



THE WWF COLLEGE FOR CONSERVATION LEADERSHIP



Module Syllabus



WWF Programme Standards

Step 2 - Design

Version – 27 June 2013

Notice

The materials in this syllabus are only part of the learning experience in this module. Learning occurs in the interaction of participant with a facilitator and with other participants.

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Introduction and Overview

As part of a Network-wide effort, WWF has developed the *WWF Standards for Conservation Project and Programme Management* (referred to as the *WWF Programme Standards* throughout this document. They are also known in the WWF Network as “the *PPMS*”).¹ These are the standards of practice for designing, implementing and monitoring conservation projects and programmes in the WWF Network.²

In an increasingly complex and changing environment, these standards are meant to help conservation projects analyse their context, describe their long-term vision and key assumptions, develop effective activities, measure their success, and then to adapt, share, and learn over time. That is, they are to help projects practice adaptive management in order to make them more **effective** and **efficient**.

More broadly, from an organizational perspective these standards are a key foundation to support ‘results-based management’ (RBM)³ within WWF. Efforts towards RBM provide a framework for WWF Network (and partner) collaboration in project design, the tracking of programme delivery and impact, and the development of a performance and learning culture. Three key foundations of RBM are defined as the WWF Programme Standards (PPMS), the GPF (Global Programme Framework) Monitoring and Reporting System, and Insight (a knowledge and information management system that will also automate much of the data collection and analysis required by the network for monitoring and reporting). The processes, systems, skills and culture in each WWF office should be developed to support sound results-based management.

These standards have all been in place since 2005 and they are updated periodically. They are rooted in a long history of project and programme planning and management in WWF, across other conservation organizations, and in other disciplines. They are not meant to be a rigid set of standards that every project must blindly follow, but rather a set of best practices that conservation practitioners can use to support their project. The Conservation Measures Partnership (CMP) ‘Open Standards’ provided an important foundation for the WWF Programme Standards.

The purpose of this module is to teach WWF staff how to apply Step 2 (Design) of the *WWF Programme Standards* to conservation projects - specifically, how to develop goals, identify strategies, define a theory of change about how they will lead to conservation, develop objectives, formulate monitoring plans, and develop operational plans. This step involves pulling together the 3 main components of a strategic plan: 1) Action plan, 2) Monitoring plan, and 3) Operational plan. Keep in mind that *the Standards* are a set of recommended practices – project teams are encouraged to follow

¹ The WWF Programme Standards materials are available through <https://sites.google.com/a/wwf.panda.org/ppms/>. The WWF Programme Standards Overview and guidance documents are also available externally at http://wwf.panda.org/what_we_do/how_we_work/programme_standards/

² Projects are the basic units of conservation work. A programme (as distinct from a portfolio of projects) is a group of jointly-managed, interdependent projects which together aim to achieve a common vision. In the interest of simplicity, this document uses the term “project” to represent both projects and programmes since these standards of practice are designed to apply equally well to both. ‘Conservation’ in WWF means all forms of programmatic work, so these standards should be applied by all projects, programmes, Global Initiatives, policy work and campaigns that are managed by Conservation/ Programmes departments.

³ Results-Based Management (RBM) is a management strategy or approach by which an organization ensures that its processes, products and services contribute to the achievement of clearly stated results. Results-based management provides a coherent framework for strategic planning and management by improving learning and accountability.

the guidelines and tools, but you may find that you need or wish to vary the order or how you apply some of the steps. What is important, however, is that you use a systematic and logical process for applying *the Standards*. For example, you should not identify your indicators (Step 2.3) before you have given thought to what you want to conserve or where ultimately you want to have an impact (Step 1.3). Likewise, if you are not able to address a particular component, you should be clear about how this will influence the rest of your work.

Learning Objectives

The learning objectives for this module are tied directly to the expected outputs recommended in Step 2 (Design) of the *WWF Programme Standards*. After completion of this module participants should be able to demonstrate their ability to apply the *WWF Programme Standards* to a real project by producing the following parts of a strategic plan:

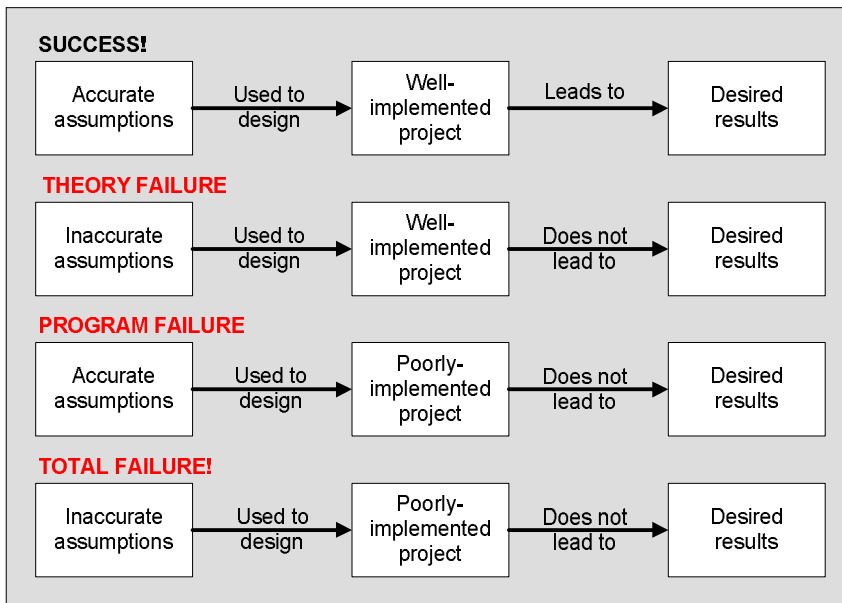
- A partially-developed action plan that includes:
 - Well-defined goals for all of your conservation targets
 - Well-defined objectives for at least a few critical threats and other factors that your project will address
 - The strategies you will take to achieve your goals and objectives
- Results chains and/ or other formal descriptions of the overarching theory of change and core assumptions underlying your strategies
- A partially-developed monitoring plan that includes:
 - The identification of your audiences and their information needs
 - A list of the indicators you will measure to track the effectiveness of each strategy
 - Brief descriptions of the methods for collecting data for each indicator
 - When, where, and by whom each kind of data will be collected, as well as a description of how the data will be stored and analyzed
- A partially developed operational plan (at least 2 of the following 4 components):
 - Human & other capacity requirements
 - Financial requirements
 - Risk assessment and mitigation strategy
 - Estimate of project lifespan, sustainability, and exit strategy

What Is Different about This Programme Management Process?

The *WWF Programme Standards* apply an adaptive management approach that helps project teams determine if their projects are on track, why they are on track or not, and what adjustments they need to make.

To be successful, a project must be based on both sound project assumptions (theory of change) and good implementation. Often, however, project teams are not explicit about the assumptions behind the strategies they choose. Consequently, when their projects do not produce desired results, the conclusion is often that the project team did not do a good job implementing the project strategies. As shown in Figure 1, however, projects may fail due to theory failure, even when the project team does an excellent job implementing the project activities. An adaptive management approach helps teams determine whether their project failures were due to poor theory, a poorly implemented project, or a combination of the two.

Figure 1. Necessary Ingredients for Project Success



In contrast to some planning processes, the adaptive management process proposed by the WWF Programme Standards is designed with project teams and managers as the primary audience – not an external donor or similar agency. The adaptive management process advocated by WWF, as well as some other leading conservation groups (e.g., The Nature Conservancy and the Conservation Measures Partnership), is designed to help these teams and managers plan, revisit, and continually improve their work. This should also help teams to respond well to any externally-imposed planning procedures, but that is not the primary aim. Adaptive management requires that project teams very explicitly identify the assumptions under which they are operating and then systematically test each assumption to see if it holds in their project context. This explicit and systematic testing of assumptions is the key facet of that helps project teams uncover the *why* behind their project successes and setbacks.

Structure

The focus of this module is on learning how to apply the guidelines and tools in Step 2 (Design) of the *WWF Programme Standards* to conservation projects. Except in rare cases, you should have completed the module for Step 1 (Define) before starting this module. The structure of the module follows the *WWF Programme Standards*. For each weekly episode, you will read the materials provided and complete the assignment. Ideally, you will apply each of the practical assignments to your own work or project. If you do not have a project, then you should find a project in your office that you can use with occasional advice from the Project Leader on any technical aspects you may be unsure of. However it is worth emphasising here that the exercises in this module will focus on the process of applying the PPMS tools rather than the technical accuracy of the outputs.

If you wish, you can compile your assignments into a strategic plan template, available here: <https://sites.google.com/a/wwf.panda.org/ppms-online-modules/key-documents>. This template is an optional tool for compiling and organizing the work from your assignments – you are not required to use it.

You may also use Miradi Adaptive Management Software (download instructions here: <https://sites.google.com/a/wwf.panda.org/ppms/step0> for doing much of the planning steps outlined in

Step 1 (Define) and Step 2 (Design). If you have any questions, please refer them directly to your facilitator.

Outline of the Module

The outline of the weekly sessions of the module is as follows:

Getting Started and Step 2.1a: Goals (Week 1)

- Step 2.1a: Goals
- Assignment 1 - Developing Goals for Conservation Targets

Step 2.1b: Determining Strategies (Week 2)

- Step 2.1b: Determining Strategies
- Assignment 2 - Determine Strategies

Step 2.1c: Theory of Change and Results Chains (Week 3)*

- Step 2.1c: Results Chains
- Assignment 3 – Assemble Results Chains

Step 2.1d: Objectives and Activities (Week 4)

- Step 2.1d: Objectives and Activities
- Assignment 4 – Identifying Objectives and Activities

Step 2.2: Monitoring Plan (Week 5)

- Step 2.2a: Audience(s) and information needs
- Step 2.2b: Indicators and Monitoring Methods
- Step 2.2c: Monitoring Plan
- Assignment 5 - Selecting Indicators and Methods; Developing a Monitoring Plan

Step 2.3: Overview of the Operational Plan (Week 6)

- Step 2.3a: Operational Plan – Financial Requirements
- Step 2.3b: Operational Plan – Human and Other Capacity Requirements
- Step 2.3c: Operational Plan – Risk Assessment and Mitigation Strategy
- Step 2.3d: Operational Plan – Estimate of Project Lifespan, Sustainability, and Exit Strategy
- Assignment 6 – Develop part of an operational plan

** The material covered and the assignments for these weeks are more complex and time-consuming than the material and assignments for other weeks. You should review these sections ahead of time and make sure you plan accordingly so that you can hand in your assignments on time.*

Facilitation and Assessment

Assignments for a certain week should ideally be handed in by the Friday of that same week. The facilitator will review your assignments as soon as possible, preferably within three working days. If you will be late with your assignment, please communicate this with your facilitator and make arrangements that will work for both of you. Also, please directly communicate problems or absences to the facilitator (with copy to cspu-training@wwfint.org). The facilitators will also be responsible for informing participants of any change to their availability. We encourage everybody to exchange email addresses and skype addresses (if possible) with your facilitator so that easy and quick communication is ensured.

Because each assignment builds off previous assignments, please wait for feedback on each assignment before turning in the assignment for the following week. If you are unable to do this or prefer a different arrangement, please discuss this directly with your facilitator.

Remember that your facilitator is available to answer questions and to help you think through situations you are facing. If you run into a challenge applying the *WWF Programme Standards* to your situation, you should consult your facilitator for advice on how to proceed. We wish you a lot of success for completing your course!

Where to Direct Questions

Please contact your facilitator for:

- Technical and content questions related to applying the Programme Standards
- Communicating absences and arranging alternative dates for assignments.

Please contact Mr Gilles Guignard at WWF-Intl - CSPU (cspu-training@wwfint.org) for:

- Questions regarding accessing and using the PPMS Online Modules Google site and its functions
- Any administrative matters related to registration, payment, etc.

Getting Started and Step 2.1a: Goals (Week 1)

Structure for Week 1. In this week you will:

- Read Overview of an Action Plan, Introduction to Goals, How to Develop Goals, and Examples of Goals
- Hand in Assignment 1

Continuing Your Work from the Previous Module

In this Module, we also strongly encourage you to continue with the project that you started developing in the Define module. If for some reason you don't have the same facilitator as for the Define module, please send him/her all your Define assignments in order that he/she better understands the context of your project.

If you did not select a project for the Define module or if for some reason you need to change, then please contact your facilitator.

Overview of an Action Plan

An action plan is a document that describes what you are trying to achieve and how you plan to achieve this. It should include:

- A summary of your goals, objectives and strategies/ activities.
- An explanation of why you selected these strategies.
- Formal descriptions of your overarching theory of change and any core assumptions

Ideally, your action plan will include the background thinking that helped you set these goals and objectives and choose your strategies. So, a complete action plan should reference and be closely related to your analysis of context and stakeholders (including your conceptual model), and should include any other background material that helps convey what your project will do and why.

Your action plan is a core component of your strategic plan – one that provides the foundation for two other key components (monitoring plan and operational plan).

Box 1. Components of a *Strategic Plan*

The components of a Strategic Plan can be summarized as being the products from Steps 1 and 2 of the project cycle.

Products from Step 1

- Scope and Vision
- Targets
- Analysis of Context and Stakeholders (including conceptual model and prioritized threats)

Products from Step 2

- Action Plan (goals, objectives, strategies and assumptions)
- Monitoring Plan
- Operational Plan

It is important to spend time upfront developing your action plan because well defined goals and objectives provide an explicit and shared understanding of your project and keep your project team members focused on what you ultimately want to achieve. Without such an action plan, it is far too

easy to get side-tracked by other opportunities that do not directly contribute to what your project is designed to achieve. A sound action plan that includes well defined goals and objectives also focuses monitoring efforts. In addition, methods and tools for conducting monitoring are often much more complicated and sophisticated than need be. Well defined goals and objectives tell you exactly what you need to monitor and help you be more efficient with your project resources.

In the first 5 weeks of this module, you will learn about the various components of an action plan and some tools that will help you develop your action plan.

Introduction to Goals

Nearly everyone who has worked on a project or in an organization or company is very familiar with goals. The word “goal,” however, is one of those terms that is defined in different ways by different people, and is typically used very loosely. In the *WWF Programme Standards* it has a specific meaning and, when developed properly, a goal meets a specific set of criteria. The *WWF Programme Standards* define a **goal** as a specific statement detailing a desired impact of a project. A good goal should meet the criteria of being ‘**linked to targets and SMART**’ as follows:

- **Linked to Targets:** Directly associated with one or more of your conservation targets, representing the desired future status of the conservation target over the long-term.
- **Specific:** Clearly defined so that all people involved in the project have the same understanding of what the terms in the goal mean
- **Measurable:** Definable in relation to some standard scale (numbers, percentage, fractions, or all/nothing states)
- **Ambitious yet Achievable:** Describes a really significant aim that has a realistically possibility of being achieved.
- **Relevant:** Clearly related to the WWF’s mission and priorities, and the priorities of other organisations and stakeholders.
- **Time Limited:** Achievable within a specific period of time, generally 10 or more years

You may wonder why it is necessary to be so strict about how a goal is defined and whether it meets the above criteria. A well-defined goal ensures that your project team has an explicit and shared understanding of the project and what you ultimately want to achieve. Consider, for instance, the following two fictitious goals for a watershed conservation project:

- Goal 1: Conserve riparian areas within the watershed’
- Goal 2: By 2020, all rivers and tributaries in the Clear River Watershed have forest coverage that extends at least 100 meters on both sides.

With Goal 1, you have a general understanding of what your project should try to do, but you aren’t really sure exactly how to narrow your focus or how you will know if you have conserved the riparian areas. In contrast, Goal 2 provides you and your project team with very specific conditions you must work to achieve. When it comes to determining whether you have achieved those conditions, what you need to measure is very clear.

Without well-defined goals, it is far too easy to get side-tracked by other opportunities that do not directly contribute to what your project is designed to achieve – everything seems (and often is) important, but time, money, and other resources limit what you can reasonably accomplish. Well defined goals also focus monitoring efforts. In many cases, project staff use a “fishing expedition” approach to monitoring, collecting as much information as they can without a clear idea of how they will use that information. If you look at the two goals above, with Goal 1, you might come up with an

extensive list of how you will measure if the watershed's forests are conserved. With Goal 2, it is clear that you just need to measure forest coverage along the rivers and tributaries.

Box 2. Common challenges when setting goals.

If your project has applied the 'Define' step in quite a thorough way such that you have a good understanding of scope, targets, context and stakeholders, you should be in a good position to set good goals. Nevertheless it is not an easy process, and it is worth being aware of some challenges that are commonly experienced when setting goals, such as the following:

Ambition and Achievability

You need to find a good balance between Ambition and Achievability. If your goals are not ambitious enough, you may struggle to inspire the team and stakeholders (including donors). On the other hand if your goals are too ambitious, you may set unrealistic expectations, or define goals that are, in practice, rather meaningless to the team for planning purposes.

Setting joint goals and contributing to higher-level goals

Sometimes it makes sense to set goals that are specific to your project. However it can often be helpful to combine your ambition with that of other projects and partners such that you set joint goals. For example, if your project is part of a larger programme, targets and goals may have already been defined at a broader or higher scale, in which case you could refer to them in your planning rather than creating new ones. Joint goals can be powerful, but then someone needs to take ownership of the goals in terms of gathering and using monitoring data for strategic purposes. Also the task of analysing and attributing impacts in relation to your particular project becomes more difficult.

Timeframe

The timeframe of the goals may be well beyond the timeframe of your current funded project. In this case you need to consider the actual period that the project would need to run (i.e. into further phases) in order to achieve the goals, or how you would monitor and evaluate the effectiveness and impact of the project beyond its end date.

Projects with a thematic scope

Goals are normally expected to be 'linked to targets'. However since targets are typically associated with biodiversity, it can be difficult for some thematic projects to set meaningful goals that are linked to biodiversity. In some cases it might be more meaningful to the project team to set 'goals' that are associated with a reduction in a threat or footprint element (although a purist might argue that these are objectives). As outlined in Step 1.3 Targets, such project should still define their desired 'ultimate impacts' on biodiversity – and consider whether any such impacts could be measured.

In summary...

Goals should be of strategic as well as communications value for the project; they are intended to be measured. But defining goals is almost always challenging and your goals are liable to be challenged by others; you need to be clear on the nature of the goals that you have set, their relationship to your project, and your reasons for setting them as you have.

How to Develop Goals

1. Choose one of your conservation targets and write a draft brief description of the desired future condition of that target

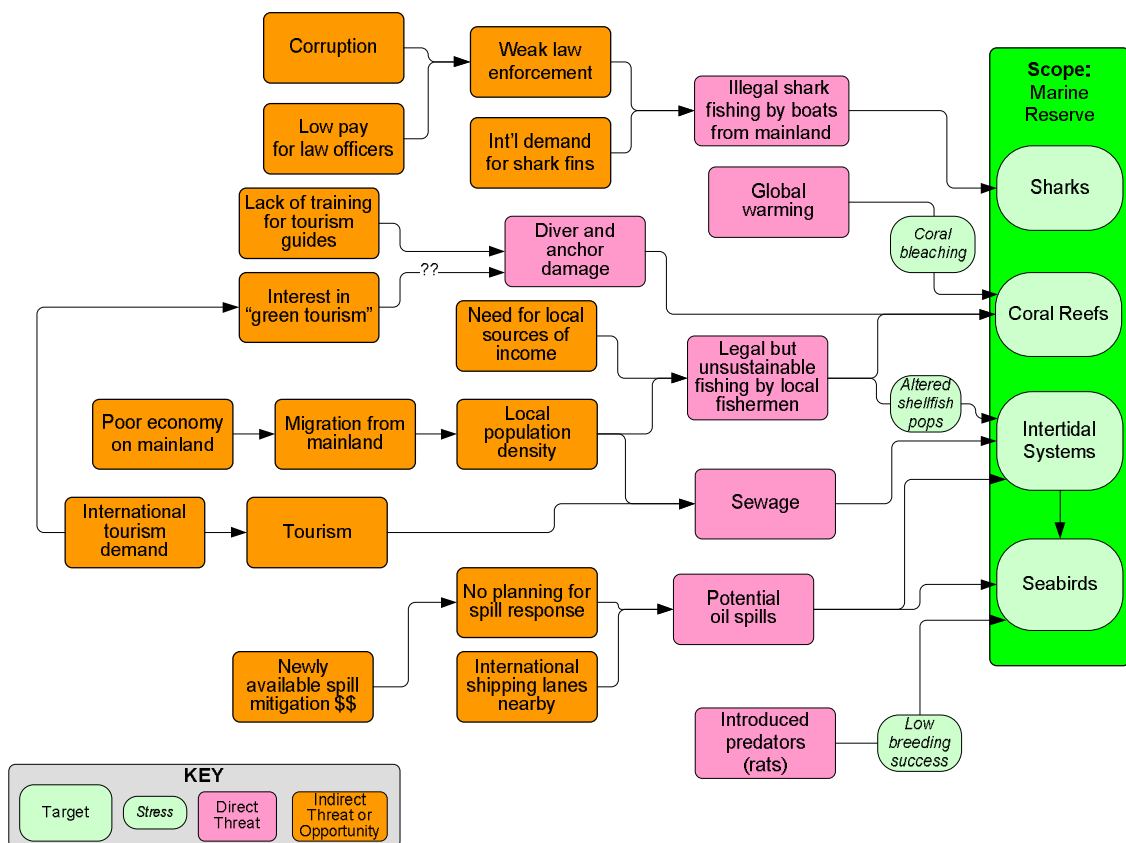
Working from your list of conservation targets and your conceptual model, choose one of your conservation targets and write a draft description of the desired condition of that target. Don't worry about complying with all of the criteria yet. If you are working at a Marine Reserve site (see Figure 2), one of your targets might be coral reefs. You might develop a draft statement that reads:

Coral reef habitat preserved in the Marine Reserve

Note that this draft goal meets the criterion of "linked to targets" because it specifies what it wants for the coral reef target. A common error for setting goals is to link the goal to a threat rather than a target – for instance, "Stop all sea cucumber harvesting in the Marine Reserve" or "Divers do not stand on or touch coral reefs in the Marine Reserve." Both of these statements are linked to a direct threat to the coral reef target and not to the condition of the target itself.

Having said this, for projects with a thematic scope, you might consider that it is much more relevant to set a goal that is related to footprint/ threat reduction. As outlined in Step 1.3 Targets, such projects should still define their desired 'ultimate impacts' on biodiversity and consider the nature of the relationship between the project and those impacts i.e. could a meaningful or useful goal be set that is related to biodiversity?

Figure 2. Example of a Marine Reserve Conceptual Model



2. Review the criteria for a good goal and determine whether your goal meets the criteria

Take your draft statement and go through your criteria, one by one. Working off of the example above, your project team should ask itself:

- Is it **linked to a target**? Yes, it is linked to the coral reef target.
- Is it **specific**? No, it is not clear what is meant by “preserved.” Also, it does not say what part of the coral reef is of concern.
- Is it **measurable**? No, it is not clear how you would measure “preserved.” There is not a relation to a standard scale.
- Is **ambitious** yet **achievable**? We cannot tell as it is not specific.
- Is it **relevant**? Probably yes. it states that you want the habitat preserved, which sounds relevant to WWF’s mission, although it is not clear what is meant by “preserved” or whether this would be relevant to others.
- Is it **time limited**? No, the goal statement does not specify a time period.

3. Modify your draft goal as needed to make sure it complies with the criteria for a good goal.

For this example, you would need to work on making it more measurable, time-limited, and specific. Your second draft might read:

By 2020, the coral reef habitat is ecologically functioning and contains healthy populations of key species.

This new draft goal is time limited and slightly more specific and measurable.

4. Repeat steps 2 and 3, as needed

Although the new draft goal is getting closer to meeting the criteria, it could be made more specific and measurable by stating what part of the coral reef is of concern and what is meant by “ecologically functioning” and “health populations of key species.” Your third draft might read:

By 2015, at least 80% of the coral reef habitat in the northern bioregion and 60% in the western bioregion are ecologically functioning and contain healthy populations of key species***

** Ecologically functioning = will have live coral coverage of at least 80% and contain a representative diversity of coral species*

*** Healthy populations of species at the top of the food chain, such as sharks, and an abundance of other key species, such as lobster, black coral, etc. Whether a population is “healthy” will be based on the latest scientific understanding. Project team to work with university scientists to define this.*

As this example shows, you may have some terms in your goal statement that you need to define better. You can do this with an asterisk and a note, if including it within the text of your goal would make the goal difficult to understand. You may also have some uncertainties at the time you define your goal. This is fine, as long as you have a plan for how you will find the information you need to clear them up.

5. Repeat steps 1 through 4 for each of your remaining targets.

Take each of your remaining targets and develop draft goals, review your criteria, and refine them as needed.

Examples of Goals

Working off the conceptual model in Figure 2, here are examples of goals that meet and do not meet the criteria.

Target: Intertidal zones

Example of a poorly-defined goal: By 2020, sewage loads to the intertidal zone of the Marine Reserve have decreased by 50%

Review your criteria to determine why this is not a well-defined goal. (See footnote⁴ for the answer.)

Example of a well-defined goal: By 2020, at least 80% of the Marine Reserve’s intertidal zone supports healthy populations* of cormorants, marine iguanas, chitons, and bivalves

*Healthy populations will be defined by the latest scientific data for the region

Review your criteria and make sure you agree that this is a well-defined goal.

Target: Seabirds

Example of a poorly-defined goal: By 2025, penguins at the Marine Reserve are healthy

Review your criteria to determine why this is not a well-defined goal. (See footnote⁵ for the answer.)

⁴ The goal is not linked to the intertidal zones target but rather to the threat of sewage loads.

⁵ The goal is not specific or measurable. It does not indicate what is meant by “healthy” nor does it give an indication of how many penguins would have to be healthy for the team to meet its goal. Would one healthy penguin be sufficient for the team to meet its goal?

Example of a well-defined goal: By 2020, at least 100 pairs of nesting penguins are successfully reproducing at the Marine Reserve, leaving 2 eggs per clutch every year.

Review your criteria and make sure you agree that this is a well-defined goal.

Some References

WWF. 2006. Step 2.1 Design Action Plan: Goals, Objectives, & Activities. Resources for Implementing the WWF Project & Programme Standards. Available at www.panda.org/standards and <https://sites.google.com/a/wwf.panda.org/ppms/step2>

Assignment 1 – Developing Goals for Conservation targets

Part A: Identifying Goals That Meet *the Standards* Criteria

- For each of the following goals, apply the criteria for good goals and determine whether each statement meets the criteria. For each goal explain why or why not.
 - **Conservation target: High-value timber species**
Goal: By 2018, selective logging of high value timber species decreases by 75%
 - **Conservation target: Jaguars**
Goal: To develop a jaguar protection program that ensures that jaguars have sufficient habitat to meet their ecological needs
 - **Conservation target: Native grasslands**
Goal: Within 15 years of the start of the project, native grassland coverage is re-established to its documented historic range across the site
 - **Conservation target: Migratory fish**
Goal: By 2025, the Blue River mainstem and its associated tributaries are considered ecologically healthy and functioning, according to *the Standards* defined by the Blue River Conservation Consortium.

Part B: Developing Goals for Conservation targets

- For your project, develop one goal for each of your conservation targets. Follow the steps described in this section.
- If you are missing any information to adequately define your goals, be sure to note this and explain how you intend to fill the information gap.
- If you used Miradi Adaptive Management software (see Box 1) in the Define module, you may continue to use it for this and subsequent assignments in the Design module. Use of Miradi is optional – you may find it to be a useful tool, but you are not required to use it for any of your assignments. If you have any questions or concerns, please discuss them directly with your facilitator.
- Briefly describe (1-2 paragraphs) your observations about the process of developing goals.

Hand in your assignment as “Assignment 1” by posting your document on the PPMS Online Modules Google site.

Box 3. Miradi Adaptive Management Software

Miradi, which means "project" in the Sub-Saharan African language of Swahili, is a software program under development that will help conservation project teams implement an adaptive management process such as that supported by the *WWF Standards*. Based on the Conservation Measures Partnership's [Open Standards for the Practice of Conservation](http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP_Open_Standards_Version_2.0.pdf) (http://www.conservationmeasures.org/wp-content/uploads/2010/04/CMP_Open_Standards_Version_2.0.pdf), Miradi guides conservation practitioners through a series of step-by-step interview wizards. As practitioners go through these steps, Miradi helps them to define their project scope, and design conceptual models and spatial maps of their project site. The software also helps teams to prioritize threats, develop objectives and actions, and select monitoring indicators to assess the effectiveness of their strategies. Miradi is being developed by the [Conservation Measures Partnership](http://www.conservationmeasures.org/CMP/) (CMP - <http://www.conservationmeasures.org/CMP/>), a consortium of leading nature conservation organizations, and [Benetech](http://www.benetech.org/environment/index.shtml) (<http://www.benetech.org/environment/index.shtml>), a nonprofit technology development organization.

Miradi is free to all WWF staff and partners. Download instructions can be found here: <https://sites.google.com/a/wwf.panda.org/ppms/step0>. If you wish, you may use it for the assignments in the Step 1 Define and Step 2 Design modules.

Step 2.1b Determining Strategies (Week 2)

Structure for Week 2. In this week you will:

- Read Introduction to Determining Strategies, How to Determine Strategies, and Examples of Strategies.
- Hand in Assignment 2

Introduction to Determining Strategies

All too often, project teams develop their conservation projects based on what they know how to do. For example, if the organization has skills in environmental education, it will do an environmental education project. Or if there are team members who have experience running alternative livelihoods projects, they might do a non-timber forest products income generation project. While this might seem like a good idea, the problem with such an approach is that it is driven by the supply of skills and expertise available rather than by what the project really needs in order for conservation to happen. In the online learning module for Step 1 (Define), you developed a conceptual model that portrayed your project situation, including the scope, where you want to have an impact (your conservation targets), the main direct threats/ factors affecting your targets, and the factors (indirect threats, drivers and opportunities) that are driving your direct threats. For the project illustrated in Figure 2, for example, it would probably not make sense to use environmental education as a strategy because lack of environmental awareness is not a factor that the project team identified as

Box 4. Clarifying Direct Threats, Factors, Intervention Points, and Strategies

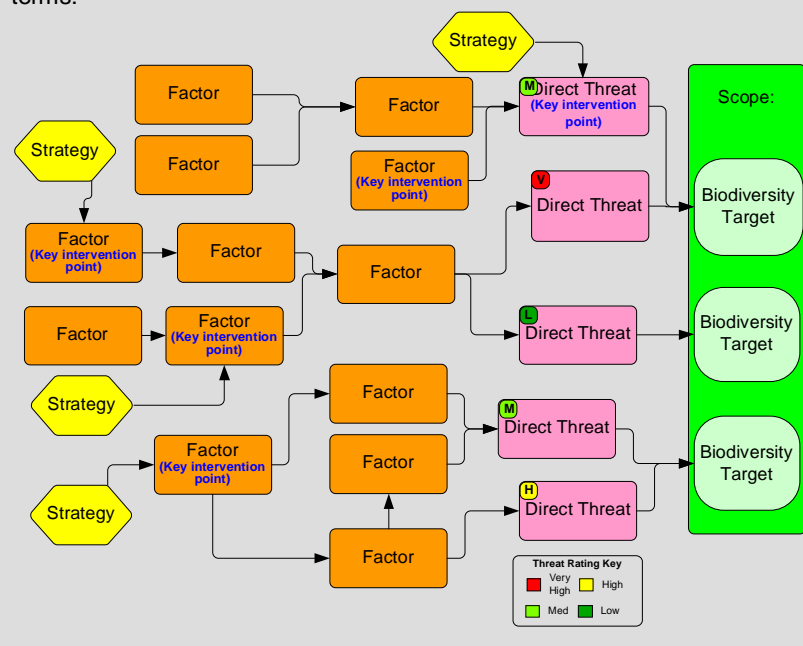
Direct Threat: A human action that immediately degrades one or more conservation targets. For example, “logging” or “fishing.”

Factor: A generic term for an element of a **conceptual model (and/ or situation analysis)** that includes targets, direct and indirect threats/ drivers, and opportunities. It is often advantageous to use this generic term since many factors – for example tourism – could be both a threat and an opportunity.

Key Intervention Point: A factor (indirect threat, opportunity, direct threat, or target) in your **conceptual model/ situation analysis** where you could develop a strategy to ultimately improve the condition of one or more targets.

Strategies: A broad course of action that includes one or more activities, and which is intended to accomplish one or more objectives. Strategies are generally developed at key intervention points, although, because of limited resources, you will not always be able to develop a strategy for all key intervention points.

The following generic conceptual model illustrates the relationship of these terms:



influencing what is happening at the site.

True strategic planning involves using your analysis of context and stakeholders (illustrated in your conceptual model) to determine where you will intervene – and also where you will not. The first decision that you have to make in determining your intervention points is to prioritize where in your conceptual model you need to take action. Fortunately, you have already done most of this work in the previous step – to conserve your conservation targets, you need to either directly restore them or to counter the critical threats to them. In some cases, the most obvious intervention point is the direct threat itself. But in many other cases, you get more leverage if you use social, political, economic, or other livelihood strategies to intervene on some of the indirect threats and opportunities affecting the direct threat – on the chain of factors affecting each direct threat.

Once you have selected where you will intervene, in some project situations, it should be obvious which strategy makes the most sense. In many other situations, however, you may need to brainstorm a list of options and then select which one makes the most sense (one good source to browse for ideas of different strategies is the IUCN-CMP Taxonomy of Conservation Actions, available through www.conservationmeasures.org).

How to Determine Strategies

- 1. Using your conceptual model, for each high ranked threat, think about what you need to do to counter this threat. Then isolate the chain of factors affecting this threat and brainstorm intervention points and strategies that you could use to influence this chain. If necessary, you may have to expand this chain.**

Select one of your high ranked threats (ideally a relatively simple one to start with). Think about what you need to do to change this threat. Isolate the chain of factors leading up to this threat as shown in Figure 3. Use these key factors and the stakeholder analysis you developed in Module 1, Step 1.4 to help you brainstorm strategies that you could potentially use at various intervention points along this chain. In our marine example, you might choose to brainstorm strategies related to illegal shark fishing. On the demand side, if you were to review your stakeholder analysis, you would see that this demand is driven by four different stakeholder groups (companies that purchase shark fins, companies that sell them wholesale, the restaurants that serve them to the consumers, and the consumers themselves). So, you could potentially intervene by trying to restrict exports from your country, or by working to reduce demand in Asian markets (Figure 4). Alternatively, you could also work to improve law enforcement to try to directly stop the illegal fishing. The key here is to not limit your thinking, but to try to quickly brainstorm as many ideas as you can. Be as creative as possible and try not to limit yourself to the 'business as usual' strategies. If necessary, you may have to add some detail to this chain to show the relationships.

Figure 3. Isolating a Chain of Factors Affecting a Direct Threat and Possible Strategies

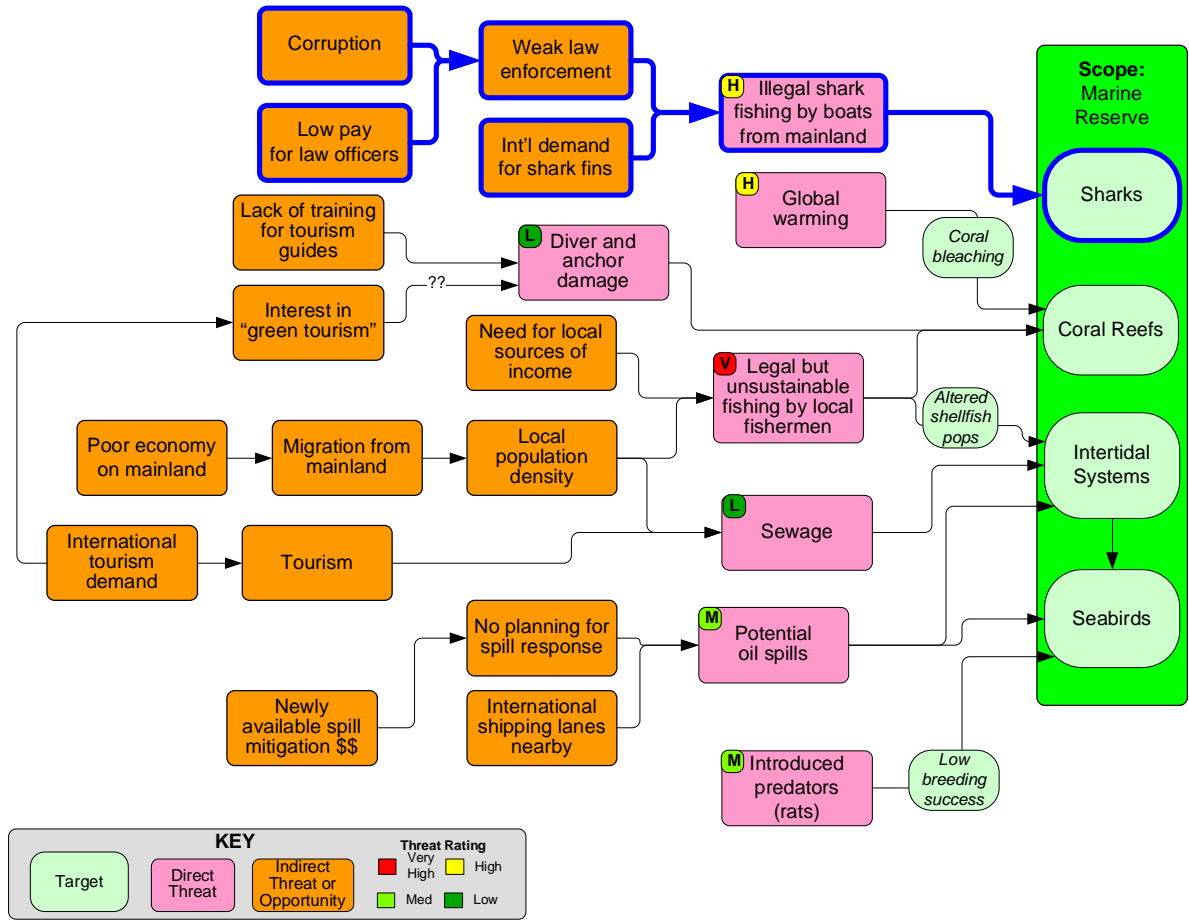
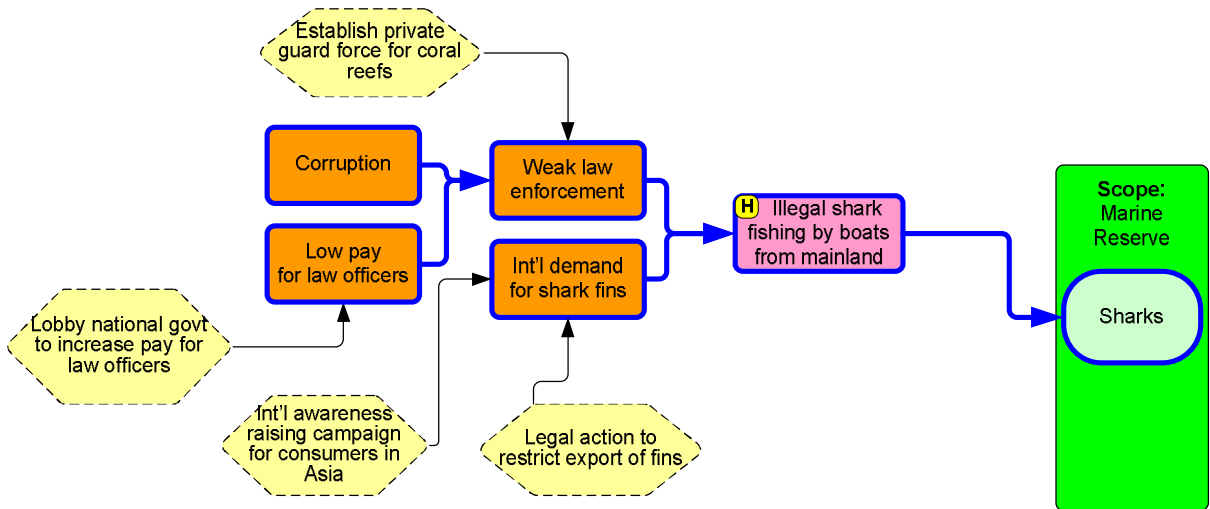


Figure 4. Brainstorm of Strategies Related to Chain of Factors



2. Repeat steps 1 & 2 for your other high ranked threats

Return to your conceptual model and brainstorm potential strategies for other threats and/or targets in need of restoration

3. Assess the strategies for all high-ranked threats

You should now have a list of strategies for addressing the higher-ranked threats at your project. This list will likely have more strategies than what you can realistically address with your project. At this point, it may be helpful to be more formal about your strategy selection. Depending upon your project's needs, you could narrow down the strategies through a discussion with your team, or you could do an assessment exercise to help you choose your strategies. Both approaches have their pros and cons. A discussion with your team will be quicker and more efficient and will allow you to move more quickly to the implementation stage. A more formal assessment process, on the other hand, will help your team more objectively consider and choose from the different strategies.

Whether you do a formal assessment or have a less formal discussion with your team, your analysis should include the following criteria:

- **Likelihood the strategy will be successful:** The extent to which the strategy under consideration is likely to be successful in countering the direct threat. While we all hope that the interventions we choose will be successful, some problems are so large or pervasive that it is often unrealistic to expect to change them. For instance, in the model in Figure 2, corruption might be an important factor to address, but your team would have to ask itself whether it is really likely that a strategy you select would be successful in resolving the pervasive problem of corruption. You also may run into a situation where your strategy could be successful under certain conditions, but the actual current social, cultural, political, or economic conditions are not favourable for allowing that strategy to be successful. *(Note: This is a very important criterion; it may be worth giving it extra weight and importance in the overall ranking.)*
- **Feasibility of strategy:** The extent to which your project team has or can easily access the skills and resources (political, financial, and human) needed to carry out this strategy. If everything else is equal, or close to it, you should only consider interventions where you have or can access the necessary skills and resources to make that intervention happen. Sometimes, those skills may be outside of your core team and may require you to form or draw upon partnerships. That is fine, as long as you can reliably access those skills.
- **Cost of strategy:** The financial cost of carrying out the strategy. Even if skills and resources are available, you want to use them wisely. Sometimes, you can choose a strategy that has a much lower cost but will yield the same or nearly the same results. If you can save money on your strategies, that will free up resources for you to be able to undertake other strategies. *(Note: Be careful, this is an inverse ranking where the lowest cost receives the highest score and vice-versa)*
- **Niche/gap the strategy would fill;** The extent to which your strategy fills a gap not being addressed by another project. You may find that you have the perfect strategy to address a particular threat, but someone else is already effectively working on that strategy. If this is the case, you need to consider whether your resources would be better spent implementing a different strategy or addressing a factor where nothing is currently being done, or whether you could support the work that is already happening. You ideally want to choose intervention points where you can bring the most value-added for conservation in general. This may mean

filling a gap by implementing an entirely new strategy or filling a gap by providing additional resources to an existing strategy implemented by another group or project.

There are many ways you could do a strategy assessment. As you did with the threat ranking exercise, you could do an absolute or a relative ranking. An absolute ranking would assign a numeric value between 1 and 4 to each criterion, whereas a relative ranking would involve comparing each strategy to the others under consideration and assigning them numbers accordingly (e.g., if you have 6 strategies, the strategy that costs the least would get a 6 and the strategy that costs the most would receive a 1 – for more details on absolute and relative ranking systems, see Module 1, Threat Ranking).

4. Analyze your results and choose your strategies

When doing any assessment, it is important not to just look at the total numbers to make your decisions – you will have to look at all the criteria and think about your project situation. Use your knowledge to inform your analysis and final decision-making and remember that strategy assessment is merely a tool to help you narrow down your options. In particular it is important to look out for strategies that ‘fail’ one or more of the criteria, for example, strategies that are not at all feasible, are unlikely to reduce the threat, are prohibitively expensive, etc. Once you have eliminated these strategies, select as many of the remaining strategies as you feel are necessary to address the direct threats. This may be just one of the strategies, or may be several. When doing so, be sure to keep an eye on the overall cost and feasibility of the portfolio of strategies you are choosing.

Examples of Strategies

If we return to our Marine Reserve example (Figure 2), the project team had a variety of strategies it could consider. Its initial brainstorming might have included the following strategies:

Table 1. Initial Brainstorm of Strategies for Marine Reserve

Strategy	To address factor:	To reduce direct threat of:
Strengthen capacity of park guards to enforce laws for boat captains and boat owners	Weak law enforcement	Illegal shark fishing by boats from mainland
Awareness raising campaign to educate companies and restaurants about the ecological impacts of shark fin fishing	International demand for shark fins	Illegal shark fishing by boats from mainland
International media campaign to reduce consumer consumption of shark fin soup in key markets in Asia	International demand for shark fins	Illegal shark fishing by boats from mainland
Promotion of sustainable open-ocean fishing techniques to artisanal fishermen	Need for local sources of income	Legal but unsustainable fishing by local fishermen
Influence policy to limit migration to Marine Reserve site	Migration from mainland	Legal but unsustainable fishing by local fishermen
Lobby shipping industry and government ministries to redirect international shipping routes	International shipping lanes nearby	Potential oil spills
Promote spill mitigation techniques	Newly available spill mitigation money	Potential oil spills

This list is fairly long, and it is unlikely that one project would be able to implement all these strategies, so it’s now necessary to apply a more formal assessment process and a broader range of criteria to

be able to choose those strategies most appropriate for the site. The following table shows an assessment of the strategies under consideration:

Table 2. Assessment of Strategies for Marine Reserve

Strategy	Likelihood of Success	Feasibility	Cost	Niche/ Gap	Total
Strengthen capacity of park guards to enforce laws for boat captains and boat owners	5	3	1	1	10
Awareness raising campaign to educate companies and restaurants about the ecological impacts of shark fin fishing	3	7	4	2	16
International media campaign to reduce consumer consumption of shark fin soup in key markets in Asia	4	6	3	3	16
Promotion of sustainable open-ocean fishing techniques to artisanal fishermen	7	5	6	6	24
Influence policy to limit migration to Marine Reserve site	2	2	5	5	14
Lobby shipping industry and government ministries to redirect international shipping routes	1	1	2	4	8
Promote spill mitigation techniques	6	4	7	7	24
Total	28	28	28	28	

In this case, the team can easily see that the promotion of sustainable open-ocean fishing techniques and the promotion of spill mitigation techniques offer the greatest potential for their site. Other potentially useful strategies might be awareness raising and media campaigns directed at consumers of shark fin soup, as well as restaurants and companies that buy shark fins. The team can also easily see that lobbying the shipping industry and government ministries to redirect international shipping routes is not likely to be a good strategy – relative to the others that the project can consider (remember that all strategies here did make a first cut for feasibility and effectiveness, and the team is now comparing its available options). It is important to keep in mind that strategy assessment is just a tool to narrow down your strategies and that you should use your knowledge of your site to inform your analysis and final decision-making. For example, in the case above, the team might decide that, in addition to promoting sustainable open-ocean fishing techniques and promoting spill mitigation techniques, it needs to take on one more strategy. It would likely be choosing from three strategies – international media campaign, national awareness raising campaign, and influencing migration policy. Of these three, it may choose to take on the international media campaign to reduce shark fin soup consumption because it has strong ties to WWF China, and WWF China has been very successful in its awareness campaigns. Thus, it is important to bring your knowledge of your site and your circumstances to help you decide on a strategy. In some cases, you may pick a strategy that was assessed lower because there are other variables that you did not consider in your strategy ranking and those variables make the strategy more desirable for your project.

Box 5 Action Plans: tips to help achieve transformational and sustainable change

Many WWF programmes, especially at broader scale (e.g. large-scale landscapes and ecoregions), try to address multiple drivers of environmental change at local, subnational, national, and international levels. In such cases, it is important to develop strategies that are clearly linked or 'vertically-integrated', for example influencing behaviours, policy processes, and institutions at these multiple levels. WWF's diversity, global outreach, and international character give us unique potential to achieve such links and hence achieve 'transformational' results.

When building your action plan you should think not only about transformation but also about how you will go about the conservation process so that you can enhance the sustainability of your work over the long-term. Some suggestions for improving transformation and sustainability include:

Engage Stakeholders - Conservation strategies that are developed with key stakeholders and also deliver wider socioeconomic value to those stakeholders will be more readily adopted and are more likely to be sustainable. For more information on socioeconomic valuation see the Basics section on the [Biodiversity Economics website](#).

Select Strategic Partners - Engaging one or more strategic (influential) partners, typically from the public or private sector, can lead to bigger changes, especially where they derive significant benefit from being involved. They may also be willing to continue the project. For more on partnerships see [3.4 Partnerships and Partnership Management Arrangements](#).

Demonstrate Good Practices and link them to policy change – Real examples of successful projects or good practices provide models that can be adopted by other practitioners (for example, other NGOs, government agencies). Indeed it is crucial that a good demonstration is associated with a strategy for its wider adoption. Conversely, when linking between levels the creation of supportive policy at the national or international level allows strategies to be employed locally that would otherwise be very difficult. For more information see [Linking Policy and Practice](#).

Coordinate Advocacy, Communication, and Programme Work. A further dimension – communication – can be combined with field and policy/ advocacy actions to deliver achieve greater results. (For more on communications strategy, see [Conservation Strategies: Awareness and Communications](#). See also Advocacy and Lobby module from WWF College).

Consider other factors for sustainability

Note that in Step 2.3 you are asked to review the extent to which your project, through its design, has addressed various factors that will support or affect the sustainability of results. Amongst these factors is climate change.

Climate Adaptation strategies

Any potential climate adaptation strategies need to be weighed against other potential activities intended to address existing threats or drivers. Most of the necessary actions that a conservation project requires will be unaffected by climate change, but will have benefitted from ensuring that that is indeed the case. We want to avoid maladaptation at all costs. Pure adaptation measures tend to fall into three categories:

- No regrets strategies - activities intended to respond to existing climate effects and that will make targets more resilient to existing threats and future climate changes.
- Monitoring strategies - activities intended to gather more detailed information about either the climate itself or specific ecological elements in relation to climate effects.
- Hedging strategies - these are strategies that you are not ready to implement because they are drastic and/or expensive. Such strategies may need a trigger or threshold to prompt their implementation

Some References

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- IUCN & Conservation Measures Partnership. 2006. Classification of Conservation Actions. Available at <http://www.conservationmeasures.org/initiatives/threats-actions-taxonomies>.
- Parrish, Jeffrey D., David P. Braun, and Robert S. Unnasch. 2003. Are We Conserving What We Say We Are? Measuring Ecological Integrity within Protected Areas. *Bioscience* 53: 851-860.
- The Nature Conservancy. 2000. Five-S Handbook, Appendix D. Available from ConserveOnline (<http://conserveonline.org/workspaces/cbdgateway/cap/resources>). (Detailed guidance on strategy ranking, but may be more complex and complete than some project teams prefer)
- The Nature Conservancy. 2007. Develop Strategies: Objectives and Actions (CAP Basic Practice #6). Available from ConserveOnline, <http://conserveonline.org/workspaces/cbdgateway/cap/resources> .

Assignment 2 – Determine Strategies

- For one of your high-ranked threats, look at your conceptual model and isolate the chain of factors affecting this threat. If possible, extract the chain from your model and include it in your assignment. If this is not possible, write down the all factors that make up the chain.
- Brainstorm strategies and intervention points that could be used to address the threat. Be creative! Develop a table that shows the strategy, the factor it addresses, and the direct threat it should reduce (see Table A6 in the Examples of Strategies section).
- Repeat the above steps for one or two other high-ranked threats.
- Do an assessment of the strategies you have identified. Use the four criteria (Likelihood the strategy will be successful, Feasibility, Cost of the strategy, and Niche/gap the strategy would fill). Use a ranking matrix like Table A7 in the Examples of Strategies section.
- Choose the strategies you will work on and write a short paragraph about why you chose those strategies and, in particular, if you had to choose between two similarly ranked strategies, how you made that decision.
- Write a short summary of your observations about:
 - The process in general. Did the results surprise you? Were the results what you expected? Why or why not? Did you have any challenges in applying the ranking?
 - The advantages and disadvantages of using a ranking process to select strategies.

Hand in your assignment as “Assignment 2” by posting your document on the PPMS Online Modules Google site.

Step 2.1c Theory of Change and Results Chains (Week 3)

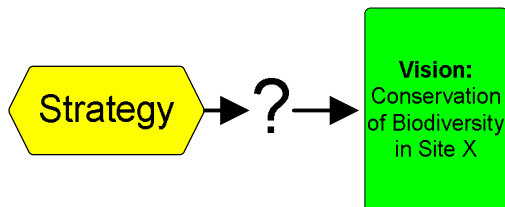
Structure for Week 3. In this week you will:

- Read Introduction to Results Chains, How to Develop Results Chains, and Examples of Results Chains
- Hand in Assignment 3

Introduction to Results Chains

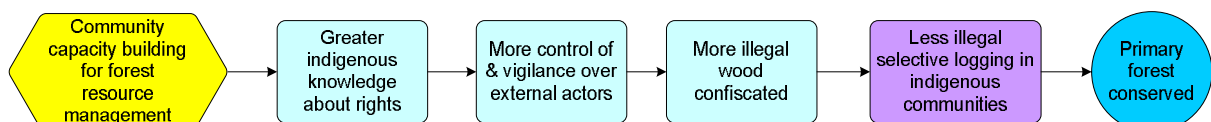
Often, project teams implement strategies that they believe will contribute to conserving the biodiversity at their site, but they do not formally state their assumptions about exactly how the strategy will lead to threat/ footprint reduction and biodiversity conservation. As shown in Figure 5, it is likely that they have many implicit assumptions about how their strategies will contribute to achieving conservation. At the same time, it is not uncommon for members from the same team to hold different assumptions that they have not communicated with one another. Because the assumptions are not explicit, the project team cannot test them and learn over time whether they are valid.

Figure 5. Implicit Assumptions



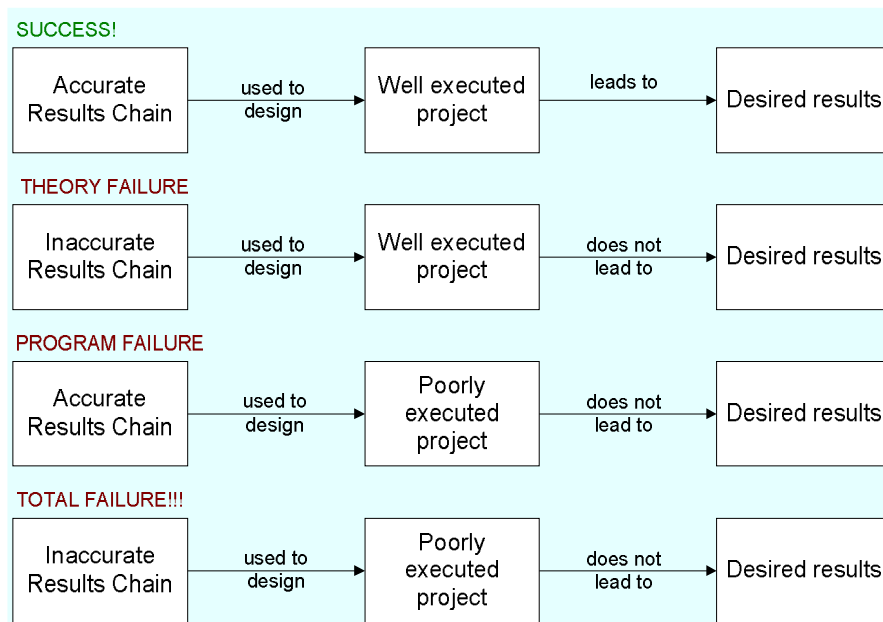
For example, a team may decide that they will help build community capacity for forest resource management and that this will decrease illegal logging in indigenous communities and conserve the state of primary forest in those communities. But, how will they know if that has happened? They may assume that stronger community capacity will increase community knowledge about their rights, and with these rights, they will exert more control and vigilance over external actors, including those responsible for the illegal logging. The team may also assume this control will result in more illegal wood confiscated and less illegal logging. It is quite likely, however, that they have not made each of their assumptions explicit – as in Figure 6 – and that they are not testing them. As such, they have no way of knowing whether their actions are contributing to less illegal logging and the conservation of primary forest. There are many points at which their logic could break down – for example, just because the community has greater knowledge about its rights does not mean that they will take the next step and exert more control over illegal loggers. Perhaps there are security concerns that would prevent them from taking action. Or maybe they are able to reduce the amount of illegal selective logging that happens, but the government has just designated a block of forest for clear cutting. So, the primary forest would still not be conserved.

Figure 6. Results Chain for Community Capacity Building for Forest Resource Management



To be successful, a project must be based on both sound project theory – preferably expressed via an accurate results chain with a supporting narrative – and good implementation. When a project does not produce desired results, people usually assume that the project team did not carry out the planned activities well enough. As shown in Figure 7, however, projects may fail due to theory failure, even when the project team does an excellent job implementing the project activities.

Figure 7. Necessary Ingredients for Project Success



A results chain is a tool that clarifies assumptions about how conservation strategies are believed to contribute to reducing threats and achieving the conservation of conservation targets. They are diagrams that map out a series of causal statements that link factors in an “if...then” fashion – for example, if an opportunity is taken or a threat is reduced, then a conservation target is enhanced. Some organizations use logic models, which are similar to results chains, but results chains tend to show more detail and more explicitly tie the results from one box to those in another. In some organizations, results chains are also termed “logic models.” The basis for a results chain comes from your conceptual model, but you will build on that model to make it more specific and to change the boxes from neutral factors to results you want to see. As shown in Figure 8, results chains are composed of a strategy, desired outcomes, and the ultimate impact that these results will have on the conservation target. A goal is a formal statement of a desired impact on a target, and an objective is a formal statement of a desired outcome (see Box 6 for a definition of results and other terms). As shown in Figure 9, a results chain is often derived from a chain in your conceptual model. Note, however, that a **conceptual model chain shows the world today whereas the results chain shows the desired future condition of the world.**

Figure 8. The Basic Components of a Results Chain

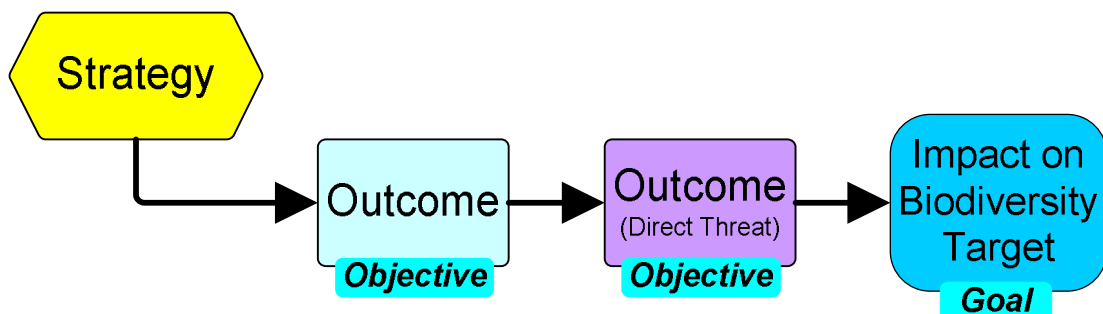
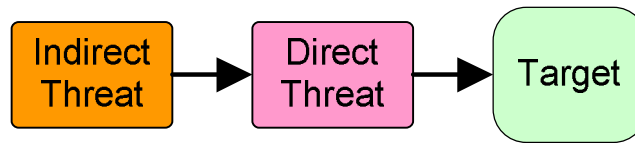
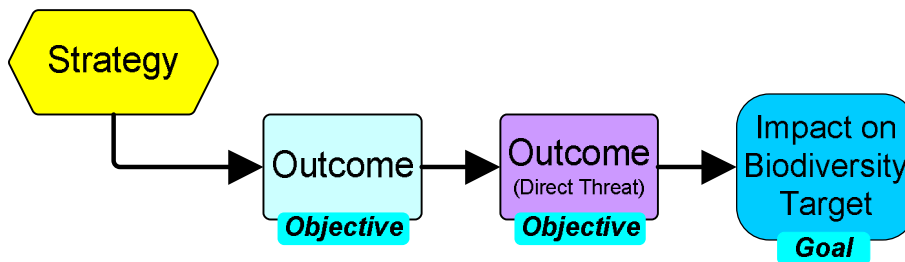


Figure 9. A Generic Depiction of Converting a Conceptual Model to a Results Chain

A chain from a conceptual model showing the “current state of the world”



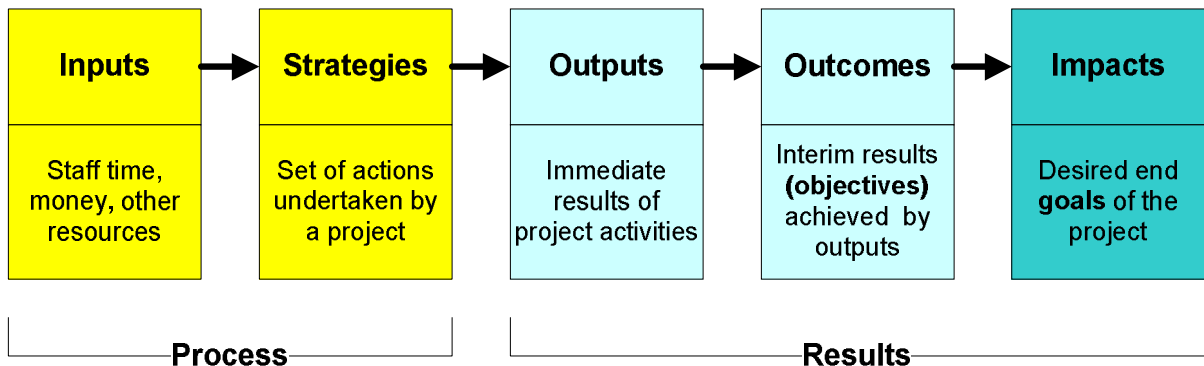
The same factors converted to a results chain showing the “desired future condition”



Note that the colours of the factors shift from orange, pink, and green to various shades of blue to indicate a shift from the “current state of the world” to the “desired future condition of the world.”

Box 6. An Overview of Terms Used to Describe Results

There is a great deal of confusion over the different terms used to describe the results of a project. What one person calls an “outcome,” another calls a “result,” and yet a third person calls an “impact.” The following figure shows the terms as they are most commonly used by evaluation experts in different fields such as development and public health.



Based on the above figure, the following terms can be defined for use in results chains in biodiversity conservation projects:

- **Impact** – The desired or actual future state of a target. A **goal** is a formal statement of a desired impact.
- **Outcome** – The desired or actual future state of a threat or opportunity factor. An **objective** is a formal statement of a desired outcome.
- **Output** – The desired product of an activity or task.
- **Strategies** – The actions (strategies) that a project implements.
- **Result** – A generic term used to describe the desired future state of a target or factor. Includes impacts, outcomes, and outputs.

The above terms refer primarily to a sequence of results in a logical sense. There is also a sequence of results in a temporal sense:

- **Final result** – The ultimate desired result over time.
- **Intermediate result** – A milestone along the way to that final result.

Box 7. Theory of Change and Results Chains

There is a significant literature on the subject of 'Theory of Change'. It is a useful term, but it is used in slightly different ways by different people and organisations. In general a Theory of Change is a narrative and/ or diagram that explains the underlying theory that links what you will do (your strategy) to what you want to achieve (long-term objectives and goals). It is often expressed in the form of a diagram such as a Results Chain that helps to make a project's specific assumptions explicitly clear, combined with a statement of an overarching approach or philosophy that the project considers to be 'true' (and for which there is good supporting evidence). Examples of theory of change statements include the following:

- CBNRM (Community Based Natural Resource Management): If people are given control over the management of their natural resources along with adequate support, they will manage those resources (more) sustainably.
- Linking Policy and Practice: If a policy is framework is developed at National level combined with on the ground examples of practice, this will lead to rapid magnification of project results.
- Participatory Processes: Innovation strategies are most likely to succeed when they are co-created by a multi-stakeholder process.

Identification of specific core assumptions helps a project to define or refine its goals, set objectives at the most 'impactful' points in the intervention logic, and focus monitoring around the core assumptions.

One other tip on Results Chains. For larger projects, it may be helpful to have a hierarchy of results chains, with one master chain that shows how the strategies link together, and more detailed chains for each strategy. Note that some practitioners like to work from relevant sections of their conceptual model, addressing each driving factor in turn – while others simply complete their chains and check back with the situation analysis/ conceptual model to see that all factors have been addressed.

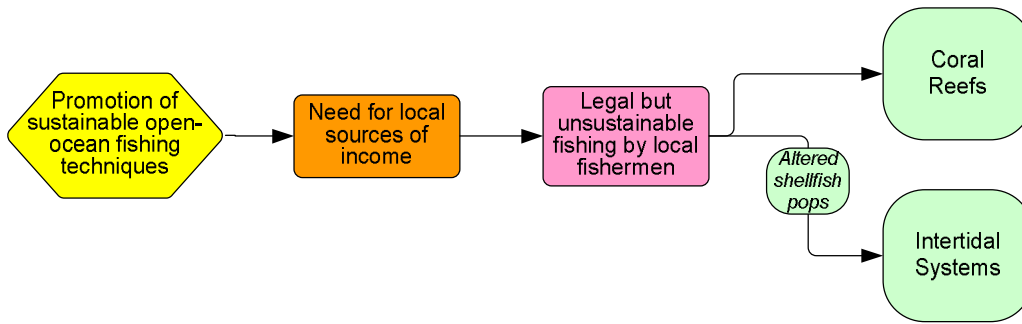
How to Develop Results Chains

The following outlines the basic steps for completing a results chain. In workshop settings, this process is best done using index cards and a sticky board or flipchart paper. The final product can then be captured using Miradi or another flow-charting software program such as MS Visio or PowerPoint.

1. Select one of the strategies you have already identified

Select one of the strategies that you identified in the previous step (ideally, start with a relatively simple one) and isolate the chain in your conceptual model connecting this strategy to the relevant conservation targets as shown in Figure 10.

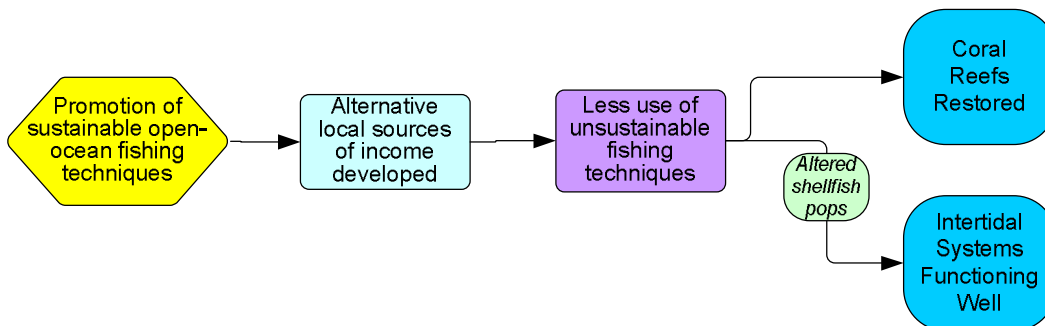
Figure 10. One Strategy from the Marine Reserve Conceptual Model



2. Construct an initial results chain based on your conceptual model

To develop a very simple (and probably incomplete) chain, you will just need to convert the factors from the conceptual model chain into results. Factors are neutral (e.g., government fisheries policies) or may be negative (e.g., weak institutional capacity), whereas results are stated as desired changes in these factors (e.g., strengthened capacity to enforce fisheries regulations). A very simple results chain based on our marine example is shown in Figure 11.

Figure 11. An Initial Results Chain Including the Factors from the Conceptual Model Converted into Results



3. Complete the links in the results chain

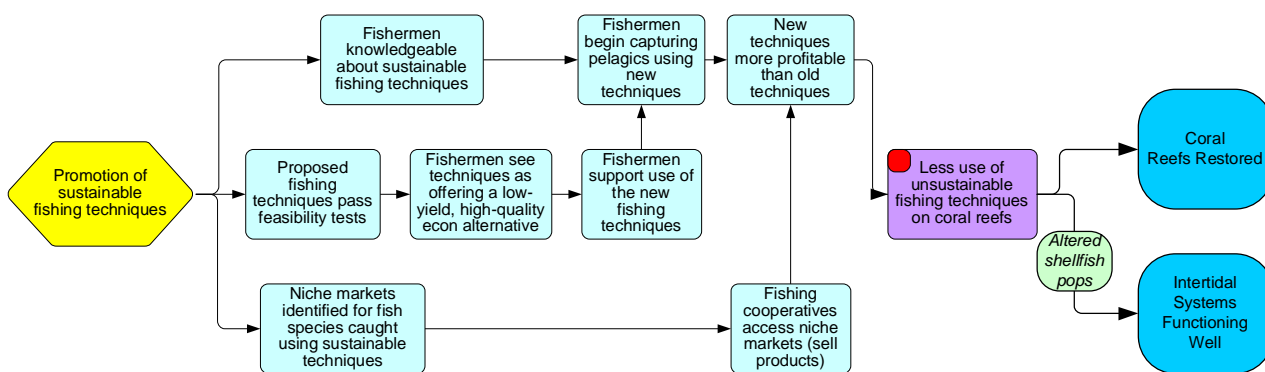
The next – and most difficult – step is to complete the results chain, adding all the intermediate results necessary to create clear, logical “if...then” linkages along the chain. There are several different ways to do this. One way is to work from the left to the right, asking what the immediate results or outcomes of the strategy should be, what intermediate outcomes they will produce, and what additional outcomes are necessary to reduce your threat. Another way is to work from right to left, asking what needs to happen to reduce the threat, what outcomes are needed to make that happen, etc. Yet another way is to brainstorm intermediate results and then organize them along the chain, assuring that there are clear “if...then” linkages between each pair of results.

As useful tip is to read the results chain out loud as a ‘story’, being sure to use the phrases “IF xxx happens, THEN by definition, yyyy will happen”. If you cannot be sure that the If-Then relationship will occur with certainty, then you probably need to add something to the results chain. You may also find it helpful to think of the results chain as a chain of dominoes. If the dominoes are lined up well, then a small push will topple them all the way to the end. If the gaps between the dominoes are too large, then they will not fall.

If you are developing a new strategy for a threat that you have not addressed in the past, we recommend building the chain from right to left, so that you are clear about what you need to accomplish to minimize the impact of this threat on your targets. For example, if you are beginning to address tourism infrastructure development as a threat to a coastal-marine system, then you'll need to determine if tourism infrastructure is degrading coastal ecosystems because it is not sited in appropriate areas (which could be addressed through better planning) or if the problem is that builders use coral, mangrove and other raw materials extracted from coastal and marine ecosystems to build the hotels (which would require the identification and promotion of alternative building materials). If, however, you understand the threat well and have a few years of experience applying a specific strategy, then it may be easier to build the chain from left to right.

As shown in Figure 12, the marine project team felt that there were three different aspects of the promotion of sustainable fishing techniques: training fishermen in new techniques for the capture, management and processing of fish so that they could produce high quality fisheries products; getting fishermen to support the use of these techniques and see them as equally profitable as or more profitable than their current techniques; and finding a market for high value, high quality pelagic fisheries products. They developed separate chains for each of these three parts of their strategy, but these chains come together and all contribute to fishermen using the new techniques and finding them to be more profitable than current techniques.

Figure 12. Complete Results Chain for the Promotion of Sustainable Fishing Techniques



4. Verify that your results chain meets the criteria of a good results chain

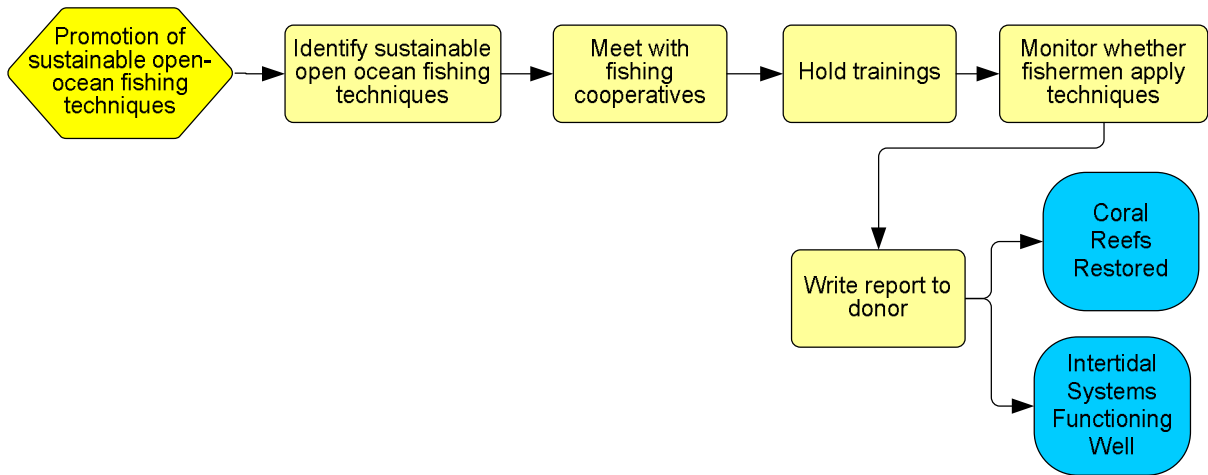
A good results chain should meet the following criteria:

- **Results oriented:** Boxes contain desired results (e.g., reduction of hunting), and not activities (e.g., conduct a study).
- **Causally linked:** There are clear “if...then” connections between successive boxes.
- **Demonstrates change:** Each box describes how you hope the relevant factor will change (e.g., improve, increase, or decrease).
- **Reasonably complete:** There are sufficient boxes to construct logical connections but not so many that the chain becomes overly complex.
- **Simple:** There is only one result per box.

For this step, you should review these criteria and make sure your results chain meets them. In particular, you want to make sure that your results chain is *results oriented*. A common mistake with developing results chains is to list all the activities that your team must undertake to implement your strategy (see Figure 13 for an example). This produces an *implementation* chain, not a results chain. An implementation chain does not show the causal logic that connects a strategy to a desired

conservation impact. As such, it does not provide you with an idea of the assumptions you need to test in order to know whether your strategy is working or not.

Figure 13. Example of an Implementation Chain

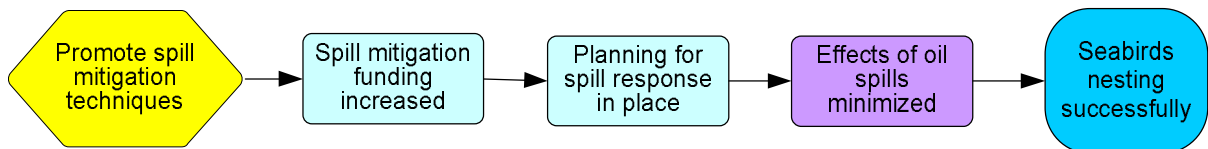


Examples of Results Chains

The following are fictitious examples of a good and a not-so-good results chain, based on the Marine Reserve site in Figure 2. They are designed to help you learn how to develop good results chains and critique chains developed by others, by using the criteria described earlier.

In this scenario, the project team decided to focus on the opportunity that oil spill mitigation money had become available and decided to promote spill mitigation techniques. The initial results chain they developed is as follows:

Figure 14. Initial Results Chain for Spill Mitigation Techniques



They then completed the results chain.

Figure 15 shows a well-developed results chain for this strategy, whereas Figure 16 shows a poorly-developed results chain. Review each of these figures and the criteria for a good results chain to determine why the chains do or do not meet them.

Figure 15. Example of a Well-Developed Results Chain for Spill Mitigation Techniques

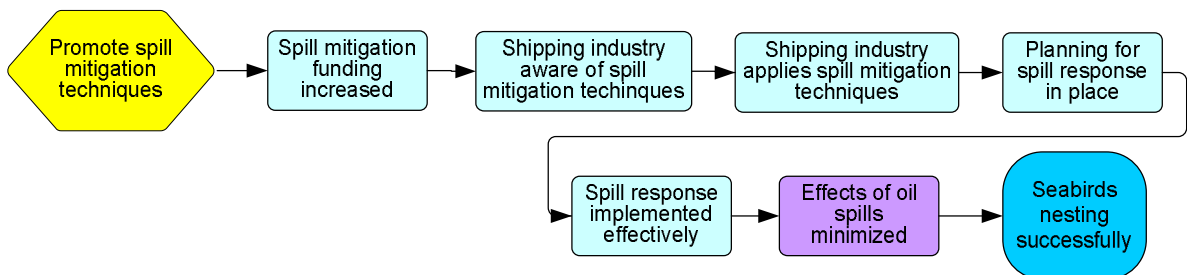
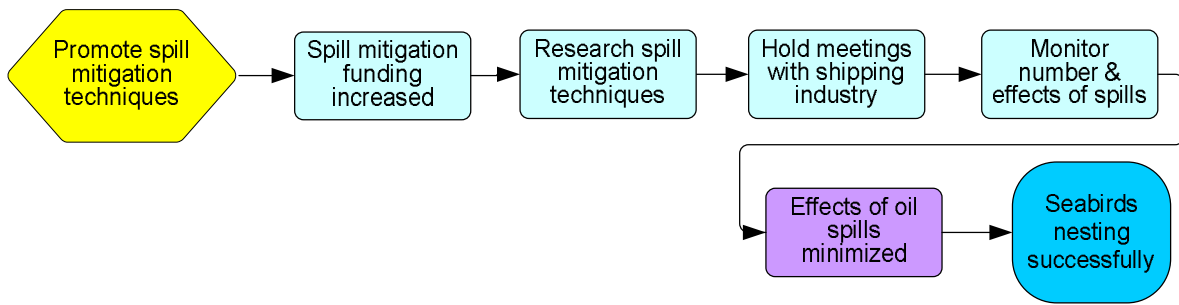


Figure 16. Example of a Poorly-Developed Results Chain for Spill Mitigation Techniques



Some References

WWF. 2005. Basic Guidance for Tools: Results Chains. Available at www.panda.org/standards and <https://sites.google.com/a/wwf.panda.org/ppms/step2>

W.K. Kellogg Foundation. Updated January 2004. Logic Model Development Guide: Using Logic Models to Bring Together Planning, Evaluation & Action. Battle Creek, Michigan. <http://www.wkkf.org/knowledge-center/publications-and-resources.aspx>

Assignment 3 – Assemble Results Chains

- Choose a strategy from your project and develop a results chain for this strategy following the steps for developing a results chain:
 1. Select the target and direct threat your strategy is supposed to address. Refer to your conceptual model and, if possible, use the threats and conservation targets in your model. You, however, may discover that the strategy you are using is not addressing any of the threats or targets in your model. While that might mean that the strategy is not an appropriate one, don't worry about that for the purposes of this exercise.
 2. Identify the strategy
 3. Construct an initial results chain based on your conceptual model – you can use Miradi or any other program that has a flow chart function e.g. MS Visio, PowerPoint, Word.
 4. Complete the links in the results chain
 5. Verify that your results chain meets the criteria for a good results chain
 6. Ensure that your results chain is not an implementation chain like those shown in Figure 13 and Figure 16.
- Repeat the steps for a second strategy
- Write up your observations about the exercise. Be sure to address the following points:
 - In light of the work you have done on your results chain, do you feel that the strategy you have chosen makes the most sense from a strategic point of view? Why or why not? If you look at your conceptual model again, are there other strategies you could choose that might give you greater results?
 - What do you see as the value of developing results chains? What are the drawbacks?

Hand in your assignment as Assignment 3 by posting your document on the PPMS Online Modules Google site.

Step 2.1d Objectives and Activities (Week 4)

Structure for Week 4. In this week you will:

- Read Introduction to Objectives, How to Develop Objectives, and Examples of Objectives
- Read Introduction to Activities, How to Develop Activities, and Examples of Activities
- Hand in Assignment 4

Introduction to Objectives

As with the word “goal,” the word “objective” is a familiar term to nearly everyone working on a project or in an organization. It is also a term that is typically used very loosely despite its very specific meaning. The *WWF Programme Standards* define an **objective** as a formal statement detailing a desired outcome of a project. A good objective meets the criteria of being ‘**outcome-oriented and SMART**’

- **Outcome Oriented** – Represents necessary changes in critical threats, opportunities, or other factors that affect one or more project goals
- **Specific** – Clearly defined so that all people involved in the project have the same understanding of what the terms in the objective mean
- **Measurable** – Definable in relation to some standard scale (numbers, percentage, fractions, or all/nothing states)
- **Achievable:** Practical and appropriate for the project context, and with a strongly possibility of being achieved.
- **Relevant:** Clearly related to delivery of the project goals, and the priorities of other organisations and stakeholders.
- **Time Limited** – Achievable within a specific period of time

Objectives are important because they set intermediate outcomes on the way to achieving the overall project goal – in other words, they help project teams know if they are making progress towards securing their conservation target.

It is important that objectives meet the above criteria because doing so ensures that the project team is explicit about what it wants and needs to achieve as it moves toward its final goal. Well-defined objectives also make it easier for the project team to know what it should be monitoring. Consider the following two fictitious objectives for a non-timber forest product (NTFP) strategy implemented through a tropical forest conservation project:

- Objective 1: Increase household income in the community
- Objective 2: By 2009, at least 50% of the households in the community will have increased their household income by 20% or more (relative to their 2006 household income) through the sale of locally-harvested NTFPs

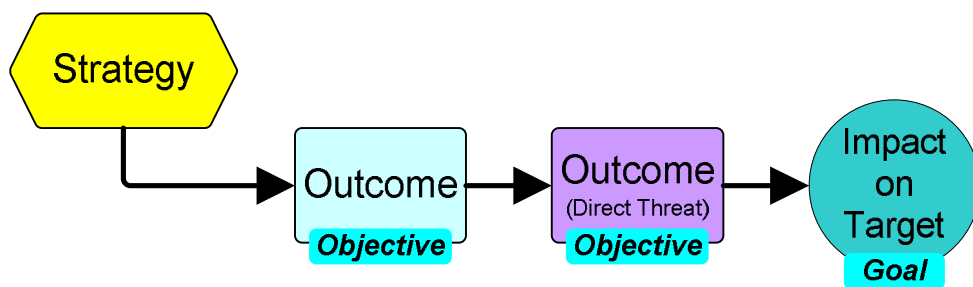
While, at first glance, Objective 1 might seem simple and clear enough, it does not comply with the criteria for a good objective. It is not time-limited, measurable, or specific – all of which makes it difficult for the project team to know what they should be aiming to achieve and whether they have actually achieved it. If one family is making one euro more than they did last year, can the project team claim success? ? If using the first objective, then yes, the project team can technically claim success. Obviously though, this result would not be very outcome-oriented.

Like well-defined goals, well-defined objectives keep the project team from getting side-tracked by opportunities that do not contribute to what the project is trying to achieve. They also help the team focus monitoring efforts so that they are only collecting that information that is really necessary for them to determine if they are progressing. For example, if the team were to try to collect data for Objective 1, they might collect information about household incomes in general, without separating out the income related to NTFPs. They would not know how much increase would be necessary for them to have reached their objective, and they would not know how many households would have to increase their income for them to reach their objective. In contrast, Objective 2 provides the project team with very clear guidelines for what information they need to collect.

How to Develop Objectives

In the previous section, you learned how to develop results chains. Results chains are useful for making explicit the logic behind an intervention and how the project team believes that intervention will lead to the achievement of its conservation targets. Results chains are also a very useful tool for setting objectives. As shown in Figure 17, your objectives are tied to the outcomes you specified in your results chain.

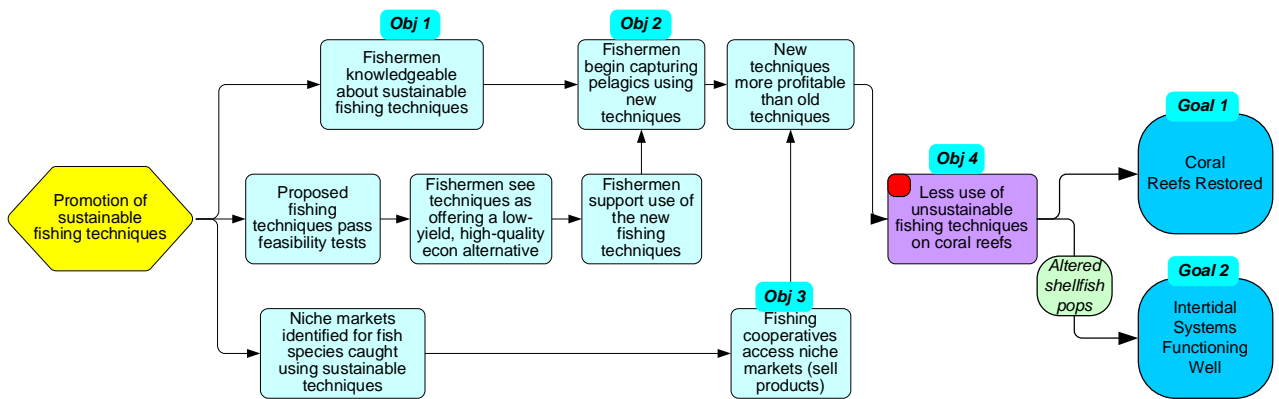
Figure 17. The Basic Components of a Results Chain



1. Determine which results from your results chains are key results where objectives should be set

If you know certain results are necessary for the assumptions behind your strategy to hold, then you have a good idea of where you need to set your objectives – they should be tied to key results in your results chains. Not all boxes in your results chain should have objectives though – you and your team will have to determine which results in your chain are particularly important and set objectives for these results. You will have to use your judgment for determining which are key results, but, at a minimum, you should try to choose results where a change is necessary for the rest of the chain to hold. In our marine example, the team set four objectives related to their strategy for promoting sustainable fishing (see Figure 18).

Figure 18. Sustainable Fishing Techniques Results Chain with Objectives



2. Write a draft objective for a key result

Develop a draft objective, but don't worry about getting your objective right with the first draft. It is easier to get your ideas down and then refine the objective to fit the criteria. For example, a draft objective for the result related to fishermen capturing pelagics using new techniques (Objective 2 in Figure 18) might say:

Draft Objective Version 1: Local fishermen use new fishing techniques.

3. Review the criteria for a good objective and determine whether your objective meets them

Take your draft objective and go through your criteria, one by one. Working off of the example above, your project team should ask itself:

- Is it **outcome oriented**? – Yes, to a certain degree because it is tied to a critical result and a necessary change.
- Is it **specific**? – No, it is not clear how many fishermen should be using the techniques, what techniques they should be using, or where they should be using them
- Is it **measurable**? – Yes, one could measure whether they are using the techniques or not.
- Is it **achievable**? – This one is difficult to assess without knowing the context, but let's assume it is practical and achievable.
- Is it **relevant**: Yes, it is related to achievement of the goal, according to the theory of change represented by the results chain.
- Is it **time limited**? – No, it does not specify a time period.

4. Modify your draft objective as needed to make sure it complies with the criteria for a good objective

Based on this assessment, you might modify your objective to say:

Draft Objective Version 2: By 2008, artisanal fishermen in the Marine Reserve site use new fishing techniques.

This new draft is now time-limited (By 2008) and slightly more specific (artisanal fishermen in the Marine Reserve site). It, however, could be more specific by stating how many fishermen and what sort of fishing techniques.

5. Repeat steps 3 and 4, as needed

Taking into account all of these observations, your final objective might look like:

Draft Objective Final Version: By 2009, at least 50% of artisanal fishermen fishing within 5 km of the Marine Reserve are using at least one of the new, sustainable fishing techniques promoted by the project.

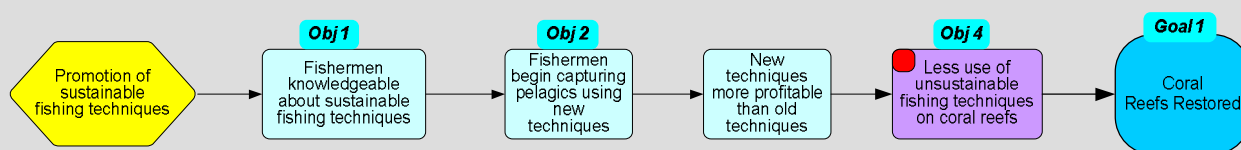
6. Repeat steps 2 through 5 for each of your remaining key results

Take each of the key results you identified and develop draft objectives, review your criteria, and refine them as needed.

Box 8. What is the Difference between an Objective and a Planned Intermediate Result?

An **objective** as a formal statement detailing a desired outcome of a project. It represents the changes one needs to see in critical threats, opportunities, or other factors in order to ultimately achieve your project goals. Objectives are directly tied to the results specified in your results chains. As such, an objective will be very different from a goal – it is *not* merely a restatement of one's goal using a shorter timeframe (see example below).

In project management, a **planned intermediate result** (sometimes termed a **milestone**) is essentially a marker that indicates how far along your project is toward achieving its goals or objectives. The *Standards* do not require projects to set planned intermediate results as part of an Action Plan, but they can be useful and they can you to monitor your project. They are essentially shorter term statements of your goals or your objectives. Consider our marine example as an illustration:



Objective 2: By 2009, at least 50% of artisanal fishermen fishing with 5 km of the Marine Reserve are using at least one of the new, sustainable fishing techniques promoted by the project:

Planned Intermediate Results related to Objective 2:

- By 2007, at least 10% of artisanal fishermen fishing with 5 km of the Marine Reserve are using at least one of the new, sustainable fishing techniques promoted by the project:
- By 2008, at least 30% of artisanal fishermen fishing with 5 km of the Marine Reserve are using at least one of the new, sustainable fishing techniques promoted by the project:

Goal 1: By 2015, at least 80% of the coral reef habitat in the northern bioregion & 60% in the western bioregion are ecologically functioning* & contain healthy populations of key species**

Planned Intermediate Results related to Goal 1:

- By 2011, at least 50% of the coral reef habitat in the northern bioregion & 25% in the western bioregion are ecologically functioning* & contain healthy populations of key species**
- By 2013, at least 65% of the coral reef habitat in the northern bioregion & 40% in the western bioregion are ecologically functioning* & contain healthy populations of key species**

Examples of Objectives

Working off the results chain in Figure 18, here are examples of objectives that meet and do not meet the criteria.

Result: Fishermen knowledgeable about sustainable fishing techniques

Example of a poorly-defined objective: Fishermen knowledgeable about new techniques

Review your criteria to determine why this is not a well-defined objective. See the footnote at the bottom of the page for the answer.⁶

Example of a well-defined objective: By 2007, at least 90% of the fisherman fishing in the Marine Reserve site can name and correctly describe at least one sustainable fishing technique.

Review your criteria and make sure you agree that this is a well-defined objective.

⁶ The objective is not time-limited, outcome-oriented, or specific. It does not indicate how many fishermen need to be knowledgeable, and it does not define what is meant by “knowledgeable.”

Result: Fishing cooperatives access niche markets (sell products)

Example of a poorly-defined objective: By 2008, fishing cooperatives are selling their products in new markets

Review your criteria to determine why this is not a well-defined objective. See the footnote at the bottom of the page for the answer.⁷

Example of a well-defined objective: By 2008, all four of the local fisheries cooperatives have accessed new markets that offer a better per-unit price for their products.

Review your criteria and make sure you agree that this is a well-defined objective.

Result: Less use of unsustainable fishing techniques on coral reefs

Example of a poorly-defined objective: By 2010, fishing is reduced

Review your criteria to determine why this is not a well-defined objective. See the footnote at the bottom of the page for the answer.⁸

Example of a well-defined objective: By 2011, at least 70% of the local fishing fleet in the Marine Reserve no longer use any unsustainable fishing techniques.

Review your criteria and make sure you agree that this is a well-defined goal.

Introduction to Activities

Ultimately, a conservation project involves taking actions to change the situation where you are working. The *WWF Programme Standards* define an **activity** as a specific action or set of tasks undertaken by project staff and/or partners to reach one or more objectives. A good activity meets the following criteria:

- **Linked:** Directly related to achieving a specific objective
- **Focused:** Outlines specific tasks that need to be carried out
- **Feasible:** Accomplishable in light of the project's resources and constraints
- **Appropriate:** Acceptable to and fitting within site-specific cultural, social, and biological norms

You might notice that activities are the specific steps that comprise a broader strategy. Going the other direction, each activity can also be broken down into more specific “tasks” – this takes place during the development of a workplan in Step 3.1 of the *WWF Programme Standards*.

Strategies and Activities - hierarchy of terms for actions. The recommended hierarchy of terms to describe actions (from largest to smallest) is Strategy>Activity>Task>Subtask. There can be overlap in the use of these terms, but in general,;

- ‘Strategy’ tends to be used by larger projects and programmes only
- ‘Activities’ are fine enough that you can assign staffing levels to them
- ‘Tasks’ define specifically what will be done when.

⁷ The objective is not specific and only moderately outcome-oriented. It does not specify that they must access niche markets – a detail that seems important for this result. It also does not specify how many cooperatives would need to reach new products for the objective to have been reached.

⁸ The objective is not outcome-oriented or specific. It is not linked to the critical result of less use of *unsustainable* fishing techniques on coral reefs. The threat is not fishing per se but rather unsustainable fishing, and this should be reflected in the objective. It also does not indicate where fishing should be reduced or by how much.

How to Develop Activities

1. Select one of the results chains that you developed earlier

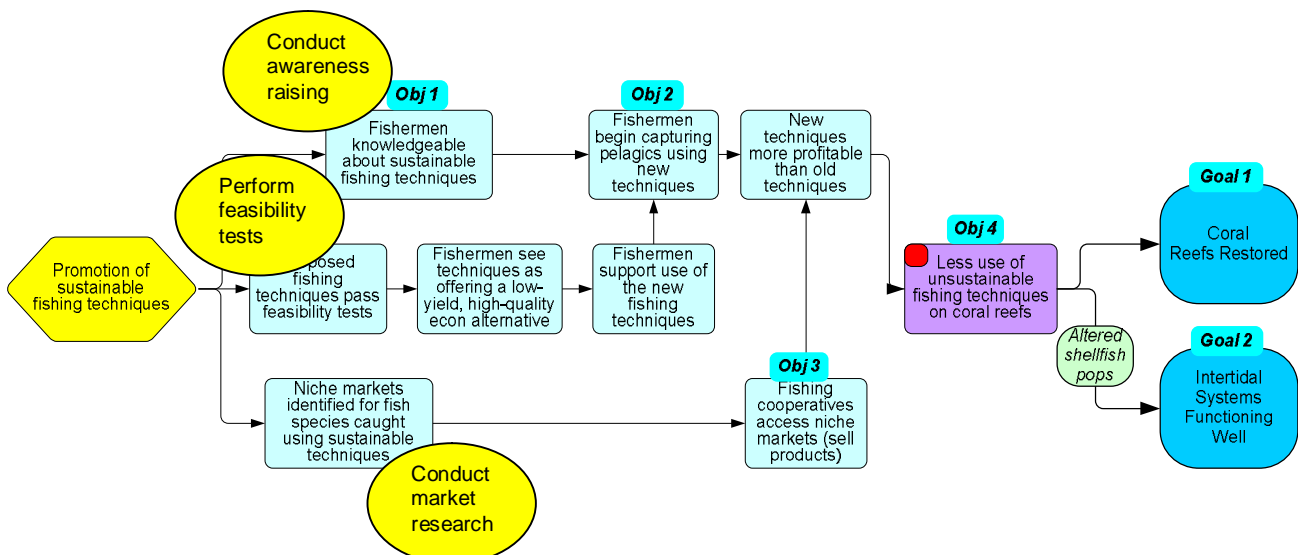
Revisit the results chains that you have worked on previously and select one to focus on.

2. Develop activities to drive the results chain

If you think of your results chain as a chain of dominoes, with each domino representing a result, then the activities are the ‘push’ that causes the whole thing to topple. In some cases you may only need to have a push at the far (left) end of the results chain, but in most cases you will need to identify activities at several points along the results chain.

In identifying activities, you should ask yourself the question “what does WWF need to do to ensure that result zzz will happen?” In some cases all that is required is that the previous result takes place; in other cases you may have to add activities. Figure 19 below shows several activities linked to specific results in a results chain.

Figure 19. Sustainable Fishing Techniques Results Chain with Activities



In identifying activities, you will want to be fairly specific, but not focus on detailed tasks. For example, you might have as an activity:

Activity 1. Conduct awareness raising

At this point, however, you would not list specific tasks such as:

Task 1. Develop list of people to invite

Task 2. Arrange for meeting space

Task 3. Organize presentations

For each activity, you should also list who will be responsible for completing it and the time frame for doing this work.

3. Review the criteria for a good activity and determine whether your activities meet them

Take your draft activities and go through your criteria, one by one, modifying the activities if necessary.

4. Repeat steps 1-3 for your other strategies

Examples of Activities

Table 3 shows a partial summary of an overall action plan for the island marine reserve site. Your full action plan would include your conceptual model and results chains with text description, goals, objectives, strategies, and activities.

Table 3. Excerpt of Sample Action Plan for the Island Marine Reserve Site

Goal(s): By 2020 100% of the rocky reef habitat in the northern bioregion and at least 25% in the western bioregion will contain healthy populations of key species.				
Objective(s): By 2011, all of the artisanal fishermen in the marine island site that have been trained in the use of alternative fishing techniques are using the new, sustainable fishing techniques and gear				
Strategy: Promotion of sustainable fishing techniques				
Activities	Person responsible for doing	Person responsible for monitoring	Date to be done	Comments
Activity 1. Conduct awareness raising	Cristina	Cristina	January 2010	
Activity 2. Perform feasibility tests	John	John	January – June 2010	First a pilot phase. Eventually expand, if successful
Activity 3. Conduct market research	John & Cristina	Cristina	June 2010	
Activity 4. etc....				

Some References

WWF. 2006. Step 2.1 Design Action Plan: Goals, Objectives, & Activities. Resources for Implementing the WWF Project & Programme Standards. Available at www.panda.org/standards and <https://sites.google.com/a/wwf.panda.org/ppms/step2>

Assignment 4 – Identifying Objectives and Activities

Part A: Developing Objectives Along a Results Chain

- Using the results chains you developed in Assignment 3, develop objectives:
 - Determine which results are key results
 - Write a draft objective for a key result
 - Review the criteria for a good objective and determine whether your objective meets the criteria
 - Repeat steps 2 and 3 for each of your remaining key results
- Briefly (1-2 paragraphs) describe your observations about the process of developing objectives.

Part B: Developing Activities Along a Results Chain

- Using the same results chains, develop specific activities required to deliver all necessary results. Put them in a format similar to Table 3.

Hand in your assignment as Assignment 4 by posting your document on the PPMS Online Modules Google site.

Step 2.2 Monitoring Plan (Week 5)

Structure for Week 5. In this week you will:

- Read Introduction to Monitoring Plans, Indicators, and Monitoring Methods, How To Define Audience and Information Needs, Examples of Audience and Information Needs, How to Select Indicators, How to Define Indicators, How to Select Methods, What Else to Include in Your Monitoring Plan, and Example of a Monitoring Plan
- Hand in Assignment 5

Overview

- The majority of your monitoring resources should normally be focused on **effectiveness monitoring** - monitoring of Goals and Objectives to help answer questions like: *Have we made any difference and can we demonstrate it? Is our theory of change working?*
- You also need to allocating some resources to Status/ Context and Risk monitoring: to help answer questions such as: *Are our strategies the right things to do, given wider contextual developments?*
- Finally you should plan to monitor your **Activities** (in a simple, light way against your workplan) and your **Resources/Finances** (via your finance system) to help answer questions like: *Have we done what we said we would do?*

Introduction to Monitoring Plans, Indicators, and Monitoring Methods

Now that you have your action plan in place and are ready to implement your project, you may be wondering how you will know if you are on track and if you are having the impact desired. This is where monitoring comes in. Monitoring is the periodic process of gathering data related to the project vision, goals, and objectives. If your project team is practicing adaptive management, monitoring should be primarily for its own benefit so that team members know whether your project is on track and what adjustments you may need to make to improve its conservation results. Monitoring provides the basis for learning by helping your team determine what is working and what is not working. This, in turn, allows your team to adapt and improve its project. While monitoring is most important for the project team, it is also important for other actors. For instance, it can:

- Help WWF as an institution to assess its total contribution to the field of conservation.
- Help WWF to learn which approaches are working well or not well and under what conditions, thus helping WWF to make better decisions on future priorities and strategies.
- Enhance accountability, credibility, and transparency with external donors, policymakers, and the general public.
- Strengthen ownership of the work by partners and stakeholders, and therefore sustainability of the work for the future.
- Support the overall effort to professionalize WWF's work, helping to raise funds and build brand awareness.
- Capture lessons that can be shared with the broader conservation community, thus improving learning beyond WWF.

Often, when people think of monitoring, they think of it as the domain of scientists or professionals with advanced graduate degrees. In reality though, monitoring is something that most conservation practitioners can and should do. One reason the *WWF Programme Standards* training modules

spend a lot of upfront time on defining the context and designing your action plan is because investing time on these steps will prepare you well for the monitoring step.

A monitoring plan is important because it provides the blueprint for how monitoring will happen and succinctly organizes and summarizes a lot of information. At a minimum, a monitoring plan should include information related to: what data will be collected (indicators), how it will be collected (methods), who will collect it, and when and where will they collect it. Some in the WWF network will include additional information in a monitoring plan, such as: who will analyse the information, related indicators, cost of monitoring, baseline data, intermediate desired results, donors that have an interest in the indicators, and expected results without project intervention (see Basic Guidance for Step 2.2: Monitoring Plan, available at www.panda.org/standards and <https://sites.google.com/a/wwf.panda.org/ppms/step2>, for additional guidance on more detailed monitoring plans).

Often when people think of monitoring, they jump directly to the question, “What indicators should I use?” Although this is an important question, it is usually premature to ask such a broad question without having the means to narrow down the answer. Fortunately, you have done a lot of the upfront work and thinking in Steps 1 (Define) and 2 (Design) of the *WWF Programme Standards*. This work will provide the basis to help you easily determine your indicators.

When people think of monitoring, they also often think of complex methods requiring specialized skills – for example, spatial mapping with geographic information systems or population censuses of a particular species. Methods, however, do not need to be complex or sophisticated. In fact, if you can get the information you need using a simple, inexpensive method, it is far preferable to do this than to choose a complex, expensive method. While the information you gather may be less precise, it may be sufficient for the types of decisions you are making. When planning your monitoring, you need to keep in mind that it should be a relatively small portion of your project budget – a general rule of thumb is about 10% of your budget. If your methods are too complex, you will not have enough money to carry out your project.

Developing a monitoring plan involves four major steps:

- A. Defining your audience and information needs (for whom)
- B. Identifying your indicators (what)
- C. Defining your indicators (what)
- D. Determining your methods for collecting information related to your indicators (how)
- E. Specifying responsibilities and timeframes (when, where, and who)

The following sections will help you complete each of these four steps.

A. How to Define Audience and Information Needs

The first step in developing a monitoring plan involves broadly identifying your audiences and defining their information needs. Once you have completed this step, you can start thinking about what indicators you will need to measure and developing the rest of your monitoring plan.

1. Make a list of your audiences, starting with your project team

The first audience on your list should be the project team itself. Many times, when a project is monitored or evaluated, team members think of the process as one to satisfy external demands for accountability. While this may be part of the reason behind monitoring, it should not be your only or even your primary reason. Monitoring data should ideally be collected to serve the needs of the project and project team. Good systematic project monitoring can provide project teams with valuable

information about how to improve their conservation actions. If we want good conservation to happen, we need to learn from our experiences and integrate those lessons into current and future programming.

2. Identify other key audiences

Typically, audiences outside of your project team would include:

- Project partners (if they are not part of the project team)
- Donors
- The local community where your project is taking place
- Policymakers
- Other conservation organizations and the broader conservation community in general
- Academics and students
- General public

Your audience will also include several, if not all, of the actors or groups of actors identified in your stakeholder analysis.

3. Identify the general information needs for each of your key audiences

In order to begin thinking about what you will be monitoring in your project, you should be clear about what information you would like to share with each of your key audiences. To do this, you should use your list of key audiences to determine what general information needs will be useful for each audience. You can document this information in a simple table like the Examples of Audience and Information Needs table below.

Example of Audience and Information Needs

Returning again to our Marine Reserve site, we might identify the following audiences and information needs:

Table 4. Example of Audiences and General Information Needs for Marine Site

Audience	General Information Need	Comments
Project team	How is the project progressing; what is working, what is not; and why; how to improve the project	
Project partners	How is the project progressing; what is working, what is not; and why; how to improve the project	
Donors	How is the project progressing	Needs to be able to roll up live coral coverage across many projects
Academics	What is working, what is not, and why	

B. How to Identify Indicators Based on Your Audience and Information Needs & Results Chains

Once you have identified your key audiences and their general information needs, you should determine what you need to monitor in your project and what indicators you should use. Your audience and information needs table can provide a starting point for thinking about which indicators

will be useful for which audiences, but your results chains will serve as your primary guide for identifying indicators and refining your monitoring plan.

Effective monitoring uses the minimum amount of financial and human resources to provide you with the minimum information you need to determine if your project is on track and what to do if you are not. Often project teams either collect no information or too much information because they are unsure of what is needed. By focusing your monitoring efforts squarely on the core assumptions you have made in your project (illustrated in your results chains that link your goals, objectives, and strategies), you are more likely to collect only the information that will be useful to you as you manage your project. This means you are more likely to develop a plan that you can actually use to learn and adapt. If you have developed a logical framework for your project, it will be important to refer to it to make sure that you are collecting relevant information related to your goals and objectives presented in your logframe.

An **indicator** is a measurable entity related to a specific information need, such as the status of a conservation target, change in a threat, or progress toward an objective. Indicators can be quantitative measures or qualitative observations. Good indicators meet the following criteria:

- **Measurable:** Able to be recorded and analysed in quantitative or in discreet qualitative terms.
- **Precise:** Presented or described in such a way that its meaning will be the same to all people.
- **Consistent:** Not changing over time so that the same phenomenon can be measured over time – For example, a currency that inflates or deflates in value is not a consistent measure of wealth.
- **Sensitive:** Changing proportionately in response to actual changes in the condition or item being measured.

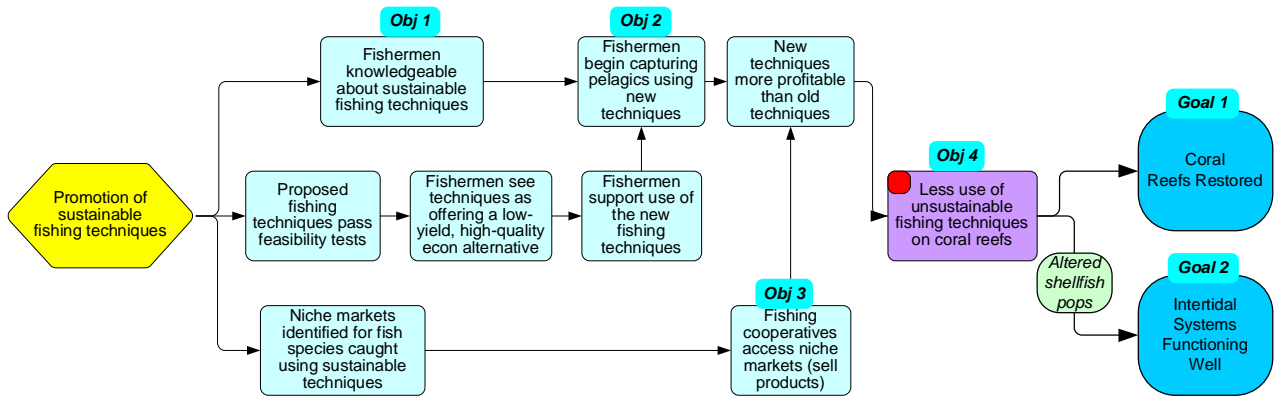
In addition to meeting the above criteria, an indicator should be phrased in a neutral fashion. It should not reflect a trend you hope to see but should instead only detail what you are trying to measure.

1. Use your results chains to define where you need to develop indicators

To keep your plan manageable, focused, and relevant, you should focus your efforts primarily on your goals, objectives, and the status of targets and critical factors you are addressing with your actions. The Action Plan that you developed in Step 2.1 and, in particular, your results chains should be your primary guides for your information needs. At a minimum, you will want to monitor to see if you are on track to meet your goals and objectives. You will also want to select key points along your results chain that can help you determine whether your work is proceeding as planned. In addition you need to monitor your financial spending.

Returning to the example results chain for the marine site (Figure 19), at a minimum, you should develop indicators for Objectives 1, 2, 3, and 4 and Goals 1 and 2.

Figure 19. Sustainable Fishing Techniques Results Chain with Objectives



2. Decide what else you need to monitor

In addition to your action plan, other information needs will focus on the status of targets and factors that you are not actively addressing but that you should track to better interpret your monitoring results and/or to see if action will be required in the future. For example, you might want to track the population level of a certain species to see if it is stable, in which case no action will be required, or declining in which case you may have to take action. Similarly, there may be results in your results chain where you want to monitor progress, even though you have not set an objective for that result. In the Marine Reserve example, the team may want to know whether the proposed fishing techniques passed the feasibility tests. So, they would include an indicator for this in their monitoring plan, even though they did not set an objective there. You may also want to monitor the external context of your project including key risks you have identified. This will help you determine if factors outside of your project are influencing the effectiveness of your actions. Remember, monitoring should be done for learning, adapting, and improving. As such, it is important to collect the right information that will help you learn the most about your project site and the effectiveness of your interventions.

You may also want to monitor more administrative and operational issues, such as how well you are doing on partnership development, fundraising, and meeting project deadlines. These are important issues to monitor, but they are somewhat separate in that they do not directly indicate the degree to which your project activities are effective.

3. Use your audience and information needs table to determine if there are any additional indicators you should consider monitoring

Finally, you should go back to your audience and information needs table and make sure that your indicators are covering all of the information needs. Keep in mind that one indicator could very well satisfy the information needs of several different key audiences. You should maximize such opportunities for more efficient monitoring. What may vary though is *how* you present information from this indicator to your audience.

In addition, you may have an audience that would like to see reporting on a particular outcome or a specific indicator. For example, in the marine case, the donor is interested in live coral coverage (Table 4). So, you could make sure that one of your indicators for your coral reef target measures the extent of live coral coverage. As long as your indicators are all within the framework of your results chain, and within your resource capacity, then you could include additional indicators that have special interest for certain audiences, but may not be necessary for effective monitoring.

C. How to Define Your Indicators

The previous section described how to determine what you should monitor based on your results chains and your audiences and their information needs. This section will help you define your specific indicators.

1. Select your indicators

If your goals and objectives meet the criteria of being *specific* and *measurable*, then the indicators should flow directly from your goal and objective statements. Consider, for example, the following goals and objectives developed earlier for the Marine Reserve example and their associated indicators:

Objective 2: By 2009, at least 50% of artisanal fishermen fishing with 5 km of the Marine Reserve are using at least one of the new, sustainable fishing techniques promoted by the project.

Indicator: % of artisanal fishermen fishing within 5 km of the marine reserve that are using at least one of the new sustainable fishing techniques promoted by the project.

Objective 3: By 2008, all four of the local fisheries cooperatives have accessed new markets that offer a better per-unit price for their products.

Indicator: # of the local fisheries cooperatives that have accessed new markets that offer a better per-unit price for their products.

Goal 3: By 2020, at least 100 pairs of nesting penguins are successfully reproducing at the Marine Reserve, leaving at least 2 eggs per clutch every year

Indicator: # pairs of nesting penguins at the Marine Reserve that are leaving 2 eggs per clutch every year

Remember, you should use neutral wording when phrasing your indicators. They should not reflect a trend you hope to see but should instead only detail what you are trying to measure. For example, if you have a forest target, your indicator might be: # hectares of forest cover. It would not be: # of hectares of forest cover *increased*; or 500 hectares of forest cover.

By now, you will see that identifying your indicators is really quite simple if you do a good job developing your goals and objectives. There may be some cases, however, where you cannot measure the information need directly because data are too difficult, too expensive, or culturally inappropriate to acquire. In these cases, you will need to develop a proxy indicator. For example, if you needed to have an idea of how large a turtle population was, you might use # of turtle nesting sites rather than try to count the turtles.

2. Review your criteria for a good indicator and make sure your indicators comply.

As a reminder, good indicators should meet the following criteria:

- **Measurable:** Able to be recorded and analysed in quantitative or in discrete qualitative terms.
- **Precise:** Presented or described in such a way that its meaning will be the same to all people.
- **Consistent:** Not changing over time so that the same phenomenon can be measured over time – For example, a currency that inflates or deflates in value is not a consistent measure of wealth.
- **Sensitive:** Changing proportionately in response to actual changes in the condition or item being measured.

At this point, you should determine whether the indicators you have selected comply with these criteria. For instance, let's take the indicator for Goal 3 above (# pairs of nesting penguins at the Marine Reserve that are leaving at least 2 eggs per clutch every year):

- Is it **measurable**? Yes, you could count the number of pairs of nesting penguins, as well as the number of eggs per clutch.
- Is it **precise**? Yes, the meaning should be clear to everyone, especially with the additional clarification that the penguins must leave at least 2 eggs per clutch.
- Is it **consistent**? Yes, the meaning would not change over time.
- Is it **sensitive**? Yes, the indicator directly measures nesting penguins.

As another example, let's say that you are trying to measure household wealth and you decide to use the number of cattle a family owns as a proxy indicator for household wealth. Let's apply the criteria again:

- Is it **measurable**? Yes, you could count the number of cows a family owns.
- Is it **precise**? Yes, the meaning should be clear to everyone.
- Is it **consistent**? Yes, the meaning would not change over time – unless consumer demand varied, and there was no longer a market for beef so people would not be likely to invest in cattle.
- Is it **sensitive**? Yes, to a certain degree – the more cattle a family owns, the more wealthy they are likely to be. At some point, however, the relationship tapers off, and the difference between a family that owns 500 heads of cattle and one that owns 525 heads of cattle is much less significant than the difference between a family that owns 3 heads of cattle and one that owns 28. Likewise, at some point, how many cattle a family owns will be limited by how much land they have. Thus, one would need to be careful in interpreting the data associated with this indicator.

3. Determine whether you need an additional indicator

Sometimes, you may find that you need more than one indicator to adequately measure something. For example, let's say you want to measure the health of a particular jaguar population. To measure this, you might count the number of jaguars, under the assumption that the more jaguars there are, the better the health of the population. You, however, may realize that this is not enough information to tell you if the population is healthy. You might also want to look at reproductive success and count the number of jaguar cubs born and surviving to adulthood. You might also want to monitor other behavioral characteristics that would indicate whether a population is doing well. You should be cautious, however, that all your indicators measure the phenomenon you need to measure and that you are not adding indicators unnecessarily. Remember, you want to keep monitoring manageable yet useful and relevant.

4. Prioritise based on cost and benefit

Consider the level of effort you will use to monitor your goals, objectives, and strategic activities. You may need to prioritise if you want a realistic monitoring plan. If you do have to make choices, think about the cost and benefit of monitoring each possible indicator, taking into consideration the following issues:

- The monitoring of goals and objectives is essential. The majority of your monitoring investment should go towards that. If your resources are very limited, you might need to monitor only your goals and objectives.

- In addition to the objectives along your results chains, consider the extent to which you will be able to measure other key results. In the interest of keeping monitoring manageable, you should *not* try to measure all points along your results chains.
- Strategic activities should be monitored, but this monitoring should be kept simple and light. For example, a checklist of whether and when an activity has taken place may be sufficient.
- Any links to relevant donor or country targets (e.g. those from Poverty Reduction Strategy Papers or from Millennium Development Goals) should also be given priority.

Although you could use a ranking system or other formal means of prioritising which indicators to monitor, it is probably sufficient and much more expedient to do this more informally taking into account the issues above

D. How to Determine Your Methods for Collecting Information

Methods are specific techniques used to collect data to measure an indicator. Good methods meet the following criteria:

- **Accurate:** Give minimal or no error
- **Reliable:** Results obtained using the method are consistently repeatable
- **Cost-Effective:** Not overly expensive for the data the method yields or for the resources the project has.
- **Feasible:** Project team has people who can use the method, as well as the material and financial resources to use the method
- **Appropriate:** Appropriate to the environmental, cultural, and political context of the project.

In selecting methods, you should aim for the most cost-effective method that will give you data that is reliable enough to meet your management needs. Often teams will want to use the most sophisticated and precise method, but this is often not the best method. If you can get data that is sufficiently reliable for you to make good management decisions using a low-tech, inexpensive option, this is far preferable to a sophisticated, expensive method. For example, if you needed to monitor how much monkey meat was sold in local markets, your methods could include:

- Weighing an average monkey and multiplying the number of monkeys sold by this average weight
- Using a produce scale to weigh all monkey meat sold to the closest kilogram and totalling this up
- Using a chemists scale to weight all monkey meat sold to 5 decimal places of accuracy and totalling this up

All of these methods are valid, but each varies in its level of effort, cost, and accuracy. For the management purposes of your project, the first is probably perfectly adequate.

Selecting methods involves 3 main steps:

1. Determine whether you can collect data from existing sources of information

Before you invest time and effort into developing and implementing monitoring methods, you should determine if the data you need is available from existing, reliable sources. Assuming these methods meet the criteria for good methods, you should try to use this data rather than spending your project resources on collecting primary data. In some cases, you may not be able to get exactly what you need from secondary sources, but you should evaluate whether what you can get would meet your needs. If so, you could consider modifying your indicator so that you can draw on this existing source. You should be careful, however, that your new indicator does truly serve as a good measure of your

information need. One potential advantage to using outside data sources is that your external audiences may view the data as more neutral and, therefore, more credible.

Good sources of data include ongoing research projects and routine monitoring by scientific institutes, universities or administrative bodies. For example, one method for collecting data about a given fish population might be to “download harvest records posted by a government agency on the Internet.” Some other sources for secondary data might include the Living Planet Index, TRAFFIC trade figures, United Nations climate data, Convention on Biological Diversity, and National Biodiversity Strategy and Action Plans.

2. If you cannot collect your data from an existing source, research methods available

There may be a wide range of possible methods to assess a given indicator. In many cases you or your colleagues will be aware of the range of methods available. If this is not the case, you can learn about various methods by talking to experienced people, reviewing documents or manuals on the subject, taking courses, or scanning through examples of monitoring plans that have been developed for other programmes in WWF.

3. Apply criteria for selecting the most appropriate method

In choosing your methods, you should review the criteria for a good method. If you are choosing among more than one method for a given indicator, you should choose the method that best meets the criteria. This is not always a simple task and will require that your team give careful thought to the different methods available to it and the importance of the different criteria for your project. As a reminder, a good method should meet the following criteria:

- **Accurate:** Gives minimal or no error
- **Reliable:** Results obtained using the method are consistently repeatable
- **Cost-Effective:** Not overly expensive for the data the method yields or for the resources the project has.
- **Feasible:** Project team has people who can use the method, as well as the material and financial resources to use the method
- **Appropriate:** Appropriate to the environmental, cultural, and political context of the project.

The proposed method should be referenced or summarized in a few words in the monitoring plan. If the method is not well known to those carrying out the monitoring, it may be necessary to define and describe the method more fully in a separate document.

Looking at our marine example again, potential methods for the chosen indicators might be:

Indicator	Method
% of artisanal fishermen fishing within 5 km of the marine reserve that are using at least one of the new sustainable fishing techniques promoted by the project.	Review registry of fishing gear on boats before they leave on fishing expeditions Random periodic checks of fishing boats
# of the local fisheries cooperatives that have accessed new markets that offer a better per-unit price for their products.	Interview fishing cooperatives
# pairs of nesting penguins at the Marine Reserve that are leaving 2 eggs per clutch every year	Download data from local bird conservation NGO on # of nests and eggs per clutch

If you review each of the methods above, you will see that they meet the criteria for good methods, although typically, there will be some trade-offs in terms of how well they meet each criteria. For example, it may be cost-effective to check the registry of fishing gear on boats involved in the project before they leave on fishing expeditions, but the accuracy of this method might not be as high as hiring someone to visit the boats during fishing hours to make sure they are using only the alternative fishing techniques. This option, however, would be much more expensive. In this case, the team chose to do random checks, which are less expensive but might help them determine if their first indicator is suitable. In choosing a method, your project team needs to consider what is acceptable for each of the criteria you should consider.

4. Determine whether you need an additional method

As with indicators, you may determine that you want to measure something using more than one method. This may be because you are not very confident of any of the methods available to you, but you feel confident that if two or more methods give you similar results, you can accept and adequately interpret the results. In evaluation lingo, this is known as methods triangulation. The random checks of fishing boats discussed above is an example. As another example, you may be interested in knowing how much timber is being harvested from a forest. You could check the records of timber companies or the government forestry agency, but you are not sure how accurate these will be. So, you might also estimate how many logs fit on a truck and then calculate the average number of trucks that leave the area per week. This will help you determine how reliable your methods are. If they consistently give you the same information, you might consider eventually eliminating the more difficult or costly method.

E. How to Specify Responsibilities and Timeframes

In addition to your indicators and methods, your monitoring plan should include other information that is important for those implementing it. At a minimum, it should include information about where the data will be collected, when it will be collected, and who will be collecting it. Some in the WWF network include additional information in a monitoring plan, such as: who will analyse the information, related indicators, cost of monitoring, baseline data, intermediate desired results, donors that have an interest in the indicators, and expected results without project intervention. Here we restrict our discussion to what is required at a minimum (see Basic Guidance for Step 2.2: Monitoring Plan, available at www.panda.org/standards and <https://sites.google.com/a/wwf.panda.org/ppms/step2> for additional guidance on more detailed monitoring plans).

Where (location of data collection)

Describe briefly the specific physical location or community where the monitoring will be carried out. If your data is secondary, it might be downloaded or obtained from other sources. In these cases, the “where” will be places like the WWF office or a local partner office. You should note this in your table.

When (timeframe & frequency of data collection)

At a minimum you need to define the dates when baseline and final data will be collected for each indicator. In many cases you will want to collect data on a more frequent basis than this (e.g. quarterly or annually). In deciding when you should collect data, consider the following factors:

- **Time period to effect change.** If you realistically cannot expect to see a change in a factor for five years after the start of the project, then your next measurement after the baseline measurement should probably be no earlier than five years (unless you need to monitor it for the influence of other variables).

- **Natural variability of the phenomenon to be monitored.** If what you are monitoring varies naturally, you will want to have enough data points taken at appropriate timeframes so that your data is not influenced by natural variations that have nothing to do with impacts related to your project. For example, if you are collecting data that is influenced by climatic changes, you should clearly note if the measurement time coincides with an El Niño year and how that might affect your results. You may also want to vary the number of collection times around the El Niño event to compensate for this effect.
- **Seasonality issues in terms of data availability and variation.** You may need to always monitor at the same time of year, or alternatively, at various points of the year to be able to factor in seasonal changes. For example, if you are monitoring water levels, they will vary widely depending upon whether you take them at the beginning of the wet season versus during or at the end of the wet season. In most cases, it would not make sense to compare water levels taken at the end of the dry season one year with those taken at the end of the wet season the following year.
- **Project life cycle.** This is a more practical concern. You should keep in mind if you have key project reviews, planning, reports, or other project-related events on the horizon and adjust your monitoring times to meet those needs if it will not substantially affect the outcome of your monitoring.

Who (people responsible for data collection)

Monitoring can require extensive resources, especially commitments of project team members' time. It is important to ensure that the appropriate person(s) with the right skills are designated to handle these functions. While multiple staff may be responsible for collecting and recording data, it is often important to have a single driving force and "owner" of the overall monitoring process. You should state the name of the individual or the organisation responsible for measuring each indicator and the name of the person in the project team responsible for getting the information (where this is not the same person).

You may also want to consider documenting who will analyse and use the data. This is not always the same person who is collecting the data. You will need someone who will be responsible for storing and backing up the data, analyzing it, and sharing that analysis with the team to check if you are on track.

Box 9. SWOT analysis for monitoring

The biggest failing in monitoring for many projects is not the lack of indicators or choosing the wrong indicators, but having too many indicators that are not practical to use. A successful monitoring plan has to be very realistic and practical. One tool that can help us ensure realistic monitoring plans is a modified SWOT analysis. Before you begin to select your indicators and methods, it is a good idea to consider the following:

- **What are we good at internally for monitoring? (STRENGTHS)**
 - E.g. identifying indicators, data analysis, expertise in freshwater biology
- **What are we poor at internally for monitoring? (WEAKNESSES)**
 - E.g. lack of capacity for analysis, very little budget, poor org culture for taking decisions
- **What are external opportunities to help with monitoring? (OPPORTUNITIES)**
 - E.g. government ministry database, partner with tech expertise
- **What are external threats to monitoring? (THREATS)**
 - E.g. changing political situation and time series data

After you have produced your draft monitoring plan, go back and check your results against your SWOT. Make any changes necessary to ensure that the plan is realistic and takes advantage of your monitoring strengths and opportunities, works within your weaknesses, and accounts for possible threats.

Example of a Partial Monitoring Plan

The following is an example of a partial monitoring plan, based on the Marine Reserve example. Note that, in some cases, the team chose to use more than one indicator or more than one method to make sure that they were more adequately measuring the variables of interest.

Table 5. Example of a Partial Monitoring Plan for the Marine Reserve Site

What? (Indicator)	How? (Methods)	When?	Who Responsible?	Who Analyze?	Where?	Comments
<p>Goal 1 (Coral Reefs): By 2015, at least 80% of the coral reef habitat in the northern bioregion & 60% in the western bioregion are ecologically functioning* & contain healthy populations of key species**</p> <p>* <i>Ecologically functioning = will have live coral coverage of at least 80% & contain a representative diversity of coral species</i></p> <p>** <i>Healthy populations of species at the top of the food chain, such as sharks, & an abundance of other key species, such as lobster, black coral, etc. Whether a population is "healthy" will be based on the latest sc</i></p>						
% of live coral cover of the following species: <i>Porites lobata, Pavona varians, Pavona clavus, Pavona gigantea, Psammocora sp, Porites sp, Pavona sp.</i>	Transects	Baseline, at end of project (2012), and 2015	NFA & other projects	Jorge (NFA) & Paul (WWF)	Selected sites in the different biogeographic zones & zones with different permitted uses in the reserve	WWF plans to analyze relevant data from NFA & not do any monitoring itself of the status of coral reefs. Indicator is of special interest to donor
Presence & density of representative species of fish & invertebrates	Transects	Baseline, at end of project (2012), and 2015	NFA & other projects	Jorge (NFA) & Paul (WWF)	Selected sites in the different biogeographic zones & zones with different permitted uses in the reserve	WWF plans to analyze relevant data from NFA & not do any monitoring itself of the status of coral reefs.
Population of "key" indicator species (identified in the Biodiversity Biovision, chapter 8)	Population census at selected sites	Baseline, at end of project (2012), and 2015	NFA & other projects	Jorge (NFA) & Paul (WWF)	Selected sites in the different biogeographic zones & zones & different permitted uses in the reserve	WWF will work with scientists doing research on coral reefs to identify key indicator species. May include: lobster, black coral, cod, or camotillo. It may be possible to measure the presence & population density of species in the reserve & at different distances from the reserve.

What? (Indicator)	How? (Methods)	When?	Who Responsible?	Who Analyse?	Where?	Comments
Objective 1: By 2007, at least 90% of the fisherman fishing in the Marine Reserve site can name and correctly describe at least one sustainable fishing technique.						
% of fishermen that can name and correctly describe at least one sustainable fishing technique	Interview fishermen	Baseline in 2006 2007 End of project	Paul & Theo (WWF)	Paul & Theo (WWF)	At the ports	
Objective 2: By 2009, at least 50% of artisanal fishermen fishing with 5 km of the Marine Reserve are using at least one of the new, sustainable fishing techniques promoted by the project.						
% of artisanal fishermen fishing within 5 km of the marine reserve that are using at least one of the new sustainable fishing techniques promoted by the project.	Review registry of fishing gear on boats before they leave on fishing expeditions	Every 4 months, starting in 2009	Claudia (Reserve staff) & Javier (NFA)	Javier & Carmen (NFA)	At the ports	
	Random periodic checks of fishing boats	Every 6 months, starting in 2009	Claudia (Reserve staff) & Javier (NFA)	Javier & Carmen (NFA)	On fishing boats at sea	
Objective 3: By 2010, all four of the local fisheries cooperatives have improved their processing & marketing systems & have accessed new markets that offer a better per-unit price for their products.						
# of the local fisheries cooperatives that have accessed new markets that offer a better per-unit price for their products.	Interview fishing cooperatives	Baseline and annually starting in 2010	Paul & Theo (WWF)	Paul & Theo (WWF)	Offices of fishing cooperatives	
# of tons of fisheries products sold by the cooperatives to new, high value markets	Review Central Bank registry of fisheries products that leave reserve	Baseline and annually starting in 2010	Paul & Theo (WWF)	Paul & Theo (WWF)	Central Bank	Team added this additional indicator to also get a sense of the volume of products accessing new markets. This will provide more information than just the # of fisheries cooperatives.
	Review quality control certification from the National Fisheries Institute	Baseline and annually starting in 2010	Paul & Theo (WWF)	Paul & Theo (WWF)	NFI Offices	

What? (Indicator)	How? (Methods)	When?	Who Responsible?	Who Analyse?	Where?	Comments
	Cooperatives registries	Baseline and annually starting in 2010	Paul & Theo (WWF)	Paul & Theo (WWF)	Offices of fishing cooperatives	
Objective 4: By 2011, at least 70% of the local fishing fleet in the Marine Reserve no longer use any unsustainable fishing techniques.						
% of all fishing boats (industrial and artisanal fleets) that do not use any unsustainable fishing techniques	Review registry of fishing gear on boats before they leave on a fishing expedition	Baseline and annually starting in 2009	Claudia (Reserve staff) & Javier (NFA)	Javier & Carmen (NFA)	At the ports	
	Random periodic checks of fishing boats	Baseline and annually starting in 2009	Claudia (Reserve staff) & Javier (NFA)	Javier & Carmen (NFA)	On fishing boats at sea	

Box 10. Final tips on developing monitoring plans

1) Define a manageable number of indicators

By developing results chains, setting good (SMART) goals and objectives, and defining learning questions, you can narrow down a nearly infinite set of potential indicators to a manageable set.

2) Consider use of both quantitative and qualitative methods

In addition to collecting quantitative data, qualitative methods can bring a deeper and richer understanding of a project's effectiveness and context. For example, the use of informal reviews and simple questions can bring important insights. You can also use semi-qualitative ranking methods (e.g. ask participants to ranking the effectiveness of training on a scale from 1 to 5).

3) Allocate some resources to monitoring status/ context and risks

Tracking of risks and external context is important but may be kept simple, for example by checking with relevant information sources and networks whether changes have occurred. In the case of policy or advocacy work in dynamic situations, it is critical to carry out frequent reviews of the external context. Click here for [Monitoring Advocacy guidelines](#)

4) Think ahead to Analyse/ Adapt and Share steps

You can already start thinking about how you will analyse data to inform adaptive management (Step 4), and any information that you will need to support an effective evaluation (Step 5.3).

5) Establish your baseline early

Collection of baseline data is the first step in the actual use of the monitoring plan. It is critical that baseline data is collected early, since all subsequent data gathered over the life of the project will be compared against the baseline. The use of already existing data for a baseline is strongly encouraged. Data may be available backwards through time, in which case it will be possible to compare trends before and after the start date for the project.

6) Be realistic about 'impact' monitoring (monitoring Goals)

In WWF, true 'impact' concerns the effect of our actions on biodiversity, footprint and human welfare. However change at this impact level may be observable only after several 3 year phases of a project, so resources may need to be allocated to monitoring beyond the life of the project. (Note, however, that in common speech the term 'impact' is often used to refer to changes that strictly speaking are 'outcomes').

Some References

- Salzer, Dan and Nick Salafsky. 2006. Allocating Resources Between Taking Action, Assessing Status, and Measuring Effectiveness of Conservation Actions (694 kb). *Natural Areas Journal*, 26: 310-316. Available at: http://www.fosonline.org/wordpress/wp-content/uploads/2010/06/Effectiveness_Measures_Salzer_Salafsky.pdf
- WWF. 2005. Basic Guidance for Step 2.2 Monitoring Plan. Available at www.panda.org/standards and <https://sites.google.com/a/wwf.panda.org/ppms/step2>

Assignment 5 – Selecting Indicators and Methods, Developing a Monitoring Plan

Part A: Select Indicators and Methods

- Refer to your results chains to help you identify where you need to develop indicators – especially those related to the goals and objectives you have defined. Choose at least one goal and one objective. For each, define at least one indicator, using the steps outlines above. Be sure to consider audiences and information needs.
- For each goal and objective, also develop methods

Part B: Develop a Monitoring Plan

- Record your indicators and methods in your monitoring plan. Use the format in Table 5 to organize your information.
- Complete the monitoring plan by adding information about when the data will be collected, where it will be collected, and who will be responsible for collecting and analyzing the data. Include any additional comments.
- Briefly (1-2 paragraphs) describe your observations about the process of developing a monitoring plan, including identifying indicators and selecting methods.

Hand in your assignment as Assignment 5 by posting your document on the PPMS Online Modules Google site.

Step 2.3 Overview of the Operational Plan (Week 6)

Structure for Week 6. In this week you will:

- Read Introduction to Operational Plans and How to Develop an Operational Plan
- Hand in Assignment 6

It is important to note that in this module, we only provide a brief introduction to some of the key components of an operational plan. Greater detail can be found in the WWF Guidance materials listed in the reference section.

Introduction to Operational Plans

You have now developed 2 of the 3 components to your strategic plan – specifically, your action plan and your monitoring plan. We will now turn to the third component, your operational plan. Your operational plan defines how you will operate in practice to deliver your action and monitoring plans – how you will use resources, how you will deal with risks, and how you will ensure sustainability of your project's achievements. An operational plan does not normally exist as one single stand-alone plan; rather the key components are integrated with the other parts of the strategic plan.

The key components of a complete operational plan include analyses or discussions of:

1. **Human & Other Capacity Requirements** – The human capacity and skills required to implement your project, and your current and potential sources of these resources. This component also includes other resources and enabling conditions required to implement your project (such as partners, infrastructure, and a supportive legal framework).
2. **Financial Requirements** – The funding required to implement your project, and your current and potential sources of these funds (i.e. your anticipated income and expenditure).
3. **Risk Assessment and Mitigation Strategy** – What risks exist and how they can be addressed.
4. **Estimate of Project Lifespan, Sustainability, and Exit Strategy** – How long your project will last, when and how you will exit your project (if feasible to do so), and how you will ensure sustainability of your project's achievements.

This week, we will focus primarily on the first two components (• Human & Other Resource Requirements and Financial Resource Requirements). Next week, we will address the remaining two components.

An operational plan ensures you develop a strategic plan that can actually be implemented successfully by getting you to:

- Clearly define your resource requirements – including your capacity gaps and your most critical resource requirements.
- Prepare your project to raise funds, being clear about how you will get the resources and arming you with a convincing plan to review with existing and potential donors.
- Use resources efficiently and allocate scarce resources to the most critical gaps and needs.
- Reduce risks where possible and prepare contingency plans where necessary.
- Think about the long term future of the project, including how you will ensure the sustainability of your project's achievements.

A strategic plan may only be considered complete when the four main components have been defined, at least in broad terms. As the project moves into implementation, several of these components are then defined in more detail, and tested in reality. Thus the operational plan provides a critical bridge between the Action and Monitoring Plans (Step 2) and Implementation (Step 3) of those plans.

The level of detail and formality of your Operational Plan will vary depending on the size and complexity of your project or programme. Small projects may only briefly touch on each of these topics before moving on to implementation. Large, complex programmes should be able to provide evidence that they have addressed each of the components of an Operational Plan. The larger the programme, the more extensive and formal the treatment of each component should be.

How to Develop an Operational Plan

The following sections briefly describe how to develop the last two components of an operational plan. It is worth noting that there are strong links among the various components of an operational plan and even some overlaps. You may find it easier to address them in a different order than is presented here. You may also wish to address multiple steps at the same time, or at the time you are working on other steps of *the Standards* such as 2.1 or 2.2.

An Operational Plan should be developed with the involvement of appropriate staff and partners. Although your core project team members will take the lead in many areas, they will require strong support, often involving staff from different parts of the organization. For example:

- A Project Administrator or Finance (F&A) Officer should be involved in defining financial requirements
- Human Resource and/or F&A staff should be involved in assessing HR and capacity needs
- HR, IT or Operations staff should be engaged in discussions of processes, procedures and systems (e.g. accounting software, technology infrastructure) capacity needs

Efficient operational planning and implementation requires continuous and open collaboration between the core project team and these other staff.

1. Human and Other Capacity Requirements

The first step of an Operational Plan is to conduct a broad analysis of the human and other capacities required to implement your project – and current and potential sources of resources and partners to help fill capacity needs. This analysis should build on the earlier work that you did in setting up your project team in Step 1.1.

For larger programmes, especially for those involving multiple stakeholders and/or partners, WWF has developed the following comprehensive Capacity Assessment tool (Table 6). This tool is based on a widely used capacity assessment methodology developed by the McKinsey consulting firm (called the 7-S tool). The WWF tool can help your team to address key capacity needs such as staff skills, management structures, partner coordination, and systems needs.

Table 6. Capacity Assessment tool

Category	Key elements to consider	Capacity Required	Capacity Available	Action to fill gap
1. Skills	Technical skills (science, policy, livelihoods, economics, threats, strategies etc.) Process skills (project management, leadership etc., according to the Standards expected).			
2. Specific knowledge	e.g. poverty reduction, forest management etc.			
3. Systems	IT, finance and administration, human resources, communications, office facilities			
4. Management	Adequate management processes in place, organisational structures			
5. Partners	Do we have the necessary commitment and arrangements with partners?			
6. Governance	Decisionmaking structures, signing authorities, organigrammes, reporting and financial management policies, etc			
7. Resources	Infrastructure, buildings, vehicles, field equipment			
8. Power & Influence	Connected individuals and institutions with access or internal and external leveraging ability.			

You also need to make sure you account for any other resources and enabling conditions required to implement your project (such as community support, leadership, and a supportive legal framework). Some of these needs will probably be raised in your analyses of Risk and Sustainability (see below).

For smaller projects, you can use the following list of questions to evaluate capacity needs, although this is not intended as an exhaustive list:

Project Team Skills

- Do you have enough people with the science, policy, technical, process, fund raising or communications skills required to implement the activities in your strategic plan? If not, how will you get them?
- To recruit any new staff or consultants required, how long will it take, how much will it cost and who needs to be involved?
- Will the implementing staff require enhanced or new skills? How will these skills be built, over what time frame and at what cost?

Partners and Wider Institutions

- How much extra work will be required of partner organisations? Do they have enough people with the required skills, knowledge and time? Do they have adequate resources to engage on this project, and have they planned and budgeted accordingly?

- Do you have the necessary wider institutional engagement and infrastructure for longer-term sustainability, or can this be built?
- Does your core team have the ability to monitor partners' activities and impacts? (For more specific details on managing multiple partners, see the guidance for Step 3.4).

Project/Programme Team Management and Governance

- Do you need to make any adjustments to the procedures that you worked out in Step 1.1? In particular, have you worked out reporting lines, how and when you meet/communicate, how you share information, how you make decisions, and levels of authority for spending money?

Office Systems and Support Functions

- How much extra work will be required of the following areas of operation, or will there be needs for recruitment, training or additional funding for any of these?
 - Finance and Administration, and Operations
 - Fundraising and Communications
 - IT
 - Human Resources
 - Science, Policy and Technical Support
 - Project or Programme Management Support

2. Financial Requirements

Your team should also carry out a general assessment of the financial requirements of implementing your plan over the expected lifetime of the project. This can be a fairly simple estimate for smaller, shorter term projects. For longer term, complex programmes, a more comprehensive financial estimate is recommended. Both are described in this section.

In general, this estimate should be a high level (not too detailed) evaluation of your current and potential sources of income, the estimated costs of your action and monitoring activities, and any projected financial resource gaps. You should also consider long term expenditure and funding needs, particularly for larger projects and programmes where the scope of your strategies may be far beyond your current capacity, and you envision the need to scale up, raise more funds, and engage more partners in order to carry out the work.

When estimating expenditure, you should include both direct project expenditures such as staff, research, monitoring and other resources required, and indirect project expenditures such as office management and administration. You should practice full cost recovery wherever possible.⁹

Once you begin actual implementation of your project (starting with Step 3.1) your team will use this general financial estimate to help prepare detailed shorter-term (1-5 year) workplans and budgets for implementing your project.

Below, we describe two types of plans for identifying your financial requirements – the first is more simple and appropriate for most projects, especially those that are smaller scale and shorter term (5 years or fewer). The second type is more detailed and appropriate for larger scale, longer term projects.

⁹ For more detailed information on the WWF Cost Recovery Standard, please see the following on OneWWF:

https://sites.google.com/a/wwf_panda.org/ons/home

Case 1: Simplified project financial needs estimate or model

For most projects, you may develop a simple table or “model” in Excel that shows estimated project income, project expenditures, and your project’s balance and funding gaps (if any). The following is a very simplified example of a five-year financial estimate.

The level of detail in this estimate will depend on the size and complexity of your project as well as where you are in the project cycle. For example, early on in your project design you may wish to have high-level estimates of the costs of major activities. Once you are in the implementation mode (Step 3.1 and beyond) you will have to develop more precise budgets.

In addition, your team may wish to estimate two or three scenarios in relation to your projected income and expenditures (e.g. – expected, best-case and worst-case). You should consider how you will respond to these scenarios, especially the worst-case scenario. For example, which activities will you prioritise as the most important to implement and which will you delay?

Figure 20. Simplified Project Financial Needs Estimate or Model

Summary Budget <i>(All Values in xxxx Currency)</i>	Budget FY 2012	Budget FY 2013	Budget FY 2014	Budget FY 2015	Budget FY 2016	TOTAL
A - Secured Income (Grants, Donations, User Fees, Other): Donor W Donor X Source Y Total Income:						
B - Budgeted Expenditures: Action Plan Strategy/Activity 1 Strategy/Activity 2 Strategy/Activity 3 etc. Monitoring Plan Activity 1 Activity 2 etc. Management Expenditures Other Indirect Expenditures (if any) Total Expenditures:						
C - Balance (A - B): Balance of funds to raise to cover budgeted expenditures						

Case 2: Large programme financial needs estimate or model

For financial estimates of larger and more complex (multi-partner, multi-donor, and/or multi-country) programmes, your financial needs estimate or model will by nature become more complex. As you prepare to implement larger programmes, it is useful to develop “higher-level” extrapolated income and expenditure projections to forecast future financial conditions and needs. These models are used to estimate the full expenditures of your action plan, monitoring plan, other programme-wide

expenditures such as management, and any expenditures associated with building capacity, mitigating risks, and monitoring performance and results.

This comprehensive financial model is used to estimate funding needs and gaps over the full time frame of a large programme (5-10 years or longer). The model allows you to establish coherent income targets for the entire programme, and provides your team with the full context and clear, supportable goals for securing funding and engaging additional partners in your programme.

Figure 21. 10-Year Financial Plan for Mesoamerican Reef Protected Area Network Showing Annual Expenditures, Income and Gaps

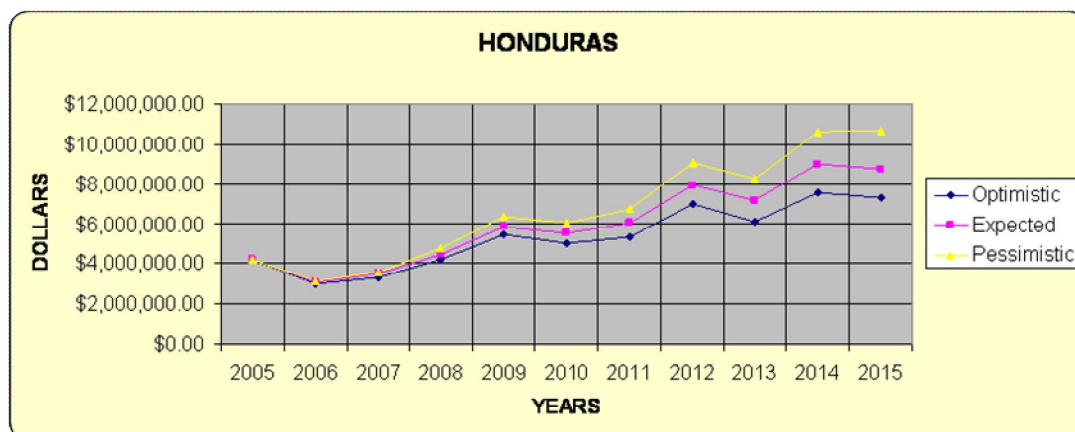


As you move to later steps in the project cycle (e.g., Step 4.3 Analyze Operational Data and Functions), financial models can also serve as programme management tools. By evaluating expenditure and income information and by changing key assumptions, the model can demonstrate how financial and operational changes affect long term funding and partner needs. Aggregate expenditure, income and priorities in the model can guide high-level programme budgeting and resource allocation decisions.

A financial model provides activity and financial data that can serve as key performance indicators (KPIs) for tracking your programme’s progress over time. For example, you can compare estimated expenditures for activities within the model to actual implementation expenditures. Another potential use is to track activity progress by comparing planned versus completed units of activity over time.

Most financial models are built by estimating expenditures for all activities, working from the lists of activities derived from your Action Plan. A financial model for a larger scale project should also reflect expenditures for ongoing operations, one-time capital or start-up expenditures, monitoring, research, and management. The financial model may also include estimates of all current or expected income. This can be from government appropriations, traditional funding sources (GAA grants, foundation grants, donations), user or entry fees and other payment for services, interest on endowments or trust funds, legal settlements, or any other reasonable source. Finally, a financial model for a large programme should be able to provide a gap analysis of income over expenditures, and possibly even the ability to carry out sensitivity analysis or scenario analysis for key financial conditions.

Figure 22. Expenditure Sensitivity Analysis from 10-Year Financial Plan for Mesoamerican Reef Protected Area Network



Building a financial model is a natural extension of your previous work to develop your Action Plan, Monitoring Plan, and Capacity Assessment. You can find examples of best practices from WWF and elsewhere on Connect, and can obtain additional background and support for developing a financial model by contacting the WWFUS Conservation Planning and Design team at strategies@wwfus.org.

Box 6. Steps and considerations in building a financial model

1) Preconditions

- Determine your conservation strategies and activities and make sure the financial model will reflect them;
- Identify who will build and who will maintain (“own”) the financial model;
- Clarify the roles of any partners in the model (e.g., building the model, contributing resources that should be reflected in the model, which partner activities will be included in the model)

2) General Considerations

- Identify key parameters (dimensions) of the model such as geographic regions, strategies, partners or timing;
- Identify assumptions and variables such as expenditure drivers, rate of spending, inflation, or foreign exchange;
- Determine priorities for strategies, activities, geographic areas, or other parameters;
- Determine the time horizon for model (5-year, 10-year or longer).

3) Specific Considerations and Model Details

- Address how expenditure data will be projected (phased) across the time horizon of the model;
- Identify which expenditures are one-time (and/or capital expenditures) and which are recurring;
- Incorporate programme-wide expenditures such as management, monitoring, and communications;
- Determine one-time or recurring income sources and categories the model will use;
- Develop a gap analysis or scenario projection tool within the model to evaluate gaps.

3. Risk Assessment and Mitigation Strategy

As you develop your Operational Plan you should also assess the risks to your project and what you can do to mitigate them. Risks are conditions under which the project/programme is expected to function, but which can cause problems. Projects often have no direct control over these conditions. High risks are those that, when not overcome, are likely to stop the project from achieving its goals and objectives.

A comprehensive risk assessment identifies and ranks project risks. A risk assessment process takes about 2-3 hours to carry out, and will help your team identify and understand risks, agree on the seriousness of those risks, rank them, and decide what (if anything) to do to address them.

A risk mitigation strategy is a plan to address risks that your team has identified. Your team should develop mitigation strategies for any high risk. Timely risk mitigation allows your team to anticipate risks in advance and hence avoid a major impact on your project.

The steps in the risk assessment and mitigation process include:

- a) **Identify Risks** – Your project team should go through a formal exercise to identify specific risks related to your project. It is important to define each risk using concise and unambiguous language. To help your team with this process, WWF has developed a simple template (see Figure 23). This template provides a series of specific questions that span multiple risk categories:

The WWF process looks at a range of risk categories: Political, Economic, Social, Technical, Capacity, Financial, Infrastructure, Partner, Leadership, and Management. Your team does not need to evaluate all of these. It should evaluate just those that you deem relevant and potentially harmful. You should add additional risk categories and questions to the template as needed.

Although the risk categories are common across conservation projects and programmes, the number and relative severity of certain categories may increase with the size of the initiative. Some risks are essentially internal to the project (within your team's control, at least to some extent) and others are external (outside your team's control). A large, multi-country ecoregion programme may have greater external political risks due to government instability or disruptive cross border relations, and greater internal risks due to Network, NO and PO management issues

- b) **Rate Risks** – The next step is to individually rate each risk according to its likelihood, and the severity of its potential effect on the project. The WWF risk assessment template helps your team to rate each risk on a 1-4 scale across two criteria:

Likelihood of Risk Occurring

4 = Very Likely – Almost certain to occur over the life of the project (or a 10 year period, whichever is shorter)

3 = Likely – Probably will occur during a 10-year period

2 = Unlikely – Probably will NOT occur during a 10-year period

1 = Very Unlikely – Almost certain NOT to occur during a 10-year period

Severity of Risk

4 = Very High – Would prevent goals and objectives from being achieved

3 = High – Would cause significant problems or delays in objectives being achieved

2 = Medium – Would cause relatively minor problems or delays in objectives being achieved

1 = Low – Would probably not affect project implementation

- c) **Determine Final Rating of Risks, and Develop Risk Mitigation Strategies** – Add the ratings for steps 1 and 2 for each individual risk and then determine whether each individual risk is high, medium, or low using these thresholds, and then respond as follows:

7-8 = High Risk – You should have a detailed mitigation strategy, and perhaps consider modifying your goals and objectives

4-6 = Medium Risk – You should have a clearly defined mitigation strategy

2-3 = Low Risk – No mitigation strategy required (or a very basic strategy at most)

As with other rating exercises, you should create a matrix to help you compare the risks (see Figure 23).

- d) **Develop risk mitigation actions** – For risks that are essentially internal (e.g. capacity, leadership, partners) you should focus on taking action to reduce the risk. For risks that are external to the project (e.g. political, economic) your response will more likely be to develop contingency plans and monitor the risks. You should then assign responsibilities among your staff and/or partners for carrying out each mitigation strategy and for monitoring each risk as necessary. Mitigation actions for high risks may be large enough to be included in the budget. Finally, you should ensure that your overall risk mitigation strategy is simple, clear and manageable with the resources available to your project.

4. Estimate of Project Lifespan, Sustainability, and Exit Strategy

Finally, one of the most important (yet sometimes most forgotten) tasks of the Design step is to think about the long term future of the project in terms of:

- **Sustainability of the project** – A project can be said to be sustainable when it continues to deliver conservation results indefinitely after most or all external support has been removed.
- **Estimated Project Lifespan** – The period of time over which your team expects to carry out all activities under the Action Plan and achieve the project's intended results. Your initial action plan may represent a first phase of your project. You should be clear about whether you expect further phases and what the timing of those phases will be.
- **Exit Strategy** – The process by which WWF and/or other partners can systematically and responsibly pull out of supporting and/or managing a project, either concluding the work successfully or handing management or funding over to another organization.

In looking at the long-term plans for your project, it is particularly important to clarify expectations with partners, stakeholders, and your own staff. Getting projects up and running successfully is quite a challenge, but exiting from a project or parts of it can be even harder! Few projects seem to have implemented exit strategies and reliable experience is scarce. The basic steps required to develop an exit strategy are described here.

- a) **Assess Factors Ensuring Sustainability** – The following sustainability assessment template (Figure 24) lists some of the most important factors that help ensure sustainability (note that some of these may not be relevant to your particular project). You need to consider to what extent your Action Plan, Capacity Assessment and Financial Plan already address these factors. Based on this. You should identify which issues need more attention and then define actions that must be taken either now in the design stage or later on as the project develops. If you have systematically followed the steps of the *WWF Programme Standards* you should find that many of these factors have already been addressed.

Figure 23. Example of a Risk Rating

Category	Risk Description	Likelihood	Severity	Total	Classification	Risk Mitigation Strategy	Responsible Party
Political	New government not supportive of project	2	4	6	Medium	Educate officials about project Work through partners who have good relations with new government	WWF – Alejandra NFA – Raj
Leadership/management	Project team leader will leave	3	4	7	High	Be aware of potential replacements If leader leaves, work with leader to ensure smooth transition	WWF – Celeste & Miguel
Partner	Partner organizations not able to follow through on commitments	1	2	3	Low	Maintain strong relationships and good communications with partners so that if this happens, can transition some responsibilities to other partners	WWF – Celeste
Technical	Chili fences fail to keep elephants out of villages	1	4	5	Medium	Pilot chilli fences in a small area first	WWF -- Joe
Economic	Recession bankrupts suppliers of circle hooks	2	4	6	Medium	Source international suppliers of circle hooks as a backup supply	Development Alternatives – Diji
Infrastructure	Prolonged rains delay access to project site	1	2	3	Low	Move key supplies to site before rains begin	WWF – Rhoda
Capacity	Loss of project freshwater expect	3	4	7	High	Cultivate an 'understudy' staff member who can carry on key activities in case of departure	WWF -- Raju
Financial	Shift in exchange rates leads to decrease in project budget	3	1	4	Medium	Seek alternative sites and dates for training	Green Island – Martha

Figure 24. Sustainability assessment template

Category	Questions for Consideration	Issues to consider	Actions to take in the programme to ensure sustainability
Local Situation / Grounding in Reality	Does the project adequately reflect the local situation?		
Stakeholders' Priorities	Are the project goals and objectives a priority for the stakeholders?		
Policy and Legislative Environment	Is there sufficient policy and legislative support by the partners/ institutions/ other authorities involved?		
Economic Forces	Does the project take into account the impact of trade and market forces (local, national, int'l, global)? Is the project economically viable?		
Socio-cultural Issues and Gender	Do the project activities, including any proposed changes to people's behavior, take into account cultural traditions, religious beliefs and social practices? Will sufficient ownership of project activities by local communities be assured?		
Climate Change	Have climate change effects been considered? Have project activities been defined that will respond to existing climate effects and make targets more resilient to existing threats and future climate changes.		
Appropriate Technology and Methodologies	Will local staff and communities be able to use the methods, equipment and infrastructure and maintain them after the end of the project?		
Equity	Will organizations and individuals involved in the project (or living in the project area) benefit fairly?		
Financial Resources	Will the financial resources needed to maintain operations after the project be available (infrastructure, equipment, staffing etc.)		
Institutional, Community and Individual Capacity	Will the government, communities or other partners involved in project implementation have the necessary capacity to manage ongoing activities and monitoring?		
Participation and Partners	What is the project's strategy for encouraging involvement and ownership of different stakeholders? Are the needed institutions (government agencies, private sector, and civil society) sufficiently and effectively engaged in the project?		

- b) **Define Who Will Continue the Activities** – For WWF or your team to exit successfully, key stakeholders with influence over the factors that affect the programme need to take ownership. The development of effective partnerships with such influential groups or institutions is therefore critical; within this partnership, common goals and objectives need to be agreed. The project team may during the lifetime of the project deliberately limit itself to playing the role of a facilitator, encouraging the major stakeholders to play the principal implementation roles. (Partnerships are described more fully in Step 3.4).
- c) **Estimate Lifespan and Define Exit Strategy** – It is important to set expectations with all partners regarding how long you anticipate the project will last and what will happen when it ends. An estimate of the lifespan is important, but at the same time it is important to base any actual decision about exit on clear criteria rather than rigidly fixing the time for an exit.

Based on your analysis of factors for sustainability, your project team and key partners should define the end state that you would want to see in order to be able to exit. This may mean more than the achievement of your goals and objectives as such; it may also mean that certain supporting conditions have to be in place for those achievements to last, based on the most important sustainability factors. For example, a fully functional watershed committee may require full levels of participation and clear decision-making structures in order to be sustainable. It is then useful to map out how this end state will be achieved. Often it can be useful to define the long-term future of a project in phases. For example the project team may continue to play a role after the first phase ends, but its role may change (e.g., it may focus on different activities or transition from an implementer to a facilitator).

Furthermore, projects usually need to differentiate their exit strategies by each major activity or group of activities. Some activities may be effectively completed within a short time while others may be long-term. As the project develops, the team should define:

- **Which activities can/ should stop completely?** Exits will typically be appropriate for activities that completely achieve their objectives and need no further attention from project team or partners OR activities that are unlikely to ever achieve their objectives.
 - **Which activities will be continued by a partner?** The project team should consider how the effectiveness of such work is monitored.
 - **Which activities will be continued by the project team?** Reasons may include a requirement for particular expertise or that the criteria for exit have still not been met and the team's involvement is seen as critical.
- d) **Making An Exit** – As an exit scenario develops, it is important to maintain positive relationships with partners and key stakeholders. In particular, it is important to:
- Signal intentions in advance
 - Formally communicate decisions when they are known
 - Discuss implications of an exit, including expectations for each main Activity
 - Allow time for scale down of activities, as appropriate

Some References

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Assignment 6 – Develop Part of an Operational Plan

- Choose **at least one** of the following three operational plan components described in this session:
 - Human Resource and Other Capacity Requirements [use template in Table 6]
 - Risk Assessment and Mitigation Strategy [use template in Figure 23]
 - Sustainability Assessment [use template in Figure 24].
- For your selected assessment please attempt to identify one risk/sustainability/capacity issue for each category in the template as well as related strategies/actions.
- Briefly (1-2 paragraphs) describe your observations about the process for developing these components of an operational plan. (Note: you will not have fully developed the components but you should be able to reflect on how you expect the process would go and the potential utility of these components).

Hand in your assignment as Assignment 6 by posting your document on the PPMS Online Modules Google site.

Evaluation Form

Congratulations! You have now finished the Design step of the *WWF Programme Standards*. We really hope that you found it useful and have picked up some new skills and tools that will be practical and valuable in your everyday work. The most important thing to do with new skills is to use them as soon as possible. And remember that the Programme Standards are intended to be a flexible set of tools. You should use the parts that you think are relevant to your project, and adapt them as much as

necessary. And if you feel that you need more guidance or technical assistance, please contact CSPU at WWF International (jschwab@wwfint.org) who will be happy to help you find the necessary expertise.

Finally, we would like to ask you to take a few minutes to fill out an official evaluation form – to be used for general module evaluation improvement.

The form can be found here: <http://www.surveymonkey.com/s/7QKLG8R>.

Thanks and wishing you happy and successful project management!

Annex 1. Glossary

The majority of this glossary comes directly from the glossary provided in the *WWF Programme Standards for Conservation Project and Programme Management* (version October 2012). We have added to the glossary only in cases where the Module introduces new terms not directly addressed in this glossary. The selection of specific terms for a given concept and the definitions for these terms are based on current usage of words by the WWF Network, other conservation organizations, and planners in other disciplines. For a broader glossary of terms across the WWF Network, go to OneWWF at: <https://sites.google.com/a/wwf.panda.org/ons/home>

Action Plan – A description of a project’s goals, objectives, and strategies that will be undertaken to abate identified threats and make use of opportunities. It should include an explanation of why you selected these strategies, and also formal descriptions of your overarching theory of change and any core assumptions. A WWF action plan outlines what WWF’s contribution is to a joint project’s overall action plan.

Activity – A specific action or set of tasks undertaken by project staff and/or partners to reach one or more objectives. A good activity meets the criteria of being: *linked, focused, feasible, and appropriate*. Sometimes called an action, intervention, response, or strategic action.

Adaptive Management – The incorporation of a formal learning process into conservation action. Specifically, it is the integration of project design, management, and monitoring, to provide a framework to systematically test assumptions, promote learning, and supply timely information for management decisions.

Assumption – A project’s core assumptions are the logical sequences linking project activities to one or more targets as reflected in a results chain diagram – see also theory of change. Other assumptions are related to factors that can positively or negatively affect project performance – see also risk factor.

Audit – An assessment of a project or programme in relation to an external set of criteria such as generally accepted accounting principles, sustainable harvest principles, or the standards outlined in this document. Compare to evaluation.

Biodiversity Target – An element of biodiversity at a project site, which can be a species, habitat/ecological system, or ecological process that a project has chosen to focus on. Strictly speaking, biodiversity targets refer to all biodiversity elements at a site, but typically the term is used as a shorthand for a specific element of biodiversity that a project has chosen to focus on. Synonymous with conservation target.

Community of Practice – A group of practitioners who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.

Conceptual Model – A diagram that represents relationships between key factors that are believed to impact or lead to one or more biodiversity targets. A good model should link the biodiversity targets to threats, opportunities, stakeholders, and intervention points, capturing the logic of the intended change behind planned activities. It should also indicate which factors are most important for measures.

Conservation Target – A synonym for biodiversity target.

Critical Threat – Direct threats that have been prioritized as being the most important to address.

Direct Threat – A human action that immediately degrades one or more biodiversity targets. For example, “logging” or “fishing.” Typically tied to one or more stakeholders. Sometimes referred to as a “pressure” or “source of stress.” Compare with indirect threat.

Driver – A factor identified in an analysis of the project situation that is affecting, or could affect, a direct threat. It can be an indirect threat, opportunity, or enabling condition. Also known as contributing factor.

Enabling Condition – A broad or high-level opportunity within a situation analysis. For example, the legal or policy framework within a country.

Evaluation – An assessment of a project or programme in relation to specific performance criteria: quality and relevance of design, efficiency, effectiveness, impact, sustainability, and adaptive capacity. Compare to audit.

Factor – A generic term for an element of a conceptual model including direct and indirect threats, opportunities, and associated stakeholders. It is often advantageous to use this generic term since many factors – for example tourism – could be both a threat and an opportunity.

Forecasting – A method for assessing the financial performance of a project or programme.

Goal – A formal statement detailing a desired impact of a project, such as the desired future status of a target. A good goal meets the criteria of being ***linked to targets and ‘SMART’***.

Indicator – A measurable entity related to a specific information need such as the status of a target/factor, change in a threat, or progress toward an objective. A good indicator meets the criteria of being: *measurable, precise, consistent, and sensitive*.

Indirect Threat – A factor identified in an analysis of the project situation that is a driver of direct threats. Often an entry point for conservation actions. For example, “logging policies” or “demand for fish.” Sometimes called a root cause or underlying cause. Compare with direct threat.

Information Need – Something that a project team and/or other people must know about a project. The basis for designing a monitoring plan.

Intermediate Result – see planned intermediate result.

Iteration – The process of repeating the steps in the project cycle, each time refining and adjusting project plans and hopefully coming closer to the project’s vision and goals.

Logical Framework – Often abbreviated as logframe. A matrix that results from a logical framework analysis that is used to display a project’s goals, objectives, activities, and indicators in tabular form, showing the logic of the project.

Magnification – Taking lessons learned from one project and applying them to others, thus increasing the impact of the first project.

Monitoring Plan – The plan for monitoring your project. It includes information needs, indicators, and methods, spatial scale and locations, timeframe, and roles and responsibilities for collecting data.

Method – A specific technique used to collect data to measure an indicator. Methods vary in their *accuracy and reliability, cost-effectiveness, feasibility, and appropriateness*.

Objective – A formal statement detailing a desired outcome of a project such as reducing a critical threat. A good objective meets the criteria of being *outcome oriented and SMART*. If the project is well conceptualized and designed, realization of a project’s objectives should lead to the fulfillment of the project’s goals and ultimately its vision. Compare to vision and goal.

Operational Plan – The operational plan for your project. Key components include analyses of financial, human, and other resource requirements and risk assessment and mitigation, governance and communications, and project lifespan/exit strategies.

Opportunity – A factor identified in an analysis of the project situation that potentially has a positive effect on one or more targets, either directly or indirectly. Often an entry point for conservation actions. For example, “demand for sustainably harvested timber.” In some senses, the opposite of threat.

Planned Intermediate Result – A benchmark or milestone that a project is working to achieve en route to accomplishing a final goal or objective. (In this case, “intermediate” typically refers to a temporal dimension, but it can also be used to refer to a causal dimension).

Practitioners – All people involved in designing, managing, and monitoring conservation projects and programmes.

Programme – A group of jointly-managed, interdependent projects which together aim to achieve a common broad vision. In the interest of simplicity, this document uses the term “project” to represent both projects and programmes since these standards of practice are designed to apply equally well to both.

Project – A set of actions undertaken by a defined group of practitioners – including managers, researchers, community members, or other stakeholders – to achieve defined goals and objectives. The basic unit of conservation work. Compare with programme.

Project Area – The place where the biodiversity or footprint issue of interest to the project is located. It can include one or more “conservation areas” or “areas of biodiversity significance” as identified through ecoregional assessments. Note that in some cases, project actions may take place outside of the defined project area.

Project Team – A specific core group of practitioners who are responsible for designing, implementing, and monitoring a project. This group can include managers, stakeholders, researchers, operations staff and other key implementers.

Result – The desired future state of a target or factor. Results include *impacts* which are linked to targets, *outcomes* which are linked to threats and opportunities, and *outputs* which are linked to activities. See the Action Plan section for more explanation.

Results Chain – A graphical depiction of a project’s core assumption, the logical sequence linking activities to one or more targets. In scientific terms, it is equal to a “hypothesis.”

Risk Factor – A condition under which the project is expected to function, but which can cause problems for the project. Often, a condition over which the project has no direct control. Killer risks are those that when not overcome, will completely stop the project from achieving its goals and objectives.

Scope – The broad geographic or thematic focus of a project. Projects that are focused on a specific place will have a geographic scope or project area. Projects whose boundary is defined by

specific species, threats, opportunities or enabling conditions will have a thematic scope. Where the scope is thematic, there may also be a geographic focus.

Stakeholder – Any individual, group, or institution who has a vested interest in the natural resources of the project area and/or who potentially will be affected by project activities and have something to gain or lose if conditions change or stay the same. Stakeholders are all those who need to be considered in achieving project goals and whose participation and support are crucial to its success.

Strategic Plan – The overall plan for a project. A complete strategic plan includes descriptions of a project's scope and vision, targets, analysis of project situation, Action Plan, Monitoring Plan (monitoring plan), and Operational Plan.

Strategy – A group of activities with a common focus that work together to reduce threats, capitalize on opportunities, or restore natural systems. Strategies include one or more activities and are design to achieve specific objectives and goals.

Target – What the project *ultimately* wants to affect in a positive manner. Sometimes used as shorthand for biodiversity/conservation target. Usually targets are related to biodiversity but in some cases human welfare targets may be defined as well.

Task – A specific action in a workplan required to implement activities, Monitoring Plan, or other components of a strategic plan.

Theory of Change – A narrative description and/ or diagram linking a project strategy to what the strategy wants to achieve (long-term objectives and goals). Often expressed in the form of a diagram such as a Results Chain that clarifies the project's logic, combined with a statement of an overarching approach or philosophy that the project considers to be 'true' (and for which there is good supporting evidence). See also assumption.

Threat – A human activity that directly or indirectly degrades one or more targets. Typically tied to one or more stakeholders. See also direct threat and indirect threat.

Vision – A description of the desired state or ultimate condition that a project is working to achieve. A complete vision can include a description of the biodiversity of the site and/or a map of the project area as well as a summary vision statement.

Vision Statement – A brief summary of the project's vision. A good vision statement meets the criteria of being *relatively general*, *visionary*, and *brief*.

Workplan – A short-term schedule for implementing an action, monitoring, or operational plan. Workplans typically list tasks required, who will be responsible for each task, when each task will need to be undertaken, and how much money and other resources will be required.

Annex 2. Wetlands Teaching Example

The following example is adapted from WWF Australia's Wetland Watch project. Two WWF Australia staff members, Christina Mykytiuk and Richard McLellan, participated in the 2006 pilot run of the WWF Online campus's training module on Step 1 (Design) and Step 2 (Define) of the *WWF Programme Standards*. They have graciously permitted the use and adaptation of their material for training purposes.

In the following pages, we provide example outputs for the Wetland Watch project for each of the sub-steps under Step 2 -- Design. This material has been adapted for teaching purposes. The intent is to give another real-world example of how *the Standards* have been applied, not to explain each product in detail. If you want more in-depth information about a particular step, please refer back to the relevant section of the module manual.

Also note that the example is meant to be illustrative and does not include every product that would result from a full strategic planning process. For instance, although we identify five strategies the project will undertake, we have only developed results chains and the corresponding objectives, activities, and indicators for two of those chains.

2.1 ACTION PLAN

2.1 Goals

Conservation target 1: Woodlands adjacent to high-conservation value wetlands

Goal 1: By the end of 2020, at least 200 hectares of contiguous woodlands adjacent to the Swan Coastal Plain high-conservation value wetlands are intact and contain healthy, representative plant communities (e.g., eucalypts, melaleuca forests)*

** Representative communities to be specified.*

Conservation target 2: Seasonally-flooded wetlands (e.g., damplands and palusplains)

Goal 2: By June 2020, 300 new private properties encompassing 150 ha of high conservation value* wetlands on the Swan Coastal Plain reliably support key ecological processes** and contain viable populations of key native flora and fauna, as listed by the Department of Environment and Conservation.

** High conservation value wetlands = wetlands assigned 'Conservation' management category in the Geomorphic Wetlands Swan Coastal Plain dataset (Department of Environment and Conservation, Western Australia).*

*** Ecological processes include groundwater recharge, flood flow alteration, sediment stabilization, and nutrient removal/transformation*

Note: Recall that this team had a nested target of water filtration processes. It is presumed that if the seasonally-flooded wetlands are protected, the water filtration process will be maintained. So, it is not necessary to set a goal for a nested target. The team should probably identify an indicator or two though to be able to report on their nested target and to make sure it is indeed being conserved.

Conservation target 3: Blue-billed ducks

Goal 3: By mid-2017, the presence (no. species represented) and abundance of blue-billed ducks dependent upon the Swan Coastal Plain return to at least 1995 levels

Conservation target 4: Shrublands adjacent to high-conservation value wetlands

Goal 4: By the end of 2020, coverage of native shrublands adjacent to the Swan Coastal Plain high-conservation value wetlands is at least equal to 1990 levels.

2.1 Strategy Selection

Table A6. Brainstorming of Strategies to Address Threats to Conservation targets

Strategy	To address factor:	To reduce direct threat of:
Promotion of best management practices and conservation protection mechanisms	Limited landowner awareness	Illegal clearing
Awareness raising campaign to increase landowners understanding of clearing laws	Limited landowner knowledge of laws	Illegal clearing
Lobby state agency/ political decision makers for better enforcement	Weak law enforcement	Illegal clearing
Habitat restoration to maintain and/or restore flora and fauna species diversity	Loss of wetland flora and fauna	Illegal clearing Clearing for residential & infrastructure
Work with developers to set aside high conservation value wetlands	Failed implementation of state/local government planning	Clearing for residential & infrastructure
Lobby state/ local govt for improved planning – Urban development boundary	Failure to prioritize wetland conservation in state/local planning	Clearing for residential & infrastructure
Lobby govt to introduce policy to limit population growth/ promote decentralisation	Growing population	Clearing for residential & infrastructure Increased groundwater extraction Pesticides from agriculture
Weed eradication campaign	Invasive weeds	Invasive weeds
Awareness raising campaign to improve landowner vegetation management	Lack of landowner understanding off vegetation management	Invasive weeds
Limit recreational use in sensitive areas	Recreational use	Invasive weeds
Encourage water efficiency measures by households & industry	Water efficiency measures Demand for water	Increased groundwater extraction
Lobby govt for stricter bore licensing and monitoring controls	Water efficiency measures	Increased groundwater extraction
Encourage energy efficiency measures	Climate change (reduced rain)	Climate change (reduced rain)
Influence international policy to reduce global warming	Climate change (reduced rain)	Climate change (reduced rain)
Lobby govt to take action to address climate change	Climate change (reduced rain)	Climate change (reduced rain)
Awareness raising campaign to discourage hunting	Hunting culture	Hunting locally & along migratory path
Training for conventional farmers in organic methods	Limited capacity for organic farming	Pesticides from agriculture

Strategy	To address factor:	To reduce direct threat of:
Promotion of incentives to encourage more organic agriculture	Limited organic agriculture	Pesticides from agriculture
Awareness raising campaign to inform landowners about the impact of grazing on wetlands & shrublands	Social acceptance of wetlands for grazing	Overgrazing

Based on an initial qualitative assessment of feasibility and effectiveness, the team narrowed down the potential list of 19 strategies to the 11 strategies listed in Table A7.

Table A7. Relative Ranking of Strategies to Address Threats to Conservation targets

Strategy	Likelihood of success	Feasibility	Cost	Gap	TOTAL
Promotion of best management practices and conservation protection mechanisms	11	11	10	9	41
Awareness raising campaign to increase landowners understanding of clearing laws	9	10	8	6	33
Habitat restoration to maintain and/or restore flora and fauna species diversity	8	6	1	7	22
Weed eradication campaign	7	5	2	10	24
Awareness raising campaign to improve landowner vegetation management	6	9	9	11	35
Work with developers to set aside high conservation value wetlands	10	1	6	8	25
Encourage water efficiency measures by households & industry	5	4	5	1	15
Encourage energy efficiency measures by households	1	3	4	2	10
Training for conventional farmers in organic methods	2	2	3	3	10
Promotion of incentives to encourage more organic agriculture	3	7	11	4	25
Awareness raising campaign to inform landowners about the impact of grazing on wetlands & shrublands	4	8	7	5	24

Strategies Chosen and Justification

After the relative ranking process, the team decided to undertake the six strategies highlighted in yellow in Table A7.

- **Promotion of best management practices and conservation protection mechanisms:** This strategy ranked high for all four criteria and, therefore, is a very important strategy to undertake.
- **Habitat restoration to maintain and/or restore flora and fauna species diversity:** This strategy ranked fairly high on all criteria, except cost. Habitat restoration is extremely expensive. But, the team felt it was very important to seek the resources to work on habitat restoration, especially given its high likelihood of success.
- **Weed eradication campaign:** As with habitat restoration, weed eradication is a costly strategy. The team sees it as very important to undertake now though because, the longer the team waits, the worse the problem of invasive species will become. The team also hopes it can eventually train a volunteer corps, which will help keep the cost of this strategy down.
- **Awareness raising campaign to increase landowners understanding of clearing laws;** Awareness raising campaign to improve landowner vegetation management: These two strategies are similar and could probably be combined into one strategy. They ranked fairly high on the different criteria and, thus, were seen as important strategies. In addition, the team has previous experience with Awareness raising campaigns and would be able to draw on that experience for this project.
- **Awareness raising campaign to inform landowners about the impact of grazing on wetlands & shrublands:** Although this is an awareness raising strategy, the audience is different than the one for the above strategies. While the team is not certain of its likelihood of success, they feel it is important to address this threat because it is the primary threat affecting their shrublands target.

The strategies the team did not choose ranked much lower, with two exceptions:

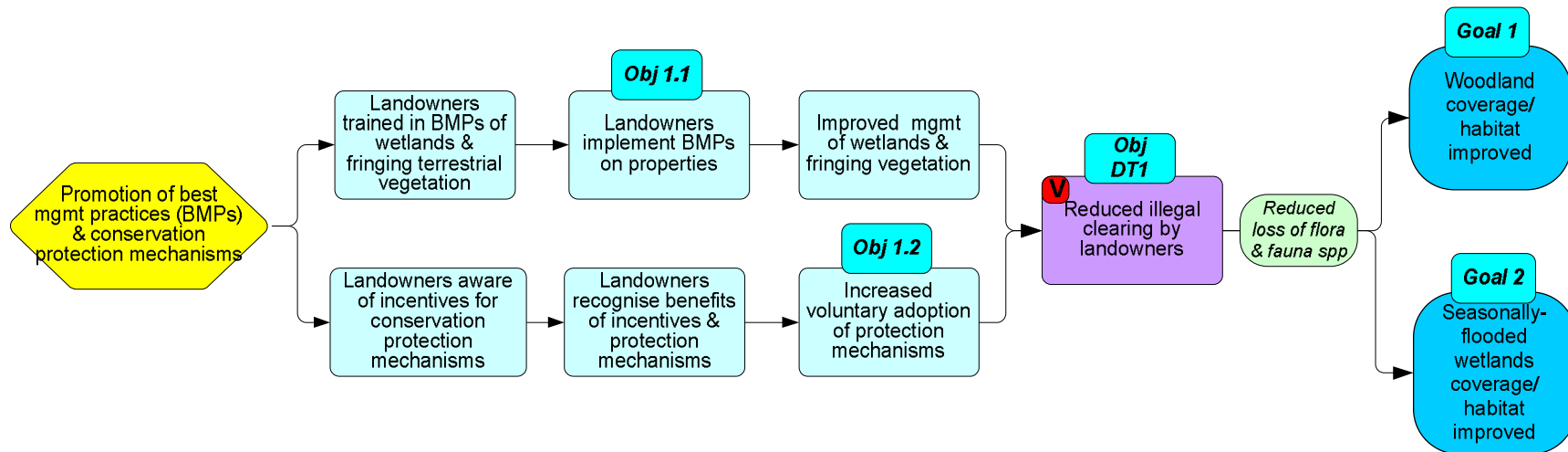
- **Work with developers to set aside high conservation value wetlands:** This strategy received a relatively high ranking and a higher overall ranking than did some of the strategies the team chose. Nevertheless the team did not feel it was wise for them to pursue it because they did not have the resources or connections to effectively work with developer stakeholders. For this reason, the team ranked the feasibility of this strategy as very low and decided not to pursue it.
- **Promotion of incentives to encourage more organic agriculture:** The team is not certain of this strategy's likelihood of success, but it still feels it is important to take action here because this is the only strategy they have identified that has potential to impact the blue-bill duck target. The team's expertise is not in organic agriculture, but it has good contacts with organizations working in this area. Thus, the team decided not to implement this strategy itself but rather encourage local agriculture organizations to adopt it or a similar strategy that would reduce the threat of pesticides from agriculture.

2.1 Results Chains, Objectives, and Activities

For this teaching example, we have not presented the results chains, objectives, and activities for all strategies. Rather, we provide them for two illustrative strategies. Because results chains help clarify how the goals, objectives, and activities tie to specific strategies, we have grouped each of these products with their corresponding strategy.

Strategy 1: Promotion of Best Management Practices and Conservation Protection Mechanisms

Figure A3. Results Chain for Promotion of Best Management Practices and Conservation Protection Mechanisms



Goal 1: By the end of 2020, at least 200 hectares of contiguous woodlands adjacent to the Swan Coastal Plain high-conservation value wetlands are intact and contain healthy, representative plant communities (e.g., eucalypts, melaleuca forests)*

Goal 2: By June 2020, 300 new private properties encompassing 150 ha of high conservation value* wetlands on the Swan Coastal Plain reliably support key ecological processes** and contain viable populations of key native flora and fauna, as listed by the Department of Environment and Conservation.

Objective 1.1: By 2009, at least 75% of those landowners trained in best management practices (BMPs) are implementing at least two BMPs on their properties

Objective 1.2: By 2010, at least 35 new properties encompassing at least 50 ha of woodland and/or seasonally-flooded wetlands are being protected through conservation protection mechanisms (including conservation zoning and/or conservation covenants).				
Objective DT1: By 2012, illegal clearing rates (ha/annum) of woodland and seasonally-flooded wetlands within the Wetland Watch project area reduced by 10%, as compared to 2004 levels.				
Sub-strategy – Promotion of best management practice	Person responsible for doing	Person responsible for monitoring	Date to be done	Comments
Activity 1. Identify owners of high conservation value wetlands for targeting	Brett/ Christina	Brett/ Christina	December 2007	
Activity 2. Engage identified landowners in Wetland Watch (through project promotion in media, letters, phone calls)	Brett/ Christina	Brett/ Christina	January 2008	
Activity 3a. Train landowners in best management practices techniques through individual site visits	Brett/ Christina	Brett/ Christina	July 2008	
Activity 3b. Train landowners in best management practices through workshops/other training activities	Brett/ Christina	Brett/ Christina	July 2008	Evaluate success of specific training, use to develop subsequent events/activities
Activity 4. Assist landowners with implementation of practices	Brett/ Christina	Brett/ Christina	July 2008 – through end of project	
Sub-strategy – Promotion of conservation protection mechanisms	Person responsible for doing	Person responsible for monitoring	Date to be done	Comments
Activity 1. Identify owners of high conservation value wetlands for targeting	Brett/ Christina	Brett/ Christina	December 2007	
Activity 2. Identify available conservation protection mechanisms	Brett/ Christina	Brett/ Christina	December 2007	
Activity 3. Engage identified landowners in Wetland Watch (through project promotion in	Brett/ Christina	Brett/ Christina	March 2008	

Wetlands Example Modified and Adapted for Teaching Purposes

media, letters, phone calls)				
Activity 4. Liaise with landowners to narrow down appropriate conservation protection mechanisms	Brett/ Christina	Brett/ Christina	September 2008	
Activity 5. Work with landowners & appropriate agencies to implement conservation protection mechanisms	Brett/ Christina	Brett/ Christina	December 2008 – through end of project	

Note that the timing for the objectives (and activities) follows the chronology of the results chain. Objective 1.3 necessarily has to happen after Objectives 1.1 and 1.2. Likewise, the goals will happen after Objective 1.3. It is important to be careful about this chronology when defining your goals and objectives along the chain.

Strategy 5: Awareness Raising Campaign about the Impact of Grazing on Wetlands & Shrublands

Figure A4. Results Chain for Awareness Raising Campaign about Impact of Grazing on Wetlands & Shrublands

Goal 2: By June 2020, 300 new private properties encompassing 150 ha of high conservation value* wetlands on the Swan Coastal Plain reliably support key ecological processes** and contain viable populations of key native flora and fauna, as listed by the Department of Environment and Conservation.				
Goal 4: By the end of 2020, coverage of native shrublands adjacent to the Swan Coastal Plain high-conservation value wetlands is at least equal to 1990 levels.				
Objective 5.1: By 2010, at least 90% of landowners do not allow their cattle or other cattle on publicly or privately-held wetlands and shrublands on the Swan Coastal Plain				
Objective DT8: By 2013, there are fewer than 10 incidences of grazing reported annually on either publicly or privately-held wetlands and shrublands on the Swan Coastal Plain				
Activities	Person responsible for doing	Person responsible for monitoring	Date to be done	Comments
Activity 1. Identify target audiences for the awareness campaign	Brett/ Christina	Brett/ Christina	September 2007	
Activity 2. Based on target audience, determine the most appropriate means of communication	Brett/ Christina	Brett/ Christina	September 2007	
Activity 3. Research existing efforts and coordinate with local officials and NGOs	Brett/ Christina	Brett/ Christina	December 2007	Some existing efforts – need to make sure we are not duplicating & also look for opportunities to piggyback
Activity 4. Develop pilot materials for campaign	Brett/ Christina	Brett/ Christina	February 2008	
Activity 5. Pilot run of campaign on small set of landowners	Brett/ Christina	Brett/ Christina	May 2008	
Activity 6. Adjust based on results of pilot campaign	Brett/ Christina	Brett/ Christina	July 2008	
Activity 7. Full-scale implementation of campaign	Brett/ Christina	Brett/ Christina	August 2008 – through end of project	Continue to evaluate success & adjust as necessary

2.2 MONITORING PLAN

Define Audience and Information Needs

Monitoring Plan Audience – Project Team

- Project Manager and Officer: Christina Mykytiuk and Brett Brenchley
- Program Leader: Richard McLellan
- Project Advisor: James Duggie.

Monitoring Plan Audience – Other Key Audiences

- Landowners involved in Wetland Watch
- Project Partners: Cities of Armadale, Cockburn, Rockingham, Town of Kwinana, Chittering Landcare Centre, Department of Environment and Conservation
- Donors: Swan Catchment Council, Natural Heritage Trust / DEH
- Local Communities: Shire of Chittering, City of Swan
- Policymakers: Western Australia Minister for the Environment; EPA; DEC
- WWF network: ecoregional; national; international
- Western Australian conservation organisations: Wetlands Conservation Society, Rockingham Regional Environment Centre, Conservation Council of Western Australia

The information needs of each of these M&E-specific stakeholders was also documented during this phase of the planning process, and is presented in the table below.

Table A8. Monitoring Plan Audience and Information Needs

Audience	General Information Needs
Project Team	How the project is progressing against goals and objectives; what is and what isn't working
Project Partners	How the project is progressing against goals and objectives; what is and what isn't working
Donors	How the project is progressing against goals and objectives. Significant Outcomes.
Landowners, local community, policy makers, WWF network, conservation organisations	General information on the project's progress; information on project outcomes; and impact on target; lessons/knowledge

2.2 Indicators and Methods

Table A9. Partial Monitoring Plan for Wetlands Example

PROJECT GOALS					
Goal 1: By the end of 2020, at least 200 hectares of contiguous woodlands adjacent to the Swan Coastal Plain high-conservation value wetlands are intact and contain healthy, representative plant communities (e.g., eucalypts, melaleuca forests)*					
What? (Indicator)	How? (Methods)	When?	Who	Where?	Comments
# of hectares of contiguous woodlands adjacent to the Swan Coastal Plain high-conservation value wetlands that are intact and contain healthy, representative communities*	Aerial surveys Conduct site visits	Baseline in 2007 Every 5 years thereafter	Project Officers – Brett & Christina	Local government agency office Project site	<i>*representative to be defined</i> Local gov't agency can give free access to aerial surveys
Goal 2: By June 2020, 300 new private properties encompassing 150 ha of high conservation value* wetlands on the Swan Coastal Plain reliably support key ecological processes** and contain viable populations of key native flora and fauna, as listed by the Department of Environment and Conservation.					
What? (Indicator)	How? (Methods)	When?	Who	Where?	Comments
# of new private properties containing high conservation value wetlands that support key ecological processes	Check registers of sites Survey landholders and conduct site visits	Baseline in 2007 Annually thereafter	Project Officers – Brett Brenchley & Christina Mykytiuk	Project office, DEC office Project site	Obtain data on location of high conservation value wetlands from DEC wetlands dataset
# of new private properties containing high conservation value wetlands with viable populations of key native flora and fauna	Check registers of sites Survey landholders and conduct site visits	Baseline in 2007 Annually thereafter	Project Officers – Brett Brenchley & Christina Mykytiuk	Project office, DEC office Project site	Obtain data on location of high conservation value wetlands from DEC wetlands dataset Consult with DEC for key native flora and fauna
# hectares of high conservation value wetlands on the Swan Coastal Plain, located on private land, that support key ecological processes	Check registers of sites Survey landholders and conduct site visits	Baseline in 2007 Annually thereafter	Project Officers – Brett & Christina	Project office Project site	

Wetlands Example Modified and Adapted for Teaching Purposes

# hectares of high conservation value wetlands on the Swan Coastal Plain, located on private land, that contain viable populations of key native flora and fauna	Check registers of sites Survey landholders and conduct site visits	Baseline in 2007 Annually thereafter	Project Officers – Brett & Christina	Project office, DEC office Project site	Consult with DEC for key native flora and fauna
Goal 4: By the end of 2020, coverage of native shrublands adjacent to the Swan Coastal Plain high-conservation value wetlands is at least equal to 1990 levels					
What? (Indicator)	How? (Methods)	When?	Who	Where?	Comments
# hectares of native shrubland vegetation	Aerial surveys Conduct site visits	Baseline in 2007 Every 5 years thereafter	Project Officers – Brett & Christina	Local government agency office Project site	Local gov't agency can give free access to aerial surveys
STRATEGY 1: Promotion of Best Management Practices and Conservation Protection Mechanisms					
Objective 1.1: By 2009, at least 75% of those landowners trained in best management practices (BMPs) are implementing at least two BMPs on their properties					
What? (Indicator)	How? (Methods)	When?	Who	Where?	Comments
% of landowners trained who are implementing BMPs # of BMPs each landowner is implementing # of hectares under BMPs	Check register of Wetland Watch and Land for Wildlife sites Survey landholders and conduct site visits	Baseline in 2007 Every 6 months thereafter	Project Officers – Brett & Christina	Project office Project site	Not necessary to measure # hectares for this objective, but gives a sense of magnitude
Objective 1.2: By 2010, at least 35 new properties encompassing at least 50 ha of woodland and/or seasonally-flooded wetlands are being protected through conservation protection mechanisms (including conservation zoning and/or conservation covenants).					
What? (Indicator)	How? (Methods)	When?	Who	Where?	Comments
# of properties protected through conservation protection mechanisms # of hectares being protected	Check register of Wetland Watch, Land for Wildlife and covenant sites Survey landholders and conduct site visits	Baseline in 2007 Every 6 months thereafter	Project Officers – Brett & Christina	Project office, DEC office Project site	

Objective DT1: By 2012, illegal clearing rates (hectares/year) of woodland and seasonally-flooded wetlands within the Wetland Watch project area reduced by 10%, as compared to 2004 levels.					
What? (Indicator)	How? (Methods)	When?	Who	Where?	Comments
# hectares per year of high conservation value woodlands and seasonally-flooded wetlands illegally cleared within the Wetland Watch project area	Data from state Department of Environment & Cross-check aerial photography with clearing permits	Baseline in 2007 Annually thereafter	Project Officers – Brett & Christina	Project office, DEC office	
STRATEGY 5: Awareness raising campaign to inform landowners about the impact of grazing on wetlands & shrublands					
Objective 5.1: By 2010, at least 90% of landowners do not allow their cattle or other cattle on publicly or privately-held wetlands and shrublands on the Swan Coastal Plain					
What? (Indicator)	How? (Methods)	When?	Who	Where?	Comments
% of landowners who do not allow cattle on their land or neighboring wetlands or shrublands	Survey landowners Conduct site visit to cross check	Baseline in 2007 Annually thereafter	Project Officers – Brett & Christina	Project site	
Objective DT8: By 2013, there are fewer than 10 incidences of grazing recorded annually by the DEC on either publicly or privately-held wetlands and shrublands on the Swan Coastal Plain					
What? (Indicator)	How? (Methods)	When?	Who	Where?	Comments
# of incidences of grazing DEC records per year	Check DEC records Cross check with site visits	Baseline in 2007 Annually thereafter	Project Officers – Brett & Christina	DEC office Project site	

2.3 OPERATIONAL PLAN

Human and Other Resource requirements

This team undertook an analysis of human capacity and skills required to implement their project (Table A10). A complete operational plan would also include:

- Risk Assessment and Mitigation Strategy
- Analysis of Financial Requirements
- Estimate of Project Lifespan and Exit Strategy – How long your project will last and how you will ensure sustainability of your project's achievements.

Table A10. Analysis of Human Capacity and Skills Required

	Skills/Capacity Required	Current Skills/Capacity	Gap/Comments
Project Team Staff	<ul style="list-style-type: none"> • 2 Project Officer to implement project with technical wetland related skills/ knowledge and skills in landholder/ stakeholder engagement • Project Manager with appropriate project and staff management skills 	<p>Current project staff resources meet project requirements</p> <p>Most project skill and knowledge requirements are met by current project staff</p>	<p>If recruitment were required, it would involve a timeframe of 2- 3 months and a cost of \$1,500</p> <p>Training budget of \$1,500 to meet any future training requirements</p>
Partner Institutions	<ul style="list-style-type: none"> • Membership on project steering committee – input of local wetland knowledge • Technical support to project including access to GIS &/or aerial photography, landowners contact details • Hosting of Project Officers • Financial support for the project 	<p>All partner organisations have been engaged in the project and have provided a staff member to be on the project steering committee.</p> <p>Currently both Project Officers are hosted by partner organisations.</p> <p>The agreement with partner organisation is informal with the exception of one of those hosting a Project Officer.</p> <p>Current financial requirements are being met by partner institutions.</p>	<p>Turnover issues:</p> <ul style="list-style-type: none"> • New GIS officer in partner institution – will take time to bring her up to speed • Several steering committee members have recently resigned from their organizations. As such we are waiting for the appointment of new staff to the project steering committee. <p>Need to formalise arrangements with organisation that is hosting the second Project Officer</p>
Project Team Governance and Decision Making	<ul style="list-style-type: none"> • Clear team structure which identifies management and reporting lines • Strategy for communication understood by all team members 	<p>Current procedure meets requirements.</p>	<p>Could work to improve processes regarding sharing of information within project team.</p>

	Skills/Capacity Required	Current Skills/Capacity	Gap/Comments
Support Functions	<ul style="list-style-type: none"> • HR support for general staff management & recruitment (if necessary) • Finance support for budgeting, financial management and reporting • Administration support for day-to-day project implementation • Communications support in project promotions 	Current support functions meet project requirements.	
Others requirements and enabling conditions	<ul style="list-style-type: none"> • Local community support for the project • Landowner support/ willingness to participate in project 	Currently all of these requirements are being met	
<p>Summary conclusions:</p> <ul style="list-style-type: none"> • No recruitment or training needs identified • Due to recent turnover, need to spend some time on building knowledge about project among partner organizations • Need to formalize arrangements with partner institutions • Process for sharing information among team members could be formalized and more frequent • Adequate funding for above requirements has been secured. 			