Attitudinal Perception of Local People towards Wildlife Conservation: A Case Study of Oban Sector, Cross-River National Park, Nigeria

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Abstract

Information about local people's knowledge, attitude and perceptions about conservation is important in wildlife conservation and evaluating the success of conservation projects. Moreover, understanding and acknowledging residents' knowledge and perceptions about wildlife conservation is an important part of a process of engaging with local communities and building constructive relationships between residents and protected areas' management.

This study is aimed at evaluating local people's attitude and perceptions of wildlife conservation in the Oban Sector of the Cross River National Park. The study was carried out between January and February 2013 based on a survey conducted on randomly selected villagers living in the Oban Sector of Cross River National Park. Purposive sampling was used to select a sample of the local respondents and study communities. Purposive sampling was used due to the proximity of these villages to the park. A total of 100 people from five villages (Aking, Ekang, Esang, Ekuri and Ifumkpa) were interviewed, all living within a 10km distance from the park boundary.

Data were generated from five locations - Ifumkpa community (22%), Ekuri community (19%), Esang

community (22%), Aking/Osomba community (18%) and Ekang community (19%). The sample comprised of 73% males and 27% females. 68.0% (n=66) claimed that their houses were close to the forest while 31% (n=32.0) claimed otherwise. Willingness to be involved in wildlife conservation programme (0.020*), concern for wildlife (0.000*) and continual availability of these resources (0.029*) are all significant at the 0.05 level. It was also revealed that perception about status of wildlife in the park (0.026*) and establishment of a wildlife conservation programme (0.013*) are significant at the 0.05 level.

Since respondents' attitude and perceptions can produce useful information that could be incorporated into the decision-making process, protected areas' management planning should be used as a starting point to improve park-community relationships; Therefore it is important for Conservation Organisations (both government and non-governmental) to collaborate effectively in developing conservation education, in the areas of awareness campaign programmes towards natural resources conservation.

Keywords: Perception, Communication, Decision-making, Protected areas, Local people

Introduction

Globally, local ecological knowledge and its role in wildlife conservation is increasingly receiving attention (Huntington, 2011; Berkes, *et al* 2000; Mmassy and Røskaft, 2013). Local ecological knowledge is valuable in areas where human communities live inside and around protected areas (Trakolis, 2011 and Gandiwa *et al*, 2012). This knowledge is derived from the long-standing relationships between local people and their immediate environment resulting in local people having a good understanding of about natural resources conservation through resource use, education and conservation awareness programmes (Jalilova and Vacik, 2012; Gandiwa *et al*, 2014).

Information about local people's knowledge and perceptions about conservation is important in wildlife conservation and evaluating the

success of conservation projects (Soto *et al*, 2001; Sundaresan *et al*, 2012). Moreover, understanding and acknowledging residents' knowledge and perceptions about wildlife conservation is an important part of a process of engaging with local communities and building constructive relationships between residents and protected areas' management (Allendorf *et al*, 2012).

A community is taken to refer to a homogenous group of common interests generally resulting from a shared history, sense of tradition or residence within a common area (IIED, 2000c). A community is regarded as a group of people associated in spatial, social, cultural or economic terms which occupy, have access to or have a legitimate interest in a particular local geographical area. A community represents users of a resource rather than a homogenous resident unit (IIED, 2000a).

A range of both plant and animal resources contribute to local livelihoods in the region, and the term wildlife resources encompass wildlife and the habitats on which they depend (IIED, 2000c). Community-based conservation refers to the application of rules and regulations to ensure long-term sustainability of wildlife resources use and the biodiversity. Barrow and Murphree (2001) identify three categories of community conservation that have occurred in Africa namely:

- Protected areas' outreach that seeks to enhance the biological integrity of National Parks and Reserves by working to educate and benefit local communities as well as enhance the role of protected areas in local plans. In East Africa, this has been the predominant approach, (e.g. the Community Conservation Service, CCS of Tanzania National Parks, TANAPA);
- Collaborative management that seeks to create agreements between local communities or groups of resources users and conservation authorities for negotiated access to natural resources which are usually under some form of statutory authority. For example, the Uganda Wildlife Authority (UWA) community conservation programme takes this form through negotiation of resource sharing agreements;
- Community-based conservation, which has ensured the sustainable management of natural resources through the devolution of control over those resources to the community as its chief objective. This has been the predominant approach in Southern Africa, for example Zimbabwe (CAMPFIRE), Namibia and Tanzania.

Community

Influences that are external to the region (influences by religions, modern or market economy, the population and cultural melting pot) are so numerous that defining this term has become quite complex. However, a kind of regional consensus can be found through the definition given by the (*gestion des terroirs*) approach, which is community-centered, and which defines "community" as a group of people living in the same village or a group of villages, with a common past, who share the same potential of natural resources from the same limited space, and who have the feeling of sharing a common destiny. These influences have modified the traditional systems of values, philosophical thoughts, and many other anthropological elements that constitute the very essence of community in the past. Needs do change in time and space, and it is increasingly obvious that only the feeling of sharing a common future can still bring people together. The past remains indeed vivid in many situations, but strong migrations and slow or rapid assimilation processes of some ethnic groups undermine the foundations of the past. As a result, individualism now prevails in rural areas. Development is driven by competition. The African region is thus torn between the need to keep ancient but vital sources for its identity, and the realism of a pitiless market economy it can't escape. Today, the community depends on a common life, a common solution for a common future. The perception of the community in the region is therefore the synthesis of indigenous factors specific to the region (rapid population growth, increased scarcity of natural resources, desertification) and exogenous factors (religions, market economy, globalization, inputs from new technologies, etc).

In many cases, the local populations situated around remaining wildlife areas do not operate as a community in the sense most used in the western context, due to historical, ethnic, religious or exploitation-mode differences. Recent demographics are such that often the populations surrounding wildlife areas have recently moved into the area or are migrants living elsewhere for a large part of the year. Recent immigrants and migrants are often at odds with the original populations who have a greater vested interest in the sustained and profitable management of wildlife resources. Urban inhabitants originating from villages around a given site and temporarily-posted government officials often have a preponderant influence on wildlife use in rural areas although they do not live near the site. These (community) particularities and the cohesiveness of

the village and/or regional leadership structures in the area of a site can play a dominant role in the forms of exploitation and management that are possible today and in the economic scenario that results. The "involvement of local communities" seems to be discovered in recent years (forgetting that most rural African villages and/or ethnic-related institutions were quite involved in resource management before colonial and post-colonial governments de-involved them). What is meant today by the implication of local communities? This might mean that the community:

- is asked to protect or participate in the protection of wildlife, with or without directly using it;
- supplies staff for central conservation areas;
- participates in decision-making for central conservation areas;
- protects wildlife and oversees village hunting in village zones;
- manages an annual quota for hunting by participating villages or by their clients (central conservation hunting guides' clients, or urban national and/or expatriate sportsmen);
- owns or rents the central conservation area from the government and sub-contracts the central concession to a professional partner; and
- manages central conservation areas and/or surrounding villages hunting zones, directly providing services for national, expatriate and international safari clients.

These last levels are still theoretical in most African countries, but the social and economic processes underway will tend to push towards the final levels, where the community manages or engages professional management for at least part of its wildlife resources; in line with a widening search to optimize benefits from all available resources. One aspect that must be understood before assessing economics or planning wildlife management of a given area is that all villages and their authority structures about a given wildlife site must be taken into consideration. Otherwise the economic assessment will probably be significantly incomplete and in the case of management planning, neglected villages will be the base for poaching as they have nothing much to lose.

Wildlife and conservation

Most of the African legislations define wildlife as all the wild species of animals living with freedom in the nature. Usually, it is added that this wildlife is the property of the state. This official definition is based

on imported principles and systems of governance. In traditional cultures, the definition of wildlife is linked to values: economic, socio-cultural, spiritual, ecological, and educational. In most of the local languages, the translation of (wildlife) is etymologically bush meat. This is the case in languages such as *Moore* (Burkina), *Dioula* (Ivory Coast), *Bambara* (Mali), *Mandinka* (Guinea, Sierra Leone and Gambia), etc. It means that for centuries, wildlife was mainly food for local people. However, this is not exclusive because, some other important utilization needs to be considered: wildlife products are mixed with plants in pharmacopoeia (elephant skin is used against ulcer, the feathers of partridge are used against jaundice, etc), in mythico-religious ceremonies, in conflicts resolution between neighbouring villages, etc.

Whilst non-consumptive use of species by Europeans is primarily for aesthetic reasons, non-consumptive use of species by communities is often for religious reasons. However, they differ significantly in that the European approach promotes total protection of all species, whereas the African approach promotes selective protection. The modern wildlife conservation system based on different categories of protected areas (*Strict Nature Reserve/Wilderness Area, National Park, Natural Monument, Habitat/species Management Area, Protected Landscape/Seascape, Managed Resource Protected Area* and legal prohibitions, draws from the colonial past and external schools of thoughts. Conservation becomes total prohibition of wildlife use in geographically limited areas. Whilst there is still a cultural and traditional understanding of conservation amongst local communities, its foundations are increasingly undermined by the realities of the market economy and the necessity to meet vital survival needs. However, the most important fact to be noted is that there is still a pressing need for sustainable use of wildlife. In other words, this is to ensure that wild animals remain permanently available and contribute to meeting the diverse needs of the people.

Participation

Participation entails many approaches in its field application. These approaches apply to any development operation and to Community Wildlife Management initiatives. The most notable trend to be identified is the one stating that participation is an approach that enables a target group to participate in the decision making process in a project. Many of the new generation of wildlife management projects talk of participatory wildlife

management. However, in-depth analysis and review of some cases show many divergent interpretations:

- participation designed as an approach, a means to achieve a pre-established objective, that could be out of the priorities of local people. It is an instrumental approach that aims to utilize local people for externally-driven management, on behalf of international conventions or national policies and programmes as found in *Kakum National Park* (Ghana), *Baoule National Park* (Mali), *W National Park* (Benin, Burkina and Niger), etc;
- participation as a process aimed at ensuring effective empowerment of communities for long term local development issues. In this case, participation is a transformative approach that leads to decentralised management, usually by traditional or legal community organizations: *GEPRENAF project* (Burkina, Côte d'Ivoire), *Boabeng-Fiema Monkey Sanctuary* (Ghana), *Popenguine Reserve Project* (Senegal), among others.

Concerning wildlife, it is difficult to give preference to one of the two forms of participation, though the latest seems to be the most interesting for the community. Another dimension to be taken into account in participation is partnership which brings to light known interests and the need for a synergy of action in order to achieve a common objective. Community Wildlife Management should be integrated with the empowerment of the community concerned. Participation can also be analyzed through the position of each actor in the process. In other words, who participates in the project: local people? State agencies? NGOs? Financial partners? It seems obvious that when the management of resources is decentralized, it is the other actors who participate. In the absence of ownership or decentralization, local people do not manage; they can participate on the basis of determined interests. The sacred groves experience in Ghana shows that when resources belong to local people, the psychological effect of ownership can already constitute a mobilizing factor, because people have paid attention to many things without putting ahead economic interests. The tendency in the region is to prefer effective empowerment of the community. However, to date, examples of actual empowerment of communities are fairly limited. But here again, any uncontrolled tendency to adopt this form of participation should be avoided, because the statistics are not willing to prove that this form of participation is the best one and that it necessarily ensures sustainable development and improved wildlife conservation.

In this paper, we contribute to the literature on integrated conservation and development projects by examining wildlife conservation related knowledge and perceptions of local people residing in rural communities (Aking/Osomba, Ifumkpa, Ekuri, Esang and Ekang) adjacent to Oban Sector of CRNP. Specifically, the study aimed at evaluating the attitude and perceptions of local people towards wildlife management programme in the area.

Location and description of study area

Cross River National Park, the first tropical rain or moist forest National Park in Nigeria, is located in Akamkpa Local Government Area of Cross River State, Nigeria. It covers an area of approximately 4000 km^2 and consists of two divisions: *Oban* in the south (3000km^2) and *Okwangwo* in the north (approximately 1000 km^2). The *Oban* Division is centred on coordinates $5^0$25'0''N $8^0$35'0''E. The division has a rugged terrain, rising from 100m in the river valleys to over 1000m in the mountains. The soils are highly vulnerable to leaching and erosion where stripped of plant cover. The rainy season lasts from March to November, with annual rainfall of 3,500mm. The northern part is drained by the Cross River and its tributaries. The southern parts are drained by the Calabar, Kwa and Korup rivers. CRNP is of international importance because of its unique biodiversity, species richness and endemism (Myer *et al*., 2000).

The *Oban* Division is contiguous with the Korup National Park, while the *Okwanwgo* Division is contiguous with the *Takamanda* Forest Reserve, both in Cameroon. The *Oban* Hill Division of the Cross River National Park was carved out of *Oban* group Forest Reserve in 1991. It can be accessed through the Ikom-Calabar High way. Household economy in *Oban* Division is largely agrarian, although hunting, trapping, and collection of forest products is of importance for subsistence, and to an extent for trade. Economic development is seriously constrained by poor road network and market facilities. The *Oban* Hill area is inhabited predominantly by the *Ejagham* tribe with a few *Ibibio, Efiks, Calabaris* and *Ibos*. The study sites (Aking/Osomba, Ifumkpa, Ekuri, Esang and Ekang) are shown and marked in Figure 1 below.

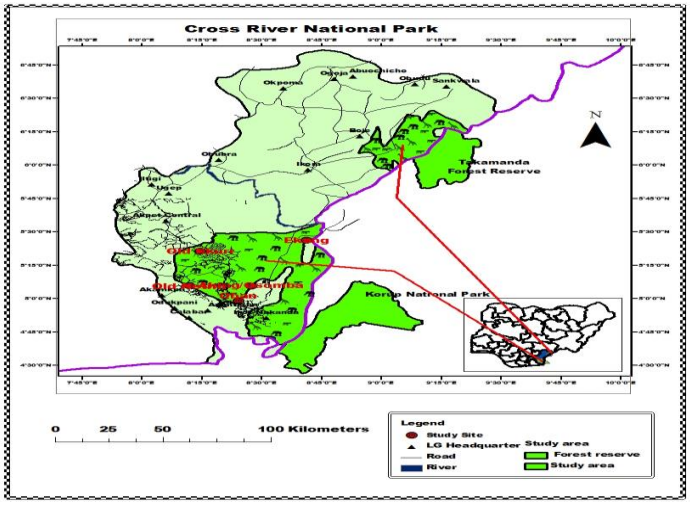

Figure 1: Location map of study area

Methodology

Data collection

The study was carried out based on a survey conducted on randomly selected villagers living in the Oban Sector of Cross River National Park. Purposive (or judgement) sampling was used to select a sample of the local respondents and study communities (Tongco, 2007). Purposive sampling was used due to the proximity of these villages to the park. A total of 100 people from five villages (Aking, Ekang, Esang, Ekuri and Ifumkpa) were interviewed, all living within a 10km distance from the park boundary.

The study used an interview-administered questionnaire. The questionnaire included both open ended and fixed response questions. The questionnaire was designed to evaluate the attitude and perceptions of local people towards participating in wildlife conservation programmes. Education and demographic information, including gender and age, were obtained from each respondent. All interviews were conducted by a research assistant who was the Assistant Range Head. Oral interviews were carried out during the day in the local language (*Ejagham and Efik*) and/or English from January to February 2013. The average total response time was approximately 15-25 minutes. The research assistant administering the

survey made initial contact in each village with the local village leaders to seek permission.

Data analysis

Data were grouped and summed by response category. The responses were recorded on a data sheet and later transcribed into English and entered into a Microsoft Excel 2010 database as well as Statistical Package for Social Sciences version 19 for Windows (IBM SPSS Inc, Chicago, USA). Where multiple responses were possible on an open-response question, data are presented as the percentage (%) of respondents giving each response, and may sum to 100%. Pearson moment correlation coefficient and descriptive statistics were also used.

Results

Table 1: Demographic characteristics of respondents

S/N	Variable	Frequency	%
1	**Location**		
	Ifumkpa	22	22.0
	Ekuri	19	19.0
	Esang	22	22.0
	Aking/Osomba	18	18.0
	Ekang	19	19.0
	Total	100	100.0
2	**Gender**		
	Male	73	73.0
	Female	27	27.0
	Total	100	100.0
3	**Age**		
	Less than 30 years	32	32.0
	41-50 years	54	54.0
	51 years and above	14	14.0
	Total	100	100.0
4	**Distance of house to the forest**		
	Near	66	68.0
	Far	31	32.0
	Total	97	100.0

Data were generated from five locations- Ifumkpa community 22(22%), Ekuri community 19(19%), Esang community 22(22%), Aking/Osomba community 18(18%) and Ekang community 19(19%). The sample comprised of 73 males (73%) and 27 females (27%). About 32% (n=32) of the respondents were < 30 years, 54% (n=54) were between 41 and 50 years whereas 14% (n=14) were older than 51 years. Forty-seven percent (n=44) of the respondents had secondary education, 39.4% (n=37) had primary education, 7.4% (n=7) had NCE/OND education, 4.3% (n=4) were illiterate whereas 1% (n=1) were neither educated nor illiterate.

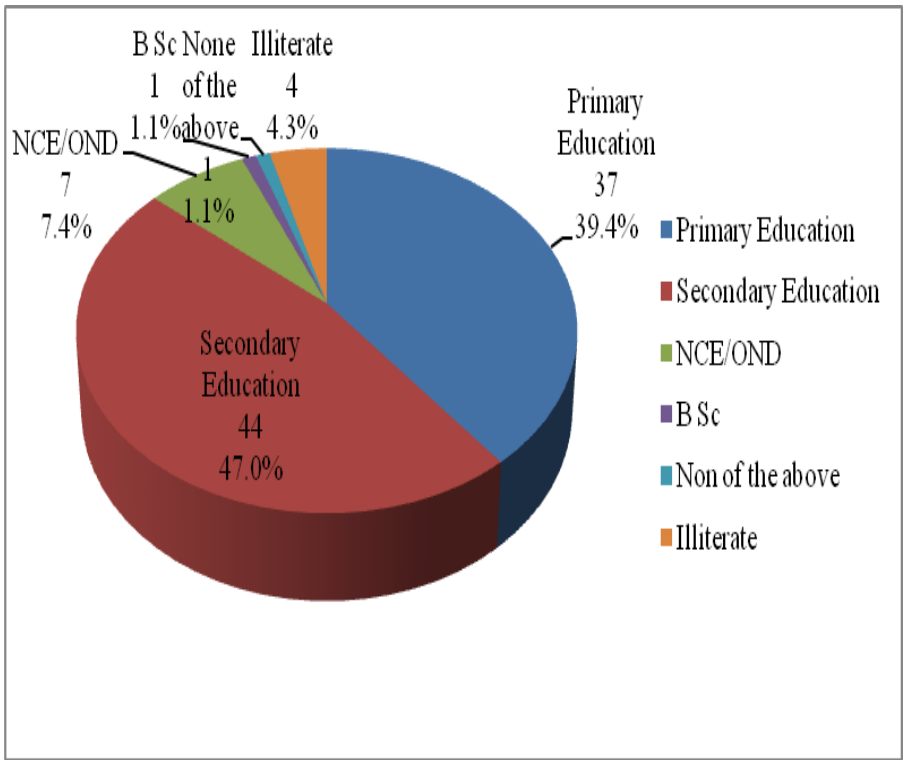

Fig 2: Educational level of respondents

Table 2: Respondents' attitude towards wildlife conservation programme

Variable		
	Pearson Correlation	1
	N	94
Are you aware of Community-Based Wildlife Management?	Pearson Correlation	.613
	Sig. (2-tailed)	.242
	N	92
Are you willing as an individual to participate in Community-Based Wildlife Management?	Pearson Correlation	.724
	Sig. (2-tailed)	.020*
	N	93
Can you work with other villagers and support zones dwellers to protect wildlife through Community-Based Management?	Pearson Correlation	.511
	Sig. (2-tailed)	.307
	N	93
Have you ever been involved or participated in CBWM in this village?	Pearson Correlation	.102
	Sig. (2-tailed)	.337
	N	92
Are you concerned about the present state of wildlife?	Pearson Correlation	.745
	Sig. (2-tailed)	.000*
	N	93
Do you want these wildlife resources to be continually available?	Pearson Correlation	.829
	Sig. (2-tailed)	.029*
	N	93
Should there be increased protection of wildlife resource?	Pearson Correlation	.507
	Sig. (2-tailed)	.629
	N	93
Would you be ready to participate in an effort to manage, conserve or protect wildlife?	Pearson Correlation	.768
	Sig. (2-tailed)	.092
	N	92
*Correlation is significant at the 0.05 level (2-tailed)		

Table 3: Relationship between the respondents' perception on wildlife status in the park and establishment of wildlife conservation programme

	Respondents' Perception
Perception of communities' people	1
Pearson Correlation	70
N	
Wildlife status in the park	.820
Pearson Correlation	.026*
Sig. (2-tailed) N	28
Establishment of Wildlife Conservation	.796
Pearson Correlation	.013*
Programme Sig. (2-tailed)	69
N	

*Correlation is significant at the 0.05 level (2-tailed)

Results and discussion

Demographic characteristics of respondents

This work provided an opportunity to evaluate local people's attitude and perception towards wildlife conservation in communities living adjacent to the Oban-Sector of the park. The study showed that youth and young people participated more (Table 1). It is shown in Table 1 that majority (68.0%) of the respondents have their abode near the forest meaning that they do not have to trek much before getting into the park. This nearness then shows the peoples' dependence on the park resources. However, the result indicated that majority (73.0%) of the respondents are male (Table 1). This shows women's bias towards biodiversity conservation. This has resulted from political, cultural and economic barriers restricting women participation (Buyinza and Naguula, 2007). They also lack interest in conservation. Figure 2 reveals the educational background of the respondents. Most of the respondents (47.0%) were secondary school leavers, followed by primary school leavers (39.4%) (Figure 1). This shows that education influences their attitude and perception towards conservation programme. Local people's knowledge about natural resources conservation are influenced by education and awareness programmes, and services and benefits local people receive from conservation related projects (Jalilova and Vacik 2012; Newmark, *et. al*.1993). Therefore, association between socio-demographic variables with

attitudes and perception often influence attitudes of people toward wildlife and park management, (Mordi 1991; Mehta and Heinen 2001).

Respondents' attitudes towards wildlife conservation programme

Our results showed that the respondents' attitude towards participation in the community-based wildlife management programme is very strong. This is because it is 0.020* at the 0.05 level (2-tailed). The fact that not all the local people were aware of the wildlife conservation programme is of concern, because the respondents claimed ignorance of any programme relating to wildlife conservation. Our findings are in line with the suggestion that many people find themselves residing in 'new conservation areas' but have little knowledge about what they actually mean, particularly because, the formation of conservation areas is a highly political top-down process (Andersson, *et. al.* 2013). Also, the local people were very concerned about the state of wildlife resources in the park. They believe that the decline in these resources would be inimical to their survival and posterity; because of this, they want them to be continually available. Their general attitude was geared towards continual perpetuity of the wildlife resources in the park. It could be that the purpose of the wildlife conservation programme is not being communicated effectively; hence, the need for provision of information and interpretation centres in the local communities (Rao, *et. al.*2003). Accordingly, education and awareness have been suggested as being important in motivating people to develop or reinforce positive perceptions about biodiversity conservation (Ferrie, *et. al*. 2011; Vodouhê, *et. al.* 2010 and Barthwal, *et. al.* 2012).

Relationship between respondents' perception and establishment of wildlife conservation programme

Our results showed that the relationship between respondents' perception and the wildlife conservation programme is positive. Wildlife status within the park and wildlife conservation programme are both significant at 0.026* and 0.013* at the 0.05 level, respectively. There is a high level of perception among the respondents about the status of wildlife in the park (Table 3). Perception of wildlife conservation programme is also very high, and thus making the readiness to be involved in community-based conservation very easy. In the submission of Thakadu (1997), there is a need to maintain balance between communities' willingness (i.e. their acceptance of a project and a desire to implement it) and readiness (an

understanding of the concepts involved in a project and the capacity to implement it). If willingness is not balanced with readiness, communities run a risk of initiating projects that may not be sustainable. Some projects may be so politically driven that the general community does not actively participate, while a few elite community members run the show.

Conclusion

Since respondents' attitude and perceptions can produce useful information that could be incorporated into the decision-making process, protected areas' management planning and also used as a starting point to improve park-community relationships; therefore it will be important for the conservation organisations (both government and non-governmental) to collaboratively develop conservation education, and campaign and awareness programmes about natural resources to cover the study area. Moreover, further studies should assess the influence of respondents' education, profession, gender, period of stay and the spatial variation among local people in communities surrounding Oban-Sector of CRNP as regard wildlife conservation.

Recommendations

Locally, nationally and internationally, we recommend the following:

- integration of biodiversity component in development planning and other sector policies;
- increased public support for Protected Areas;
- identification of the need, value and existence of the national system of Protected Areas;
- perception of losing potential quality of life (because of loss of biodiversity and natural resources); and
- creation of a collective image of the Reserves, consistent throughout the country.

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