
Participatory Approaches in Protected Area Assessment and Reporting

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Abstract

Assessment and reporting initiatives, such as State of the Environment Reporting (SOER), State of the Protected Area Reporting (SOPAR), and Management Effectiveness Assessment (MEA), provide protected area managers and their clients with tools and knowledge to better understand complex human-ecological relationships, and support efforts to achieve more sustainable living. Assessment and reporting help society to identify and measure the agents and impacts of change, the condition of ecosystems, and human and natural responses to changing socio-economic and environmental conditions. This paper reports on the findings of an initial survey of 46 assessment and reporting initiatives in 18 countries. It examines the nature and degree of consultation employed in these initiatives, how participation may have influenced final assessments and reports, and it correlates this information with findings on the application and effectiveness of these reports. An organizational culture that supports evaluation and participation is necessary for effective assessment and reporting. Participatory approaches are seen as important in addressing shortcomings in data collection, monitoring for stressors and condition of conservation areas, conduct of research, and the reviewing of reports. Wider participation in the process improves accuracy, completeness, acceptance, use of information, transparency and cooperation. However, there is a cost to participation in terms of greater complexity of the process and expenditure of time and resources. Most organizations have reported positive outcomes, indicating that assessment and reporting are worthwhile.

Keywords: *state of protected areas, management effectiveness, participation.*

Introduction

Many of the world's nations aspire to the goals of sustainable development and promote the establishment of protected areas as a key means of conserving their ecosystems. But do we really understand the contribution that these areas make in providing ecosystem services or societal benefits, and how do we know if they are managed effectively? Conservation areas are often referred to as 'paper parks' where they have been established ("on paper") but are managed inadequately or not at all. In Central America for example, 30% of protected areas have been described as "paper parks" (Cifuentes *et al.*, 2000). World Wildlife Fund (WWF) characterizes the problem:

A WWF/World Bank survey of ten countries in 1999 found that only 1% of forest protected areas are considered secure, and a quarter are suffering serious degradation. Similarly, a study of 93 protected areas throughout the tropics found that at least 20% had experienced some degree of land clearing. In China's Wolong Nature Reserve a study found the loss, degradation and fragmentation of giant panda habitat actually accelerated after the creation of the reserve, in some instances even faster than surrounding areas (WWF 2001: 1).

In light of such problems, societies need to know if their protected areas are healthy and if management actions are helping or hindering efforts toward maintaining ecological sustainability. Assessment and reporting initiatives such as State of the Environment Reporting (SOER), State of the Protected Area Reporting (SOPAR), and Management Effectiveness Assessment (MEA) are tools which are intended to provide us with knowledge and understanding of complex human-ecological relationships, and enable effective participation in the decision-making processes required for sustainable development and living. Long-term monitoring, assessment and reporting programs, help societies to identify and measure the agents and impacts of change (pressures and stresses), the condition of ecosystems, as well as the human and natural responses to these changing conditions.

The need for environmental information to support decision-making and management is recognized in a number of international treaties and conventions. For example, Principle #10 of the Rio Declaration states:

Environmental issues are best handled with the participation of all concerned citizens. Nations shall facilitate and encourage public aware-

ness and participation by making environmental information widely available (Keating, 1992: x).

The *World Heritage Convention* (UNESCO, 1999; Spalding, 2002), the *Barcelona Convention* (Da Cruz, 2002), the *Man and the Biosphere Programme* (Bridgewater, 2002), the *European Natura 2000 sites* (Simpson, 2002), the *European Emerald Network* of areas of special conservation interest (Fernandez-Galiano, 2002), and others (Harrison, 2002) require some degree of reporting, although it is variable in nature.

Chapter 40 of Agenda 21 outlines key issues associated with information-sharing and decision-making. For example, in many countries there is insufficient base-line environmental information, and where it exists it may still be difficult to access. Information management is often inadequate due to lack of technology and shortages of trained specialists, and data may also not be available in the formats required by differing end-users. Technical and factual information should be available in forms that can be understood not only by scientists and technocrats, but also by a wide range of other potential users such as politicians and concerned citizens. Assessment and reporting should also demonstrate transparency and accountability of the organization that carries out the evaluation work.

Moreover, the United Nations *Convention on Biological Diversity*, with the support of numerous state, non-governmental, and academic organizations, has adopted the “ecosystem approach” as its primary mode of operation (CBD, 2000; Smith and Maltby, 2003). A key element of this approach involves public participation and the involvement of civil society.

This paper reports on the findings of an initial survey of 46 assessment and reporting initiatives in 18 countries. It examines the nature of the participatory processes employed in these initiatives, how consultation has influenced the assessments and reports, and it correlates this information with findings on the application and effectiveness of these outputs.

Methods

A detailed e-mail survey of conservation practitioners was administered during 2004-05, as part of a doctoral research project on how current protected area assessment and reporting mechanisms support decision-making and apply the principles of the ecosystem approach. Non-random or non-probability sampling was necessary, because the population of assessment and reporting organizations was not known at the outset. Of the 45 questions in

the survey, 12 pertained to the role of public participation in the assessment process or in its application.

The results are based on 46 self-administered responses from global (2.2%), regional (6.7%), national (26.7%), sub-national (26.7%), local (33.3%) and other level organizations (4.4%), from 18 countries that have completed protected area or state of environment assessments and reports. Surveys were completed by state (3%), non-governmental organizations (18%), academic institutions (7%) and other types of organizations (22%). The types of reports examined were State of the Environment Reports (SOER) (42.2%), State of Protected Area Reports (OPAR) (24.4%) and various types of Management Effectiveness Assessments (MEAs) (33.4%).

Results

All types of organizations surveyed, stated that they experienced barriers and challenges during the reporting process. Seventy-two percent reported a number of issues related to the management of data and information, while 53% found cooperation or collaboration within and between agencies to be a challenge.

A variety of participatory opportunities had been employed within organizations, internal and external. Internally, efforts at consultation were found to occur at all stages of the assessment process, with a particular focus on establishment of the regime, and aspects of process-design, writing and review. External participation was found to be comparatively strong during the researching of information and monitoring phases (Table 1). Overall, 42% of organizations showed wide-scale external input into their processes, 47% reported “some” input, and 11% employed very little or no consultation in their assessment activity.

Results also indicate a strong correlation between degree of participation and overall quality of the assessment or report. For example, organizations indicated that external participation improves: accuracy of the information (70% of respondents agree or strongly agree), completeness (83%), acceptance of the information (80%), use of the information (65%), transparency of the organization (85%), and cooperation with participating organizations (63%). However, external participation also adds complexity to the process (70%), requires more money (59%), and requires more time (72%). Overall, 95.6% of organizations indicated that internal participation is important or very important, while 83% felt the same about external participation.

The process of preparing reports, or the end-use of information in these

Table 1. Internal and external participation in assessment and reporting (n=46).

Opportunities	Internal (%)	External (%)
Planning the terms/scope of the project	93.5	34.8
Designing or developing the assessment/report	84.8	50.0
Monitoring stressors or conditions in a protected area	56.5	50.0
Researching information for the report	63.0	69.6
Writing for the report	80.4	39.1
Review of report	78.3	69.6

reports, has resulted in a variety of perceived positive outcomes for organizations (Table 2). For example, 22% of agencies indicated that, following reporting, habitat loss and fragmentation is now being addressed more effectively; 31% indicated that knowledge of protected area resources has been enhanced through better inventory, research and monitoring as a result of assessment; and nearly 30% found that the identification and use of indicators to measure effectiveness, sustainable use and protection have been similarly improved. One agency commented that a new waste management directorate had been established in the department as a direct result of their report. Another noted that recommendations from the assessment have been incorporated into a new business planning approach to resource allocation.

Eighty-seven percent of surveyed organizations found that assessment and reporting have been beneficial to them, while 2% perceived no benefits and 11% were unsure. Organizational benefits could be classified into five general categories: public awareness; decision support and conservation effectiveness; partnerships and participation; enhanced knowledge; and organizational development (e.g., improved positive profile for the organization and improved culture for evaluation).

Asked what the organization would do differently during the next reporting round, the following general responses emerged (refer to research results for details):

- *Participation/Process*: Spend more time and effort on internal and external participation.
- *Communications/Packaging*: Improve communications and packaging (make more user friendly), and target appropriate methods to specific audiences.
- *Data and Information*: Expand the focus on research, data collection,

and storage, including data-sharing agreements; establish a limited set of simplified indicators.

- *Focus*: Stay focused on priorities; the topics and needs are broad and there is a tendency to try to do too much.
- *Integration/Planning*: Ensure relevance and integration (social, economic, cultural, ecological).
- *Technical Method*: Seek continuous improvement of the methodology/ approaches.

Table 2. How the responsible agencies have used the assessment/report to change their practices (n=46).

Practices	#	%
Controls have been put in place to address pollution	4	8.9
Habitat loss and fragmentation is being addressed	10	22.2
Impacts of exotic (non-native) species has been reduced or managed	6	13.3
Knowledge of protected area resources is being improved through inventory, research, or monitoring	14	31.1
Effects of climate change are being studied or mitigated	2	4.5
Harvest levels of terrestrial and aquatic plants and animals have been reduced to sustainable levels	2	4.5
Wildlife population management has received more attention (e.g., budget or staffing)	6	13.6
Effects related to industrial agriculture, forestry or mining are being addressed	6	13.6
More protected areas have been established	4	9.1
Indigenous and/or local knowledge is being sought and used	7	15.9
Local community involvement in protected area management has improved	6	13.6
Identification and use of indicators to measure effectiveness, sustainable use, and protection has been improved	13	29.5
The legal and administrative base for the establishment and management of protected areas has been improved	5	11.4
The number of visitors to the area(s) has been reduced or more closely managed	2	4.5
Enforcement capacity has been improved or increased	5	11.4
Budgets for protected area management have increased	3	6.7

Conclusions

A number of conclusions can be drawn from these results. Firstly, organizations that are engaged in assessment and reporting are more likely to have the organizational culture necessary to evaluate effectiveness, share information, and engage clients and other stakeholders. They seek continuous improvement and, because assessment and reporting activity benefits their organizations in many ways, they see it as worthwhile expenditure and investment.

Organizations face widespread challenges, particularly with the collection of sufficient data and the management of information. Participatory approaches are seen as important in addressing shortcomings in data collection, monitoring for stressors and condition of conservation areas, conduct of research, and the reviewing of reports.

Wider participation in the assessment and reporting process improves accuracy, completeness, acceptance (“buy-in”), use of information, transparency, and cooperation. However, there is a cost to participation in terms of greater complexity of the process and expenditure of time and resources.

The true test of value for protected areas is when conditions on the ground are improved. Most organizations have reported positive outcomes, indicating that assessment and reporting are worthwhile.

Organizations can expect to reap greater benefits from enhanced participation in reporting processes. Though consultation and collaboration among partners may be challenging in the short term, participatory assessment and reporting are likely to be more sustainable in the longer term and will result in more robust, relevant, and credible end-products. This enhanced assessment and reporting is then more likely to lead to greater acceptance and use of conservation information, and improved outcomes for environmental management and sustainable development.

Acknowledgements

Thanks are extended to Elizabeth Hughes, International Centre for Protected Landscapes, Paul A. Gray, Science and Information Resources Division, Ontario Ministry of Natural Resources, Marc Hockings, University of Queensland, and Dan Mulrooney, Ontario Parks. The many individuals who either assisted with distributing the survey, or who completed the lengthy survey are especially thanked:

Andrew Chin, Carly Cook, Peter Coyne, Phil Domaschenz, Adam Gietzelt, Glenys Jones, Fiona Leverington, Graeme Worboys, Linda Greenwood, Julie Richmond, Ray Wallis, Jeremy Carew-Reid, Liz Sutherland, David Wachenfeld, Stephen Waight (Australia); Frank Burrows, Shawn Cardiff, Matt Carlson, Jeff Leggo, Andrew Promaine, Mitch Baldwin, Simon Bridge, Christie Spence, Cliff White, Bill Dalton, Robert Helie, Neil Hester, Gary Ironside, John Pinkerton, Jim Johnston, Donald McLennan, Marlene Doyle, Gary Wilkins, Helios Hernandez, Nancy Stadler-Salt, (Canada); Felipe Carazo (Costa Rica); Jorge Rivas, Paulina Arroyo (Ecuador); Zoltan Kun (Europe Pan Parks); Matti Tapaninen (Finland); Ashish Kothari, Roshni Kutty, Shekhar Singh (India); Hernando Cabral Perdomo (Mexico); Jaime Fernandez (Peru); Erika Stanciu (Romania); Estie Eloff, Pete Goodman, Chantal Will, Lubelwana Pumza, Jean Harris, Craig Haskins, Louis de Klerk, Rainy Mashitisho, Elizabeth Muller, Joyce Phoshoko Rudi Pretorius, Arrie Schreiber, Wilma Strydom, Jan van den Berg (South Africa); Josep Maria Mallerach (Spain); Leonardo Lacerda, Liza Higgins-Zogib (Switzerland); John Makombo (Uganda); David Walker, Nigel Dudley, Mike Welbourn (UK); Darcy Gamble, Susan Ellis, Jim Jenks, James Rieger (USA); Carlos Rivero Blanco, Edgard Yerena (Venezuela); Cao Chi Hung (Vietnam); and Love-more Sola (Zimbabwe).

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