

## Private Protected Areas in Latin America: Between conservation, sustainability goals and economic interests. A review

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### Abstract

Worldwide, but particularly in Latin America, private protected areas (PPAs), including in mountain areas, have become increasingly numerous. In some Latin American countries, PPAs complement the public protected areas to a significant degree. Beneficiaries of these private protection initiatives, which often close gaps in fragmented biomes, may be governments or eco-tourism operators. Drawbacks of PPAs are the lack of clear definitions and ownership, the absence of suitable management, green grabbing, and limited government support. This article gives an overview of PPAs in mountain regions and presents the most important literature published so far.

### Introduction

Worldwide, a trend towards privatization can be observed (Jeanetti 2008). Even in countries with a strong market tradition, many services are being contracted out to the private sector, justifying this development in terms of effectiveness, cost efficiency, and the generally poor performance of public agencies (Donahue 1989; Kramer et al. unpublished). These trends are motivated by the hope that market incentives may reduce costs and encourage innovations. Castree (2008) coined the term *neoliberalization of nature* to refer to the current trend that seeks to apply market forces to natural spaces, demonstrating that the environment does not escape these trends.

Traditionally nature protection, conservation and regional development have been the concern of public authorities (Langholz & Lassoie 2001), as normally the implementation of protected areas needed public financing and was not regarded as a business. However, the privatization trend reached nature conservation in the late 1980s (Holmes 2015). In many countries, private actors declared land as a protected area, bought land to create such sites, or even took over the control of former national parks. Igoe and Brockington (2007) argue that the neo-liberalization of conservation involves the regulation of nature through commodification.

Rivera and Vallejos (2015) showed that one central point of global politics in conservation was the emergence of large non-governmental environmental organizations of global influence, including Conservation International, The Nature Conservancy (TNC), the World Wide Fund for Nature (WWF) and the World Resources Institute (Zimmerer et al. 2004). These new actors in the field of international policy play a key role in conservation and are closely linked with the creation of private parks.

However, the private sector, or public-private partnerships, can offer a number of advantages for protected area operations and management: they can provide financial and technical resources, contribute

to marketing and sustainable self-financing, and bring operational expertise to the competitive industry of international nature tourism.

Furthermore, many studies have demonstrated the private sector's increasing role in biodiversity conservation (Edwards 1995; Merrifield 1996; Krug 2001). Following the recent opening of private protected areas (PPAs) in some states, the commitment by other countries to expand the total combined protected areas in a representative and well-connected manner, as part of the Convention on Biological Diversity's Aichi Target 11, will require the inclusion of a range of protection mechanisms over a variety of tenures, including strengthening the status of protected areas over private land (Woodley et al. 2012).

The aim of this article is to give a critical review of this new kind of protected areas, and to analyse whether the liberal movement of the state towards private initiatives may lead to enhanced conservation and protection of critical biodiversity, labile ecology, increased participation by citizen, and sustainable development. We will look specifically at mountain protected areas in the Latin American context. Mountains are important as ecosystem service providers, are often hotspots of biodiversity, strongly affected by the effects of climate change and globalization, and influenced by the land demands of amenity migrants. They also attract visitors with specific interests in nature, bird watching, hiking, biking, rafting and climbing, among other activities (Viviroli et al. 2011).

This paper seeks to answer the following questions: What is the current state of private conservation in mountain areas? Is it possible to identify global trends in this phenomenon? What are the advantages and disadvantages of this model of conservation in mountain areas?

### Methodology

From a methodological perspective, this article was conceived as a narrative review, that is *“a kind of publication that aims to describe and discuss the state of the science of*



Figure 1 – Countries where Private Protected Areas are found in significant numbers. Data source: IUCN & UNEP-WCMC 2014 *The World Database on Protected Areas* Cambridge, UK: UNEP-WCMC. Modified by the Authors

a specific topic or theme from a theoretical and contextual point of view” (Rother et al. 2007). To achieve this goal, various bibliographic databases, such as the Web of Science, ScienceDirect, Scopus, Google Scholar among others, were considered. The main search strategy was to identify articles which contain primary keywords (Private Protected Areas, nature conservation) and to delimit our search; we drew on the World Database on Protected Areas (IUCN / UNEP 2014), which allowed us to focus on countries where this phenomenon has been already described. Following this strategy, we identified more than 60 studies for this review.

### Definition of PPAs

The term *private protected area*, although increasingly used, still suffers from the lack of a clear and concise definition. The IUCN defines a PPA as “a land parcel of any size that is predominantly managed for biodiversity conservation, protected with or without formal government recognition

and is owned or otherwise secured by individuals, communities, corporations, or non-governmental organizations” (IUCN 2005; Brent 2005).

PPAs are also called Private Reserves, Nature Reserves (for example in Colombia the *Reservas Naturales de la Sociedad Civil* (Society Nature Reserves)) or Ecological Reserves. They are initiated and managed by individuals, corporations and other private bodies. In many cases, the main objective is to preserve biodiversity. However, some have more specific aims, such as to secure the protection of specific endangered species, or of complete habitats, such as the *páramos* (alpine tundra ecosystems) of Colombia. The sizes of PPAs vary from less than 1 ha to several thousand ha.

### State-of-the-art

Among the first authors to recognize private-sector involvement in nature conservation were Alderman (1994) and Langholz (1996). Alderman dealt with the

Table 1 – Selected countries in Latin America which have private protected areas. Source: The Authors

Country	Legal status	Total surface area [ha]	Ownership	For profit	Not for profit	Payment for ecosystem services	Area of PPAs as % of the country's total surface area
Argentina (in the Andes only)	recognition by state, province, commune or NGO	152 247	NGOs, private individuals, firms	yes	yes	no	0.054
Belize	recognition by state	130 663	NGOs	yes	yes	no	5.7
Brazil (in the Mata Atlantica only)	legal basis in 11 federal states	899 471	NGOs, communes, private individuals	yes	yes	no	0.1
Chile	recognition by state, province, commune or NGO	1 651 916	NGOs, communes, persons	yes	yes	no	2.2
Colombia	weak control	25 590	NGOs, private individuals	yes	yes	no	0.02
Costa Rica	legal status	264 228	indigenous communities, private individuals, NGOs, firms	yes	yes	yes	5.19
Guatemala	legal status	48 098	NGOs	no	yes	yes	0.44
Honduras	no legal basis	45 000	NGOs			no	0.4
Mexico	legal basis	404 000	indigenous communities, private individuals, NGOs, firms			no	0.2
Nicaragua	legal status	5 534	NGOs	yes	yes	no	0.04
Panama	no legal basis	40 000	NGOs				0.5
Peru	no legal basis	564 536	NGOs, firms, private individuals	yes	yes	no	0.06
Venezuela	no legal basis	443 000	NGOs	yes	yes	no	0.48

economics and role of privately-owned lands for nature conservation in general, whereas Langholz analysed PPAs in Africa and Latin America. Until then, recognition of the role of PPAs had suffered from sparse data and loose definitions, and the PPAs themselves lacked integration with other protected area networks (Holmes 2013; Stolton et al. 2014; Fitzsimons 2015).

General overviews and thematic focuses were provided by IUCN (2005, 2014), Langholz and Lassoie (2001), Mitchell (2005), Pasquini et al. (2011), and Stolton et al. (2014). Kramer et al. (unpublished) offer a conceptual framework derived from an initial assessment of the strengths and weaknesses of the privately run protected areas. Ladle et al. (2014) formulated key challenges for PPAs.

The Costa Rican Conservation Association (Asociación 2008) and specifically Solano and Chacón (2008) provided overviews on the development of PPAs in Latin America. The first presentations of Latin American PPAs were presented by Swift et al. (1999) and Piskulich (2001). Chacón and Maldonado (2001) compared the legal frameworks in Chile and Costa Rica.

Within their studies of Biosphere Reserves and the Regional Geography of Colombia, Borsdorf, Marchant and others addressed the topic of privately owned protected areas and discussed their legal status (Borsdorf 2011; Borsdorf & Mergili 2011; Borsdorf et al. 2011; Borsdorf et al. 2013; Borsdorf & Marchant 2013a, b; Marchant & Borsdorf 2013; Borsdorf 2016). Initial overviews of the Chilean experience were given by Sepúlveda and García (1997), Maldonado (1999),

and Holmes (2014, 2015). Hora and Marchant (2015) showed how a private park (the Oncol Park) may support the local economy; Sánchez (2016) demonstrated the value of a community-owned protected area to protect ancestral lands. Hora (2017) gives a deeper insight into the goals and management of a family-owned private protected area, the Huilo Huilo Biological Reserve.

### Distribution in Latin America

According to IUCN/UNEP, in 2014 there were PPAs in the following Latin American countries: Mexico, Colombia, Brazil and Chile.

For the present review, other countries with sufficient data available were also taken into account because of their different approaches (SERNANP 2017; Stolton 2014; Solano & Chacón 2005: 3–5). These countries are Belize, Honduras, Guatemala, Costa Rica, Venezuela, Panama, Colombia, Peru and Argentina. Table 1 lists the different countries in Latin America with PPAs.

There is considerable variety between countries with private protection initiatives in terms of the PPAs' history, development, legal status and management. Table 1 gives an overview of the status of PPAs and may serve as the basis for a preliminary classification. Data about their performance in private conservation was obtained for 14 Latin American countries. Small countries like Costa Rica and Belize have more than 5% of their territory under private protected initiatives while others have less than 1% of their territory covered by PPAs. The ownership of the PPAs

lies mainly within non-governmental organizations, or among individuals or indigenous communities.

### PPAs' status and legal rights in Latin America, by country

#### Colombia

Until now, the implementation of PPAs has been a matter for civil society. There are more than 540 private parks covering a total of 70 000 ha, most of them small (Monteferri & Coll 2009).

144 PPAs are organized into a network called the *Asociación Red Colombiana de Reservas Naturales de la Sociedad Civil* (RESNATUR), which was founded in 1993 and is co-financed by the WWF and the Foundation for Higher Education (FES). Of these 144 PPAs, 83 are located in the Andean region and are run mainly by private individuals. They vary in size between 1 and 10 ha. In 2008, through a resolution of the Ministry of the Environment, Housing and Territorial Development, RESNATUR was recognized as the organization that unifies the *Reservas Naturales de la Sociedad Civil* and private conservation efforts (RESNATUR 2016).

#### Chile

Chile is a prominent example of a country with private protected initiatives. Since the transition to democracy at the beginning of the 1990s, there has been huge investment, especially in southern Chile, by foreign and Chilean companies and NGOs. The biggest single PPA was created by the US-American businessman and North Face founder Douglas Tompkins: the 310 992 ha Parque Pumalín in the fjord lands of the Los Lagos region. A survey carried out by Nuñez-Avila et al. (2013) found that there are 308 PPAs in Chile, covering a total of 1 651 916 ha, or 2.1% of Chile's surface area. These PPAs are organized into the *Asociación de Iniciativas de Conservación en Areas Privadas y de Pueblos Originarios de Chile* (ASI Conserva Chile A.G.), an association of owners, holders and users of private lands or of indigenous people in Chile who practise and promote the sustainable exploitation of renewable natural resources, with an emphasis on the conservation and sustainable use of biodiversity. The only way the Chilean government recognizes the PPAs is by their conversion into Nature Sanctuaries. However, there are only 19 Nature Sanctuaries.

The economic interests and ownership vary greatly between the different PPAs in Chile. Owners can be individuals, families, or a foundation linked to just one individual (e.g. Huilo Huilo, Katalapi, Tantauco); other owners are corporations (e.g. Patagonia Sur; Oncol) or NGOs. Furthermore, they vary significantly in terms of their commercial activity, from having virtually no commercial activity (e.g. Tantauco), to functioning as for-profit PPAs (e.g. Huilo Huilo; Patagonia Sur / The Cliffs).

In 2016, a law recognizing the right of conservation was enacted. This is a Chilean law consisting of

the right to preserve the environmental heritage of a property, or certain attributes or functions of the land. This right is freely and voluntarily constituted by the property's owner, the legal benefit of a private individual or legal entity.

This law encourages and makes possible the formalization of private conservation initiatives that complement the role of the state in protecting the natural heritage, especially by helping to cover under-represented ecosystems, mitigating threats, thus helping to protect the biodiversity of the existing protected areas.

#### Costa Rica

Costa Rica has 213 PPAs covering 82 045 ha (Stolton 2014), or more than 1.6% of the country. The country provides good examples of private initiatives in environmental protection in Central America. Through the project *Regenwald für Österreicher*, the people of Austria were able to buy 4 000 ha of rainforest in Costa Rica in order to prevent it from being logged. The initiative aims to maintain biodiversity through the connection of isolated forest areas and to reduce CO<sub>2</sub> in the atmosphere.

#### Mexico

PPAs in Mexico need formal approval by the government after reviewing the proposal. The government is responsible for following up on the implementation of the PPA's Management Plan and granting incentives (Chacón Marín 2005: 3). This is also the case in other Latin American (Guatemala, Costa Rica, Brazil; Chacón 2001). Very important for the formal recognition of a PPA is the existence of a management plan demonstrating the area's biological significance in the context of the National System of Protected Areas, a sound scientific basis, and the participation of all stakeholders. The main actors are land-owners. Non-profit NGOs (mostly land trusts) can propose and manage PPAs or support other land-owners by providing management plans and technical assistance.

It must be pointed out that Mexico also has a variety of private Nature Reserves, which have no government recognition or that of any other relevant organization. The advantage of these reserves is their ability to generate diverse environmental services without having to fulfil any requirements for their creation. The main disadvantage is that their existence depends on the will of the landowner, which is not practical when the priority is to develop stable, long-term conservation programmes (Chacón Marín 2005: 4).

#### Other mountain states of Latin America

Ecuador has 65 private protected forests, legally recognized by the government and managed by the National Corporation of Private Forests (Solano & Chacón 2005: 3–5). In Guatemala, 102 Private Natural Reserves, covering a total of 50 000 ha, have been acknowledged by the Public Authority of Protected Areas (Chacón 2005). The number of PPAs in Venezuela

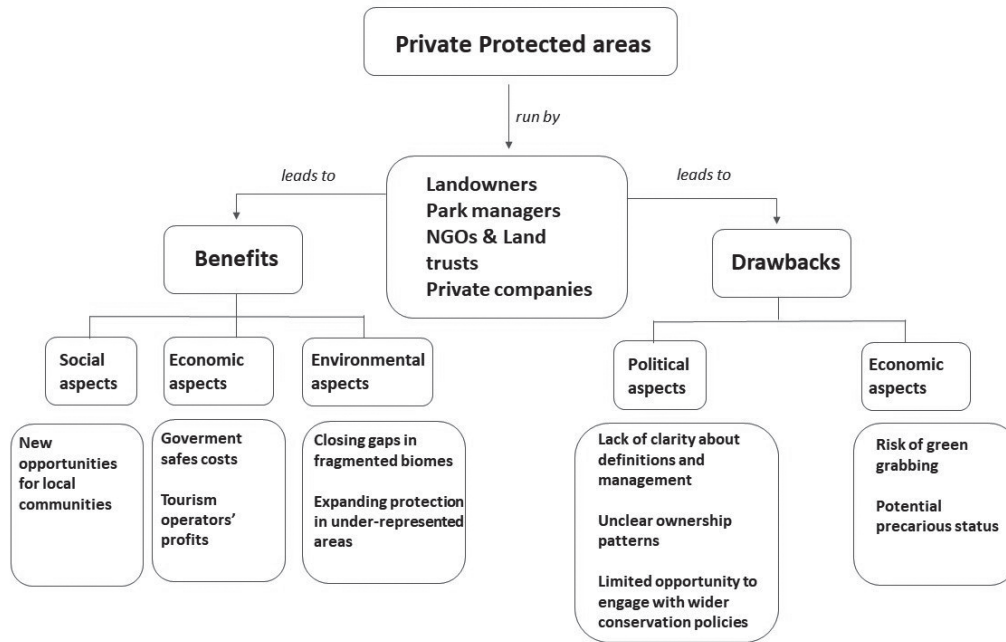


Figure 2 – Benefits and drawbacks of private protected areas. Source: The Authors

is small – just 36 properties affiliated to the association (*Red Venezolana de Areas Privadas para la Conservación de la Naturaleza*). In total, APRINATURA manages an area of 443 000 ha. Like Colombia, Venezuela has no legal framework for PPAs.

Like most Andean countries, Peru recognized the existence of PPAs (which in Peru are called *Private Conservation Areas*) relatively late. In 1997 and 2000, they were included in the legal system. 115 PPAs, covering approximately 357 200 ha, are now recognized (SER-NANP 2017), of which 15 are located in the Andes.

## Benefits and drawbacks of PPAs

### Enhancement of ecosystem services

For environmental services (including carbon fixing; provision of drinking water, hydroelectricity or agricultural services; and species maintenance for pharmaceutical, medicinal, food or cosmetic uses), disaster, erosion and sedimentation prevention payments can be provided by the government, tourism operators, agricultural producers, communities, or national or foreign companies. The government can also allow tax deductions. In the study carried out by Chacón Marín (2005: 2), privately run protected areas were three times less expensive to run than the public protected areas.

Figure 2 gives an overview of the benefits and drawbacks of PPAs. Among the possible beneficiaries are governments, who do not see certain areas as valuable land to be protected. Local populations can profit from PPAs because of increased numbers of tourists, who spend money locally. Agricultural producers in the vicinity of the PPAs can benefit from the increased biodiversity of the surrounding area. The drawbacks are that some PPAs exclude local people

from access to the areas, and the appropriation of the land sometimes appears unfair. Furthermore, these initiatives can come into conflict with development projects carried out by national or regional governments (Morris 2008).

The strengths of PPAs are that they protect biodiversity in areas which are not already under governmental protection but which are under threat from land-use changes, for example forestry and/or large agricultural projects. The weaknesses of PPAs include the lack of official, institutional, recognition in some countries, and conflicts with state bodies that have different goals and interests. A further weakness is that local landholders can be banned from using local resources when PPAs are implemented by external forces, driving them out of their local livelihoods (Figure 2).

PPAs share many functions with governmental protected areas. These include climate regulation, water production, and air and water purification. Reserves often exist as biological islands, protecting the last remnants of rapidly disappearing habitats. Private conservation, as in the case of the Pumalín park, can be seen as temporary bulwarks for threatened lands, protecting them until governments become willing or able to assume responsibility for their protection (Langholz & Lassoie 2001).

The possible disadvantage from an ecological standpoint is the potentially tenuous status of PPAs, as unlike authorized and permanently supported parks, most private reserves are informally protected. They tend to be too small to support megafauna, and for that reason tend to suffer from the fragmentation effects typical of biological islands, such as increased edge effects, introduction of exotic species, and contamination (Noss 1997). However, these effects are

often mitigated by the fact that many PPAs border on national parks.

### Economic considerations

PPAs' economic advantage is their potential profitability, especially when the area focuses on ecotourism. Economic benefit accrues not only to the landowners but also to the governments, as they can avoid costs. PPAs represent the free increase of public protected area systems, being land that governments might otherwise need to purchase and protect. Dependence on ecotourism brings with it an economic risk, because of potential fluctuations in numbers of visitors and seasonality. Furthermore, a conflict between ecological and economic concerns emerges if making a profit is placed over protection. Local tourism is enhanced by the attraction of the PPAs, as operators can organize tours to them (Langholz et al. 2000).

### Social and political issues

Privately owned parks coincide with two important political themes in relation to conservation – devolution of decision making, and public participation in decision making where local resources are concerned. Local residents who own reserves can control the decision making. However, many owners of PPAs, especially the larger ones, do not live close to the areas and manage them from some distance. Another problematic issue is that PPAs tend to increase the imbalance between rich landowners and less affluent smallholders. These scenarios have been observed especially in Sub-Saharan Africa and Latin America (Langholz & Lassoie 2001).

### Conclusion

PPAs play an increasingly important role in worldwide conservation. This review article gave an overview of PPAs and their distribution within Latin America and their specific effects on the countries concerned. PPAs tend to be a feature of the mountain regions of the Americas, but they are also found in Europe, Africa, Asia and Australia. The initiatives differ significantly from country to country, in terms of their legal recognition, ownership, number and size.

Beneficiaries of PPAs include local governments, nearby populations and tourists. From an economic perspective, tourist operators, agricultural producers and ecotourism may also be beneficiaries. From an ecological perspective, advantages of PPAs include closing the gaps in fragmented biomes and expanding protection in under-represented areas. The drawbacks are the lack of a clear, internationally-recognized definition and limited government support.

While PPAs have been widely investigated in some Andean countries, other countries have still to be investigated adequately. So far, research has focused more on documentation and on legal and management issues, but critical research on conflicts between

interested parties and on the additional protective effects on national park networks within individual countries is still to some extent lacking. Challenges for future research should address these issues, but even more important are the need to involve local people, impacts on the millennium sustainability goals, and the improvement of the well-being and quality of life for the inhabitants of PPAs.

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