



# **A Basic Guide to Protected Area Management Plans**

**John Sidle**

*Peace Corps Volunteer*



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## Definitions:

**Desired Conditions** – The broad vision for an area over an extended period of time. Set idealized goals for what the area should be, what it should protect, and who it should benefit.

**Evaluation** – Analysis of information (including monitoring results) to determine whether or not management (including plans) of the protected area needs to change.

**Guidelines** – Set of general rules that indicate what uses and activities are permitted or prohibited in a given area. Guidelines also indicate certain conditions that should be met for a certain use or activity to proceed.

**Protected Area Use Plan** - A plan that determines the stratification of land and sea uses within a protected area, and provides basic guidance for each land and sea use zone and the integration of these zones.

**Management Action** – A general type of activity expected to be performed during plan implementation to work toward achieving desired conditions and objectives, while following the guidelines.

**Management Plan** - A plan usually developed and administered by a single entity for the management of a single area in a land or sea use zone.

**Monitoring** – Systematic process of collecting information to evaluate progress toward meeting desired conditions or plan objectives and other key trends in the planning area.

**Multi-Year Implementation Schedule** – List of management actions to implement the plan, typically over 5 to 15 years.

**Objectives** – Specific accomplishments that indicate measurable progress toward achieving or maintaining the desired conditions. Objectives should be identified for accomplishment in an area for a specific timeframe.

**Planning** – Process in which stakeholders (community members, scientists, government representatives, private businesses, traditional authorities, etc.) come together to discuss and determine how to manage resources in a particular geographic area for the benefit of current and future generations.

**Stakeholder** – Individual or group that may be affected by the management of an area or may have an interest in its management, even if they are not directly impacted by activities in the area.

**Unique Values** – Brief description of the niche and unique features of the area including social, biological, and economic factors that provide a focus for the planning process.

**Work plan** – Annual plan of projects or activities, including the identification of necessary human and financial resources.

Zoning – Process of identifying (or delineating) geographic areas separated by differing land and sea uses (and associated guidelines) as a part of a broader protected area land and sea use planning process.

# 1.0 INTRODUCTION

This document provides practical guidance on developing management plans for Protected Areas (PA). It is generic in nature and so applicable to Pacific Islands and other regions of the world. Chapter 2 below explains the purpose of a management plan, along with other concepts central to planning. Chapter 3 provides a series of essential tasks to complete prior to, or very early in, the process of developing a PA plan. Chapter 4 provides the framework to follow for actually writing the PA plan. It suggests section headings to use and provides explanations regarding concepts to consider and items to include when developing each section of the management plan. This guide is an adaptation of an earlier work by the author on management planning in central African protected areas.

## 2.1 PROTECTED AREA PLANNING CONCEPTS

### ***2.2 Purpose of a Protected Area Management Plan***

A Protected Area Management Plan describes actions needed to ensure that a PA achieves the purpose for which it was established. Planning is the process in which stakeholders (community members, scientists, government representatives, private businesses, etc.) come together to debate and discuss how to manage lands and seas for the benefit of current and future generations and to ensure ecological sustainability of lands, seas and resources. Plans establish guidelines and objectives for the PA over a stated period of time, regardless of changing personnel.

PA planning can be problematic depending upon the complexity of issues internal and external to the PA. Planning requires risk assessments and forecasts about anticipated and uncertain future events and conditions. Consequently, even the best plan will need to be altered to adjust to improving data and information; changing social, economic or other conditions; evolving threats; the role of the PA within the broader landscape or oceanscape; or feedback from monitoring efforts. Therefore, plans are adaptive in nature and amendments or entire revisions will be an outcome of PA monitoring and other factors discussed in the plan.

Central to planning is the recognition that in most cases not all desired or ideal data on the PA and its resources will be available in detail. This is true for PAs around the world, regardless of the financial and human resources available to the management authority. Nevertheless, PA planning must proceed with the view that the plan can call for specific data collection and be revised with that newly acquired data to make better informed decisions. Therefore, it is important not to delay plan development due to a lack of data.

PA plans around the world vary substantially in their content and level of detail and complexity. When working through the planning process, keep in

#### ***Adaptive management:***

Management plans should be considered—living documents, able to evolve to changing information, environmental conditions, and monitoring results. Systematic plan revisions should occur on a periodic basis, usually after the current plan has been in effect for 5–15 years. During a plan revision, the entire PA plan is revisited, allowing for major revisions and changes to the content and objectives of the plan. Adaptive management, on the other hand, allows individual components of the plan to be amended or altered at any time due to changing resource conditions, social values, improved data, or in response to results of monitoring activities. The reasons for changing the plan should be compelling and the process to change deliberative.

mind that, often, simpler plans are more effective plans. The likelihood that the plan will be more widely read and understood by local stakeholders, as well as the likelihood of their engagement in the process, will increase if the plan is concise, focuses on what is important for protecting the PA and its resources, and is light on jargon, both scientific and legal. Such an approach will also ease plan implementation.

### **2.3 Desired Condition vs. Threat-Based Planning**

The concept of threat-based planning as an approach to PA management and biodiversity conservation contrasts with the desired condition and zoning model of planning. The threat-based model addresses only current threats, or those future threats that planners can predict, in designing management direction. It suffers from the inability to react and consider unforeseen future threats that may evolve, as well as plan for non-threat-based targets and objectives.

The alternative planning model (proposed in this guide) is the desired condition model that outlines overall goals and objectives for the PA, as well as more specific objectives for each micro-zone within it (see section 3.7 on micro-zones), to guide all future management. By setting objectives, it describes the compositional and structural characteristics of the biological and physical features desired across the PA, along with integrating social and economic elements, to achieve the plan's desired conditions in the long run. Using this approach, barriers, or threats that may limit the ability of land and marine management to achieve or move toward the desired condition, are specifically addressed in guidelines, regulations, or zoning concepts. Additionally, opportunities for improving conditions in the PA or micro-zone can also be addressed through these guidelines and regulations. The desired condition model is more flexible and adaptable to address not only existing threats, but unforeseen future ones, as well as non-threat management targets.

To illustrate the difference, take the example of a situation where illegal hunting or tree cutting is occurring in a block of otherwise intact mangrove forest within a coastal PA. A typical threat-based planning response would be to identify the threat, and then perform specific actions, such as anti-poaching patrols, to address this specific threat. The desired condition approach, on the other hand, would strive to set specific objectives for the PA as a whole or for a particular zone (e.g., desired population size or distribution of certain coastal marine and terrestrial species) that are achieved through the development and implementation of guidelines or rules and management zones. These guidelines and zones would allow land and marine managers to address a range of current threats and prevent new threats from developing in the PA, such as future road or other infrastructure construction or illegal logging, which would also threaten achievement of the PA objectives. The more limited threat-based approach would not allow managers to deal with unperceived future threats, such as infrastructure construction.

### **2.4 Plan Components and Conceptual/Logical Framework**

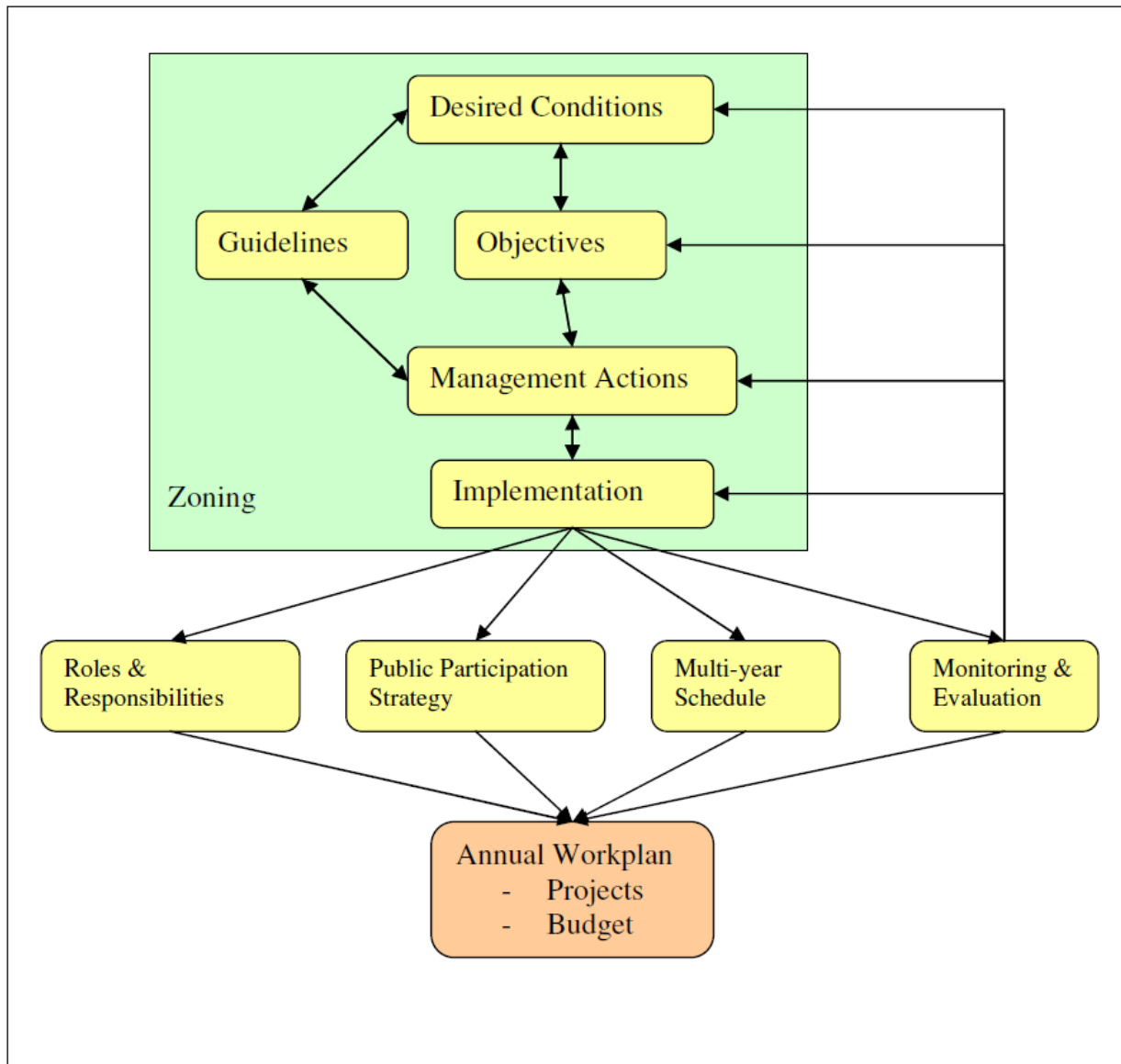
The various elements or components of the PA plan interact in a logical manner (Figure 1). The Desired Conditions inform the Objectives and Guidelines, which both inform the Management Actions, which are implemented. Zoning, or the selection of specific areas in the PA for differing management regimes, is core to and influenced by each of these elements. Likewise, these elements provide feedback to ultimately achieve the desired condition articulated by the stakeholders.

Implementation requires multiple aspects including:

- the clear identification and definition of roles and responsibilities of various stakeholders

- and the overarching governance structure;
- monitoring and evaluation activities to track the progress of the plan, as well as the impact of plan implementation;
- a public participation strategy to ensure ongoing broad stakeholder engagement and transparency during plan implementation; and
- a multi-year implementation schedule that broadly sketches out what should be done and when to ultimately achieve the desired conditions.

Monitoring and evaluation results in an adaptive management approach providing feedback to determine whether there should be revisions or adjustments to the various elements of the plan, taking into account the evolving reality on the ground. Lastly, a separate but linked key element of implementation is the development and execution of annual work plans, which are developed to describe what will be done in a given year, by whom, and for how much.



**Figure 1. Protected area plan components and logical framework**

## **2.5 Official Status of the Protected Area and Management Authority**

Although many PAs already exist in the Pacific Islands, some have not achieved any legal status or official recognition. What is the objective for this PA? pursue legal recognition at a central or local government level; pursue international recognition of some kind; maintain current status? Such objectives should be identified. Any PA plan should explain the context of the PA in conjunction with other PAs, extractive use zones, and community-based natural resource management zones. The PA might provide, in part, for economic and social development opportunities depending on what is being proposed in the plan. The PA plan should also explain that continued data collection will provide the rationale to make adjustments, if necessary, in PA boundaries or management direction. If such adjustments are warranted, they would need the appropriate level of governmental approval to be officially changed. Planners should be aware that many sites not yet identified under international agreements have the potential to be so designated: the quality of the Management Plan may be a critical factor in deciding if they are eventually recognized in this way (International Union for Conservation of Nature (IUCN) Guidelines for Management Planning of Protected Areas -Thomas and Middleton 2003).

For sites striving for official national government recognition, which may take a significant amount of time to work its way through the political process, the planning team should work through consensus with local communities, advancing the planning process with these populations, to provide some effective level of protection for the area in question. The existence of a plan created through such community consensus will boost the case for official designation of the PA and acceptance of the existing plan. Therefore, though the planning team will recommend official designation of the PA, they will proceed with management planning prior to any such designation because PA designation could take several years. Advancing the planning and implementation process is important to reduce the potential for lost conservation opportunities.

For sites that may never qualify as PAs on an international level, it is still wise to plan and implement actions that will lead toward desired conditions and alleviate threats to the ecological or cultural values of an area before they become so degraded that the area is no longer worth protecting.

This authority lies rather with national, local, and community entities depending on the national legal framework and structures in place. As government capacity and presence on the PAs varies widely throughout the Pacific, engagement and policy influence is challenging at best. In order to influence the development of good governance practices and structures on the ground, Pacific partners can strategically use the management plan development process to engage local communities, government agency representatives, concession holders, and other stakeholders. This critical stakeholder engagement process requires significant investment of time and resources to support an authority and/or community in developing a PA plan and subsequent institutional capacity.



**Tasks:**

1. Describe current legal status of the PA.
2. If not yet legally recognized, describe intended plan of action for the PA whether it be legalization and official demarcation of boundaries, or some other status.
3. Identify the contact person at the appropriate government ministry with whom the planning team will liaise during this process.
4. Provide anticipated timeline for official designation of PA.
5. Draft proposal for PA designation if this so applies.

### **3.0 PROTECTED AREA PLANNING PROCESS**

The following sections outline elements of the PA planning process including key elements in the development of the PA plan, how these elements can be fleshed out, and other considerations of the planning process and plan development. Additionally, many of these sections contain Tasks, which are actions which government and non-government management entities can use as monitoring tools to measure progress.

#### **3.1 Protected Area Planning Context**

The PA planning process should demonstrate how the community and pertinent stakeholders have:

1. assessed and analyzed activities, resources, uses, and trends in the PA in question
2. developed and formulated desired conditions and objectives for the PA
3. consulted, collaborated, and integrated stakeholders in plan development
4. focused management activities to achieve desired conditions and priority objectives with the appropriate stakeholders

Although it may vary somewhat nationally, generally in Pacific Island nations and territories a typical lifecycle of a plan would be 5 to 15 years with annual monitoring and evaluation. That monitoring and evaluation would determine if conditions or needs had changed enough to warrant updates or amendments to the plan or if assumptions made in the planning process were accurate.

#### **3.2 Protected Area Planning Steps**

The following steps form the basis of the PA management planning process:

1. Identify planning team and define roles
2. Analyze existing legislative process for PA management plan approval
3. Gather data
  - a. Characterizing the resources and conditions in the PA (this step involves a synthesis of existing knowledge on the PA and its surroundings; text in the plan characterizing the PA should be limited and focused, the plan is not a research document)
  - b. Delineating the PA (refine the boundaries of the PA)
  - c. Identifying additional stakeholders (groups that may not be initially known to planners and groups with interest in the PA from outside the immediate region)

- d. Assessing legal status of PA (proposed, designated, neither)
  - e. Identifying trends in resource conditions, use, and needs of local populations
  - f. Identifying key information gaps
4. Specify means of public participation
  5. Develop desired conditions and objectives, describing desired conditions for the PA
  6. Define PA-wide guidelines on resource use
  7. Identify micro-zones, and regions requiring special management, and define objectives and necessary guidelines for each
  8. Gain approval or official endorsement of plan
  9. Implementation
  10. Monitor and evaluate
  11. Revise and update the plan as information improves, conditions change, and monitoring results come in

Public stakeholders should be directly implicated in each step listed.

### **3.3 Roles of the Planning Team**

Define roles and responsibilities of the planning team early to reduce confusion, focus staff time, avoid duplication of effort, and ensure that all aspects of the planning process are addressed. Identify the skills needed for successful plan development. The necessary skills may vary depending on the types of stakeholders, data needs and primary issues associated with the PA, and the size of the team will vary depending on available resources, however, some of the commonly required skills for a planning team include:

- Team leader/program manager
- Biologist(s)
- Hydrologist(s)
- Social scientist(s)
- Economist(s)
- Forester(s)
- Mineral/mining specialist(s)

It may not be necessary to have these specialists on the planning team throughout the entire process. Rather, some of them could be brought in as needed to advise on certain issues. Even if forestry activities, mining or mineral exploration and commercial fishing, for example, will not be permitted in the PA, these specialists may be necessary if valuable timber species or mineral deposits, or fish stocks are present in the PA, or in the surrounding areas, as those activities outside of the PA will impact the resources within the PA. Assign responsibilities and tasks to each staff member, and hire new staff or consultants to fill voids. It is important to recognize both the abilities and limitations of the existing planning staff and adjust accordingly.

***Tasks:***

- 1) *List planning team members, and define each individual's skill set and what their roles and responsibilities will be throughout the planning process.*
- 2) *If any necessary skills are missing, explain how those gaps will be filled and when.*
- 3) *Identify any short-term expertise that will be brought in to assist with the planning process.*

### 3.4 Stakeholder Participation

A stakeholder is an individual or a group that might be affected by the management of a P A or have an interest in its management, even if they are not directly impacted by activities in the area. The roles and levels of engagement of stakeholders will vary by steps in the planning process, their degree of interest in planning effects and outcomes, their political or technical status, and other factors.

The planning team should identify ways to effectively engage stakeholders for the plan and the PA itself to be successful. This will guide the planning team in how and when they will involve stakeholders throughout the planning process and ensure that stakeholders' views are incorporated into the PA plan where possible. Formally designating a PA and creating a plan will provide opportunities for participation and concurrence by local communities, government, relevant industry, and other stakeholders. Creating a sense of ownership among local community members and a wider audience of stakeholders by involving them in planning discussions, and, to some extent, decision making, improves the likelihood that the plan and its implementation will be successful. It is vital that local communities derive concrete benefits directly linked to the existence of the PA to improve the long-term probability of success.

#### 3.4.1 Stakeholder identification

Stakeholder participation will entail the planning team first identifying stakeholders and the methods of information exchange with the planning team. The following items should be included in stakeholder participation:

- Name the core participants, specifying which stakeholder group or groups they represent.
- Identify those groups that are central to land and marine use decisions, impact the PA, or benefit from resources within the PA.
- During the identification process, expand your outreach to those working in a non-natural resource-related field that may contribute useful information or know of other individuals or affected stakeholders (e.g., health care worker or teacher who may know of individuals or organizations that could greatly contribute to the PA planning process).
- Include stakeholder representatives from the central and provincial governments, and traditional leadership.

<p><b><i>Who are the PA Stakeholders?</i></b></p> <p>Stakeholders of a PA will vary depending on the history, resources, socio-economic conditions, and other aspects of the PA and its surroundings. Stakeholders of a given PA could include:</p> <ul style="list-style-type: none"><li>▪ Villagers within and near the PA boundaries</li><li>▪ Communities farther removed from the PA who rely on the PA's resources in some manner, or travel through the PA</li><li>▪ Traditional leaders</li><li>▪ Representatives from national, regional and local levels of government</li><li>▪ Marginalized groups that may not have a voice as part of above groups</li><li>▪ Individuals with ancestral claims to lands and marine areas</li><li>▪ Extractive industries, whether active in the PA or outside its borders</li><li>▪ Local NGOs</li><li>▪ International community and NGOs</li><li>▪ Tourism industry</li></ul>
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- Consider including ethnic and religious groups, commercial fishermen, timber companies, tourism companies, mining companies, NGOs (local, regional, and national), government agencies, civil societies, hunters, fishers, loggers, farmers, water users, researchers or other groups with potential interests in the PA.
- Consider activities outside of the PA that may impact PA resources, identifying the necessary groups or individuals overseeing these activities.
- Is development or infrastructure such as wharfs, road reconstruction proposed in the PA? Who oversees these activities and makes decisions on infrastructure placement?
- Given PA priorities and trends, decide which stakeholders are essential to addressing PA priorities and making PA planning decisions. Do certain stakeholder groups threaten key resources in the PA? Is there potential conflict with certain stakeholders? Are authority figures with strong influence operating or living in or around the PA? What stakeholder interests may conflict with guidelines and micro-zoning decisions? These questions may help identify and prioritize the engagement of certain stakeholders.

***Task:***

*Document the considerations that went into developing the stakeholder list: identifying and listing the interests near land and marine areas; potential groups or individuals to represent those interests; and prioritizing the engagement of the identified stakeholders.*

### **3.4.2 Stakeholder participation approaches**

The PA planning process will involve a variety of stakeholders, with varying levels of involvement. Different approaches to involving stakeholders may be necessary. Identify methods of exchanging information between stakeholders and the planning team. In engaging different stakeholders, the following should be included or considered:

- Determine how the planning staff will interact with the stakeholders (e.g., individual and/or group meetings at a central location) and specify which, if any, stakeholder groups will be treated differently and why.
- Consider if all stakeholders are able to spend adequate time participating in the PA planning process. If they are not able to participate in organized group sessions, and their involvement is critical to the success of the planning process, consider keeping them informed through personal communication.
- Explain the manner in which information will be exchanged and how concepts will be delivered to the different stakeholders. This is particularly important for local inhabitants, many will have limited or no access to maps, data, and reports, and some may have low levels of literacy.
- Define the overall purpose of each stakeholder communication, e.g., information sharing, data gathering, decision making, etc.
- Consider how representatives will coordinate between the PA planning team and their respective groups to ensure information and viewpoints are conveyed and received accurately.
- Develop specific talking points for each stakeholder group and for delivering concepts to the group as a whole.
- Include well-defined terminology to reduce confusion in the planning process.
- Describe what languages will be used for written documents and oral communication, and how the planning team will provide for adequate translation.

- Ensure that all participants have an accurate picture of the process and their role in the process.

A high level of community and stakeholder participation is desirable during the planning process. Ultimately, the majority of the decisions regarding the management and conservation of the resource in the PA will remain squarely in the hands of the PA management authority and not local communities, unless the PA management decides that is the best course of action. In the case where the capacity of the legal management authority is very limited, or if an NGO is taking a lead role in writing the plan in place of the management authority, arriving at consensus among stakeholders is all the more important.

**Tasks:**

- 1) *Identify stakeholders that will participate in developing the PA plan, how they will participate; and their level of participation.*
- 2) *Describe why you have chosen to work with these stakeholders vs. others in the vicinity of the PA.*
- 3) *Prioritize stakeholder engagement and describe the reasons for the prioritization.*
- 4) *Describe the approaches used to engage the various stakeholders.*

### **3.5 Prioritizing Planning Actions**

While it is ideal to put a great deal of effort into each step of the planning process, as well as into implementation and monitoring actions, the reality of limited financial and human resources, as well as many other challenges of operating in the Pacific Islands, will often prevent planning teams and PA administrations from meeting these ideal levels of planning actions. Therefore, it is important that the planning team undergo a prioritization process throughout planning, implementation and monitoring. Key steps requiring effective prioritization of resources include data gathering, plan implementation, and monitoring. Honest assessments of available funds and costs of specific activities must be carried out to determine what the planning team can truly afford to accomplish. The planning team and/or the PA administration must determine the key threats and opportunities facing the PA, as well as evaluate what partner organizations are, or could be, doing to complement actions taken by the PA administration.

**Tasks:**

*Throughout the planning process, prioritize activities to focus on those management actions that are most critical to the success of the PA and to meeting its objectives. This task is ongoing. Use the prioritization process when evaluating what data to gather, what management projects to implement, and what monitoring activities to undertake.*

### **3.6 Sustainable Financing**

The final plan should set the stage for developing a business or financial plan that would specify potential revenue sources, highlighting partnerships, budgeting, cost-sharing, and leveraging of funds to help implement the plan, particularly to be used for operations and fund raising. Business and financial plans are not components of the PA management plan, but rather separate documents (see section 4.8.4).

## 4.0 COMPONENTS OF THE PROTECTED AREA PLAN

The following sections describe components of a PA plan, offering some guidance on the elements to include in each section, how to develop those elements, and other considerations of the planning process. All of these elements are subject to being defined according to opportunities and constraints. Additionally, many of these sections contain tasks which can be used as monitoring.

### 4.1 Executive Summary

Develop and include an executive summary of the plan.

### 4.2 Introduction

#### 4.2.1 Unique Value of the Protected Area

A PA plan serves as a tool for the organized management of the PA and as a guide for whether the status of the PA (at given points along a timeline) is still on course with its purpose on the local, national, regional, and global scales. In some cases, the plan also provides a strategy for acquiring legal recognition of the PA and for serving as a record of the original intent of the PA. As such, an introduction of the PA and the resources contained within it, explaining its unique value, is an appropriate way to start the plan. Keep this description brief and focus on key features of the PA, as well as the role of the PA in the broader context of the area surrounding the PA, that contributed to the reasons it was designated, or should be designated, as such. A PA might provide for a critical network linkage within the broader area surrounding the PA. The management plan is not the place for heavy, in-depth discussions of the resource. Rather, this section should provide the name, location, size, and other brief, important features (e.g., endemic or rare species, heritage sites) of the PA.

In this section, explain the unique combination of attributes that warrant managing this area in a protected status and state the category of PA it will fall under. Consider an interdisciplinary approach to assess a PA's particular values, as different stakeholders will value different aspects of the PA. In some cases, the values or needs of some stakeholders will be addressed on lands and marine areas outside of the PA. Describe that relationship briefly to minimize the potential for negative perceptions of the PA. (Example: Although commercial logging or fishing will not occur inside this PA, these activities are planned on neighboring areas and will provide a source of jobs for local communities.) The following sections of the plan will allow for more thorough explanation of the above items, so focus this section on the highlights—the key points you would want known about the PA.

**Tasks:**

*Identify and describe the unique value of this PA. This will serve as an introduction to the management plan and should remain brief and concise. This section should clearly and quickly answer the question —Why is this piece of land or sea a PA?*

## 4.2.2 Description of the Planning Process for the Protected Area

Plans should describe:

- historical background/context of the PA
- legal and institutional framework for the plan (explain the legal status of the PA as appropriate, addressing questions such as: Has it been proposed for official recognition by the central government? Has it already been designated? Who recognizes this plan?) process
- used to develop the plan,
- decision-making authorities for the plan, and authorities
- to implement the plan.

See the Introduction and sections 2.3 and 3.2 for additional sources of information.

## 4.2.3 Characteristics of the Protected Area

In this section, describe in more detail the various attributes of the PA. Explain the legal status of the PA (proposed, designated, other). Include an inventory of the resources in the PA and information regarding the condition of those resources. Use objective statements as much as possible. Once again, the management plan is not the appropriate document for extensive discussions of all research accomplished on the PA. This section should be direct and concise, describing and listing features and resources and their importance. Missing information on any of these items should not delay the planning process while research is performed on the topic. This section is an inventory of what is currently known and will assist the planning team in identifying key knowledge gaps. This section should include data on the following (to the extent that it is known and available):

- Physical
  - Delineate and describe boundaries, using natural features, if possible
  - Identify topography, water courses, unique physical features
  - Compile maps/satellite imagery
- Ecological
  - Identify PA features in regards to:
    - key fish, wildlife and marine resources
    - animal migration and movement corridors
    - rare and under-represented plant communities
    - other floral and faunal resources that are of key importance to the PA
  - Describe key ecosystem processes within the PA and interactions with areas outside the PA
- Socio-economic
  - Identify villages, cultural and spiritual resources, foot paths, transport routes, key economic centers within and around the PA, agricultural activities, hunting and fishing areas, and areas of subsistence-level extraction of other resources
  - Identify all stakeholders of the PA (including populations outside or removed from the PA)
  - Identify those resources and regions of PA used for subsistence purposes vs. larger commercial trade (species hunted or collected and intensity)
  - Map location of economically desirable products such as timber species, marine products or mineral deposits that may be targeted for future exploitation
  - Identify which ongoing uses of the PA resources are legal and which are illegal
  - Describe any other existing economic activities dependent upon the PA, such as tourism
- Facilities

- Identify existing infrastructure: roads, administrative buildings, landing strips, tourist lodges, etc.
- Describe impacts of surrounding land and marine uses
- Describe any known threats to the resources named above and known trends impacting them
- Anticipate any future challenges and new or changing influences on the PA
- Assess government management authority presence in the PA and that authority's capacity to implement the plan and enforce laws.

**Tasks:**

*Characterize the PA and its known features and attributes. Keep the descriptions objective and brief. Use tables and maps as much as possible to list the PA's natural resources and describe physical, ecological, and socio-economic conditions.*

### 4.3 Desired Conditions

Desired conditions for a PA should describe what the area will look like and the benefits it will provide indefinitely into the future. Describe the desired conditions for the PA and link them back to any national level objectives for PAs. Desired conditions should reflect the PA's unique qualities and how the it can contribute to meeting the conservation purpose for which it was established, stakeholder needs, and any regional or global goals to establish sustainable natural resource management practices. PA desired conditions will provide context and direction for the rest of the planning process.

Identify the context, role, and purpose of this PA in the network of PAs and other land and marine use classes across the country or territory, and within the context of the Pacific Island region and the world. If the country or territory in which the PA is located has established a national-level vision or set of goals for its PA system, the desired conditions should take these into account and reflect the country's vision for developing its PAs. Some questions to consider when defining desired conditions include:

- What is unique about this PA and what is it known for?
- How is this PA different from the lands and sea that surround it?
- How do planners and stakeholders want the PA to look ecologically?
- How should the PA contribute socially to the region and its inhabitants?
- What resources need to be maintained or protected?
- What category of PA is the plan seeking to achieve?
- To what degree will this PA contribute to biodiversity conservation, to heritage, to local

#### Desired Conditions

Desired Conditions set the broad direction for the PA over an extended period of time. Desired Conditions set idealized goals of what the PA should be, what it should protect, and who it should benefit. Some examples of Desired Conditions are:

- 1) Multiple uses are managed to avoid conflicts and environmental impacts.
- 2) Water runoff from land outside the PA is managed within science-based accepted standards for environmental sustainability.
- 3) All fish spawning aggregation sites are protected.
- 4) No take areas comprise at least 30% of coral reef habitat.
- 5) Maintain large marine predator populations at ecologically sustainable levels.
- 6) Live coral covers on average 50% of the reefs.
- 7) Traditional cultural knowledge and management practices are applied with additional science-based information.



- communities, or to economic development and poverty alleviation?
- How will this PA act as a critical link in a network of PAs?
- What should this PA look like and what should it provide for an indefinite period into the future?

Developing desired conditions should be done by consensus with the stakeholders. Therefore, this section of the plan should also state who was involved in their development. Seek to develop desired conditions reflecting social and economic considerations, as well as the PA's distinctive roles and contributions to ecological systems. State the PA desired conditions early in the document to provide context and direction for the rest of the plan.

Most projects and activities are developed specifically to achieve or maintain one or more of the desired conditions and objectives of the plan. It should not be expected that each project or activity will contribute to all desired conditions or objectives in every instance, but only to a selected subset. PA management plans should articulate what desired conditions are being addressed by what activities and whether these conditions and objectives are being advanced.

Desired conditions may only be achievable in the long term. If desired conditions cannot be achieved or are no longer valid or relevant to the long-term multiple-use management of the plan, amend or revise the plan.

***Tasks:***

- 1) *Convene the PA planning team and stakeholders to develop desired conditions for the PA.*
- 2) *Develop widely shared desired conditions that aim to maintain the PA's unique features and significance, improve resource conditions in the PA, and promote livelihood opportunities for those who depend on the PA's resources or could benefit from them. The desired conditions should reflect any nationally established visions or goals for PAs as a whole in that country.*
- 3) *State who was involved in developing the desired conditions to clarify whose desired conditions they represent.*

## **4.4 Objectives**

Management objectives present, in a general way, the key principles that are indispensable for effectively managing the PA. Objectives are particularly important because they support the desired conditions and more specifically describe the intended outcome for a given element, attribute, or condition in the PA (*Example: Within 10 years, this PA will support and maintain sustainable and diverse communities of native wildlife, fish, and plants.*) There may be additional, more specific objectives for species or ecosystems of concern. There should be enough objectives so that as many issues<sup>1</sup> as possible related to the PA are adequately addressed. Objectives should not state specifically how they will be accomplished, but they do need to be feasible. Objectives should be unambiguous, measurable, and have a timeline. It is essential to involve stakeholders in developing objectives as different stakeholders may disagree about which activities are or are not compatible with the desired conditions.

It will not be possible to please all stakeholders, but the planners should accurately gauge the

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<sup>1</sup> Issues refer to any topic pertaining to uses, threats, opportunities, activities, conflicts, etc., related to the PA.

objectives of different stakeholders and develop responses to contentious or conflicting stakeholder views. If necessary, the planning team may wish to use methods of conflict resolution, including negotiation techniques, to help resolve major conflicts among stakeholders.

**Objectives Examples:**

- Establish clear checkpoints and guards at checkpoints on any road that travels to within 5 miles of the PA.
- Issue protocols to detect any potential encroachment.
- Establish patrols on regular intervals within the PA to survey for illegal fishing, poaching, dumping, and pollution.
- Use the information collected to develop strategies to combat the incursions.
- Protect endangered and endemic species.
- Conserve flora and fauna protected by national laws.
- Promote sustainable management of natural resources by the population of its traditional collectivities.
- Establish a tourism site as a source of financial resources for sustainable development.
- Promote conservation education and awareness for local populations.
- Reconcile interests for conserving biodiversity with those of local populations within the framework of respecting traditional use, fishing, forestry and mining development.
- Prevent incursion for the purpose of hunting and fishing within PAs.
- Better manage the PA boundary and establish a monitoring system.

Where possible, list objectives in order of priority. The objectives for the PA plan could be based on the following topics, but will be specific to the site in question:

- habitat and species (faunal and floral) conservation
- promoting scientific research
- preserving social and cultural features
- education and training
- community participation and development
- income generation
- ecotourism development
- ecosystem services

For each objective, explain the challenges and opportunities related to achieving it. For instance, poverty and a poor economy may continue to translate into bushmeat hunting or fishing pressure on a species of concern. Where possible, incorporate community and stakeholder desires or explain how those needs are addressed on neighboring lands and marine areas.

**Tasks:**

- 1) *Convene stakeholders to develop PA objectives. Multiple objective-setting meetings may be necessary.*
- 2) *Draft the PA objectives and, as much as possible, list them in order of priority.*
- 3) *Describe the opportunities and challenges to achieving each objective.*

## **4.5 Guidelines**

Guidelines can be thought of as a set of rules or regulations that apply to a PA as a whole, describing permissible or prohibited activities. Guidelines ensure that certain aspects of the PA maintain their integrity and that various activities occur, or are prohibited, in such a way as to not harm valued attributes of the PA. Some guidelines apply universally across the entire PA. Additional guidelines may be written for each micro-zone that apply only within that particular micro-zone of the PA.

Guidelines should prohibit or permit specific activities or actions. These guidelines must also recognize both customary use and access rights and ensure the use of resources as recognized in other legal decisions (e.g., concessions, PAs, etc.). PA guidelines may address the following, however, keep in mind that simplicity is preferred and adopt only the PA-wide guidelines necessary to conserve the PA's character and achieve the established objectives and desired conditions:

- **Hunting and fishing:** Specify whether it is allowed, if so, specify what species, when, where, by what means, how much (limits per person, per season, or per day), and by whom (local communities, sport hunting or fishing tourists).
- **Timber harvest:** Specify whether it is allowed, and if so, there should be several guidelines directing ecologically sustainable operations. The guidelines should again specify who can harvest, how much, when, where and what species (guidelines can specify which species can be harvested, or which cannot, whichever is simpler).
- **Marine and non-timber products collection:** Specify whether it is allowed, and if so, specify which species or items may be collected, where, when, how much, and by what method.
- **Motorized vehicles and water craft:** Specify where they are allowed, when, and what rules apply.
- **Roads:** A map of existing, planned, and closed roads should accompany the guidelines. Decisions should be made regarding which existing roads will be maintained and which will be closed off permanently. There may be areas where travel will be discouraged to protect an aspect of the PA, and there may be other areas where road infrastructure needs to be enhanced for proper management access or for tourism. What size of vehicle will be permitted, and will volume be controlled?
- **Economic corridors:** Identify, map, and define acceptable use of main corridors for the transfer of goods and services. Corridors can include roads, trails, paths, waterways, or other avenues of transporting goods and people for the purpose of trade or economic transactions.

- Trails: As with roads, indicate what means of travel are allowed on each trail (e.g., pedestrian, bicycle, mule/horseback, motorcycle).
- Infrastructure development: A map of existing utilities such as communication towers, waterlines, power lines, buildings, etc., should be accompanied by guidelines for achieving the desired level of infrastructure in the PA. Infrastructure guidelines should address development within —utility corridors— rather than in a haphazard manner that may increase negative impacts such as fragmentation of habitat or detract from the aesthetics of the PA.
- Culture heritage resources: If the PA contains any, who will be allowed access to them, when, and what type of rituals may be performed there, if applicable?
- Minerals and geology: Will prospecting and extraction be permitted?
- Tourism activities: Who can bring tourists into the PA, what permits are necessary, are guides required, what fees will be levied, is camping permitted, are night tours permitted, etc.?
- Scientific research: What permits are necessary, what limits on manipulation of the environment will be allowed?
- Community rights and development: Are there pre-existing villages within the PA, will they have the right to remain, and if so what rights to resource use will they retain? How will revenue be shared with local communities? Will locals be given preferential treatment for PA-related employment?

If any exceptions to a guideline are to be granted, the guideline should explicitly describe the circumstances under which such an exemption would be granted and who has the authority to grant it. For example, if the capture or killing of any animals is to be prohibited in the PA by the guidelines, the author may consider writing in the exception of allowing the PA administration to control certain species for management purposes or to allow capture or killing for scientific research with the proper permits. It is also important to note that pre-existing laws in the country where the PA is located may address some of these issues and activities in the PA will remain under the jurisdiction of these laws. Where appropriate, these laws should be referenced in the guideline; however, the PA may set more stringent guidelines in addition to pre-existing regulations.

***Tasks:***

- 1) *Name and describe the PA's guidelines, applicable across the entire PA. Keep in mind that simplicity is preferred. Each guideline should serve toward achieving the objectives and desired conditions previously determined.*
- 2) *Describe any exemptions to the guidelines, as well as who can receive an exemption and under what circumstances they can be granted.*

## 4.6 Management Actions

Management actions are general types of activities expected to be performed during plan implementation to contribute to achieving the desired conditions and objectives of the PA, and following the guidelines.

Management actions are activities that may subsequently take place at the project level to help maintain existing conditions or move toward desired conditions. The list of management actions is not intended to be all-inclusive, nor are they intended to be decisions. They are simply possible actions that could be implemented through a work plan.

### Management actions examples

If the management objective is to restore habitat for specified species, management actions could include hand removal of exotic invasive plants, and control of exotic invasive animals and diseases, with a subsequent management action to revegetate with native species consistent with the desired conditions.

If the management objective is to protect or restore declining or threatened populations of native wildlife, management actions could include education and outreach to the traditional hunting and fishing community, instituting controls to confiscate bushmeat, fish and marine products and deter illegal hunting and collecting, and providing incentives for alternative sources of protein.

### *Tasks:*

- 1) Identify the core possible actions that fall within guidelines to achieve specific objectives.*
- 2) Assess the technical and financial feasibility to implement the management action.*

## 4.7 Micro-Zones

Within a given PA, there are likely to be areas in which the planning team decides to focus on different activities or to emphasize various aspects offered by the PA. These areas are micro-zones and should be delineated on the PA map and characterized in this section of the plan. For instance, there may be some areas where human activity will be concentrated due to a Visitor Center that is planned for that area. Such a micro-zone might be titled an interpretive micro-zone and the planning team may choose to focus future development within that micro-zone. Other micro-zones may be planned as buffer zones between areas of high human activity and areas in need of protection from human disturbance. In the accompanying text, provide a heading for each micro-zone and explain how that zone will be managed, why it warrants different management, define objectives for that zone, and describe the micro-zone's guidelines. Micro-zones are not used to describe areas of differing ecological characteristics, but rather are areas of differing management actions.

***Micro-zones are not used to describe areas of differing ecological characteristics, but rather are areas of differing management actions.***

***The entire PA need not be micro-zoned. Micro-zone designations should be reserved for areas that require special protections or management beyond that of the PA as a whole.***

With each micro-zone, accompanying text should provide a name for the micro-zone and explain the management objectives and guidelines specific to that micro-zone. To keep the plan from becoming too complex, and ensure easier implementation and enforcement, keep the number of zones to a minimum and remember that the entire PA need not be micro-zoned. Reserve micro-zone designations for areas requiring special protection or management beyond that of the PA as a whole. To determine whether a new micro-zone is necessary in the plan, the planning team should ask itself how the management in that zone will differ from management across the rest of the PA or in any of the other micro-zones. Keep in mind that guidelines for the entire PA will still apply within the micro-zones unless the micro-zone guidelines expressly provide for an exemption to certain restrictions. Therefore, guidelines in place for the PA need not be repeated for each micro-zone.

Different PAs will need different micro-zones to achieve their overall desired conditions and objectives. Some micro-zones to consider for a PA plan include the following (again, keep the number of micro-zones to a minimum, if there is no substantial difference in the guidelines of two different micro-zones, it may be preferable to combine them into one micro-zone):

- Complete protection zones: regions where all access is prohibited, perhaps other than by the PA administration or limited research
- Hunting and fishing zones: where certain communities may hunt following certain guidelines that are specified in the plan
- Sport fishing: for tourists
- Heritage or Cultural zones
- Developed or High Impact zones: for administrative buildings, tourist lodges, etc.
- Extractive Use zones: where extraction of limited amounts of timber or non-timber products may be permitted following certain guidelines
- Village zones: if any exist within the boundaries of the PA and will be permitted to remain

***Tasks:***

- 1) *Identify areas of the PA that require special protection or management actions and guidelines beyond those which apply to the entire PA.*
- 2) *Map these micro-zones and characterize the resources they contain.*
- 3) *Create a heading or title for each micro-zone and explain why it warrants management actions different from the rest of the PA or other micro-zones.*
- 4) *Define objectives for each zone and guidelines to achieve those objectives.*

## **4.8 Implementation**

The plan should describe how it will be implemented. This includes a discussion of roles and responsibilities of the different parties participating in plan implementation; the public participation strategy; the approach to monitoring and evaluating the plan; and a multi-year implementation schedule that presents a schedule of management actions to facilitate more detailed work planning.

### **4.8.1 Roles and Responsibilities**

This section should identify the different roles and responsibilities of government agencies and other organizations for administering the plan. Various institutions will be responsible for actions associated with implementation, such as project design and approval, project execution, budgeting, and monitoring. Implementation of plan management actions should be consistent with the legal framework within the country, that includes applicable laws and regulations and follows particular protocols administered through government institutions. In this section, describe who will be responsible for each action for plan implementation.

With limited land and marine management capacity and resources within the government ministries that are the authorities by law, actual management of the PA and its resources will often fall to a mosaic of actors with a presence in the area. Government ministries and departments, conservation and other NGOs, private industry and local communities all bring an array of capabilities and resources to help implement the plan. Due to this uncertain nature, it will be important to create (or reinforce) the appropriate advisory and management teams and assign responsibilities for implementing various aspects of the plan to individuals or organizations with the ability and resources to carry them out.

#### ***Tasks:***

- 1) Agree on the structure of the management leadership, advisory teams, and any extended team, if needed.*
- 2) Nominate and agree on management leadership and the advisory team's members.*
- 3) Define a meeting schedule for the management and advisory team, and how meetings will be conducted.*

### **4.8.2 Public Participation Strategy**

This section should describe public participation processes involving other parties. The process of creating the PA land and marine use plan is participatory in nature, drawing input from diverse users and interested parties. As the plan moves into the implementation phase, it is important that this participatory nature be maintained. Management actions which will impact the resources of the PA should be communicated to the local stakeholders. In addition, implementation assistance will sometimes be needed from those local inhabitants of the PA. The management team will need to come up with a public participation strategy to describe how stakeholders will be involved in management decisions and actions, and how those decisions will be communicated to the public.

A great number of implementation activities will be needed to achieve those objectives and desired conditions. It will not be possible to carry out an extensive public participation process

for every management action because this would create a great cost and extensive delays in managing the PA. For this reason, it is preferable to institutionalize periodic consultations open to all relevant stakeholders. These institutionalized consultations generally involve setting up a stakeholder forum or platform that meets anywhere from once to several times a year and where new management decisions and/or implementation activities are presented and discussed in a transparent and participatory manner.

It is almost inevitable that management actions on the PA will result in some level of dissatisfaction among one or more interest groups, or conflict among groups and/or the management team. Yet management of the PA must go forward. Institutionalized stakeholder consultations in the form of these types of platforms ensure that the actions of the management team are transparent and that those dissatisfied stakeholders have the opportunity to air their concerns and be heard by the management team and other stakeholders. As a result, the management team may decide to alter its course somewhat, or maintain the original implementation plan.

***Task:***

*The management team should create a public participation strategy that describes how stakeholders will be involved in management decisions and plan implementation. Typically, this participation strategy includes establishing formalized periodic stakeholder meetings. These platforms provide a mechanism for regular communication and dialogue between the management team and pertinent stakeholders.*

### **4.8.3 Monitoring and Evaluation**

The objective of monitoring and evaluation is to determine if the management plan and annual work plans effectively contribute to achieving the plan's objectives and desired conditions for the PA. Monitoring and evaluation tasks should focus on rare resources, on activities authorized by the PA administration, or on basic information needs for the PA administration. With plan implementation under way, monitoring will provide the feedback loop for evaluating the plan. Evaluation will identify whether the plan is being implemented effectively, that is, whether the existing guidelines are effective and, ultimately, whether the overall objectives are being met. Monitoring will also allow observation of the impacts of management and evaluation will suggest changes to management actions accordingly. Where implementation runs into problems, monitoring and evaluation can be used to signal needs for re-deploying management resources to improve plan implementation.



**Examples of monitoring questions and measures:**

- Are specific management activities being implemented as described in the plan and the annual work plan? *Possible measure: percent and types of activities that are actually implemented.*
- Are specific species populations responding to management actions as anticipated in the plan? *Possible measures: population size and trend.*
- Is the plan providing for local community benefits as may be realized by association or from participation in PA management? *Possible measure: proportion of community revenue generated by PA management.*
- Are ecological systems being restored as provided by management actions? *Possible measure: proportion of PA area with desired ecosystem conditions.*
- Have management actions changed the quantity, quality, and spatial distribution of marine and other habitats, to help meet plan objectives? *Possible measure: proportion and types of habitats suitable for desired species.*

Plan monitoring and evaluation should determine if key aspects of the plan are working as intended or if changes need to be made to the plan. Evaluation should help determine if existing guidelines are effective at ensuring the sustainability of activities and resources. Not everything can be monitored. The plan should indicate the kind and frequency of monitoring that will occur regarding priority issues. Based on priorities, key measures of success will need to be identified for which monitoring data can be collected, initially to establish base conditions and subsequently to establish changes.

Specific monitoring activities will depend on the objectives that have been identified for the PA, and may include, but are not limited to:

- Species of concern
- Plant communities
- Benefits attained by local communities
- Human disturbances
- Extent of hunting and fishing
- Infrastructure impacts
- Instream flows
- External threats to the PA

As with plan implementation, subject monitoring actions to a prioritization process, as limited resources will prohibit monitoring as much as would be ideal. Focus efforts on monitoring aspects of the plan relating to the most pressing threats to, and needs of, the PA to assess whether or not the plan has been effective at reducing the impacts of those threats.

**Tasks:**

- 1) *Prioritize monitoring needs, linking monitoring activities to determination of the plan's effectiveness.*
- 2) *Based on available budgets and resources, determine which monitoring activities will be carried out and how.*
- 3) *Identify who will be responsible for each monitoring activity; create timelines and budgets for each activity.*
- 4) *Explain how monitoring results will feedback into adapting the plan's management direction.*

#### **4.8.4 Multi-Year Schedule**

In this section of the plan, prioritize action items into a multi-year implementation schedule with a timeline and an indicative budget to accomplish the work. A multi-year schedule lists activities to implement the plan, typically over 5 to 10 years. This section should specify what action items will be accomplished, by whom, when, and how much they will cost. It is appropriate to include a description of how stakeholders will be involved (see 4.8.2).

A multi-year schedule could include the following components:

- management action and tasks
- descriptions of each task
- expected accomplishment from each task
- responsible parties
- an indicative budget
- general implementation time frame

#### **Annual Work plans and Other Complementary Plans**

In an annual work plan, prioritize action items with a timeline, a budget, and potentially a financial or business plan to accomplish the work.

Annual work plans should specify what action items will be accomplished, by whom, when and how much they will cost. It is appropriate to include a description of how the community will be involved, if they have agreed to participate in some aspect(s) of the PA, and how benefits derived from the PA will be shared with them. They may be involved as caretakers, educators, guides, research or support staff, or in other ways.

Implementation activities need not be focused solely within the PA, in fact, it will often be necessary to address impacts on the PA caused by factors from outside its borders. All implementation activities should link back to one or more of the PA objectives.

Plan implementation may need other complementary plans such as finance and/or business plans. These may prove useful for each zone to ultimately have such documents drafted and used for operations and fund raising.

The multi-year schedule in the management plan is then translated into specific activities, which are outlined and budgeted for in annual work plans. Annual work plans are documents separate from the overall plan, and follow the plan's multi-year schedule. A description of the work

planning process and strategy appears in Appendix B, and simplified single-task and multiple-task project work plan templates are provided in Appendix C.

**Tasks:**

- 1) *Prioritize necessary management implementation activities, focusing on issues that are most pressing to the PA's success. Use budgeting exercises to help planners think through the real costs of activities and make tough decisions about what can realistically be accomplished with a finite budget.*
- 2) *Create a schedule of anticipated priority implementation activities for the life of the management plan (5–10 years).*
- 3) *Create an annual work plan—although not part of the plan itself—for the first year of operation, identifying specific action items, along with their resource (human and material) needs, and the responsible parties. Provide a timeline for completion and a budget.*

## **4.9 References**

For each reference cited in the plan, include author name(s), date, title of article (if applicable), title of publication, publisher (if available), and page(s).

## **APPENDIX A: SELECTED RESOURCES FOR PROTECTED AREA PLANNING, CATEGORIES OF PROTECTED AREAS, AND MANAGEMENT EFFECTIVENESS.**

There are many books and journal articles on protected area management. Below is just a small selection of such references. Look through other areas on the PIPAP for various references to planning and search Publications as well. This guide is an adaptation of an earlier work by the author on management planning in central African protected areas.

### *Planning:*

The Nature Conservancy. Landscape-scale Conservation: A Practitioner's Guide. The Nature Conservancy - [http://conserveonline.org/workspaces/cbdgateway/cap/practices/index\\_html](http://conserveonline.org/workspaces/cbdgateway/cap/practices/index_html)

Sanderson, E.W., K. H. Redford, A. Vedder, P.B. Coppolillo, and S. E. Ward. 2002. A conceptual model for conservation planning based on landscape species requirements. *Landscape & Urban Planning* 58: 41-56. and other Wildlife Conservation Society - Living Landscape documents.

Pressey, R. L. and M. C. Bottrill. 2009. Approaches to landscape- and seascape-scale conservation planning: convergence, contrasts and challenges. *Oryx*, 43, pp 464-475.

Henson A., D. Williams, J. Dupain, H. Gichohi, and P. Muruthi. 2009. The Heartland Conservation Process: enhancing biodiversity conservation and livelihoods through landscape-scale conservation planning in Africa. *Oryx*, 43, pp 508-519.

Didier K. A., M. J. Glennon, A. Novaro, E. W. Sanderson, S. Strindberg, S. Walker, and S. DiMartino. 2009. The Landscape Species Approach: Spatially-explicit Conservation Planning Applied in the Adirondacks (USA) and San Guillermo-Laguna Brava (Argentina) Landscapes. *Oryx*, 43, pp 476-487.

Morrison, J., C. Loucks, B. Long, and E. Wikramanayake. 2009. Landscape-scale spatial planning at WWF: a variety of approaches. *Oryx*, 43, pp 499-507.

### *Categories:*

IUCN-WCMC Guidelines for Protected Area Management Categories ([http://www.unep-wcmc.org/protected\\_areas/categories/eng/index.html](http://www.unep-wcmc.org/protected_areas/categories/eng/index.html)).

IUCN. 1994. Guidelines for Protected Area Management Categories. CNPPA with the assistance of WCMC. IUCN, Gland, Switzerland and Cambridge, UK. x + 261pp.

Ravenel, R. M. and K. H. Redford. 2005. Understanding IUCN protected area categories. *Natural Areas Journal* 25:381-389.

Regan, H. M., M. Colyvan, and M. A. Burgman. 2000. A proposal for fuzzy International Union for the Conservation of Nature (IUCN) categories and criteria. *Biological Conservation* 92:101-108.

*Management Effectiveness:*

Hockings, M., S. Stolton, F. Leverington, N. Dudley, and J. Courrau, J. 2006. *Evaluating Effectiveness: A framework for assessing management effectiveness of protected areas*. 2nd edition. IUCN, Gland, Switzerland and Cambridge, UK. xiv + 105 pp.

CMP (Conservation Measures Partnership). 2007. *Open standards for the practice of conservation (version 2.0)*. CMP: Washington DC. Available at: <http://www.ConservationMeasures.org>.

Foundations of Success (FOS) - <http://www.fosonline.org/>

Management Effectiveness Tracking Tool

(<https://www.conservationgateway.org/ExternalLinks/Pages/mett-management-effective.aspx>).

## **APPENDIX B: DESCRIPTION OF WORK PLANNING STRATEGY, PROCESS, AND COMPONENTS**

1. Purpose of Work plans
  - a. To provide for the implementation of the PA management plan.
  - b. To define the program of work for all PA operations.
  - c. To set priorities for work to be accomplished.
  - d. To define the resources needed to accomplish priority work in the PA.
  - e. To determine funding needs for PA operations.
  
2. Work Planning Strategy
  - a. Work planning is the process used to develop an annual program of work, which can be used to project immediate funding needs for the next fiscal year (budget request).
  - b. Work planning can serve as a valuable tool to project work priorities and budgetary needs for the next 3–5 years, particularly where projects or activities need to be phased due to complexity or costs.

Note – draft work plans, used for budget planning and requests, will likely need revision once a final budget allocation to PA units has been made.

3. Types of Work plans – Two types of work plans (see templates in Appendix B) may be suitable for developing a program of work for PAs in Pacific Islands:
  - a. *Single Task Work Plan Template* – This work plan template is suitable for relatively simple projects or activities that do not require complex planning or phasing. Examples of projects or activities that would likely fall into this category would be:
    - i. Law Enforcement – annual work program for law enforcement staff (eco-guards) engaged in such activities as monitoring for illegal fishing and hunting.
    - ii. PA Administration – covers the salary, training, and materials and supplies for the PA Manager, clerical and budget staff, and any other administrative staff, and their supplies (paper, pens, computers and associated supplies, photocopy machine and associated supplies, etc.). It is important to note that, as the chief administrative officer of the PA, the PA manager’s annual salary would be included in this work plan. Therefore, if any other work plans call for efforts by the PA manager, his/her salary would not be factored into the other work plan.
    - iii. Administrative Facilities Maintenance – covers the cost for annual maintenance of all administrative facilities, including staff performing maintenance activities, cleaning materials, paints, stains, and any tools that must be purchased to accomplish this work (brooms, paint brushes, etc.). However, a PA with a complex administrative facilities structure (such as an office, maintenance building, and multiple staff housing facilities) may find the multiple-task work plan format more suitable due to the diversity of facilities needing maintenance.

- iv. PA Trails Maintenance – covers the routine annual maintenance of all PA trails, such as brushing, any needed tread repair, etc.
  - v. PA Marine Facilities Maintenance – covers the routine annual maintenance of all PA marine facilities such as dock repairs, etc.
  - vi. PA Roads Maintenance – covers the routine annual maintenance of all PA roads, such as brushing, grading, and surface repair.
  - vii. Fleet Operations and Maintenance – covers the routine annual maintenance of the PA’s vehicles, including boats, and their fuel costs.
- b. *Multiple-Task Work Plan Template* – This work plan template is suitable for more complex projects or activities that can be better defined and planned as multiple tasks. Due to the complexity of these projects, they are frequently phased over several years. This allows phased implementation and funding to be spread out over several years, as appropriate. Examples of projects or activities that would likely fall into this category:
- i. Planning and construction of a trail with a wildlife-viewing component, where the tasks are as follows:
    - Task 1 – design and layout of the trail. Includes time spent on site identifying the specific location of the trail.
    - Task 2 – construction of the trail. Includes all tasks associated with constructing the trail, such as trail width clearing, brush removal, and tread construction.
    - Task 3 – construction of a wildlife-viewing area. Includes time spent building bench seating for visitors observing local wildlife.
  - ii. Planning and Construction of Entry Posts/Check Points.
    - Task 1 – survey of sites selected for Entry Posts/Check Points – includes clearing, and clearance for cultural resources.
    - Task 2 – design of Entry Posts/Check Points – includes any modification of standard designs provided for PA use by national PA, if needed and appropriate to accommodate local conditions.
    - Task 3 – contract for constructing Entry Posts/Check Points – includes cost for staff to periodically inspect construction progress to assure work complies with contract requirements.
    - Task 4 – purchase and installation of all furnishings for the Entry Posts/Check Points to make them operational.
4. Work Plan Components – Consider including the following elements when developing a work plan:
- a. *Project Summary* – brief description of the project or activity to be accomplished, with sufficient detail so it is clear what will be done.
  - b. *Personnel* – description of all personnel needed to accomplish the work, including name and/or title of each position, with number of days planned for each person for this work, multiplied by the cost of the person per day, to give total personnel cost. (Once again, the full cost of the PA manager’s annual salary is placed under only the administrative work plan.)

- c. *Supplies and Materials* – list of all supplies and materials which must be purchased to accomplish the project or activity. Include the item and quantity multiplied by unit cost, to get total supplies and materials cost.
  - d. *Contracted Services* – list all services which must be contracted to accomplish the work, including an estimate of the contract cost.
  - e. *Specialized Training* – list any specialized training required for this project or activity that is not routine training the rest of the PA’s staff would receive. An example would be special law enforcement training for eco-guards in a Law Enforcement Work Plan.
  - f. *Fleet* – list all vehicles and boats needed to accomplish the work, and the days needed for each. Note – the total of days planned for any vehicle or boat, when considering all the annual work plans, cannot exceed the number of work days in the year. If they do, an additional vehicle or boat will be required to accomplish all the projects or activities.
  - g. *Project Cost Summary* – provide a total cost of the project or activity, including all personnel, supplies and materials, contracts, and specialized training.
  - h. *Phasing* – for multiple-task and/or high-cost projects or activities, consider a multiple-year phasing plan, if appropriate.
5. Priority for Annual Work Plans – The following general priorities are recommended when considering development of an annual program of work. The order of importance of these priorities may differ from PA to PA.
- a. *Address health and safety issues* – this includes both visitors and staff, and includes sanitation facilities and any provisions necessary to assure a safe environment to prevent injury or disease.
  - b. *Protection of critical habitats or species.*
  - c. *Resource information needs* – includes surveys, inventories, and assessments.
  - d. *Transportation needs* – includes roads and trails.
  - e. *Cultural and community needs and issues.*
  - f. *Tourism needs* – includes information and education, and marketing.
  - g. *Administrative needs* – including development of office facilities and staff housing.



## APPENDIX C: WORK PLAN TEMPLATES

### Single-Task Work Plan Format

**PROJECT TITLE:** \_\_\_\_\_

**PROJECT DESCRIPTION:** (Briefly describe the work to be performed)

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**Personnel Needs** (List all personnel needed to accomplish the project)

(Name/Title)	(Days Planned)	(Cost Per Day)	(Total Cost)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**Supplies and Equipment** (Only list items that need to be purchased)

(Item)	(Quantity)	(Unit Cost)	(Total Cost)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**Contracted Services** (List any work to be done by contract with non-PA personnel)

(Serviced Needed)	(Estimated Cost)
_____	_____
_____	_____

**Specialized Training** (List any training needed specifically for this project)

(Course Title)	(Cost of Course)	(Travel)	(Total Cost)
_____	_____	_____	_____

**Vehicles** (List all vehicles needed to accomplish this project)

(Type)	(Days Planned)
_____	_____
_____	_____

**SUMMARY OF PROJECT COSTS** (Add all costs, by category, from above)

Personnel \_\_\_\_\_  
Supplies and Material \_\_\_\_\_  
Contracted Services \_\_\_\_\_  
Specialized Training \_\_\_\_\_

**TOTAL PROJECT COST** \_\_\_\_\_

**Multiple-Task Work Plan Format**

**PROJECT TITLE:** \_\_\_\_\_

**PROJECT DESCRIPTION:** (Provide an overall summary of the work to be performed)\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**TASK #1 (Description):** (Briefly describe the task to be performed) \_\_\_\_\_

**Personnel Needs** (List all personnel needed to accomplish this task)

(Name/Title)	(Days Planned)	(Cost Per Day)	(Total Cost)
_____	_____	_____	_____
_____	_____	_____	_____

**Supplies and Equipment** (Only list items that need to be purchased)

(Item)	(Quantity)	(Unit Cost)	(Total Cost)
_____	_____	_____	_____
_____	_____	_____	_____

**Vehicles** (List all vehicles needed to accomplish this task)

(Type)	(Days Planned)
_____	_____
_____	_____

**TASK #2 (Description):** (Briefly describe the task to be performed) \_\_\_\_\_  
\_\_\_\_\_

**Personnel Needs**

(Name/Title)	(Days Planned)	(Cost Per Day)	(Total Cost)
_____	_____	_____	_____
_____	_____	_____	_____

**Supplies and Equipment** (Only list items that need to be purchased)

(Item)	(Quantity)	(Unit Cost)	(Total Cost)
_____	_____	_____	_____
_____	_____	_____	_____

**Vehicles** (List all vehicles needed to accomplish this task)

(Type) (Days Planned)

\_\_\_\_\_

Task #3 (Description): (Briefly describe the task to be performed)

\_\_\_\_\_

**Personnel Needs**

(Name/Title)	(Days Planned)	(Cost Per Day)	(Total Cost)
_____	_____	_____	_____
_____	_____	_____	_____

**Supplies and Equipment** (Only list items that need to be purchased)

(Item)	(Quantity)	(Unit Cost)	(Total Cost)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**Vehicles** (List all vehicles needed to accomplish this task)

(Type) (Days Planned)

\_\_\_\_\_

**(Add additional TASKS if needed)**

(For Total Project)

**Contracted Services** (List any work to be done by contract with non-PA personnel)

(Serviced Needed) (Estimated Cost)

\_\_\_\_\_

**Specialized Training** (List any training needed specifically for this project)

(Course Title) (Cost of Course) (Travel) (Total Cost)

\_\_\_\_\_

**SUMMARY OF PROJECT COSTS** (Add all costs, by category, from above)

Personnel	_____
Supplies and Materials	_____
Contracted Services	_____
Specialized Training	_____

**TOTAL PROJECT COST** \_\_\_\_\_

**Recommended “Phasing Implementation” for projects to be funded over multiple years:**

**Phase**

Phase 1: Task(s) number \_\_\_\_\_  
Phase 2: Task(s) number \_\_\_\_\_  
Phase 3: Task(s) number \_\_\_\_\_

**Funding Proposal**

Year 1- \_\_\_\_\_ \$  
Year 2- \_\_\_\_\_ \$  
Year 3- \_\_\_\_\_ \$