

Characteristics of Ethical Ecotourism in Mexico's Ría Celestún Biosphere Reserve

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This paper aims to draw attention to the urgent need to overcome the conflict between the value of wildlife and humans in the way we manage tourism, especially in so-called “natura protected areas”. To explore this conflict, I explore the pursuit of ecotourism in the Ría Celestún Biosphere Reserve (RBRC), one of Mexico's Natural Protected Areas (NPAs). Ecotourism practices contribute to fostering both social justice (human livelihoods) and ecological justice (rights, agency, and well-being of nonhumans and ecosystems) and can mitigate conflicts between the value of humans, nonhumans, and the environment. But certain conditions, identified in this paper, must be met in order for ecotourism to proceed ethically.

In order to analyze whether the practice of ecotourism in NPAs such as RBRC is ethical, it is necessary to carry out a case-by-case analysis, since the contextual, social and legal factors in each case are different. An evaluation of each NPA is required to determine whether ecotourism activities should be carried out or not.

The reason for choosing the RBRC is because Mexico is a megadiverse country that has 203 NPAs¹ and Celestún is a reflection of the country's wealth of natural resources and beauty, as it has ecosystems of mangroves, islands of vegetation, coastal dunes, savannahs, and lowland flooded forests.² In addition to having a great variety of flora and fauna, its main attraction is the pink or Caribbean flamingo, as well as other endemic species. The RBRC was created in 2000 in the municipalities of Calkini, Celestún, Maxcanu, Hunucma, and Halacho in the states of Campeche and Yucatan; it has an area of 81,482.33 hectares. It has two international designations as it is considered both a wetland of international importance belonging to the RAMSAR-1333 site (wetland protected by the Convention on Wetlands of International Importance) and is part of the Man and the Biosphere Programme of the United Nations Educational, Scientific and Cultural Organization (UNESCO).³

Due to the aforementioned wealth of wildlife and re-

sources, and the ethical and legal requirement to conserve it, it is necessary to reflect on whether ecotourism activities should be allowed to continue to be carried out in the RBRC and under what conditions and guiding values. Ecotourism could help protect biodiversity, improve the local economy of the inhabitants, generate resources to continue protecting it, and generate environmental awareness in tourists; thus, contributing to achieving social and ecological justice without having to choose among human, nonhuman, and environmental well-being.

What is Ecotourism?

It is not the aim of the article to address competing conceptions of ecotourism; however, I acknowledge, as noted by Donohoe and Needham, that there is confusion about its meaning and little consensus among experts, which causes difficulties for managers and planners and contributes to an operational confusion that leads to a crisis of legitimacy in the industry.⁴ In my opinion, this is a problem because the definition can be so vague that it does not provide adequate guidance on conservation or the importance of ethical management within NPAs for the benefit of all involved. Because I consider it to be a more complete definition and closer to the objective of this paper to alleviate conflicts of interest, instead of the definition given by the International Ecotourism Society (TIES), I use David A. Fennell's definition of ecotourism. It is a sustainable form of natural resource-based tourism that focuses primarily on experiencing and learning about nature, and that is ethically managed so that it is low-impact, non-consumptive, and locally oriented (control, benefits, and scale). It usually occurs in natural areas and should contribute to the conservation or preservation of such areas.⁵

A commitment to ecotourism requires *active* ecotourism of the continuum on ecotourism paradigms expounded by Mark Orams. Active ecotourism asserts a high level of human responsibility, promoting the idea of our active con-

tribution to the improvement of the natural environment.⁶ On the one hand, I reject conceptions of ecotourism that assert low human responsibility—in which nearly all tourism can be ecotourism—and that ecotourists must merely try to minimize their damage. On the other hand, I reject impossible ecotourism, which implies that tourism is impossible because any type of ecotourism will have a negative effect on the environment. What we seek here are the characteristics of a feasible and mediating ecotourism that allows a coexistence between wildlife and humans through practices of care and harmony in which there is respect for the natural cycles of all ecosystems and that in turn allows a good life for the human communities linked to a protected area, namely residents, laborers, tourism business owners, and visitors.⁷ For the case of RBRC, this includes 6831 human inhabitants. According to the National Institute of Statistics and Geography (INEGI), 25% of the human population lived in extreme poverty, which makes the exploitation of nature without seeking the renewal of what has been destroyed more likely as residents seek expedient solutions to poverty.⁸

The researchers Tiburcio and Cariño point out that ecotourism could theoretically contribute to the fight against biodiversity loss and be an economic alternative for the regions, but in practice its implementation is complex and faces various problems and challenges.⁹ Let's look at the situation of the RBRC.

Is ecotourism in RBRC economically viable and socially equitable?

According to the information provided by Díaz and Pinkus, the RBRC is just one of the examples in which the opening to ecotourism has not represented a substantial change between the economic advantages for the inhabitants, such as environmental conservation.¹⁰ These same authors attribute part of the problem at this NPA to the fact that the management of an ecological reserve and beach tourism are combined. RBRC has at least three cooperatives that provide boat ride services in the estuary, and they sometimes flout certain rules about access to the RBRC. Their consumers do not know that the RBRC is an NPA with certain expectations. For example, since the walks to see the pink flamingo are done as an excursion to their visit to the beach, some tourists do not pay the environmental law tax that is supposed to be levied for their access to the reserve.¹¹ Service providers who comply with the regulations and charge the right of access must charge more than their competitors, which in the long run results in a benefit for the conservation of the NPA by generating resources and keeping an accurate record of the number of visitors so as not to exceed the carrying capacity of the reserve. But they risk losing customers.

As reported by Díaz and Pinkus, the historical economic activities of the local human population were mainly salt extraction and fishing.¹² In Hernández Félix's more recent study on Isla Arena, she finds that fishing is their main eco-

nomically, and highlights that women also participate in various roles such as independent fishermen, merchant fishermen, or workers. The estuary is of ecological, economic, and social importance, especially in times of food scarcity. Other activities reported by Hernández, and carried out by men and women, include the buying and selling of fish and the management of ecotourism centers or restaurants. Women also participate in the production and sale of handicrafts, catalog sales, chicken and red meat, among other goods.¹³

Hiking and bird watching were also carried out at the RBRC, but both projects failed economically and only the boat rides remain.¹⁴

Is ecotourism in RBRC ecologically acceptable?

As arguments in favor of ecotourism, regarding the ecosystems and flora and fauna that make up the RBRC, Pacheco, Lugo, and Domínguez state that in the case of Celestún, Yucatan, 36 years after becoming a pole of attraction for this type of tourism, the influx of visitors has not caused significant damage to the Reserve, since within its extensive area, until now, the construction of tourism infrastructure has not been promoted, as has happened in other parts of the world.¹⁵

Moreover, in a study carried out by Ojeda and collaborators, in which the environmental impact of 25 community ecotourism companies on the coast of Yucatan was analyzed, including four companies from Celestún, it was identified that the main environmental contribution of ecotourism in the region was the reforestation of more than 450 hectares of mangroves that had been affected by two hurricanes in 1988 and 1999.¹⁶

On the other hand, the following environmental problems can be pointed out: the felling of native vegetation; sea cucumber over-fishing,¹⁷ declining populations of aquatic species, modification of freshwater flows, habitat fragmentation, disturbing bird habitats,¹⁸ and inability to manage organic and solid waste pollution. There is also confusion about which institutions oversee managing the resources within the reserves and their objectives, which can sometimes be opposed, such as those that focus on conservation as opposed to projects that generate income for residents.¹⁹

And yet for all these problems, there are mitigation strategies. Hernández Félix identified three conservation strategies in daily activities that help conserve fishing, mangroves, and other resources: 1) Throw the guts of fish, shrimp, or other species into the sea, since it serves as food for other species and prevents worms from generating in the mangrove. 2) Rotation of rivers to let the area rest and allow its recovery and 3) Avoid spearing since it kills most of victims by destroying very juvenile species due to the type of fine mesh that is used. An interesting fact shared by Hernández Félix is that institutions that educate mainly male residents through talks, courses, or workshops find that, in practice, women report taking more actions to conserve. Because of

their networks and organizational capacity, the author classifies women as the priority group for the implementation of conservation programs.²⁰

I end this section with the reflection of Hernández Félix and collaborators who point out that if you want to implement a program for the care of natural resources, it is important to know the ecosystem a priori, the species, the type of activity and the time of year in which the resource is used by the community. This knowledge will give the advantage of generating adequate alternatives that allow conservation without harming the economy of households, helping to minimize the conflicts that exist around the use and management of resources.²¹

Carrying out ecotourism with this in mind will allow us to take small steps to generate ecological justice in Celestún, without detriment to the advancement of human interests and social justice.

Analysis & Recommendations

To analyze what to do in this case, I return to the knowledge and principles that have guided the relationship of indigenous peoples with nature and the scientific knowledge available to seek a balance between the interests of the inhabitants of the NPAs and nature when promoting ecotourism. The practice of ecotourism must guarantee the generation of economic and educational resources that allow human inhabitants to directly benefit, while working to promote respect for nature and its intrinsic value, including through educating tourists.

From the information reviewed on the benefits and harms caused by ecotourism in the RBRC, it can be concluded that there are several areas of opportunity for ecotourism to effectively contribute to ecological and social justice in this NPA. For this reason, and with the aim of ensuring that the ecotourism carried out is ethical and fair—considering the needs of all those involved—the following actions are proposed, which, with their particularities, could be considered as minimum requirements for *ethical* ecotourism:

- Creation of ecotourism projects that safeguard the environmental legislation conserving and protecting natural resources within RBRC without sacrificing humans' pursuit of economic resources that allow the community to improve its quality of life. Benefits of ecotourism must be distributed equitably, in such a way that it contributes to social justice, and not limited to a few.
- Have an up-to-date NPA management program. The participation of the responsible government body, the academic and scientific community of the area to research the area, as well as NGOs is important to provide an analysis of the socio-environmental situation of RBRC. Throughout the process, the consultation and participation of the community

that inhabits the NPA, as well as the inhabitants of the municipalities that are in its area of influence, is essential.

- Create dissemination strategies with information about RBRC so that the general population and potential tourists identify it as a protected area and appreciate its objective is to promote environmental protection and care, highlighting the importance of paying the entrance fee of tourists to generate resources for the conservation of the place and the improvement of the quality of life of the community.
- In NPAs, such as the RBRC where there are beaches and tourists who visit may not be familiar with ecotourism and its principles, it is necessary to educate visitors on the importance of the conservation of natural resources, including the promotion of additional ecotourism activities such as the sighting of species under strict respect for the needs of rest and food. This makes tourists aware of inappropriate behavior during their visit, such as littering, which causes environmental and community damage.
- Develop an adequate waste program that counteracts pollution in the shipping areas, allows proper landfill management; Design a recycling program for the plastic bottles and junk food wrappers that currently pollute the area; Limit the consumption of food and beverages to places designated exclusively for it.
- Identify the causes of the anti-conservation practices carried out by the inhabitants and workers within RBRC and look for alternatives that allow them to obtain economic resources without devastating or plundering protected areas.
- Respect at all times the resting, feeding and reproduction areas of all the nonhuman species that inhabit RBRC, especially flamingos.
- Carry out studies on the carrying capacity of the reserve and from them define the number of visitors it can receive on a daily basis so as not to generate a negative impact.
- Supervise that the collection of fees from all tourists who visit the NPA is carried out, without exception, and keep a record of visitors to monitor that the carrying capacity of the reserve is respected and that there is no overexploitation.
- Identify and implement strategies to reverse the population's tendency to give greater weight to economic benefits despite having training on conservation.
- Take advantage of the current practices of the women of the community for the conservation of the RBRC and include them in the workshops and talks, recognizing their knowledge and capacity for

transformation in the community.

These conditions will be difficult and costly to meet. But they are necessary to balance the interests of humans traveling to NPAs, with the interests of humans living in protected areas, with the value of nonhumans and wildlife within NPAs such as Ria Celestun.

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