

# Stakeholders to the Rescue Biosphere Reserve in the Chilean Andes

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## Introduction

In 2011 the Biosphere Reserve in the Andes Mountain Range in central Chile called *Nevados de Chillán-Laguna del Laja*, which covers approximately 6000 ha. was formally incorporated in the UNESCO Biosphere Network. About 8.000 people live in seven local settlements with one enjoying an important tourism development due to growing accommodations and a skiing resort.

In accordance with the Man and Biosphere Program the Reserve is has three different zones: The Core consisting of three Protected Areas all National Parks, the Buffer Zone: consists of 395.010 ha, which equals 70% of the territory and the Transition Zone where various sustainable activities may be executed covers 73.954 ha. Following the legal framework for Biosphere Reserves a Committee of eight members from the Regional Government is in charge of the management and monitoring responsibilities and additionally a Counsel of 28 public and private stakeholders has the task to supervise the fulfillment of the Management Plan. According to the Regional Government important challenges both in the fields of production, investigation, education, and the environment must be met in the area. In terms of tourism although 800 thousand visitors arrive annually to the region and 57% comes motivated by natural and wilderness attractions, they stay for a short time due to the lack or deficient quality of tourism services and a increase in that number is wished for and declared in the National Tourism Strategy.

A multi-stakeholder approach with particular emphasis on the involvement of local communities were to be implemented that should foster dialogue; integrate cultural and biological diversity, and demonstrate sound sustainable development practices and policies based on research and monitoring; and finally the area should act as a site of excellence for education and training.

Now five years after the declaration, formal public assessment and monitoring of the management efforts hasn't been put in place, hence this presentation of an **Impact Evaluation** that aim to produce an overall evaluative judgment about the significance of the declaration of the Biosphere Reserve in addition to descriptions of possible changes will be reported.

## Method

This inquiry aims to explore observable *changes* in relation to the declared goals or benefits for the Biosphere Reserves it should be a *site of excellence where innovative sustainable development approaches are tested that combine scientific knowledge and governance modalities with a view to reducing the loss of biodiversity, improve*

*livelihoods and promote social, economic and cultural conditions for the sustainability of the environment.*

The theory of change was used to explain how the observed activities could be understood as contributing to a chain of results (short-term outputs, medium-term outcomes) able to produce the ultimate intended or actual impacts. It included positive impacts (which are beneficial) and negative impacts (which are detrimental). While many theories of change are represented as a simple, linear process, most development interventions have complicated and/or complex aspects, which are important to acknowledge and address. (Glouberman and Zimmerman 2002). Accordingly the evaluation distinguished between simple, complicated and complex aspects of *interventions* and their associated Impact focus:

- Simple: 'Known' Standardized – a single way to do it
- Impact focus: did it work or is it still working?
- Complicated: 'Knowable' Adapted – need to do it differently in different settings
- Impact focus: what worked for whom in what ways and in what contexts?
- Complex: 'Unknowable' Adaptive – need to work it out as you go along
- Impact focus: what is working in the current conditions? What is the best way forward at this point in time?

To this end data was gathered from municipalities, park administrators, small and medium tourism services and operators, other local businesses and tourists as well as online advertising, documents from ecotourism students thesis work, interviews with three local tourism operators were conducted.

The stakeholder information was registered counted and organized according to type of stakeholder, type of events and type of participation in the events whether promoter, active or passive assistant. The interviews were recorded, transcribed and coded to categories related to community development, satisfaction with performance from public agencies, nature based tourism and visitor management.

Observant participation was undertaken in local events such as Festivals, Fairs, Community Walks, Sports competitions and Mountain Clean Ups, where videos and recording helped register interactions.

## Findings

Table 1. Chain of Input-Outcomes-Impact Results

DATA SOURCES	Activities	Leadership	Outcomes/ frequency	Impacts (on)
Local Community	Festival for Avellana ( Native tree Nut)	Neighborhood Committee. Municipality	Yearly	· Social, economic and cultural conditions
Local Community	Mountain Clean Up Campaign	Local Environmental NGO	Yearly	· Social, economic and cultural conditions. · Sustainable development
Regional Urban Visitors	Free Guided-Nature walks	Ecotourism Operator	12	· Nature Awareness and Environmental education

DATA SOURCES	Activities	Leadership	Outcomes/ frequency	Impacts (on)
Local Community	Natural Music Festival	Young residents	Yearly	· Social, economic and cultural conditions
Ecotourism Operator	Sustainable infrastructure	1. Manager 2. Director 3. Private person	Operators Office, Science Center, House	· Sustainable development
Local Tourism Branch	Sustainable-Tourism Seminars	Local Tourism Branch	2 cases	· Environmental education. · Sustainable development
Ecotourism Students	Investigations about Ecotourism	University	21 Scientific works	· Scientific knowledge
Ecotourism and Geology Students	Investigations about the Biosphere Reserve	Science Center	19 Scientific works	· Scientific knowledge
Hotel and Cabin Owners	Tourism Quality Scheme	Regional Tourism Agency	20 in process	· Sustainable development
Local Ecotourism Managers	New Ecotourism Operators	Ecotourism Operators	2	· Sustainable development
Small Business owners	Sustainable-Businesses	Young new residents	Coffe Shops. Ski and Bicycle Rentals, Yoga Center, Healthy Foods, Bakery,	· Social, economic and cultural conditions. · Sustainable development
Ecotourism Managers	New Ecotourism Services	Ecotourism Operator Ecotourism Students	Eco-Park, Trekking Routes, Bicycle Routes, Horseback Riding, Bird-watching	· Social, economic and cultural conditions. · Sustainable development
Local Ecotourism Managers/ Parents	Summer camp in the forest	Ecotourism Operator	3 summers	· Nature Awareness and Environmental education
Regional University	Outdoor Fieldtrips	Ecotourism Graduate Program	6 four day field trips a year	· Nature Awareness Environmental and leadership education
Tourists/National Park Manager	Visits to National Park	Ecotourism Operators Tourists	1.843 persons in january-february 2016	· Nature Awareness and Environmental education
Biosphere Management Committee	Meetings	Regional Government	2 yearly	· No impact
Local Tourism Branch	Enforcement of Tourism Standards	Regional Tourism Agency	1	· Negative Impact on · Social, economic and cultural conditions.

## Conclusion: Summary of Research Findings

In terms of categories of stakeholders we found that the “local community” has changed its composition incorporating other components that didn't exist before or didn't play a relevant role, such as:

- Emergence of foreigners who has come to settle in the place
- Professionals who have left their activity to come to live and work in the reserve
- Young students bringing various conservation initiatives
- New institutions or undertakings of a different kind to what was known in the place (an ecologist group; a private research center oriented to the reserve; an eco-park and an alternative school)

Due to the influence of these new actors a set of changes have been detected which are oriented in the sense of developing modalities of tourism which fall within the principles of sustainability and local development brought about by the MAB. This is expressed in events such as:

- Emergence of new activities in the field of nature tourism: Randonnee ski; rackets; Trekking; hiking; horseback riding; etc.
- Initial investigations by graduate students regarding other potentialities of the territory for the realization of Ecotourism (Geotourism; tourism with Magnifier: fungi, mosses, lichens; bird watching and photography of nature, etc.)
- New products and new services such as bicycle rental; Rental of skis, snowshoes; emergence of supermarkets; cafeterias, etc.

It may be relevant to mention that all these changes have not been product of explicit objectives set out in a management plan. In fact, so far there is no management plan for the reserve.

However, these new actors incorporated into the local community, in a conscious or unconscious manner have been invited and have guided its action by the stated objectives and the criteria established for the biosphere reserve that have been pointed out in this paper. These new orientations, not without some resistance though, have been gradually transferred to the original residents.



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