

# Fostering conservation of key priority sites and rural development in Central America: the role of private protected areas

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With just over half a million square kilometres, the seven countries of Central America host over 8% of the world's biodiversity. Efforts to conserve this natural heritage have been implemented for several years and, indeed, approximately 26% of the region has been designated as a protected area. However, with historically high deforestation rates and a growing fragmentation of landscapes, Central America also faces significant threats for its sustainable development. Accordingly, an emergent approach to foster conservation and sustainable use of the natural resources in the region has been the development of partnerships with private landowners interested in the protection of the resources on their lands through the creation of private protected areas (PPA). Even though there is no exact definition of what a PPA is in Central America and there is no clear data on this matter, at this time, the available information shows that there are about 2,900 landowners that are formally protecting over 509,000 hectares in the region. It is important to point out, as this article does, that there are important differences across the region in regard to the size, legal status, land tenure, official recognition, time frame, land uses, management and type of habitat protected by these areas. Therefore, the article explores the diversity of these efforts, describing briefly their most important characteristics, the available incentives and their impact. The conclusion is that the number of private protected areas is growing in Central America, that they are protecting important natural sites and they are also becoming important new sources of income and development for the rural areas of the region.

**WITH AN AREA** of just over 533,000 km<sup>2</sup>, Central America comprises seven countries (Guatemala, Belize, Honduras, El Salvador, Nicaragua, Costa Rica and Panama). It is a region with an estimated population of 40 million people, a large percentage (over 35%) of whom live below the internationally recognised poverty line of less than \$2 income per day. Central America is also a land of contrasts, for example some countries have 37%, 44%, 58% and even 80% poverty rates, while others 10% and 18% (Population Reference Bureau 2005). Politically, it is an area of the world where in the late 1980s several countries had just emerged from civil wars. Even though the negotiated peace agreements brought peace and political stability to the region, the transition from peace to security has been very slow, as can be seen in many fields. One that has deep social, environmental and economic impacts in the region is the confusing land tenure situation, especially in rural areas where some of the richest biological sites on Earth are located.

From a biodiversity perspective, Central America is a highly diverse region. Its backbone is a mountain range from the north to the south that reaches altitudes of over 4,000 m. It also contains numerous inland valleys, gentle lowlands and hills that blend with the coastal zones. The topography of the region, the fact that this strip of land is bordered by two large oceans and its location as a natural narrow bridge connecting the large continental masses of North and South America have led to an impressive range of biological diversity within its boundaries (PROARCA *et al.* 2003). Consequently, and because of the threats it faces, Central America has been recognised internationally as one of the global hotspots for biodiversity conservation (Myers *et al.* 2000). For example, in just over half-a-million square kilometres, this region contains approximately 8% of the Earth's biodiversity, 20 life zones, 22 ecoregions, more than 350 landscapes, over 20,000 species of flora and almost 3,000 species of vertebrates. Furthermore, its oceans also host an incredible natural richness with over 21 coral species, five of the world's seven species of sea turtles and nine species of mangroves in five genera (PROARCA *et al.* 2003).

However, Central America faces serious threats to its rich natural heritage. In the 1990s its deforestation rate was 1.6% annually (380,000 ha per year) and, even though in the 2000–2005 period it slowed down to about 1.3% (285,000 ha per year) (Mongabay.com 2005), the fact is that at present only about 20% of the original natural vegetation remains (Myers *et al.* 2000).

The most important threat to maintaining its rich natural heritage has been land conversion from forests to agricultural use by private landowners (individuals and corporations) and peasants (Faris, 1999). Indeed, in some countries pristine old-growth forest can only be found within protected areas (PROARCA *et al.* 2003).

### **Protected areas and existing conservation efforts**

The threat of fragmentation of natural habitat as a consequence of the expansion of agriculture, the existence of key natural habitats in the region and the leadership of some individuals, private environmental organisations and governments has resulted in the creation of over 550 protected areas in Central America. These cover approximately 13 million hectares of natural habitat located on both public and private lands (about 26% of the region) (PROARCA *et al.* 2003). Given the fact that in several cases these protected areas are becoming “islands” of natural habitat surrounded by agriculture – cattle grazing, subsistence farming and large monoculture plantations for export – the countries of the region have also been working on the development of the Mesoamerican Biological Corridor (MBC). The MBC stretches from southern Mexico to Panama, covering approximately 150,000 km<sup>2</sup> (53% of this area). It consists of a network of protected areas and buffer zones connected by local biological corridors with different uses and degrees of protection (UNDP/GEF 1999).

*The Campanario Park lies in the humid tropical Pacific lowlands of the Osa Peninsula in Costa Rica.*  
Photo: Carlos M. Chacon.



## **The role of private conservation**

The land tenure situation in Central America is very confusing because the land registry systems of all the countries have recorded land titles for only a small percentage of the territories within each country, mostly in urban areas. However, in Central America there are no large publicly owned territories. Most lands are owned by private individuals, corporations, and local and indigenous communities. In addition, the legal status of those lands is complicated because in some cases a person or community could have a clear land title while in others they only have (or claim to have) possession rights after “occupying” those lands for a number of years. Thus, when dealing with conservation and land use issues, the fact is that the creation of protected areas in Central America always involves the participation of people with property rights or claims over the territories where the protected areas have been or are proposed to be created.

On the other hand, the existing legal framework in the region limits the extent to which land use restrictions on private property can be used to restrict land use changes for conservation purposes. Private property rights are protected even at the constitutional level. Therefore, only some minor land use restrictions on private property are permitted and, in many cases, proper compensation is required by the law or courts to be able to enforce them. In addition, land use restrictions are not attractive from a social point of view because landowners and communities oppose them. Therefore, given the governments’ lack of sufficient funding to compensate private landowners, public authorities in the region must find ways to work with willing private landowners in the conservation of natural habitat.

For these reasons, and the fact that the governments of the region have not had sufficient resources to develop and consolidate their national systems of protected areas, the involvement of environmental NGOs and individuals in this field has been very important over the years. On the one hand, many designated and proposed “public” protected areas contain large private parcels within their boundaries. For example, in Costa Rica 11% of National Parks and 45% of Biological Reserves, National Monuments and Absolute Natural Reserves are still in private hands (MINAE/SINAC 2003). On the other hand, their buffer zones and proposed biological corridors are located mostly on lands owned or occupied by private individuals, indigenous peoples and local communities.

Accordingly, in Central America, several individuals and environmental organisations have been working for many years with the governments of the region on the promotion, designation and management of protected areas. Some examples are Defensores de la Naturaleza and Fundaeco in Guatemala, Belize Audubon Society in Belize, Amitigra in Honduras, Salvanatura in El Salvador and Fundación Cocibolca in Nicaragua (Proyecto para la consolidación del Corredor Biológico Mesoamericano 2003). Furthermore, some NGOs have been working on acquisition of private properties for conservation purposes. In some cases, they maintain ownership and manage those lands as private nature reserves while in others they transfer those lands to the governmental agency in charge of protected areas. Some of the previously mentioned NGOs are also doing this type of work and other examples include TIDE in Belize, the National Parks Foundation, Tropical Science Center and Monteverde Conservation League in Costa Rica, and ANCON in Panama.

## **What is a private protected area (PPA) in Central America?**

Historically, the existence of private landowners in natural areas has been seen as a threat to the conservation of pristine areas. Indeed, as described above, clearing and occupying vacant lands by private individuals has been the driving force for the expansion of agriculture. However, a growing number of private landowners have demonstrated that they can also be good stewards of the resources they own or occupy. Some do it independently, creating their own *de facto* private nature reserves, while others create formal private protected areas (PPA) working with the Governments or the NGOs in the region.

So what is a PPA in Central America? For the purposes of this publication private protected areas have been defined as: *“A protected area managed by non-state entities—including private corporations, associations, individuals and indigenous governments—with legal interest in the land, in whole or in part. The protected area may be managed for private as well as public benefit, and the managing entities must be accountable to formal standards.”*

Looking at this definition, depending on what *“the managing entities must be accountable to formal standards”* means, information about PPAs existing in Central America could vary. In view of that definition of PPAs, there are two highly related issues: the definition of what a “formal standard” is and the source of those standards. If we use the definition of standard as “an acknowledged measure of comparison for quantitative or qualitative value” (Dictionary.com 2005), then in Central America there are different types of standards for PPAs. They have been created by a few of the governments of the region, others by NGOs and some even by the landowners themselves.

In the case of Guatemala, Nicaragua, El Salvador and Costa Rica, the government agency in charge of the creation and management of their national systems of protected areas has issued specific regulations that provide the “formal standards” that private landowners have to meet in order to obtain the official PPA status they recognise. These standards oblige private landowners to comply with a number of requirements, such as the presentation of a detailed biophysical report of the property, legal information (i.e. land title) and a description of the proposed land uses and conservation measures for their properties. In some cases the presentation and approval of a detailed management plan is required to obtain the designation of PPA.

On the other hand, in all of the countries of the region there are networks of Private Nature Reserves that represent a number of landowners in their countries that are protecting all or part of their “reserves”. These NGOs have their own internal regulations/standards for their members and to maintain their membership of the organisation they usually require the landowner to sign an undertaking to conserve some of their land for an undetermined period of time.

The third course has been the definition of standards agreed contractually by two or more landowners. These standards are normally in the form of a conservation easement or similar contract, in which one of the parties is an environmental NGO implementing private lands conservation programmes (known as “land trusts”) and the other is a landowner interested in long-term conservation of all or part of their land. A good example is CEDARENA in Costa Rica and the standards included in every conservation easement contract they sign with private landowners.

Of course, all these types of “standards” vary across the region, and they also vary within each country. Usually the standards established by the governments and NGOs are more detailed than those adopted by the networks mentioned above.

Similarly, being “accountable” to formal standards can also have different meanings as “accountability” could be related to having a system for monitoring and enforcing the “formal standards”. Even though, as described above, there are several types of standards for PPA, and landowners have to comply with them to have their land recognised as a PPA, the fact is that after they have been officially designated as such, governmental agencies and NGOs have limited capacity to follow up in the field on compliance with some of those standards, such as the implementation of the management plan for these areas. Indeed, the management of the natural resources existing in PPAs, in most cases, is not regularly monitored by any independent third party such as an NGO, other landowners or the Government. The legal right to monitor is usually established in the standards, but given the lack of financial or human resources governments and NGOs have, they experience difficulties in carrying out monitoring in the field. However, it is also important to take into consideration that given the voluntary nature of private conservation efforts, it is expected that the landowner will comply with the proposed management plan. In

most cases if landowners do not want to comply, they can notify the government agency or NGO in advance and have the land de-listed as a PPA. Landowners would then be able to implement any activities they want on their land. An exception is conservation easement contracts which are usually in perpetuity and are also binding on subsequent landowners because they “run with the land”.

Therefore, the number and type of PPAs existing in Central America vary widely and there is no clear data on the actual number of PPAs existing in the region.

### Legal framework for official PPAs

As is the case with public protected areas, the legal framework in the countries of Central America that regulates PPAs presents important differences, not least the fact that not all countries have legislation that provides the authority for their governments to designate PPAs. Guatemala, El Salvador, Nicaragua and Costa Rica have this type of legislation and have issued regulations that specify the requirements private landowners have to meet in order to receive the status of PPA. Accordingly, their governments are designating PPAs that are an official category of protected areas within their national systems of protected areas.

Panama also has a provision in its General Law of the Environment that gives its Government this authority; however, the regulations have not been issued. Therefore, there is no specific procedure for the Panamanian government to declare PPAs nor for landowners to follow in order to obtain this type of recognition for their private conservation efforts. Even though no specific legal procedure exists, there are in fact two officially recognised PPAs in Panama: Punta Patiño (1993) and Río Caimito (1998). They were created under a procedure used by the Government for those specific cases given the strong interest shown by the landowners and Government to recognise them as protected areas.

In Belize, some private reserves, such as the Rio Bravo Conservation and Management Area, have official protected area status granted by the government. However, no specific regulations for the creation of PPAs exist yet in the country.

As described above, information about the number of PPAs existing in each country have to be analysed carefully. Some PPAs are officially recognised by their governments, while others are recognised only by local NGOs that have programmes for the promotion and creation of PPAs.

### PPAs in Central America

The best available data for all the countries about the existing number of PPAs in the region is provided by the networks of Private Nature Reserves in each country. However, even this data only includes PPAs that are owned by the members of these networks, who are mostly private

**Table 1.** Official PPAs in Central America.

Management Categories	
Country	Name
Guatemala	Private Natural Reserve
Nicaragua	Private Wild Reserve
Panama	Protected Areas in Private Lands*
El Salvador	Private Natural Areas

\* Even though there is a law that provides the legal framework for the creation of PPAs in Panama, the law has not been regulated, yet. In the other countries, at this time there is no specific law that provides a legal basis for the creation of PPAs by their Governments.

individuals, corporations, NGOs and universities. There are some PPAs that are not owned by members of these networks. Therefore, the data we present below includes most of the lands that have been:

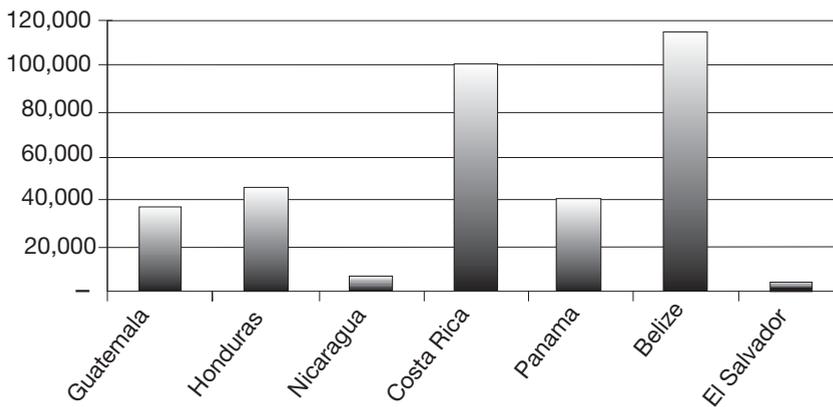
- established officially as PPAs by the Governments of the region;
- protected as *de facto* PPAs recognised by PPA networks but without any formal recognition by Government or other third party; and
- protected by a landowner with the recognition of an NGO member of the networks.

Accordingly, as shown in Figures 1 and 2, there are presently over 350,000 ha protected by about 350 private landowners in the region.

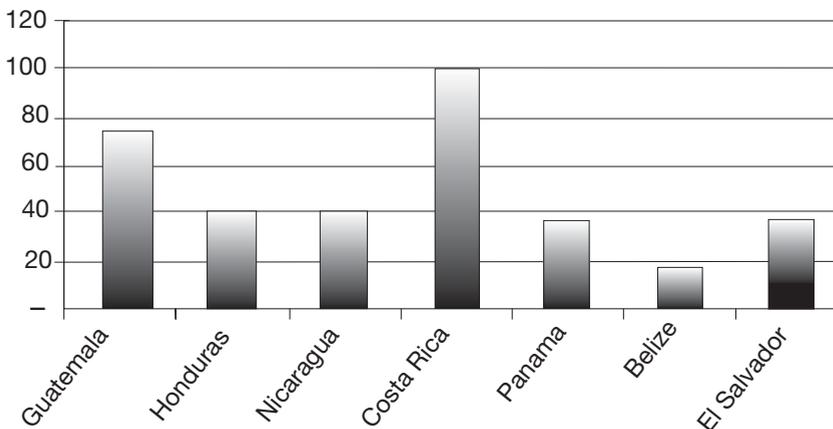
It should be noted that the area of natural habitat supported by PPAs in Central America is hard to determine because:

- the governments grant the designation of PPA to all the land the landowner owns, even if it is just a portion of it that has natural habitat;
- the status of PPA is granted only to the land that will be managed as a protected area, though it could include areas with natural vegetation and also areas with sustainable land uses: for example, in Guatemala many reserves include areas with shade-grown coffee;

**Figure 1.** Hectares protected by PPAs, recognised by Governments or NGOs.



**Figure 2.** Number of PPAs, recognised by Governments or NGOs.



- the designation is given only to the area of the property that has natural habitat and is going to be protected; and
- the designation is given to the areas of the property that will be protected, regardless of their current land use.

The decision about which one of the previous options applies to each PPA in each country depends in many cases on the preference of the landowner.

### **PPAs and their land use**

Activities that can take place within a PPA vary greatly given the differences in existing land uses and the plans of the landowner concerned. In most cases, PPAs owned by individuals and corporations contain several land uses such as agriculture, residential areas or low-impact ecotourism, combined with the protection of specific parts of the property. However, PPAs owned by NGOs are generally used for conservation, environmental education or scientific research purposes only. Some examples are the reserves owned by TIDE in Belize, the Tropical Science Center in Costa Rica, ANCON in Panama or Defensores de la Naturaleza in Guatemala. In most cases, to generate income and as a way of educating the public, NGOs combine these activities with low-impact ecotourism by allowing visitors to use the system of trails they built in their reserves. In some cases, certified sustainable forestry is practiced in a PPA, e.g. in the Rio Bravo PPA in Belize, owned and managed by the local NGO, Programme for Belize.

### **Why do landowners create PPAs? The role of incentives**

Most landowners create PPAs because they strongly believe that private land conservation is important. They enjoy the fact that they contribute to the generation of many environmental benefits for their own families, communities and society in general. They truly believe in the values associated with nature conservation. Even though there are many landowners that feel this way, there are some big steps from believing that nature conservation is important to making the decision to actually protect land and to sign a written commitment to do so. Landowners take much into consideration when making these types of decisions, including:

- their personal understanding of the importance of protecting nature and their potential role as a private landowner;
- their socio-economic profile. In this area, it is very important to understand the way they generate income for themselves and their families and the role their land plays in it;
- the opportunity/cost of implementing conservation practices in their land instead of continuing with their traditional land use practices;
- scientific knowledge about the conservation value of their land;
- technical support available for sustainable development activities; and
- official support/recognition obtained from governmental agencies and/or NGOs.

All these variables are very important and it is actually very difficult to convince a significant number of landowners to commit their lands to a PPA. For this reason, it is very important to create incentives to make the protection of private lands more attractive.

Historically, incentives have existed in Central America for several activities. Tax breaks, reduction of bureaucratic procedures, low interest bank loans, forgiving outstanding loans, provision of services, low electricity or water prices, donation of lands, etc. are examples of some incentives used by governments to promote economic activities. Some well-known examples are incentives given for coffee and banana plantations, rice paddies, cantaloupe, mangoes or watermelon crops, cattle grazing, clothing factories, electronics and even computer chips. Similarly, some of the same incentives have been used or proposed for promoting sustainable land use practices and conservation activities, even though not at the same level.

To date, most of the incentives used in Central America for promoting sustainable land use have been for planting trees, based on the understanding that the greatest threat for sustainable land use in the region was undertaking farming in places more appropriate for conservation or forestry activities. The goal of those incentives (usually tax breaks) was to encourage private landowners to plant trees on land appropriate for forestry but used for other more intensive and non-sustainable agricultural practices, such as cattle grazing. In addition, it was expected that the availability of timber products from these plantations would lower the demand for timber from old-growth, natural forests thus contributing to the conservation of natural habitat. However, even though these incentives have been successful in making afforestation more attractive for investors and landowners (and there are many good examples in the region), the fact is that there have also been some examples where the incentives actually promoted the cutting down of natural forest to develop plantations, and cases of plantations that were not properly designed or managed.

After a couple of decades of encouraging forestry as a way of promoting more sustainable economic activities, some governments in the region realised that it was also important to grant incentives directly to landowners implementing conservation activities on their lands. For this reason, tax breaks were offered to those protecting natural forests, usually in the form of exempting them from paying land taxes. However, in all the countries of the region, land taxes previously have not been paid by landowners in rural areas, and the values of properties are not correctly appraised. Therefore, exempting landowners from paying land taxes has not been an effective incentive.

More recently, a couple of governments have introduced a new, highly attractive mechanism to promote conservation on private lands and the creation of PPAs: payments for environmental services (PES). This type of mechanism acknowledges that the conservation of natural habitat provides many services to society, such as clean water, natural pest control, natural products for cosmetics, medicinal or industrial use, carbon sequestration, and prevention of natural disasters. Landowners implementing conservation practices in their lands are paid for producing those services. This system has been widely implemented in Costa Rica and it is starting in Guatemala. In both cases, landowners receive an annual payment in cash per hectare they conserve, usually for a period of five years. In Costa Rica, over 400,000 ha are protected by more than 7,000 landowners who receive PES to conserve their land (FONAFIFO 2005). In many cases, these payments are becoming a very important source of income for the sustainable development of rural areas.

In addition to tax breaks and PES, the other incentive used in Central America to foster PPAs is providing landowners access to a fast legal procedure to evict squatters, if their lands are ever "invaded" by others.

At present, all the countries in the region are working on the development of PES. A very interesting example is the programme proposed for the Panama Canal Watershed in which willing private owners of properties with natural habitat in the watershed – the same properties that provide the billions of litres of water needed for the transit of every ship from the Pacific Ocean to the Caribbean Sea, or vice versa – would receive a PES for their conservation. This type of programme would guarantee the long term availability of water for the canal, the conservation of key natural habitat, and of course the continuation of the efficient operation of this important route for marine transportation and the world's commerce.

### **Vision and challenges for increasing the number and contribution of PPAs**

Successful conservation work on private lands requires several essential elements in three areas: science, external affairs (policy and legal frameworks, finances and incentives) and communications (PR and training). Together, they create an enabling environment for the creation of PPAs that contributes in a significant way towards the conservation of natural

resources. Accordingly, we must continue working in these areas of expertise, collaborating with governments, NGOs and landowners.

## Conclusion

Central America is one of the most biologically diverse areas in the world. Its growing population faces many challenges and, given its rich natural resources, it is extremely important to promote the sustainable development of the region. Accordingly, taking into consideration the economic, social, and environmental benefits of private land conservation, the creation of PPAs is becoming an important factor to foster rural development. As described above, many PPAs exist in every country of Central America. These examples serve as models to increase the protection of key natural habitat by private landowners. In the future, it is likely that thousands more hectares will be protected by PPAs throughout the region. However, to get there, we still have a lot of work to do to improve the enabling environment for successful designation of PPAs in Central America.

The experience in Central America shows that many landowners are good stewards of the lands they own, and that they are interested in developing effective partnerships with governments and NGOs. For this reason, we all have to continue working together to strengthen efforts to promote the improvement of the quality of life of all people in the region.

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