AEMAPPS: Análisis de Efectividad de Manejo de Areas Protegidas con Participación Social

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1.1 Organisation

Parques Nacionales Naturales de Colombia/WWF Colombia

1.2 Primary methodology reference

Medina, M. (2005) Análisis de Efectividad del Manejo de Áreas Protegidas con Participación Social. Editorial WWF. Parques Nacionales Naturales de Colombia, Subdirección Técnica, WWF. Colombia.

Parques Nacionales Naturales, WWF Colombia. (2007) Informe Nacional de Resultados de la Metodología "Análisis de Efectividad del Manejo de Áreas Protegidas con Participación Social". Ciclos de Aplicación 2004 – 2006. Colombia.

1.3 Brief description of methodology

The AEMAPPS is based on an evaluation of management planning, processes and outcomes with social participation. Indicators assess management in the short, medium and long term.

The AEMAPPS methodology consists of a questionnaire which looks at individual protected areas and cannot be used to compare parks. It has been used to develop priorities across parks and understand needs and gaps depending on 'parks types'. It is based on an evaluation of management planning, processes and outcomes with social participation. Indicators assess management in the short, medium and long term.

AEMAPPS is a methodology designed to support UAESPNN (the Colombian Park Management Agency), its field operations and other actors in protected area management, in the assessment of the processes of planning and implementation, and the verification of the fulfilment of objectives, desired outcomes and impacts, under the direction of the perspective of social participation in the conservation. Consolidation of the management processes should be achieved over time. The analysis is designed from a critical perspective that it tries, from a documented exercise of reflection, to include/understand the present management situation and to guide it towards the desired management situation. The system approaches the measurement of conservation objectives of by means of a socially legitimized process (Planning Group SUT - WWF 2004).

1.4 Purposes

✓ **to improve management (adaptive management)**
✓ for prioritisation and resource allocation
✓ to raise awareness and support

1.5 Objectives and application

The process seeks to create better opportunities for involvement and communication with Indigenous and Afro-Colombian communities. In addition, the methodology aims to include the assessment of outcomes obtained based on the participatory approach that the parks' agency is promoting. Over the time, the parks' agency can evaluate how effective the

involvement of key stakeholders was in achieving the conservation or ecological integrity of the protected area.

The methodology was trialled in one park in 2000, then applied in 90% of protected areas in 2004. It was repeated in all areas, including marine parks, in 2006 (WWF Colombia 2006). According to WWF (WWF Colombia 2006), the 2004 survey has resulted in improved management. From the evaluation of 44 parks in 2004, there is an appreciation of overall weaknesses and strengths of management and this has been an input to protected area management at national, regional and local scales (Cracco *et al.* 2006). The construction of the national strategy of monitoring and ecological integrity resulted from the AEMAPPAS of 2004.

The specific purposes of the methodology are:
1) to identify strengths and weaknesses;
2) to show management tendencies in the national level;
3) to define the basic lines of strategic, administrative and operation processes;
4) to incorporate monitoring and evaluation processes to the institutional culture of the National Natural Parks;
5) to update management plans; and
6) to analyse advances on management compared to the previous period evaluated.

After the first application, the methodology was improved and included different variables to analyse different protected areas context and a specific indicator to measure in the long term the overall ecological integrity of the park and to identify if the conservation targets included in the protected area are been preserved. The language was simplified to reduce the complexity and promote the broader public understanding.

1.6 Origins

AEMAPPS was developed by Parks Colombia and WWF in 2000, based on several other methods, especially the Tracking Tool. It was further updated on 2003, 2004 and 2005. It was tested several times – through a trial and error process. Once the draft was developed, it was applied in the protected areas. With comments from the participants the methodology was adjusted and modified to be applied again.

1.7 How the methodology is implemented

For each score, comments and sources of information are recorded. With the AP work team each variable is analyzed, considering the management plan, and giving scores from 1 to 5, according to the management situation, with a justification in the observations' column. Some variables, e.g. administrative and coherence and synergy of the planning structure, require an analysis supported by matrixes. At the end of the procedure, a general analysis is made through graphs generated by the Excel workbook software.

1.8 Elements and indicators

Indicators are divided into three timeframes (short, medium, long term) and contribute to two indexes: efficiency and effectiveness. The indexes are based on indicators which assess the changes in management over time. Each indicator includes a set of variables to be measured according to different situations of the protected area.

Each variable represents a percentage of the indicator. In other words, each indicator and variable has a different 'weight' when compared (see information on scoring below).

Protected Areas Management Effectiveness Information Module

Methodology Description

Also included in the workbook are detailed worksheets to calculate the requirements versus actual resources for personnel and equipment and a survey on labour conditions and occupational standards and health, as well as support matrixes for certain variable of medium term planning. This is useful as all the information is embedded in the one file for future reference.

Indicators for the AEMAPPS methodology (2006)

Index	Indicator	Variable
1. long term effectiveness		
1.1. long term effectiveness: level of achievement of the objectives of conservation of the PA	1.1.1. status of the conservation targets	1.1.1.1. status of conservation of the conservation targets regarding biodiversity, goods and services and culture
		1.1.1.2. level of conversion of the ecosystems, habitats or land cover within the PA
2. medium term effectiveness		
2.1. effectiveness in the medium term: potential of management of the PA	2.1.1. favourability of the management situation	2.1.1.1. level of risk
		2.1.1.2. level of possibility of success
	2.1.2. degree of social legitimacy	2.1.2.1. social recognition of the objectives of conservation
		2.1.2.2. social recognition of the public function of conservation of the responsible authorities
		2.1.2.3. social recognition of the existence of the PA as a figure of public protection
		2.1.2.4. cultural meaning of the PA or of some of its values
	2.1.3. level of coherence between the objectives of conservation and the characteristics of the PA, by itself and in a regional context	2.1.3.1. coherence between the design of the PA and the objectives of conservation
		2.1.3.2. complementarities between the objectives of conservation of the PA and the design of the regional system of PA
		2.1.3.3. complementarities between the objectives of conservation and the other areas of the UAESPNN
2.2. medium term efficiency: quality of the strategic planning	2.2.1. quality of the diagnostic of the current situation	2.2.1.1. advance in the diagnostic of the current situation
		2.2.1.2. coordination with social processes
		2.2.1.3. updating of the diagnostic of the current situation
		2.2.1.4. coverage of the current situation diagnostic
	2.2.2. quality of the management strategies	2.2.2.1. advance of the zoning processes
		2.2.2.2. level of intervention of the PA management in the conservation of the conservation targets
		2.2.2.3. coherence and synergy of the planning structure
		2.2.2.4. coordination with social processes
		2.2.2.5. continuity of the strategies
		2.2.2.6. coverage of the strategies
		2.2.2.7. Plan of financial sustainability
		2.2.2.8. agreements protocol
3. short term effectiveness		
3.1.short term efficacy: level of governance	3.1.1. area in which a effective control takes place	3.1.1.1. percentage of the PA managed by some responsible authority
		3.1.1.2. degree of coordination between responsible authorities for control activities in the PA and the buffer zone
		3.1.1.3. degree of accomplishment of the land uses defined in the management zoning

Source: Leverington *et al.,* 2008. 'Management Effectiveness evaluation in protected areas – a global study. Supplementary Report No1: Overview of approaches and methodologies.' The University of Queensland, Gatton, TNC, WWF, IUCN-WCPA, AUSTRALIA.

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Index	Indicator	Variable
		3.1.1.4. degree of accomplishment of the regulation of the activities of the PA research, ecotourism...
		3.1.1.5. degree in which the PA and its buffer zone is affected by armed conflict
3.2.short term efficiency: quality of the operation management	3.2.1. quality of the operation planning	3.2.1.1. advances in the operation planning
		3.2.1.2. coherence of the operation plan in relation to the management objectives
		3.2.1.3. coherence of the work plans in relation to the operation plan
		3.2.1.4. coordination of the operation plan formulation with social processes
		3.2.1.5. coverage of the operation plan
	3.2.2. quality of the processes of implementation	3.2.2.1. accomplishment of the goals of the operation plan
		3.2.2.2. coordination with social processes during the execution
	3.2.3. quality of the monitoring processes	3.2.3.1. advances in the monitoring processes
		3.2.3.2. coordination of the monitoring with social processes
		3.2.3.3. continuity of the monitoring processes
		3.2.3.4. coverage of the monitoring
		3.2.3.5. feedback of the monitoring to the programming
	3.2.4. quality of the monitoring of management	3.2.4.1. Inputs to the operation plan by the 'UAESPNN' and the social and institutional interest groups
		3.2.4.2. periodicity of the monitoring of work plans
		3.2.4.3. coordination of the monitoring with social processes
		3.2.4.4. Inputs of the monitoring to the planning processes
	3.2.5. quality of the administrative processes	3.2.5.1. status of the material and financial resources
		3.2.5.2. resources and projects management
		3.2.5.3. human resources management
		3.2.5.4. status of the human resources

1.9   Scoring and analysis

Scoring range for each variable is 1-5, where 1 is a very low score and 5 is a desirable situation. A description of 'corresponding situation' for the scores is supplied for each variable.

Scores for the variables are weighted and then added to produce the score for the indicator. The percentage of the possible score is calculated, and the score is rated as very low, low, medium, high or excellent (see the diagrams below).

The indicators are then weighted and added to calculate a score and percentage of possible score for the index, and the process is repeated to assess the overall performance in the long-term, medium term and short term.

A matrix of prioritisation of management necessities is calculated, allocating priorities of very high, high, medium and low to a range of action related to each indicator.

Protected Areas Management Effectiveness Information Module

Methodology Description

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Rango	Significado	
1 – 1.7	La situación de manejo es MUY POCO FAVORABLE y tiende a empeorar en el corto plazo. Está en serio peligro la viabilidad de la misión de conservación del área protegida. Urge actualizar el análisis del contexto y redireccionar las estrategias de manejo.	
1.8 – 2.5	La situación de manejo es POCO FAVORABLE y tiende a empeorar en el corto plazo. Está en peligro la viabilidad de la misión de conservación. Urge revisar el análisis del contexto y redireccionar las estrategias de manejo.	
2.6 – 3.3	La situación de manejo es MEDIANAMENTE FAVORABLE. Si no se toman correctivos a partir del análisis del contexto para el ajuste y realimentación de estrategias, se pondrá en peligro la viabilidad de la misión de conservación del área protegida.	
3.4 – 4.1	La situación de manejo es FAVORABLE. Se debe mantener actualizado el análisis del contexto y el ajuste y realimentación de estrategias para tener cada vez mejores niveles de favorabilidad de la situación de manejo.	
4.2 – 5	La situación de manejo es ALTAMENTE FAVORABLE. Se debe mantener actualizado el análisis del contexto y la realimentación de estrategias para conservar los niveles de favorabilidad de la situación de manejo.	

Número y nombre del índice

Tabla de ponderación del índice de eficacia a mediano plazo
2.1. Potencial de manejo del área protegida

Número del indicador

Indicador	Puntaje	Relación Porcentual	Valor del puntaje total	% Total
2.1.1		30%		
2.1.2		50%		
2.1.3		20%		

Puntaje del indicador

Relación porcentual de la variable sobre el índice

Example of the scoring and weighting system – AEMAPPS (Planning Group SUT - WWF, 2004)

Source: Leverington *et al.,* 2008. 'Management Effectiveness evaluation in protected areas – a global study. Supplementary Report No1: Overview of approaches and methodologies.' The University of Queensland, Gatton, TNC, WWF, IUCN-WCPA, AUSTRALIA.