

CCIF MPA Financial Management Tool Manual

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Background

There exists a consensus in the conservation community on the value and importance of marine protected areas (MPAs) in the race to protect our oceans and their resources. This has been well documented and is supported through efforts by various international groups and treaties, including efforts of the IUCN (the International Union for Conservation of Nature) and their World Commission on Protected Areas (WCPA) and recognition in the Convention on Biological Diversity (CBD). The IUCN makes clear that “the world's protected areas are the greatest legacy we can leave to future generations - to ensure that our descendants have access to nature and all the material and spiritual wealth that it represents.” The IUCN further defines a protected area as: “an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.”

Designing marine protected areas requires an understanding of three important parameters:

- 1) the science required for proper zoning, delineation, and resources management,
- 2) the necessary cultural and political support required to effectively implement the MPA, and
- 3) the operational and financial requirements essential to realize the required level of actual protection and management.

The former parameters are increasingly well understood. The latter parameter generally remains difficult to assess and pursue in an optimal way. This difficulty stems from the fact that operating an MPA resembles running a complex, logistically intensive business – a business with objectives that revolve around, and that seeks to deliver on, three equally significant and interrelated outcomes:

- Conserving critically important biodiversity (species, habitats, etc),
- Protecting ecosystems and seascapes and the service they afford to local, national, and international communities, and
- Assisting communities in meeting their needs in an effective, efficient, democratic and sustainable manner including but not limited to: food security, natural resources utilization, cultural, recreational and spiritual.

In order to ensure that these objectives are met, it is important to design complete and factual operational plans and parallel financial plans which effectively define and address the complexity inherent in running a fully functional and sustainable MPA.

The necessary detailed and systematic financial forecasting for MPAs requires a rigorous approach to understanding all aspects of MPA management in detail, and is thus an excellent guiding “operational framework” for MPA planning and management as well. Recognizing this, CCIF has worked for a number of years with leading practitioners, scientists, policy makers, funders and investors to design comprehensive, bottom-up budgeting and cost forecasting models for individual MPAs, and the financing strategies to support them.

CCIF has recently worked with The David & Lucille Packard Foundation and Duke University applying the rigor and insights of detailed financial analysis and operational design to develop the CCIF MPA Financial Management Tool (“Model”). This Model is designed to maximize both simplicity and ease of use while also documenting all MPA activities in a comprehensive manner.

The Model provides a framework that captures both the costs of providing ongoing conservation programs as well as the current and potential revenue and funding sources to cover these costs. It starts by analyzing the current status of functional components, mapping the objectives of the MPA, and focuses the users efforts on identifying the essential functions (science, community, etc) and activities necessary to address these unique characteristics and objectives. Ultimately the Model provides clear analysis and guidance for both practitioners and funders to assist in the development and implementation of successful MPAs over the long run.

The Model is useful not only for forecasting the financial requirements and sources for specific MPAs, but also in guiding managers and practitioners on finer points of management and operational plan design and modifications to increase their effectiveness and efficiencies. MPAs only function as conservation tools if they are operated ably and financed in perpetuity. This model should guide management and use of limited financial resources – accelerating the success and performance of MPAs. This Manual provides an introduction and an instructional guide for use of the Model.

Sections of this Manual:

- Introduction
- Inputs
- Check-Point
- Outputs
- Glossary

Introduction

Overview

The Model was designed to maximize both simplicity and ease of use while also documenting all MPA activities in a comprehensive manner. The Model is a generic template flexible enough to accommodate for differences in MPAs around the world, yet detailed enough to reflect the most developed MPA that provides a high level of services. The model has evolved over the years with field work in Indonesia, Cambodia, Central America, and the Philippines, and with input from NGOs and other MPA practitioners.

In developing the Model, CCIF applied a general framework of MPA functions and budget categories as representative of the operational components of a typical MPA (note the functions are fully adjustable based on agreement of stakeholders). The model allows users to design and project MPA management plan costs and financing needs in an integrated way, defining costs at two levels: functional components and budget categories. During the input of cost data, users are able to think about how to optimally design and maintain the MPA and its functions so that objectives can be realized over time.

In addition to capturing cost data, the Model documents the secured and potential cash sources utilized to cover the MPA costs. The exercise of thinking through the current and potential cash sources assists in the long-term planning of the MPA, and helps practitioners understand how they might bridge the gap between need (as defined by the cost inputs) and current available financial resources.

The model allows for the construction of up to four different scenarios. This is an important component of the Model. Scenarios define the level of conservation effort necessary to realize MPA objectives at varying degrees. For example, given the profiles and agreement on objectives, functional and budget components, conservation effort needed to achieve the MPA objectives at varying levels of intensity (usually including “minimal” and “optimal”) are determined.

Functions

Management & Planning
Zoning & Enforcement
Science & Research
Information, Education & Communication (IEC)
Sustainable Livelihoods
Tourism Management
Finance & Administration

Budget Categories

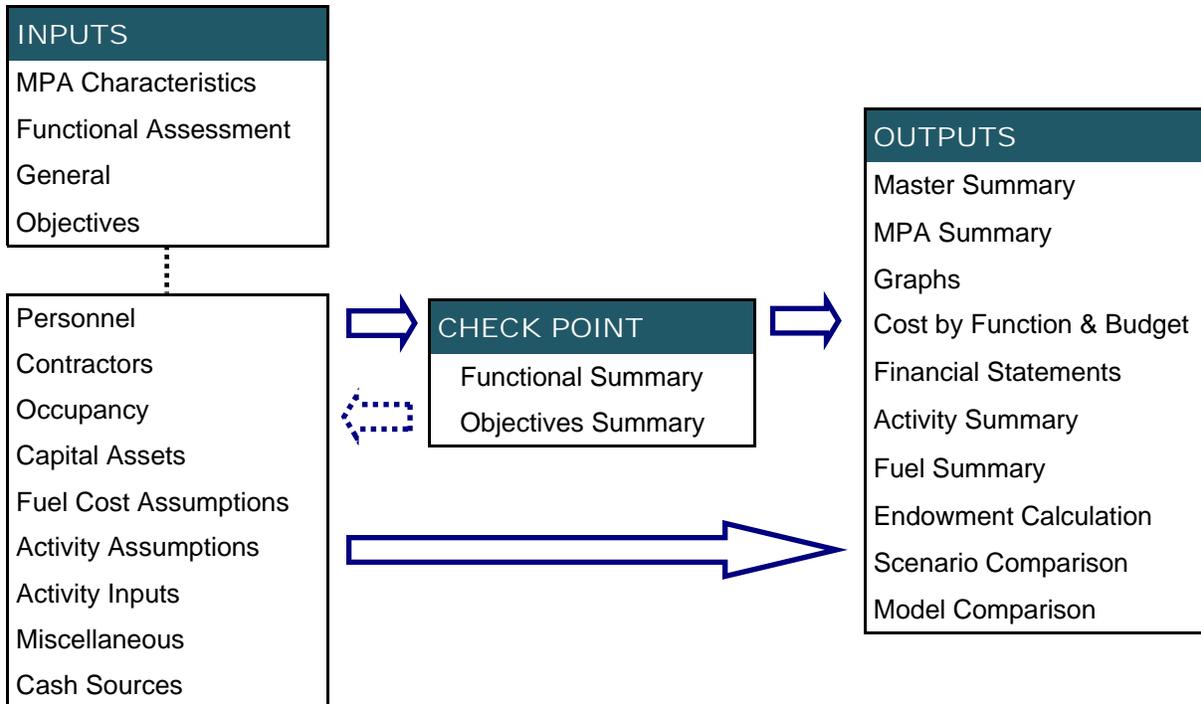
Personnel	Fuel
Contractors	Capital Assets
Occupancy	Maintenance
Travel	Miscellaneous
Supplies & Materials	

Cash Sources

Government
Donors
Payment for Services (e.g., tourism fees)
Other

Model Structure

The Model is broken down into three primary components: inputs, check point, and outputs. During the input section, users must provide inputs for a variety of topics and in a variety of formats. During the check point, users are given the opportunity to review key areas of their MPA to determine if optimization opportunities exist. Users can then revise their inputs or proceed to the outputs. The outputs section provides users with information in a variety of formats, including charts and graphs. An overview of the process is provided below.



Inputs

The input tabs require a variety of information related to the current and planned MPA activities and programs. The first three input tabs capture the current functional situation, unique circumstances, and objectives. The process of thinking through and entering the functional information, MPA characteristics, and objectives gives practitioners a clear understanding and framework to utilize while completing the other inputs. In other words, this information defines the operational and programmatic needs of the MPA, and helps define scenarios from which to build upon.

The rest of the input tabs capture the cost and cash source data necessary to ensure that the objectives are met and that all of the unique circumstances are accounted for in the design and management of the MPA. The information necessary to complete the model should be accessible from various MPA stakeholders and practitioners. For example, the cost information should be accessible from the finance team, while the ecological data necessary to complete the MPA characteristics tab should be accessible by the science & research team.

Check Point

The check-point provides two analysis tools that aim to help practitioners better understand how to optimize their use of financial and physical resources. Once users have reviewed these tabs they are encouraged to revise their input tabs before proceeding to the other outputs. The analysis tools and a brief description of each is provided below:

COMPONENT	DESCRIPTION
Functional Analysis	The Functional Analysis generates outputs from the Functional input page as well as from other input sheets. This provides users with an overview of their current functional status as well as the current financial implication of each function. This feedback is useful in deciding how to better allocate additional financial resources or how to revise the current allocation.
Objectives Review	The Objectives Summary translates the objectives into the functional activities required to achieve the objectives. Below this are two pie charts, the first representing the total MPA cost broken down by function, and the second representing the activity costs broken down by function, both during the first year. This feedback is useful for understanding how the objectives match up with spending habits; recognizing that realizing certain objectives may or may not be linked with financial resources, this aims to highlight any potentially large discrepancies between financial resource allocation and objectives.

Outputs

The projections and outputs are provided in a variety of formats (e.g., charts, graphs, financial statements) and in a variety of ways (e.g., costs broken down by functional components or budget categories, costs in dollar values or percentages of total cost). The outputs are organized in a framework that helps to focus the design and management of MPAs. While there is a great deal of flexibility in how the outputs are presented, the majority of them are broken down by MPA function or MPA budget category.

This provides a clear and transparent overview of the functional efforts and primary cost drivers of a given MPA. These outputs can be used for a variety of purposes, including:

- Creation or revision of a Management Plan
- Creation or revision of a Financing Plan
- Creation or revision of an Endowment Fund (Conservation Trust Fund) Business Plan
- Management effectiveness review
- Donor proposals
- Donor reports
- Yearly program reports

Additional Definitions

Additional definitions and overviews of the functions, objectives, and scenarios are provided next, followed by tables detailing out the inputs and outputs.

Function Descriptions

The following table provides a general set of definitions for the functions that CCIF has identified as necessary components of a well-functioning and comprehensive MPA.

CCIF FUNCTION	DESCRIPTION
Management & Planning	Management: The efforts related to overall operational implementation of the MPA; securing support from the local, regional, and national governments and other stakeholders, and advocating certain policies, and generally supporting the creation and implementation of the MPA law. Planning: The decision-making processes that set the strategic vision and translate the vision into day-to-day activities of the MPA. It is the development and periodic review of the actual management and financial plans through monitoring and evaluation.
Zonation & Enforcement	Zones: Delineated areas where only selected human activities can take place. The objectives of the protected region (e.g., increasing tourism, increasing fishery yields, protecting biodiversity, etc), knowledge of the ecosystem's dynamics, and the reality of enforcement should be used to define zones. Enforcement: Protection of the MPA. In order to ensure adequate enforcement, properly trained personnel with sufficient resources and supplies are necessary.
Science & Research	The collection and analysis of specific social, economic, ecological, and biophysical data. This information should be used to identify ecosystem and community dynamics and to prioritize goals and objectives. This data collection is ideally linked to the MPA program monitoring and evaluation component to help quantify the realization of MPA goals and objectives.
Information, Education & Communication (IEC)	The dissemination of information and awareness-building activities that communicate critical messages to the MPA's stakeholders (i.e. educating tourists, tourism and dive operators, fishers, residents, etc.).
Sustainable Livelihoods	Conservation-enabling livelihood activities that are culturally appropriate, financially feasible, and whose viability is assured by the sustained use of natural resources. These are community-based and should be centered on efforts that promote healthy marine and terrestrial ecosystems.
Tourism Management	Activities that enable the MPA to generate revenues from tourism, such as developing marketing materials or advertising campaigns to attract visitors and constructing facilities to be used by tourists (e.g. visitor/educational centers, trails, restrooms, picnic tables, etc.). Also includes managing and ensuring a sustainable level of tourism in respect to social and ecological dynamics.
Finance & Administration	The Finance & Administration function of a MPA is responsible for budgets, operations, logistics, and general administrative tasks. Administration refers to the people and activities that provide general administrative help and oversight for the MPA to ensure accountability and transparency in decision making process and financial management. This also can include general human resource functions.

Objectives Description

Objectives are realistic, tangible, and specific targets that the MPA aims to achieve over a given time period. MPA Objectives largely center on:

- 1) biodiversity conservation,
- 2) ecosystem health, and
- 3) community needs.

MPA costs are driven directly by objectives through implementation of the functional component activities. It is crucial that MPA stakeholders come to an agreement on the objectives at the very beginning of the planning and development stage of the MPA, and certainly before beginning the modeling process. This will ensure that in the design of the MPA management components, activities, personnel needs, etc, practitioners will accurately construct scenarios that are able to achieve these objectives.

Scenario Description

A scenario is a set of parameters that correspond to a unique set of activities and factors. Scenarios are generally constructed with various levels of conservation effort in mind, such as minimal or optimal, but a number of different scenarios can be constructed depending on stakeholder preference/objectives, and funding/revenue availability.

SCENARIO	SAMPLE DEFINITION
Status Quo	Existing and future activities based on existing MPA work plans and management plans.
Minimal	Minimum level of personnel, assets, and activities required to ensure that ecological resources are stabilized and a minimal level of MPA objectives are met. (<i>Functional Assessment Score: 1-2</i>)
Optimal	Minimum level of intensity plus additional functional efforts to improve and rehabilitate ecological resources, meet community needs, and take into account potential MPA network level synergies where possible. (<i>Functional Assessment Score: 2-3</i>)

Input and Output Tab Descriptions

The following two pages provide an overview of the Input and Output tabs.

INTRODUCTION	INPUT TAB	DATA CAPTURED	DATA COLLECTED	
	MPA Characteristics	Captures general MPA characteristics as well as ecological, threat, community, and stakeholder data to understand the unique MPA attributes.	<ul style="list-style-type: none"> • General information • Ecological data 	<ul style="list-style-type: none"> • Threat data • Community data • Stakeholder data
	Functional Assessment	Functional rankings to understand existing strengths and weaknesses.	<ul style="list-style-type: none"> • Functional rankings 	
	General Assumptions	Captures information necessary to build the model and forecast costs and scenarios over a given projection time frame.	<ul style="list-style-type: none"> • Cost model Title • Functions • Financial & economic assumptions 	<ul style="list-style-type: none"> • Scenarios • Currency assumptions • Output selections
	Objectives	Captures written MPA objectives and also the % of activities within each function that are necessary to obtain the objective.	<ul style="list-style-type: none"> • Objectives 	<ul style="list-style-type: none"> • Activity breakdown across functions
	Personnel	Captures information on the personnel engaged in MPA activities. Personnel are crucial to effective MPA management and therefore generally represent one of the largest MPA costs.	<ul style="list-style-type: none"> • Employee title • # of employees • Start year • End year 	<ul style="list-style-type: none"> • Salary • Scenario • % role in each function
	Contractors	Captures information on contractors – groups or individuals hired for a specific project over a specific amount of time. Contractors are a cost-effective way to get certain tasks done.	<ul style="list-style-type: none"> • Employee title • # of employees • Start year • End year 	<ul style="list-style-type: none"> • Salary • Scenario • % role in each function
	Occupancy	Captures information on the costs associated with occupying offices and MPA stations, including rent, utilities, and internet.	<ul style="list-style-type: none"> • Name of cost • Start year • End year 	<ul style="list-style-type: none"> • Cost per year • Scenario • % contribution by function
	Capital Assets	Captures information on capital assets, including whether an asset is fuel-burning, non-fuel-burning, or a building. It also allows for the calculation of the ongoing maintenance costs associated with each capital asset.	<ul style="list-style-type: none"> • Name of asset • Asset class • # purchased • Purchase year 	<ul style="list-style-type: none"> • Useful life • Maintenance cost • Scenario • % contribution by function
	Fuel Cost Assumptions	Captures the necessary information to forecast the fuel costs of fuel-burning assets as well as the total number of hours per year that each asset can be utilized during MPA activities.	<ul style="list-style-type: none"> • Name of asset • Type of engine • Type of fuel • # of engines 	<ul style="list-style-type: none"> • Engine horsepower • Fuel consumption/hr • Asset utilization
	Activity Assumptions	Captures activity types and unit cost information for all of the supplies/materials, travel, and transportation costs for MPA activities.	<ul style="list-style-type: none"> • Types of activities • Supplies & materials unit costs 	<ul style="list-style-type: none"> • Travel unit costs • Transportation unit costs
	Activity Inputs	Captures the MPA activities, generally found in MPA management and work plans. This method of data capture should be in-line with yearly work plans and helps to understand the range and number of activities across the MPA functions.	<ul style="list-style-type: none"> • Type of activity • Activity name • # of times/year • Start year • End year • Scenario 	<ul style="list-style-type: none"> • Supplies/materials • Fuel logistics • Travel • Miscellaneous • % contribution by function
Miscellaneous	Captures additional costs not captured in previous input tabs. Recognizing that MPAs are all different, this allows flexibility to capture unique costs.	<ul style="list-style-type: none"> • Name of cost • Start year • End year 	<ul style="list-style-type: none"> • Cost per year • Scenario • % contribution by function 	
Cash Sources	Captures funding and revenue information.	<ul style="list-style-type: none"> • Funding • Tourism fee structure 	<ul style="list-style-type: none"> • Other revenue sources 	

INTRODUCTION	OUTPUT TAB	PURPOSE / USE	EXAMPLES
	Master Summary	Generates several summary charts that forecast out over the projection time period. This gives practitioners a number of different ways to look at information, including by dollar amount, by percentage of the overall costs, and by budget category or function.	<ul style="list-style-type: none"> • Cost/hectare • Number of personnel in each function • Cost of personnel broken down by function • Cost broken down by budget category
	MPA Summary	Generates an overview of the MPA characteristics	<ul style="list-style-type: none"> • General status rankings • Ecological information
	Graphs	Generates graphs for the information included in the general summary tab. These can be utilized in internal reports as well as external proposals and reports.	<ul style="list-style-type: none"> • Cost by type of activity • Cost by function • Cash sources
	Cost by Function & Budget	Generates the costs on two dimensions: by function and budget category.	<ul style="list-style-type: none"> • Cost by Management & Planning Personnel
	Financial Statements	Generates an income statement, balance sheet, and cash flow statement over the projection period. These can be utilized in internal reports as well as external proposals and reports.	<ul style="list-style-type: none"> • Income statement • Balance sheet • Cash flow statement
	Activity Summary	Generates an overview of the different activities and how many of each type are held per year over the projection period, the total costs broken down by the type of activity, budget category, and function. This allows managers to understand the primary activities, cost drivers, and functional focus.	<ul style="list-style-type: none"> • Number of each type of activity • Cost of each type of activity • Cost by budget category • Cost by function • Cost specifics of each type of activity
	Fuel Summary	Generates an overview of the total number of hours each fuel-burning asset is used and total costs.	<ul style="list-style-type: none"> • Total hours used per asset • Fuel cost per asset
	Endowment Calculation	Collects a few assumptions, such as approximate return per year (%) and disbursement rate (%), in order to then calculate the amount of money necessary to capitalize an endowment fund that would cover the costs of the MPA into the indefinite future. This is helpful for practitioners who are considering the use of a fund to help provide ongoing funding for the MPA.	<ul style="list-style-type: none"> • Initial endowment needed • Endowment revenue • Endowment expenses • Amount available for grants each year • Total grants made as % of total endowment size
	Scenario Comparison	Allows for the comparison of two scenarios to quickly ascertain differences. This helps practitioners understand the scenario elements.	<ul style="list-style-type: none"> • Cost/hectare for each scenario • Number of personnel by function for each scenario
Model Comparison*	Allows for a comparison of two models to quickly ascertain differences. For example, this can be used to compare predicted values versus actual.	<ul style="list-style-type: none"> • Cost by function for each model • Number of personnel by function for each model 	

* this is done in a separate file and will be explained later.

Input Preparation

Before starting the cost model it is necessary to agree on functions and also to gather several documents to reference during the cost model inputs process. First, it is important to either propose functions to all stakeholders for review and agreement, or to host a gathering to draft and approve functions. Given that different stakeholders will likely use different terminology, it will then be important to translate each function into the applicable cost model function. For example:

Stakeholder 1

Governance & Management
Patrol & Enforcement
Monitoring
Community Education & Engagement
Sustainable Livelihoods
Tourism
Administration

Stakeholder 2

Management
Enforcement
Science & Monitoring
Community Engagement
Community Livelihoods
Eco-tourism
Finance & Logistics

Model Functions

Management & Planning
Zoning & Enforcement
Science & Research
Information, Education & Communication
Sustainable Livelihoods
Tourism
Finance & Administration

Once functions are agreed upon, it is necessary to gather all relevant documents and reports to complete the input section of the cost model. These can include, but are not limited to:

MPA Management Plan
Stakeholder workplans
Stakeholder financial reports (short time periods are better, e.g., monthly)
Stakeholder per diem or other policy manuals
Stakeholder capital asset list
Stakeholder personnel lists, including title and salary information
Stakeholder yearly salary raise policy

Model Overview

The process of completing the model is straight-forward and clearly laid out in the pages that follow. The general input tab layout is as consistent as possible. While going through the following pages and the model, please be aware of the following things:

Input Cells

- White cells (blank or with blue text) require an input
- If you highlight a white cell and an arrow pointing down appears to the right of the cell, this indicates that the input options are provided in dropdown form

Summary Buttons

- The green buttons on the top of each tab will bring you to the corresponding tab

Data Buttons

- The gray buttons with blue text below “Line of Data” will help you Add More Data, Delete Data, or Insert Data
 - If you click Add, a new row will be created at the end of the current list
 - If you click Insert, Excel will prompt you to enter the row number in which you would like to enter a new, blank input row
 - If you click Delete, Excel will prompt you to enter the row number that you would like to delete

Overview & Instruction Buttons

- If you click Overview, an overview of the tab will appear in a new box
- If you click Instructions, instructions for how to complete the input tab will appear in a new box

Glossary Button

- The glossary can be referred to at any time by clicking the Glossary button in the upper-right hand corner of the screen

INPUTS
MPA Characteristics
Functional Assessment
General Assumptions
Objectives
Personnel
Contractors
Occupancy
Capital Assets
Fuel Cost Assumptions
Activity Assumptions
Activity Inputs
Miscellaneous
Cash Sources

MPA Characteristics

Overview

The MPA characteristics tab, coupled with the functional assessment, provide users with a quick snapshot of the primary factors and considerations necessary to develop and maintain a comprehensive and effective MPA. The information captured includes:

- General MPA status
- Ecological characteristics
- Natural threats
- Human-induced threats
- Community size, perception & understanding of the MPA, and livelihoods
- Stakeholders



Before beginning...

- Gather basic, ecological, threat, community, and stakeholder information from team members.

So you know...

- The information gathered on this tab is not directly used to make any cost calculations, but aims to provide users an overview of factors to consider in completing the other input tabs and building various scenarios.

Instructions

1. Complete the first four MPA characteristics questions: name of MPA, location, legal status, and size. For help converting to hectares, go to www.metric-conversions.org.
2. Complete the general status rankings.
3. Complete the ecological section by entering the name of the species, the number of animals/plants/etc of this species, the number of the species that are critically endangered, endangered, vulnerable, and endemic.
4. Complete the natural threats section by entering a description and ranking for each threat.
5. Complete the human induced threats section by entering a description and ranking for each threat.
6. Complete the communities section by entering the number of people that reside in the MPA. Provide a ranking of the community perception and understanding of the MPA, and complete the livelihood sub-section by listing the name of each livelihood as well as the number of people involved and environmental impact of each.
7. Complete the stakeholders section by entering each stakeholder name followed by a ranking of each stakeholders involvement in MPA management and influence in MPA decision making.

Example—Human Induced Threats

Human Induced Threats

No.	Threat Description	Ranking
1	Waste pollution	Medium
2	Cyanide fishing	Low
3	Blast Fishing	High
4	Coral Mining	Low
5	Boat Anchoring	Low

Functional Assessment

Overview

The Functional input tab captures information regarding each of the functional categories. Specifically, the tab takes users through a series of functional-driven issues and requests rankings for each issue. Starting the cost model process with a tab that gathers qualitative information helps users understand the CCIF functional approach to operating a well-functioning MPA. It also gives users the opportunity to gain insight into MPA strengths and weaknesses, and potential areas that may require additional resources or activities to ensure the issues are addressed in the future.

Instructions

1. Click on “Management & Planning.”
2. For each of the General Issues, select one of the four Ranking options.
3. Complete this process for each of the seven Functions.
4. Click on “Key Function Cost Drivers.”
5. For each Specific Issue and Function, select one of the four Ranking options.

Example—Sustainable Livelihoods

Issue	Ranking
Livelihoods - status	<input type="checkbox"/> There has not been an assessment of existing and potential livelihoods
	<input type="checkbox"/> There has been an assessment of existing and potential livelihoods but it has not been incorporated in a livelihood program
	<input checked="" type="checkbox"/> There has been an assessment of existing and potential livelihoods and a livelihood program is being developed
	<input type="checkbox"/> There has been an assessment of existing and potential livelihoods, a program has been developed, and is being implemented
Livelihoods - program	<input type="checkbox"/> No livelihoods program currently exists
	<input type="checkbox"/> A livelihood plan is being prepared or has been prepared but has not been implemented
	<input checked="" type="checkbox"/> A livelihood plan exists but has only been partially implemented
	<input type="checkbox"/> A livelihood plan exists and is being implemented
Livelihoods - financial support (e.g., revolving fund, MFI)	<input type="checkbox"/> No mechanism for providing financial support to community members for livelihood activities exists
	<input checked="" type="checkbox"/> A mechanism is being prepared or has been prepared but has not been implemented
	<input type="checkbox"/> A mechanism exists but has only been partially implemented
	<input type="checkbox"/> A mechanism exists and is being implemented
Private Sector Involvement	<input type="checkbox"/> There is no private sector involvement in sustainable livelihoods
	<input checked="" type="checkbox"/> There is some private sector involvement with sustainable livelihoods but only a small percentage of the communities/stakeholders are engaged
	<input type="checkbox"/> There is some private sector involvement with sustainable livelihoods and a fair amount, but not all, communities/stakeholders are engaged
	<input type="checkbox"/> There is extensive private sector involvement with sustainable livelihoods and almost all communities/stakeholders are engaged



Before beginning...

- Make a list of your MPA functions and link them with the CCIF functions. In other words, if you have a function called “protection,” refer to as a “zoning & enforcement” for the purpose of this exercise.

Suggestions...

- The Functional Analysis should be completed in a joint session with relevant MPA staff whom know each functional status well.

So you know...

- The issues for each function were compiled during field work in SE Asia as well as in reference to “World Bank /WWF Alliance for Forest Conservation and Sustainable Use Site-Level Management Effectiveness Tracking Tool (METT) for PAs” (2003).

General Assumptions

Overview

The General Assumptions page captures information necessary to build the model and forecast costs and scenarios over a given projection time frame. The information captured includes:

- Title of the model
- MPA functional category names
- Scenario information
- Financial and economic assumptions
- Currency assumptions
- Output selection

Instructions

1. Enter the Title of the Model.
2. Review and revise, if necessary, the MPA Functions.
3. Create names (“Service level”) and descriptions for each of the Scenarios that will be built.
4. Complete the Financial and Economic Assumptions section by entering an interest rate on cash, interest rate on debt, tax rate, inflation rate, annual salary raise, and discount rate.
5. Complete the Currency Assumption section by entering the name of the local currency, the currency used for inputs, the exchange rate of local currency per USD, and the exchange rate of local currency per Euro. *The currency selected as the input currency must be used for all inputs.*
6. Identify how you would like outputs calculated by selecting a scenario, a currency, the period of MPA start-up/setup, and the total projection period.

Example

Financial and Economic Assumptions

Interest rate on cash

0.50%

Interest rate on debt

10.00%

Tax rate

0.00%

Inflation rate

6.00%

Annual salary raise

8.00%

Discount rate

0.00%



Before beginning...

- Reach an agreement and commitment to the names of the MPA functions with team.
- Gather stakeholder yearly salary raise information and take an average to use in the model (in the event that one stakeholder has the most involvement, weight their yearly salary raise information more than other stakeholders while calculating the average).

Suggestions...

- Inflation information can be obtained from the bank of your country, such as the Federal Reserve in the US.
- Currency information can be obtained from www.oanda.com.

So you know...

- A Scenario is a set of parameters that correspond to a unique set of activities and factors, collectively targeting a certain level of conversation intensity.
- You can reference the glossary in the manual or directly in the Model for definitions of terms.

Contractors

Overview

The Contractors tab captures information on contractors – groups or individuals hired for a specific project over a specific amount of time. Contractors are a cost-effective way to get certain tasks done.

Instructions

1. In line item one, enter a contractor title.
2. If this contractor is considered a start-up cost (only involved in the initial setup portion of the MPA), check the box “start-up cost.”
3. Enter the # of contractors with this contractor title
4. Enter the year in which this contractor joined or will join the MPA (first year).
5. Enter the year in which the contractor will leave the MPA (last year). If this is not known enter the last year of the projection period.
6. Enter the fee this contractor title will receive on a yearly basis.
7. Check the scenarios in which to include this contractor.
8. Allocate this contractor titles time (100%) across the MPA functions and non-MPA function categories.
9. Complete this process for all contractors.

Example

No	Contractual Title	Start-Up Cost	# of Contractor	First Year	Last Year	Fee	Scenario				% Role in MPA Function									
							1	2	3	4	1	2	3	4	5	6	7	8	9	
1	MPA Management Advisor	<input type="checkbox"/>	1	2008	2010	200,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20%	20%	20%	10%	10%	10%	10%			
2	Management Plan Development	<input type="checkbox"/>	1	2008	2009	300,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25%	20%	20%	10%	10%	10%	5%			
3	Social Economic Survey	<input type="checkbox"/>	1	2008	2008	150,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		25%		25%	25%	25%				
4	Alternative Economic Development	<input type="checkbox"/>	1	2008	2008	150,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				25%	50%	25%				
5	Marketing tourims	<input type="checkbox"/>	1	2008	2017	150,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						100%				



Before beginning...

- Think about the scenarios and what contractor changes will need to be made to realize the different scenarios
- Ask stakeholders for a list of current and future contractors that they are or will be utilizing

Suggestions...

- Consider using contractors to help build capacity and also to complete one-time projects or analyses that may not require additional full-time personnel

So you know...

- In calculating the contractor cost, the number of contractors will be multiplied by the fee. In the event that there is more than one contractor working on a project but that a lump sum payment is being made, indicate that there is one contractor and then provide the lump sum in the fee input.

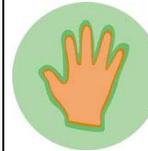
Occupancy

Overview

The Occupancy tab captures information on the costs associated with occupying MPA offices and other buildings, including rent, utilities, and internet.

Instructions

1. In line item one, enter the name of the first occupancy cost.
2. If this cost is considered a start-up cost (only involved in the initial setup portion of the MPA), check the box “start-up cost.”
3. Enter the beginning year of this cost (first year).
4. Enter the ending year of this cost if it is known, otherwise enter the final year of the projection period (last year).
5. Enter the cost per year.
6. Select which scenarios to include this cost.
7. Allocate this cost (100%) across the MPA functions and non-MPA function categories.
8. Complete this process for all occupancy costs.



Before beginning...

- Gather all occupancy related cost information from the finance team. This includes rent, utility bills, internet expenses, telephone bills, and any other cost associated with occupying MPA-related buildings.

Suggestions...

- If there are multiple stakeholders involved in management of the MPA, consider building a scenario which includes consolidating stakeholders to one main office.

Example

No	Occupancy Cost	Start-Up Cost	First Year	Last Year	Cost per year	Scenario				% Role in MPA Function									
						1	2	3	4	1	2	3	4	5	6	7	8	9	
1	Office Rent	<input type="checkbox"/>	2008	2009	75,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20%	10%	10%	15%	15%	15%	15%			
2	Water	<input type="checkbox"/>	2008	2017	5,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20%	10%	10%	15%	15%	15%	15%			
3	Electricity	<input type="checkbox"/>	2008	2017	10,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15%	10%	15%	15%	15%	15%	15%			
4	Telephone	<input type="checkbox"/>	2008	2017	15,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15%	10%	15%	15%	15%	15%	15%			
5	VISAT Internet	<input type="checkbox"/>	2008	2017	30,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15%	10%	15%	15%	15%	15%	15%			

Fuel Assumptions

Overview

The Fuel Assumptions tab captures the necessary information to forecast the fuel costs of fuel-burning assets as well as the total number of hours per year that each asset can be utilized during MPA activities. This information is utilized during the Activities Input tab to calculate how many activities can utilize each asset over the course of the year and also how much money is spent on fuel over the course of the year.

If you do not enter actual information regarding the number of liters of fuel and oil consumed per hour, an estimated value will be used. Here are the formulas for the calculations:

- **Marine Diesel Engine:**
of liters of fuel consumer per hour = # of engines x (1/18) x horsepower x 3.7854118
- **2-Stroke Engine:**
of liters of fuel consumed per hour = # of engines x (horsepower x 0.7/6)
of liters of oil consumer per hour = (4/128) x (# of liters of fuel consumed per hour)
- **4-Stroke Engine**
of liters of fuel consumed per hour = # of engines x (horsepower x 0.43/6) x 3.7854118



Before beginning...

- Gather information about your fuel-burning assets from the team members responsible for maintaining these assets.

Suggestions...

- When possible, provide actual information for the number of liters of fuel and oil consumed per hour to more accurately reflect reality.

Instructions

1. In line item one, select the name of the asset from the drop-down menu.
2. Select the type of engine (marine diesel, 2 stroke, 4 stroke, generator, or other) in the drop-down menu.
3. Select the type of fuel (gasoline or diesel) in the drop-down menu.
4. Select the number of engines that this asset has.
5. Enter the engine horsepower.
6. If known, enter the number of liters of fuel consumed per hour and the number of liters of oil consumed per hour.
7. Complete the asset utilization section by entering the maximum number of hours, days, and months the asset can be used over the course of the year.
8. Complete this process for each of the fuel-burning assets.

Example

Specification of Vessels / Vehicles / Equipment with engine													
FUEL BURNING ASSETS					Estimation			Based on actual/experience		Asset Utilization			
No	Name of Assets	Type of engine	Type of Fuel	# of Engine	Engine Horsepower	# of liters of fuel consumed per hour	# of liters of oil consumed per hour	Fuel Cost per hour	# of liters of fuel consumed per hour	# of liters of oil consumed per hour	Hours per day	Days per Month	Months per year
1	Speedboat 1	4 Stroke speedboat engine	Gasoline	2	140 HP	75.96	-	372,206.92			6.0 hours	20.0 days	12.0 Months
2	Speedboat 2	4 Stroke speedboat engine	Gasoline	1	140 HP	37.98	-	186,103.46			6.0 hours	20.0 days	12.0 Months
3	Speedboat 3	2 Stroke speedboat engine	Gasoline	1	40 HP	17.67	0.55	97,600.53	20.00	1.00	6.0 hours	20.0 days	12.0 Months
4						-	-						

Activity Assumptions

Overview

The Activity Assumptions captures the activities necessary to manage the MPA. Default activity types are provided (office operations, meeting/training, survey/monitor, etc), or the user can create additional types. The tab captures activity by type and unit cost for all of the supplies & materials, travel, and transportation costs for MPA activities. These units costs are then referenced when calculating the costs of each activity entered in the Activity Inputs tab.

Instructions

1. Complete the Type of Activity section by entering the ten primary activities that the MPA personnel engage in (default activity types are provided).
2. Complete the Supplies & Materials Assumption section by entering the name and cost of each supply & material that are used during activities.
3. Complete the Travel Assumptions Accommodation and Meal Cost Per Day section by entering all of the regions (e.g., field, local, regional, international) in which MPA personnel travel. For each region, enter the accommodation and meal costs per day.
4. Complete the Travel Assumptions- Transportation Cost section by entering all of the different types of trips taken by MPA personnel (e.g., short field trip, medium local trip). For each type of trip, indicate the ground, boat, and air costs.



Before beginning...

- Gather any relevant documents from the finance and administration team regarding organization policies for travel (e.g., per diem).
- Ask various team members what types of activities, supplies & materials, and travel are utilized for MPA related activities.

Suggestions...

- Create unit costs for every possible supply & material, and travel situation possible so you won't need to add more later.

So you know...

- The transportation costs should reflect costs associated with hiring a car or boat, or purchasing a plane ticket. In the event that transportation is done using an MPA vehicle or boat, do not include those costs here.

Example

SUPPLIES & MATERIALS ASSUMPTION		TRAVEL ASSUMPTION		TRANSPORTATION COST								
SUPPLIES & MATERIALS COST PER UNIT		ACCOMMODATION AND MEALS COST PER DAY		TRANSPORTATION COST								
		In Rupiah		Transportation (In Rupiah)								
No	Name of supplies & Material	In Rupiah	No	Region	Accommodation	Meals	No	Type of Trip	Ground trip	Boat trip	Air trip	Total
1	Blank paper	50,000.00	1	Field	50,000.00	50,000.00	1	Field (short trip)	50,000.00			50,000.00
2	Printed paper	5,000.00	2	Local	250,000.00	50,000.00	2	Field (Medium trip)	50,000.00	50,000.00		100,000.00
3	Printed poster	100,000.00	3	Regional	400,000.00	100,000.00	3	Field (Long trip)	50,000.00	100,000.00		150,000.00
4	Kitchen supplies	500,000.00	4	International	1,816,000.00	408,600.00	4	Local (short trip)	50,000.00			50,000.00
5	Stationary	20,000.00	5				5	Local (Medium trip)	75,000.00			75,000.00
6			6				6	Local (Long trip)	100,000.00	300,000.00	1,000,000.00	1,400,000.00
							7	Regional trip (Short trip)			500,000.00	500,000.00
							8	Regional trip Long trip			1,000,000.00	1,000,000.00
							9	International (Short trip)			3,000,000.00	3,000,000.00
							10	International (Long trip)			5,000,000.00	5,000,000.00
							11	Boat rental per day		1,000,000.00		1,000,000.00
							12					-

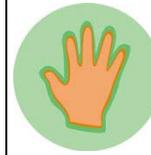
Activity Inputs

Overview

The Activity Inputs tab captures the MPA activities, generally found in MPA management and work plans. This method of data capture should be in-line with yearly work plans and helps to understand the range and number of activities across the MPA functions, as well as the costs associated with them.

Instructions

1. Click the “+” sign to the left of row 16.
2. Select the type of activity from the drop-down menu.
3. Enter the name of the specific activity.
4. If this activity is considered a start-up activity (only done during the initial setup portion of the MPA), check the box “start-up cost.”
5. Enter the number of times per year that this activity occurs.
6. Enter the start year for this activity.
7. Enter the end year of this activity.
8. Select which scenarios to include this activity.
9. Allocate this activity (100%) across the MPA functions and non-MPA function categories.
10. In the Supplies & Materials box, select the name of the supply or material from the drop-down menu and enter the quantity needed.
11. In the Fuel Logistic box, select the name of the asset used and enter the number of hours per day and number of days that the asset will be utilized for this activity.
12. In the Travel box, select the region from the drop-down menu and enter the number of people and number of days. If applicable, select the type of trip from the drop-down menu and enter the number of trips
13. If there are still costs for this activity that have yet to be captured, enter them in the Lump Costs box
14. Reference how many hours remain for the fuel burning assets by clicking on the “Fuel Budget Information” button in the upper right hand corner. If there is no remaining time left, but there are still activities to conduct, return to the Fuel Cost Assumptions tab and adjust the number of hours, days or months that certain assets are used. Alternatively, consider purchasing another asset.



Before beginning...

- Make sure you have the latest management plan and work plan or document which details out the MPA activities for each stakeholder.
- If you are lacking sufficient information, ask stakeholders to provide you with additional materials.

Example

No	Type of Activity	Specific Activity	Start-Up Option	# of times per year	First Year	Last Year	Scenario	% used for MPA Function																																																																															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20																																																																				
1	Daily Office Operation	Monthly Office Operation	<input type="checkbox"/>	12	2008	2017	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																										
SUPPLIES & MATERIALS		FUEL LOGISTIC		TRAVEL: Accomodation and Meals Cost				TRAVEL: Trip Cost				LUMP COSTS																																																																											
<table border="1"> <thead> <tr> <th>Name</th> <th>Qty</th> </tr> </thead> <tbody> <tr><td>1 Blank paper</td><td>10</td></tr> <tr><td>2 Kitchen supplies</td><td>2</td></tr> <tr><td>3 Stationary</td><td>5</td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> </tbody> </table>		Name	Qty	1 Blank paper	10	2 Kitchen supplies	2	3 Stationary	5	4		5		<table border="1"> <thead> <tr> <th>Name of Asset used</th> <th>hours/day</th> <th># of days</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td></tr> </tbody> </table>		Name of Asset used	hours/day	# of days	1			2			3			4			5			<table border="1"> <thead> <tr> <th>Region</th> <th># of people</th> <th># of days</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td></tr> </tbody> </table>				Region	# of people	# of days	1			2			3			4			5			<table border="1"> <thead> <tr> <th>Type of trip</th> <th># of trip</th> </tr> </thead> <tbody> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> </tbody> </table>				Type of trip	# of trip	1		2		3		4		5		<table border="1"> <thead> <tr> <th>Type of Cost</th> <th>Cost Amount</th> </tr> </thead> <tbody> <tr><td>1 Supplies & Materials</td><td></td></tr> <tr><td>2 Fuel Logistic</td><td></td></tr> <tr><td>3 Accomodation & Meals</td><td></td></tr> <tr><td>4 Transportations</td><td></td></tr> <tr><td>5 Other/Miscellaneous</td><td>5,000,000</td></tr> </tbody> </table>				Type of Cost	Cost Amount	1 Supplies & Materials		2 Fuel Logistic		3 Accomodation & Meals		4 Transportations		5 Other/Miscellaneous	5,000,000
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Miscellaneous

Overview

The Miscellaneous tab captures additional costs not captured in previous input tabs. Also, recognizing that MPAs are all different, this allows flexibility to capture unique costs. For example:

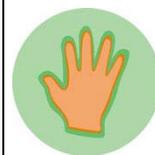
- Insurance
- Incentive agreements
- Bank charges
- Newspapers and magazines
- Radio licenses or fees

Instructions

1. In line item one, enter the name of the first cost.
2. If this cost is considered a start-up cost (only involved in the initial setup portion of the MPA), check the box “start-up cost.”
3. Enter the start year for this cost.
4. Enter the end year for this cost.
5. Enter the cost per year.
6. Select which scenarios to include this cost
7. Allocate this cost (100%) across the MPA functions and non-MPA function categories, representing which functions will share this cost.
8. Complete this process for all miscellaneous costs.

Example

No	Name of Cost	Start-Up Cost	First Year	Last Year	Cost per year	Scenario				% Role in MPA Function											
						1	2	3	4	1	2	3	4	5	6	7	8	9			
1	Speedboat 1 Insurance	<input type="checkbox"/>	2008	2017	4,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		45%	25%	10%	10%	10%						
2	Speedboat 2 Insurance	<input type="checkbox"/>	2008	2017	2,500,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		45%	25%	10%	10%	10%						
3	Speedboat 3 Insurance	<input type="checkbox"/>	2008	2017	1,500,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		45%	25%	10%	10%	10%						
4	Newspaper	<input type="checkbox"/>	2008	2017	500,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								100%				
5	Bank Charge	<input type="checkbox"/>	2008	2017	1,000,000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							100%					



Before beginning...

- Referencing all of the cost information you have, make a list of the costs that are not captured on one of the other cost model tabs.

Suggestions...

- Ask team members whether they foresee any additional miscellaneous in the coming years so the model can accurately capture the likely costs over the projection period.

So you know...

- The miscellaneous costs will all be lumped together in the summary tabs. In order to view and understand the components of the miscellaneous costs you will need to review the Miscellaneous and Activity Input tabs.

Check Point

Once you have finished the Input tabs, it is suggested that you review and consider ways of refining your inputs and scenarios by utilizing two analysis tools. The analysis tools and a brief description of each is provided below:

COMPONENT	DESCRIPTION
Functional Summary	The Functional Summary generates outputs from the “Functional Analysis” input page as well as other function and budget category-related metrics. This provides users with an overview of their current functional status as well as the current financial implication of each function. This feedback is useful in deciding how to better allocate additional financial resources or how to revise the current allocation.
Objectives Summary	The Objectives Summary translates the objectives into their functional breakdown. Below this are two pie charts, the first representing the total MPA cost broken down by function, and the second representing the activity costs broken down by function, both during the first year. This feedback is useful for understanding how the objectives match up with spending habits.

Completion of the Check Point phase is important for ensuring that each scenario represents a realistic picture of the people, activities, and other resources necessary to obtain that level of conservation intensity.

Functional Summary

The Functional Summary page provides a summary of the current status of each Function as reflected by user inputs. The summaries provides the score (0-3) assigned to each Function based on user responses to the functional-driven issues in the input pages.

These summaries give users insight into the MPA current strengths and weaknesses, and potential areas/needs that may require additional resources or activities to ensure issues are addressed in the future. While the functional analysis inputs exercise is qualitative and can be subjective, the outputs offer a way to evaluate these needs. This page is useful when considering priority management planning and budgeting.

RANKING	DEFINITION
0	Absent
1	Weak
2	Adequate
3	Strong

Outputs

1. Score for each function (based on scoring of 0-3).
2. Rankings of both the # and the capacity of personnel.
3. Ranking of importance of the Function against objective as a percentage.
4. Total \$ and % spent on each function per year and per the total duration of the model.

	Management & Planning
	Zoning & Enforcement
	Science & Research
	Information, Education & Communication (IEC)
	Sustainable Livelihoods
	Tourism Management
	Finance & Administration

Review of the General Outputs

Overview

MPA Functions	Score (Absolute)	Possible Score	%	Total spent in Year 1	% overall MPA Cost Year 1	Total spent over Projection Period	% overall MPA Cost Over Projection Period
1 Management & Planning	9	33	27.27%	21,248	2.87%	130,675	2.12%
2 Zonation & Enforcement	9	21	42.86%	354,318	47.78%	2,998,436	48.65%
3 Science & Research	8	15	53.33%	176,446	23.79%	1,742,541	28.27%
4 Information, Education & Communication	6	9	66.67%	53,542	7.22%	331,177	5.37%
5 Sustainable Livelihoods	6	12	50.00%	53,806	7.26%	279,307	4.53%
6 Tourism	5	21	23.81%	66,196	8.93%	514,493	8.35%
7 Finance & Administration	4	9	44.44%	15,976	2.15%	166,814	2.71%

Things to consider:

- Reference the score (%) for each function: Do these scores seem in-line with your perception of each function? If not, think about other functional strengths and weaknesses that aren't captured here.
- Reference the score (%) and cost information: Do you think that certain functions would benefit from additional resources or activities? Are there certain functions that could perform adequately with less resources?
- Consider revising your inputs for one or more scenarios based on the above questions.

Personnel

MPA Functions	Status Quo		Number of personnel in Year 1	Total personnel cost in Year 1	Total personnel cost over Projection Period
	Number of personnel	Capacity/Quality			
1 Management & Planning	Adequate	Adequate	1	2,577	37,333
2 Zonation & Enforcement	Weak	Weak	53	149,703	2,168,677
3 Science & Research	Adequate	Absent	55	72,665	1,052,669
4 Information, Education & Communication	Adequate	Weak	5	14,174	205,333
5 Sustainable Livelihoods	Adequate	Weak	3	10,308	149,333
6 Tourism	Adequate	Adequate	3	10,308	149,333
7 Finance & Administration	Adequate	Weak	2	7,225	104,661

Things to consider:

- Reference the status quo scenario rankings, number of personnel, and cost information: Think about how you could achieve better rankings.
- If capacity rankings are low, consider including more capacity building activities in one or more of the scenarios.
- If the rankings of personnel numbers is low, consider hiring additional people now or in the future in one or more of the scenarios.

Contractors, Capital Assets, and Activities

Consider the same questions as in the Personnel section.

Review of the Function Outputs

Review of each of the Functions**Example—Management & Planning**

Score Absolute	Score (%)	Total Spent in Year 1	Total Cost	% overall MPA Cost
9	27.27%	Total Spent over projection period	21,248	2.87%
			130,675	2.12%

Budget Category	Status Quo		Total Number in Year 1	Total cost in Year 1	Total cost over Projection Period
	Number	Capacity/Quali			
Personnel	Adequate	Adequate	1	2,577	37,333
Contractors	Weak	-	3	12,665	31,482
Capital Assets	Weak	Adequate	5	1,101	14,249
Activities	Weak	Adequate	3	2,211	29,149

Things to consider:

- Review the information and write down ways in which the rankings could be improved.
- Review the issues and ranking descriptions and confirm that these reflect reality. If not, return to the Functional Assessment Input Tab and revise the rankings.

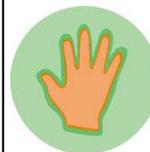
Objectives Summary

The Objectives Summary provides users an opportunity to see the percentage breakdown across functions for the objectives, total costs over the projection period, and total activity costs over the projection period. This feedback is useful for understanding how the objectives match up with spending habits; recognizing that realizing certain objectives may or may not be linked with financial resources, this aims to highlight any potentially large discrepancies between financial resource allocation and objectives.

Ideally, the three pie charts should be similar. The functions naturally align with costs—and both should reflect the particular ‘weighting’ that has been used to describe the importance of each function toward meeting the objectives.

Outputs

1. Functional activities (%) necessary to obtain the objectives.
2. Total cost by PA function.
3. Total cost of activities by function.

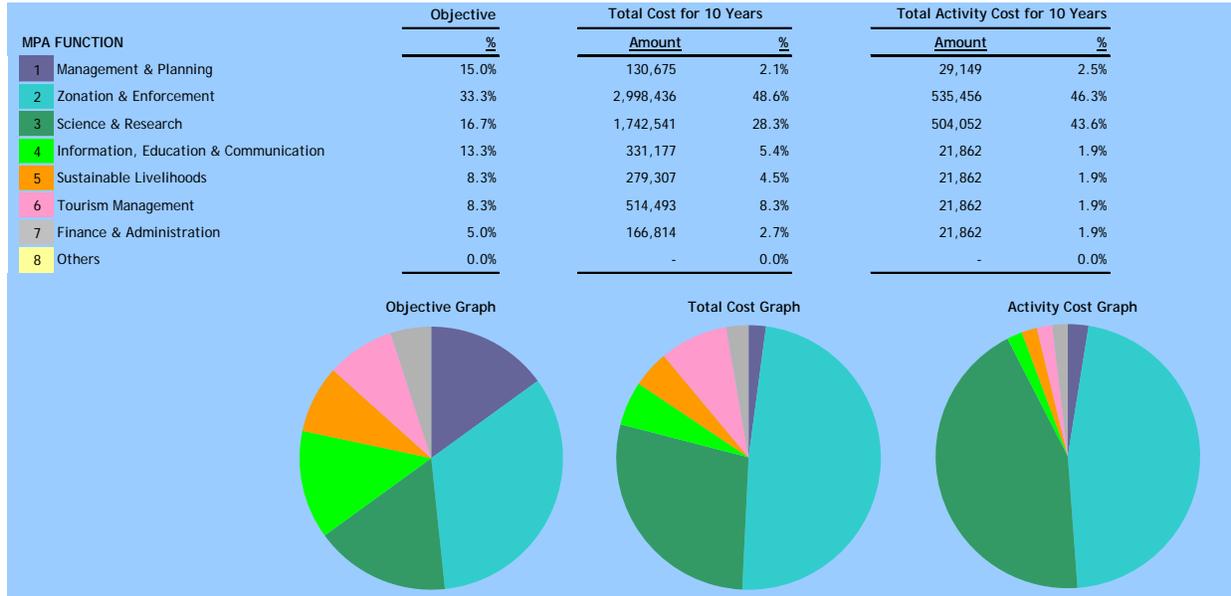


Before beginning...

- Go to the Master Summary tab and click “Update Calc.” in the upper left corner. This will allow the cost calculations to take place.

Reminders...

- MPAs are established to achieve very specific Objectives.
- MPA Objectives largely center on
 - 1) biodiversity conservation,
 - 2) ecosystem health, and
 - 3) community needs.
- MPA costs are driven directly by these objectives through implementation of the functional component activities.

Example:*Things to consider:*

- Does the pie chart representation of the MPA objectives provide an accurate picture of the functional breakdown of objectives? If not, consider revising the MPA objectives and/or MPA objective functional allocations.
- Reference the objectives functional breakdown and the total cost for the projection period: Does it seem reasonable to assume that the MPA can reach its objectives provided it can find cash sources to cover these costs? Consider revising one or more scenario(s) if needed.
- Reference the objectives functional breakdown and the total cost of activities by function: Does it seem reasonable to assume that the MPA can reach its objectives by spending this much money on activities? Consider adding or deleting activities that may or may not be necessary to achieve the MPA objectives.

Outputs Overview

The Output section of the Model and this manual provide a focused overview of information and projections that the user will find useful for focused assessment, analysis, communication, and decision-making.

The outputs are provided in a variety of formats (e.g., charts, graphs, financial statements) and in a variety of ways (e.g., costs broken down by functional components or budget categories, costs in dollar values or percentages of total cost). The outputs are organized in a framework that helps to focus the design and management of MPAs. While there is a great deal of flexibility in how the outputs are presented, the majority of them are broken down by function or budget category. This provides a clear and transparent overview of the functional efforts and primary cost drivers of a given MPA and allows for comparisons of functional and budget category costs.

OUTPUTS

Master Summary

MPA Summary

Graphs

Cost by Function & Budget

Financial Statements

Activity Summary

Fuel Summary

Endowment Calculation

Scenario Comparison

Model Comparison

Uses

USES	DESCRIPTION
Creation or Revision of a Management Plan	The Model should be utilized during the creation of a Management Plan or with reference to the current Management Plan. The outputs can be directly pasted into the Management Plan to provide specific cost information related to the functional components.
Creation of a Financial Plan	The Model identifies the costs over the projection period and the existing funding/revenue to help cover these costs. Regardless of whether there is a gap in available funding/revenue and required cost, it is important to develop a financial plan that identifies potential additional funding and revenue sources.
Creation of an Endowment Fund Business Plan	The Model provides a forecast of the size of the initial endowment necessary to cover the MPA costs over the projection period. This information, coupled with the detailed, transparent information about the MPA objectives, functions, and budget categories allows for the creation of a strong, data-based, realistic business plan to use for raising money to capitalize and focus an endowment fund for the area.
Management effectiveness review	The cost data, MPA objectives and Management Plan, provide insights into how resources are being allocated, how many personnel are dedicated to certain functional components, and how many activities are occurring in each function.
Donor proposals	The Model provides a clear review of the cost requirements of developing and managing a MPA given certain levels of conservation effort. The outputs can be directly pasted into donor proposals to provide specific cost information related to the functional components and budget categories. This allows MPA practitioners to be clear on their program requirements and funding needs.
Donor Reports	The Model outputs can also be utilized in reports to donors to show the current and projected costs associated with the MPA.
Program Yearly Reports	The Model outputs can also be utilized in general organization or MPA reports to show interested parties and stakeholders the costs associated with the MPA in a clear and transparent format.

MPA Summary

Overview & Specific Outputs

The MPA Summary page provides a summary profile of the level of current scientific data and understanding, political support, conservation effort, available infrastructure, access, and level of funding the MPA enjoys.

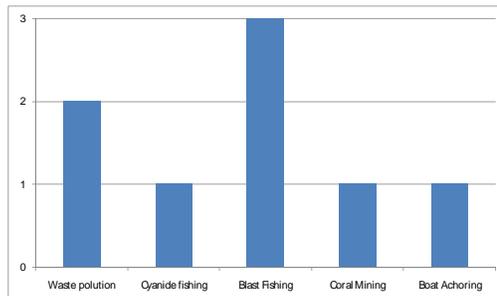
This page provides users with a quick snapshot of scoring against those primary factors and considerations necessary to develop and maintain a comprehensive and effective MPA. These factors and considerations include:

- General MPA characteristics
- Ecological characteristics
- Natural and human induced threats
- Community size, perception & understanding of the MPA, and livelihoods
- Stakeholders

The page includes graphs which visually illustrate the score, or ranking, that each factor was given during the inputs process.

Reminder...

- This information acts as a baseline for forecasting management and cost requirements for the MPA going forward.
- As noted earlier, this information is not directly used to make cost calculations, but aims to provide users with an overview of factors to consider in completing the other input tabs and building various scenarios. It is an important part of making decisions about priority and focus for MPA management and funding.



Example

Human Induced Threats	
No.	Threat Description
1	Waste pollution
2	Cyanide fishing
3	Blast Fishing
4	Coral Mining
5	Boat Anchoring

No.	Threat Description	Ranking
1	Waste pollution	Medium
2	Cyanide fishing	Low
3	Blast Fishing	High
4	Coral Mining	Low
5	Boat Anchoring	Low

Graphs

Overview

The Graphs sheet generates visual graph representations of output data for all information included in the general summary tab, including:

- Financial Summary
- Cash Source
- Cost by Budget Category
- Cost by MPA Function
- Cost by Type of Activity

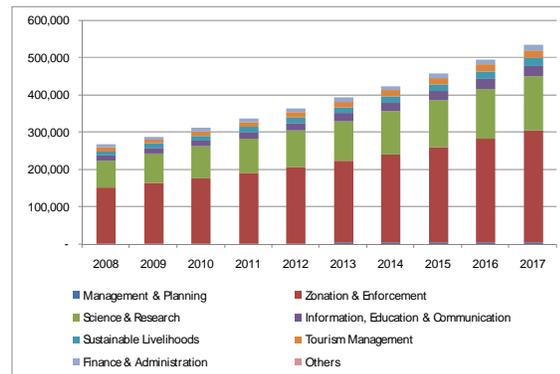
- Cost categories by MPA Function:
 - ◆ Personnel
 - ◆ Contractual Services
 - ◆ Travel
 - ◆ Supplies & Materials
 - ◆ Fuel
 - ◆ Occupancy
 - ◆ Capital Assets
 - ◆ Asset Maintenance

Uses

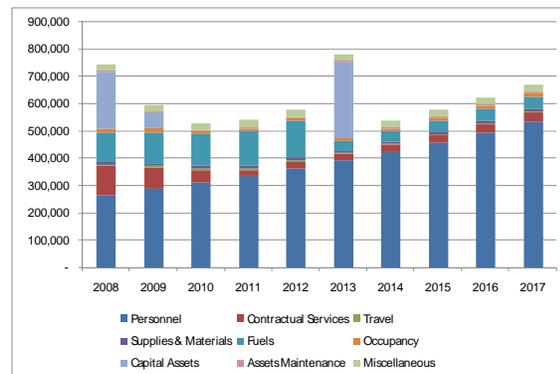
1. The graphs provide quick visual illustrations of the statistical data provided in the General Summary page.
2. During planning and scenario setting the graphs are useful for discussion and communication among team members.
3. The graphs can be utilized in internal reports as well as external proposals and reports.

Examples

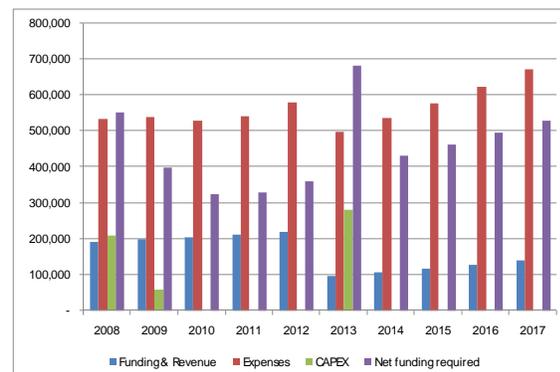
Personnel Cost by MPA Function:



Cost by Budget Category:



Financial Summary:



Cost by Function & Budget

Overview

The Cost by Function & Budget tab provides the user with an opportunity to analyze the costs broken down in two dimensions: function and budget category.

Uses

1. Drafting grant proposals for funders with very defined, specific funding restrictions and focus areas.
2. During planning and scenario setting the chart is useful for discussion and communication among team members.
3. The chart can be utilized in internal reports as well as external proposals and reports.



Before beginning...

In order to generate the chart, you must first select the year(s) in which you would like to include data. In other words, if you would like to focus on one year, enter the same year for both inputs. If you would like to focus on more than one year, enter two different years.

Example

Figures in USD

Total cost from year to year

MPA Function	Budget Category									Total
	Personnel	Contractual Services	Travel	Supplies & Materials	Fuels	Occupancy	Capital Assets	Assets Maintenance	Miscellaneous	
1 Management & Planning	37,333	31,482	4,761	6,387	-	16,831	14,249	1,632	18,000	130,675
2 Zonation & Enforcement	2,168,677	32,176	25,103	10,643	453,460	10,411	221,505	24,986	51,475	2,998,436
3 Science & Research	1,052,669	28,046	2,381	52,143	353,431	14,403	126,225	14,243	99,001	1,742,541
4 Information, Education & Communication	205,333	22,283	3,571	4,790	-	15,617	58,327	6,595	14,661	331,177
5 Sustainable Livelihoods	149,333	26,413	3,571	4,790	-	15,617	58,327	6,595	14,661	279,307
6 Tourism Management	149,333	261,598	3,571	4,790	-	15,617	58,327	6,595	14,661	514,493
7 Finance & Administration	104,661	10,587	3,571	4,790	-	15,617	10,687	1,224	15,678	166,814
8 Others	-	-	-	-	-	-	-	-	-	-
Total Cost =	3,867,338	412,584	46,529	88,335	806,891	104,113	547,646	61,869	228,139	6,163,444

Financial Statements

Overview

The Financial Statements page organizes the costs and revenue information from the inputs pages into detailed and generally acceptable financial statements: income statements, balance sheet and cash flow statements.

The **income statement** provides an overview of the MPA's revenue and expenses for the duration of the model over a given period. The income statement shows the user the sum of revenue and expenses, providing insight into whether the current financial situation is sustainable over time.

The **balance sheet** reports the assets and liabilities at a specific point in time, providing information about the MPA's resources (assets) and obligations (liabilities).

The **cash flow statement** combines cash flows for events that are reported in the income statement (e.g., net income) and balance sheet (e.g., property & equipment). Analysis of the cash flow statement provides an overview of the MPA's ability to generate cash from operations, in addition to information regarding the cash sources and uses within each of the cash flow activities.

Highlights...

Financial Statement Component (see **Glossary** for definitions):

Income Statement

- Operating Expenses by Budget Category
- EBITDA
- EBIT
- Earnings before Taxes
- Net Income

Balance Sheet

- Assets
- Liabilities
- Equity

Cash Flow Statement

- Operating Activities
- Investing Activities
- Financing Activities

Total Funding Requirements

Net Present Value

Example

<i>Financial Statements (inflation adjusted)</i>										
Scenario: Status Quo										
Figures in USD										
Net funding (required)/excess: (4,550,443)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
FINANCIAL STATEMENTS										
INCOME STATEMENT										
Government	77,093	77,093	77,093	77,093	77,093	-	-	-	-	-
Donors	55,066	55,066	55,066	55,066	55,066	-	-	-	-	-
Payment for services	59,747	65,721	72,294	79,523	87,475	96,223	105,845	116,429	128,072	140,880
Other Source	-	-	-	-	-	-	-	-	-	-
Total funding & revenue	191,905	197,880	204,452	211,681	219,634	96,223	105,845	116,429	128,072	140,880
Operating expenses by budget category										
Personnel	266,960	288,317	311,383	336,293	363,197	392,252	423,633	457,523	494,125	533,655
Contractual Services	104,626	77,313	44,960	20,810	22,475	24,273	26,215	28,312	30,577	33,023
Travel	5,837	6,187	6,558	6,952	7,369	2,417	2,562	2,716	2,879	3,051
Supplies & Materials	7,458	7,906	8,380	8,883	9,416	8,212	8,705	9,227	9,781	10,368
Fuels	107,256	113,692	120,513	127,744	135,409	35,883	38,036	40,318	42,738	45,302
Occupancy	14,868	15,760	7,425	7,870	8,342	8,843	9,373	9,936	10,532	11,164
Assets Maintenance	4,185	5,020	5,321	5,640	5,979	6,337	6,718	7,121	7,548	8,001
Miscellaneous	21,090	22,356	23,697	25,119	26,626	19,381	20,544	21,776	23,083	24,468
Total operating expenses	532,281	536,550	528,237	539,311	578,812	497,599	535,785	576,929	621,262	669,032
EBITDA	(340,375)	(338,670)	(323,785)	(327,630)	(359,178)	(401,376)	(429,940)	(460,500)	(493,189)	(528,152)
Depreciation	41,850	45,521	45,521	45,521	45,521	59,676	59,676	59,676	59,676	59,676
EBIT	(382,225)	(384,191)	(369,306)	(373,151)	(404,700)	(461,052)	(489,616)	(520,176)	(552,866)	(587,828)
Interest expense	-	-	-	-	-	-	-	-	-	-
Interest income	-	(2,748)	(4,747)	(6,390)	(8,060)	(9,896)	(13,353)	(15,569)	(17,949)	(20,505)
Net interest expense / (income)	-	2,748	4,747	6,390	8,060	9,896	13,353	15,569	17,949	20,505
Earnings before taxes	(382,225)	(386,939)	(374,054)	(379,541)	(412,760)	(470,948)	(502,969)	(535,745)	(570,815)	(608,333)
Taxes at 0%	0%	-	-	-	-	-	-	-	-	-
Net income	(4,624,329)	(382,225)	(386,939)	(374,054)	(379,541)	(412,760)	(470,948)	(502,969)	(535,745)	(608,333)

Fuel Summary

Overview

The Fuel Summary page generates an overview of fuel use and cost statistics for the MPA. Fuel costs are significant and important to capture and understand. Fuel costs are dependent on the utilization of those assets which burn fuel (boats, trucks, generators, etc.). Knowing the number of such assets, and the time spent in operation burning fuel allows for more effective management of those assets. This page shows how much time remains for each fuel-burning assets to be used (whether an asset is over-utilized or under-utilized), assists the user in understanding how certain MPA activities can utilize these assets and how the use of each asset can be optimized.

Reminder...

- If actual information regarding the number of liters of fuel and oil consumed per hour were not entered, an estimated value was used. These calculations are provided on page 22.

Specific Outputs

1. Cost of Fuel by Function.
2. Cost of Fuel by Activity.
3. List of all fuel burning assets used in operation of the MPA (e.g. boats, vehicles, generators).
4. Total hours available per asset (for instance, a boat may be assumed to be available 8 hours per day, and 20 days per month in order to provide time for maintenance, etc).
5. Total hours used per asset (based on necessary hours of operation per management plan).
6. Total expected fuel cost per asset.
7. Percentage of time asset is effectively utilized / percentage of time asset is available for utilization.
8. Actual total hours used per asset.
9. Actual fuel cost per asset.

Example

Fuel Cost Summary (inflation adjusted)

Scenario: Status Quo	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Figures in USD	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
FUEL COST										
COST OF FUELS BY FUNCTIONS										
1 Management & Planning	107,256	113,692	120,513	127,744	135,409	35,883	38,036	40,318	42,738	45,302
2 Zonation & Enforcement	-	-	-	-	-	-	-	-	-	-
3 Science & Research	80,442	85,269	90,385	95,808	101,556	-	-	-	-	-
4 Information, Education & Communication	26,814	28,423	30,128	31,936	33,852	35,883	38,036	40,318	42,738	45,302
5 Sustainable Livelihoods	-	-	-	-	-	-	-	-	-	-
6 Tourism Management	-	-	-	-	-	-	-	-	-	-
7 Finance & Administration	-	-	-	-	-	-	-	-	-	-
8 Others	-	-	-	-	-	-	-	-	-	-
COST OF FUELS BY TYPE OF ACTIVITY										
1 Daily Office Operation	107,256	113,692	120,513	127,744	135,409	35,883	38,036	40,318	42,738	45,302
2 Internal Meeting/Training	-	-	-	-	-	-	-	-	-	-
3 External Meeting/Training	-	-	-	-	-	-	-	-	-	-
4 Survey/Monitoring	26,814	28,423	30,128	31,936	33,852	35,883	38,036	40,318	42,738	45,302
5 Stakeholder Meeting	-	-	-	-	-	-	-	-	-	-
6 Community Meeting/Mentoring	-	-	-	-	-	-	-	-	-	-
7 Patrol	80,442	85,269	90,385	95,808	101,556	-	-	-	-	-
8 [Blank]	-	-	-	-	-	-	-	-	-	-
9 [Blank]	-	-	-	-	-	-	-	-	-	-
10 [Blank]	-	-	-	-	-	-	-	-	-	-
TOTAL HOURS PER ASSET USED										
1 Speedboat 1	1440 hours	360 hours								
2 Speedboat 2	1440 hours	360 hours								
3 Speedboat 3	1440 hours	360 hours								
FUEL COST PER ASSET										
1 Speedboat 1	107,256	113,692	120,513	127,744	135,409	35,883	38,036	40,318	42,738	45,302
2 Speedboat 2	59,028	62,570	66,324	70,304	74,522	19,748	20,933	22,189	23,521	24,932
3 Speedboat 3	29,514	31,285	33,162	35,152	37,261	9,874	10,467	11,095	11,760	12,466
	18,714	19,836	21,027	22,288	23,626	6,261	6,636	7,035	7,457	7,904

Endowment

Overview

Endowment funds are increasingly being considered as a part of broader sustainable financing portfolios for MPAs, and networks of MPAs, as a means of ensuring funds are in place to cover portions of MPA cost into perpetuity. The Model provides the cost projections that an endowment fund should focus on, making it easier to determine the necessary size of and distribution policies.

The Endowment page collects a few assumptions, such as approximate return per year (%) and disbursement rate (%), in order to then calculate the amount of money necessary to capitalize an endowment fund that would cover costs into the indefinite future.

Specific Outputs

1. Initial endowment needed.
2. Endowment revenue.
3. Endowment expenses.
4. Amount available for grants each year.
5. Total grants made.



Before beginning...

- Key assumptions must be entered, such as such as approximate return per year, disbursement rate, tax rate, etc.
- Note that four conditions are commonly understood to be required before deciding to establish an endowment fund:
 - Issues to be addressed require at least a 10 year commitment.
 - government support for such a mechanism outside direct government control exists;
 - A group of people from diverse sectors of society can work together to achieve objectives of the MPA;
 - basic and competent legal and financial practices and supporting

Example

Endowment Fund

Scenario: Status Quo

Figures in USD

Assumption

In the country where Endowment fund managed and invested

Disbursement rate	5.00%
Appropriate Return/Year (%)	8.00%
Financial Management Fee (%)	0.80%
Inflation rate (%)	2.50%
Tax rate of endowment revenue (%)	1.00%

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Fund Management Body Expenses	-	-	-	-	-	-	-	-	-	-
ENDOWMENT CALCULATION										
Annual gross funding required	741,531.60	594,919.98	528,237.24	539,311.38	578,812.13	777,624.00	535,785.26	576,929.32	621,261.79	669,031.53
Existing Funding & Revenue	191,905.29	197,879.96	204,452.09	211,681.44	219,633.73	96,222.65	105,844.92	116,429.41	128,072.35	140,879.58
Annual net MPA cost to be funded	549,626.32	397,040.02	323,785.15	327,629.93	359,178.40	681,401.35	429,940.34	460,499.91	493,189.44	528,151.95
Total Endowment Required	10,992,526.34	7,940,800.38	6,475,703.03	6,552,598.68	7,183,567.97	13,628,026.93	8,598,806.85	9,209,998.29	9,863,788.75	10,563,039.00
NPV Calculation	10,992,526.34	(3,051,725.95)	(1,465,097.35)	76,895.64	630,969.30	6,444,458.96	(5,029,220.08)	611,191.44	653,790.45	699,250.25
Initial Endowment needed	8,992,562.75									
ENDOWMENT CASH FLOW										
Revenue										
Endowment Revenue	719,405.02	734,656.41	755,200.74	783,068.22	812,612.28	841,736.01	859,580.81	886,387.74	912,658.55	938,184.68
Expenses										
Endowment Revenue Tax	7,194.05	7,346.56	7,552.07	7,830.68	8,126.12	8,417.36	8,595.81	8,863.88	9,126.59	9,381.85
Financial Management Cost	71,940.50	73,465.64	75,520.07	78,306.82	81,261.23	84,173.60	85,958.08	88,638.77	91,265.85	93,818.47
Fund Management Body Expenses	-	-	-	-	-	-	-	-	-	-
Available Fund for Grants	640,270.47	653,844.20	672,128.66	696,930.72	723,224.93	749,145.05	765,026.92	788,885.09	812,266.11	834,984.37
Total Grants made	449,628.14	397,040.02	323,785.15	327,629.93	359,178.40	526,085.00	429,940.34	460,499.91	493,189.44	528,151.95
Implied % disbursement	5%	4%	3%	3%	4%	5%	4%	4%	4%	5%
Total grants to carry to next year	190,642.33	256,804.18	348,343.51	369,300.78	364,046.53	223,060.04	335,086.58	328,385.17	319,076.67	306,832.42
% carried to next year	2%	3%	4%	4%	4%	2%	3%	3%	3%	3%
Beginning Balance	8,992,562.75	9,183,205.08	9,440,009.26	9,788,352.77	10,157,653.55	10,521,700.08	10,744,760.13	11,079,846.70	11,408,231.87	11,727,308.55
Change in Balance	190,642.33	256,804.18	348,343.51	369,300.78	364,046.53	223,060.04	335,086.58	328,385.17	319,076.67	306,832.42
Add: Revenue	719,405.02	734,656.41	755,200.74	783,068.22	812,612.28	841,736.01	859,580.81	886,387.74	912,658.55	938,184.68
Less: Expenses	79,134.55	80,812.20	83,072.08	86,137.50	89,387.35	92,590.96	94,553.89	97,502.65	100,392.44	103,200.32
Less: Total Grants made	449,628.14	397,040.02	323,785.15	327,629.93	359,178.40	526,085.00	429,940.34	460,499.91	493,189.44	528,151.95
Ending Balance	9,183,205.08	9,440,009.26	9,788,352.77	10,157,653.55	10,521,700.08	10,744,760.13	11,079,846.70	11,408,231.87	11,727,308.55	12,034,140.96

Glossary

Overview

The Glossary page provides definitions for key words, terms and concepts utilized in the model from financial terms to MPA-specific concepts.

TERM	DEFINITION
Accommodation	Housing costs (hotel, hostel) associated with personnel travel for work-related events and trainings longer than one day.
Annual Salary Raise	The annual salary raise is the yearly salary increase for personnel to adjust for both work experience and the increased cost of living due to inflation. The actual amount of the raise will depend on the organization as well as the location of the MPA.
Assumption	An assumption is an assertion about some characteristic of the future that underlies the current operations or plans of the MPA. In the case of the model, most assumptions are financial and economic and are required to forecast costs over the projection period.
Balance Sheet	The balance sheet reports the assets and liabilities at a specific point in time. It is best to use the last day from the income statement time period. In other words, if your income statement is for the period from January 1 st until December 31 st , it makes sense to construct your balance sheet for December 31 st . The balance sheet provides information about an MPA's resources (assets) and obligations (liabilities).
Budget Categories	The budget categories represent the different MPA costs. There are nine CCIF budget categories that represent the primary MPA costs: personnel, contractors, travel, supplies & materials, fuel, occupancy, capital assets, capital assets maintenance, and miscellaneous.
Capital Assets	Capital assets are assets that can be used over a period of time greater than one year.
Cash Flow Statement	The cash flow statement combines cash flows for events that are reported on the income statement (e.g., net income) and balance sheet (e.g., property, plant & equipment). Analysis of the cash flow statements provides an overview of the MPA's ability to generate cash from operations, in addition to information regarding the cash sources and uses within each of the cash flow activities. The statement can be broken down into three sections: 1) Operating activities, 2) Investing activities, and 3) Financing activities.
Cash Sources	Cash sources include the various revenue (e.g., tourism fees) and funding (e.g., donor contributions) that the MPA receives each year.
Contractual Services	Contractual services refer to external contractors and consultants that are hired to fulfill specific functions for a finite amount of time.
Cost of diesel	This is the current cost of diesel per liter.
Cost of gasoline	This is the current cost of gasoline per liter.
Cost of oil	This is the current cost of oil per liter.

GLOSSARY

TERM	DEFINITION
Depreciation	Depreciation comes into play when the MPA possesses physical assets with a useful life greater than one year. In the case of the CCIF Cost Model, depreciation is calculated using the straight-line method. Straight-line depreciation is calculated by estimating a “salvage value” of the asset after a length of time over which it will be used (its useful life), and will recognize a portion of that original cost in equal increments over that amount of time. In other words, if an MPA purchases a new boat for \$200,000, assumes a useful life of five years, and a re-sale value of \$0, \$40,000 would be depreciated each year for five years.
Discount rate	The discount rate takes all the forecasted revenues and costs over a period of time and “discounts” them into present-day dollars; the discount reflects the principle that a dollar in the future is worth less than a dollar today.
Donor	A Donor is a person or organization that contributes money to one or more of the stakeholders engaged in elements of the MPA management.
Endowment disbursement rate	A potential mechanism for sustainable financing of an MPA is the creation of an endowment fund which the MPA can draw on over future years. Depending on the legal jurisdiction of the endowment fund, the fund is required to disburse a certain percentage of its value on an annual basis. The size of an endowment fund needed to support the ongoing activities of an MPA can be estimated by its disbursement rate and the annual expenses of the MPA. For example, if in the first year of operations, the MPA's expenses total \$200,000, the size of the endowment will need to be \$4,000,000 assuming the endowment is legally required to disburse 5% of its total value (i.e. \$200,000 divided by 5%, or 5% of \$4,000,000).
Enforcement	Enforcement refers to the protection of the MPA. In order to ensure adequate enforcement, properly trained personnel with sufficient resources and supplies are necessary.
Exchange rate	The exchange rate is the rate at which local currency can be exchanged for US dollars.
Fees	These include fees incurred from specific MPA memberships, magazine subscriptions, and other non-occupancy related costs.
Finance & Administration	The Finance & Administration function of a MPA is responsible for budgets, operations, logistics, and general administrative tasks. Administration refers to the people and activities that provide general administrative help and oversight for the MPA to ensure accountability and transparency in decision making process and financial management. This also can include general human resource functions.
Fuel costs	The cost of the fuel necessary to run the fuel-burning assets (e.g., boats, vehicles).
Function	A function represents a group of people and activities that aim to achieve the MPA objectives. CCIF has identified seven areas as representative of a functioning and comprehensive MPA: Management & Planning, Zonation & Enforcement, Science & Research, Information, Education & Communication (IEC), Sustainable Livelihoods, Tourism Management, Finance & Administration.

GLOSSARY	TERM	DEFINITION
	Funding	Funding refers to money obtained from external sources without delivery of a specific good or service in return. These sources are generally less sustainable than revenue sources because they rely on the continued funding of an outside entity. The risks inherent in this reliance include: potential political changes within the funding entity, sudden shift in funding ability, and change in leadership and donor goals. Examples: government, philanthropic foundation donations, corporate donations, individual donors.
	Government Direct Allocations	This refers to financial or in-kind contributions from the government to the MPA.
	Income Statement	The income statement provides an overview of the revenue and expenses over a given period. The ultimate purpose of the income statement is to show managers and potential donors whether the sum of revenue and expenses resulted in a positive or negative net income. This provides insight into whether the current financial situation is sustainable over time.
	Inflation	Inflation is the rise in prices over time measured against a standard level of purchasing power.
	Information, Education & Communication	Information, Education and Communication (IEC) is the dissemination of information and awareness-building activities that communicate critical messages to the MPA's stakeholders (i.e. educating tourists, tourism and dive operators, fishers, residents, etc.).
	Interest on cash	The interest on cash is the percentage yield one would reasonably expect from depositing cash in a normal savings account.
	Interest on debt	The interest on debt is the percentage the MPA pays to people or institutions from which it has borrowed money. Generally speaking, most MPAs do not have any debt. In this case, simply enter "0" in the General tab when it asks for Interest on Debt.
	Management & Planning	Management & Planning is one of the seven CCIF Functions. Management: The efforts related to overall operational implementation of the MPA; securing support from the local, regional, and national governments and other stakeholders, and advocating certain policies, and generally supporting the creation and implementation of the MPA law. Planning: The decision-making processes that set the strategic vision and translate the vision into day-to-day activities of the MPA. It is the development and periodic review of the actual management and financial plans through monitoring and evaluation.
	Maintenance Cost	Yearly maintenance cost associated with maintaining capital assets over time. The maintenance cost is captured as a percentage of the original value of the asset (e.g., if an asset was purchased for \$1,000 and you forecast the yearly maintenance expense to be \$50, then the maintenance cost is 5%) or as an actual amount (e.g., if you know exactly how much the yearly maintenance cost is).
Meals	This refers to the food costs associated with personnel travel for work-related events and trainings.	
Net funding	The net funding required, for one year, is equal to the cash sources (funding and revenue) minus the capital expenditures and operating expenses. The net present value of the net funding required/excess is the sum of each year net funding required/excess discounted back to the present using the discount rate.	

GLOSSARY

TERM	DEFINITION
Net Present Value	Net present value is the total present value of a time series of cash flows. Present value is the value on a given date of a future payment or series of payments, discounted to reflect the time value of money. The discount rate that cash flows are present valued at is captured on the General Tab. The rate used is usually equal to the interest rate on cash.
Objective	An objective is a realistic, tangible, and specific outcomes that the MPA hopes to achieve over a given time period.
Occupancy	Occupancy costs are the costs associated with occupying certain buildings and spaces. It also includes the costs involved in the activities that go inside of these spaces. For example: rent, utility costs, internet/email costs.
Personnel	Personnel are the individuals that are actively involved in one or more functions within the MPA.
Revenue	Revenue refers to payment for a good or service or payment due to an obligation. These are generally more sustainable than funding sources because the MPA has (some) control over them. That said, these cash sources also require a great deal more effort to implement and maintain.
Scenario	A scenario is a set of parameters that correspond to a unique set of activities and factors. Scenarios are generally constructed with various levels of conservation effort in mind, such as minimal or optimal, but a number of different scenarios can be constructed depending on stakeholder preference/objectives, and funding/revenue availability.
Science & Research	The collection and analysis of specific social, economic, ecological, and biophysical data. This information should be used to identify ecosystem and community dynamics and to prioritize goals and objectives. This data collection is ideally linked to the MPA program monitoring and evaluation component to help quantify the realization of MPA goals and objectives.
Stakeholder	A stakeholder is an individual, group, or organization that influences or is otherwise actively involved in particular MPA activities.
Supplies & Materials	Consumable and expendable supplies and materials. Example: pens, batteries, paper, other office supplies.
Sustainable Livelihoods	Conservation-enabling livelihood activities that are culturally appropriate, financially feasible, and whose viability is assured by the sustained use of natural resources. These are community-based and should be centered on efforts that promote healthy marine and terrestrial ecosystems.
Tax rate	Rate at which the MPA pays taxes; generally this is 0%.
Tourism Management	Activities that enable the MPA to generate revenues from tourism, such as developing marketing materials or advertising campaigns to attract visitors and constructing facilities to be used by tourists (e.g. visitor/educational centers, trails, restrooms, picnic tables, etc.). Also includes managing and ensuring a sustainable level of tourism in respect to social and ecological dynamics.
Travel	This refers to personnel travel for MPA-specific activities.
Zonation	Zones: Delineated areas where only selected human activities can take place. The objectives of the protected region (e.g., increasing tourism, increasing fishery yields, protecting biodiversity, etc), knowledge of the ecosystem's dynamics, and the reality of enforcement should be used to define zones.