

## COMMENT

### Private protected areas: three key challenges

Private protected areas (PPAs) can be defined as reserves established and managed by non-government entities including civil society organizations, businesses and private individuals. PPAs have several potential advantages over publicly owned and managed reserves: (1) they are a cheaper alternative for states with limited conservation resources, the costs of management, maintenance and protection being paid by landowner; (2) they are often better protected from exploitation; and (3) given the typically high percentage of land under private ownership, there is often scope for PPA expansion. Nevertheless, PPAs do not necessarily represent a universally beneficial solution for conservation. Doubts have been raised about their ability to secure genuine community participation, deal with issues such as natural resource extraction and poaching and, more generally, deliver long-term conservation benefits for species and habitats (Brockington *et al.* 2008).

PPAs do not easily fit into existing protected area categorizations, reserve characteristics and management obligations being dependent upon the details of the national legislative framework under which they are designated. Consequently, there is considerable interest in the efficacy of recent PPA models such as Brazil's Private Patrimony Reserves (*Reserva Particular do Patrimônio Natural* [RPPNs]). RPPNs are a voluntary designation of private land as permanent conservation areas that prohibit extractive activities, but allow non-extractive ones such as ecotourism and education. Responsibility for conservation and management of the reserves remains with the private owner(s). However, RPPNs are overseen by the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA), who approve management plans, verify these are carried out, and who may provide technical support for administration and management (Decreto 5746, Articles 24–26; Presidência da República 2006).

RPPNs are being vigorously promoted in Brazil, and are being touted as potential solutions to diverse conservation challenges including securing sufficient land for species reintroductions/translocations (for example Alagoas Currasaw *Mitu mitu*, golden-headed lion tamarin *Leontopithecus chrysomelas*) and carbon sequestration. Crouzeilles *et al.* (2012) recently suggested that the 'creation of a system of private PAs in Brazil may act as a useful model for extending PA systems internationally'. While we strongly agree that RPPNs have an important role to play in the future development of Brazil's protected area system, there are several significant challenges that need to be overcome if they are to fulfil their potential. Some of these challenges are specific to RPPNs, but the majority apply to PPAs in general.

#### Challenge 1: ensuring that RPPNs contribute to coverage and representation.

How well protected area networks contain representative samples of biodiversity is one of the fundamental principles of systematic conservation planning. Since RPPNs are voluntary, the most important habitats for increasing representation may occur on the property of landowners who do not want to designate that part of their land as a permanent reserve. Even landowners who embrace the scheme may be (understandably) tempted to designate parts of their property that they are less able to exploit such as steep ravines, hill tops or river margins. Of course, these habitats may have considerable biodiversity value, but are not necessarily representative of natural habitats within the landscape.

A lack of control over the location and type of newly created RPPNs may present an even greater challenge for specific conservation interventions. For example, plans to reintroduce captive bred individuals of the extinct Alagoas Currasaw (*Mitu mitu*) into its historical distribution are currently dependent on the creation of a sufficient number (and area) of RPPNs to sustain a viable population. However, not all landowners with appropriate habitat are currently willing to create an RPPN, mainly due to fears of interference by environmental agencies (G. Gama, unpublished data 2013). Several other Brazilian conservation projects are dependent on adequate buy-in of landowners, including a currently pending GEF project proposal on the 'Recovery and protection of climate and biodiversity services in Brazil's Southeast AF Corridor' (Inter-American Development Bank 2013). Likewise, the lack of control over where PPAs are designated may also limit the utility of RPPNs as an additional tool for creating PA networks to counter the threat of climate change (see Hannah 2008).

#### Challenge 2: ensuring adequate governance

Governance of PPAs is concerned with power, responsibility and accountability (Borrini-Feyerabend *et al.* 2006). Inclusive governance is essential for effective management and to ensure support of local communities, politicians and society at large. Under the Brazilian PPA model, landowners are under no obligations to involve third parties in the governance of their newly created reserves, although a management plan has to be vetted by the government's environment agency (IBAMA) before the RPPN can be designated (Decreto 5746, Article 25.ii). Moreover, the RPPN is potentially subject to regular inspection by IBAMA (Decreto 5746, Article 25.iv). Thus, as a minimum, decisions about management, maintenance and modifications of RPPNs involve the landowner and the

federal government; the latter in a regulatory and advisory capacity. Such close government involvement may have the added advantage of facilitating linkages between RPPNs and other legally mandated protected areas on private lands: Legal Reserves and Permanent Protection Areas.

Graham *et al.* (2003) recommended that citizen participation should occur at all levels of decision-making related to PAs with special emphasis on the local level. Although there is ample flexibility within the existing legislation for third parties (non-governmental organizations [NGOs], community groups and other private enterprises) to become involved in the management of RPPNs, this is not required. For sure, inclusive and culturally sensitive models of governance and management of RPPNs exist, and will be further developed; what is still uncertain is the proportion of RPPNs that will (voluntarily) adopt robust and inclusive governance approaches.

### Challenge 3: increasing the attractiveness of the RPPN model

Brazil is noted for its complex and time-consuming bureaucracy, currently ranked 130/185 countries for ease of doing business (Doing Business Project 2013). Unsurprisingly, creating an RPPN is by no means simple, and it is unclear that the very modest financial incentives on offer are sufficient to encourage large numbers of landowners to engage in a time-consuming, long and uncertain process. Thus, alternative and additional incentives provided by the state or municipal governments or ONGs are probably essential. Such incentives could be in the form of joining existing (and demonstrably profitable) ecotourism associations, or becoming part of existing 'payments for ecosystem services' (PES) schemes. PES has enormous potential to attract both national and international funding (through mechanisms such as REDD [the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries]). Nevertheless, such schemes have proved difficult to implement in developing countries with limited evidence of associated environmental benefits (Pattanayak *et al.* 2010).

### Conclusions

In the broadest sense, conservation is about asserting (or reasserting) societal values concerning the relationship between humans and nature, and the establishment and management of protected areas is an outward expression of these values (Ladle *et al.* 2011). PPAs are inevitably the expression of a wide variety of values (or none) and, as such, it may even be unrealistic to talk in terms of a 'universal' or 'replicable' PPA model. If this is the case, similar legislation transplanted into culturally different settings would lead to different levels of take-up, conservation utility and public support.

RPPNs are clearly a valuable component of the Brazilian protected area system. However, it is still too early to say whether they constitute a robust PPA model that could (or should) be exported to other countries. There are simply too many unresolved issues and the RPPN designation is too recent for clear patterns of success and failure to become apparent. This is not to say that the RPPN model does not have innovative components. Indeed, it could be convincingly argued that RPPNs are creating new opportunities for innovation and novel management strategies that might eventually lead to a vibrant and distinctly Brazilian PA movement.

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