Conservation Finance Guide

Business Planning for Protected Areas

Link to primary spreadsheet

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INTRODUCTION

Most protected areas throughout the world do not have adequate funding to achieve their stated goals. One major obstacle to putting such key conservation areas on a sound financial footing is the tendency of conservation professionals to focus on their traditional strengths of park protection and biological sciences and avoid the critical role of financial management. To address this problem, this Guide intends to provide the "non-financial expert" with a basic understanding of various innovative financing opportunities for protected areas and a framework with which to pursue these "financial mechanisms". As such, this chapter on business planning for protected areas is critical in setting the context for the chapters that follow.

Although this chapter is about business planning for protected areas, it is important that the protected area business plan is prepared within the broader framework of a protected area management plan. The business plan can be considered an extension of the management plan: it aims to identify the resources required to meet the goals and tasks laid out in the protected area management plan. The first section of this chapter therefore provides an overview of the protected areas management planning process. The second section presents the business planning concept for protected areas, and provides a methodology and planning tools to develop the core components of a business plan. The third section is a primer for developing the major narrative components of the business plan for marketing and outreach purposes.

1. WHAT IS A PROTECTED AREA MANAGEMENT PLAN?

1.1 Overview

Protected area (PA) management planning involves assessing and recording the conditions of a site; evaluating current and projected needs and threats; and developing strategies and planning specific activities designed to address those threats. A PA management plan is a technical document, not a legal instrument. It is not a static piece of paper but rather a dynamic plan that has to be updated at regular intervals to adjust to changing conditions.

Planning in general should not be done in isolation by an individual, but rather should involve internal as well as external stakeholders. It involves defining tasks and responsibilities; timelines for achieving goals; benchmarks (or indicators) against which progress can be measured; and *resource needs*. **A business plan for protected areas will focus on this last aspect of the management plan. The business plan is intended to give a clear picture of: 1) the *financial needs* that must be met in order to conduct proposed management plan activities, and 2) *potential revenue sources* to help meet those needs**. Section 2.3 and 2.4 of this chapter will examine these two areas (long-term financial planning, and identifying new sources of revenue) in greater detail.

1.2 Three Phases of Management Planning

The following section provides a *general* overview of the three phases of management planning. These phases are illustrated in Figure 1 below. A full discussion of management planning for protected areas is beyond the scope of this guide. There are however various resources and specific methodologies available.[1]

1.2.1 Phase one

Good planning means setting the exercise in the proper context and thinking about the institution responsible for planning and what it wants to achieve. What are its mission and/or goals? What are the indicators or benchmarks against which to measure progress towards these goals? This first phase is called the **identity** phase.

As an example, the institution could be an Environment Ministry or a PA Management Unit or a non-governmental organization (NGO) in charge of managing the PA. Its mission could be to create a network of PAs or to improve the management of an existing PA. The goal could be to have a biologically diverse and economically sustainable network of PAs in a specific region or country.

1.2.2 Phase two

The second phase for your planning consists of looking at the **environment** in which it is living and working: the institutional, social, economic, cultural, political and religious environment. This includes positive external forces (strong political commitment, NGO support, economic stability, good opportunities, etc.) and negative external forces (civil unrest, hunger, political instability, vested interests, drought, etc.). It also includes positive internal forces (capable institutions, well trained and qualified staff, adequate budget, good leadership, etc.) and negative internal forces (weak or marginalized institutions, lack of staff, poor incentives for staff, lack of operational funds etc.).

1.2.3 Phase three

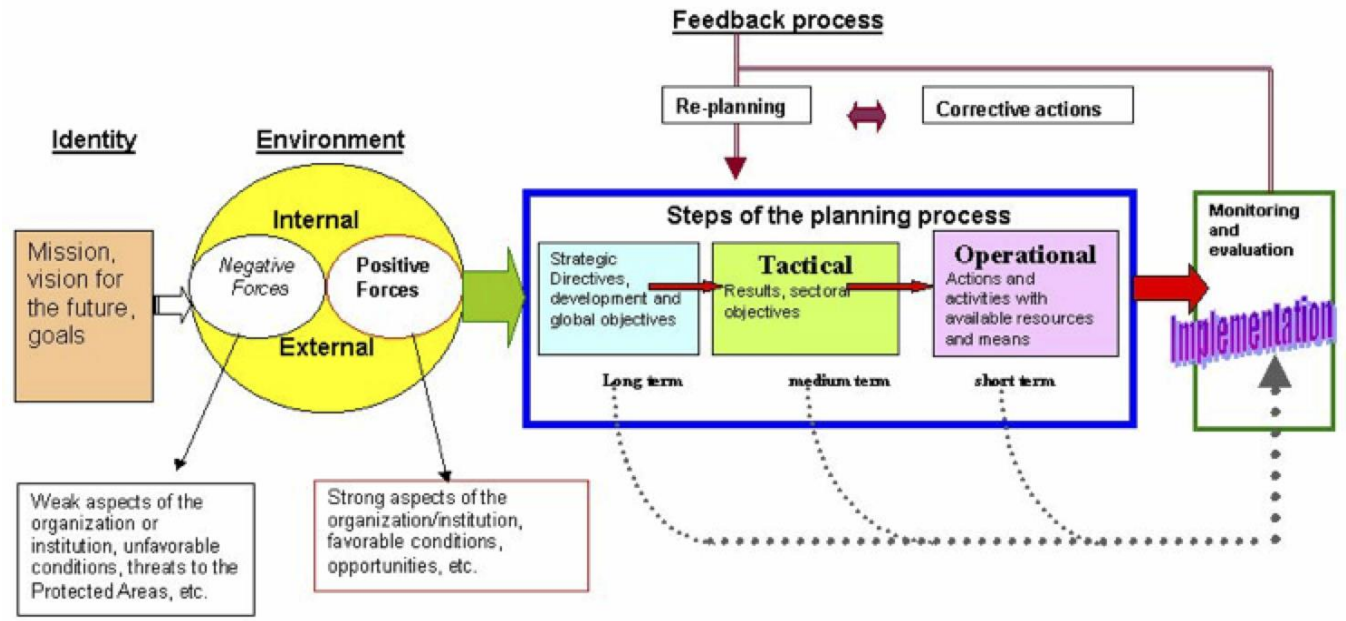
Once you have a clear idea of your mission and what you want to achieve (**identity**) and the context in which you must work (**environment**), you have to plan what actions you will take to achieve your goals. As illustrated in Figure 1, this management planning process takes place at three different levels: long-term, medium-term and short-term planning.

a. Long-term planning (or, "**strategic planning**") entails planning the implementation of your broad objectives (what you want to achieve in five to ten years), e.g.. a network of five well-managed protected areas in a specific region. The objective could, similarly, be the efficient management of a park within the next eight years. Strategic planning supports broad yet **realistic** objectives.

b. Medium-term planning (or, "**tactical planning**") entails defining medium term steps and time frames (in the next several years) to achieve your broad objectives. For example, to have a network of five protected areas in your region, you need: (1) political support, (2) public support, (3) financial and non-financial means, (4) qualified staff, etc. Tactical planning is more detailed than strategic planning and gives details on **how** to achieve the broad objectives.

c. Short-term planning (or, "**operational planning**") entails listing all of the specific activities and means needed in the short-term (one year) to achieve the medium-term objectives. For example, to reach objective (4) above – have enough qualified staff – we need to define the specific staff positions, identify potential staff, train them, organize study tours, find funding for their salaries, motivate them, etc. An operational plan has to be precise and very realistic.

Figure 1. Steps in Preparing a Protected Area Management Plan



Goals should be linked to a list of tasks to be accomplished. The park management team can sub-divide these tasks into categories that fit their needs best. One example of broad management plan categories would be to break tasks down into scientific, socio-economic, and administrative tasks. These broad categories can be further subdivided, for example:

· **Scientific management**: ecosystem restoration, environmental monitoring and control, species reintroduction, control of invasive species, management of fire, veterinary work, scientific research, etc.

· **Socio-economic management**: securing support from people in and around the park through employment opportunities, providing alternative livelihoods, and other projects and activities that benefit them; public outreach and education; economic valuation of ecosystems goods and services, etc.

· **Administration**: staffing and training; patrolling and enforcement; infrastructure maintenance; overhead (office space, utilities, etc.); equipment and supplies; etc.

One way to ensure that you have gone all the way through the planning process is to continually ask yourself the following questions:

- Where is this protected area heading? (long-term vision)
- How is it going to get there? (basic tactics)
- What specific tasks must be accomplished over the planning period? What additional activities are most important in furthering success? (Prioritize annual, quarterly, and daily operations.)

Every aspect of the programmatic agenda of your management plan should be able to offer satisfactory answers to these questions.

Park managers should make their best effort to adhere to the operational plan in order to meet medium-term objectives and hence the long term objectives, but they will also need to be flexible and adapt their activities to respond to changing conditions. **Monitoring** and **evaluation** (M&E) is therefore essential to detect problems so that they may be addressed early. Spotting problems early will allow the planner to identify and implement **corrective actions** in time. These corrective actions might lead to a re-planning exercise to adapt the objectives to the new situation. This last step of the planning exercise is called the **feedback process** or **adaptive management**. M&E should remain easy to manage and oriented to practical needs, as it might otherwise develop into a full-grown project in itself (which is not its intention).

A Management Plan does not require volumes of information on the protected area, but it does require enough information to make good conservation decisions. Although the planning process for a protected area is dynamic, basic information related to the ecology, economics, and human communities of the area are critical. Box 1 gives a brief outline of the essential components of a Management Plan.

Box 1 Protected Area Management Plan components

1. Introduction: Information on the protected area location, size, legal status, and principal goals and objectives.

2. Ecological Systems and Components: Descriptions and maps of key ecological processes, priority natural communities, and endemic, threatened, and migratory species.

3. Socio-economic Conditions and Compatible Development: Descriptions and maps of important access routes, land tenure and resource uses, social organization and important cultural aspects of local communities, and governance issues. In addition, a list of the environmental goods and services produced by the area is also important.

4. Threats to Ecological Integrity or Species: Descriptions and maps of location, type and magnitude of stresses induced by human use (or misuse) of the ecosystems or other natural phenomena. A scientific understanding of the sources of these threats will be the basis for defining priority actions to ensure compatible uses of the natural resources.

5. Vision, Goals and Strategies: Descriptions of the anticipated future condition with clear goals, priority strategic actions for resource management, public use, and administration of the protected area. Measurable benchmarks should be defined at this stage to assist in monitoring progress.

6. Development Phases: A 3-5 year chronogram of priority programs and activities that also indicates key benchmarks and coordination between diverse components.

7. Organization and Staffing: A definition of the roles and inter-relationships between the lead organization responsible for the protected area and other collaborating institutions and communities.

8. Budget: Spreadsheets that detail cost estimates by fiscal year of all necessary activities to achieve the protected area's objectives.

9. Funding Sources: Multi-year spreadsheets that define anticipated funding sources for budgeted activities.

2. A BUSINESS PLAN FOR PROTECTED AREAS

2.1 Why a Business Approach to Protected Area Management?

Before exploring the details of a business plan, we should answer the fundamental question: why take a "business approach" to protected area management? The idea behind this terminology is to encourage protected area managers to see their job, in part, as running a business. But in this case, the objective of the business is not to make a profit, but rather to improve the management of the protected area and make it financially as well as ecologically and socially sustainable. **Generating revenue is no more than a means to an end – improved park management.**

This business approach is based on the idea that protected areas provide real economic benefits to individuals and society as a whole. These contributions are often neither fully recognized, nor compensated. By identifying what are the environmental "goods and services" provided by a PA (such as clean air, clean water, hydro-electricity, wildlife, tourist areas, etc.) and who are the "customers" or beneficiaries of the PA, we can begin to quantify the monetary value of these benefits and generate payments for them. For more information on this approach, see: Phillips, A. Financing Protected Areas: Guidelines for Protected Area Managers. IUCN (2000) in the general references section. The business plan helps to summarize this valuation process and serves as a roadmap for implementing financial strategies that take advantage of biodiversity goods and services. As such, it identifies the financial sources and opportunities offered by a site for which existing and potential customers might pay.

2.2 Preparing a Protected Area Business Plan

Preparing a PA business plan requires an assessment of the protected area's resources and a plan for marketing these resources to meet financial goals. The first part of the business plan, **identifying the amount of financing required** to accomplish the goals, is known as the *long-term financial plan*. This will be examined in detail in section 2.3. The second part of the business plan entails **identifying viable funding sources to meet these needs.** A methodology and associated spreadsheet tools that rely on the "business approach" will be presented in section 2.4.

These two main components of the business plan are shown in Figure 2. Note that creating a business plan (and in particular, the long-term financial plan) requires having your protected area management plan in order. This means having clearly defined long-term goals in place (the strategic plan) as well as detailed short-term goals and corresponding management activities (the operational plan). This should be apparent, as you cannot define your financial needs until you know exactly what you plan on doing at your site.

This is not to say that a comprehensive management plan must be completed before developing the business plan. On the contrary, it is best if the business plan is developed in concert with the management plan, so that they may influence each other. For example, if planned management activities in the short term are financially unrealistic, this will emerge in the business planning

process and the management plan can be adjusted accordingly. But it should be understood that, by and large, the business plan is a means of achieving the management plan, not the other way around. Ultimately, the financial details and funding sources identified in the business plan will be incorporated into the management plan.

The first step is to make a commitment to develop a business plan. This may seem obvious but should not be underestimated. The preparation of a business plan requires qualified staff time and financial resources. Like the management planning exercise, it should be conducted by a group of key stakeholders who are familiar with the protected area. It is an investment, and as with all investments, the decision to proceed should be weighed carefully. Box 2 offers some ideas on who should be part of the business (and management) planning team. The team should include a representative of each stakeholder group that affects the success or failure of the plan.

Box 2 The Business Planning Team
PA Manager
Government Resource Agency representative
Financial Officer
Fund Raising Director

Additional stakeholders to consider are:
Government Representatives from any agency with a legal mandate to manage land, natural resources, or infrastructure inside or adjacent to the protected area
Finance Ministry representatives
Academic or research representatives with activities in the area
Local community leaders and resource user groups (farmers, loggers, fishermen, etc.)
Local political representatives
Representatives from international NGOs and other donor agencies

Once you have decided to proceed and have assembled your team, collect the data essential to create a long-term financial plan, and determine what are the most promising sources of revenue. As indicated above, the business plan should identify (a) your financial needs, now and in the long-term (b) the "goods and services" produced by your PA (c) the economic value of these products, and (d) your potential “customers”(i.e. not just park visitors, but anyone who derives benefits from the goods and services the park produces).. The sum total of this information can then be analyzed by the management team to make decisions: how to allocate resources more efficiently; where cost cutting measures may need to be made; when and to what extent cash flow problems may emerge; the new funding opportunities you will pursue; and how to begin. Once this data has been collected and analyzed, prepare a brief narrative report highlighting the findings. This report serves as the business plan for outreach purposes. It is an important tool in itself for marketing your protected area to potential funding sources and generating interest . We examine how to develop this report in section three.

2.3 Long-term Financial Planning for Protected Areas

2.3.1 Financial planning process

Once the management planning team has drafted the strategic and management plans, the business planning team must estimate the program costs. The business planning team may include the entire management planning team or a subset of it. On the basis of the threats and activities

identified in the management plan, the financial planning team classifies the activities to be carried out, by year and program type, and then ranks them according to need. The **first tier** of activities are those which *must* be performed to ensure the minimum level of protection for the ecosystem. The **second tier** of activities are those *needed* to enhance the ecosystem, expand the constituencies and augment the minimum level of protection activities. A **third tier** of activities describing the *optimal situation* may also be detailed.

Once the activities have been ranked, costs are assigned to the activities and revenue sources are analyzed. **Note: a comprehensive analysis of revenues and accompanying methodology is presented in section 2.4. Results from this analysis can then be brought into the revenue spreadsheets presented in this section.**

Costs can be assigned using one of two methods. If the protected area site has a long history, it is most likely that the team will be allocating *existing* human, financial, and equipment resources (supply-driven approach). If the site is relatively new or will be receiving greatly increased resources, it may be more useful to estimate the cost of the *resources needed* to complete the minimum protection activities (demand-driven approach). To assist with cost projection, a set of Microsoft-Excel spreadsheets have been developed and will be described later in this section.

Once the revenue and expense data have been entered into the Excel spreadsheets, the overall financial feasibility of the plan is analyzed. As a result of this analysis, it may be necessary to revise the strategic and management plans to reflect the financial constraints on the site. It may also be possible to develop new revenue sources once shortfalls have been identified (see section 2.4). If the assumptions supporting either the cost projections or the funding projections change, the financial plan should be revised. When the team has developed a feasible plan, the narrative that accompanies the Excel spreadsheets can be written.

The goal of the spreadsheets is to provide an analytical tool and consolidated information that the management team can use to plan and manage their activities. **Frequently, the management team finds many other audiences for the financial information once it is prepared (for example, donors, government agencies, or local constituents)**. It is important, however, that these secondary uses for the financial information do not distract the planning team from its primary focus - site management.

Finally, the spreadsheets were designed to include a broad range of planning styles and project activities. Therefore, some components may not apply to a particular site. Ignoring or deleting the components that are not needed will not affect the functioning of the template in most cases. **It is expected that the team will modify the spreadsheets in the ways that best suit each protected area**.

2.3.2 Spreadsheet overview

The Protected Areas Financial Planning spreadsheets were developed in a Microsoft Excel format. The template was prepared in Excel version for Office 97 and can be read by any of the more current versions of Excel. Because the macro language instructions used in the templates are not compatible with previous versions of Excel, it is recommended you use at least the Office 97 version.

The Excel file is comprised of 10 spreadsheets and a set of presentation graphs. Click here to access the spreadsheets. It is recommended that you save a copy of the spreadsheets to your hard drive. A brief description of the spreadsheets and their location in the Excel screen follows. The first two spreadsheets, used to formalize the threats analysis and activities identified in the management plan are:

Threats Matrix; on tab A.

Activities Matrix; on tab B.

The second four spreadsheets aid revenue and expense projection and planning on a year-by-year basis in detail. These spreadsheets are called:

Fund-Raising Worksheet; on tab C.

Personnel Worksheet; on tab D.

Operating Expense Worksheet; to the right of the ***Personnel Worksheet*** *(*starting on Column V*);* on tab D.

Land Acquisition Worksheet; on tab E.

The third set of three spreadsheets assists in analyzing the expenses on a functional basis and the revenue sources that will be funding those expenses. These spreadsheets are titled:

Expense Allocation by Percentage; on tab F.

Expense Detail; on tab G.

Revenue Allocation; on tab I.

The final three spreadsheets summarize the protected area's historical activity and financial projections. These are the spreadsheets that, along with the graphs, will most often be used in project presentations and management review. The names of these spreadsheets are:

Expense Summary; on tab H.

Revenue Sources Summary; below ***Expense Summary*** on tab H.

Revenue & Expense Summary; below the revenue sources summary on tab H.

Three presentation graphs are automatically generated from the information entered in the nine spreadsheets. These graphs are located on tab J and present the following information: Revenue/Expense Comparison, Program Expenses and Revenue Sources.

To ensure that the graphs accurately reflect the information in the spreadsheets, it is best to modify the spreadsheets in certain areas. The specifics of modifying the spreadsheets are covered below under Initial Input and Modification.

2.3.3 Suggested approaches

Two basic methodologies can be used to complete the template for a particular site or project. The choice of methodology will determine the order in which to approach the spreadsheet categories as outlined in this section. The two methodologies are a supply-driven approach or demand-driven approach.

Supply-driven Approach

Simply put, the supply-driven approach works best for a site that has been in existence for some time and has fixed resources that must be allocated among a range of possible activities to make programmatic decisions. This could apply in the case of a park for which a major donor - possibly the national government through a national funding mechanism such as a trust fund – has already committed funding for recurrent park management costs over a specific time-frame. In this case, you would want to map out your programs based on an overall management strategy, but within a predetermined total budget allocation. In this case, you might complete the revenue summary first to map out the anticipated funding sources over the specified time period, then complete the expense summary and expense detail spreadsheets that allocate those funds among the various programmatic and functional activities involved in park management. In other words, for a supply-driven situation, you will want to take a top-down approach to the spreadsheets.

Demand-driven Approach

A demand-driven approach works best when you are planning a new protected area, an existing protected area is experiencing large changes in available resources, or the protected area requires certain program and functional activities that need to be financed over the specified time period but for which funding commitments have not been secured. Since most parks and protected areas in the developing world find themselves in this situation, we will focus our attention on the demand-driven approach.

For a demand-driven approach, you will want to complete the spreadsheets from the bottom up. Start with the conceptual and data sheets, then work your way up through the detail and matrix spreadsheets to determine your financial needs by program and subprogram activities. Then, complete the summary spreadsheets and begin to analyze your fund-raising needs, given a set of desired activities to be programmed over the time period specified in the long-term financial plan.

2.3.4 Initial input and modification of the Templates

When you open the Excel spreadsheet collection PA Finance Plan.xls you are requested to Enable Macros. Please do so in order to activate the automatic report function. Then you are presented with a set of blank spreadsheets organized from Tab A to J.

The following information will help you modify the spreadsheet for your protected area project.

Enter the site name on screen A, cell A2 and your organization's fiscal year beginning and ending months on screen A, cell A3. This information will automatically carry forward to the other headings on the other spreadsheets and, therefore, need only be entered once.

Enter the appropriate fiscal years for Historical Activity and Projected Budget on the columns headings of the Expense Summary, Revenue Summary, Revenue & Expense Summary, Expense Detail and Activities Matrix.

The expense categories and revenue sources provided as examples in the template are as inclusive as possible. However, **you can change any descriptions to make them more applicable to your site and/or you may also want to delete categories that you do not use or add additional categories**. For this purpose you should follow standard Excel spreadsheet procedures in order to maintain the arithmetic logic in the formulas. For instance, if you delete an entire section that is included in a total, the total will not print and will be replaced with an error expression #¡REF! To correct this, place the cursor on the cell with #¡REF!, then edit the formula accordingly with the new logic of your template; that is, including the whole range of figures that add up to the new total.

Additional lines and columns can be added under any section in the spreadsheet**. To ensure that the Total lines remain correct, place the cursor on the line above the Total line when inserting lines, otherwise they will not be included automatically in the column total. Similarly when inserting columns, place the cursor in the column before the Total column, otherwise the new columns will not be included in the row total.** If you enter an entire section, verify that the totals for the spreadsheet include the appropriate data; that is, the whole range of rows or columns that are relevant to the corresponding totals.

Finally, save your work in a new file (using the Save As command) reserving the blank spreadsheet for future use.

2.3.5 Projecting protected area expenses

Consistent with the demand-driven approach discussed above, the following review of the expense projection process begins at the most detailed level, namely: personnel, operating expense, and land cost projections. The data developed on these worksheets along with the other functional expenses (for example, training or telephone costs) are then entered into either the expense allocation by percentage or the expense detail. The final step is to allocate the total expenses for each program and subprogram (as developed on the expense allocation or detail) among specific activities to be performed each year. The following is a spreadsheet-by-spreadsheet discussion of how to work through this process.

Personnel Worksheet - (Tab D)

Use this worksheet to project salary expenses per year. The worksheet is designed to make your job easier; but if you have this information in another usable format, you can use the rest of the planning spreadsheets without completing this form. Enter the salary and number of staff needed for each position listed. The positions are separated into Management, Field Staff, and Administrative for ease of analysis. However, if you prefer to see this data by program, change the titles to reflect the appropriate programs. **Information from this worksheet is not automatically forwarded to other parts of the template.**

Operating Expense Worksheet - (Tab D)

Use this worksheet to project operating expenses per year for transportation costs, equipment, and construction. The worksheet is designed to make your job easier; but, as with the Personnel

Worksheet, it is not required for the rest of the process. For transportation costs, enter the mode of transport, the average cost per month, and the expected price per month. The cost per year is automatically calculated in the total column. For equipment, enter the cost per unit and the number of units of each type of equipment needed in each year. The cost per year calculates automatically in the total column. For construction, enter the units and the cost per unit of the various components of construction. For example, construct a warehouse for equipment storage, 100 square meters @ US$10 per square meter. The cost per year automatically calculates in the total column. **Information from this worksheet is not automatically forwarded to other parts of the template.**

Land Acquisition Worksheet - (Tab E)

This worksheet enables the site management team to summarize and compare the data for individual land transactions. As such, this worksheet may be used on an ongoing basis after the planning process is complete. Enter the following data: size in hectares, payment date, land cost (in local currency), legal and other associated expenses (in local currency), and the exchange rate as of the date of the transaction. If there is a balance due, enter the date the balance is due, the amount due including interest if appropriate, and the "change rate" expected or in effect at the time payments are made. All other columns on the worksheet calculate automatically. If there are special circumstances surrounding a property, list those details in the Notes section. For example interest rates on outstanding balances. **Information from this worksheet is not automatically forwarded to other parts of the template.**

Expense Allocation by Percentage (Tab F)

Before completing this spreadsheet, look at both this expense allocation worksheet and the expense detail worksheet (Tab G) to determine which spreadsheet is more useful to you. You only need to complete one of these two spreadsheets.

The expense allocation by percentage spreadsheet is particularly useful to teams that are using the supply-driven method of financial planning. It enables the management team to analyze the functional expense on a yearly basis and allocate them among programs and subprograms. This allocation can be done on either a percentage basis or by entering the projected cost of each functional category under each program/subprogram. (To replace the formula in each cell, enter the appropriate cost data.) For each year, programs and subprograms are listed in columns across the top of the spreadsheet and the following functional expense categories are listed in rows down the spreadsheet:
Salaries
Training
Equipment/Materials
Transportation/Vehicles
Construction
Field Operations
Special Studies
Land Acquisition - Conservation Land
Institutional Support/Administration
Professional Services
Audits

Not all cost types apply to all of the major program areas. Use only those that apply to your site, adding rows and columns if necessary. Enter the expense projections developed on the Personnel, Operating Expense, and Land Acquisition worksheets. Also include other program costs that do not have detail worksheets, for example, training, field operations, professional fees, etc. When projecting expenses into the future, it may be useful to apply an inflation factor to current expenses. Be aware, however, that this assumes expenditures will stay constant which may not always be the case. **If you complete this spreadsheet, information from it is automatically forwarded to the *Expense Detail.***

Expense Detail (Tab G)

The expense detail spreadsheet provides a side—by-side comparison of functional expenses for each year in the planning period. The spreadsheet also shows total expenses by function. If you completed the expense allocation by percentage, the information automatically forwards to this spreadsheet and no additional work is necessary. If, however, you need to analyze all the functional expenses at a program or subprogram level to determine total site needs (a demand-driven approach), it may be more useful to prepare the expense detail spreadsheet for each program or subprogram depending on the level of detail you require.

The functional expense categories on this spreadsheet are the same as on the expense allocation by percentage spreadsheet. Use only those that apply to your site, adding rows if necessary. If you choose to prepare this spreadsheet instead of the expense allocation one, replace the formulas in each cell by entering the expense projections developed on the Personnel, Operating Expense, and Land Acquisition worksheets. Also include other program costs that do not have detail worksheets, for example, training, field operations, professional fees, etc. When projecting expenses into the future, it may be useful to apply an inflation factor to current expenses. Be aware, however, that this assumes expenditures will stay constant. This is not always the case. **Information from this spreadsheet is not automatically forwarded to other parts of the template.**

***Expense Summary* (*Tab H*)**

The Expense Summary is separated into programs and subprograms as follows:

Protection and Management Program
Protection Subprogram
Conservation Land Subprogram
Natural Resource Management Subprogram
Research Subprogram

Compatible Use Program
Environmental Education Subprogram
Ecotourism Subprogram
Forest Resources Subprogram
Agricultural Uses Subprogram
Community Outreach Subprogram

Administration Program
Management & Finance Subprogram

Operations & Maintenance Subprogram
Training Subprogram

Each of the subprograms is further divided into common activities. A brief description of the programs and subprograms is included in Appendix 2. Please note that the listing is designed to be as inclusive as possible. Therefore, an individual Protected Area will probably use only some of the activities listed. The applicable activities will vary from country to country and project to project. Each subprogram also has one line for other activities that are not covered by the categories listed and new lines can be added as needed. Enter the total expenses for each program/subprogram that you developed on the expense allocation or expense detail spreadsheet allocating them among subprogram activities.

2.3.6 Projecting Protected Area revenues

Fund Raising Worksheet (Tab C)

This worksheet enables the project team to forecast funding by source and track their progress toward obtaining the targeted funds. Therefore, this worksheet has value beyond the initial planning process. Enter the donation amount sought from each donor (this can be cash, land, equipment, etc.), any previous gifts from the donor, the donor's name and address, the name of the person responsible for maintaining contact with the donor, and the steps taken to cultivate the donor. Using the most current information, assign the most likely probability that the donation will be obtained. This probability will change over time. For example, upon initial contact, the probability may be low. After the donor has learned about the site and its programs, the probability may increase.

Revenue Summary (Tab H)

List expected revenues by National Sources and International Sources. Some standard categories are listed on the spreadsheet and should be modified as necessary. As with expenses, not all sources will be applicable to all sites. Whether or not to include a revenue source depends upon the probability of receiving the funding. To be conservative, risky funding sources can be discounted based on the probability of collection as determined on the fund raising worksheet. The assumptions made regarding major funding sources should be summarized in the Revenue section of the Narrative (see IV: Writing a Long-term Financial Plan).

Revenue Allocation (Tab I)

Once the revenue sources have been defined, use the Revenue Allocation spreadsheet to analyze the expenses that the revenue sources must cover. As a result of this analysis, the project management team will be able to define specific areas that require additional fund raising. The team will also be able to prioritize activities based on the funding available.

On the left-hand side of the page, the spreadsheet lists the three programs (Protection and Management, Compatible Use, and Administration), the subprograms, and activity types as shown on the Expense Summary. The revenue sources from the Revenue Summary are listed in columns across the top of the page. Enter the names of the funding sources (adding columns as needed) and allocate the revenue from each source among the appropriate activities.

Revenue & Expense Summary (Tab H)

This is the most important sheet in the site financial plan because it is often the only one many people will see. The information on this spreadsheet is automatically taken from the Revenue Allocation and Expense Summary spreadsheets. Enter only the assumptions used to formulate the projected revenues and expenses. Some samples of common assumptions are provided. Use the Revenue and Expense Summary to review the projections for reasonableness, accuracy, and achievability. Frequently, the numbers will have to be revised because the constraints under which you are operating will prevent you from doing everything that needs to be done. Do not be discouraged if you have to go through the review and adjustment process a few times before you develop an achievable set of activities. It is a normal part of the process that will help you prioritize your activities.

2.3.7 A Guided Exercise – the demand-driven approach

The following process may serve as a useful guide, based on the spreadsheet references in the box below:

Spreadsheet references for demand-driven exercise

I. SUMMARY SPREADSHEETS (Historical and Projected)

a. Revenue & Expense Summary (revenue sources and program expenses)

b. Revenue Summary (revenues detailed by sources)

c. Expense Summary (programs and sub-program expenses)

II. MATRIX SPREADSHEETS (For Allocation Purposes)

a. Percentage Allocation of Expenses by Programs and Sub-programs

b. Revenue Sources Allocation among Programs and Sub-programs

III. DETAIL WORKSHEETS (Projections)

a. Expense Detail (by Program and Total)

b. Personnel Worksheets (by Sub-program)

c. Operating Expense Worksheet (by Sub-program)

d. Land Acquisition Worksheet (by Sub-program)

IV. CONCEPTUAL AND DATA SPREADSHEETS

a. Threats Matrix (logical frame for management and financial planning)

b. Activity Matrix (to program programs and sub-programs over planning period)

c. Fund-Raising Worksheet (to identify and follow-up with prospective donors)

1. Determine programs and sub-programs on the basis of a management strategy identified in the threats matrix (IV.a.) and management plan document. Use the activity matrix (IV.b.) to determine specific program and sub-program activities over the time period contemplated in the management plan. Do a first draft of the fund-raising worksheet (IVc.) to estimate funding commitments and fundraising prospects.

2. Prepare detail worksheets (III.b., c., and d.) for every sub-program identified in the previous step. This step may not be necessary if an expense spreadsheet (III.a.) is used for every sub-program.

3. **Use either the percentage allocation of expenses (II.a.) or the expense detail spreadsheet (III.a.) to allocate expenses by program per year**. The percentage allocation (II.a.) allows you to divide the expense projections by function (personnel, travel, training, etc.) into programs and subprograms on a yearly basis. Alternatively, you may wish to prepare an expense detail spreadsheet (III.b.) for every sub-program. **It is not necessary to do both**. If you chose to allocate expenses on II.a., the expense detail will be automatically generated. If you chose to complete the expense detail on III.b., enter the numbers in place of the formulas that currently exist in that spreadsheet.

4. Once the total expenses for each program and sub-program have been determined using either of the two methods described above, enter this information into the expense summary (I.c.). In addition to the projections you have just made, you will want to complete the historical information to facilitate a comparative analysis.

5. Allocate programmatic expenses (from II.a. or from III.b. if completed for all sub-programs) to the Revenue Allocation Spreadsheet (II.b.). This will facilitate an analysis of the types of expenses that can be funded by various donors. (Note: this information may be required in certain grant proposals.)

6. Using the information on the fund-raising worksheet, complete the revenues summary (I.b.). Again, you will want to supplement the projection information with historical activity to facilitate a comparative analysis.

7. The information you have entered on the revenue summary and the expense summary will automatically generate the revenue & expense summary (I.a.). Please keep in mind that this first attempt at completing the model is only a first iteration of a process that should be viewed as ongoing, since revenue and expense assumptions continue to change through the life of the project. The model should be used as a management tool to facilitate decision-making and to guide the financing strategy for the long-term management planning process.

8. Use the print button described later to print hard copies of the spreadsheets and graphs to analyze the results of your work.

2.3.8 Graphics

Three standard graphics are included with the spreadsheets to simplify presentation. These graphics are: **site revenue/expense comparison**, **expenses by category**, and **revenue by source**. If any modifications were made to the spreadsheets during data entry, check the graphs carefully to ensure that the data are reflected correctly.

2.3.9 Printing

A print menu button (REPORTS) is included with the spreadsheets at the top of the screen, on the regular menu bar. Six options appear in the REPORTS menu, which is a pop-down menu. The first option, allows the user to define the report destination, i.e. the screen or the default printer. The next four options activate additional pop-up menus with additional choices. The menu options and their corresponding secondary menu choices are as follows:

1. Summary - Expense Summary, Revenue Summary, and Revenue & Expense Summary

2. Analysis - Expense Detail, Expense Allocation, Revenue Allocation, and Activities Matrix

3. Detail - Personnel, Operating Expenses, Land Acquisition, Fund Raising, and Threats Matrix

4. Graphs - Revenue & Expense Comparison, Expenses, and Revenue

The last option (All) sequentially prints all of the above reports:

5. All - Summary, Analysis, Detail, Graphs, All Spreadsheets and Graphs

The page breaks and margins have been pre-set considering regular American letter size (8.5" x 11") paper. If you add or delete a significant number of lines, you may need to change margins. To correct this, send the selected report to the screen and correct the margins manually with the Excel standard procedure. You can also insert page breaks or other controls (bold face, font size, etc.) in the selected spreadsheet using regular Excel commands. Also, the spreadsheets may be centered on the page when printed. To correct this, print individual spreadsheets by highlighting their print ranges and adjusting the margins. Similarly, if only a part of a spreadsheet is needed, highlight the area to be printed and use the print command instead of the print macro. Printing the graphs on a color printer (if available) makes the information contained on the graphs easier to read.

2.4 Identifying New Sources of Revenue

This section again uses a business approach to identify a menu of potential revenue generating options at the site level that then become an integral part of the business plan, and ultimately the management plan. The business approach applies – quite deliberately – the language of business, employing terms such as "goods and services," "consumers" and "markets." The idea is to enable protected area managers to see their job, in part, as running a business, without losing sight of the basic values represented by protected areas. The business approach is a means to an end: a better, more sustainable protected area.

Having quantified costs and expenditure in the preceding section, the purpose of this section is to quickly and accurately screen a broad menu of finance mechanism options, to eliminate those mechanisms not viable for a specific site, and identify those that are potentially viable and should

be the focus of more in-depth assessment, in order to generate new sources of revenue for the protected area and achieve the goals as laid out under the management plan. While the screening tools in this section are primarily designed for application at the site level, they can be adapted for use at other spatial scales.

The screening process is two-fold. As a first step, goods and services in abundant supply at a particular site are identified, linked to consumer groups and then to actual markets, and then to one or more potentially viable finance mechanisms. This provides a framework for considering ways to convert the inherent value of goods and services produced at a conservation site into funding for conservation. Having identified one -– or possibly more – potentially viable finance mechanisms, the next step is designed to eliminate those finance mechanisms that are inherently undoable by screening for simple elimination criteria. Finally, potential mechanisms are ranked to enable a management team to prioritize according to ease of implementation, and wealth of benefits.

However, this screening process is not an end in itself. Each identified mechanism can have both programmatic and financial implications at the site level, and need to be fully researched before implementation and inclusion in the business plan. Without a feasibility assessment of each finance mechanism proposed to capture revenue from the sale of a particular good or service, it is impossible to predict whether or not a particular finance mechanism will result in net revenue generation at this stage in the business planning process. Thus, each finance mechanism chapter in this guide has within it a section on conducting a feasibility assessment for that particular mechanism. Only upon its completion can a particular finance mechanism be identified as viable for a specific site.

2.4.1 Valuing goods and services at a Protected Area

Before identifying financial mechanisms at a particular site, it is important to estimate the overall value of the goods and services produced at a site. A partial or rapid economic valuation is very useful to highlight trends and give an overview of the economic value of a protected area, and as such is a valuable input to the decision-making process and can raise the profile of a particular site.

Economists have traditionally categorized these values according to their "use value" as follows:

· Direct Use Values (DUV) are the benefits derived from both the consumptive (fish, fuel wood, wildlife, fruits etc.) and non-consumptive (recreation, photography, research etc) use of available resources at a particular site.

· Indirect Use Values (IUV) are the indirect benefits derived from the ecosystem services hosted by a particular site, including nutrient retention, flood control, storm protection, groundwater recharge, external ecosystem support, micro-climatic stabilization, shoreline stabilization, carbon sequestration, etc.

· Option Value (OV) is a circumstance in which an individual derives benefits from ensuring that a resource will be available for future use.

In addition, economists and others have identified "non-use values" as being inherent to many protected areas, and as being derived from the knowledge that a resource (biodiversity, cultural heritage, religious site, and bequest) is maintained in perpetuity. These values are strongly

advocated by environmentalists and others who support the concept of the intrinsic value of biodiversity.

It is important to be able to quantify these values to enable park managers to charge for them[3]. One of the easiest ways to value biodiversity goods and services is to apply the market price method (the law of supply and demand); however, this is not always doable because for many biodiversity goods and services there is as yet no formal market, they represent public goods for which it is difficult to identify a consumer market who have any incentive to pay, or ill-defined property rights prevent entry into the market.

In addition to the market price method, several other methods have been devised to help quantify biodiversity values. Table 1 below gives an idea of the most common quantitative evaluation methods used, as well as an overview of their constraints and limitations.

Table 1. Valuing Biodiversity Goods and Services

Method

Applicable to…

Description and Importance

Constraints and limitations

Market Price Method

Direct Use values, especially wetland products.

The value is estimated from the price in commercial markets (law of supply and demand).

Market imperfections (subsidies, lack of transparency) and policy distort the market price.

Damage Cost Avoided, Replacement Cost or Substitute Cost Method

Indirect Use Values: coastal protection, avoided erosion, pollution control, water retention…

The value of organic pollutant or any other pollutant's removal can be estimated from the cost of building and running a water treatment plant (substitute cost).

The value of flood control can be estimated from the damage if flooding would occur (damage cost avoided).

It is assumed that the cost of avoided damage or substitutes match the original benefit. But many external circumstances may change the value of the original expected benefit and the method may therefore lead to under- or over-estimates. Insurance companies are very interested in this method.

Travel Cost Method

Recreation and Tourism

The recreational value of a site is estimated from the amount of money that people spend on reaching the site.

This method only gives an estimate. Over-estimates are easily made as the site may not be the only reason for traveling to that area. This method also requires a lot of quantitative data.

Hedonic Pricing Method

Some aspects of Indirect Use, Future Use and Non-Use Values

This method is used when wetland values influence the price of marketed goods. Clean air, large surface of water or aesthetic views will increase the price of houses or land.

This method only records people's *willingness to* pay for perceived benefits. If people are not aware of the link between the environment attribute and the benefits to themselves, the value will not be reflected in the price. This method is very data intensive.

Contingent Valuation Method

Tourism and Non-Use values

This method asks people directly how much they would be willing to pay for specific environmental services. It is often the only way to estimate the Non-Use values. It is also referred to as a "stated preference method".

There are various sources of possible bias in the interview techniques. There is also controversy over whether people would actually pay the amounts stated in the interviews. It is the most controversial of the non-market valuation methods but is one of the only ways to assign monetary values to non-use values of ecosystems that do not involve market purchases.

Contingent Choice Method

For all wetland goods and services

Estimate values based on asking people to make tradeoffs among sets of ecosystem or environmental services.

Does not directly ask for willingness to pay as this is inferred from tradeoffs that include cost attribute. This is a very good method to help decision makers to rank policy options.

Benefit Transfer Method

For ecosystem services in general and recreational uses in particular

Estimates economic values by transferring existing benefit estimates from studies already completed for another location or context.

Often used when it is too expensive to conduct a new full economic valuation for a specific site. Can only be as accurate as the initial study. Extrapolation can only be done for sites with the same gross characteristics.

Productivity Method

For specific wetland goods and services: water, soils, humidity in the air…

Estimates the economic values for wetland products or services that contribute to the production of commercially marketed goods

The methodology is straightforward and data requirements are limited but the method only works for some goods or services.

Adapted from Barbier, E.B., M. Acreman and D. Knowler. 1996. Economic Valuation of Wetlands: A guide for Policy Makers and Planners. Ramsar Convention on Wetlands; King D. and Mazzota. 1999. Ecosystem valuation website (www.ecosystemvaluation.org); Struip,M.A.M., Baker, C.J. and Oosterberg, W. 2002. The Socio-economics of Wetlands, Wetlands International and Riza, The Netherlands.

Using these methods to quantify the value of the goods and services at a particular site can be very complicated and often time- and resource-intensive. But behind the complexity there is ample room for the application of common sense. After all economic valuation is important to communicate the value of a protected area, but it is only a part of the process of ensuring its sustainable management. There are cases where it need not be done in an exhaustive manner. In many countries it is difficult to find qualified economists to carry out an in-depth economic valuation exercise, and oftentimes the economic benefits are so important to so many people that a rapid economic assessment is enough to allow decision makers to take appropriate decisions.

2.4.2 Ranking key goods and services at a Protected Area

While economic valuation can help decision makers justify actions that promote conservation, it does not always lead to increased funding for conservation. It is still crucial that individual park management teams identify finance mechanisms that they can employ to increase their revenue, and hence improve management of their protected area. Many mechanisms require that park managers have the right to raise, manage and disburse local income; in the case where these rights are not codified in local or national law, a park manager must weigh the costs and benefits of using resources to establish mechanisms whose profits do not accrue to conservation. In this case, it may be more useful to consider partnering with other stakeholders who have this right, or who agree to channel their resources into conservation. In addition program benefits are often associated with many of these mechanisms, and must also be considered when weighing their suitability and their value.

Worksheets 1a and b are designed to identify those goods and services at a protect area (1a for a terrestrial PA, and 1b for a marine site) that have the highest potential to become the focus of a conservation finance mechanism at the site-level. In this context, goods refer to products that are frequently sold in markets (though not necessarily local markets), and are clustered into groups of similar goods (e.g. non-timber forest products, tourism-related goods etc.). Services refer to environmental services – provided by healthy ecosystems – that typically fall outside markets or

are in the very early stages of market development. Again individual services have been grouped where similarities exist.

For each good or service, three criteria (i.e. relative supply, relative demand, and the readily identifiable "consumer base") are provided to help generate a relative ranking that will point to those with high potential to become the focus of a finance mechanism. Each criterion is ranked from 1 to 5 for each good or service. The higher the number, the more favorable the criterion. The total score column automatically calculates the average of values across the criteria. An average score of 5 highlights a good or service that would appear to have particularly high potential to be exploited at the site through application of an appropriate finance mechanism. Again however, it must be noted that this does not automatically mean that the appropriate finance mechanism will result in net profits for conservation. Conversely, an average score of 1 would likely eliminate a particular good or service as a potential revenue-generating option. Each good or service is rated in relation to the others that exist at a particular site; as such it is possible to have more than one good or service ranked as a number 5 (both overall and under each criterion).

Step-by-step methodology:

1. Review the general structure of the worksheet, including data input categories (columns and rows) provided as defaults; modify as needed. In particular, add other goods or services that are also present at the site. Work through one column at a time, which should assist in more accurate relative ranking.

2. For "Relative Supply", survey the list of goods and services. Identify – as far as possible – the good and/or service with the highest relative existing or potential supply compared with others. For example, for an old growth, moist tropical rainforest, carbon may the service in most obvious supply. For a site with spectacularly diverse and pristine coral reef systems, snorkeling and scuba diving attractions may be the top-ranked good. Potential supply can be gauged from a reasonable projection of future scenarios that could increase the amount of a good or service in existence. For example, better protection for certain species with historically high population levels could potentially allow for their sustainable harvest (representing a potential supply of bushmeat or trophies). Enter a 5 in the "Relative Supply" column of the top ranking good and/or service. Using this good and/or service as a comparative metric, rank all other goods and services on the 1-5 scale. Note: There can be several goods and services ranked at 5.

3. Conduct similar ranking exercises for the remaining columns. Some issues to consider include:

· Under "Relative Demand": While existing demand is relatively easy to rank, potential demand is much more difficult. In considering potential demand, use realistic projections of demand based around likely future scenarios.

· Under "Readily Identifiable Consumer Base," the key consideration is whether or not a discrete consumer base exists. For example, if a nearby municipality relies solely on a reservoir in a protected forest watershed for its drinking water source, "Water-related Services: Drinking Water" would receive a very high ranking.

· You may want to "weight" one or more criteria to emphasize its importance. For example, if you thought relative supply and relative demand were by far the most important ranking criteria at your site, you could assign them a weighting factor through an embedded formula in the

spreadsheet (e.g., 1.5X or 2X). To do this, highlight a cell in the "total score" column, and place the weight (be it 1.5 or 2) followed by an * in front of the letter representing the particular column you wish to weight. Do this for each good or service you wish to have weighted in favor of a particular criterion.

· Each good or service should be ranked not only according to relative supply, demand and identifiable consumer base, but should also be considered according to whether its exploitation is consistent with the conservation goals identified in the management plan. For example, a protected area may have a tree species that is in relative supply in the area, and for which there is a readily identifiable consumer base who have expressed a demand for its extraction; however, the protected area may exist solely to protect this species, and as such its exploitation would be contrary to the desired goals of the management plan, and should not be ranked as a key good to be the focus of a finance mechanism.

4. Finally, in the "Total Score" column, an embedded formula will automatically average the ranking score for each row. The higher the average, the more potential for becoming the focus of a finance mechanism that particular good or service represents.

2.4.3 Identifying consumers of key goods and services

Having identified top-ranked goods and services at a particular site using Worksheets 1a or 1b, Worksheet 2 is designed to identify the key consumers of those goods and services. These consumers are identified as part of the analysis of which stakeholders are crucial to the creation of an effective finance mechanism.

Consumers may be locals (people living in and around a protected area), tourists, downstream beneficiaries of watershed services, hunters, biologists, global customers etc. It is also important for a park manager to identify the beneficiaries or potential beneficiaries of a protected area and also build these stakeholders into the financial plan for the protected area in a way that is compatible with conservation goals.

The purpose of identifying a consumer base is to ultimately tap into markets that can provide sustainable income flows to secure the long-term financial sustainability of the protected area. Having markets is not an end in itself. It is therefore very important to ensure that any consumer base is compatible with the management objectives and other users of the protected area. It should also be compatible with the social, cultural, legal, institutional and geographic context of the protected area.

Step-by-step methodology:

1. Review the general structure of the worksheet, including data input categories (columns and rows) provided as defaults; modify as needed. In particular, add or delete any consumer groups in the first column based on key stakeholder groups present at your site. Be specific about the consumer groups in question, listing actual names of communities etc. Insert as column headings those goods and services that ranked the highest in the Worksheet 1 results.

2. Complete one column at a time. For each column, insert a relative ranking from 1-5, with 5 for the consumer group benefiting the most from the good or service, and 1 for the consumer group that is benefiting the least. For example, if honey is one of the major goods, "local buffer zone

communities" may receive a 5. If nursery grounds for commercial fish species are one of the major services, "local fishers" and the "commercial fishing industry" may receive a 5, while backpacker tourists may get a 1.

3. Identify the consumer groups with the highest scores for each key good/service. These consumers should be included in a more in-depth assessment of specific finance mechanism options.

2.4.4 Identifying markets for key goods and services

Each good or service to be converted into revenue for conservation must have a discrete market with a financial capacity to pay. Having identified consumers for each good and service at a site using Worksheet 2, Worksheet 3 is designed to identify those consumer groups that have the greatest potential to pay for conservation at that site. Worksheet 3 ranks consumer groups according to set criteria – including ability to pay, precedents for payment etc – in order to identify those markets with the greatest potential to pay for each good and service.

Step-by-step methodology:

1. Review the general structure of the worksheet, including data input categories (columns and rows) provided as defaults; modify as needed. In particular, in the first column, list those consumer groups (with goods/services indicated) that received the highest ranking in Worksheet 2.

2. Complete one column at a time. For each column (evaluation criteria), identify the consumer group with the highest ranking, and assign a rank of 5. Rank others on a relative scale compared with this.

3. Some issues to consider include:

· Under "Financial capacity to pay," consider factors such as net profits (for private sector companies), per capita income (for local residents), scale of existing funding programs (bilateral donor agencies), etc. Note: Financial capacity to pay is arguably the most important evaluation criteria. Without a capacity to pay, a consumer group, regardless of their rankings for other criteria, will not be in a position to generate revenue for a protected area.

· Under "Current or potential willingness to pay," consider factors such as: willingness-to-pay survey data (for private sector, tourists), other payment systems already in place, general level of support for protected area conservation, direct and obvious connections between goods/services and consumer groups, motivational factors (e.g. industries may need positive public relations and better relations with local communities and governments).

· Under "Conducive legal framework for payment system," consider: Do laws and regulations exist that would support a finance mechanism targeting that consumer group? See Section 2.4.5 (Identifying Viable Finance Mechanisms) below.

· Under "Relevant precedents exist," consider: Are there precedents for such payment systems in the country that could help build support for a finance mechanism targeting that consumer group?

· Under "Special supportive relationships exist," consider: Are there, for example, key local and national government leaders, or industry decision-makers, who would support a payment system targeting that customer group?

1. An embedded formula will automatically total the ranking scores for each row in the column marked "Total score". You may want to "weight" one or more criteria to emphasize its importance by embedding a formula in that column (e.g., 1.5X or 2X weighting; for instructions on embedding weighting formulas, see Worksheet 1). The consumer groups with the highest numbers in the "Total score" could be potential "markets" for a good or service from a particular site.

2.4.5 Identifying appropriate finance mechanisms

Having completed the above analyses of goods, services, consumers and markets, you can conduct a very general assessment of the potential viability of specific finance mechanisms. To do this, the first step is to correlate potential finance mechanisms with the goods and services that ranked highest in the analyses. Tables 2a and 2b below lists the finance mechanisms further explored in this guide, and links them to each good and service from the above analyses (Table 2a links goods/services from a terrestrial PA to possible finance mechanisms; Table 2b does this for a marine PA).

Again however, without an in-depth feasibility assessment, there is no guarantee that the existence of a market for a particular good or service that is in abundant supply, and that can be converted into revenue with the aide of a finance mechanism will actually generate net gains for conservation.

Step-by-step methodology:

1. Drawing upon Tables 2a and 2b, identify the appropriate finance mechanism correlated to the top-ranked goods and services from the preceding worksheets. If the good/service is not listed below, you may want to consult a conservation finance specialist to identify potential finance mechanisms that would correspond to it.

Table 2. Correlating potential finance mechanisms with goods and services

2a. TERRESTRIAL PROTECTED AREAS

Goods and Services

Potential Finance Mechanisms

Non-extractive/Ecotourism-related goods

Tourism user fees

Visible wildlife (large mammals, birds etc.)

Entrance fees

Aesthetic scenery

Entrance fees

Outdoor attractions (rock climbing, white water rapids etc.)

Recreational user fee

Cultural attractions (architecture, religious sites etc.)

Entrance fees

Extractive goods

Fruits /nuts

Resource extraction fees; Biodiversity enterprise funds

Other basic food items

Resource extraction fees; Biodiversity enterprise funds

Rubber

Resource extraction fees; Biodiversity enterprise funds

Oil/resins

Biodiversity enterprise funds; Biodiversity enterprise funds

Medicinal plants

Resource extraction fees; bioprospecting

Honey

Resource extraction fees; Biodiversity enterprise funds

Materials for handicrafts

Biodiversity enterprise funds; resource extraction fees

Fuel wood

Resource extraction fees

Timber

Resource extraction fees

Wood for housing and other construction

Resource extraction fees

Genetic materials for pharmaceutical and biotechnology uses

Bioprospecting fees

Bushmeat

Resource extraction fees

Petrochemicals (oil and gas)

Resource extraction fees; fiscal instruments

Game species for trophy hunting

Tourism user fee (licensing)/Trophy fee

Commercially valuable minerals

Resource extraction fees/ fiscal instruments

Water-related services

Drinking water

Water-based fee mechanism

Irrigation water

Water-based fee mechanism

Hydro-power

Water-based fee mechanism; resource extraction fees; biodiversity enterprise funds

Flood control

Water-based fee mechanism; insurance

Other water uses (e.g., beverages, cooling processes, etc.)

Water-based fee mechanism ; resource extraction fees

Agricultural services

Grazing lands and water to support ranching

Water-based fee mechanism; insurance

Soil and nutrient protection for local agriculture

Insurance

Crop pollination

Insurance

Global services

Biodiversity conservation (e.g., conservation of rare, endemic and migratory species)

Fundraising; GEF; Biodiversity Enterprise Funds

Carbon sequestration / storage (e.g., soil stored in soils, trees and understory)

Carbon market

Climate change mitigation

Carbon market; re-insurance

Other services

Spiritual and cultural services (e.g., sacred sites, rituals, architectural heritage, etc.)

Tourism user fees (entrance fees); bioprospecting

Maintenance of local climate patterns (e.g., local precipitation patterns)

Fiscal instruments; re-insurance

Scientific research

Bioprospecting; Entrance fees; licensing

Thermal power

Licensing; land-use fee

Media

Licensing; Entrance/User fees

2b. MARINE PROTECTED AREAS

Goods and Services

Potential Finance Mechanisms

Non-extractive/Ecotourism-related goods

Tourism user fees

Visible wildlife (whales, dolphins, birds, etc.)

Entrance fees

Aesthetic scenery

Entrance fees

Outdoor activities (scuba diving, snorkeling, surfing, boating)

Recreational user fees

Cultural attractions (architecture, religious sites, etc.)

Entrance fees

Accessible beaches

Entrance fees

Sport fishing (non-consumptive)

Licensing; entrance fees; recreational user fees

Mooring facilities

User fees

Extractive goods

Subsistence fisheries

Resource extraction fees; biodiversity enterprise funds

Commercial fisheries

Resource extraction fees; Licensing; Biodiversity enterprise funds

Marine ornamentals fisheries

Resource extraction fees; Licensing; Biodiversity enterprise funds

Genetic materials for pharmaceutical and biotechnology uses

Bioprospecting fees

Petrochemicals (oil and gas)

Resource extraction fees; fiscal instruments

Commercially valuable minerals

Resource extraction fees; fiscal instruments

Materials for handicrafts

Resource extraction fees; biodiversity enterprise funds

Local services

Waver power

Licensing

Coastal/storm protection

Insurance; fiscal instruments

Spawning sites

GEF

Nursery for fish and other species

Biodiversity enterprise funds; GEF; Licensing

Global services

Biodiversity conservation (rare, endemic & migratory species

GEF; Bilateral donors; Foundations

Other services

Spiritual and cultural services

Entrance fees

Maintenance of local climate patterns

Fiscal instruments; re-insurance

Scientific research

Bioprospecting; Entrance fees; Licensing

Media

Entrance fees; licensing/permitting

Each finance mechanism identified as a potential mechanism to convert a particular good or service with a potentially viable market into revenue for conservation has a certain number of additional prerequisite conditions that need to be met, without which its assessment as potentially appropriate will be severely compromised. Worksheet 4 lists these preconditions for several finance mechanism.

2.4.6 Preconditions for successful identification of appropriate finance mechanisms

Tables 2a and 2b above identified potential finance mechanisms that could potentially convert each ranked good/service at a particular site into funding for conservation. Worksheet 4 below, with accompanying instructions, is designed to use the information gauged from Table 2 to filter out only those finance mechanisms that could potentially generate revenue from the identified markets for the key ranked goods and services. However, a mechanism may still not generate net gains for a project, and so an in-depth feasibility assessment is needed before implementation.

Under each finance mechanism, worksheet 4 poses a set of broad questions addressing preconditions. On balance, one or more "no" responses to these questions indicate the elimination of the finance mechanism as a viable option. Some questions in this worksheet will have a clear yes or no answer. Others will require further research and consultations. The final result should be identification of one or a small set of potentially viable finance mechanisms that are eligible for further feasibility studies.

This worksheet also includes elimination questions for finance mechanisms not necessarily linked to a particular good or service, but discussed in more detail in this guide.

Step-by-step methodology:

1. Review the general structure of the worksheet, including data input categories (columns and rows) provided as defaults; modify as needed.

2. Focus on those goods and services identified through Worksheet 1 screening as having *high potential*. For each finance mechanism linked to these goods and services in Table 1, as a first step, assess the four criteria listed at the top of the page under "Generic criteria to be applied to all mechanisms," and record an X in the yes, no or maybe cells. Record any relevant assumptions or other notes as well.

· Under "Consistent with Conservation Threat Mitigation Strategy," the key consideration is to what extent production and sale of the good or service would be consistent with conservation objectives of the protected area (PA). For example, while timber for commercial sales may be in high supply and have high rankings in other criteria categories, timber operations in the PA buffer zone may simply be incompatible with PA objectives. A 'no' response on this criterion should be given serious consideration; after all, a business plan is only a means toward achieving better on-site conservation, and should not propose finance mechanisms that are counterproductive to this end.

· Under "Consistent with Social/Cultural Setting," the key consideration is to what extent production and/or sale of a good or service would be consistent with the rights of local peoples, and consistent – in other ways – with local and national social and cultural norms.

3. Complete the other questions under the specific finance mechanism being filtered.

4. For questions with maybe/unknown as a response, carry out appropriate research and consultations to answer these questions as best as possible. To do this, it may be necessary to contact some of the experts referenced in the individual finance mechanism chapters.

2.4.7 Prioritizing finance mechanisms

Once potential financing mechanisms have been identified as viable for a particular protected area, a park manager must prioritize among them; after all, to research, design and them implement a finance mechanism requires resources long before it will produce any. One method of prioritizing compares the ease of implementation with the relative benefits (be they financial, programmatic or overall), and using Figure 3 below places each finance mechanism in a box which then suggests the priority which should be accorded that particular mechanism.

Figure 3. Prioritizing among finance mechanisms.

3. WRITING THE BUSINESS PLAN FOR OUTREACH AND MARKETING

The mass of data collected and analyzed in the spreadsheets of the proceeding section must now be distilled so that the business plan financial projections and new revenue opportunities can be summarized in narrative format and distributed. This business plan for outreach purposes will serve as a key marketing tool for the protected area. The goal of the narrative is to provide an overview of the business plan and discuss the major activities on which the financial projections are based. Specifically, the narrative should:

· link the financial strategy to the programmatic strategy of the protected area

· provide a brief history of the protected area and describe the major revenue and expense components

· discuss the assumptions which support the management plan, identifying risks and tactics for mitigating the risks

It is not possible to capture all the financial information about your protected area in the narrative. Instead, identify the area's financial goals, how it plans to achieve the goals, and the milestones that will be used to measure progress. Listed below are some of the main categories of information to include in the narrative.

3.1 Linking the Program and Financial Strategies

Establish the working environment for your site by summarizing the mission and objectives of the protected area (review the planning methods described in Section 1, if necessary), then tie the mission and objective to the financial strategy for the protected area. While a review of the programmatic information may seem redundant, it clarifies the connection between the area's financial strategy and the overall management strategy. When describing the financial strategy, answer the following questions to the extent that they apply:

· What is the focus of the protected area? For example, does the plan include large expenditures for land? Is it weighted towards operating expenditures, or a blend of both?

· What proportion of the protected area's success is dependent on the activities of others? Will these other activities be reflected on your accounting records or on the records of partners?

· What is the management approach to using debt to finance activities? Will activities generally be on a "pay as you go basis", or will up-front funding be required?

3.2 Historical Activity

A brief description of prior activity enables the reader to better assess how realistic the projected activity is based on the activities already occurring. Examples of prior activity include: significant expenditures in the protected area's history, how the expenditures were funded, and the net financial position of the site as it enters the planning period. When describing prior period activity, answer the following questions to the extent that they apply:

· What is the financial history of the protected area? For example, how much land has been acquired? How much has been spent on operating activities and on what? Where has the revenue to support these activities come from? Does the protected area enter the planning period with cash surpluses or funding commitments?

· Are there any outstanding loans? How old are they and how will they be paid down?

· Does the protected area have any permanent sources of funds (endowments)? What percentage of revenue is derived from endowments?

3.3 Expenditures

The discussion of expenditures should be segregated by program category: Protection & Management, Compatible Use, and Administration. Within each program, summarize the major activities to be financed. This discussion can be approached from either a subprogram level or from a functional expenses level (i.e. salaries, field costs, individual parcels of land, etc.). Include any underlying assumptions about the expenses (i.e. the assumed cost per ranger for food, equipment, training, etc.) Segregate costs into recurring versus one-time costs to establish the fixed-cost base to be supported by on-going sources of funds.

Attempt to delineate between concrete and contingent expenses. The purpose of making this distinction is to provide some insight into the likelihood that the forecasted expense will actually occur. In most instances, if an expense is included in the plan, it has a high probability of occurring. There may be instances, however, when you want to note that an expense is contingent on certain events, for example, that a planned research study will only occur if specific funding is secured. Whether the actual expense is listed in the plan is a judgment call. The role of the narrative is to inform readers where these judgments occur; and the benefit of discussing it within the narrative is to reduce the opportunities for project surprises. When describing the major expenditures of the site's plan, answer the following questions to the extent that they apply:

· What functional expenses (staff salaries, equipment, land acquisition, etc.) will the protected area require to be successful? Are these expenses one time or recurring costs?

· Are the expenses certain, contingent on funding, or wishful? Also, are there some additional expenses, especially in land acquisition, which, while too uncertain to include at this time, could potentially come into play?

3.4 Revenue

The discussion of revenue should profile the major donors for the protected area. For each of the funding sources the following information should be presented:

· The role of each participating organization and/or donor in either managing or funding efforts with in the protected area

· What is the source of donor revenues (e.g., USAID funding is derived from a US Congressional appropriation)

· A summary of the projected use and limitations on the source of funds (e.g. money that is limited to infrastructure which generates cash flow but cannot be used for direct salary costs)

· A summary of the probability of a potential funds and timing estimates

· Contingency options for situations where expected funds do not materialize as expected

· Strategies to contact decision-makers who can assign financial resources to the protected area

· Other relevant information (i.e. problems, risks, assumptions)

The discussion should be divided between national and international revenue sources. You may also take this opportunity to link specific revenue sources to specific expenditures.

Monitoring and reporting on financial status and progress will be an ongoing necessity of a protected area. A discussion of both the expected financial management system, who is responsible for the financial management and how the audit will be handled, should be included in this section of the narrative if it has not been described earlier.

3.5 Long-term Strategy

The primary task in this section is to inform the reader of the long-term financial strategy for the protected area. The discussion should be general in nature. Topics to address include the expected annual recurring cost base, the frequency and amount of non-recurring costs such as equipment replacement and land acquisition, and some overall characteristics of the funding strategy - at a minimum this should include a summary of the expected national versus international sources of funds. When describing the long-term financial strategy of the protected area, answer the following questions to the extent that they apply:

· Will endowments or trust funds be established or increased to support long-term protection and management costs? Provide a brief justification for the target endowment size. For example, what percentage of long-term expenses will the endowment or trust fund cover?

· Is the protected area largely dependent on one revenue source? Is there a plan for diversifying the sources of support? What are the risks to the diversification plan? How are these risks being addressed?

4. Resources

Inamdar, A. and de Merode, E. Towards Financial Sustainability For Protected Areas Learning From Business Approaches. WWF (1999).

Examples of Long-term Financial Plans for Protected Areas – The Nature Conservancy

Crooked Tree Wildlife Sanctuary – Belize; 2000-2004 (English)

Parque Nacional Laguna del Tigre – Guatemala; 2000-2004 (Spanish)

5. Appendices:

APPENDIX I: FUNCTIONAL EXPENSE DEFINITIONS

Salaries: Wages (base salary, overtime, 13th month bonuses etc), taxes, moving expenses, and fringe benefits (usually a percentage which, when multiplied by the salary line, estimates the cost of insurance benefits and paid time off [vacation, sick leave, holidays, etc.]) for staff. Separate lines are provided for each of the expense types listed. In addition, separate salary lines are shown for management, field staff and administration wages.

Training: In-country courses for park rangers, protected areas personnel, and extensionists. Costs would cover registration fees, travel, food, lodging, and educational materials. Fellowships for selected protected areas technicians to attend special courses, or to participate in south-south exchange with other conservation NGO's and protected areas. Fellowships would include the costs of travel (local or international), food, lodging, educational materials, and training fees (if required). Also, costs of planning and conducting conferences and/or courses.

Equipment/Materials: Field equipment, base radios, electrical generators, furniture for ranger stations, field supplies, carpentry/mechanical tools, materials, and other non-office equipment

Transportation/Vehicles Four-wheel drive pickups, motorcycles, boats, tractors, horses, mules, or any other mode of transportation required.

Construction: Costs associated with building new structures or land improvements including land purchase, utility access, roads, trails, transport and construction labor, fences, gates, boundary marking.

Field Costs: Vehicle maintenance, fluids, and fuel; field infrastructure maintenance including buildings, fences, and boundaries; photos, maps, and satellite images used for monitoring; patrol supplies; community assistance; and overflights.

Special Studies: Land tenure, ecological characterization, socioeconomic, and cultural monitoring.

Land Acquisition - Conservation Land Costs associated with land acquisition for conservation purposes. These expenses include land cost, appraisals, surveys, title opinions, legal fees, etc.

Institutional Support. Charges for telephone service, printing, postage, office supplies, office and data processing equipment that would normally be expensed under local accounting custom, office equipment operating expense, office rent and utilities, food supplies, banking fees, permits, and licenses. These expenses are separated into four categories: phone, fax, printing, etc; rent, utilities, permits fees, etc: office supplies; and office equipment.

Professional Services Legal fees, accounting services, consulting fees, and travel costs for consultants. These expenses are separated into two main categories: legal and accounting services and consultant fees.

Audits: Costs associated with program review from either a conservation or financial perspective. The audit may be performed by either internal or external staff.

APPENDIX 2 PROGRAM EXPENSE DEFINITIONS

1. PROTECTION AND MANAGEMENT PROGRAM

A. Protection Subprogram

Boundary demarcation: Surveying and posting the protected areas borders; may include costs of surveys, maps, global positioning systems, field crews, field equipment, food, travel, signs, monuments, etc.

Patrols: Continuous surveillance and control of illegal activities or other threats (e.g., fires) within the boundaries of the protected area; may include costs of rangers, field equipment, first aid supplies, food, overflights, radio systems, etc.

Construction of control stations and trails: Structures and access trails required to provide protection of area; may include costs of labor, transport and materials for trail shelters, ranger housing, trails, bridges, docks, gates, fences, etc.

Logistic support to research teams: Guides and supervision for researchers and other visitors (e.g., film crews) to remote sectors; may include costs for rangers, food, transport, etc.

B. Conservation Land Sub-program

Land protection plan: Identification, mapping and description of land ownership and tenure for all properties within the protected area, or properties in the buffer zone that are important for conservation or to control access; may include costs for personnel or legal assistance, registry research, legal fees, field cadastral surveys, meetings, etc.

Owner contact: Personal contact with each property owner or resident to inform them of protected area regulations and to discuss land use options; may include personnel, written materials, travel, meetings, etc.

Surveys, Appraisals, Legal Fees: Legal process related to land acquisition; may include market appraisals, land surveys, registry, legal fees, taxes, etc.

Land acquisition: Property purchase; may include actual property costs, personnel for negotiations, taxes, loan interest, boundary demarcation removal of hazardous conditions (e.g., toxic wastes), etc. List all properties separately.

Conservation easements: An agreement by the property owner to restrict certain land uses; may include legal fees, monitoring, and travel. List all properties separately.

Land management endowments: Trust funds designed to provide for long-term site management; may include additions to principal, asset manager fees, legal fees, taxes, etc.

C. Natural Resource Management Subprogram

Management of priority species and ecosystems: Direct actions to protect or improve habitat or species; may include materials and equipment, field personnel, transport, etc.

Exotic species control: Direct actions to control spread of non-native species; may include field personnel, equipment, materials, transport, etc.

Fire management: Fire suppression or controlled burns to improve habitat; may include field personnel, fire fighting equipment, first aid supplies, transport, etc.

Ecological restoration: Direct actions to recuperate degraded habitat; may include field personnel, heavy equipment, nursery stock, field tools, transport, etc.

Monitoring: Periodic and long-term reviews of actions to determine if protected area's management objectives are achieved; may include scientific equipment, overflights, landsat images, transport, research personnel, etc.

D. Research Subprogram

Rapid ecological assessment: Initial survey of a protected area's biotic resources, and land tenure systems; may include landsat images, Global Positioning System, maps, research personnel, field equipment, transport, etc.

Participatory rural appraisal: Initial consultations with local communities to jointly assess social and economic problems and priorities; may include research personnel, field equipment, written materials, transport, etc.

Priority research projects: Studies directed toward critical management issues; may include research personnel, field equipment, scientific equipment, housing, transport, etc.

Ecological monitoring: Periodic and long-term reviews of actions to determine if protected area's management objectives are achieved; may include scientific equipment, overflights, landsat images, transport, research personnel, etc.

II. COMPATIBLE USE PROGRAM

A. Environmental Education Subprogram

Environmental education plan: Strategic document prepared with educators and local communities that describes all environmental education programs related to protected areas; may include meetings, workshops, written materials, publications, consultants, etc.

Public media campaign and materials: Radio, newspaper, television and other media directed to general public; may include public relations consultants, interest polls, program production costs, materials, publications, etc.

Primary school programs: Activities directed to local students; may include education personnel, materials, audio-visual equipment, meetings, school outings, etc.

Decision-maker education workshops: Activities directed to public officials and private sector leaders whose support is needed for protected areas; may include management personnel, written materials, workshops, representation expenses, travel, etc.

On-site interpretative signs and trails: Site improvements and trails to provide a safe, educational and enjoyable visitor experience; may include interpretive personnel, printed guides, maps and educational displays, trail construction, signs, benches, trash containers, etc.

B. Ecotourism Subprogram

Ecotourism plan with local community: A community-level master plan to guide tourism development, usually involving representatives from local communities, tourism ministry and public works; may include management personnel, planning consultants, workshops, written materials, transport, etc.

Visitor registers and entrance stations: Direct or passive actions in strategic locations to monitor visitor use; may include personnel, register books and books, entrance station construction, signs, fences, gates, etc.

Concession management: Activities related to management of companies engaged in tourism within the protected area; may include management personnel, legal fees, public bids, permits control, monitoring, etc.

Construction of access, facilities and utilities: Infrastructure necessary for tourism with the protected area; may include architects, landscape architects and engineers, roads, airstrips, trails, energy generation systems, water storage and treatment, communications systems, lodging, visitor centers, workshops, maintenance personnel, transport, etc.

Monitoring: Periodic and long-term reviews to determine if tourism objectives are achieved; may include researchers, materials, etc.

C. Forest Resources Subprogram

Forest management plan: Plan that guides the protection and permissible uses of forest and non--forest resources according to management objectives; may include foresters, hydrologists and other consultants, community meetings, overflights, biological inventories, maps, field equipment, etc.

Concession management: Activities related to management of companies engaged in forestry or other extractive uses within the protected area; may include field personnel, legal fees, public bids, permits control, monitoring, etc.

Monitoring: Periodic and long-term reviews of actions to determine if protected area's management objectives are achieved; may include scientific equipment, overflights, landsat images, transport, research personnel, etc.

D. Agriculture Subprogram

Agricultural land use plan: Plan that guides the permissible uses of agricultural lands according to management objectives; may include soil scientists, agronomists, hydrologists and other consultants, community meetings, overflights, biological inventories, maps, field equipment, etc.

Land use agreements and owner outreach: Personal contact with local communities and individuals to guide and assist agricultural uses; may include extension personnel, nursery materials and seed stock, field equipment, transport, etc.

Monitoring: Periodic and long-term reviews of actions to determine if protected area's management objectives are achieved; may include scientific equipment, overflights, landsat images, transport, research personnel, etc.

E. Community Outreach Subprogram

Community outreach plan with local communities and agencies: A social services plan that coordinates public agency involvement based on local community needs; may include personnel, education and health materials and equipment, meetings, transport, etc.

Program coordination and monitoring: Periodic communication to assess and adjust the outreach program; may include personnel, meetings and transport.

III. ADMINISTRATION PROGRAM

A. Management and Finance Subprogram

Personnel organization and management: Supervision of protected areas personnel, planning, and management support; may include personnel, planning workshops, office space, office supplies and equipment, computers, communications systems, transport, etc.

Administration and logistic support: Coordination and support of all protected areas activities; may include administrative personnel, drivers, storerooms for field equipment, office space, supplies and equipment, computers, communications systems, transport, etc.

Finance and accounting: Budget management, revenue and expenditure reports; may include administrative personnel, independent auditors, office space, supplies and equipment, computers, communications systems, etc.

Annual plans and budgets: Preparation of annual operating plans and financial budgets including revenues and expenditures; may include administrative personnel, meetings, office supplies.

Public relations and fund raising: Regular communications with general public, decision-makers and organizations that support the protected area; may include public relations personnel, meetings, travel, publications and other written materials, etc.

B. Operations & Maintenance Subprogram

Construction: The planning, design and implementation of access, utilities, structures and site improvements; may include architects, landscape architects and engineers, legal fees, land acquisition, demolition, labor, materials, transport, equipment, etc.

Maintenance: Long-term operations and repair of facilities, vehicles and other infrastructure; may include maintenance personnel, workshops, tools, fuels, oils, repair parts, waste disposal systems, transport, heavy equipment, etc.

Operations support: Transportation and communications related to protected area program activities; may include drivers, boats, planes, vehicles, communications systems, field equipment, etc.

C. Training Subprogram

Staff training: Courses, workshops and orientation for protected areas personnel; may include travel, per diem, entrance fees, tuition, etc.

[1] One such methodology is "Site Conservation Planning" (SCP) by The Nature Conservancy. See Site Conservation Planning Manual; SCP Manual Appendix A; SCP Manual Appendix B and C; and SCP Manual Appendix D and E

[2] This section is taken from the publication "Long-term Financial Planning for Parks and Protected Areas" by The Nature Conservancy.

[3] One key to this exercise is to internalize cost externalities. Internalizing simply means including. Cost externalities are all those “external” elements which contribute to the real cost of any item but which, for political or market-failure reasons, are not reflected in the real price and are therefore paid for by the wider community. For example, most of the products and services produced on Earth are subsidized, frequently without the consumer’s knowledge. The fact that the fruit producer using chemical fertilizers does not have to pay the cost of water treatment needed to take out the excess of nitrates caused by the use of fertilizers to provide clean drinking water does not reflect the real price of the product.

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