

Management Plans Concepts and Proposals



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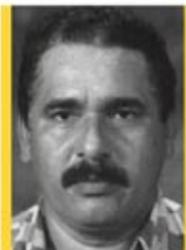
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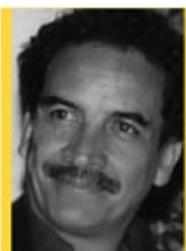
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Preface

The conceptualization of planning instruments for the management of protected areas in Latin America has a relatively long history. In 1974, the United Nations Food and Agriculture Organization (FAO) published a Technical Work Document called “National Park Planning, a guide for the preparation of management plans for national parks,” prepared by John J. Moseley, Kyran D. Thelen, and Kenton R. Miller. The book “Planning National Parks for Ecodevelopment in Latin America,” by Kenton Miller in 1980 can be considered a landmark in the history of protected areas in this continent due to its wide diffusion and the positive impact it has had on the protected area movement. The IUCN, ten years later, in its publication “Managing Protected Areas in the Tropics,” retakes this management plan concept and gives it wide circulation.

It is only in the nineties that, with growing experience in the management of protected areas, particularly national parks, the administrations of the conservation areas in different Latin-American countries started to experiment with adaptations to this concept. A first recollection and exchange of experiences was directed by the Network of Protected Areas of the Amazon (Surapa) with sponsorship from the European Union. As a result, in 1997 the book, “Guide for preparing management plans in protected areas of the Amazon,” prepared by Mario Gabaldón, was published. Within the framework of the First Latin-American Congress on Protected Areas, which took place in 1997 in Santa Marta, Colombia, the National Institute for the Environment and Renewable Natural Resources (IBAMA) of Brazil organized a workshop about management plans and presented its “Methodological Guide for Planning of Indirect Use Conservation Units”. In 1998, in Cochabamba, Bolivia,

through an initiative of the German Technical Cooperation Agency (GTZ) and the Bolivian Committee of the World Conservation Union (IUCN), the International Seminar-Workshop: “Participative Methodologies for the Elaboration and Implementation of Management Plans in Protected Areas” took place, where the participants recommended that the new ideas for the conceptualization of management plans should be documented and circulated. Three years later, in 2001, through an initiative of Stephan Amend from Cerro Hoya Project (ANAM-GTZ/Eco) and Thora Amend from the Sectorial project: “Management of Protected Areas and Buffer Zone Development” (ABS-LISTRA) from GTZ, the proposal was re-examined, and an international workshop was held on Taboga Island, Panama. The objective of the workshop was:

“To strengthen the technical exchange between experts and prepare recommendations for the conceptualization and implementation of management plans for protected areas in Latin America.”¹

The steps that were taken before this workshop were the compilation of literature, the preparation of key questions², the analysis of literature³ based on these key questions and the documentation of the inputs and comments from the participants of an electronic forum. The electronic forum comprised more than 90 experts from 20 countries (15 Latin-American countries, 4 from Europe, and the USA) with experience in international institutions, ministries, protected area administrations, NGOs, universities, projects, and consulting firms.

This document, a summary compilation from an extensive base of Latin American works on the reality of protected area management, was first published in Spanish in 2002 under the title *Planes de Manejo: Conceptos y Propuestas*. The ABS-LISTRA project from GTZ made the decision to support the translation and publication of the English version after communicating with experts outside the region showed a strong interest in the topic. In addition, it will be easier to share Latin American experiences with other interested parties at the Fifth World Congress for Protected Areas, in Durban/South Africa, planned for September 2003.

Introduction

In the year 2001, during the analysis phase of all the different “management plan” documents for the Taboga Workshop, Kenton Miller wrote:

“I enjoyed reading the analysis of the IUCN Manual on Protected Areas in the Tropics, and then one of my own book from 1980. It is obvious to all that even though a lot of the contents of my book, based upon fieldwork through 1978, remain valid and useful, there have also been quite some changes. While the book foreshadows the development of the IUCN category system, which has its origins in my work in Cuba and Costa Rica, there was then no dimension of tenure options. Nowadays we would surely expand on the aspects of alternative ownership, jurisdiction, community-based option, co-management approaches, etc. Back then, to speak of multi-agency planning teams was already somewhat “revolutionary” since most teams came entirely out of central government agency offices. And, at that time, the major threat to nature conservation was the totally unorganized expansion of the agricultural frontier by the landless being driven off good soils and by corporate plantation agriculture, forest harvesting, etc. Nowadays, we would also have major chapters on the social dimensions, on ecosystem services, on new economic tools, sustainable finance, and on landscape scale/bioregional planning models. My point is to place each work in its historical context when we discuss them at the workshop; and to pick and choose those components that remain useful for future use. We also need a way to focus clearly on goals and objectives. You’ll recall my chapter that discusses “Management by Objectives.” Most of those remain relevant. But both the context and the concept of “stakeholders” have expanded. How far out do we reach? Just to the immediate neighbors or all the way to urban centers?”

The aperture of protected areas towards the community stems from here. The ecological objective transcends the limits of the protected area and becomes necessary for the community and, at the same time, it becomes evident that the community's needs should also be considered as objectives for the established area. Due to this simple statement, we must infer that planning for protected areas must be formulated on the basis of the ruling policies of the respective country, such as, for instance, economic growth, employment increase, the improvement of the quality of life (improving health, education, and housing conditions mainly), environmental sustainability, and human development, aside from considering the corresponding ecological concerns, which are a tradition in protected area planning. In other words, we must insert the protected areas into the context of local, provincial, and national development. This is the fundamental aspect that must be incorporated, regardless of the planning methodology.

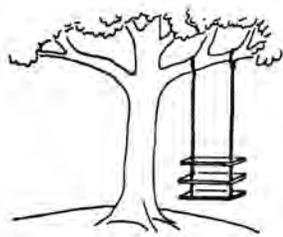
More than 25,000 protected areas have been established up until the end of the millennium, covering almost 10% of the surface of the Earth. Central America has increased its protected areas, covering more than 22% of its territory. The protected areas play a vital role in the countries' development and land use planning, and accomplish many of the objectives described by Kenton Miller in 1980:

- maintaining representative samples of each major biological region in its natural unaltered state,
- maintaining the ecological diversity and the regulation of the environment,
- maintaining the genetic resources,
- maintaining cultural heritage objects, structures, and sites,
- protecting scenic beauty,
- facilitating education, research, and monitoring of the environment in natural areas,
- facilitating public recreation and tourism,
- supporting rural development and rational use of marginal lands,
- maintaining watersheds,
- controlling erosion and sedimentation, and protecting downstream investments.

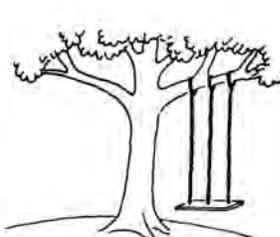
By fulfilling the requirements for sustainable development by integrating the environmental and socio-economic dimensions in a balanced fashion, protected areas are indispensable as tools to promote nature conservation and make it a reality. We must urgently find answers to the question of how to achieve the conservation objectives due to the increasing pressure that weighs upon protected areas.

For 30 years management plans have been seen as valuable instruments for the management of protected areas. However, many times they do not respond to the reality and the specific needs, and the people who should use them do not see them as instruments to achieve an effective and efficient management of these areas.

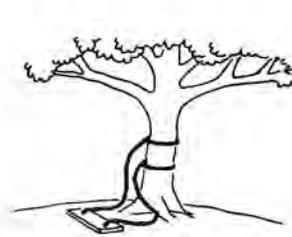
Planning



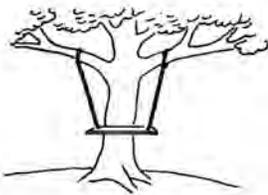
How the park managers would like it



How the Central Administration wants it



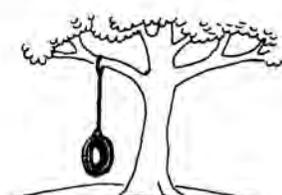
How the feasibility study has developed it



How the operational plan was drawn up



How it was executed



What could have been an appropriate solution?

Based on personal experience and on an analysis of existing literature, a group of experts, which works in Bolivia on the conceptualization of management plans, identified the following weak spots in various aspects of the traditional concept of planning⁴ :

In the conceptual aspects of management

- scarce realism in the formulation of objectives and programs,
- concentration on the descriptive and operative aspects, with the subsequent lack in the strategic realm and in the contextualization of national policies and development processes,
- scarce or no spatial integration with land use plans at the regional and local level,
- the spatial reach of the planning is limited to the protected area itself,
- little consideration for the social, economic and cultural relations of protected areas with their surroundings,
- the emphasis of the management is directed towards the biological, ecological, physical, and cultural aspects, whereas the analysis of the productive and organizational systems that exist in many protected areas is often missing.

In the planning conception

- planning is seen as a process that is limited in time and not as a continuous process,
- the management plan is a static document, fixed in its approach and temporal planning, so it tends to become obsolete rapidly,
- the extent of local participation is often marginal or is limited to consultation regarding a final document, which is why it often lacks legitimacy and social sustainability,
- there is no consistency between the diagnoses and the management approach or the proposed activities,
- the planning depends on a group of experts, often external to the protected area, and it cannot be assumed by the local actors.

In the operative aspects

- the preparation of the plans is expensive and generally requires a lot of time, which poses a problem regarding the financial sustainability. As a result, in many cases it has not been possible to produce management plans. Only annual operational plans were prepared that lack the long term strategic orientations.

Taking into account the reality of protected areas in Latin America, the current document tries to gather and analyze different aspects of management plans, with the expectation of offering new impulses for their elaboration.”

The first part of this document introduces a series of concepts used in the management of protected areas, including a description of their current situation. The second part consists of a proposal for the establishment of more effective and efficient planning and execution for the management of protected areas. Both sections respond to the questions: where are we? where do we want to go? what can we do to get there? and which is the best way to fulfill the expectations?

What does planning mean?

“Planning means thinking before acting, thinking methodically, in a systematic manner; explaining possibilities and analyzing their advantages and disadvantages; setting goals, projecting towards the future, because what may or may not happen tomorrow will decide whether my actions of today are effective or not. Planning is the tool for thinking about and creating the future”.⁵

One of the main characteristics of human beings is that we can act in a planned fashion and not only by instinct. Planning is very normal and we integrate it into practically every aspect of our daily lives.

Carlos Matus, the well-known promoter of Situational Strategic Planning (SSP) explains that there is not only one way of understanding planning, but that it depends on the characteristics of the reality to which it is to be applied. The four models that follow show very simple situations or cases, such as model I, or very complex ones, such as model IV. They are every day cases, in the sense that they represent aspects of real life. Models I and II are relatively common in the natural sciences. Whereas model IV represents the complexity of the social system.

Model 1: Deterministic Systems

These systems have only one past, one future, and follow laws that, once they are known, allow for the pure, certain, and safe prediction of the future. The most traditional natural sciences laws follow this model. Thus, when two atoms of hydrogen are combined with one of oxygen, it is possible to predict exactly that the result will be water. In this case there are no uncertainties or surprises, and the action of planning implies manipulating objects or materials that follow a common purpose. For

example, the ground plan for the construction of a house follows this model, in the same way that “traditional planning” does, as we shall see in the following chapters.

Model II: Estocastic Systems

These are systems whose future development follows very precise probability laws, where the future possibilities are completely numerable. Additionally it is possible to objectively predict the probability that something will happen. For example, we know that the probability that a car that has traveled 150,000 km will show damage in its motor or other essential parts is very high.

Model III: Quantitative Uncertainty Systems

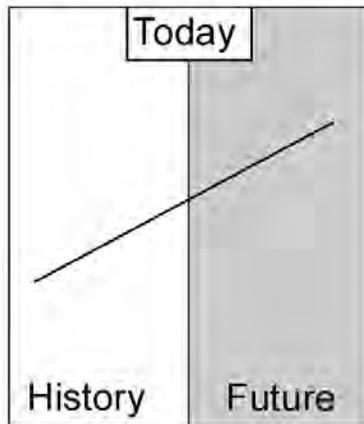
These are systems where it is possible to numerate all the possibilities, but it is not possible to assign an objective probability to any one of them. We know all the future possibilities, but we do not have any basis on which to assign a higher or lower probability rate to each one of them. For example, we can show a soccer match between Brazil and Argentina in which there are three possibilities: a) Argentina wins, b) Brazil wins, c) there is a tie. All of the possibilities are known, but we do not know the probability for each possibility.

Model IV: Strong Uncertainty Systems

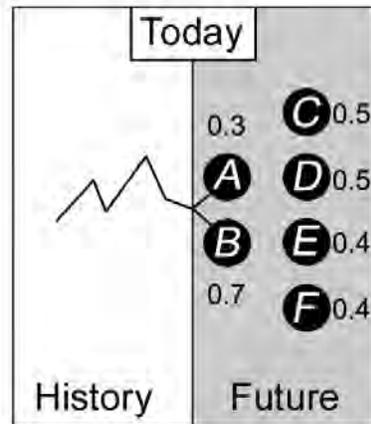
This is a model that recognizes the approximate and provisional character of scientific knowledge and completely establishes the asymmetry between the past and the future. The past is closed, that is to say, all that is possible has already happened, while the future is open to many possibilities, and there is no way that we can imagine them all. This is a case where a) it is only possible to recognize and conceive certain future possibilities, never all of them; b) it is not possible to assign objective probabilities. How many, and which probabilities an analyst is capable of listing depends on his or her imagination, experience, and knowledge about the case. But the list will always be incomplete and there will always be the risk of omitting the most important possibility.

Planning described by four models

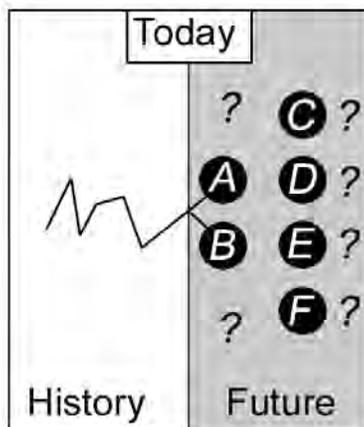
I. Deterministic



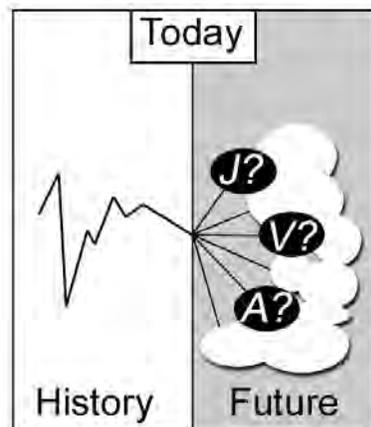
II. Estocastic



III. Uncertainty



IV. Strong uncertainty



In our daily lives, and in the management of protected areas, there are situations that can illustrate each and every one of the models; where each one of them has its own implications in the planning process.

Carlos Matus' criticism of traditional planning concentrates on the fact that

“Traditional planning ignores the existence of the other, it ignores the opponents, it ignores the metaphor of the game, and it ignores the social actors. It is a planning mechanism that has one actor and many agents; in other words, one person directs, while the rest play or participate according to the established rules. This basic assumption, which takes away the representativity of the real world, creates a complete lack of capacity to deal with uncertainty and surprises.”

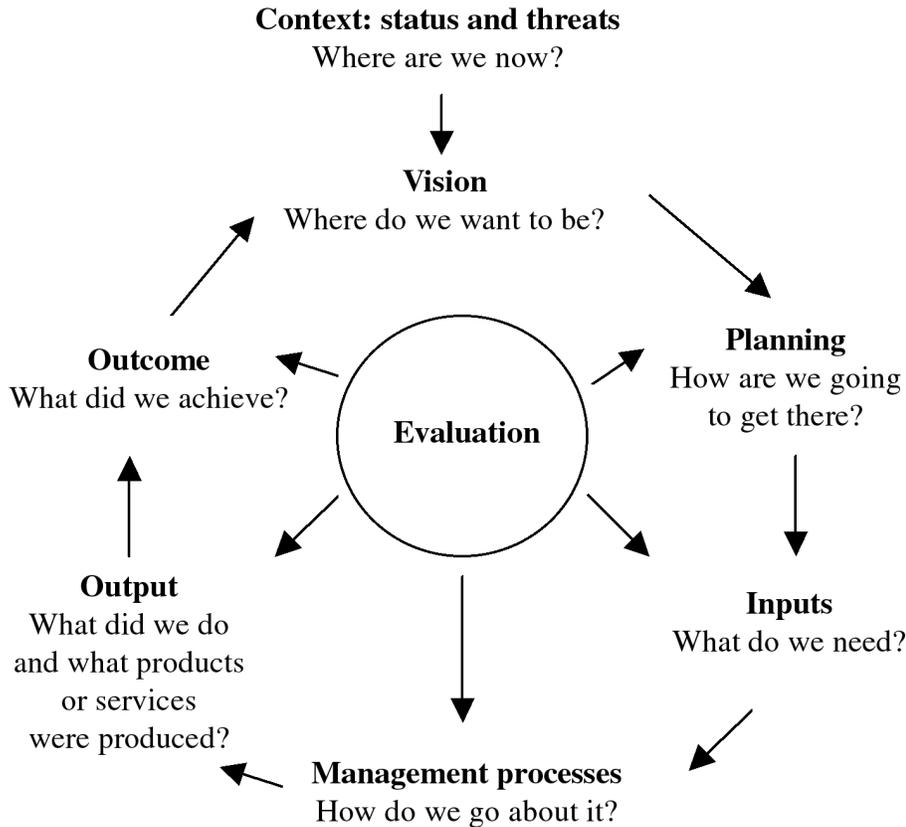
This criticism of the traditional planning model is mentioned in order to present elements that should not be ignored, and to demonstrate that planning can be seen in many different ways, depending on the situation in which it is applied.

Planning as a continuous task in the management cycle

“Managing” means giving shape to the social processes in order to reach a common vision. One of the management functions is the creation of shared objectives and visions. This is achieved through analysis and planning; informing, organizing, motivating, establishing cooperation networks, monitoring, and reflecting. These activities, and the tasks that appear as a result of them, must be developed regularly throughout the planning process, from the preparation, up until the implementation of the first steps. This implies that planning for the management of a protected area must not be limited to the elaboration of a management plan, but that it should be seen as a dynamic process.

As such, it is very susceptible to the changes that occur in the protected area and to the new perceptions and priorities of the different actors. Thus, planning must be considered a continuous task in the management of protected areas, and it must be implemented according to the needs. This process is not linear. It has feedback cycles, in which the analysis and the decisions that are made can be revised in greater detail, as more experience and information are acquired. Therefore, it is necessary to use the evaluation instrument, taking into account all aspects of the management cycle, including the context in which it will take place. The results of the evaluation can be fed back into the different parts of the management cycle.

Management cycle and evaluation



Source: Hockings, M.; Stolton, S.; Dudley, N. (2000)

The follow-up and evaluation of the management of protected areas can be performed at several levels: within the context in which it is being managed, with the planning, with the information and resources that are required, with the process, and with the achievement of the management goals. Once the “outputs” and “expected outcomes” to be reached at each level have been defined, together with the parties that are involved in the different management steps, it is possible to determine whether or not they have been reached.⁶

The scope of the expected output: What was done and what outputs or services were produced?

The questions about the evaluation of the “output” take into account what has been done through the management, and they examine to what extent the goals, plans, and work programs have been implemented. The focus of the evaluation of the expected output is not to verify whether the desired goals have been met through the actions that have been taken; but rather the idea is to examine whether the activities have been performed on time, and which were the obstacles for the implementation.

The scope of the expected outcome: What has been achieved?

This question evaluates whether the management has been successful with regards to the objectives that were identified in the strategic plan and in the zoning plan, according to the management category, and in the municipal, regional, and national development plans. The evaluation of the “outcomes” or impacts has a lot of meaning in the areas in which concrete management objectives and activities have been specified. Amongst the ways of evaluating the expected outcomes we can mention: long-term monitoring of the condition of the biological and cultural resources of the protected area, socioeconomic aspects of the application, and impacts of the area management on the local communities. The evaluation of the expected outcomes is the real proof of the management effectiveness.

In the past little attention has been paid to the evaluation or follow-up of the expected outcomes of the management of a protected area. However, this aspect is extremely important, which is why the selection of indicators to be monitored is crucial.

Implications of the concept of national parks for planning

For more than two decades, the World Conservation Union (IUCN) has promoted different management categories for natural protected areas. Although in all of the Latin American countries there are many different names and different management categories, the concept of national park has undoubtedly been the most assimilated and accepted. This concept has also served as a starting point for the conceptualization of management plans, for national parks themselves, as well as for other protected area categories. Therefore, it might be useful to present a brief history, explaining the origins of national parks and the underlying concept.

The concept of protected areas, in its modern form, was initially set forth in the second half of the 19th century, when the first national parks were declared in the United States and in Australia. Both countries were going through a process of land distribution and privatization, in which many landscapes that were considered uninhabited were privatized, thus forbidding the general access and the public control over them.

As a result of this, the Yellowstone Manifest, a law under which Yellowstone National Park was created in 1872, indicates that

“...it is reserved and separated from colonization, occupation or sale under the laws of the United States and dedicated and assigned as a public park or recreational land for the benefit and enjoyment of the people; and any person who settles or occupies this park... will be considered a trespasser and therefore expelled from the place.”⁷

The selection of the term “national park” is due to the fact that a “park” is considered an area that has been placed under protection for the enjoyment of the people. And, on the other hand, the word “national” was used in order to have a more precise definition, as “national park” was to describe an area that belongs to the nation and that is administered by the national government.

The definition and concept of national park, such as it was approved by the Tenth General Assembly of IUCN, celebrated in New Delhi, India in 1969 establishes that:

“A national park is a relatively large area:

1. where one or several ecosystems are not materially altered by human exploitation or occupation; where the plant and animal species, geomorphological sites and habitats are of special scientific, educative and recreative interest or which contains a natural landscape of great beauty; and
2. where the highest competent authority of the country has taken steps to prevent or eliminate as soon as possible exploitation or occupation in the whole area and to enforce effectively the respect of ecological, geomorphological or aesthetic features which have led to its establishment; and
3. where visitors are allowed to enter, under special conditions, for inspirational, educative, cultural and recreative purposes.”⁸

This definition and the underlying concept gave birth to the two main axioms for national parks:

- that they are unoccupied areas,
- that there is a central authority in the country that has the power to take measures to effectively guarantee the conservation.

When it comes to planning for the management of a national park, these axioms of having an unoccupied area and an unquestionable

authority - a large number of national parks that have been created do not have them⁹ - have the same meaning as when you build a house on land where nobody is opposed, following these steps:

- evaluate the land (diagnosis),
- define why the house is to be built (objectives),
- define the rooms and the function of each one (zoning),
- define programs to give life to the house (educational and interpretive programs),
- define programs to protect and defend the house (surveillance and monitoring programs),
- during the construction, ask the neighbors whether they like the style or have any suggestions as how to make it better (consulting the public).

This is a brief summary of the traditional planning that was promoted for a long time and which today is still used by many agencies and organizations in charge of managing national parks. This planning is based on Carlos Matus' model I, "Deterministic Systems," which surely has good results when working with areas that are truly unoccupied, with a central authority in the country with real power, and a situation in which nobody is opposed to the construction. In other words, traditional planning is applicable in national parks whose characteristics meet the requirements of the deterministic model. However, as we will see, in most cases the situation of protected areas in Latin America is different and does not meet these requirements, which means it is necessary to look for alternative schemes for the elaboration and execution of management plans.

Framework conditions of protected areas in Latin America

The particular characteristics of protected areas in Latin America should be taken into account when designing and applying planning strategies for their management.¹⁰

Let us recall that within the traditional concept of national parks and other protected areas there are basic assumptions for their management:

- that they are property of the state,
- that they are unoccupied areas and isolated spaces,
- that they have strong and centralized institutions,
- that there are enough human and financial resources for their management,
- that there is political support for their conservation,
- that there are laws for the protected areas that take precedence over other laws.

It is also assumed that there is a social consensus and acceptance of the concept and of the objectives of the protected area. However, in reality many protected areas were established from desks, without local participation, with a centralist management from which the creation and management of the area corresponded to national interests and not local ones. To this we must add that, regarding the management categories, most of the protected areas were, and still are, treated as if they were national parks.

The current framework conditions for protected areas in Latin America can be classified in the following groups: administrative/institutional, political/legal, socio-cultural/economic and biophysical/ecological.

In the *administrative/institutional framework*, in general, the institutions in charge of the management of protected areas have few financial and trained personnel resources, and are characterized by a weak administrative structure. This situation promotes an increase in the dependence upon international financing sources and a planning and management plan preparation process that is executed by “external” consultants, who are not directly involved in the protected area. Given the centralized character of the administrations and the interinstitutional conflicts, in many cases there is a reserve warden, park director or manager with little or no decision-making power, which debilitates the management and makes it difficult to generate experience and train the personnel.

Protected areas in Latin America generally have blurry *political/legal frameworks*, lacking clear definitions of the management categories and of the limits of the protected area itself. This happens because, on the one hand there is a plurality of policies and laws, which are often contradictory; and on the other hand, the laws that promote the protected areas do not have the same degree of relevance as other sectorial laws or their relevance is not recognized. In addition, there is the fact that protected areas do not necessarily represent a priority for the State, although there are many agreements and international political agendas on the topic. Also, there is a generalized ignorance regarding the problem surrounding land tenure that can cause conflicts with traditional and indigenous communities and with squatters. The weaknesses of the political and legal framework, and the conflicts of interest that exist with respect to the use and objective of the protected area, hinder the process of modifying the current laws and diminish the possibilities of achieving participative, efficient, and effective management.

The *socio-cultural and economic framework* of protected areas in Latin America is characterized by the lack of economic resources in the local communities, which are often marginal, that are submitted to

colonization processes and to the expansion of the agricultural frontier. There is also a lack of awareness with regards to the need to conserve the natural and cultural resources of the protected area. This decreases the participation of the actors, who, in turn, tend to prioritize economic growth over the conservation of natural resources. However, there have been changes in favor of conservation and towards a vision of protected areas as a center for sustainable development. Among others, there is a greater disclosure and appreciation regarding environmental services, an increase in integration of protected areas and their surroundings, and more inhabitants in favor of the protected area. This last factor emerges from the increasing demand for recognition of the social, cultural, and economic relations of the local population, which leads to improvements in the level of participation and appropriation of the rights and responsibilities in the management of the protected area.

In the *biophysical/ecological framework* there are fortunately still great extensions of natural areas that are intact and virgin in Latin America, but they lack good inventories of the existent biodiversity. At the same time, there is a growing pressure on these resources, for various reasons, ranging from private farms and traditional land uses, and large transnational pharmaceutical and timber companies, to the increase in pollution of the air, rivers, lakes, wetlands, and seas.

Principles that guide the management of protected areas

The challenges for the application of traditional planning strategies, given the reality of protected areas in Latin America, require thinking about some of the assumptions that dominated traditional planning. Also, this allows us to define certain principles that serve to orient the management of protected areas today.

Integrity in the spatial environment

Protected areas must be considered an integral part of the local, regional and national dynamics that facilitate or limit the possibilities for the conservation of natural resources. Consequently, planning must take place at several levels. First of all, it must exist at the level of the protected area upon which the strategies and management are focused. On the other hand, there is the surrounding area (buffer zones, neighboring zones, zones of influence, etc.), managed in order to minimize the possible negative environmental impacts on the protected area, working towards the compatibility of the legitimate development aspirations of the different actors, with the interests of long term conservation. And finally, it is necessary to consider their location within the context of other protected areas, for example, based on the connectivity of the spaces, making up biological corridors, or as part of a Biosphere Reserve.

Coherence in the institutional realm

There must be coherence between the different levels of planning and management of the institutions involved at a central, regional, and local level. This allows optimization of resources and the achievement of uniformity in the application of relevant policies.

Implementation of participative processes

There must be the capacity, the interest, and the institutional political will to promote and implement participative processes and applications.

Collective construction of the future

Collective construction is the fundamental strategy to achieve a consensus about the use and future of the area because it involves all relevant actors in the management. All elements of the socio-environmental conflicts can be discussed between the social and institutional actors, for which it is necessary to strengthen their relations.

Integrity and continuity of the process

It implies paying attention to all the components for the management of the area, which affect the implementation of what has been planned, such as organization, execution, follow-up, evaluation, and adjustments to the initial planning (management cycle). The elaboration of the plan is part of its application.

Management with the appropriate information levels

There must always be an appropriate information base for the level and magnitude of the decisions that are to be made. This basic information must be comprehensible for all those involved in the decision-making process.

Consideration of the conservation's social function

It is indispensable to recognize and appreciate the importance of the social and institutional actors in the management of protected areas.

Specifically taking into account their historical link, their socio-cultural identity, the use of the resources, the environmental regulatory system in the area, their expectations, and the legal title of their link to the protected area.

Conservation objectives as the starting point

The conservation objectives are the starting point for the planning process because they establish the parameters that are used to evaluate the relations between the area and the social actors.

Selection of methodologies

There are no unique formulas or methods to plan and manage protected areas. There are many methodologies that can be successfully applied according to the institutional context, the legal framework, and the socio-cultural context of the area. Knowing these different methodologies allows for their adaptation to each particular case. It even permits the creation of new methodologies; as long as they respect the management objectives, in order to guarantee its coherence, quality and effectiveness.

Knowledge of the area

It is not indispensable to have detailed and precise knowledge about the area in order to begin the planning and management. The elaboration and execution processes of the management instruments will fill these information voids. It is a construction of knowledge and successive approximations about the complexity of the area and its surroundings.

Responding to external and internal changes

The planning and execution, together, must respond to the external changes that emerge from social, economic, and political processes. They must also respond to the internal changes of the protected areas, implied by the actual execution of the plan. For this it is necessary to have a high degree of flexibility and adjustment capacity during the implementation of the management plan, which involves the establishment of indicators and efficient monitoring instruments for the management of the protected area and its environment.

Transition strategies

The definition of transition strategies facilitates the management of current conflicts, such as occupation, non-sustainable production systems, high impact impoverishing processes, etc.

Planning documents

- *Language:* The language used in the planning documents must be concise and easily understandable and accessible for the local actors.
- *Presentation:* The planning documents must comply with the flexibility requirements. They must therefore have a structure and format that facilitate the edition and inclusion of information and they must allow an appropriate “management” of the plan itself.
- *Access:* These documents must always be available to all actors and must also have a public dominion character.

The above mentioned principles might guide the management of protected areas in order to present a possible solution to the limitations and challenges that have been identified for the use of traditional protected area management concepts in Latin America. For a more efficient and effective management in the future, the challenge consists in the implementation and acceptance of new concepts by all the actors involved.

What is a management plan?

Through the analysis of different literature a variety of management plan approximations and definitions were found. Here are some of them:

- “The zoning and management plans for national parks and natural monuments are the fundamental instrument for their management and conservation and shall contain, in general, the guidelines and policies for the administration of the area, management modalities, use assignments and the permitted activities...” (Venezuela, Decree 276 of June 9, 1989)
- “The management plan guides and controls the management of protected area resources, the uses of the area, and the development of facilities needed to support that management and use. Central to such a plan is a statement of goals and measurable objectives to guide the management of the area.” (IUCN, 1990)
- “Management plans are documents that guide the use and control of resources within protected areas.” (Ledec, 1992)
- “The management plan is a dynamic, viable, practical, and realistic instrument that, based on a process of ecological planning, fixes in a technical and normative document the general indications for conservation, zoning and uses of the natural space, becoming the pillar instrument for the zoning, management, and development of protected areas.” (Gabaldon, 1997)
- “The management plan is a technical, regulatory and proponent basic planning instrument for the management of a protected area.” (Cochabamba Seminar-Workshop, 1998)

- "...the management plan can be defined as the guideline technical document for planning that refers to the entire area to be protected, and which contains the essential background information, management objectives, zoning, and specific management programs, including in detail the activities, rules, and requirements needed to achieve the expected goals." (Oltremari and Thelen, 1999)
- "The management plan is a technical document which, based on the general objectives of a protected area, establishes its zoning and the regulations that must preside over the use of the area and the management of the natural resources, including the establishment of physical structures that are necessary for the management of the area." (Brazil, Law 9985 of 18 July, 2000)
- "The management plan is a support tool for the management of a protected area that establishes the policies, objectives, regulations, guidelines, possible uses, actions, and strategies to be followed, defined based on a technical-political analysis of the resources, management categories, potentialities, and problems, with the participation of the different actors involved, and where conservation and development come together according to the capacity of the resources." (ANAM, 2000)

The planning process and guidelines are very important in order to achieve the objectives of protected areas. Management plans, as one of the outputs of this process, are support and guidance tools. Specifically, the plans provide guidance in three dimensions:

- in space, establishing what should be done in a given place,
- in time, establishing what should be done at a given time,
- in method, establishing how things should be done.

A management plan can be defined in many ways. However, in order to come as close as possible to a general definition, several aspects must be made clear, such as: why is a management plan elaborated?, what must it contain?, and how should it be executed? In order to define a management

plan it is also important to take into account the local communities and other stakeholders and the current management situation of the protected area. And, before initiating the elaboration process, it is indispensable to ask, what is the baseline situation?, what human and financial resources are available?, and how should the management plan be elaborated and executed?

Geographic reach of planning

The geographic reach of the actions proposed for the management of a protected area depends on the conservation objectives, the actors that intervene actively or passively, and on the groups or persons who have interests or are affected by the protected area. Outside the protected area itself we can distinguish between the “buffer zone”, the “neighboring zone” and the “zone of influence”. These are areas or concepts that are used to define the scope of the management strategies, with the intention of achieving the conservation objectives of a protected area as a contribution towards the sustainable development of a region.

Unlike the “neighboring zone” and the “zone of influence”, a protected area and its “buffer zone” form part of the regional and national land use plans.

Protected area

An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, managed through legal or other effective means.¹¹

Buffer zone

The term “buffer zone” refers to the peripheral zone of a protected area, where there are restrictions to the use of the resources, or where special development measures are taken to increase the conservation value of the area.¹² It is a region with conservation objectives to minimize the external negative impacts upon a protected area.

Neighboring zone

This is the zone in which the economical situation of the inhabitants is directly affected by the legal provisions and/or the management activities of the protected area. For example, before the protected area was declared the inhabitants of the region had free access to the natural resources through hunting, fishing, collecting, etc. Thus, the management of the neighboring zone is of vital importance for the socio-economical situation of its inhabitants, and requires special measures in order to promote socio-environmentally sustainable development and the acceptance of the protected area.

The zone of influence

Zone of influence is a term that does not define a geographically determined region in the sense of an area with limits. It implies that all the actors that have a functional relation with the protected area must be taken into account. For example, it includes the tourism companies with headquarters in the capital city and transnational forest companies that perform activities in the region.

Geographic reach of the Management Plan for the Loma Quita Espuela Scientific Reserve in the Dominican Republic

The Loma Quita Espuela Scientific Reserve, in the northeastern region of the Dominican Republic, is destined to conserve the largest redoubt of cloud forest in the country. It is co-administrated by the Sub-secretariat for Protected Areas and Biodiversity, the entity in charge of protected areas, and by the non-governmental organization Fundación Loma Quita Espuela. The conservation of the cloud forest represents a challenge due to, on the one hand, the advancement of habitat transformation through cattle-raising and agricultural activities, and on the other, the great resistance to the establishment of the protected area from the local inhabitants. This resistance is explained largely by the feeling of mistreatment towards the local inhabitants in previous periods, from activities in the management of other protected areas in the country.

In a participative process between different actors, the management plan for this Reserve was formulated in 1997. The defined geographic reach was the protected area itself, approximately 72 km², and a Buffer Zone of approximately 128 km². Thus, the management plan has two clearly defined components: a) Area Management Program for the designated Scientific Reserve, and b) Program for the Buffer Zone.

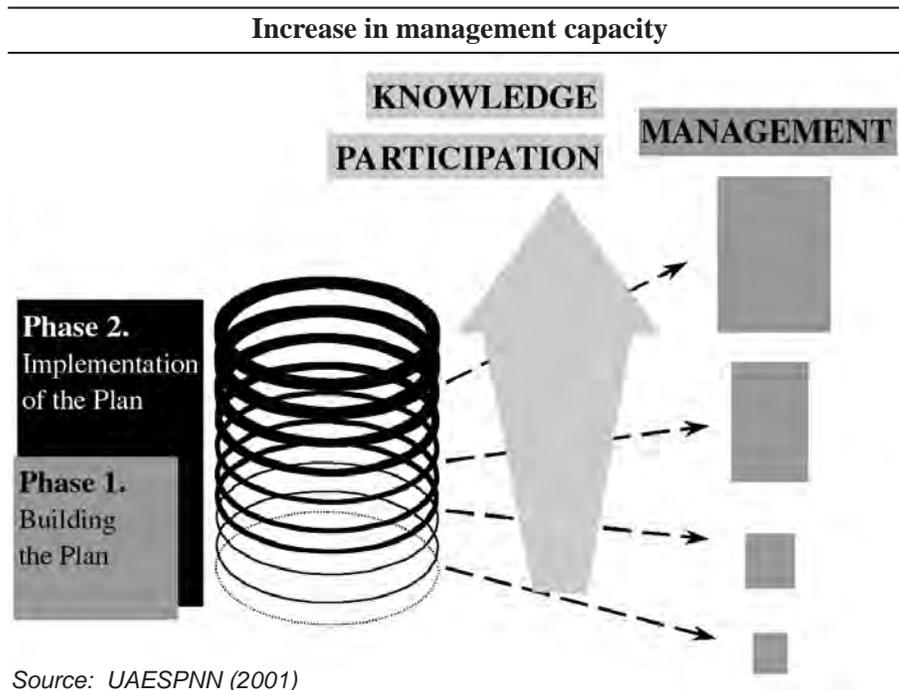
The reserve area was differentiated into five management zones: scientific zone, special use zone, contradictory uses zone, regulated social use zone, and recuperation zone. The activities to take place there were grouped into three sub-programs: a) Protection, b) Environmental Education and Ecotourism, and c) Scientific Cooperation and Research.

For the Buffer Zone a rigorous zoning structure was not established, instead agreements were reached with the communities regarding the use modalities and restrictions in the areas surrounding the limits of the Reserve. A Program of Community Development was defined for the work with the communities, made up of four sub-programs: a) Community Education and Organization, b) Sustainable Agriculture and Animal Production, c) Forest Management and Research, and d) Community Health. For the execution of these sub-programs activities are coordinated with the institutions, leaders, and community groups that have interests there.

Despite the many obstacles that have been overcome, and that still remain to be overcome in order to achieve a good use and conservation of the Reserve, the inclusion of the Buffer Zone as an integral part of the management plan for the protected area has been one of the best tools that contributed to the success up to that moment. The support and participation of the community members for the protection of the reserve has been noticeable.¹³

Building the management plan: getting started

“You have to start with something.” Until a management concept has been developed in a participative manner, a start-up team must take the initiative for the process. During the construction and implementation, the management plan will “grow” parallel to the consolidation of the management of the protected area.



Usually, the initial phase generates enough information to define the first management activities. If information or specific knowledge are lacking, the activities to be defined in the strategic planning can fill these empty spaces. This way, with the increase in information and participation, the management capacity for the area also increases.

A start-up team (driving committee, launching committee, etc.) is a small group, made up of perhaps 4 or 5 persons, that accepts to take charge of the preparatory phase of the processes related to the strategic plan or the zoning plan. It must be made up of persons who are familiar with the conservation topic and who moreover identify themselves with it, in order to have enough dedication to their job, understanding conservation as a pillar of sustainable development as it is closely connected to political-legal, social, and economic aspects. Moreover it is convenient that at least one of the members of the committee knows the area very well. The start up team should keep together once the respective process has commenced, and may have as members a community leader, a government employee, a member of a NGO, a member of a project in the region, etc. What is most important is that the local community and the actors who are involved in the protected area are trusting and feel that they can communicate with at least one person in the start-up group, even if they do not feel directly represented in it. Some key characteristics that the members of the team must have are: diversity, credibility, personal motivation, and an excellent communication capacity. Some qualities for the team itself are: being active, efficient, fair, multidisciplinary, and transparent in their decision-making; acting on the basis of a consensus and collaboration; being resolved to promote but not to direct or dominate the process of elaborating the strategic or zoning plan. The tasks for the start-up team are:¹⁴

Defining the scope of the work

The start-up team must define the output as well as the expected outcome from the process. It is very important to have a clear idea whether a strategic plan, a zoning plan, or both are desired. The team must elaborate a work plan that defines with whom, where, and about what aspects it is necessary to have meetings, similar to an annual operational plan.

*Gathering information and work tools
regarding the main ecological and social aspects*

The start-up team can begin its work gathering information in order to have a better understanding of the territories and landscapes in the region. Especially for large protected areas, it is useful to define management units that have a certain homogeneity due to their cultural (territory) or geographic (landscape) character. This task may, but it does not have to, culminate with a descriptive compendium about the region (see chapter about descriptive compendium).

**Identification of actors and parties interested in getting involved
in the process, Costa Rica**

*Communities, organizations, social groups, and individuals have a direct, and specific interest in the management of the protected area. For example:*¹⁵

Local groups: that are representing the different employment, natural resource users, and gender (young persons, older persons, women and men) sectors.

Members and representatives of social organizations and the private sector who are related to the protected area: this refers to cooperatives, development associations and institutions, which are very important in the entire elaboration process, contributing ideas, opinions, and reaching agreements.

Employees from the National System for Protected Areas Administration: the intervention of executive personnel is basic for the establishment of the commencement of the process.

Technical personnel directly linked to the management of the protected area: they are directly involved in the preparation, as well as in the execution of the programs.

Representatives of regional institutions: such as municipalities, local governments, universities, etc. Their essential role is the coordination and execution of the programs.

Representatives of non-governmental organizations: *such as conservationist or donor organizations. Their participation is related to the contribution and demand for resources (economical, technical personnel, researchers, etc.).*

Consultants: *if the capacity identified for the elaboration of the plan in the area, or within the National System for Protected Areas, is low, consulting firms or individual consultants can participate in the process. Their participation will be sporadic and will be restricted to the development of specific aspects of the plan.*

Gathering information about the legal and political bases of the protected area

The lead agency must have a compendium of all the laws related to protected areas in general, which must be complemented with the laws and agreements that exist for the particular protected area. The management is based on the laws and regulations about the area, and it uses these as a baseline. It is important that the planning takes place within a political and legal framework, which is recognized and sufficiently specific. Without a clear political framework to guide the strategic and operational planning, one runs the risk that the start-up teams define diverse policies for one same topic, which could lead to discrepant interpretations and management orientations in the different protected areas (see chapter about Compendium of laws, rules, and agreements).

Launching and maintaining social/environmental communication initiatives

The social/environmental communication initiatives are basically a continuous flow of information and dialogue between the start-up team and the actors, but they also include the current persons involved. They can be initiated with any specific event (a fair, a public party, a community assembly, an itinerant play, etc.), but it should also include a lasting component, with the purpose of responding to the communication needs that may arise with time. During the preparation phase, social communication promotes a critical understanding of the need, objectives, and process of

elaborating a strategic or zoning plan. It serves to answer key questions such as, what do we need the protected area for? what functions does it fulfill and what services does it offer? what is a strategic plan and what is a zoning plan for the area? is it necessary to do this here? and if so, how do we get it going?

To begin with, the start-up team can identify the space and manner in which the actors discuss and how they handle the affairs of the protected area. If possible, it would be helpful to identify and use those means (songs, informal conversations and meetings, oral story-telling, sermons in the temple or drawings on the walls) and space to transmit information. As environmental communication needs to be understandable for society in general, it is possible that the start-up team may have to stop using some of its favorite conventional communication methods (pamphlets, talks with speakers, etc.), and make use of others which are more creative and effective (a game to develop environmental awareness, a lottery in a local market, etc.). It is advisable to use a combination of different methods in order to reach and motivate different groups and sectors of society. Another important aspect that should be kept in mind is that the communication channels must promote dialogue and discussion, avoiding “teaching” or “preaching.”

It is important to point out that a lot of time may pass before reaching the moment where there is understanding, and where it is possible to plan in a “participative” manner or to “negotiate” in-between the actors.

Supporting the actors so that they can organize themselves

In order to participate in the process of elaborating the strategic plan or the zoning plan, the actors must reach an internal consensus about the values, interests and apprehensions they would like to set forth. They also have to select persons to represent them in assemblies. For some of them, for example the employees of a government entity, this may already be established. But for others, for example the members of a community of farmers that recently settled on the agricultural frontier, it can mean a time investment and will require external support and facilitation.

Preparing the planning events

The start-up team must have a clear idea of how to handle or organize the different steps in the processes together with the different actors. Moreover, it must know when it is necessary to repeat or elaborate upon a specific aspect in the development of the strategic or zoning plan.

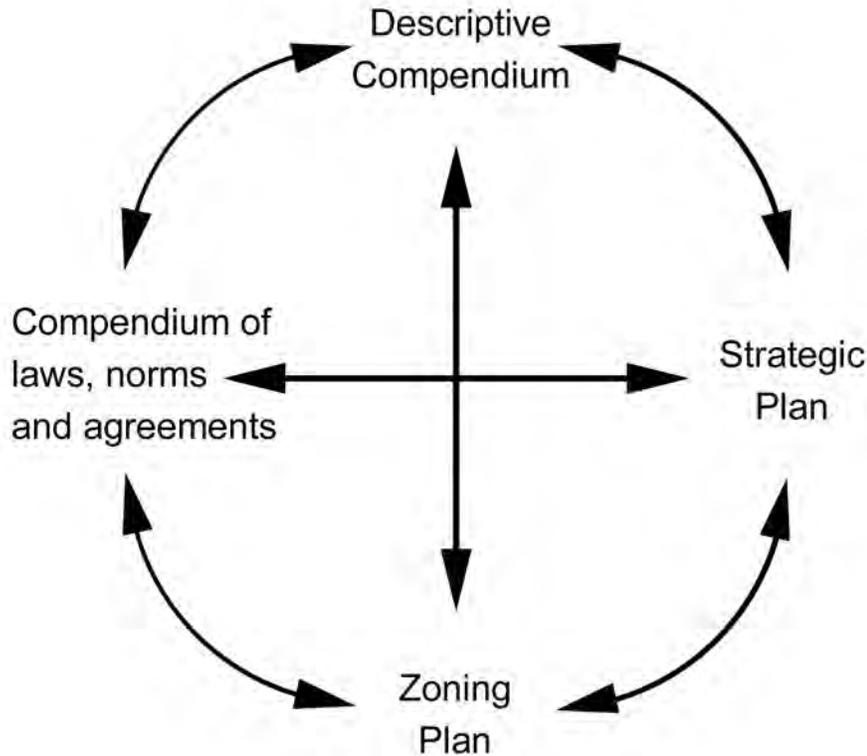
Simplifying the management plan: separation into four management tools

Currently management plans, in the traditional form or with methodology adaptations, try to fulfill the expectations set forth in the definitions and functions described in the previous chapters through four elements however, under one concept, in one document:

- *Descriptive compendium*: as a source of information for any geographic, biophysical, social or economic question in relation to the area.
- *Compendium of laws, norms and agreements*: as a source of information for any legal question in relation to the protected area.
- *Strategic plan*: giving priority to activities that should be performed first, offering answers about what to do, where and how.
- *Zoning plan*: establishing norms for the use of the land, defining where you can do what and how.

Seeing the magnitude of the tasks to be fulfilled within these four elements, it is understandable why management plans are not considered manageable tools. In order to simplify the management plan, it is possible to disassociate the four elements (the descriptive compendium, the compendium of laws, norms and agreements, the strategic plan, and the zoning plan) without losing congruency, and to see them as independent management tools.

**Simplifying the management plan:
separation into four management tools**



But there are not only pragmatic reasons that favor the separation of the different elements of a “management plan,” such as the complexity and magnitude involved in the production of the document. There are also conceptual reasons:

- The *outputs and expected outcomes* of each element are different, which entails different strategies for each one of them.
- The *baseline information* for the elaboration of the different elements may be similar in some parts, but it will not be identical for the element as a whole.

- The *actors involved* in the elaboration of the different elements, are not identical in each element.
- The *methodology* to be used in the elaboration of each element is different.
- The *timeline* for the elaboration varies a lot between one element and another.
- Finally, the *approval* of the four elements involves different actors and different levels or representations from organizations or institutions. The descriptive compendium, the compendium of laws, norms and agreements, and the strategic plan are developed at the local level with the participation of those interested in the management and use of the protected area, whereas the zoning plan requires a more formal approval, with representatives from the communities and the responsible state institutions.

Concluding, it is recommended that the persons who plan the management of a protected area make clear from the onset what the main goal really is: whether it is the elaboration of a descriptive compendium, or a compendium of laws, norms and agreements, a strategic plan or a zoning plan. All of these elements have their value but they are independent management tools, with specific intentions. According to the needs of the protected area, each element can be worked upon separately or in a parallel fashion.

As a result of what has been presented up to now, there is not “one” document called a management plan. There are four independent instruments that must have their own name or technical term: the descriptive compendium, the compendium of laws, norms and agreements, the strategic plan, and the zoning plan.

Up to a certain point, the separation into different management tools is already applied in the model “management plans” in Venezuela and Ecuador. The planners in Venezuela decided to give greater importance to the “land use zoning” element, whereas in Ecuador they opted to concentrate their efforts on the elaboration of a “strategic plan.”

Zoning and Management Plans, Venezuela

Planning for protected areas in Venezuela was developed on two levels: on a system level, with the selection of sites to be designated as protected areas, and at the level of the internal zoning for each area, with the planning of management activities. Planning was done for areas belonging to the System of National Parks, which includes National Parks and Natural Monuments.

When we talk about Management Plans in Venezuela, we are essentially referring to “zoning plans,” which also contain a sketch of a “management plan” (without all the details) and the “use regulations.” Legally these plans are called “Zoning and Management Plans and Use Regulations,” and they are seen as “fundamental instruments for management and conservation.” The conceptual scheme of their content is defined in a “general regulation for national parks.” The main aspect of these plans is the “zoning.” The plans are elaborated in a preliminary form by a technical team from the National Park Service (Inparques), and they are then submitted for consideration or criticism to the general public, with a special emphasis on the settlers, local authorities and other actors that live in the protected area and around it. This consultation is a process that has its center in one or several events called “Public Consultation Workshops.”

Once this process, which can take several months, is completed, the plan is adjusted according to the technical-political decisions and it is submitted for approval and legal publication, which comes from the President of the Republic.

Up to the present moment, plans have been approved for 25 of the 64 areas in the National Parks System.

Strategic Plans for Protected Areas, Ecuador

Starting in 1996, a methodological process was developed in Ecuador for the planning for protected areas, which was adapted to the country's specific conditions, using situational strategic planning, the search for political support at the highest decision-making levels, and the training of personnel for the implementation of this new process.

The applied methodology was based on a) the active participation of the actors in the planning process, b) facing the management problems, c) the strategic selection of activities considering the existing governability, d) the zoning of the protected area as agreed with the users, and e) the idea of a dynamic plan that should be up-dated constantly.

With this, the participation of the local actors in the management decisions was achieved, as well as a better knowledge of the area, of its potentialities and management problems, the initiation of conflict resolution processes, the appropriation of the management plans, and the establishment of commitments on behalf of the local actors.

The descriptive compendium for the protected area

The descriptive compendium is the general characterization of an area or region. This includes the classical geography tasks with their elements of physical and social-human geography.

The expected output is a compilation of existing information about the protected area and the region it is in, presented in the form of a document. The contents will depend on the target group for whom the publication is oriented. It can variate between a purely scientific document and a book with photographs and texts in a more general manner up to the form of a web page.

Once the document has been elaborated and published, the expected outcomes are:

- *that the actors and other interested parties know*, among other things, about the geographical, biophysical and socio-economic elements of the protected area and its region,
- *that people value* the protected area for its natural landscape, attractions such as plants, animals or geological formations as well as associated cultural aspects; that they recognize the environmental services offered by the area such as water, air or protection against erosion; and that they see the positive contributions towards education, recreation or research for local, regional, national, and possibly even international and global development. Therefore the descriptive compendium is supporting and contributing towards the management of the protected area.

In order to achieve higher effectiveness in the use of the “descriptive compendium” management tool, the following is recommended:

- establishing a library or other means to collect all the existing information about the protected area and the region it is in; and about the different thematic aspects of the management itself. Keeping this library updated is a basic task for all of those who work for the area. This task becomes easier as the different actors are stimulated to contribute towards the collection of information, sharing relevant knowledge.
- according to the sought objective and to the expected outcome, the information must be properly summarized and edited, as significant changes in the region occur, and depending on the identified groups; for example: the local population, tourists, politicians, students from schools and universities, public employees, etc.

Who will participate in the elaboration of the documents themselves depends on the character and the function that the description of the region has to fulfill. According to this, the elaboration of the descriptive compendium can have an extremely participative character or it can be prepared by one scientist or one student within the context of a thesis.

Elaboration of informative materials, Panama

The Cerro Hoya National Park in Panama has a variety of informational materials about the region, amongst which are the web page or videos, developed entirely by government employees, technicians, and consultants. On the other hand, a series of publications, called “Treasures of the Cerro Hoya National Park,” has been developed in the form of booklets with their corresponding poster. Each booklet and poster covers a specific theme of importance for the park and the people of the region, such as birds, mammals, iguanas, trees, medicinal plants, marine life, etc. They also include information about traditional uses and beliefs related to nature and wildlife. The contents and suggestions for the design of the publications in the series are defined by using a participative methodology, based on the

interests and contributions of the inhabitants of Cerro Hoya, complemented by scientific data. The purpose is to restore and value this knowledge, expecting in this way to contribute to the development of a “regional pride” as a basis for the long-term conservation of the natural and associated cultural “treasures.”

Some ideas about information gathering

Traditional appraisals were often simply complete inventories of the protected area resources, which required a lot of time and money to be elaborated. They were basically detailed descriptions of the area’s biophysical characteristics, and placed little emphasis on the socioeconomic aspects. This information, more descriptive than analytic, in many cases was not used for the management. Among the main reasons were the lack of criteria for the contents of the appraisals and the lack of stakeholder participation in the area. The appraisals were performed through the “eyes” of the consultants, without addressing the area’s management problems.

In order to avoid these deficiencies, there must be a close functional relationship between the required information and the potentials, problems and proposed solutions for the management of the protected area, presented previously by the actors who are involved. Information gathering must be directed towards:

- obtaining baseline and reference information to design the programs and activities in the strategic plan,
- expanding, elaborating upon and defending the potentials as well as the problems identified by the actors involved in the management of the protected area,
- validating the definition of the management category,
- validating the internal zoning proposals and the baseline information for the negotiation of agreements in the protected area.

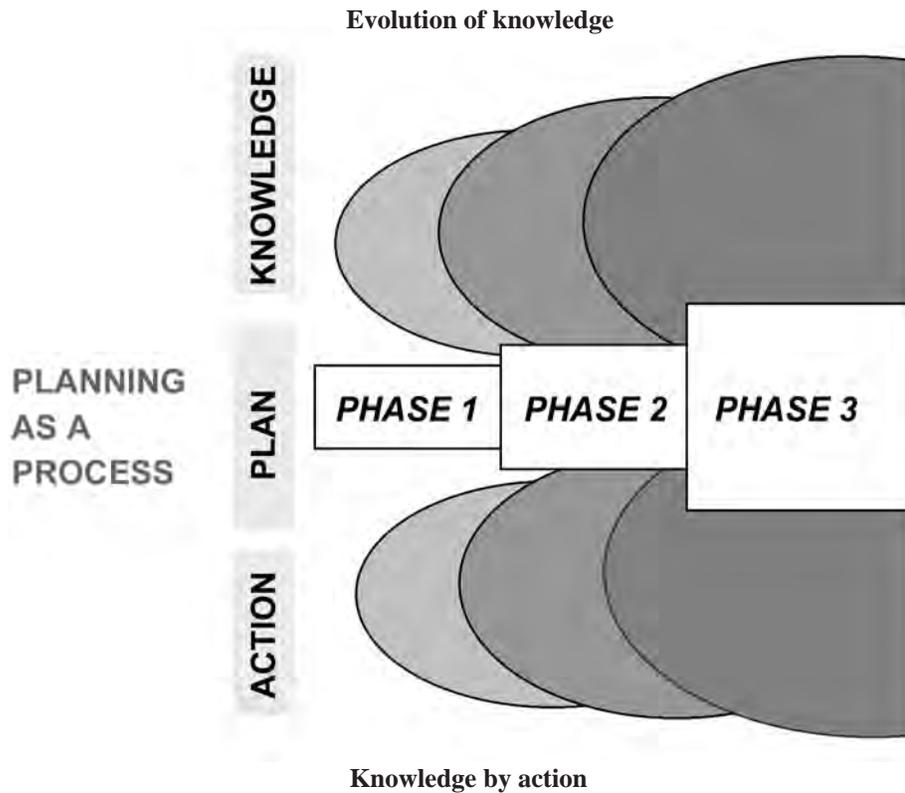
The desired information and knowledge must be closely linked to the concrete circumstances, regarding the problems as well as the potentials of

each protected area, and above all to the management of the same area. For example, if land tenure is identified as one of the key problems, all efforts must be directed towards this topic. One must not fall into the trap of elaborating inventories about a given animal or plant species simply because it is interesting, as it is not necessarily indispensable for the management. Moreover, information must be collected and generated taking into account economic resources and time that is available.

It is important to highlight the fact that other needs to know about the reality of the protected area will be born from the activities that are performed for its management; in other words, new demands for information will appear. Generating information and knowledge about the area and its management are permanent activities. But they are also part of specific activities, as long as the necessary information for the planning or execution of a program or activity has been identified.¹⁶

The generation of information must be a task pertaining to all of those who work in the protected area. The direct techniques are the preparation of primary information and those which promote the expression and reflection of the actors that are involved. Among these techniques we can mention direct field observation (thematic cartographic studies), interviews, polls, and group discussions. The indirect techniques are related to the collection and selective analysis of secondary documented and cartographic information. If specialized studies are required, which cannot be covered by the actors related to the area, a permanent task force should be in charge of preparing the terms of reference for hiring specialists according to the topic and to the available resources.

The preparation of a management plan in phases, Brazil



Source: IBAMA (1996)

**Generating information for the management
of protected areas, Brazil**

Trying to guarantee greater dynamism in protected area planning, management plans are conceived in three phases. Through them the evolution of the knowledge about the existing resources in the protected area, and the broadening of the management actions supported by this knowledge, is achieved. Planning in three phases makes the plan continuous, flexible, and participative.

The management plan, structured in phases, is designed so that the person in charge of protected area administration always has the support of an updated planning instrument. So that the fluidity of the plan is not interrupted, the implementation of a phase occurs simultaneously with the planning for the following one. In other words, during the execution of Phase I the necessary investigations are performed for the preparation of Phase II of the Management Plan.¹⁷

The compendium of laws, norms and agreements

Every protected area functions under a legal framework and an established national policy that must be recognized by the actors who are related to the area. For this reason the national institution in charge of protected areas must make sure that the relevant legislation, with its decrees and regulations, is accessible. At the same time, it must define and publish its own policies with regards to certain problems or potentialities of the protected area. This section of the compendium must be the same for all the protected areas in the country, with differences according to the management category. The compendium of laws, norms and agreements is very important because it guides the zoning and management strategies of a protected area. Moreover, it includes the international agreements and treaties that have been ratified in the country.

The second part of the compendium must include all the treaties, agreements, specific rules, contracts or concessions that are related to the development of a particular protected area. This part must also include the agreements that have been reached during the area's zoning process.

This does not mean that the agreements, regulations or even the laws must be necessarily accepted as such. When necessary, agreements that are included in this compendium should be adapted to the reality of each protected area; just like the laws can be subject to change, due to an incongruence or contradiction in the legal dispositions. If there are agreements that have been eliminated or updated, and therefore replace one that already exists, this must be registered in the files (see the chapter about presentation).

The expected output is a compendium, constantly updated, with all the laws, norms, regulations, agreements, etc., which are relevant for the management of a protected area. The expected outcome is that all of those involved in the management can easily revise and learn about the existing regulations for the management and in this way have a solid support base when it comes to making decisions.

The strategic plan

Strategic planning proposes abandoning the idea that the park director or reserve warden should “handle all the threads.” Everybody can plan and everyone can perform an analysis about the future before making a decision. I plan, you plan, and he plans. We all plan. The planning of protected areas, with people living in them and their surroundings, belongs to a complex system in which all the actors plan their actions in accordance with their objectives and interests, expecting to obtain some profit out of it. This requires that the planners have a certain modesty, aside from what could be called a “chaos capability.” It requires a planning attitude that is participative and concurrent with the different actors, with a strategic eye for building and searching a shared vision amongst the actors. In other words, being able to work without knowing what will happen tomorrow, and trusting that, no matter what, in cooperation with the others, an acceptable solution will be found.

The strategy is the art of dealing with uncertainty and with the obstacles that might present themselves in the plan application process. As a result, the “strategic plan” can be understood as a tool for change and the main instrument that designs the management of a protected area. It is the result of the joint effort of the actors involved in the management of a protected area, and it must be formulated based on the knowledge about the existing situation, within its legal context, considering the possible sceneries that will allow the maximum quantity of actors to participate. A strategy could suppose offers, struggles, agreements, threats, actions and answers between the actors divided into opposing positions. It is not a question of trying to include the complexity in all its details within the planning, because this could create confusion and the important points could be lost. On the contrary, the idea is to pick out certain relationships between the

actors, in order to simplify the outline, thus being able to act. This is what, in planning theory, is called reduction of complexity. Every planning method tries to identify models within the complexity of the relationships. In this sense, you should avoid acting as if the actors were not interrelated, as if the rules of the game were known, or as if the situation was well defined. The planning must be systematical and planned, and at the same time it demands optimism, creativity and a dose of improvisation.

TRADITIONAL PLANNING	STRATEGIC PLANNING
Planning by objectives	Planning considering local problems
Planning performed by the planning team	Planning performed by the start-up team and the local actors
Deterministic approaches	Previsions that consider the governability/decision-making
Objective diagnosis	Situational diagnosis
Plan with only one option	Plan with scenarios, several possibilities
Based only on technical calculations	Technical-political calculations
Considers actors as passive agents	Considers agents with their interests at stake
Theory of controlling a system	Theory of participating in a game

Strategic planning must be understood as a method or process that entails a sequence of analysis and planning steps (objective analysis, analysis of the actors, problems and potentialities analysis, program definition, activities, assumptions, necessary resources, etc.). Planning with sense requires working on this sequence using the appropriate techniques and tools as a complement and with flexibility. Amongst the tools used, there are several techniques: Rapid Participative Diagnostic (RPD), Strengths, Weaknesses, Opportunities and Threats (SWOT), or Future Search Conferences. The traditional comprehensive workshop is only one of the many options. The time necessary to elaborate a first draft of a Strategic Plan depends on the existing knowledge, on the complexity, size, group diversity, problems and potentialities of the protected area.

The expected outcome of the strategic plan is to learn the technical, political, economical and administrative viability of the activities proposed to achieve the goal of creating the protected area. As a baseline the strategic plan must answer the following questions:

- Who must interact to build strategic alliances that will allow the viability for the preparation and execution of the plan?
- What problems and potentialities are essential in the management of the protected area?
- What strategic possibilities do the diverse actors and governing organizations offer (cooperation, opposition, violent confrontation)?
- What strategic measures can be taken to strengthen the interaction between the actors?
- How should the sequence of management actions be organized through time?
- What human and financial resources are necessary to implement the different programs given by the plan?

In order to write up the strategic plan, it is recommended to use the following nine steps:

- analysis of the reasons for the creation and the objectives of the protected area,
- identification and categorization of the actors,
- identification of problems and potentialities,

- elaboration of a shared vision,
- definition of the main programs and activities,
- viability analysis: risks and assumptions,
- establishment of strategies,
- definition of the strategic course to be taken,
- budget and financing sources.

*Analysis of the reasons for the creation and
the objectives of the protected area*

The reasons for the creation, as described in the declaratory decree and in accordance with the management category of the protected area, are the starting point for the planning process. As such, they establish the parameters used to evaluate the relationships between the area and the social actors. Moreover, they must be the guideline for the planning process because they establish the frame in which the programs and management activities should, or could be developed. Since the reasons for the creation of the protected area are the starting point in the planning process, the protected area automatically becomes the focal point of the process. In this way it is intended to reconcile any other development plan for the region with the objectives of the protected area. However, there are always groups with different interests and expectations, such as lumbering and the expansion of farming lands or municipalities. These actors also define their own objectives, intervention area and strategies. For this reason it is indispensable that they are aware of the value of the environmental services the protected area provides and that, consequently, they incorporate these elements into their own development plans. Likewise, it is indispensable that the functions and objectives of the protected area are included in all the development plans on municipal, provincial, regional and national level.

In case that the management category doesn't fit with the biophysical and social reality of the protected area, the possibility of adjusting the legislation that establishes and justifies the existence of that area, must be taken into consideration. For instance by changing the management category or the limits of the protected area.

Identification and categorization of the actors

The preparation of the strategic plan must start, on one hand, with the identification of the actors that participate actively or passively in the protected area management processes, and on the other hand, with the groups or persons affected by the area. This analysis will indicate the geographic reach of the strategic plan, since it must consider, if possible, all the people, institutions and organisms that have any relationship with the area.

For each identified group, with either good or bad influence, it is necessary to detect its power and acting possibility through the political, legal, organizational, informative and economical resources it controls. It is also necessary to detect the positions and motivations that the actors have with regards to the protected area, its management and the planning process itself.

The identified actors can be categorized as a function of their relationship with the protected area, the exploitation of natural resources, the potential effects of their actions on the environment, and other details. The effort put into identifying and categorizing the actors must be oriented towards knowing where they live and act, to facilitate the understanding between them, and to promote agreements or transactions between the parties. The fact that women, men, young and old people have different ranges of action and ways of looking at things must always be kept in mind. In order to not overlook the interests of women, young and old people, greater efforts must be made so that groups can express what they want. To carry out the analysis of the actors, different methods could be applied, such as: relationship maps, force field matrices, interaction analysis, organizational analysis, rapid participative diagnosis (RPD), situational strategic planning (SSP).

Identification of problems and potentialities

The identification of problems and potentialities is the key to figuring out the direction the development of the protected area could take in the future. It is an eminently participative process and it must be dealt with by the implementation of events with the interested actors. The role of the

facilitators will be to regulate the process and contribute their legal, theoretical and methodological knowledge.

The “potentialities” are the natural comparative and socio-cultural advantages, in other words, the strengths and opportunities of each protected area. These can be seized and used for the benefit of the area, the communities and other actors.

A “problem” is an obstacle that keeps you from achieving a proposed objective. A group of partial problems that coexist and are related to each other, make up a “macro-problem” that in our case is usually the loss of biodiversity, associated natural and cultural resources, and consequently, the decrease in the quality of life for local communities. Regarding the problems, one must try to identify the positions and interests of every actor, taking into consideration the indicators (symptoms) and causes of the problem. This will allow the best solution to be identified, in accordance with the actors involved in the management of the area.

A problem that has many causes, can have many solutions. However, the solution to a problem tends to generate other problems; which is why it is important to choose the solution that will have the least impact on the natural and cultural resources of the area and that produces benefits for the majority of actors.

The steps to be developed in the problem identification activities are:

- define the initial situation,
- identify, classify, give priority and arrange the problems at hand in order of importance,
- define the indicators, causes, critical points and consequences of each plan,
- draw the tree for each problem, in order to see how the problems are interrelated.

Although generally during these workshops or planning activities the attention is set on the problems, equal importance should be assigned to the identification of potentialities, with the strengths and opportunities of the protected area, which can be used for the management. Like the problems, the involved actors should express the following positive aspects:

- define the initial situation,
- identify, classify, give priority and arrange the potentialities of the area in order of importance,
- define the indicators, magnitude and importance of every potential.

But, one must always keep in mind that, the fact that a person perceives something as a problem and feels motivated to solve it, will depend largely on the pressure this problem exerts on the person. In other words, not every problem “makes itself felt.” If some of a group of actors do not perceive an obviously existing problem as such they will not make an effort to solve it. For example, if they do not see the turtles as an endangered species, they will not make an effort to preserve them. In this sense we can talk of “felt needs.” Often a problem is expressed in terms of the means needed to solve it, such as lack of credit, lack of staff, absence of legal regulations, etc. The matter should be carefully examined because often the proposed “solutions” do not solve the problem itself. A credit line does not really help if the production it allows cannot be put on the market. Confusing an existing problem with the lack of a solution must be avoided, because this would lead to prematurely facing a determined option within the plan without examining other alternatives. In order to perform the analysis of problems and potentialities, the facilitators must apply methods that start off from the different actors’ points of view, and that compare the different perspectives. Some of these methods are: Strengths, Weaknesses, Opportunities, Threats (SWOT), matrix of problems and objectives, “mind map,” developing a hypothesis, a problem tree, rapid diagnostic participation (RDP), strategic situational planning (SSP).

Elaboration of a shared vision

The construction of a shared vision allows the orientation of the strategic plan’s actions in order to reach a goal established by the actors involved in the management of the area. If a joint vision cannot be created, the different interests of the actors might seem incompatible and the harmonic development between the actors of the region will be very difficult. Due to the existence of different interests, conflict-solving tools are necessary, as well as educational and environmental awareness campaigns to spread information and strengthen the conservation efforts of the area.

The vision must creatively describe an improvement upon the current conditions of the protected area. It must also project the long-term continuance of the protected area, with its natural and cultural resources, and the services and benefits it provides to the local population and for regional and national development. The vision must be imaginative. However, it must be believable and possible. For this reason it is important to consider the possibilities that the management category offers, such as the potentialities and limitations of the natural, cultural, legal and administrative resources and their socio-economic characteristics.

Definition of the main programs and activities

It is an eminently participative process that must be approached through events in which the actors take part. The facilitators will be in charge of moderating the process. At this point in the planning, solutions to the identified problems must be sought, considering the potentialities, strengths and opportunities previously established. But the plan's management programs and activities must be realistic and not idealistic. The consolidation of a protected area follows a gradual development process, improving management ability, as the participation and knowledge of the actors increases. The aspects to be developed are the following:

- revise and reach a consensus about the initial situation (current scenario), as described, with its potentialities and problems, and the vision (desired situation) prepared by the group of inhabitants and users of the protected area,
- identify, classify, prioritize and define the sequence of the activities necessary to reach the desired situation,
- clarify the output and outcome expected from the activity,
- define where the activity will be applied,
- define the political, legal, organizational, informative, economical, etc., resources required to put the activity into practice,
- define the institutions or persons to be involved in the implementation of the activity,
- group the proposed activities into programs and main activities.

In order to establish the activities, we must know in which phase of the planning process we are. In the strategic planning for the management of a protected area it makes no sense to plan in great detail beforehand, because surely a great part of what is planned will either be ruled out, modified or adapted. In fact, often things evolve in a completely different manner than what was thought at the beginning. This is why here we only talk of the main activities. In the annual operational plan one must specify in greater detail the necessary actions to carry out a main activity. It is very important to think not only of the output the activity should produce, but it is also fundamental to formulate the expected outcome of such activity. In this way it is possible to avoid an activism that leads nowhere. The formulations of the expected outcomes provide support for monitoring, to see if the activity really accomplished the original intention.

The main activities should be grouped into programs, according to the demand for technical staff and resources required for their implementation. Generally the programs are grouped based on the following referential fields:

- conservation and management of natural resources,
- environmental monitoring and research,
- sustainable community development,
- environmental communication, education and interpretation,
- administrative procedures and area management coordination.

Viability analysis: risks and assumptions

The strategic plan must contain actions that can be applied during the established period. For this purpose, it is indispensable to identify the viability of the plan's programs and activities, based on an analysis of the political, legal, organizational, informational and economic resources; as well as the actors' motivation, the available time and the possibility of accomplishing the operations in the current scenario. This must be done taking into consideration assumptions and risks that may interfere with the completion of the activities. Planning for the management of protected areas implies risks when the parties involved have not come to an agreement

and their efforts go in different directions. Another risk comes when the actors do not uphold the agreed contributions. In this case you must ask yourself, why does this happen? had the contributions not been defined in a realistic manner? or is it that the actor wanting to collaborate is not completely convinced of the concept, therefore not wanting to invest much?

The external risks also endanger the management, but are completely out of reach of the influence of those who manage the area. This occurs specifically in the cases where a legislation or adequate policy regarding protected areas in a country does not exist, and the opposition seizes the opportunity to “politicize management” and obtain their own interests. In those cases it is of great importance to work within the political and legal arena.

The assumptions are the external factors that must be established so that planning for the management of the protected area is realistic. As part of the viability analysis it is necessary to analyze:

- the description of the initial situation and its change trends,
- the motivations of the actors regarding the programmed activities,
- the necessary resources for the execution of the programmed activities,
- the availability of resources for the actors,
- the viable activities in the current scenario.

The methods to carry out the analysis of risks and assumptions include the “mind map,” the problem tree, the relationship map, the assumption evaluation model, and situational strategic planning (SSP).

Establishment of strategies

The next step, once the viability analysis for the proposed activities is completed based on the initial situation, will be to determine the strategies to be followed for such activities.

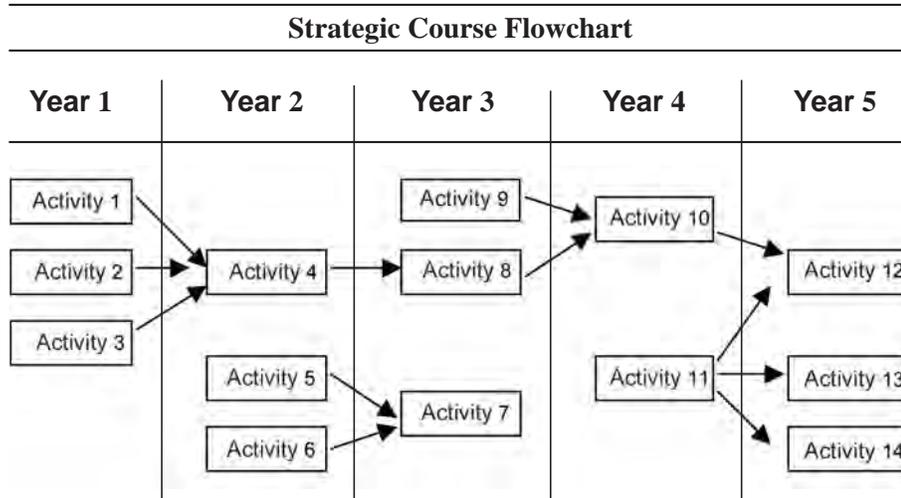
In this context we can define strategy as the group of orientations that, in an orderly fashion, indicate the paths that can be followed to implement the proposed activities, thus reaching the desired situation for the protected

area. There are several paths to follow, but the planning must determine which is the most effective and efficient. In order to do this, one must have a clear idea of how one could proceed, and what might be the respective advantages and disadvantages. In many cases the planners can only perceive the alternatives if they manage to disregard everything they have thought of so far and develop alternative management suggestions based on what is known of the area. To evaluate the alternatives, the parties cooperating in the management of the protected area must come to an agreement and set their criteria jointly. Generally, the most convenient path is that which leads to a given objective with the lowest investment and operational costs. However, only comparing costs does not work, because it is necessary to compare a large combination of factors. The criteria of the involved parties are usually predetermined, in part, by their own value system and their political objectives.

One must not forget that it is necessary to set strategies in accordance with the particularities of each protected area, and that these strategies must be prioritized depending on the most critical factors for the implementation of the protected area management.

Definition of the strategic course to be taken

The course or sequence to be followed in the implementation of the programs and activities is an important aspect that the strategic plan must define, based on the viability of the proposed activities. The strategic course allows you to organize the implementation of the activities through time, considering the priorities in the area and the available resources. It also allows the use of certain activities to create favorable communication spaces and give viability to the remaining activities in time, and with the changes produced by the implementation of the initial proposals. The strategic course is an extremely dynamic element that must be adjusted as changes occur or as more information about the area is acquired.



Source: ANAM (2000)

Budget and financing sources

Once the proposals for the strategic plan have been structured, one must define the budget and the financing sources required for the implementation of the activities that are considered high priority, including constructions, purchase and upkeep of goods and equipment, and regular personnel costs. For this it is necessary to perform an analysis that includes at least:

- the definition of economic requirements for the plan proposals,
- the budget required per program/activity, year and department,
- the analysis of set incomes and expenses for the area,
- self-financed activities,
- lack and requirement of resources,
- identification of possible funding sources.

If the analysis shows that the funding needed to perform the activities in the plan are out of the reach of the institution or organization in charge of managing it, the activities must be prioritized, new strategies must be prepared, and alternative financial sources must be sought.

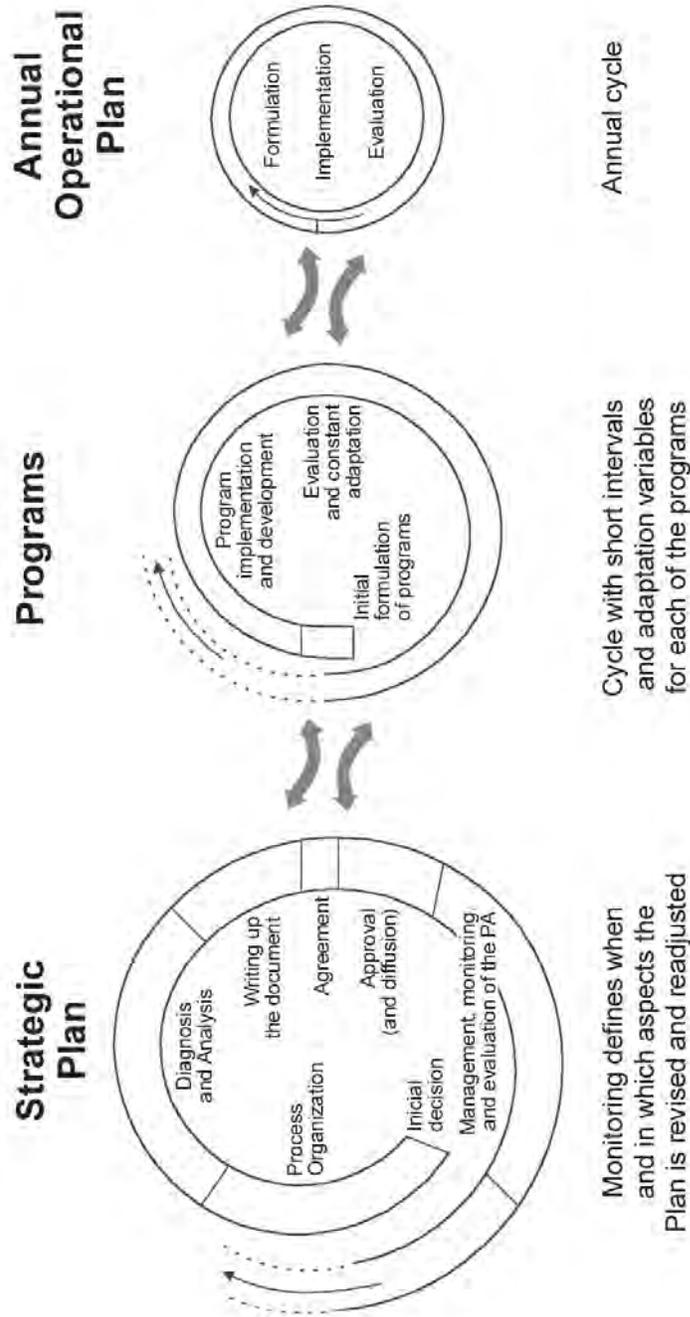
Annual Operational Plan (AOP)

Operational plans are short-term plans based on strategic planning. They restate the main activities, detailing the steps to be taken to implement the strategic plan.

The start-up team should elaborate the operational plan for the plan's first year of implementation. In the years to follow, this responsibility will fall upon the actors directly involved with the management of the area. The operational plan should be framed within the strategic plan; for which the vision, mission, management objectives, potentialities, problems, involved actors and available resources in the area must be considered. The operational plans should start from the activities previously prioritized in the plan's strategic course. As a first step, a revision of the output and expected outcome of each program and main activity should be performed. Then the specific activities that each person involved must carry out to achieve the expected output and outcome should be defined. In this way, the following should be identified:

- *the responsible entities and persons involved in each step,*
 - *the time and place in which each main activity should take place,*
 - *the required methodology and tools,*
 - *the materials and resources needed,*
 - *who can provide which materials and resources.*
-

Planning cycles



Source: Proyecto MAPZA (2002)

The zoning plan

In the distribution plan inside protected areas, commonly known as zoning, the social realities were ignored for a long time. However, the human presence was always key in the definition of the different handling zones for such areas. When, for example, the criteria a national park should fulfill were discussed, the IUCN's basic principles and explanations, published in 1963, pointed out that "It is often impossible to find a definition for an area, which is applicable without restrictions for the entire area. Therefore, it is indispensable to divide the park into zones. The permitted and forbidden activities will be established for each zone."¹⁸

Therefore, the expected output from a zoning plan is a document, accompanied by maps, in which the agreements reached about the use of a determined space inside the protected area are recorded. The expected outcome is the solution of conflicts between the different use interests and the existence of a tool to control those actors that refuse to respect the negotiated decisions made in favor of the protected area in national, regional and local contexts.

The house divided into zones **Example popularized by Inparques, Venezuela**

Each house has different zones or areas depending on the different activities human beings carry out in them. Generally we have a zone for food preparation (kitchen), a zone for eating (dining room), a zone for sleeping (bedroom), and a zone for personal cleanliness (bathroom). Each zone is equipped according to the activity we carry out in it, respectively: stove, dining table, mattress and faucet. So we gather from this that zoning is an intuitive concept that follows a very traditional process common to all cultures.

For each zone to work properly, the inhabitants usually agree on certain formal or informal rules for each zone. For example, there is no sleeping in the kitchen, no eating in the bathroom, and no way to wash yourself in the bedroom. This is why, so many times, the agreements are based on determined functions that must be understandable to all. A group of people can even take it further and agree on a set of rules and additional conditions if these are considered necessary for a more harmonious coexistence. For example, they can decide that the dishes should be washed immediately after eating and that there is no smoking in the dining room. For those who do not wish to respect these rules, they may seem like a severe restriction; while the others understand them as a tool to avoid chaos and secure an orderly development in their space.

Why define zones?

“Each zone must fulfill its specific task. ”The zoning inside a house is an example that is easy to understand and can be used to start a discussion with diverse groups of actors, about the use regulations or modes of an area.

Establishing zones becomes useful for area management when:

- the spatial conditions of an area predetermine it for a certain activity and you want to secure the utilization of its potentialities and opportunities; and/or
- the existence of different interests in that space implies potential conflicts. In the latter case, two questions become vital in order to accomplish the conservation objectives: a) What natural objects (animals, plants, rock formations, caves, waterfalls, cultural manifestations related to the natural objects, etc.) are characterized by their attractiveness, rareness or fragility?, b) What factors (human activities, introduction of harmful substances, etc.) threaten the existence of these natural objects?

In other words you must know “what” you want to protect, “with whom”, “from whom” or “from what” and “why”.

However, as long as the actors who have interests in a specific area do not feel the need to create zones and rules for their activities, either because one does not bother the other, or because the endangerment of some resource, natural or cultural object has not been acknowledged it will be very hard to reach an agreement or create rules respected by everyone. Only the existence of good arguments that carry some relevance to the actors will convince them of the need to protect the area and the natural objects held within. Zoning is an extremely participative task that may take years, depending on the circumstances, the size of the area, and the attitude of the different actors. Each time an agreement is reached with a certain group about the use of an area, it must be filed in the “compendium of laws, rules and agreements.”

In the process of participative zoning five elements should be worked on:

- the joint definition of the vision of the protected area as a whole, and each of its zones,
- the spatial delimitation of the different zones; in other words, the definition of the areas in which the dispositions will be applied,
- the agreement about detailed rules for the use of natural resources in the different zones, specially endangered plants and animals,
- the definition of the manner in which the monitoring of the agreement will be carried out, and who will carry it out,
- the joint definition of sanction mechanisms to ensure that everyone abides by the agreed rules.

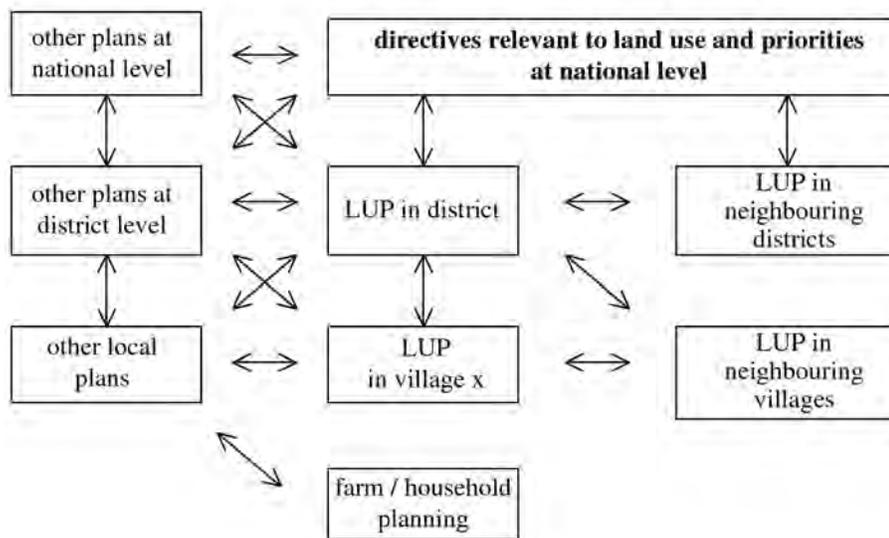
Different scales of zoning

Zoning can be performed taking into consideration the different aspects in the space, with its vertical and horizontal links:

- in the national and regional aspects, the classification foresees, for example, industrial zones, agricultural zones, recreational areas and protected areas. In the last case, it upholds the nature conservation aspect through the declaration of protected areas with their different categories,

- inside the protected areas, through the definition of different management zones, whose location and function are usually preset in the zoning plan,
- at the farm level, defending and promoting zones for cattle raising, agriculture, forest management, etc. and their corresponding management rules.

**Vertical and horizontal links
in Land Use Planning (LUP)**



Source: GTZ (1999)

Zoning and management categories

In most countries laws related to nature conservation distinguish between several categories of protected areas. In the ideal case, their legal definitions and dispositions cover the whole range of conservation and use interests.

Despite the more than 140 names protected areas receive in countries around the world, it is possible to reduce them, according to the essence of their objectives, into the following six management categories:¹⁹

- I. Strict Nature Reserve/Wilderness Area
- II. National Park
- III. Natural Monument
- IV. Habitat/Species Management Area
- V. Protected Landscape/Seascape
- VI. Managed Resource Protected Area

As observed in the description of the protected area categories, the degree of tolerable human intervention increases from category I to category VI. Generally, categories I to III are classified as the areas with the strictest protection, whereas categories IV through VI consider human beings as an integral part of the protected area. In their notes concerning this system, the IUCN strongly insists that the classification of these categories does not represent an assessment of their importance. All types of protected areas are important and their functions on the national, regional and local levels complement each other.

The choice of the adequate management category of a determined protected area should be made based on a realistic evaluation of the biophysical, socioeconomic and historical situation; and it must correspond with the determination of the objectives defined for the area. The declaration of a strictly protected area, ruling out all human use in an inhabited area and where the aforementioned evaluation has not been made, can be counterproductive, impeding daily management and limiting the possibilities of working with the local population. To avoid such problems, the combination of different protected area categories can be used as a tool for zoning. Argentina, for example, combines the “national parks,” which are strictly protected, with “natural reserves” that allow human use, where the latter are also administrated by the entity responsible for the national parks. Likewise, in Peru different types of protected areas are combined,

administrated by an entity that allows the coordination of the management of “direct” and “indirect” use areas.

Direct and Indirect Use Areas, Peru

According to the objectives of each Natural Protected Area, a category establishing its legal condition, purpose and permitted uses will be assigned. The Natural Protected Areas contemplate a scale of options that include:

- *Indirect use areas: those that allow non-manipulative scientific research, recreation and tourism, in zones properly designated and managed for this purpose. In these areas the extraction of natural resources is not allowed, neither are modifications and transformations to the natural environment. National Parks, National Sanctuaries and Historical Sanctuaries are indirect use areas.*
 - *Direct use areas: those that allow the exploitation and extraction of resources, mainly by the local populations, in the zones and locations, and only for those resources defined in the area’s management plan (respectively zoning plan, editors note). Other uses and activities must be compatible with the objectives of the area. National Reserves, Landscape Reserves, Wildlife Refuges, Communal Reserves, Protection Forests, Hunting Reserves and Regional Conservation Areas are direct use areas.²⁰*
-

Zoning inside a protected area

If zoning, as a management tool, is to be more than just a simple land potential analysis, it is necessary to establish use agreements and rules. In theory, this can be achieved in any group and with all kinds of different actors in a determined area. In order to make the agreements mandatory for everyone and to be able to implement sanctioning methods in case the agreement is not upheld, agreements must be set in writing, with the signatures of the authorized representatives.

These agreements should be backed up by politics, and to the extent possible, by the legislation concerning protected areas. Once again taking Peru as an example, where article 23 of the Natural Protected Areas Law establishes that:

“regardless of the assigned category, each area must be zoned according to its requirements and objectives, being able to set strict protection and limited access areas when required. The Protected Natural Areas can be made up of: Strict Protection Zone (SP), Wilderness Zone (W), Tourist and Recreational Use Zone (T), Direct Exploitation Zone (DE), Special Use Zone (SU), Recovery Zone (REC), and Cultural-Historic Zone (CH). It is important to point out the possibility of creating a Special Use Zone (SU), which consists of human settlements that existed prior to the declaration of the Natural Protected Area, or of areas where, due to a special situation, some types of agricultural, livestock, agrosilvopastoral, or other activities, which imply a transformation of the original ecosystem are performed.”

Zoning at farm level

Zoning at farm level has no opponents, so it is not necessary to seek out an agreement between the actors. For this reason, in this case, traditional planning is applicable up to a certain point. It is an exercise developed by the owner to run his farm in the most favorable ecologically, socially, and economically sustainable manner. This zoning is based on the differentiation of space according to the quality of the soil, slopes, drainage, water availability, etc., and takes into consideration national and regional legal dispositions, such as rights of way, forest lines along streams, etc.

Difficulties and recommendations in the zoning process

The participants in the International Workshop on Management Plans, held on Taboga Island, Panama (2001), identified a series of difficulties and recommendations for the zoning of protected areas:

Difficulties: In socio-cultural terms, the concept of zoning is not very well understood. Therefore, zoning commonly obeys only the purely biological or physical-geographical criteria, and does not usually correspond with the use of resources by the inhabitants of the area. This lack of cultural and socio-economical criteria represents a sure source of conflict. Additionally, zoning tends to be inflexible to specific situations, therefore having a low application as a managing tool. As for zone boundaries, problems often exist at the moment of clearly defining them in the field, and when taking into account zones adjacent to the protected area. Adding to this the fact that planners do not always understand that zoning is not a descriptive categorization, but that it obeys management prescriptions, and that the nomenclature of the different zones is often confusing, we can conclude that the zones are not always operated effectively.

Recommendations: To avoid the aforementioned difficulties and achieve an effective management of the protected area, it is necessary to zone according to the conservation objectives. However, zoning should not be limited to the protected area itself, but it must also contemplate the potential development of the buffer and neighboring zones. As for the participative aspect, it is necessary to reach agreements, rules and consensus with the local actors, using clear and effective communication channels. The agreements generated by the zoning should be accessible and understandable for everyone involved, therefore it is indispensable to have adequate information and clear delimitations in the field. At the same time, there must be a legal and institutional frame, which allows flexibility in the use of this management instrument:

- Zoning must be performed with the available resources and according to the real situation of the actors of each protected area.
- Both the past (consumptive and non-consumptive uses of natural resources) and the future (potential demographic and economic development) should be taken into consideration.
- The importance of zoning must be discussed with the involved actors (what for, why, with whom and who defines the procedures in the zoning?).

- It is necessary to reach a development vision consensus between the actors.
- The zoning must maintain a close relationship with the objectives and category of the protected area.
- Zoning must be understood as an agreed process between users or actors. The zoning process may be used to validate the zones with the actors.
- It is indispensable to map the zones, making their limits known to the actors, especially in areas that are critical from a possible social conflict viewpoint.
- The flexibility clauses must be discussed and agreed upon in writing.
- A clear and understandable description must be used.
- Surrounding areas (buffer and neighboring zones) as well as biological corridors should be considered for zoning.
- Where possible, flexible in time (i.e. sea turtles lay their eggs during few month of the year, so that certain restrictions regarding beach access and/or resource use could be limited within a special zone to the critical time).
- The legal framework must be congruent with the particular situation of each protected area.

**Zoning in the Fauna Production Reserve
of Cuyabeno, Ecuador**

Although every zoning process has its own method and dynamic, the following example of zoning with the Indian communities in the Fauna Production Reserve of Cuyabeno, Ecuador, is an example of some relevant steps in this process.

The Ministry of the Environment (M.E.), the state entity in charge of protected areas, administers the Cuyabeno Fauna Production Reserve,

located in the Amazon basin in Ecuador. Four Indian groups (Siona-Secoya, Cofan, Quichua, Shuar) live within this area. The M.E.'s policy is based on a joint management of the area, in order to share the responsibility of conserving the tropical rainforest with these groups. The M.E.'s interest in this agreement is based on the desire of having defined allies to confront potential and real invaders that threaten the core of the protected area, such as the oil industry, the lumber industry, new settlers and some tourism companies. The Indian communities want, at the same time, to preserve their guaranteed rights over their ancestral lands to reinforce their position over the invaders. The M.E. and the Indian communities are after a common goal: preserving the tropical rainforest. In this case, zoning serves as a way to document the areas in which certain activities are allowed, and the manner in which these can be developed. With the help of signed agreements and alliances, they were able, among other things, to stop the advancement of the oil industry in this area.

The participative zoning process for the protected area of Cuyabeno, between 1992 and 1996, was based on the following steps:

1. In a meeting, the warden of the Reserve and a representative of the national authority in charge of nature conservation, presented each of the communities the idea of creating an agreement in which the respective uses for the area would be manifested spatially in the form of zoning. (The sense and objective of the zoning were explained to the community members using the example of zoning a house).
2. Once a consensus was reached about the procedure, a consultant in close coordination with the community elaborated an inventory of the current forms of natural resource use, and the space necessities of the different members of the communities, to then draw up in a map the main areas and those negotiable for nature conservation, as well as the zones destined for community use. The consultant's main techniques were individual conversations, and participative land use mapping. The time required, in this case, with communities made up of about 20 families each, was approximately one month per community.

3. *The consultant presented the Reserve's administration a zoning proposal that, in his opinion, coordinated the interests of the community members with the nature conservation interests; and highlighted the potential or existing use conflicts.*
4. *In a meeting, the Reserve's administration presented the draft of the zoning proposal, along with its respective rules for usage, to the members of the community. The zoning maps were used as an essential means of communication. A copy of all the documented material stayed in the community so they could independently analyze and discuss the proposal.*
5. *In the next assembly, summoned by the community after having reached an internal agreement, a representative of the Indian community exposed the changes his community requested. These requests were analyzed, discussed and negotiated with representatives from the Reserve's administration.*
6. *A new map with a zoning proposal was presented to the community, alongside the former proposal in order to compare them.*
7. *Steps 5 and 6 were repeated several times until a final agreement was reached between the members of the community, on one hand, and between the community and the area's administrators on the other.*
8. *This zoning proposal was presented to the neighboring communities and the critical points (in this case recreational and common use zones, hunting and transit rights) were negotiated.*
9. *In a solemn act, the parties signed the final zoning agreement in front of witnesses: representatives from the neighboring communities, governmental and non-governmental institutions, projects, etc. An important aspect of Cuyabeno was the celebration, thanks to which the successful closing of the negotiations became an "unforgettable" event.*
10. *The zoning plan was published and the critical points in the terrain were jointly marked out. With the help of the corresponding maps, all the potentially affected actors were informed of the agreements for*

use; in the case of Cuyabeno: tourist agencies, the oil industry and research institutes. The sanctions, in case of not keeping the rules, were communicated to all and respect was requested.

11. A follow up of the zoning process and its corresponding agreements was quickly started, using measures to strengthen the trust bonds. For example, ecological games were regularly scheduled for the children, support was given for the elaboration of a communal tourism infrastructure, tourism related training was offered to the inhabitants of the communities, the zoning was analyzed and eventually revised.

In the case of Cuyabeno, the zoning process and the conclusion of the agreements took, according to the situation in each community, one to two years time. Three reasons explain this fact:

- Due to the former restrictive protection policy, which excluded the population, the relationship between the administration of the protected area and the communities was not very good from the start.
 - For logistical reasons, the meetings with the communities were only held once every three months, due specifically to the fact that the communities are very far apart, the lack of equipment and means of transportation, or the absence of community leaders. However, these delays were also an advantage because many ideas were given deeper thought, and because the community had time to discuss the proposals and people did not grow tired of attending so many meetings.
 - Agreements were not always reached fast. As an example we have the case where one of the communities demanded to chop large quantities of wood for commercial purposes inside the protected area, an unacceptable demand for the authorities because it was a direct attempt against the main conservation objective of the area. The official negotiations were then suspended for nine months, until the community asked that the negotiations be retaken, since they had realized that even without this right the agreement would benefit the development of their activities.²¹
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The interrelationship between the four management tools

This section of the document consists of two explicative examples to show that the separation and differentiation of the traditional management plan into separate instruments is already implemented in some countries, for example Colombia and Guatemala. The components described by the National Park Administrative Unit of Colombia and the National Council for Protected Areas (CONAP) of Guatemala are similar to the four tools proposed in this document.

General Structure of a Management Plan, Colombia

In conceptual terms, the management plan should be structured in a way that permits the gathering and handling of the information that determines the management actions of the Protected Area according to its conservation objectives. The contents or thematic information, as well as the methodological procedures, differ depending on the moment: whether the plan is being built (starting up phase) or whether it is being implemented (execution and monitoring). In other words, building the management plan implies methodological steps and conceptual aspects of a different nature than the ones committed to the execution and achievement of the proposed management plan.

With this, in the planning process each of the components must answer, first, to the technical, political and methodological construction of

the plan, and second, to the execution, follow-up, monitoring and adjustments of the actions, rules and regulations established as a guiding chart for the protected area. In this context each of the components acquires a permanent, provisional or temporary character, depending on the advancement of the construction or formulation process.

The Management Plan is structured into four basic components:

Descriptive Component: (corresponds with the “descriptive compendium” in this document, editorial note) It refers to the diagnosis of the area. Here you find the basic information on which the adopted management decisions are based, in theory.

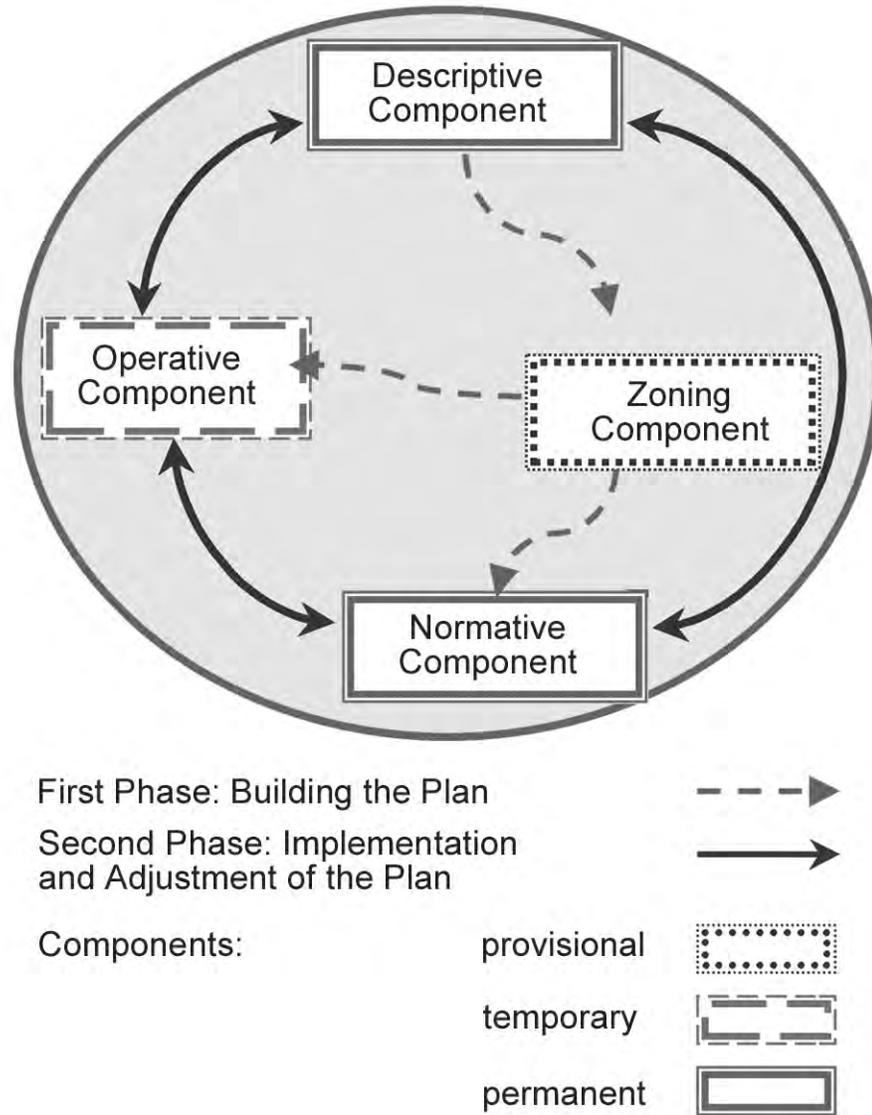
Zoning Component: (corresponds with the “zoning plan” in this document, editorial note) It covers the prospective exercises for the area, starting from the current (diagnostic), tendencies, desired and possible scenarios, and delivers the zoning proposal for the area as a final output, where every management zone is defined, as well as the allowed, forbidden and restricted activities concerning its category.

Normative Component: (corresponds with the “compendium of laws, norms and agreements” in this document, editorial note) Expresses the regulations of the area, starting from the inputs derived from the descriptive and zoning components. This component provides inputs to register the management plan in its different instances.

Operative Component: (corresponds with the “strategic plan” and the “annual operational plan” in this document, editorial note) It defines the planning of the area to develop the plan’s two fundamental moments: the construction and implementation. Here the monitoring, evaluating and adjusting actions of the plan are described.

The four components, because of their nature, act in an independent yet complementary manner.²²

Interrelation between the components of a Management Plan, Colombia



Source: UAESPNN (2001)

**Master Plans with four independent components,
Guatemala**

Within Master Plans there are four clearly differentiated elements. Taking these as a base, the Master Plan will be considered as the sum of four independent components, which are developed individually, but maintain a strong interrelation. Although they are different in their essence and contents, they offer the informational basis and action or regulation in a protected area. These components are:

1. Descriptive Component: The description and valuation of the environmental and cultural attributes of the protected area. The idea is to expose the results of the different studies, documents, reports, etc. It is a procedure whose objective is to extract the data, which is useful for the real management of the area, whether it is biological, social, administrative, or practical.

2. Management Considerations Component: Identifies the primary conservation objectives for the area, as a fundamental guide for writing up the document; it determines the threats and conflicts, and indicates the zoning with the purpose of presenting an X-ray of the area in an integral and fast manner.

3. Operative Component: It is the part of the plan in which a logical and strategic action sequence is shaped, in order to achieve the area's objectives, develop its potentials, satisfy certain needs for its management, and tackle and present solutions to the main problems or threats.

4. Normative Component: Describes the aspects related to the regulations and laws pertaining to the area. It includes the legal instrument that declares the protected area as such, the specific norms for each management zone, and the CONAP Council's resolution, which approves the Master Plan and special rules if necessary.²³

Documentation and presentation

The documentation of the outputs of the four management tools (descriptive compendium; compendium of laws, norms and agreements; strategic plan; and zoning plan), as presented in this document, is the result of a continuous protected area management process, and remains active and open during the entire management of the protected area. For this reason there cannot be closed and finished documents at any given moment. The documents must be adapted and adjusted constantly, as a function of management advancements. This implies the generation of information with different degrees of detail, different validity periods and different needs for social or legal approval.

Considering the importance of flexibility and the need to adapt, the following recommendations for the presentation of the documents are applicable:

- In order to add information, whether to complement or update a text, it is recommended to work with modules in logbooks, thus facilitating the addition of new papers. In this case it is important that only one person is able to authorize the addition or change in the information, and that this person guarantees that every actor involved will be informed of any change. For this purpose, a list of the persons the document was handed to must be kept and published in information boards. As an additional distribution and publication tool for the document, Internet or Web pages of the institution in charge may be used, if available.

- During the first edition of the documents, good structuring must be insured to avoid confusion in the future. Specifically, continuous numeration should not be used; rather it should be structured by modules, chapters and pages. For example, Module A, Chapter I, page 3 would be (A,I,3) and Module C, Chapter IV, page 6 would be (C,IV,6). This way you can avoid the constant change in the page numeration as the document grows or changes.
- It is recommended that the documents have a defined structure, known to everyone involved in the management of protected areas. This will make searching for information easier not only for his area, but also for the rest of the areas in the country, as well as reducing the work a protected area manager must deal with when being transferred from one area to another, or when trying to communicate with colleagues and actors of another protected area.
- Additionally, it is possible to create a CD containing a basic scheme of the desired format, in which the section headings are pre-established, as well as the pages or sections that repeat themselves and are valid for all the protected areas of a given country. The basic scheme could also work as a list of aspects to be thought about during the planning process.

Notes

¹ The participants of the “International Workshop on Management Plans for Protected Areas in Latin America: Concepts and Challenges” (Taboga Island, Panama, from Oct. 15 to 19, 2001): Stefanie Eissing (Germany), Jürgen Czerwenka, Luis Pabón, Gonzalo Peña, José Antonio Péres (Bolivia), Gustavo Wachtl (Brazil), Juan Oltremari (Chile), Aída Giraldo (Colombia), Stanley Arguedas, Luis Gerardo Artavia, Andrea Ballester, José Joaquín Calvo, Ronald McCarthy, Michael Schlönvoigt (Costa Rica), Vladimir Valarezo (Ecuador), Stephan Amend, Thora Amend, Adrián Carrillo, Cecilia Guerra, Amable Gutiérrez, Daniel Holness, César Sandino (Panama), Ramón Ovidio Sánchez Peña (Dominican Republic), Edgard Yerena (Venezuela).

² Questions that arose in the context of the documents that were revised for the electronic forum, and that guided the discussion about management plans in Latin America:

- What is a management plan?
- For whom is a management plan?
- What elements must it contain?
- How should it be prepared?
- Who should take part in the preparation?
- What role can the external consultants play?
- How can the elaboration costs be minimized?
- How far does the geographic reach of a management plan go?
- How far does the thematic reach of a management plan go?
- What is the minimum information needed about a protected area in order to prepare a management plan?
- What role does zoning play?
- Are strategic and operational planning part of the management plan?
- Which parts of the plan need formal approval?
- What do the concepts of buffer zone and neighboring zone, have to do with management plans?
- How can the plans respond flexible to the dynamic changes in a region?
- How should the publication presentation or format of a management plan look like?
- To whom does a management plan belong?

³ The following guideline documents for the elaboration of management plans were analyzed in the electronic forum before the workshop:

- ANAM (2000): *Directrices Técnicas para la Preparación de Planes de Manejo en Áreas Protegidas*. Elaborated by Valarezo G, V. & J. Gómez. Panama.
- Europarc Deutschland / Germany (2000): *Leitfaden zur Erarbeitung von Nationalparkplänen*.
- Gabaldón L., Mario (1997): *Manual para Formulación de Planes de Manejo en Áreas Protegidas de la Amazonía*. European Union, Amazonic Cooperation Treaty.
- IBAMA (1996): *Roteiro Metodológico Para o Planejamento de Unidades de Conservação de Uso Indireto*. Versão 3.0. Brasília, Brazil.
- Ledec, George (1992): *Guidelines for preparing management plans for national parks and other protected areas*. Presentation at: Fourth World Congress on National Parks and Protected Areas. The World Bank. Caracas, Venezuela.
- Miller, Kenton (1980): *Planificación de Parques Nacionales para el Ecodesarrollo en América Latina*. Madrid, Spain.
- MINAE (2000): *Guía para la Formulación de Planes de Manejo para Áreas Silvestres Protegidas*. Elaborated by Artavia, G.; Asch, Y.; Calvo, J.J. & Y. Mena. San José, Costa Rica.
- Oltremari, J. V. & K. D. Thelen (1999): *Manual para la Formulación de Planes de Manejo en Áreas Silvestres Protegidas Privadas*. FAO, Study N° 07-0003-016. National Committee on the Environment. Santiago, Chile.
- UAESPNN (2001): *Documento Conceptual sobre Planes de Manejo de las Áreas del Sistema de Parques Nacionales Naturales*. Bogota, Colombia.
- IUCN (1986): *Managing Protected Areas in the Tropics*. Gland, Switzerland.

⁴ MAPZA Project (SERNAP-GTZ) (2002): *Hacia una Metodología Integral de Planificación para el Manejo de Areas Protegidas y sus Zonas de Amortiguamiento en Bolivia*. Bases para desarrollar un proceso de su Elaboración (Propuesta). La Paz, Bolivia.

⁵ Carlos Matus, renowned Chilean professor, has developed and promoted very successfully the concept of Strategic Situational Planning (SSP). In: Franco Huertas (1996): *El método PES*. Entrevista a Carlos Matus. La Paz, Bolivia.

⁶ The definition of the outputs and outcomes was taken from: Hockings, M., Stolton, S., and Dudley, N. (2000): *Evaluating Effectiveness: A Framework for Assessing the Management of Protected Areas*. Best Practice Protected Area Guidelines Series No. 6. IUCN.

⁷ U.S. Department of the Interior (1933): *Laws Relating to the National Park Service*. Washington, D.C.

⁸ IUCN (1977): *World Directory of National Parks and Protected Areas*. Morges/Switzerland.

⁹ 158 South American national parks (85.9% of the total of 184 declared by 1991) faced the problem of human occupancy or use of their resources. In: Amend, Stephan & Thora, Eds. (1995): *National Parks without people? The South American experience*. IUCN/Parques Nacionales y Conservación Ambiental No. 5. Quito, Ecuador.

¹⁰ Prepared during the “International Workshop on Management Plans for Protected Areas in Latin America: Concepts and Challenges,” organized by the ABS/LISTRA project in 2001 in Panama.

¹¹ IUCN (1994): *Guidelines for Protected Area Management Categories*. Gland, Switzerland.

¹² Jeffrey Sayer (1991): *Rainforest buffer zones: Guidelines for Protected Area Managers*. Gland, Switzerland.

¹³ Dirección Nacional de Parques/ Consorcio Ambiental Dominicano/ Fundación Loma Quita Espuela. 1997. *Plan de manejo de la reserva científica Loma Quita Espuela*. Santo Domingo, Dominican Republic.

¹⁴ A large part of this chapter was enriched by: Grazia Borrini-Feyerabend et. al. (2001): *Manejo Conjunto de los Recursos Naturales – Organizarse, Negociar, Aprender en la Acción*. GTZ y IUCN. Heidelberg; and by GTZ/IUCN (1998): *Metodologías Participativas para Elaboración e Implementación de Planes de Manejo en Áreas Protegidas*. Report from the International Seminar-Workshop in Cochabamba/ Bolivia.

¹⁵ Adapted from: MINAE (2000): *Guía para la Formulación de Planes de Manejo para Áreas Silvestres Protegidas*. San Jose, Costa Rica.

¹⁶ Some topics that can be necessary or useful for protected area management:

- Outstanding natural resources
- Fragile ecosystems
- Scenic and landscape resources
- Cultural and archeological resources
- Communities and ethnic groups
- Economic activities of the population
- Land tenure
- Current land use
- Land use capacity
- Pressures on the use of the resources
- Environmental impact of development projects
- Land use conflicts

¹⁷ IBAMA (1996): *Roteiro Metodológico para o Planejamento de Unidades de Conservação de Uso Indirecto*. Version 3.0. In: IBAMA (s.a.): *Guía do Chefe. Manual de Apoio ao Gerenciamento de Unidades de Conservação Federais*. Projecto IBAMA/GTZ. Brasilia, Brazil.

¹⁸ Jean Paul Harroy (1963): “The Criteria for Selection. Established by the International Commission on National Parks”. In: IUCN (1969): *United Nations List of National Parks and Equivalent Reserves*. Brussels, Belgium.

¹⁹ IUCN (1994): *Guidelines for Protected Area Management Categories*. Gland, Switzerland.

²⁰ República de Perú, (1997): Ley No. 26834, Ley de Áreas Naturales Protegidas, Art. 21.

²¹ Amend, Stephan / Amend, Thora (1998): La zonificación – elemento clave de los planes de manejo in: GTZ/IUCN (1998): Metodologías participativas para elaboración e implementación de planes de manejo en áreas protegidas, Piñami, Cochabamba (Bolivia).

²² UAESPNN (2001): Documento Conceptual sobre Planes de Manejo de las Áreas del Sistema de Parques Nacionales Naturales. Bogota, Colombia.

²³ Consejo Nacional de Áreas Protegidas (1999): Lineamientos para la Elaboración de Planes Maestros de las Áreas Protegidas del SIGAP. Guatemala.

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Organizations

ABS-LISTRA: The sectorial project “Management of protected areas and buffer zone development” (ABS-LISTRA) is executed by GTZ in Africa, Asia, and Latin America. Its objective is to develop innovative strategies and outlooks to promote the equilibrium between the conservation interests and the use of natural resources, with special attention to strengthening the action capacities of the different actors. Starting in 2003, ABS-LISTRA will be part of the new GTZ initiative, called “People and Biodiversity in Rural Areas.”

Autoridad Nacional del Ambiente (ANAM), Panamá (National Authority for the Environment): ANAM is the autonomous State entity pertaining to natural resources and the environment, in charge of ensuring the fulfillment and application of the laws, regulations and national policies regarding the environment. Its mission is to “create a healthy environment through promoting the sustainable use of the natural resources, keeping environmental management in order, and developing Panamanians’ environmental culture, with the participation of all sectors of society, in order to improve the quality of life.”

Bioparques, Ecuador: La Fundación para la Protección de la Biodiversidad, Parques Nacionales y otras Areas Naturales (The Foundation for the Protection of Biodiversity, National Parks, and other Natural Areas,) BIOPARQUES, was constituted on January 8, 1999, through Agreement No. 21 of the Ecuadorian Ministry for the Environment. It is a private rights organization, non profit, made up of a group of professionals with ample experience in activities related to planning and the management of natural resources and protected areas, watershed management, assessment of environmental impacts, and community development.

Centro de Estudios y Proyectos s.r.l. (CEP), Bolivia (Research and Projects Center): The Research and Projects Center (CEP), founded in 1989, is an independent, private organization. It offers professional services, nationally and internationally, to public and private institutions, and to social organizations in the fields of rural and urban economy, social sciences, productive agricultural and livestock development, institutional development, and specific topics, amongst which we can highlight local development, decentralization, and popular participation. The center performs its work at the level of research, diagnostics, consulting, and technical assistance; formulation and execution of development and social promotion projects; and project planning, follow-up, evaluation, and management.

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH: the GTZ, which belongs to the German Federal Government, is a company that is known around the world in the field of cooperation for development. It works promoting the objective of contributing positively to the political, economic, ecologic, and social development of developing countries, thus improving the living conditions and perspectives of the population. Through its services it supports complex development and reform processes, contributing towards sustainable development in the world.

ECO-Consult. Socio-Ecological Advisory Services, Germany: Founded in 1992, ECO has offered technical assistance to more than 220 sustainable development projects all over the world. It is one of the most important German companies for counseling in the conservation and sustainable use of forests and other natural resources, offering training, studies, planning, evaluations, and project execution. The company's philosophy is based on a participative and interdisciplinary outlook.

Escuela Latinoamericana de Áreas Protegidas (ELAP), Costa Rica (Latin American School for Protected Areas): The University for International Cooperation (UCI) is an international center of academic excellence, credited in Costa Rica. As a response to the urgent needs for professional training regarding the administration and management of protected areas in Latin America under new teaching modalities, the UCI founded the Latin American School for Protected Areas – ELAP –, which functions since 1997 with six permanent programs: 1) Professional training for the management and administration of protected areas, 2) Training, 3) Latin American Network of Protected Areas, 4) Real and Virtual Documentation Center, 5) Research Applied to the Management of Protected Areas, 6) Technical Support and Consultancies. ELAP impules a process of professionalizing the management and administration of protected areas in Latin America, oriented by the principles of biodiversity conservation, an eco systemic approach, citizen participation, respect for cultural identity, sustainable use, and adaptable management.

Ministerio del Ambiente y Energía (MINAE), Costa Rica (Ministry of Energy and the Environment): It is in charge of the formulation of policies, strategy planning, and the execution of actions related to sustainable human development. It covers conservation, promotion, control, and research regarding natural, hydrocarbon, mining, and energy resources, with the purpose of improving the quality of life of the country's inhabitants. MINAE has a modern and dynamic structure, which guarantees community participation, which includes an equitable gender perspective.

Parque Nacional Cerro Hoya (PNCH), Panama (Cerro Hoya National Park): With an extension of 32.557 hectares, the PNCH was created in 1985 in the southwest region of the Azuero peninsula, on the Pacific coast of Panama. Supporting strategies for the community, together with protection activities, PNCH will hopefully guarantee the conservation of the extraordinary natural resources, and improve the socio-economic situation of those who depend upon them in the future. PNCH is supported by the Cerro Hoya Project, executed between ANAM and GTZ/ECO.

Pontificia Universidad Católica de Chile: The Pontificia Universidad de Chile was founded on June 21, 1888, and during its 114 years of existence has created a tradition of prestige and relevance. Due to its centenary tradition, academic excellence, contribution to the development of the country, and its level of scientific research, it is recognized as one of the most prestigious universities in Chile.

World Conservation Union (IUCN): Founded in 1948, IUCN joins states, government entities, and a large variety of non-governmental organizations (NGOs) in a unique organization: 980 members, in more than 140 countries. The strengths of the Union are its members, networks, and associates, which allow their capacities to grow, and support world alliances to protect natural resources on a local, regional, and world level.

Universidad Simón Bolívar (USB), Venezuela: Simón Bolívar University was created on July 18, 1967, and started operating on January 19, 1970. It has a dynamic structure adaptable to the rehearsal of new orientations in teaching, research, and educational administration systems. The University has academic and administrative autonomy.

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Abstract

Management Plans: Concepts and Proposals

“Management” means shaping social processes in order to reach a common vision. This is achieved through different analysis and planning steps, and through considering natural protected area “management plans” not as static instruments, but as participative and dynamic processes. Through information, organization, motivation, the establishment of cooperation networks, monitoring, and the joint consideration of the various parties interested in protected area management, these factors can be integrated into the local, regional, and national development processes. Therefore, planning cannot be considered in a linear fashion, it has feedback loops in which the analyses and decisions made must be reviewed in major detail, as experience and knowledge are acquired, or as changes appear.

The objective of the “Management Plans: Concepts and Proposals” study is to conform the plans to the reality of the protected areas, inserted in their social, economic, political-legal, and ecological context, so that those who are interested can use them in a more efficient and effective manner.

As a result of a wide analysis of experiences in the Latin American region, the study has concluded that management plans can be separated into four interrelated elements that follow their own objectives and become separate instruments:

1. Descriptive compendium, as a source of information for geographic, biophysical, social, or economic information related to the protected area.
2. Compendium of laws, norms, and agreements, as a source of information for any legal matter related to the protected area.
3. Strategic plan, prioritizing the management activities that must be performed offering answers about what to do, where, and how.

4. Zoning plan, regulating the use of the area and its resources, defining where things can be done, and how.

This proposal to change the traditional management plan is based on the following pragmatic and conceptual reasons:

- The results and effects expected of each element are different, therefore each one requires its own strategy.
- The base information for the preparation of the different elements may be similar in certain parts, but it will not be identical for the entire element.
- The actors involved or interested in the preparation of the different elements are not necessarily the same.
- The methodology to be used in the preparation of each element is different.
- The timeline for the preparation varies significantly between one element and another.
- Finally, the approval of the four elements involves different actors and different levels or instances of organizations or institutions. While the descriptive compendium, the compendium of laws, norms, and agreements, and the strategic plan are developed at the local level, with the participation of those interested in the management and use of the protected area, the zoning plan requires a more formal or official approval with representatives from the local communities, other actors, and the responsible state institutions.

The current study defines the conceptual bases and emphasizes the distinction between traditional and strategic planning. Likewise, it introduces a series of guidelines and criteria that should be taken into account for the management of protected areas. Once this base has been established, it describes in detail the four elements proposed as different instruments.

Moreover, the study presents a series of recommendations for the preparation and execution of the four identified instruments, a description of the process' starting up phase, suggestions for information gathering, and a concrete proposal for the presentation of the written up documents, understanding them as the results of a continuous area management process, which remain active and open to changes and adaptations.

Resumen

Planes de Manejo: Conceptos y Propuestas

“Manejar” significa dar forma a los procesos sociales para alcanzar una visión común. Esto se logra mediante diferentes pasos de análisis y planificación, considerando a los “planes de manejo” para áreas naturales protegidas ya no como instrumentos estáticos, sino como procesos participativos y dinámicos. Mediante la información, organización, motivación, establecimiento de redes de cooperación, monitoreo, reflexión conjunta de los diversos interesados en el manejo de áreas protegidas, se logra insertar éstas en los procesos de desarrollo local, regional, y nacional. Por lo tanto, la planificación no puede ser considerada como algo lineal, mas bien tiene ciclos de retroalimentación, en los cuales el análisis y las decisiones tomadas deben ser revisadas con mayor detalle, a medida que se adquiere experiencias y conocimientos o se den cambios en las condiciones marco.

El objetivo del estudio “Planes de Manejo: Conceptos y Propuestas” es adecuar los planes a la realidad de las áreas protegidas, insertadas en su entorno social, económico, político-legal, y ecológico, para que los interesados puedan utilizarlos de manera mas eficiente y eficaz.

Como resultado de un amplio análisis de las experiencias de la región latinoamericana, se ha concluido que los planes de manejo se pueden separar en cuatro elementos interrelacionados, que persiguen sus propios fines y se vuelven en instrumentos separados:

1. Compendio descriptivo, siendo una fuente de información para aspectos geográficos, biofísicos, sociales o económicos relacionados con el área protegida.
2. Compendio de leyes, normas y acuerdos, siendo una fuente de información para cualquier pregunta legal relacionada con el área protegida.

3. Plan estratégico, priorizando las actividades de manejo que se deben realizar ofreciendo respuestas a qué hacer, dónde y cómo.
4. Plan de ordenamiento (zonificación), normando el uso del área con sus recursos, definiendo dónde se puede hacer qué y cómo.

Esta propuesta de cambio del plan de manejo tradicional está basada en las siguientes razones pragmáticas y conceptuales:

- Los productos y efectos esperados de cada elemento son distintos, por lo cual se requieren estrategias propias para cada uno.
- La información base para la elaboración de los diferentes elementos puede ser parecida en algunas partes, pero no será idéntica para el elemento en su total.
- Los actores involucrados o interesados en la elaboración de los diferentes elementos no necesariamente son los mismos.
- La metodología a ser utilizada en la elaboración de cada elemento es diferente.
- El esquema de tiempo para la elaboración varía mucho entre un elemento y otro.
- Finalmente, la aprobación de los cuatro elementos involucra actores diferentes y distintos niveles o instancias de organizaciones o instituciones. Mientras que el compendio descriptivo, el compendio de leyes, normas y acuerdos, y el plan estratégico se desarrollan a nivel local con la participación de los interesados en el manejo y uso del área protegida, el plan de ordenamiento requiere una aprobación más formal u oficial con representantes de las comunidades locales, otros actores, y las instituciones estatales responsables.

El presente estudio define las bases conceptuales y hace énfasis en la distinción entre la planificación tradicional y la planificación estratégica. A su vez, introduce una serie de orientaciones y criterios que deben ser tomados en cuenta para el manejo de áreas protegidas. Una vez establecida esta base, se describen detalladamente los cuatro elementos propuestos como instrumentos diferentes.

Además, se presenta una serie de recomendaciones para la elaboración y ejecución de los cuatro instrumentos identificados, una descripción de la fase preparatoria del proceso, sugerencias para la recolección de información, y una propuesta concreta para la presentación de los documentos elaborados, entendiéndolos como productos de un proceso continuo de manejo de un área, permaneciendo activos y abiertos a cambios y adaptaciones.

Zusammenfassung

Managementpläne für Schutzgebiete: Konzepte und Vorschläge

Planungs- und Managementkonzepte und deren Instrumente zur Umsetzung müssen den Rahmenbedingungen angepaßt sein.

Traditionelle Managementpläne gehen von der Annahme aus, für ein Schutzgebiet zu planen,

- in welchem das Land dem Staat gehört und Rechtssicherheit bezüglich Landnutzungs- und Landbesitzverhältnissen besteht,
- das siedlungs- und bewirtschaftungsfrei ist,
- das von einer staatlichen Institution verwaltet wird, die die Macht hat, Regelungen des Schutzgebietes nachzuhalten,
- das von einer staatlichen Institution verwaltet wird, die finanzielle wie personelle Ressourcen besitzt, um Managementmaßnahmen umzusetzen,
- das auf Akzeptanz und Unterstützung von Politikern und der breiten Masse der Bevölkerung setzen kann.

Diese Bedingungen finden wir in Nordamerika, Australien und den meisten europäischen Ländern weitgehend vor, selten jedoch in Lateinamerika.

Die Rahmenbedingungen lateinamerikanischer Länder zeigen auf, daß die meisten Schutzgebiete unabhängig ihrer Managementkategorie:

- innerhalb ihrer Grenzen Siedler beherbergen, deren rechtlicher Status bezüglich Landbesitz und Landnutzung meist ungeklärt ist;
- die sozio-ökonomischen Bedingungen, unter denen die Bevölkerung in diesen meist marginalen Gebieten lebt, präkar ist und bis hin zu absoluter Armut reicht;
- die Bevölkerung oft negativ gegenüber dem Schutzgebiet eingestellt ist, da sie sich ihrer Nutzungsoptionen beraubt sieht;

- die Schutzgebietsverwaltung nicht die Mittel besitzt, ein umfangreiches Schutzgebietsmanagement zu leisten;
- die Schutzgebietsverwaltung nicht die Macht besitzt, reine Naturschutzinteressen gegen die Bevölkerung und andere Sektoren (Agro, Erdöl, Straßenbau etc.) durchzusetzen.

Es werden Prinzipien und Kriterien formuliert, die das Management von Schutzgebieten unter den oben genannten Rahmenbedingungen leiten sollen.

- Ausgangspunkt der planerischen Überlegungen ist das Schutzgebiet mit seinem Akteursumfeld.
- Das Schutzgebiet wird gemeinsam mit seinem Umland gemanaged und berücksichtigt die Anliegen der Bevölkerung in der Nachbarschaft.
- Das Schutzgebiet wird in regionale und gesamtstaatliche Raumplanungen integriert und ist Anliegen aller Institutionen, Behörden und Verwaltungen.
- Schutzgebietsplanung und -management sind ein kontinuierlicher, sich immer hinterfragender und anpassender Prozeß. Planung ist inhärenter Teil des Managements. Das Zusammenspiel zwischen Planung und Management führt hin zum „Zielnationalpark“, der als Vision von den Beteiligten angestrebt wird.
- Das Schutzgebietsmanagement verfügt für seine Entscheidungen über der Situation angemessene Information. Kenntnisse und Wissen über das Schutzgebiet zu erlangen, ist Teil des Managements, nicht aber dessen Voraussetzung.
- Naturschutz hat eine gesellschaftliche Funktion und berücksichtigt die geschichtliche Entwicklung der Region sowie die sozio-ökonomische Realität, in der die Bevölkerung lebt.
- Managementstrategien werden gemeinsam mit den Interessierten erarbeitet und umgesetzt.
- Lösungen, die zwar ökologisch nicht immer ideal, aber sozial umsetzbar sind, müssen als Weg hin zur Optimallösung („Zielnationalpark“) Akzeptanz finden.
- Planung und Umsetzung des Schutzgebietsmanagements werden den sich ändernden politischen, sozialen und ökonomischen Umfeldbedingungen rasch und flexibel angepasst. Es gibt keinen „fertig“ abgeschlossenen Plan.

- Planungsdokumente müssen allgemein verständlich und zugänglich sein und neuen Gegebenheiten adäquat angepaßt werden, was sich in der Präsentationsform der Loseblattsammlung widerspiegelt.

Es werden zwei fundamental unterschiedliche Momente innerhalb der Erstellung von Plänen für das Management herausgehoben: die Vorbereitungsphase und die Phase der Erstellung und Umsetzung der Pläne.

- In der Vorbereitungsphase werden die Grundvoraussetzungen für ein partizipatives Management geschaffen. Vor allem das Vermitteln der Notwendigkeit von Schutzanliegen und das Schaffen von Organisationen, welche die unterschiedlichen Interessen der Akteure artikulieren und vertreten.
- Die Phase der Erstellung und Umsetzung der Pläne ist geleitet von einem gemeinsam getragenen Grundverständnis (Vision) und der Übernahme von Verantwortung durch Interessierte. Unter der Prämisse, daß Planung und Management niemals abgeschlossen sind, werden Probleme flexibel und rasch angegangen.

Der Inhalt traditioneller Managementpläne wird grundsätzlich als für das Management nützlich angesehen, jedoch unter den lateinamerikanischen Rahmenbedingungen neu bewertet und in vier unabhängige Instrumente eingeteilt. Als Grundlage dienen:

- die Zusammenstellung aller Gebietsbeschreibungen,
- die Zusammenstellung aller das Schutzgebiet betreffenden Regelungen und Gesetze,
- der strategische Plan,
- die Raumplanung des Schutzgebietes (Zonierung).

Neben pragmatischen Gründen für eine bessere Handhabung läßt sich der Schritt, den „traditionellen“ Managementplan in vier separaten, sich ergänzenden Instrumenten zu betrachten, konzeptionell wie folgt begründen:

- Die angestrebten Produkte und Wirkungen der jeweiligen Instrumente sind unterschiedlich, weshalb die Vorgehensweisen zu ihrer Erarbeitung stark voneinander abweichen.
- Die notwendige Grundinformation zur Durchführung jedes Instruments ist niemals identisch.

- Die an der Erarbeitung und Handhabung der Instrumente beteiligten Personen sind bei den einzelnen Instrumenten unterschiedlich.
- Die Methodik, die bei der Erarbeitung und Handhabung der vier Instrumente eingesetzt wird, variiert grundsätzlich.
- Der Zeithorizont bzw. das Zeitmanagement, das zur Erarbeitung und Handhabung der unterschiedlichen Instrumente benötigt wird, klafft bei den einzelnen Instrumenten stark auseinander.
- Die Notwendigkeit und Verbindlichkeit einer „Genehmigung“ durch involvierte Akteure und die verantwortliche Behörde ist bei den vier Instrumenten unterschiedlich. Während beispielsweise der strategische Plan ein hohes Maß an Flexibilität benötigt und durch die direkten Nutzer angepaßt wird, hat die Raumplanung mit ihren vereinbarten Regelungen ein hohes Maß an Verbindlichkeit und sollte von autorisierten Vertretern der beteiligten Gruppen unterschrieben werden.

Im zweiten Teil des Buches *Management Plans - Concepts and Proposals* werden die vier Instrumente (a) Zusammenstellung aller Gebietsbeschreibungen, (b) Zusammenstellung aller das Schutzgebiet betreffenden Regelungen und Gesetze, (c) strategischer Plan und (d) Raumplanung des Schutzgebietes (Zonierung) hinsichtlich des angestrebten Produktes und der erwarteten Effekte in ihrer Umsetzbarkeit ausführlich dargestellt.