

# ***The Role of the Private Sector in Protected Area Implementation and Management***

## ***A Conceptual Framework for Analyzing Effectiveness***

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**Preliminary draft: please do not cite without permission**

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### **1. Introduction**

In many aspects of economic activity, there is a trend toward privatization. In countries that traditionally were socialistic or had large government sectors, many government owned industries have been sold to the private sector (De Castro and Uhlenbruck). In other countries that have a strong market tradition, there has been a reexamination of the public provision of services such as waste management and prison operation (Hirsch). Increasingly, these functions are being contracted to the private sector. This transformation has been justified on the basis of effectiveness and cost efficiency (Donahue). It has also been motivated by the generally poor performance of public agencies providing the functions. At their best, the private sector harnesses market incentives to reduce costs and encourage innovations.

The privatization trend is now making its way into nature conservation as well. Conservation privatization can take many forms. It can range from contracts to provide specific services such as food and lodging, to public-private partnerships for park management, to full private ownership and operation. There are several advantages that the private sector can bring to protected area operations and management. Businesses and NGOs can provide financial and

technical resources that would otherwise not be available for conservation. This is particularly important in developing countries where park authorities are often seriously under-funded. Also, concession contracts and associated user fees can contribute to sustainable self-financing of protected areas (World Tourist Organization). Another advantage is that the private sector may be more successful than the public sector in providing the marketing and operational expertise necessary to compete in the highly competitive international nature tourism industry. Although these approaches have advantages in theory, it is important to consider under what conditions they may actually result in improved conservation of protected areas.

The process of developing our understanding of these conditions ultimately requires an analysis of many different examples of private sector conservation. Before conducting extensive analysis, it is useful to frame the problem. In this paper, we present a simple conceptual framework derived from a initial assessment of experiences with private sector conservation experience. We then apply the framework to a set of four case-studies. We then use the framework to suggest needed avenues for further exploration.

## **2. A Conceptual Framework**

### ***Framework Outline***

The first step in developing a conceptual framework involves defining a taxonomy of the different strategies being considered (Salafsky and Margoluis, Chapter xx this volume). In reviewing the privatization literature, a key distinction is between the privatization of ownership versus the privatization of management functions and services (Kikeri et al. 1994). Accordingly,

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as shown in Table 1, we divide organizational effectiveness in implementing a protected area strategy across two dimensions:

1. Ownership of land and resources in the protected area.
2. Ownership of the organization(s) responsible for carrying out management functions and services necessary to establish and operate the protected area.

Within both these categories, there is not a hard and fixed dichotomy between public and private ownership. Instead, ownership can be classified along a spectrum ranging from fully public to fully private ownership as shown in Figure 1. The most traditional arrangement is to have a national, provincial, or local government agency assume ownership, represented by the box on the far left-hand side of the diagram. Moving right along the spectrum, some countries have chosen to create parastatal park authorities that have the advantage of a certain degree of independence from political influence in park management. Moving to the center of the spectrum, the next type is the local stakeholder organization, which in some senses is public (the lowest level of government), but in other senses is private (a small group of individuals). Since stakeholders are typically not homogeneous, in any given site, there may be multiple organizations. Moving still further to the right is the non-profit organization which can range from private foundations established to manage a particular piece of land to large international organizations that purchase huge areas of land and work with governments to provide support activities for park management. Finally, at far right-hand side of the spectrum are private businesses that may purchase land as part of a business venture or provide contract services for a publicly owned park.

In addition to the spectrum from public to private ownership, there is also a size dimension that needs to be considered. Agencies and organizations at each point along the

spectrum can range from small local groups to large international ones. Although there may be some variation in our assessments related to the size of the agency or organization, for the most part, our framework is independent of scale.

The left-hand column of Table 2 outlines major functions involved managing protected areas. Traditional conservation functions include establishing the protected area, demarcating borders, detecting and enforcing violations of protected area regulations, and planning and implementing management activities such as proscribed burns or game culling. Integrated management functions include raising money from government agencies and private foundations, attracting private investments, collecting user fees, maintaining relations with local (e.g., resident populations) and external (e.g., non-resident resource users, conservationists) stakeholder groups, carrying out administrative functions, providing tourist services, and facilitating research.

### **Methods**

In theory, each type of agency or organization has relative strengths and weaknesses in providing each of these types of functions. In the body of Table 2, we outline our initial hypotheses about the relative effectiveness of each agency or organization type in carrying out the various functions. These predictions are based on an initial assessment of an *ad hoc* sample of each type of agency or organization. If the type is thought to generally conduct a given function well, we assigned the appropriate cell a “+” or “+ +”. Similarly, “-” or “- -” rankings indicate a comparative disadvantage. Pluses or minuses thus indicate that the examples we considered supported this hypothesis, or there were interesting exceptions that “proved the rule.” In some cases, we assigned a mixture of pluses and minuses where we could think of counterexamples of positive and negative performance.

### ***Traditional Conservation Functions***

In looking at traditional conservation activities, we hypothesize that state agencies as a rule should have a comparative advantage in establishing reserve areas and enforcing sanctions, largely because these functions stem from policing power which is vested in state organizations. In particular, with regard to park establishment, state agencies have the ability to set aside lands under eminent domain and to help relocate or compensate local residents who bear the costs of protected area development. We also propose that state agencies should in some cases effectively detect violations of protected area rules, but in other cases, may be vulnerable to corruption when, for example, poorly paid park guards “look the other way” at checkpoints. On the negative side, we hypothesize that public agencies should be less efficient at performing specific tasks such as demarcating boundaries and implementing resource management actions, owing in large part to the relatively high costs of public sector employees.

With regard to parastatal organizations, we hypothesize that they should not be very effective at establishing and demarcating protected area boundaries, because it may be difficult for them to overcome stakeholder conflicts. However, they should be relatively effective at the other major traditional conservation functions. This is in large part because they are to some degree buffered from political forces and may be less bureaucratic than their government agency counterparts.

We hypothesize that stakeholder groups might be particularly effective at detecting violations of protected area rules because of their intimate knowledge of the site and the people using it (assuming, of course, that they have a vested interest in the protected area). Furthermore, stakeholder groups might be effective in enforcing sanctions against outsiders, but might be less effective in enforcing sanctions against themselves. They might also have a mixed ability to implement resource management actions depending on their level of organization. On

the negative side, we hypothesize that stakeholder organizations might have difficulty in planning large scale resource management actions. We also assume that they might have extreme difficulty in establishing protected areas since they are typically the people who would have to bear the opportunity costs inherent in setting aside resources (the one exception being game reserves or marine protected areas that can potentially increase harvest rates in adjacent habitat).

We hypothesize that private non-profit organizations might be particularly effective in planning resource management actions owing to their access to trained resource managers. We also propose that because their focus is on conservation, they might be relatively effective in establishing and demarcating protected areas and detecting encroachment. On the other hand, we assumed that non-profits might have difficulty in implementing resource management actions in a cost-effective way and will likely have extreme difficulties in enforcing sanctions because of their lack of political “clout” with local governments.

Finally, we hypothesize that for-profit firms should generally be able to undertake most tasks in an effective and cost-efficient manner. In particular, private firms have a strong motivation to detect encroachments. A key condition behind all of these assessments, however, is that the country or society in which the protected area is being implemented has a tradition of strong and enforceable private property rights. If this assumption does not hold, then it should be difficult for private firms to undertake these functions, including in particular, establishing protected area sites. We hypothesize, however, that for-profit firms will be mixed in their ability to implement resource management actions in that they should have an incentive to carry out actions that affect the resources they care about, but will not have an incentive to carry out actions affecting resources that are not commercially valuable.

### ***Integrated Management Functions***

In looking at integrated management functions, we hypothesize that state agencies should be particularly effective at generating revenue from external donors including especially the multi-lateral institutions and bi-lateral development agencies. State agencies might also be effective in promoting research and in cases where there is not substantial corruption, in collecting user fees. We propose that state agencies are less effective in maintaining relations with stakeholders and in generating investments. State agencies might have particular difficulties in maintaining relations with local stakeholders and in providing administration and tourism services because of their bureaucratic and non-responsive tendencies.

With regard to parastatal organizations, we hypothesize that they will generally be effective at generating all kinds of revenues because of their dual public-private nature. If they are not very bureaucratic, then they may be effective at administration; however, in many cases this assumption may not hold. Like state agencies, we hypothesize that they may have trouble maintaining local stakeholder relations and in providing tourism services.

We hypothesize that stakeholder groups should be very effective at maintaining stakeholder relations for obvious reasons (although this may be problematic if protected area is managed by competing stakeholder groups. Similarly, they could have either a positive or negative ability to collect user fees from themselves. In almost all other management functions, however, we propose that stakeholder groups are not very effective. This is in large part because these types of organizations generally have serious deficits in their management and administrative skills.

We hypothesize that private non-profits should be effective in almost all integrated management functions. In particular, they should be particularly good at getting money from external donors including especially private foundations and in promoting research . Non-profits

may in some cases, have difficulty in collecting user fees.

Finally, we hypothesize that for-profit firms should generally be able to undertake most of the functions in an efficient manner. The major exception is that private firms will generally not be able to raise money from external donors who are unwilling or even legally prohibited from making grants to for-profit entities. For-profit firms may also encounter difficulties in managing stakeholder relations, particularly if the relations do not affect the resource(s) providing the profits. Finally, for-profit firms will likely not make scientific research a major priority.

### **3. Case Studies**

#### ***Parastatal Organization: Administrative Design Management Program of Zambia (ADMADE)***

An example of a parastatal organization with responsibilities for park management is the Administrative Management Design (ADMADE) program in Zambia. The ADMADE program was established in 1988 by the National Parks and Wildlife Services (NPWS) in response to concerns about increasing pressure on the biological resources of the country's national parks, coupled with dissatisfaction from local communities about their lack of benefits from the parks. The program was established following a successful pilot project in the Lower Lupande area with support from the Wildlife Conservation Society.

ADMADE vests the responsibility for the management of wildlife resources in local communities that reside inside of Game Management Areas. In exchange for protecting habitat, communities are allowed to derive revenues from legal harvest of wildlife populations. ADMADE has implemented its activities by appointing NPWS staff as extension officers to advise local communities on their management responsibilities. Local residents are selected by local communities to work as scouts to police the resource. Traditional leaders have helped form

local authorities to manage the resource and determine how to allocate program revenues to support community activities. In addition, a national institute was created to provide capacity building for the local communities and technical services including resource monitoring and computer mapping.

The startup phase of ADMADE has not been without problems. The task of decentralizing wildlife management and facilitating community participation was perhaps larger than the founders recognized. The structures of the local authorities were not well defined, and this led to concerns about community participation and transparency of use of local funds. Reforms have been instituted to address these concerns and new legislation has been passed to give national support to ADMADE and its system of local community participation.

The ADMADE experience supports several of our hypothesis about management functions. ADMADE has been successful in seeking outside sources of revenue, with both USAID and WCS providing substantial funding support. It has improved its abilities at detection, enforcement and planning. While it initially had problems with stakeholder relations (as we hypothesized), it has improved in this area by taking on many of the characteristics of a stakeholder organization through decentralizing much of its decision making to the local level.

***Stakeholder Organization: Crater Mountain Wildlife Management Area***

Crater Mountain Wildlife Management Area (CM-WMA) is located in the highlands of Papua New Guinea (PNG). CM-WMA covers 2600 square kilometers, an area about the size of Rhode Island. The site spans a wide range of habitats including primary forest in lower elevations and alpine scrub and grasslands higher up. These habitats are home to 220 bird species of which 49 are endemic and 84 mammal species, of which 15 are endemic. The WMA is composed of the lands that are customarily owned by residents of several small villages totaling less than 2000

people. Major threats to the WMA include overhunting by local community members, expansion of local agricultural gardens, and industrial logging, mining, and oil drilling. These industrial threats are particularly problematic because the companies that would like to access the natural resources of the WMA are offering the local residents who own these resources relatively large amount of money compared to their current incomes.

To help address these threats, the local community members came together with the Research and Conservation Foundation (RCF) and the Wildlife Conservation Society (WCS), two environmental non-government organizations, to propose the CM-WMA. Since Crater Mountain was the first Wildlife Management Area in the country, they first had to work with the national and provincial government agencies to establish the law. CM-WMA was formally gazetted in 199x, the first such WMA in the country. The WMA is run by management committees from each of the main villages. Management committee members come together each year for an annual meeting at which policies and regulations are discussed and enacted. Each village committee is charged with establishing resource management schemes for their traditional lands. These management actions include setting aside no-hunting conservation zones, regulating what species are protected (for example, some species of birds-of-paradise), and developing eco-enterprises such as nature tourism, research, and handicrafts production.

In looking at our hypotheses regarding traditional conservation functions, although we proposed that stakeholder groups would have trouble establishing protected areas, CM-WMA is one of the interesting exceptions that proves the rule. The local communities were able to establish the WMA in large part because in PNG (as in other Melanesian countries, but unlike almost everywhere else in the world), traditional landowners have constitutionally guaranteed tenure over land and above-ground natural resources. In addition, the communities had major

support from both WCS and RCF, their non-profit organization partners, which enabled them to have a policy voice and develop the legislation required to gazette the WMA. With regard to detecting encroachment and enforcing sanctions, the CM-WMA experience strongly supports our hypothesis. Community members actively patrol their lands and have been able to detect a number of instances of outsiders hunting wildlife. For example, in their report in BCN (1999) the project team writes “Management Committee members from the village of Haia confronted a party of visiting government officials who had (in violation of the WMA laws) used shotguns to kill a cassowary. The Committee members informed the officials that they had broken the laws, confiscated the dead animals, and fined the officials. These actions by local people would have been unthinkable only a few years before and speak volumes about the confidence the project has given the Management Committee members.”

In line with our hypothesis, the community members have, however, had difficulties in enforcing sanctions. For example, the project team writes “A man in Maimafu recently infringed on the law, shooting a Raggiana bird of paradise. The committee summoned him [to a hearing], but he challenged them to take him to the district court rather than their ‘rubbish bush court.’ The committee did not have the money to do that, so they reported the matter to the police but the government did not have the money either.” Likewise, the project team members state “The laws formulated by the management committees are good laws, but enforcement is sometimes queasy because everyone in the area is related to one another. It becomes hard for committee members to take a stand in a decision ruling against a relative, because then his clan members will not stand by him in times when he is in trouble.” Finally, with regard to planning and implementing resource management actions, although the WMA has taken some steps, it has been a great deal of work with at best mixed success.

In looking at our hypotheses regarding integrated management functions, the CM-WMA experience generally supports our predictions. The WMA has received some support from external foundations, but this has only been through its NGO partners. The WMA has raised little or no money from outside investors (save one early and failed venture to build an eco-tourism lodge) and only minimal funds from user fees and local investment – it has been hard for local people to tax themselves. As RCF project team reports, “The community members know that the guesthouse they are building is their own, and yet they will only work on it if they get paid...in part, this attitude comes from hand-out mentality expectations created by the government.” The stakeholder groups in the WMA have had some success in dealing with the government and other external stakeholders (for example, getting the forestry authority to remove the WMA from their logging plans), but this has largely been accomplished by working with RCF and WCS. With regard to local stakeholder relations, the Crater Mountain experience points out the extreme advantages and disadvantages of stakeholder organizations. Within clans and villages, there has been some coordination. WMA management committee members have spent countless hours, however, dealing with inter- and intra- clan conflicts over resources – conflicts that have at time threatened to lead to outright physical violence. Finally, with regard to providing tourism and research services, the WMA project is again an interesting exception that proves the rule. The WMA has been able to set up both eco-tourism and research support services, largely under a major grant to WCS and RCF that was aimed specifically at setting up eco-enterprises. Although these enterprises are owned and operated by the community members, it is overwhelmingly clear that the communities need intensive support from their NGO partners and could not have developed these businesses on their own.

Overall, the CM-WMA experience shows that under the right conditions, local communities can implement conservation areas. However, they will likely require extensive support from both government agencies and civil society institutions.

### ***Private Non-Profit: The Children's Rainforest***

It is generally believed that only the largest organizations, such as national governments, can mobilize sufficient resources to establish and operate large protected areas. This section casts doubt on conventional wisdom by highlighting a particularly large and successful example of private non-profit conservation known as The Children's Rainforest.

Founded in 1986, The Children's Rainforest sits high in the Tilaran Mountains of northwest Costa Rica. More than sixty percent of the reserve is covered in primary rainforest, with the remainder being secondary forest in various stages of regeneration. The reserve is owned and administered by the Monteverde Conservation League (MCL), a 165 member non-profit NGO based in Monteverde. Membership is split roughly evenly between foreigners and Costa Ricans. Although most revenues originally came from international donations, the reserve is slowly moving towards self-sufficiency. According to MCL Director Johnny Rosales, "Since 1995, most of our income has come from domestic sources, especially government incentives and ecotourism" (personal communication with Langholz, April 1998).

With over 22,000 hectares, the reserve is making a substantial contribution to conservation. It is the largest private reserve in Central America, and protects more land than 16 of Costa Rica's national parks. Unlike many national parks, however, The Children's Rainforest continues to expand, using a trust fund specifically earmarked for acquisition of adjacent lands.

The reserve is not only large, but also is well protected. "As a private reserve, we have to provide our own protection. It's a very expensive activity," says Rosales. "Guards. Trucks.

Horses. Paying overtime for guards who spend the night in the reserve. Our protection program costs approximately \$70,000 per year.” This amount comes from the reserve’s total annual budget of between \$250,000 and \$400,000. It supports a staff of eleven in MCL’s protection branch, five of whom are full-time forest guards. With such a large area, a high level of protection is not only expensive, but also necessary. “We are constantly chasing poachers,” says Rosales.

In addition to its sheer size and high level of protection, the reserve contributes to conservation in a variety of other ways. First, MCL has supported numerous research projects in the park. Topics include inventories and natural history studies of flora and fauna, such as frogs, birds, and butterflies. Second, MCL maintains an active reforestation program that promotes windbreaks in adjacent farms and establishment of forest corridors between the reserve and nearby forest patches, for the benefit of seasonal migrants. Third, MCL operates a community outreach and education program. Behind the program is a long-standing policy of allowing local residents free access to the reserve and its facilities. Finally, the reserve contributes to regional conservation goals by enhancing the biological value of adjacent Arenal National Park and the Monteverde Cloudforest Reserve. According to Rosales, “As part of this block, things are much better ecologically, especially for megafauna.” support from both government agencies and civil society institutions.

### ***Private For-Profit: Game Lodges & Ranches in South Africa***

Given its diverse, captivating, and readily observed wildlife populations, it is no surprise that the Republic of South Africa has seen extensive attempts to combine biodiversity protection with financial profit. Abundant land and wildlife have led to establishment of roughly 9,000 privately owned game reserves and game farms, covering some 8 million hectares in South Africa alone

(Wells 1997). A growing number of these private enterprises cater to high end tourists in an effort to integrate ecology with economics.

Perhaps the most notable for-profit example is The Conservation Corporation – Africa (CCA), which develops and sustains wildlife sanctuaries across several countries in southern and eastern Africa. Dedicated to the twin goals of conservation and profit, CCA maintains a thriving network of upscale lodges and reserves catering largely to affluent foreign visitors seeking a traditional African safari-like experience.

While readers may question the motives and conservation track record of the private game ranches, few can doubt the contributions and credibility they have established within the region. As Wells (1997) notes, “even though they consist mostly of a myriad of small operations, these private reserves and ranches are so large in aggregate that they make up an important component of wildlife conservation in South Africa.” South African park officials, in fact, have removed the fences once separating famed Kruger National Park from Ngala and other adjacent private reserves. This decision has expanded the effective size of several contiguous parks, providing additional high quality habitat for wide-ranging species. It has simultaneously augmented the tourism value of the Ngala’s 14,000 hectare private reserve, and others.

According to Borrini-Feyerabend (1996), the agreement provides CCA with exclusive rights for operating tourist activities in that area. In exchange, CCA pays dues to the park, which uses the money for wildlife management, research, educational programs, and community-based projects.

The single largest barrier to establishing a private for-profit conservation is access to land. Unlike national governments, private individuals and groups cannot expropriate land for parks. Furthermore, land prices are prohibitively high when considered on an ecologically meaningful scale. This can lead to establishment of smaller more fragmented conservation areas

that are assembled in a piecemeal manner. Most of Africa's large game ranches have been passed down through family connections over the course of several generations, thus bypassing the need for a major capital outlay. The reputed high profitability of such areas, however, is attracting financial investors (as we hypothesized) who bring sufficient capital to create new reserves, as well as considerable expectations of financial return.

Providing high quality tourism services is a hallmark of private for-profit conservation organizations worldwide, and the standards are especially high in southern Africa. Londolozi, for example, provides air-conditioned chalets, private pools, bars, lounge areas, gift shops, guided walks, and gourmet meals for U.S. \$550-900 per person per night. Ngala offers similar for U.S. \$450-1200 per night, depending on the season and type of accommodations. Others such as Sabi Sabi offer equally luxurious accommodations. The profitability of such ventures remains unknown, partly because as private ventures they are under no obligation to share financial records, and partly because no serious attempt has been made to study them (Wells 1997). As noted in Langholz et al (forthcoming), the conservation community would benefit from detailed investigation into the economic potential and tradeoffs of privately owned protected areas

Policing privately owned for-profit protected areas presents an important dilemma. National governments are hesitant to commit public resources (e.g., park guards) to patrol a private for-profit venture. Yet private guards lack legal authority to arrest poachers and others found on the premises, and many people are uncomfortable with the idea of heavily armed park guards who have no legal authority or law enforcement training. The stakes are especially high given that profitability often depends on the very megafauna that attract poachers. As a result, it is not uncommon for poachers to escape while private park guards summon public authorities

and sit waiting for them to arrive. An interesting compromise occurs when national governments authorize citizens vigilante forces to monitor and report illegal activity within conservation areas, such as Costa Rica's system of COVIRENAs.

Stakeholder relations can be a flashpoint for privately owned for-profit reserves. On one hand their for-profit status leads to creation of high paying and long lasting jobs, which benefit locals (Alderman 1994, Langholz 1996). On the other hand local residents are usually the employees of such ventures, rather than owners, and ecotourism is rife with conservation and moral dilemmas (Brandon 1996). Even in cases where owners are nationals of a given country, they frequently belong to a comparatively wealthy and white minority. Compounding the problem is a phenomenon Brinkate (1996) has documented in South Africa whereby wealthy land owners place lands into conservation status (e.g., Cohen 1995) as a means to avoid land redistribution schemes designed to assist the black majority. h

#### **4. Next Steps**

This chapter has reviewed the role of the private sector in protected area management. Clearly there is an expanding role for the private sector in this arena. What is striking is that variety of forms this involvement can take. We have provided a framework for contemplating the strengths and weaknesses of different organizational types in performing both traditional conservation functions and more integrated conservation functions associated with protected areas. The case studies we have presented suggest that more careful analysis is needed to identify under what conditions the private sector can provide effective and sustainable management.

Whether or not the private sector can effectively enhance protected area implementation and management will depend on key factors and conditions at each site. For example, one critical fact is the security of property rights. Using private organizations to establish or run

protected areas can work well in a country with well established property rights and a strong legal system to enforce violations. Exporting this model to a place like Indonesia where the land is owned by the state or to Papua New Guinea where the land is owned by traditional landowners and cannot be sold is a much more difficult proposition.

**Acknowledgements:** The authors thank Carlos Peres and Berry Spergel for their suggestions during the privatization working group at the Making Parks Work Conference, August 1999.

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**Table 1. Two dimensions of protected area ownership**

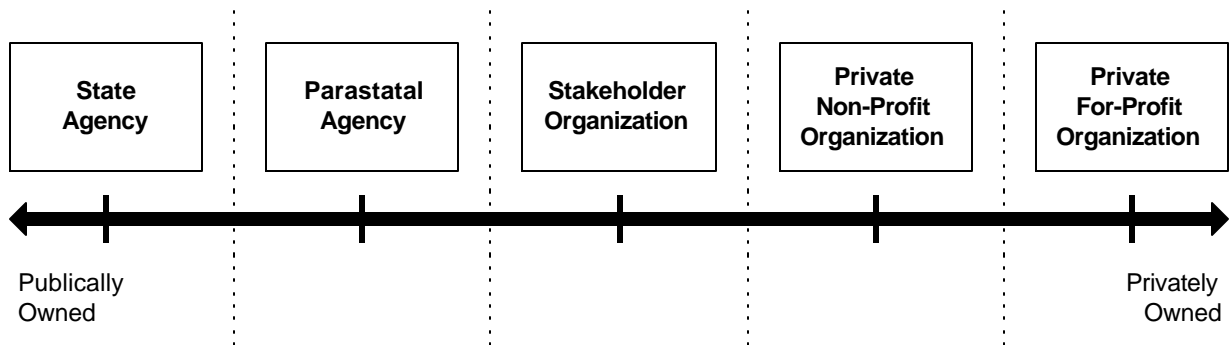
See text for explanation.

	<b>OWNERSHIP OF ORGANIZATION PROVIDING MANAGEMENT FUNCTIONS</b>	
<b>OWNERSHIP OF LAND AND RESOURCES</b>	<b>Public</b>	<b>Private</b>
<b>Public</b>	Traditional national parks	Tourist concessionaires in national parks
<b>Private</b>	Lands bought by NGOs and managed by state agencies	Private safari parks

**Table 2. Summary of Theoretical Strengths and Weaknesses of Different Organizations in Different Protected Area Functions**

<b>FUNCTION</b>	<b>TYPE OF ORGANIZATION</b>				
	<b>State Agency</b>	<b>Parastatal Agency</b>	<b>Stakeholder</b>	<b>Private Non-profit</b>	<b>Private For-profit</b>
<b>Traditional Conservation</b>					
Establishment	++	-	--	+	+/-
Demarcation of boundaries	-	-	+	+	+
Detection of encroachment	+/-	+	++	+	++
Enforcement of sanctions	+	+	+/-	--	+
Planning resource management actions	-	+	-	++	+
Implementing resource mngmt actions	+/-	+	+/-	-	+/-
<b>Integrated Management</b>					
Revenue generation - External donors	++	++	-	++	--
Revenue generation - Investment	-	+	--	+	++
Revenue generation - Internal user fees	+/-	+	+/-	+/-	++
Local stakeholder relations	--	-	++/--	+	+/-
External stakeholder relations	-	+	-	+	+/-
Administration	--	+/-	--	+	++
Tourism services	--	-	-	+	++
Research	+	++	--	++	-

**Figure 1. A Spectrum of Organizations Involved in Implementing Protected Areas**



Examples of each type of organizations include:

- *State Agency* – U.S. Park Service ([www.nps.gov](http://www.nps.gov)); Indonesia PKA ([www.pka.gov.id](http://www.pka.gov.id))
- *Parastatal Agency* – ADMADE Zambia ([www.admade.org.zm](http://www.admade.org.zm))
- *Stakeholder Organization* – Crater Mountain Wildlife Management Area (Papua New Guinea) ([www.bcnet.org/projects/crater97.htm](http://www.bcnet.org/projects/crater97.htm))
- *Private Non-Profit* – The Nature Conservancy ([www.tnc.org](http://www.tnc.org)); Trustees of Reservation (Massachusetts, USA) ([www.thetrustees.org](http://www.thetrustees.org)); Research and Conservation Foundation (Papua New Guinea).
- *Private For-Profit* – xxxxxx