.de).

Main Results and Discussion

1. Ecotourism activities in LTBR

There exist more than 30 ecotourism projects in LTBR located around the Catemaco lake, the coast and attractive spots in the mountain region, such as waterfalls or caves (Figure 1). Ecotourism projects can be classified in collectively-run projects and private projects. The first category involves or involved the whole village in the planning process of the project, receiving governmental funds. The groups applied to funds at the BR management, under the terms of affiliation to a marginalised indigenous group to the Commission for the development of indigenous people (CDI). Private projects cannot receive any of these governmental funds. In this study more collectively run projects (21) than private projects (13) were analysed reflecting the current situation in LTBR.

2. Obstacles to the development of the ecotourism in the LTBR

A set of structural problems affect ecotourism projects in the research region. Firstly, economic problems result from a marked seasonality of tourism demand in the area, with tourist visits being largely constrained through the rain season and hurricanes. The predominance of casual visits and short stays (1-2 nights) does not guarantee a secured visitor flow. Financial constrains, (e.g. obtaining a start capital and bridging the low season) and a lack of business management and marketing skills reduces operators' capacity to attract international tourism. Finally, organisational issues in collective project management affect the overall effectiveness of ecotourism projects.

3. Local perception and acceptance of conservation vs. conservation management

The main research findings of the present study is that general acceptance of nature conservation is not necessarily related to acceptance of the LTBR management structure and measures. Comparable to the study of Durand (Durand 2003: 388), acceptance of nature conservation *per se* is widely spread in ecotourism projects in our case study region. Awareness among ecotourism for nature conservation is raised due to the imperative of offering "pristine" nature to the visiting tourists. This is enhanced by advanced training organised inter alia by the LTBR. However, the acceptance of the governmental management structure is low because the interviewees perceive few effective conservation measures initiated by the LTBR. Additionally, financial and organisational constraints of ecotourism projects result in an individualisation and decreasing members in collective ecotourism initiatives fostered by the LTBR. Consequently, less people are engaged in nature conservation. This jeopardizes the awareness-raising process of local people.

4. Influence of public funding of ecotourism initiatives on local acceptance of the LTBR

Access to effective mechanisms of public funding plays a key role in the local perception and acceptance of the LTBR among ecotourism operators. On the one hand, public funding distributed from the LTBR for collectively managed projects, which foster nature-based tourism is overall perceived positively. On the other, the difficult application process that operators need to follow creates significant obstacles and leads to few applications being successful. This causes resentment and conflict and in turn exacerbates negative attitudes towards the LTBR.

Access to secure and diversified financing sources play a key role in the long-term viability of ecotourism initiatives. In the absence of public support ecotourism projects risk bankruptcy. However, public financial support, if not complemented and ultimately replaced by successful alternative income sources may result in economic dependency of the tour operators. Mutual trust is key in the establishment of good working relationships between ecotourism operators and LTBR staff. Thus, current lack of transparency in information, communication and financing processes weakens the acceptance by ecotourism operators for the LTBR.

Conclusions and Outlook

Successful nature conservation depends largely on the support of local residents. This is especially important in the study region, which has historically significantly been affected by intricate changes in land tenure, including expropriation. Trust and a good information policy from the LTBR are necessary for the prosperous implementation of economic alternatives such as ecotourism. Public support has allowed some progress in the quality and quantity of ecotourism projects, despite significant obstacles to the overall expansion of the sector in the region.

Promotion of ecotourism has improved local environmental awareness and the acceptance of LTBR, in particular when this contributed to improve local livelihoods over the long term. In the contrary, lack of transparency, inefficient communication and financial problems decrease the acceptance and compliance with conservation measures, especially when these are associated with reinforced resource restrictions and more demanding environmental requirements. Securing local micro-financing schemes and income diversification based on nature-based tourism activities and products as well as further environmental education of local people is key.

References

- Díaz Carrión, IA 2010, Ecoturismo y Género en la Reserva de la Biosfera de Los Tuxtlas. In: PASOS Revista de Turismo y Patrimonio Cultural 8 (1): 151–165.
- Dirzo, R & García MC 1992, Rates of deforestation in Los Tuxtlas, a Neotropical area in Southeast Mexico. *Conservation Biology* 6 (1): 84–90.
- Durand Smith, ML & Ruiz Cedillo, J 2009, Estaciones biológicas y participación social. La experiencia de la Universidad nacional autónoma de México en los Tuxtlas, Veracruz, México, *Ambiente & Sociedades* XII(2), 325-340.
- Paré, L & Fuentes, T 2007, *Gobernanza ambiental y políticas públicas en áreas naturales protegidas. Lecciones desde los Tuxtlas*, Universidad Nacional Autónoma de México, Instituto de Investigaciones Sociales, México, D.F.
- Flick, U, 2007, *Qualitative Sozialforschung. Eine Einführung*. Reinbek bei Hamburg: Rowohlt-Taschenbuch-Verlag.

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