CMP

The Conservation Measures Partnership

Open Standards for the Practice of Conservation

Version 3.0 / April 2013

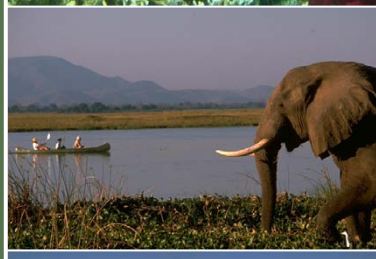


The Conservation Measures Partnership (CMP) is a consortium of conservation organizations whose mission is to advance the practice of conservation by developing, testing, and promoting principles and tools to credibly assess and improve the effectiveness of conservation actions.













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The *Open Standards for the Practice of Conservation*, Version 3.0, is the product of inputs, field tests, and discussions among members of the Conservation Measures Partnership and their respective partners.

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What Is the Conservation Measures Partnership (CMP)? CMP is a consortium of conservation organizations whose mission is to advance the practice of conservation by developing, testing, and promoting principles and tools to credibly assess and improve the effectiveness of conservation actions. Each organization within CMP has biodiversity conservation as one of its primary goals, is focused on achieving tangible conservation results, and is working to improve approaches to project design, management, and assessment.

Current CMP members: African Wildlife Foundation, CATIE (Protected Areas & Biological Corridors Program), Conservation International, David and Lucile Packard Foundation, Defenders of Wildlife, Forever Costa Rica, Foundations of Success, The Gordon and Betty Moore Foundation, John D. and Catherine T. MacArthur Foundation, Keith Campbell Foundation for the Environment, Latin American School for Protected Areas Management, The Leona M. and Harry B. Helmsley Charitable Trust, Margaret A. Cargill Foundation, National Audubon Society, National Fish and Wildlife Foundation, Rainforest Alliance, Rare Conservation, The Nature Conservancy, US Fish and Wildlife Service (Wildlife Without Borders), Walton Family Foundation, Wildlife Conservation Network, Wildlife Conservation Society, and WWF.

Revisions and Updates: The Conservation Measures Partnership has approved this document. However, as part of the adaptive management process, CMP members will continue to revise and improve it over time. For updated versions, guidance materials in support of the *Standards*, and further information about CMP, visit our website at: www.conservationmeasures.org.

We encourage feedback from anyone who uses these *Open Standards* – please e-mail us your comments at: CMPinfo@conservationmeasures.org.

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Introduction

The biodiversity conservation community is tackling large, complex, and urgent environmental problems where the stakes are high. People around the world are counting on us; they trust us, they work alongside us, and they are giving us significant resources to act effectively to save the planet. But we have a problem – we don't have a fully functional system to assess the effectiveness of our actions. While many inspiring advances have been made, few conservation organizations can say consistently what is working, what could be improved, and what approaches need to be changed.

Without more rigorous measurement of effectiveness and disciplined recording of our efforts, how will we know if we are progressing as rapidly as needed to achieve our conservation goals? How will we become more efficient? How will we learn from one another? And how will we be able to demonstrate our achievements so that we can build public and political will and thus expand our resources to truly meet the challenges we face?

The conservation community urgently needs robust systems for results-based project planning, management, and monitoring. Moreover, it needs to practice adaptive management based on the systematic evaluation of results and use this information to learn from one another about what works and what does not work. Collectively, this approach will help the conservation community build public will to expand available resources.

To meet these needs, the Conservation Measures Partnership (CMP) has worked over the past decade to combine principles and best practices in adaptive management and results-based management from conservation and other fields to create the *Open Standards for the Practice of Conservation* (*Open Standards* or *Standards*, hereafter).[1] The *Open Standards* bring together common concepts, approaches, and terminology in conservation project design, management, and monitoring in order to help practitioners improve the practice of conservation. We have developed these *Open Standards* so that they can be applied at any geographic, temporal, or programmatic scale.

CMP is committed to the vision that global conservation efforts will be more efficient and effective as we increasingly know how to leverage or replicate what works and not repeat what doesn't based upon credible measurement of our effectiveness and the open sharing of the lessons we learn. To realize this vision, our respective organizations aspire to:[2]

- State our desired results in terms of conservation outcomes, not actions. Effort alone is not sufficient to succeed. We will specify measurable desired results both for the short-term (e.g., funds raised, laws enacted) and long-term (e.g., threats abated, species status improved).

[1] We use the term *"Open Standards"* in reference to the Open Source / Creative Commons movement to mean standards that are developed through public collaboration, freely available to anyone, and not the property of anyone or any organization. For more information about the Creative Commons license terms, see box at the beginning of this document.

[2] CMP's full consensus statement from the 2010 Measures Summit is available at www.conservationmeasures.org.

- State how our efforts will lead to our desired results. Just as a scientist states a clear hypothesis before designing an experiment to test it, we will articulate and share the "theories of change" behind our actions before implementing them.
- Track our progress toward achieving desired results. We will not wait until the end of an action to evaluate it. Instead, we will systematically assess short and long-term indicators to track the effectiveness of our actions, investing in measures appropriate to the risks we are managing.
- Adapt our strategies based on what we have learned. Simply measuring effectiveness does not fix anything. We will use our data and analyses to guide us toward doing more of what works and less of what does not work.
- Share our results respectfully, honestly, and transparently to facilitate learning. We are not going to succeed every time, but if we are honest in our appraisals of our efforts, we will learn every time. And if we openly share our assessments with each other and with the public, we will increase learning and transparency and advance the work of the biodiversity conservation community as a whole.

The *Open Standards* are organized into a five-step project management cycle:

STEP 1 Conceptualize the Project Vision and Context
STEP 2 Plan Actions and Monitoring
STEP 3 Implement Actions and Monitoring
STEP 4 Analyze Data, Use the Results, and Adapt
STEP 5 Capture and Share Learning.

The *Open Standards* are meant to describe the general process necessary for the successful implementation of conservation projects.[3] They are not a recipe that must be followed exactly. Rather, they are meant primarily to guide *programmatic* decisions in project management (i.e., determining the best interventions for conservation success). Also, they are not designed to fully address administrative processes and functions related to, for example, budgets, contracts, and human resource management.

We expect these *Standards* primarily will be used once it is clear where or on what theme a team will work and what it wants to conserve. Complementary tools will assist projects in geographic prioritization. The *Open Standards* are not intended to compete with these tools. Once the broad decision of where and on what to work has been made, the *Open Standards* provide a framework to achieve effective conservation of those priorities – whether they be local sites, networks of sites, landscapes, ecosystems, species across their range, or national or global policy and thematic issues such as markets.

These *Open Standards* are designed to provide our colleagues in our respective organizations – and across the conservation landscape – with a clear roadmap to help them maximize the

[3] All conservation efforts at any scale can be either explicitly or implicitly described as "projects" – a set of actions undertaken to achieve defined goals and objectives. In this document, we use the term "project" to represent projects and groups of projects (i.e., "programs") at all scales.

effectiveness and efficiency of their projects. In addition, these standards help clarify what we need to do in order to achieve quality project management, thus providing a transparent basis for a structured approach to the evaluation (both internal and external) of our actions. Finally, we hope that these standards will promote and facilitate greater collaboration among conservation organizations – an essential ingredient if we are to be successful in achieving our goals and objectives.

We encourage feedback from anyone who uses these *Open Standards* – please e-mail us your comments at: CMPinfo@conservationmeasures.org

Inception and Evolution of the *Open Standards*

The *Open Standards for the Practice of Conservation* are a product of the collaborative work of the Conservation Measures Partnership. As a starting point, CMP members used the results of the Measuring Conservation Impact (MCI) Initiative,[4] a 2002 study that reviewed experiences in seven fields – conservation, public health, family planning, international development, social services, education, and business – to determine common concepts of and approaches to good project design, management, and monitoring. The findings of MCI were compiled into a series of principles for project cycle management/adaptive management. Building on these results, individual CMP member organizations contributed their experience in project implementation to refine the *Open Standards* and focus them more specifically on biodiversity conservation.

Box 1. What's New in Version 3.0?

Version 3.0 reflects the collective input and collaborative effort of CMP members and partners who have applied the *Open Standards* and who have insights into how they could be strengthened. Main highlights include:

- Steps 1 and 2 are more detailed, reflecting a broader input representative of CMP's growing membership and technical expertise.
- Human wellbeing targets are included, with clarification on their relationship to conservation strategies and targets.
- Climate change is explicitly addressed, with suggestions for how to make projects more proactive with respect to climate adaptation.
- There is a stronger emphasis on the strategy development and selection process, a key step in conservation project management.
- There is greater elaboration of the need for stakeholder analysis and how to address primary interests.
- The use of the *Open Standards* for thematic and non-place based projects is clarified.

Many member organizations within CMP have worked hard to operationalize the *Open Standards*, and their efforts have been a driving force in helping the *Standards* become the common and accepted practice within the conservation community. This is an ongoing, dynamic process that has included the development of organization-specific standards that draw heavily on the CMP *Open Standards*, development of more detailed guidance materials for each step, training of various project teams across the globe in parts of the *Standards*, and implementation of the *Standards* by these teams. Moreover, the Conservation Coaches

[4] The MCI initiative was conducted by Foundations of Success (FOS) in collaboration with the Wildlife Conservation Society (WCS) and Conservation International (CI), and was funded by the Gordon and Betty Moore Foundation.

Network (CCNet) and its regional franchises are increasingly serving as a mechanism to promote and refine the *Open Standards* globally. This wide-scale application of the *Open Standards* has provided CMP with helpful feedback and suggestions for improvement.

The *Open Standards* have also served as the framework for the development of the Miradi Adaptive Management Software Program (Miradi means "project" in Swahili). Many of the figures in this document were generated with Miradi. The software walks practitioners through several steps of the *Open Standards*. For example, the software provides teams with a tool for visualizing and documenting: what they want to conserve; what threats and opportunities are affecting their conservation targets; which threats are of greatest significance; how their actions are believed to influence the situation at their site; and how they will operationalize their strategic plan via a work plan and budget. Volunteers have translated Miradi into several languages, with other translations underway. More recent products include a "dashboard" website to present high level data from Miradi and an online version of Miradi that will facilitate more seamless file sharing and, over the longer term, allow for online data entry and file manipulation. See www.Miradi.org for more details.

Since Version 2.0's release in 2007, CMP has helped organize two "Measures Summit" meetings, bringing together a wider community of practice of organizations interested in conservation measures and adaptive management. CMP has also broadened its membership to include conservation NGOs, donors, and government programs. Consequently, a broader collective experience informs the continuing evolution of the *Open Standards.*

Using the *Open Standards*

Using the *Open Standards* to improve the practice of conservation is part science, part art. It requires some skill and experience to take these very orderly and structured principles and artfully apply them to real-world situations. However, any team will benefit from trying to follow them and, over time and with practice, they will become more skilled in both the art and the science of applying the *Open Standards*.

For each of the five steps of the *Open Standards* project management cycle (Figure 1), this document provides a brief description of the standards of practice (sub-steps) and the expected outputs for that practice (see Annex 3). Numbers denote steps and sub-steps, and diamond bullets (♦) denote outputs. Of course, not all standards or outputs are appropriate under all conditions and for all projects, so you should adapt as necessary.

Although we present the *Open Standards* as a sequential series of steps or stages, the entire process is rarely applied in a linear fashion from start to finish. Instead, it is typically a rough approximation of the more complex series of back-and-forth movements through which a project goes.

The process outlined in this document might appear complex and somewhat overwhelming, but you probably have already done many of the steps described here, even if you did not have a formal name or description for that step. Your project is not expected to produce flawless outputs as you go through each step in this process. Instead, this is meant to be an iterative cycle – the idea is to deliberately and yet rapidly go through the steps, develop a credible draft of the

outputs, and then revise your work over time as your project changes and matures. Likewise, when you encounter data gaps, do not be paralyzed – state your hypotheses, move forward with the best available information, and record any assumptions you are making. Good planning and implementation are an ongoing series of successive approximations built on assumptions that you can systematically test.

Figure 1. CMP *Open Standards* Project Management Cycle Version 3.0



General Principles for Implementing the *Open Standards*

There are some essential principles that apply not exclusively to any one step but rather to all of the steps in these standards. Instead of listing them for each step, we describe them here.

- **Involve stakeholders** – In conducting your project, it is important to define and, at every step, involve the appropriate internal and external stakeholders. Stakeholders are individuals, groups, or institutions that have an interest in, will be affected by, or may influence your project's activities and results. Internal and external stakeholders will vary by project context. Typically, however, internal stakeholders include staff and partners that comprise the project team directly responsible for the planning and implementation of the project. The partners might include, for example, other organizations, researchers, community members, and government officials. In addition, internal stakeholders include key decision makers who may influence the strategic direction and/or financial resources available to the project. External stakeholders include other individuals and

institutions that have some interest in, connection to, or potential influence on the project but who are not directly responsible for implementing it (see Step 1D for more details on stakeholder analysis).

- **Develop and cultivate partnerships** – Similarly, you will need to formalize some of your partnerships and work on cultivating them throughout the life of your project. Successful conservation depends on forging effective partnerships with key stakeholders. Most conservation projects will probably not have sufficient expertise or internal resources to do all the work that needs to be done. Furthermore, most, if not all, projects need to ensure that the work that they start will continue after the initial project ends. To ensure sustainability of the work, you will need to mobilize effective participation and information-sharing with these partners throughout and beyond the life of the project. This means developing partnerships early on, revisiting them as you move through the cycle, formalizing them as appropriate, and working to maintain positive, supportive relationships.
- **Embrace learning** – Teams need to be prepared to embrace learning, recognize and admit mistakes, identify successes, and work to understand why some actions succeeded while others did not. Clearly, an organizational learning culture will help foster a safe learning environment. Creating this culture will likely require work and commitment from both lower and higher levels.
- **Document your decisions** – For just about every step, you could write down how you decided to proceed, but this could quickly become overwhelming. You must decide what level of documentation is appropriate, but we cannot emphasize enough the importance of documenting the reasons for your decisions at each step. Not only does this give you the opportunity to analyze why things worked or did not, but it also serves as a basis for others to understand the logic of your choices.
- **Adjust as necessary** – The steps described in this document generally apply to all conservation projects but should be adjusted to meet each project's needs. In particular, each project team should go into a level of detail commensurate with the levels of complexity and investment in its project. Also, some project teams may find that certain steps don't work for them. It's expected that teams will adapt these basic steps as necessary.

Assumptions Made in Developing the *Open Standards*

As you review and implement the *Open Standards*, keep in mind that a number of assumptions were made as they were developed. These include:

- ***Some priority-setting has already taken place* –** These standards assume that you and/or your organization have undertaken some level of priority setting and defined where, or on what issue, your team will work. Priority-setting is an important precursor to applying these standards. Some of the materials in the *Open Standards* can be useful while establishing priorities. In addition, learning achieved during the application of these standards can be fed back into future priority setting exercises.
- ***Few projects will start at the beginning of these standards* –** While it is ideal to apply these standards right from the start, many projects that will benefit from these standards

are already in operation. You can apply these standards to your project "retroactively" to help you identify gaps that need to be addressed to improve your project. If you are just beginning to think about initiating a new project, these standards can help you be comprehensive in your approach.

- ***These standards represent the "ideal"*** – A quick read of the *Open Standards* may prove overwhelming at first – with a seemingly infinite number of issues to consider and things to do. But these standards are meant to provide a comprehensive view of what comprises the ideal in project design, management and monitoring. It is important to acknowledge that it may not be feasible – for a variety of reasons – to address every component of the *Standards*. 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 2B) before you have given thought to what you want to conserve (Step 1B). 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.
- ***Each project is different in potentially significant ways*** – Similar to the previous assumption, every project varies from the norm in some way. We have not developed these standards to be "one-size-fits-all." Instead we have written them in fairly general terms in order to provide project teams the flexibility they need to adapt and modify the *Standards* to their particular conditions. In fact, we believe that it is these differences – and testing these standards in a variety of contexts – that will make the *Standards* increasingly more robust and useful over time.
- ***These standards will change over time*** – These standards are not written to be the last word on how to do effective conservation. Instead, they are meant to capture the prevailing wisdom on what it takes to do conservation well under a variety of conditions. To this end, CMP intends to regularly update and modify the *Open Standards* as they are applied and tested in the field and as our knowledge increases about what works and what does not.
- ***These standards apply to projects at all scales*** – These standards are not designed exclusively for site-based conservation actions. Projects can range from management of small-scale sites to large-scale ecoregions, landscapes, or corridors, or involve simultaneous management of small-scale sites to achieve large-scale impact. In addition, projects may not be limited in geographic scale but instead may be more thematic in nature, including, for example, policy-based threat reduction or species-focused initiatives. Moreover, these standards can be used to design funding programs and clarify the relationship between programmatic goals and individual grants.
- ***These standards can be implemented using a variety of tools and guidance –*** The *Open Standards* are meant to represent the state-of-the-art in the conservation community's collective knowledge of the process for designing, managing, and monitoring conservation projects. They provide guidance on how to do conservation, independent of any tools or guidance materials (e.g., MARXAN, Structured Decision Making) that help in their implementation.
- ***These standards seek to clearly define and consistently use terminology*** – There seems to be an endless debate among planners as to the relative meaning of technical terms such

as goals, objectives, strategies, activities, targets, milestones, outputs, and results. Every office, project, and even individual has their own preferred set of terms. There is no right answer – the *Open Standards*, however, maintain that it is very important that the members of your project team, and the people with whom you work, have a clear and common definition of whatever terms you choose to use. With this in mind, the technical terms in this document were carefully selected, underlined when first described, consistently used thereafter, and defined in the glossary at the end. The selection of specific terms for a given concept and the definitions for these terms are based on current usage of words by professionals from various disciplines working in planning, monitoring, and evaluation.



Incorporating Climate Change into the *Open Standards*

Climate change is occurring and will continue for the foreseeable future. The global average temperature is projected to increase more than 2.0°C in coming decades, with associated sea level rise and changes in seasonality, storm events, and the timing and volume of precipitation.

Although barely on the radar screens of many conservationists at the time of the first drafting of the *Open Standards*, addressing climate change is now a global conservation priority and an issue that must be considered in the design and management of any conservation project. How to adjust and apply the *Open Standards* to this reality is the subject of ongoing research and discussion among many CMP members and their partners. It is clear that the *Open Standards* provide a powerful framework for increasing the effectiveness and efficiency of efforts to reduce climate change impacts. At the time of the release of Version 3.0, however, CMP members were still testing how to adjust the suggested processes and outputs of the *Standards* to anticipate and accommodate the uncertain effects of climate change and how best to respond to climate change. Uncertainty is likely to persist into the future, but work now underway to incorporate climate change considerations into implementation of the *Open Standards* is helping to clarify and focus debates about the effects of climate change on biodiversity and what can and should be done to minimize or ameliorate those effects.

Some current thinking on how to incorporate climate change into the implementation of the *Open Standards* is called out in text boxes throughout this document, but CMP will continue to make additions and revisions. As CMP works to adjust the *Open Standards* to accommodate climate change, we encourage planning teams to be proactive by deliberately seeking to 1) understand and respond to existing and future impacts of climate change, alongside other conventional threats, and 2) develop and implement actions that do not erode options for responding to future climate changes.

The focus of the call-out boxes is on adaptation, not mitigation. Both are important responses, but mitigation actions (as strategies acting on the direct threat of greenhouse gas emissions) neatly fit within the existing *Open Standards* framework. Preparing for adaptation, however, requires the development of new tools or the modification of existing tools.

1. Conceptualize

This first step involves specifying the basic parameters for your project in preparation for the design work that will come in the next step. Specifically, it involves determining the purpose of the planning, identifying who will initially be involved on the project team, and articulating your project's geographic and/or thematic scope, your vision of what you hope to achieve, and the conservation targets which will be the focus of your work. It also includes making sense of your project's context, including identifying threats and opportunities, and key stakeholders.

1A. Define Planning Purpose and Project Team

Planning Purpose

Project planning has multiple purposes, but among the most important is supporting *decision-making* throughout the planning process and during later implementation. You should be very clear and transparent about why you are planning, including the specific decisions and decision-makers your plan will support. You may also find it useful to review your organization's mission and current priorities. Among other things, this will help clarify the decisions that have already been made, decision-maker expectations, timing of decisions, and assumptions about funding and other resources. This will help you determine how much effort you should invest in planning and what steps are relatively more important than others (for example, if targets and goals have already been selected and a threat assessment already exists, then you may be able to review them and move to situation analysis and strategies). Likewise, as you enter the planning process, you should draw on what you have learned from other similar projects or earlier versions of the same project.

If you are planning collaboratively with partners, you should also compare your respective missions and priorities at the outset and identify where your needs and values may be compatible as well as where they may conflict (these are sometimes referred to as primary interests**,** described in Section 1D. Analyze the Conservation Situation**)**.

Project Team

A project is ultimately designed and implemented by a group of individuals who comprise your project team. Team members typically include your organization's staff as well as other key internal and external partners. One team member typically serves as the project leader, responsible for the overall project coordination and moving the team forward. You should be clear about who is on your team and what the roles and responsibilities of each member are. The team composition may change as you move through the management cycle. The key, however, is to recognize and make use of existing skills and experience and identify gaps to ensure that the project moves forward with the best available knowledge. In addition to the project team, you may also need to identify one or more advisors to whom the core team can turn for honest feedback and counsel and who can champion your cause. Once you have done your stakeholder analysis (Step 1D), you should revisit your project team and determine whether any of the stakeholders identified in Step 1D should be part of your project team. This will require your team to be flexible and open to adding new members, if warranted. In general, this back and forth between steps is part of the iterative nature of adaptive management.

Outputs for this step include:

- ***Identification of planning purpose and decisions that plan will support.***
- ***Identification of decisions already made and any constraints or limits.***
- ***Selection of initial project team, including project leader, core members, and advisory members.***
- ***Identification of key skills each team member brings.***
- ***Identification of gaps in skills or knowledge your team should fill.***
- ***Designation of roles and responsibilities.***

1B. Define Scope, Vision, and Conservation Targets

Scope

Before you begin to think about what you will do (the strategies you will implement) you must have a good understanding of what you broadly hope to accomplish. A project's scope defines what the project intends to affect. "Place-based" projects have a geographic scope and include efforts to conserve or effectively manage ecoregions, priority areas, or protected areas. "Thematic-based" projects include efforts to address specific conservation targets, threats, opportunities, or enabling conditions and generally have a corresponding thematic scope. Thematic-based projects may also define a geographic scope that spatially describes a project area and might reference specific elements of biodiversity or a specific threat.

In any project with a geographic scope, it is often helpful to develop a spatial map of your project area.



Climate Change Consideration 1. Scope

In defining your scope, you may want to consider how climate change might affect your scope. This could include considering whether ecosystems or species ranges are likely to shift or the distribution of species within an ecosystem is likely to change. Likewise, you may want to consider possible latitudinal, elevational, or other shifts affecting key species and/or plant communities and how these may influence your scope. Your scope should be based on the best scientific knowledge available. However, keep in mind that climate change impacts are not well known. Monitoring will be key for testing hypotheses and determining if your scope needs to be altered over time.

Vision

In addition to defining the scope, it is also necessary to decide on a clear and common vision – a description of the desired state or ultimate condition that you are working to achieve. Your vision can be summarized in a vision statement, which meets the criteria of being *relatively general, visionary, and brief* (see Annex 2 for descriptions of these criteria). A project's vision should fit within the context of your organization's overall mission.

Conservation Targets

Projects select a limited number of conservation targets (also known as biodiversity targets).[5] Conservation targets are specific species or ecological systems/habitats that are chosen to represent and encompass the full suite of biodiversity in the project area for place-based conservation or the focus of a thematic program. They are the basis for setting goals, carrying out conservation actions, and measuring conservation effectiveness. For place-based conservation, a complete suite of conservation targets will – in theory – ensure the conservation of all native biodiversity within the project site. Because thematic-based projects have a more narrow focus on a species, threat, or other theme, teams implementing these projects will, by definition, not be working to conserve all native biodiversity. Most place-based projects can be reasonably well defined by eight or fewer well-chosen conservation targets. Larger scale place-based projects, however, may require either a few more targets or "coarser" targets (e.g. instead of one specific bird species, an assemblage of species). Thematic projects are often characterized by focusing on one main conservation target – or one main threat that affects multiple conservation targets (e.g., a project to conserve blue whales or a project to reduce world trade in endangered species).

Where appropriate, it can be helpful to spatially map the extent of a target. The selection of conservation targets typically requires input from experts and analysis of spatial data at various resolutions. If your conservation target occurs at a large scale (e.g., a bird species across it range or the full extent of an ecosystem type), it may also be helpful to divide it into spatially explicit sub-targets (e.g. specific populations of the bird species).



Climate Change Consideration 2. Conservation Targets

When identifying conservation targets, you may want to consider whether the ecosystems, habitats, and species will remain in the geographic area for the foreseeable future, given the projected changes in climate. You may also want to consider how climate change might affect the target's viability and whether, in light of projected changes, your project's actions can still be effective at maintaining or improving the health of your conservation target.

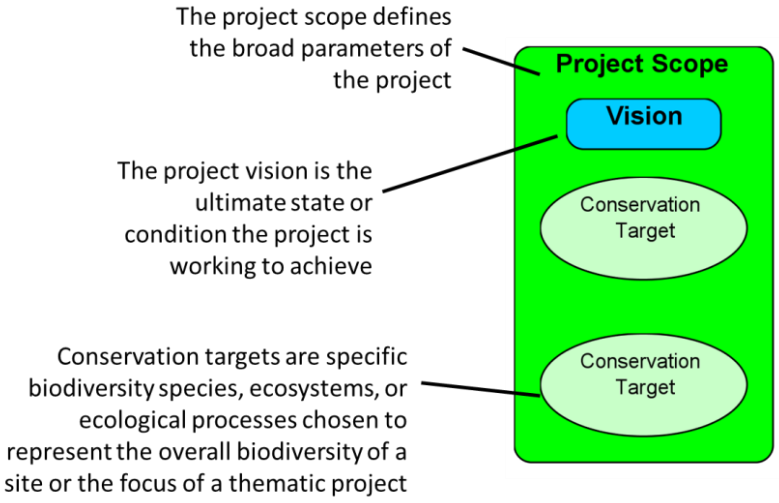
In some cases, especially when working with groups whose primary mission is not biodiversity conservation, you may want to show how the conservation work ultimately affects humans. In these cases, teams could add human wellbeing targets. As defined by the Millennium Ecosystem Assessment, human wellbeing includes: 1) necessary material for a good life, 2) health, 3) good social relations, 4) security, and 5) freedom and choice. In the context of a conservation project, human wellbeing targets focus on those components of human wellbeing affected by the status of conservation targets. Human wellbeing targets can be added as part of Step 1D, Analyze the Conservation Situation.

You should next determine the current status of each conservation target. At the most basic level, this involves developing an overall assessment of the "health" of each conservation target. More detailed status assessments involve specifying key ecological attributes of each conservation target, determining indicators for each attribute, outlining your sense of what the acceptable range of variation is for each indicator, and finally determining the current status of

[5] Some people associate the term "target" with the numeric value in a goal and prefer to use a different term as a synonym. Some common synonyms include component, feature, and value.

the attribute in reference to this range of variation. If you have subdivided your target into sub-targets, you may need to assess the status of each sub-target. This information sets the foundation for developing a good goal for your conservation target (see Step 2A).

Figure 2. Generic Partial Project Model Showing Scope, Vision, & Conservation Targets



Outputs for this standard practice include:

- ***Brief description of the project scope.***
- ***If appropriate, a map of the project area (GIS file or hand sketch).***
- ***Vision statement for the project.***
- ***Selection of conservation targets, including a brief explanation of why they were chosen, and if appropriate, a description and or map showing each target's location.***
- ***Description of the status of each priority conservation target.***

1C. Identify Critical Threats

Once you have settled on your priority conservation targets, you need to identify the direct threats[6] that influence them. Direct threats are primarily *human activities* that immediately degrade a conservation target (e.g., unsustainable fishing, unsustainable hunting, oil drilling, construction of roads, industrial wastewater, or introduction of exotic invasive species), but they can be *natural phenomena* altered by human activities (e.g., increase in extreme storm events or increased evaporation due to global climate change) or in rare cases, *natural phenomena whose impact is increased* by other human activities (e.g., a potential tsunami that threatens the last remaining population of an Asian rhino). Where appropriate, it can be helpful to map the spatial footprint of a threat.

[6] Some teams may find the term "threat" is not well-received, especially when working with stakeholders whose actions or professions might be identified as a "threat." Some common synonyms that may be less contentious include pressure and source of stress.

As part of your analysis of the project's context, it is also important to prioritize the direct threats that affect your conservation targets so that you can concentrate your activities where they are most needed. In particular, you should try to determine your critical threats – the ones that are most important to address. It is important to consider the entire suite of direct threats and not limit your analysis to the threats that your team or organization has the expertise or resources to address.

There are a number of threat rating and ranking tools that can be used to help in this prioritization process. Most of these assess the scope or extent of the threat and its severity on the conservation targets. Taken together, these two criteria assess overall threat magnitude. Other commonly-used criteria include permanence/irreversibility and urgency. Depending upon the circumstances, you can rate the threats as they affect an overall site or you can rate them as they affect specific conservation targets, including those that may define a thematic program.

Outputs for this standard practice include:

- ***Identification of direct threats and if appropriate, a map showing the spatial footprint for each threat.***
- ***Rating or ranking of direct threats to identify critical threats.***



Climate Change Consideration 3. Assessing Threats and Vulnerability

Climate change can lead to a new threat to a target and/or interact with other threats to exacerbate an existing threat to or stress on a conservation target.

A common tool to gauge existing and potential effects of climate change on a conservation target is a vulnerability assessment. It may be necessary to carry out a climate change vulnerability assessment to help your project team identify specific exposures to climate changes (e.g., temperature increases, precipitation changes, extreme events like storms and droughts, ocean acidification, and sea level rise) to which your conservation targets are most sensitive. You may also identify your targets' adaptive capacity in response to these exposures. It can be helpful to include climate exposures in your conceptual model (Step 1D).

To fully incorporate climate change, it can be helpful to include the ecological consequences of the climate exposures as stresses in your conceptual model and to do a stress-based threat assessment. This way you can more clearly understand if climate changes are resulting in new stresses and/or how climate exposure may be increasing the magnitude of a stress resulting from a non-climate threat.

1D. Analyze the Conservation Situation

This standard asks you to describe the context or "situation" within which your project takes place. A situation analysis is a process that will help you and your project team create a common understanding of your project's context – including describing the relationships between the biological environment and the social, economic, political, and institutional systems and drivers that affect the conservation targets you want to conserve. Depending upon the scale of the project and the resources available to it, a situation analysis can be an in-depth formal study of the area/problem or a less formal description based on input of those familiar with the area/problem. This step is one that is sometimes overlooked – at least explicitly – in conservation projects, yet it is one of the most important. By understanding the context, you will be better

equipped for strategy selection and identifying activities that will achieve your conservation goals and objectives.

This standard builds off of work you have already done related to your project context (scope, conservation targets, and direct threats). It involves completing a situation analysis by identifying the key factors that drive the direct threats and ultimately influence your conservation targets. These include indirect threats (also known as root causes and drivers), opportunities, and enabling conditions. These factors can range in scale from local to global.

Each factor can typically be linked to one or more stakeholders – those individuals, groups, or institutions that have a vested interest in or can influence the natural resources of the project area and/or that potentially will be affected by project activities and have something to gain or lose if conditions change or stay the same. As part of your situation analysis, you should conduct a stakeholder analysis. Stakeholder analyses help clarify relationships that may warrant attention and influence success or failure. You need to consider both powerful and influential stakeholders and those that might be disadvantaged or marginalized. As you review stakeholders, also keep in mind which stakeholders are likely to be important strategic partners for the project (see Step 1A). Keep in mind that you and your team are also stakeholders.

An important product of a stakeholder analysis is the identification of primary interests – what your stakeholders ultimately care about or value. Defining primary interests helps make transparent what is driving the behavior and decisions key stakeholders. For example, a conservation organization may ultimately care about sustaining tropical forests over the long-term (within the *Open Standards*, this primary interest is captured as the desired state of a conservation target); an individual may care most about food security for her family; and a community may care most about having long-term guaranteed access to clean water. As a conservation team, you cannot feasibly address all the primary interests of your stakeholders. However, it is important that you are aware of them and how they may influence your project. Some interests might be converted to human wellbeing targets or benefits, or may lead you to redefine your conservation targets. Other interests may be called out as constraints or opportunities that could be used to make smarter choices among potential strategies later in the process. Defining interests will also help identify potential trade-offs and limit the possibility that you'll unknowingly harm the interests of a stakeholder or create unnecessary conflict. For example, a stakeholder analysis might identify ranchers as a stakeholder whose primary interest is maintaining their families' livelihoods, which includes protecting and providing for their cattle. Because of their interests, ranchers might harbor negative attitudes about wolves, despite statistics showing a low predatory loss to wolves. A team working to conserve wolves would consider this attitude as a potential constraint or indirect threat to its interests, so that it can later think about how important this attitude is and whether the team needs to design a strategy to address it (see Step 2A).

One way to capture the relationships among conservation targets, threats, opportunities, and primary interests is to construct a conceptual model. A conceptual model is a tool that visually portrays the relationships among the different factors in your situation analysis (see Figure 3 for a generic model and Figure 4 for an example based on a real-world place-based project. For a thematic-based project example, see Annex 4). A good model illustrates the main cause-and

effect relationships that you and your team assume exist within the project area or theme. It should be as simple as possible while still including the most important details. To this end, a conceptual model for a large-scale project will need to be at a "coarser" grain than a model for a smaller-scale project. To make sure that your conceptual model generally represents your team's understanding of the context within which you are working, you should build it as a team. Likewise, it is ideal to ground-truth (or field test) the model with key stakeholders and partners both inside and outside the project team to make sure that the model reflects their understanding of the situation. As you develop and ground-truth your conceptual model, you should keep track of what you do not know and what might require further research or analysis.

Figure 3. Generic Conceptual Model Showing Project Context

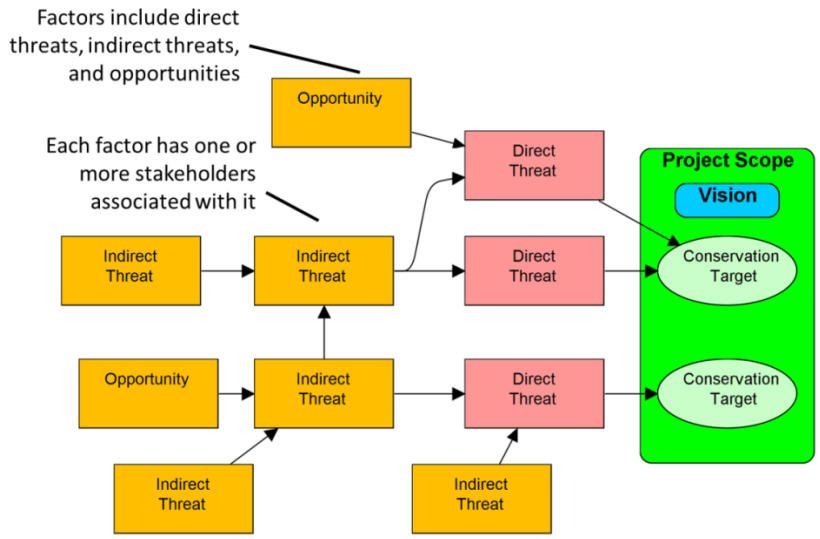
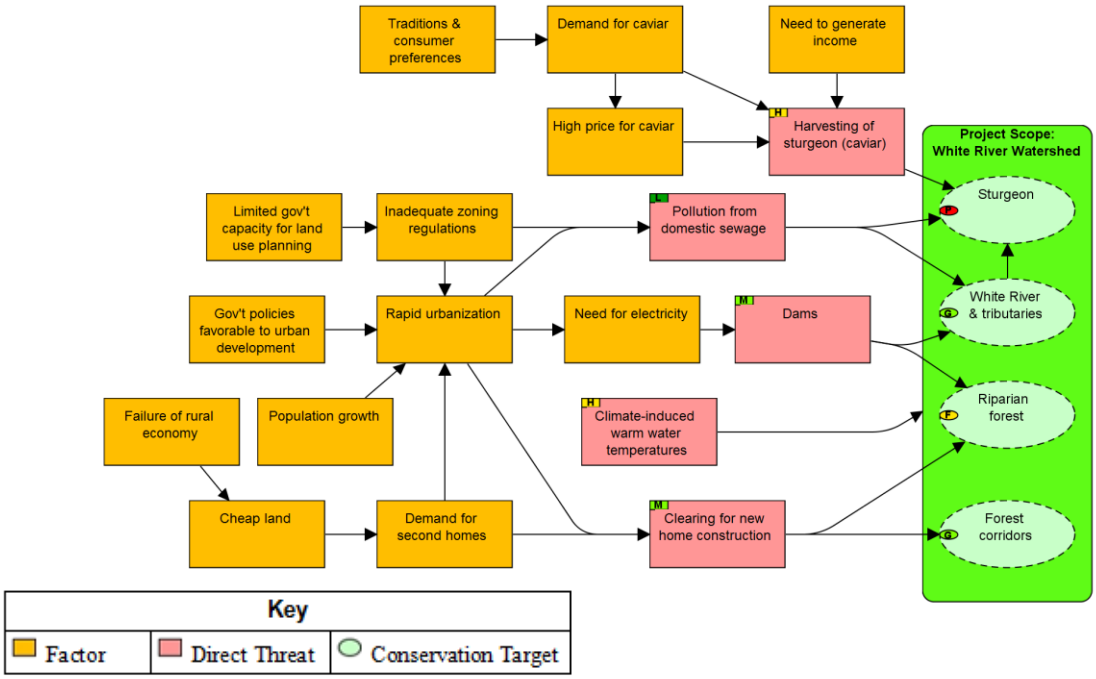
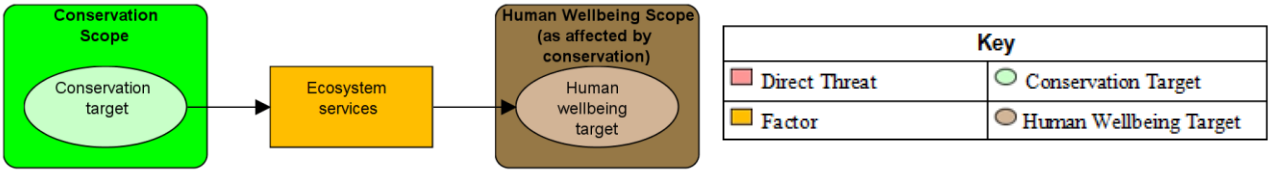


Figure 4. Example Conceptual Model for Watershed Site



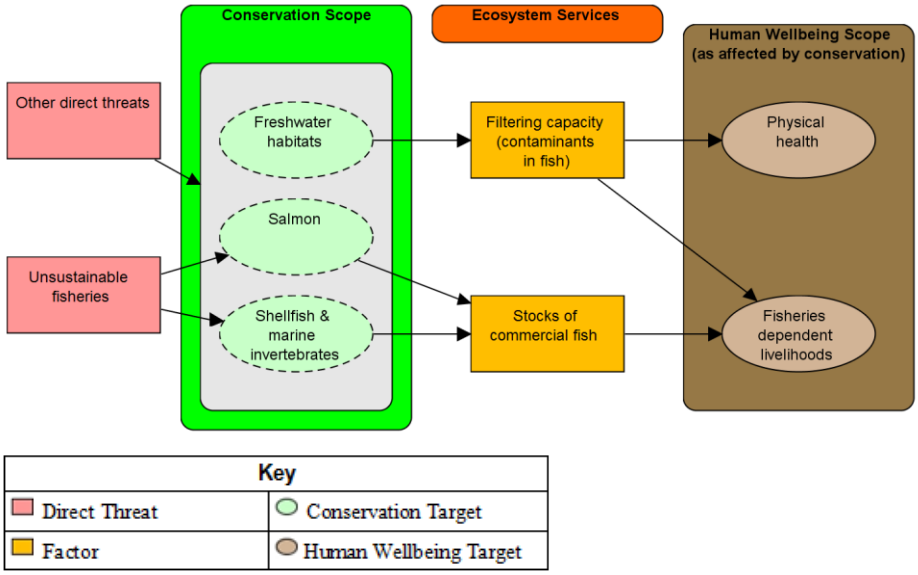
If a project team decides it is important to clarify the ultimate benefits of their conservation work to people, it should include human wellbeing targets.[7] In the context of a conservation project, human wellbeing targets focus on those components of human wellbeing affected by the status of conservation targets. For example, forestry-based livelihoods could be a human wellbeing target in a project that is working to conserve forest resources for biodiversity and sustainable human use purposes. All human wellbeing targets at a site should collectively represent the array of human wellbeing needs dependent on the conservation targets.

Figure 5. General Relationship between Conservation and Human wellbeing targets



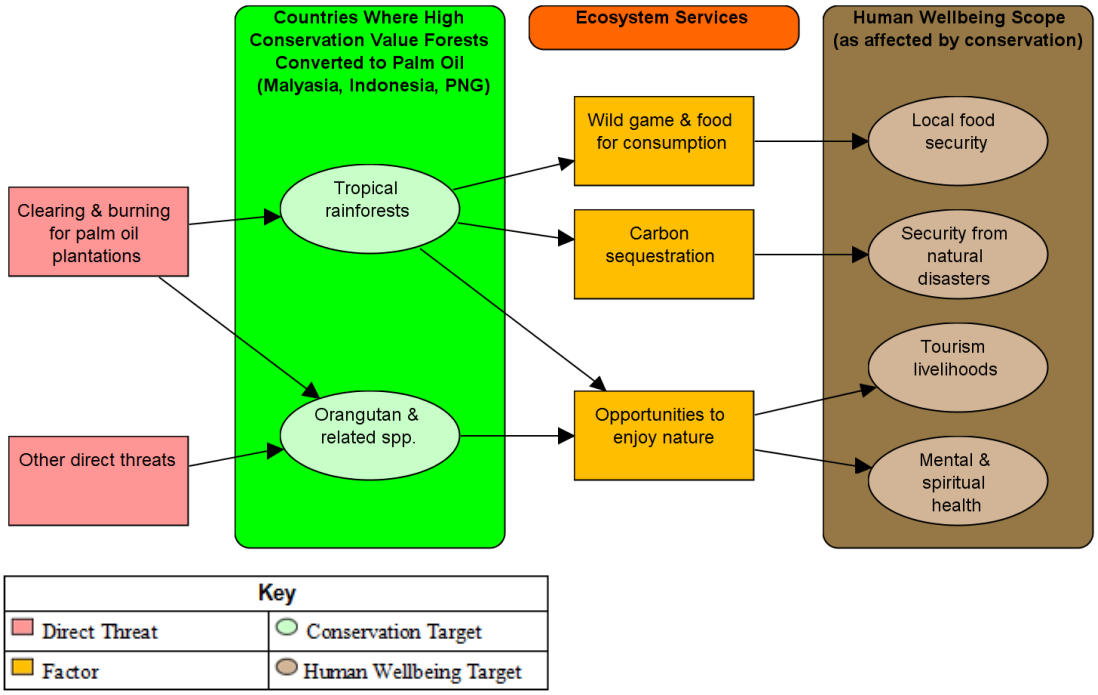
In a conceptual model, human wellbeing targets are shown to the right of conservation targets, influenced by the status of conservation targets and the ecosystem services that depend on biodiversity conservation (Figure 5 and Figure 6). Though they may be critically important, they are likely not the focus driving a conservation project. As such, they are considered in the situation analysis, rather than Step 1B. As further described in Step 2A on assumptions and objectives, some conservation strategies may have socially-beneficial results, which are treated differently than human wellbeing targets in the planning process. Figure 7 provides an additional example for a thematic project.

Figure 6. Example Conceptual Model Extract with Human wellbeing targets



[7] As defined by the Millennium Ecosystem Assessment, human wellbeing includes: 1) necessary material for a good life, 2) health, 3) good social relations, 4) security, and 5) freedom and choice.

Figure 7. Example Human Wellbeing Targets for Thematic Project



Outputs for this standard practice include:

- ***Identification and analysis of indirect threats and opportunities.***
- ***If relevant, selection of human wellbeing targets, including a brief explanation of why they were chosen.***
- ***Assessment of stakeholders and their primary interests.***
- ***Initial conceptual model that illustrates key cause and effect relationships among factors operating at your site.***
- ***Ground-truthing and revision of your model.***

2. Plan Your Actions and Monitoring

Once you have described the basic parameters for your project, the next step is to define your goals and strategies. Specifically, this step involves defining and developing your project's goals, strategies, and objectives, and identifying the assumptions you are making about how your strategies will indeed achieve the project goals. Together, the project's goals, strategies, objectives, and underlying assumptions comprise your project's Action Plan.

2A. Develop a Formal Action Plan: Goals, Strategies, Assumptions, and Objectives

Goals

Developing a clear idea of what you would like to accomplish is the essential first part of putting together your Action Plan. Goals are linked to your project's conservation targets and represent the desired status of the conservation targets over the long-term – they are formal statements of the ultimate impacts you hope to achieve. A good goal meets the criteria of being *linked to targets, impact oriented, measurable, time limited,* and *specific* (see Annex 2). If you did a viability assessment in Step 1B, you have already defined the elements of a good goal because you know what you need to have a healthy conservation target (key ecological attributes), you know by when you hope to achieve the desired status, and you know what you need to measure to assess its health. Developing a goal is just a matter of converting this information into a goal statement. Returning to the example of the White River Watershed site (Figure 4) , a goal for the forest corridor conservation target might be: By 2030, the width of the forest corridor linking the White River Watershed to Los Grillos is at least 5 km wide and remains unfragmented.

Climate Change Consideration 4. Setting Goals

When assessing viability and setting goals, you should ensure your goals are still attainable given the effects of exposures to climate change that you identified in your situation analysis.

If a project has human wellbeing targets and, by extension, claims human wellbeing outcomes, it should set goals for them. The team may also want to define key attributes for its human wellbeing targets, but team members should make sure that these attributes are clearly dependent upon the status of the conservation target(s) and/or the ecosystem services they provide. For example, a conservation team would probably not have human wellbeing goals related to reducing HIV infection or decreasing cholesterol levels, even though these might be important for human health. It may, however, have human wellbeing goals related to access to food sources because the conserved biological targets are improving crop pollination services.

Strategies

Once you determine what you want to accomplish (your goals), you then need to think about what you need to do (strategies, and activities). Good strategic planning involves determining where and how you will intervene – and also where you will not.

Key Intervention Points: Selecting What Factors You Will Influence

The first decision that you have to make is to prioritize on which factor in your conceptual model you need to take action – these are the key intervention points.

In theory, any factor in a conceptual model offers an opportunity for intervention; there can be direct restoration of a target, direct removal or reduction of a threat, or actions to influence an indirect threat or opportunity. In some cases, the most obvious key intervention point is the direct threat itself (e.g., a project to remove an invasive species). But in many other cases, you get more leverage if you intervene on an indirect threat or opportunity that is part of a chain of factors affecting a direct threat. For example, in Figure 8, the key intervention points are bolded

and include: traditions and consumer preferences; inadequate zoning regulations, limited government capacity for land use planning, government policies favorable to urban development, and forest corridors (a conservation target).

To identify the key intervention points for action, you need to evaluate all factors in your conceptual model and identify which ones can best be leveraged for achieving project goals. Some considerations to evaluate the leverage potential of influencing certain factors include: contribution to threat abatement, ability to influence multiple factors in the model, and urgency of addressing the factor (or its downstream factors). The processes of determining and prioritizing key intervention points, generating strategies, and selecting strategies are very interrelated, and an iterative approach will prove most valuable to decision making.



Climate Change Consideration 5. Identifying Climate-Related Intervention Points.

When identifying intervention points for climate-related adaptation strategies, you can use your thinking from earlier steps to develop strategies that:

- Reduce a climate-related stress on the target by acting on other non-climate threats that are also contributing to that stress target (e.g., reduce agricultural clearing of riparian trees so that streams remain shaded and more sheltered from temperature increases);
- Restore to reduce a climate-related stress on the target (e.g. restore habitat with more drought tolerant species)
- Reduce a non-climate threat in order to increase the adaptive capacity of the target exposed to climate changes (e.g. reduce the threat of development by protecting areas that provide habitat connectivity so that species can better adapt by moving to more suitable areas as climate changes); and/or
- Protect and/or restore occurrences of the target that may be less exposed to changes in climate (climate refugia - e.g., protect especially cold water streams that are likely to continue to provide habitat for temperature-sensitive species as other areas become warmer.)

All of the above are climate adaptation strategies. Of course, a project could also work directly on mitigating climate change. For smaller projects, however, doing so may be beyond the realm of what they can reasonably influence.

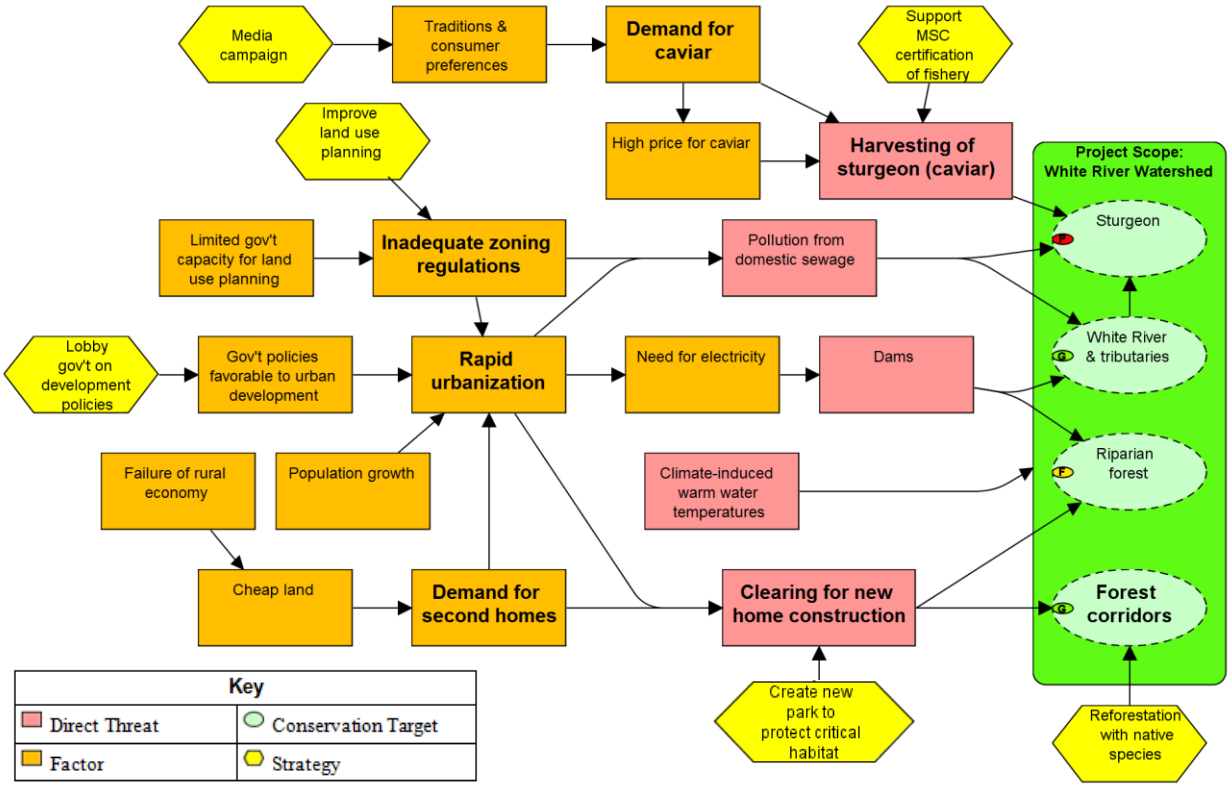
Strategies: Deciding How You Will Intervene

Once you've prioritized key intervention points, you then need to generate a list of potential strategies that address these intervention points and then select those with the greatest potential to achieve your project's goals. A strategy is a set of actions with a common focus that work together to achieve specific goals and objectives by targeting key intervention points, integrating opportunities, and limiting constraints. These can include a broad array of conservation actions such as habitat restoration, land protection, policy change, or education.

The process of generating and selecting strategies is generally a three-part process that includes researching existing strategies, generating new strategies, and selecting optimal strategies.

Figure 8. Example Conceptual Model for Watershed Site with Key Intervention Points and Strategies Identified

Key intervention points shown in larger, bold font



Researching existing strategies involves investigating how others have attempted to intervene in similar situations and whether those interventions succeeded or failed and why. Generating new strategies integrates what a team learned in its situation analysis and strategy research with creative processes to develop a range of potential solutions. The purpose here is to identify various strategies that can achieve the project's conservation goals, while also considering the opportunities and constraints that make particular strategies more feasible or less feasible. Finally, the team needs to narrow and select the best set of strategies from among the alternatives by applying one or more strategy selection methods. Final selection should at least meet the criteria of being *linked*, *focused*,

Climate Change Consideration 6. Identifying Climate-Related Strategies.

Potential strategies aimed at assisting conservation targets to adapt to climate change need to be weighed against other potential strategies to address non-climate threats or drivers. This prioritization may be challenging given the uncertainties inherent with climate change.

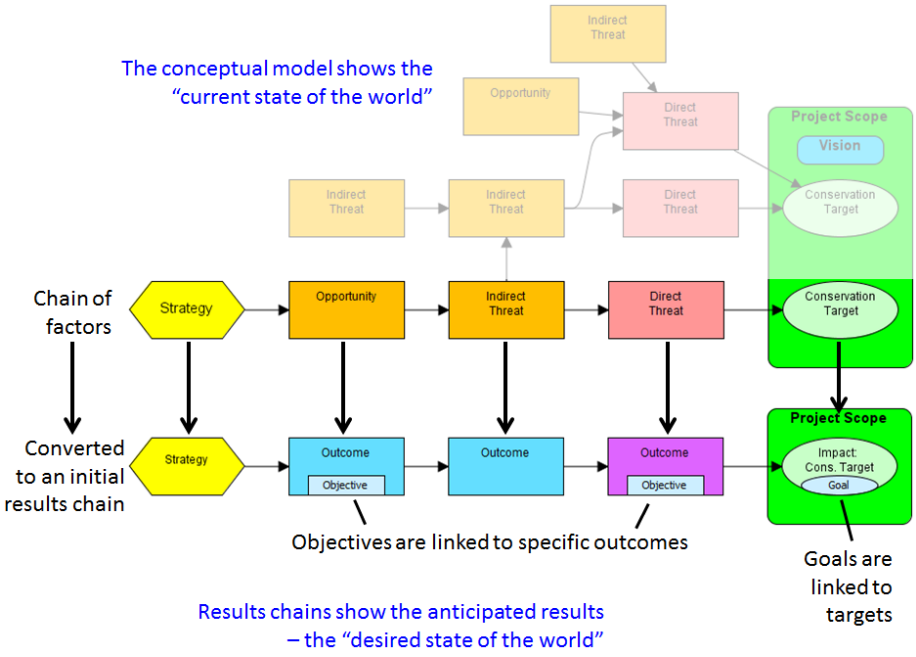
As a first step, you should identify strategies that address non-climate threats and also make help targets adapt or experience less impact under current and anticipated climate changes. These strategies may be a high priority for implementation.

feasible, and *appropriate* (see Annex 2), plus incorporate potential biodiversity impact relative to goals. In addition, it always makes sense to select strategies that optimize stakeholders' primary interests, limit potential conflicts or build stakeholder support. Teams should also consider other criteria such as feasibility (technical, financial, and/or political), cost, niche or gap the strategy would fill, and ability to leverage additional funds. You may also want to weight some criteria more heavily than others. Keep in mind that you will likely need to make some decisions about trade-offs, as it is difficult to identify strategies that score high on all criteria or meet all of our or stakeholders' interests.

Assumptions

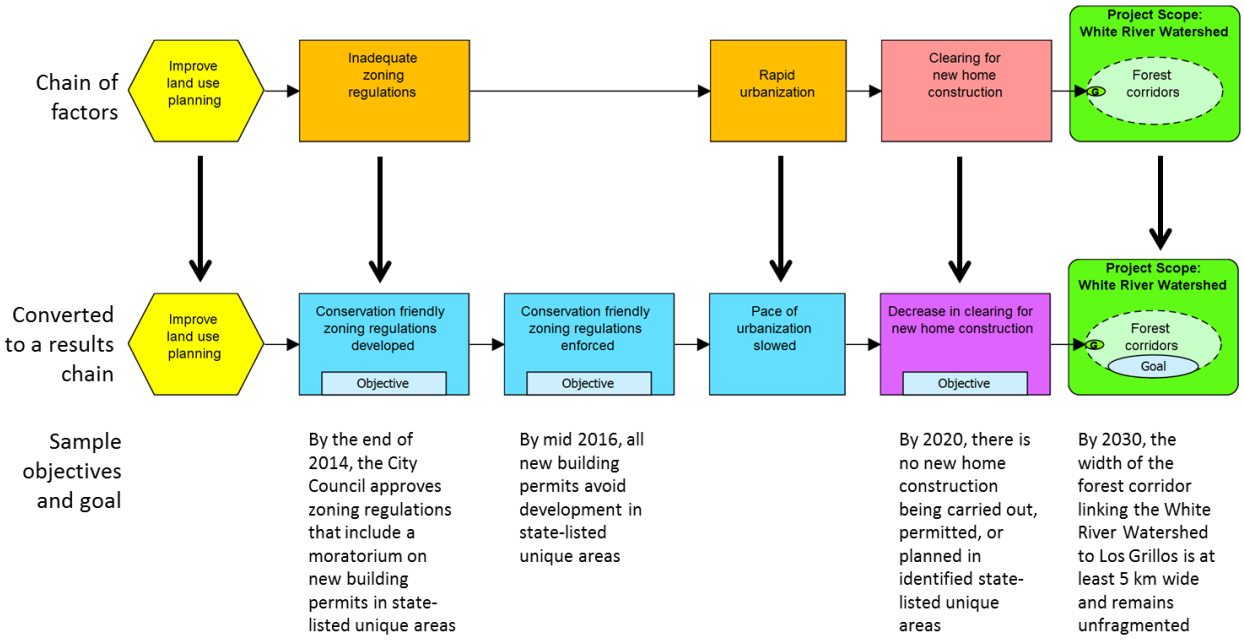
Once you have selected your strategies, you need to be clear about how you think each strategy will help you achieve your conservation goals. This means you need to make explicit the assumptions that show how you believe your strategies will contribute to achieving your conservation goals. A results chain is one tool that depicts these assumptions, in a causal ("if-then") progression of expected short and long-term intermediate results that lead to long-term conservation results.[8] You can use your conceptual model as the basis for developing your results chains (Figure 9). By doing this, you explicitly show how your strategy intends to affect the "current state of the world" (portrayed in your conceptual model) to help you achieve the "desired state of the world" (portrayed in your results chain). See Figure 10 for a real-world situation showing how a team extracted a chain of factors from the model in Figure 8 and converted them to a results chain (and added objectives, described in the following section).

Figure 9. Generic Conceptual Model "Factors" with Associated Results Chain



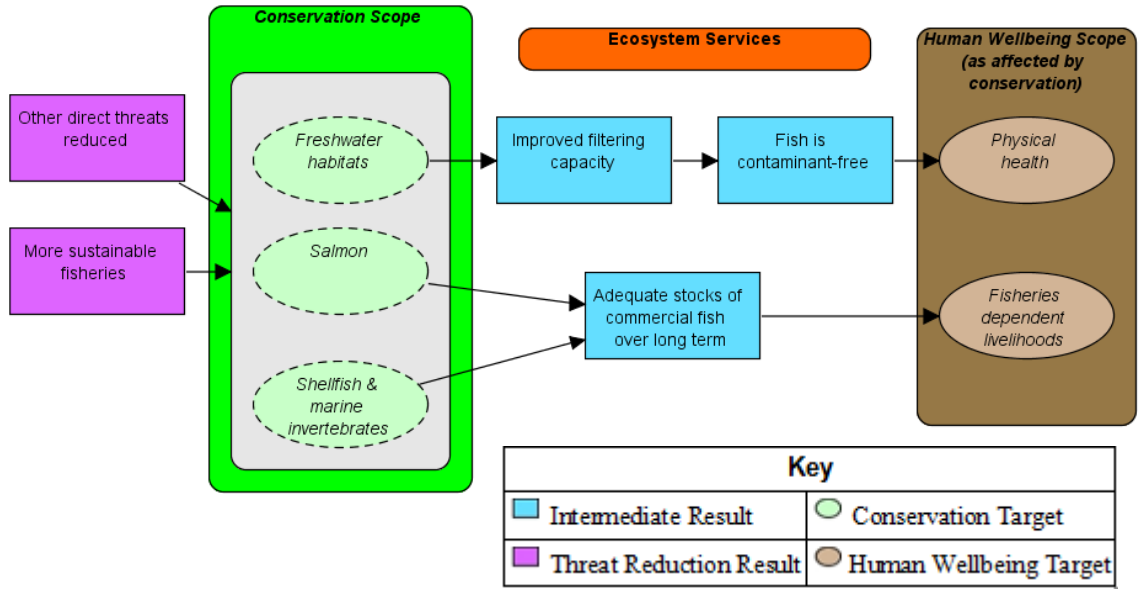
[8] Some people think that results chains are the same as logical frameworks (logframes) or logic models, but they differ in important ways. Logframes provide a simple way of organizing goals and objectives but, unlike results chains, they fail to explicitly link strategies, objectives, and goals. Logic models are more similar to results chains, but results chains have the added benefit of showing more detail and the direct relationship between one result and another.

Figure 10. Example Results Chain for Improving Land Use Planning in Watershed Site



If your team included human wellbeing targets in your conceptual model, you can also use results chains to show how your conservation targets provide ecosystem services that contribute to human wellbeing (see Figure 11 for an example of the right-hand side of a results chain with human wellbeing targets). You should be clear, however, about when your conservation actions are contributing to human wellbeing targets (via ecosystem services) and when they are contributing more directly via a conservation strategy. See the end of this section on Step 2A for a more detailed explanation.

Figure 11. Example Results Chain Extract with Human Wellbeing Targets



Objectives

Results chains are also a very useful tool for setting short-term objectives that lead to long term outcomes. Objectives are formal statements of the outcomes (or intermediate results) and desired changes that you believe are necessary to attain your goals. Objectives specify the desired changes in the factors (direct and indirect threats and opportunities) that you would like to achieve in the short and medium-term. A good objective meets the criteria of being *results oriented*, *measurable*, *time limited*, *specific*, and *practical* (Box 2).

Box 2. Setting "Good" Objectives

"Good" objectives should meet the following criteria:

- **Results Oriented** - Represents necessary changes in critical threat and/or opportunity factors that affect one or more conservation targets or project goals
- **Measurable** - Definable in relation to some standard scale (numbers, percentage, fractions, or all/nothing states)
- **Time Limited** - Achievable within a specific period of time, generally 3-10 years
- **Specific** - Clearly defined so that all people involved in the project have the same understanding of what the terms in the objective mean
- **Practical** - Achievable and appropriate within the context of the project site, and in light of the political, social and financial context

As shown in Figure 10, your objectives are tied to the results you would like to see for the different factors in your chain. As a start, you should always develop an objective for the direct threat in your results chain. This will be informed at least in part by the goal you have set for your conservation target. It will be important to work through each objective to define what is appropriate and to ensure that the criteria for good objectives are met. This is often an iterative process that requires revisiting, refining, and clarifying objectives over time.

Box 3. Setting "Good" Objectives

In addition to applying criteria when you develop objectives, you should also consider the following:

- Clarify how much change you need to achieve to see conservation results. You should challenge yourself to work backwards from your intermediate result to determine how much of each preceding objective you need to keep the chain progressing.
- Use existing information to develop your objectives. Where available, it is helpful to understand current or baseline conditions to determine how much change is needed.
- Understand the connection and influence of other objectives and strategies. Your objectives in a single chain should flow logically from one another. Also, keep in mind that other strategies (reflected in different chains) might be contributing to shared results. Thus, your overall objective may need to reflect the influence of multiple strategies.
- Where appropriate and available, use theoretical models and expert input to set the number value in your objectives (and goals).

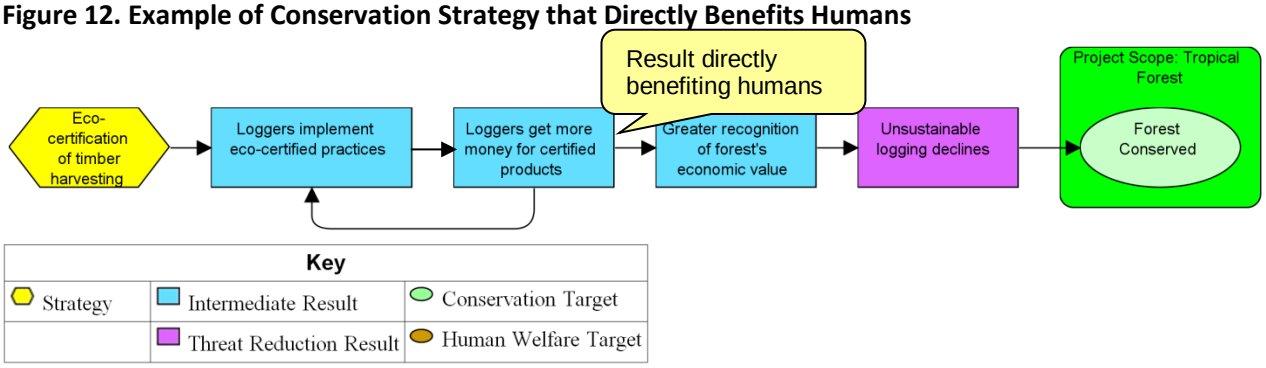
The goals and objectives specified in your results chain represent what you need to accomplish and your assumptions about how your strategies will help you reach those accomplishments. As such, these results chain components become the ultimate measure against which you will gauge the progress of your project.

You should capture the final versions of your situation analysis, goals, strategies, results chains, and objectives in your formal Action Plan.

Clarifying Socially Beneficial Results and Human Wellbeing Targets

We have already introduced the concept of how healthy conservation targets provide ecosystem services important for human wellbeing. In addition, conservation teams often work on important social issues that have benefits and address interests beyond conservation (e.g., building capacity for good governance or promoting alternative livelihoods). In such cases, the conservation strategy provides social benefits. These benefits, however, are not equivalent to human wellbeing targets. They are benefits that are derived from a strategy that is done in service of conservation. In contrast, human wellbeing targets represent interests of the people within a region that will be enhanced or achieved as a result of the conservation of an ecosystem, habitat, or species and its associated ecosystem services. For example, a project team may implement an eco-certification strategy to improve forest conservation (Figure 12). Part of the logic of the strategy is to increase loggers' income as an incentive to implement certified practices and improve forest conservation. The increased income is a direct (and necessary) result of that strategy and one that benefits humans. One could take the logic a step farther and show how the conserved forest (the ultimate conservation goal) would provide a sustained flow of timber (an ecosystem service) and hence, in turn, would contribute to sustaining human wellbeing (via a long-term source of timber income). There would also be benefits to human wellbeing via other ecosystem services generated by a conserved forest – for example, provision of clean water that contributes to the human wellbeing target of human health. Although conservation projects can benefit humans directly and indirectly, there are often trade-offs that are important to understand and recognize.

Figure 12. Example of Conservation Strategy that Directly Benefits Humans



Outputs for this standard practice include:

- ***Goals for each conservation target and, if appropriate, human wellbeing target.***
- ***Identification of key intervention points and draft strategies or portfolios of strategies.***
- ***Prioritization of draft strategies.***
- ***Results chains that specify assumptions for key strategies.***
- ***Objectives for key intermediate results.***
- ***Finalized strategies, results chains, and objectives.***
- ***Finalized Action Plan.***

2B. Develop a Formal Monitoring Plan

This step includes developing a Monitoring Plan that you will use to evaluate the assumptions in your results chains and to track progress in achieving stated goals and objectives. The Monitoring Plan will also be helpful in identifying the resources needed for implementation, a timeline for data collection and analysis, and a reflection of potential risks you should consider.

Audiences and Information Needs

The first part of developing your Monitoring Plan involves specifying your audience and their information needs. Effective monitoring uses the minimum amount of financial and human resources to provide you with the minimum credible information needed to determine if your project is on track and achieving stated objectives and what you should do if it is not. As a first step, you should thus determine for whom you are doing the monitoring, what it is that they would like to know, and the level of rigor needed to satisfy their needs. For example, one audience for your monitoring efforts might be the managers or funders to whom you are accountable for your project. Perhaps the most important audience, however, is your own project team. In the spirit of adaptive management, you should conduct monitoring to help your team validate assumptions in your results chains, track objective achievement, and learn from information collected in a way that can be integrated into current and future programming. The following table lists some common audiences and their general information needs.

Table 1. Common Monitoring Audiences and Their Information Needs

Audience	Typical Information Needs/Interests
Project team	How is the project progressing; Are results chains assumptions valid; What is working, what is not, and why; Is your team achieving its objectives in the time frame expected; How to improve the project
Project partners	How is the project progressing; Are results chains assumptions valid; What is working, what is not, and why; Is your team achieving its objectives in the time frame expected; How to improve the project
Donors	How is the project progressing, are projects achieving objectives in the time frame expected
Communities or stakeholders affected	How is the project progressing; How will the project impact them
Conservation community	Did the project achieve objectives and conservation results; what worked, what did not, and why
Academics and students	What is working, what is not, and why
Auditors, Certifying entities	Is the project complying with laws and regulations; Is it following best practices

Once you know for whom you are monitoring, you need to then identify what you want to know (your learning questions) and what you should monitor. 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 and your monitoring audiences as you manage your project.

Indicators

Once you have identified your audiences and their information needs, the next step is to develop the specific indicators you will use to collect and analyze the data required to meet your information needs. Good indicators meet the criteria of being *measurable, precise, consistent,* and *sensitive* and should be tied explicitly to intermediate results and objectives (see Annex 2).

Your results chains, along with their corresponding goals and objectives, provide you with the basis for identifying what you need to measure and what indicators you should use. By developing results chains and setting good goals and objectives, you have narrowed down a nearly infinite set of potential indicators to a very manageable set. Figure 13 shows how generic indicators are tied to a results chain, while Figure 14 provides a concrete example of how results chains can help you narrow down your indicators. Remember, you should aim to collect the least amount of information to clarify assumptions in your results chains and demonstrate progress towards achieving stated objectives. Thus, for the most part, you will want to limit the indicators you monitor to those that correspond to your results chains. However, there may be important factors that are outside the control of your strategy but that could have an important impact on the success of your strategy (e.g., political situation or market forces). In these cases, you may want to monitor these factors with a limited set of indicators to help you better interpret the degree to which you are achieving the expected results in your results chain. Also, you should be open to "monitoring" or revising your monitoring plan over time to make sure it is meeting the information needs of your team and your monitoring audiences.

Climate Change Consideration 7. Monitoring Climate Changes Effects and Strategies.

Because climate change impacts and climate strategy effectiveness still involve uncertainty, it is important to ensure your monitoring plan includes measures to reduce this uncertainty. Your measures might focus on actual climate changes experienced, the ecological impacts of those changes, and/or the effectiveness of different adaptation strategies.

In addition, you may want to include measures to identify a trigger or threshold that will help you determine when it is appropriate to take on strategies that are more drastic or expensive.

Figure 13. Generic Results Chain with Indicators

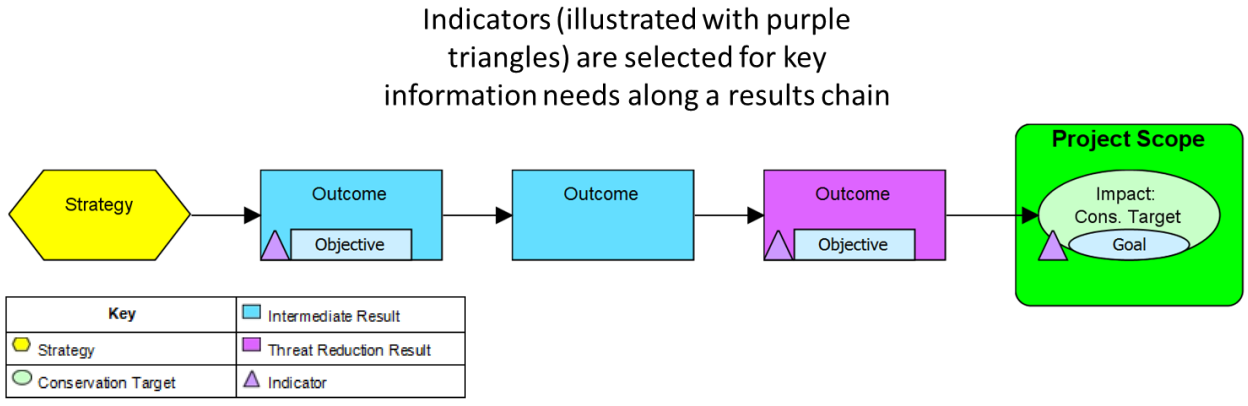
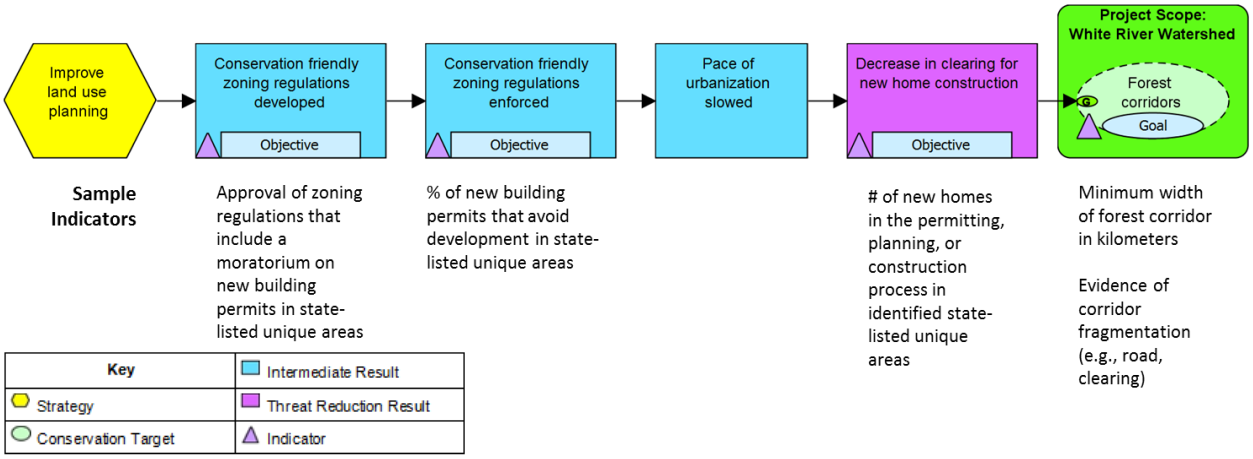


Figure 14. Land Use Planning Results Chain with Potential Indicators



Methods

As you develop your indicators, you will also need to think about *how* you will measure them – in other words, what methods you will use. Methods should meet the criteria of *accurate, reliable, cost-effective, feasible,* and *appropriate* (see Annex 2). The key is to select the most cost-effective method that will give you data reliable enough to meet your management needs. For many information needs, you may not have to collect new data explicit to the project. For example, one method for collecting data about a given fish population would be to "download harvest records posted by a government agency on the Internet." In some cases, however, primary data collection will be required. Finally, you should also determine roughly when, where, and by whom data will be collected, and how data will be analyzed and used to meet the information needs of your key audiences (see Table 2 for a sample template of a monitoring plan). In developing your Monitoring Plan, it is best to test and adjust indicators and methods before using them. You should also plan for how you will store and process each type of data in advance, and formally budget for monitoring activities in your overall financial planning (See Step 3 and Step 4 for more information about managing data and budgeting for monitoring).

Table 2. Extract of a Monitoring Plan

Item	Who*	When*	Measurement Date	Measurement Value	Trend	Source
Goal. Healthy forest corridors						
Goal1a. Minimum width of forest corridor in kilometer	AM, JB	FY15	2013-03-25	2.25 km	Flat	Rapid Assessment
Goal1b. Evidence of corridor fragmentation	AM, JB	FY15	2013-03-25	4 areas where corridor is broken	Mild Increase	Not Specified
LUP1. Conservation friendly zoning regulations develope						
LUP1. Approval of zoning regulations that include a m	LS	Q1 FY14	2013-03-25	Under review	Not Specified	Not Specified
LUP2. Conservation friendly zoning regulations enforced						
LUP2. % of new building permits that avoid developme	LS	2013-03-25 - 2030-03-25	2013-03-25	70%	Mild Increase	Expert Knowledge
LUP3. Decrease in clearing for new home construction						
LUP3. # of new homes in the permitting,planning, or c	NW, Not Specified	2013-01-01 - 2020-12-31	2013-03-25	25	Mild Increase	Expert Knowledge

Key		
Conservation Target	Intermediate Result	Indicator

Outputs for this standard practice include a formal monitoring plan that contains:

- ***Audiences and their associated information needs clearly defined.***
- ***Indicators and methods defined.***
- ***Finalized Monitoring Plan.***

2C. Develop an Operational Plan

Conservation projects are ultimately implemented by people and institutions. Even the best action and monitoring plans are of little utility if you cannot actually put them into operation. In other words, you need an Operational Plan for your project. Key components for an operational plan include analyses of:

- Funding required to implement your project and an accounting of your current and potential sources of these funds.
- Human capacity and skills and other non-financial resources required to implement your project and what you need to do to develop those resources, including cultivating partnerships.
- What risk factors exist for your project and how they can be addressed. A risk factor is an uncertain event or condition which, if it occurs, has a negative effect on at least one project element, such as time, cost, scope or quality. A risk assessment should rate both the probability of the risk factor occurring and the impact or severity of the risk factor if it does occur. The purpose of a risk assessment is to identify issues that potentially could negatively impact the project's ability to implement key strategies effectively and/or achieve conservation goals, and to identify additional strategies necessary to mitigate or avoid those risks.
- How long your project will last, how you will ensure the sustainability of your project's achievements, and what your exit strategy will be.

The first two components actually form your work plan and budget, both of which are covered more thoroughly under Step 3. The level of detail and formality of your operational plan will vary depending on the size and level of complexity of your project. Small projects may only briefly touch on each of these topics whereas large, complex ones might have an extensive and formal treatment of each.

Outputs for this standard practice include an operational plan that contains:

- ***Assessment of human, financial, and other resources.***
- ***Risk assessment and mitigation.***
- ***Estimate of lifespan and exit strategy.***

At the conclusion of Step 2, you will now have all the products of a strategic plan. Depending on your needs, you may want to compile this information into a formal plan. Or, if you are using software like Miradi, it may be sufficient to use your file as your "living" plan.

3. Implement Actions and Monitoring

This is the most important step in the entire adaptive management cycle process. It is the time in which you put all of the planning efforts you conducted in the previous steps into action. The step involves developing and implementing specific work plans while ensuring sufficient resources, capacity, and partners.

3A. Develop a Detailed Short-Term Work Plan and Timeline

In the previous steps of the project cycle, your project team developed your general action, monitoring, and operational plans. In this phase of the cycle, you need to turn these general plans into more specific ones and then implement these plans on an ongoing basis.

The first part of this step is to take your overall plans and work with your project team and partners to develop a much more specific short-term work plan covering the next few months or at most, year. This work plan uses your overall action, monitoring, and operational plans to specify in much greater detail:

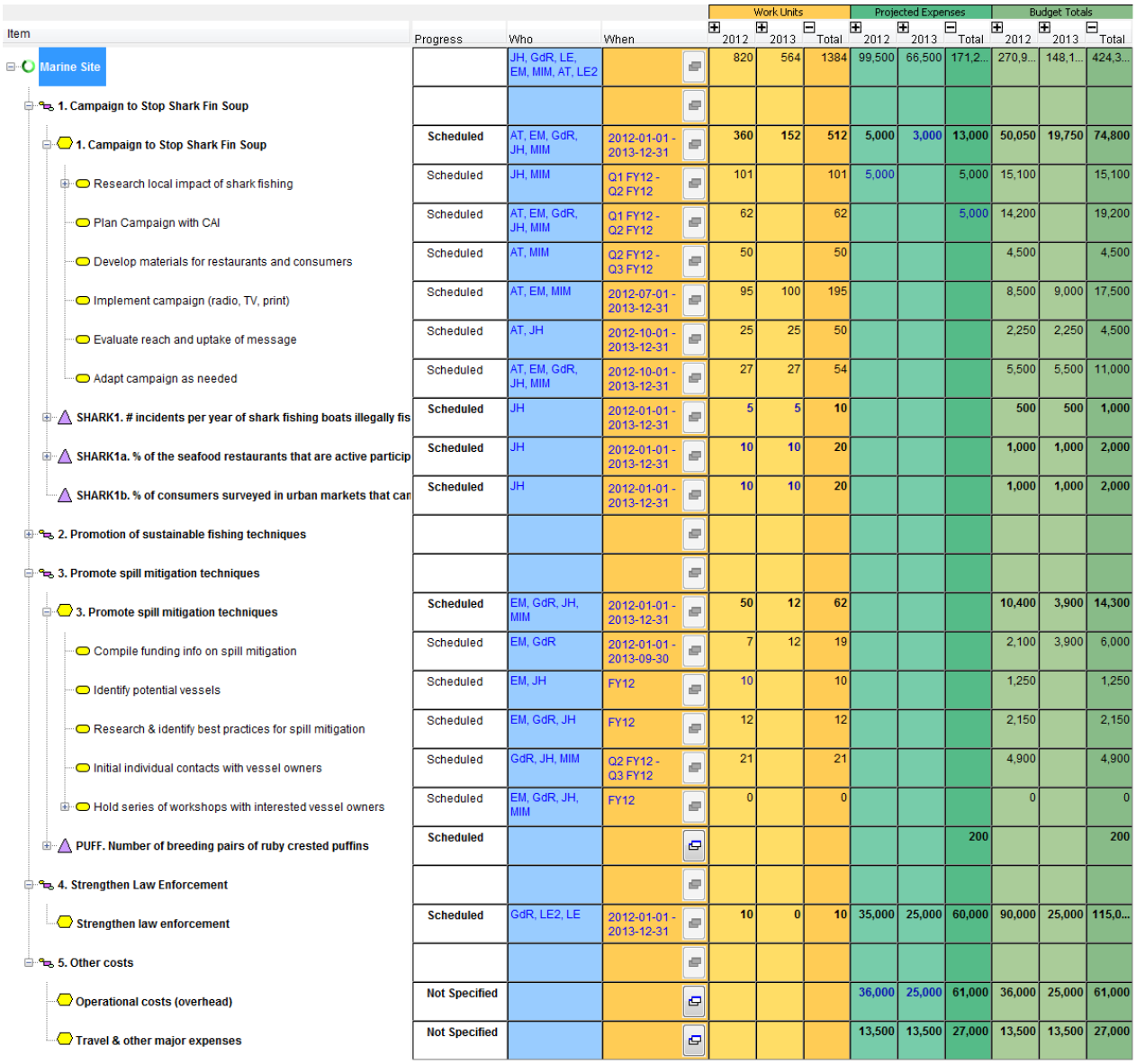
- **What** specific activities and tasks are required to complete each planned strategy, monitoring step, or operational function,
- **Who** will be responsible and who will be accountable for completing each activity and task,
- **When** will each task be undertaken and what will be the sequence of linked activities and tasks, and
- **How** much money and other resources will be needed to complete each activity and task (see Step 3B for greater detail).

Your detailed work plan will provide you with the basis for developing a project timeline or calendar. In some situations, your work plan will not only specify tasks and responsibilities, it will also record in a calendar format when these tasks will happen. In other situations, your timeline or calendar will be more implicit. It is important to develop your timeline so that all project team members budget their time according to the project needs. Your work plan will also help you identify which team members might have time and which are overbooked. This information will also be important for developing your project budget.

As your project moves along, you should revisit and update the work plan, again focusing on the more detailed activities for the next few months or so.

You can record your work plan in a table, Gantt chart, and/or project calendar. Figure 15 shows an example of a table (developed in Miradi) that includes both a work plan and a budget (see Step 3B).

Figure 15. Work Plan and Budget Extract for a Marine Site



Item	Progress	Who	When	Work Units 2012	Work Units 2013	Work Units Total	Projected Expenses 2012	Projected Expenses 2013	Projected Expenses Total	Budget Totals 2012	Budget Totals 2013	Budget Totals Total
Marine Site		JH, GdR, LE, EM, MIM, AT, LE2		820	564	1384	99,500	66,500	171,2...	270,9...	148,1...	424,3...
1. Campaign to Stop Shark Fin Soup												
1. Campaign to Stop Shark Fin Soup	Scheduled	AT, EM, GdR, JH, MIM	2012-01-01 - 2013-12-31	360	152	512	5,000	3,000	13,000	50,050	19,750	74,800
Research local impact of shark fishing	Scheduled	JH, MIM	Q1 FY12 - Q2 FY12	101		101	5,000		5,000	15,100		15,100
Plan Campaign with CAI	Scheduled	AT, EM, GdR, JH, MIM	Q1 FY12 - Q2 FY12	62		62			5,000	14,200		19,200
Develop materials for restaurants and consumers	Scheduled	AT, MIM	Q2 FY12 - Q3 FY12	50		50				4,500		4,500
Implement campaign (radio, TV, print)	Scheduled	AT, EM, MIM	2012-07-01 - 2013-12-31	95	100	195				8,500	9,000	17,500
Evaluate reach and uptake of message	Scheduled	AT, JH	2012-10-01 - 2013-12-31	25	25	50				2,250	2,250	4,500
Adapt campaign as needed	Scheduled	AT, EM, GdR, JH, MIM	2012-10-01 - 2013-12-31	27	27	54				5,500	5,500	11,000
SHARK1. # incidents per year of shark fishing boats illegally fis	Scheduled	JH	2012-01-01 - 2013-12-31	5	5	10				500	500	1,000
SHARK1a. % of the seafood restaurants that are active particip	Scheduled	JH	2012-01-01 - 2013-12-31	10	10	20				1,000	1,000	2,000
SHARK1b. % of consumers surveyed in urban markets that can	Scheduled	JH	2012-01-01 - 2013-12-31	10	10	20				1,000	1,000	2,000
2. Promotion of sustainable fishing techniques												
3. Promote spill mitigation techniques												
3. Promote spill mitigation techniques	Scheduled	EM, GdR, JH, MIM	2012-01-01 - 2013-12-31	50	12	62				10,400	3,900	14,300
Compile funding info on spill mitigation	Scheduled	EM, GdR	2012-01-01 - 2013-09-30	7	12	19				2,100	3,900	6,000
Identify potential vessels	Scheduled	EM, JH	FY12	10		10				1,250		1,250
Research & identify best practices for spill mitigation	Scheduled	EM, GdR, JH	FY12	12		12				2,150		2,150
Initial individual contacts with vessel owners	Scheduled	GdR, JH, MIM	Q2 FY12 - Q3 FY12	21		21				4,900		4,900
Hold series of workshops with interested vessel owners	Scheduled	EM, GdR, JH, MIM	FY12	0		0				0		0
PUFF. Number of breeding pairs of ruby crested puffins	Scheduled								200			200
4. Strengthen Law Enforcement												
Strengthen law enforcement	Scheduled	GdR, LE2, LE	2012-01-01 - 2013-12-31	10	0	10	35,000	25,000	60,000	90,000	25,000	115,0...
5. Other costs												
Operational costs (overhead)	Not Specified						36,000	25,000	61,000	36,000	25,000	61,000
Travel & other major expenses	Not Specified						13,500	13,500	27,000	13,500	13,500	27,000

Outputs for this standard practice include:

- ***Work plan detailing the tasks, activities, and responsibilities associated with your Action Plan, Monitoring Plan, and Operational Plan***
- ***Project timeline or calendar.***

3B. Develop and Refine Your Project Budget

Once you know exactly what tasks and activities you need to undertake, you will be in a better position to figure out what resources you need. You should work off of your initial analysis of funding required that you developed in your operational plan (Step 2C). This, along with your strategic plan and your work plan, will help you develop a more refined estimate of costs for

specific activities and tasks and the broader strategies into which those tasks feed. Your work plan will be an important input for this process, but you should keep in mind that the work plan is short-term in nature, so you will need to make some informed estimates projecting potential costs over the life of the project. You should not delay too long, hoping to get more accurate estimates, as there is often a long lead time between developing funding proposals and having money in the bank that you can spend. Thus, you will want to develop your project budget as soon as you have a clear idea of what your project will do (in other words, a good draft of your strategic plan).

You should work closely with the finance or accounting staff in your office to develop your project budget. For many projects, your most expensive resource needs will be staff time. In addition, you should consider what other major expenses, such as physical infrastructure, vehicles, boats or machinery, are needed. You should also consider the related functions or logistical support that the project might need, ranging from monitoring and management expenses, to administrative or logistical support. In an adaptive management approach, your team should be monitoring as it goes along so that it knows what is working and what is not and when it needs to adjust its course. Thus, monitoring activities should be clearly reflected in both the work plan and budget.

Once you have developed your project budget, you will need to identify potential funding sources, and develop and submit proposals to those potential donors. Ideally, you will seek and acquire funding for your highest priority strategies from the start. In reality, you may need to adjust to opportunities and constraints and may find that your initial funding focuses on some medium or lower priority strategies. That's fine as long as you do not lose sight of your high priority strategies and you work to implement them as soon as feasible.

Outputs for this standard practice include:

- ***Project budget.***
- ***Potential funding sources identified.***
- ***Funding proposals developed and submitted.***
- ***Financial resources obtained.***

3C. Implement Your Plans

The next and most important part of Step 3 – and indeed this entire process – is to implement your strategic plan and your more detailed work plan according to schedule and within budget. This includes implementing both your actions and your monitoring. At this point, it can be useful to use project or progress tracking tools so that you know how far along you are on the different activities and tasks required to implement your strategic plan.

Outputs for this standard practice include:

- ***Generally, implementation of strategic plan (action, monitoring, and operational plans).***

- ***More specifically, implementation of your work plan, keeping in mind your project budget and schedule***

4. Analyze, Use, Adapt

This step involves managing your data as they come in and regularly analyzing them to convert them into useful information. In particular, you need to analyze your project's results and core assumptions, as well as operational and financial data, and then adapt your work plans as necessary. The amount of time needed to complete this step is often underestimated by project managers, leaving them with lots of data that they have collected but have not analyzed or used. The levels of complexity in analysis range from very simple and fast to extremely time intensive and complex. As with the selection of monitoring methods, you should make sure that your level of analysis matches the minimum level of credible evidence required by the situation and your audiences' information needs. By making this a deliberate step, you should find it easier to observe and understand changes, solve problems, and make improvements to your project.

4A. Prepare Your Data for Analysis

Analysis is a process of transforming raw data into useful information. Analysis should not happen at only one point in time during the life of the project. To continuously understand what is going on in your project – and to be able to change things in a timely fashion – it is essential to capture and analyze your monitoring data as part of routine project work.

To do this, you need to have sound data management systems in place. Ideally, these are tied to or communicate in some way with what you laid out in your strategic plan. For example, if you are collecting data on how many new building permits are issued for state-listed unique areas (refer back to Figure 10 and Figure 14), your systems should allow you to easily verify that your objective was that there would be no new building permits issued in these areas and that you expect to see that by the year 2016.

In addition, you need to have methods and systems established for recording, storing, and processing data. This includes processes for systematically checking, cleaning, and coding raw data as soon as you get them and for storing and backing-up your data. This work should be done for both programmatic data as well as operational and financial data.

Output for this standard practice includes:

- ***Development and regular use of systems for recording, storing, processing and backing up project data.***

4B. Analyze Results

One of the most important aspects of adaptive management is that it allows you to systematically assess whether you are on track to achieve your stated goals and objectives. Your monitoring data should provide you with the information needed to see whether you have achieved your expected intermediate results and whether you are on track to achieve long-term success. In addition, adaptive management also allows you to determine why certain activities have

succeeded or failed. Your monitoring data provide you with the opportunity to see whether the core assumptions you laid out in the planning steps above hold true in reality. By testing these core assumptions, you are in a better position to adapt and change your project activities accordingly.

For learning and effective communication, it is important that the right people be involved in the analyses and/or made aware of the results of the analyses. As a general rule, analyses should involve members of the project team. However, input from outside experts or those with other perspectives is valuable during the analyses of your monitoring results.

To check if you are on track or why something may have succeeded or failed, you should undertake the following tasks:

- Consider your results in the context of your conceptual model and results chains;
- Review your assumptions and assess if your assumptions are correct, if you are on track to meet your goals and objectives and if your strategies are having the desired impact;
- Likewise, review your conceptual model and determine if there are important factors that you did not include or monitor and that may be affecting your ability to succeed;
- Assess the utility of your indicators;
- Determine if your goals and objectives were set at an appropriate level and if the timeline for achieving them was appropriate;
- Identify and document your learning questions, as well as anything you have learned, as you go along.

Depending on the type of data that you have and your information needs, these analyses can range from formal statistical studies to simple qualitative assessments.

It is also important to consider whether the operational processes supporting your project are functioning properly. You may have a project that uses the perfect strategies to address the threats and opportunities affecting your conservation targets, but maybe your team is not operating efficiently or it does not have the administrative or financial support it needs to do its job well. Some questions you might want to explore during your analysis include:

- To what extent do you have sufficient resources (e.g., financial, human, administrative, political) to carry out your project?
- To what extent do you have the right skills among your team members to implement your project well?
- To what extent do you have the physical infrastructure and equipment (e.g., office space, vehicles, computers) you need to do your job?
- To what extent does your project team operate smoothly or are there areas where you could improve how the team functions? (e.g., communications, delegation of responsibilities)

Outputs for this standard practice include:

- ***Analyses of project results and assumptions.***
- ***Analyses of operational and financial data.***
- ***Documentation of discussions and decisions.***

4C. Adapt Your Strategic Plan

Collecting and analyzing data as part of routine monitoring activities allow you to determine how effective your interventions are and what you need to do to adjust your project to reach your goals and objectives more efficiently. As the final part of this step, you need to use what you have learned during the analyses and discussions to modify and optimize your activities. This is the essence of adaptive management.

All the planning that you did earlier was not meant to be a one-time event, never to be revisited or used again. Instead, in order to learn over time and to continue to improve the effectiveness of your project, you must revisit and adjust your project parameters and core assumptions, action plan, monitoring plan, operational plan, work plan and budget. Therefore, you may need to update many or all sections of your strategic plan to reflect what you have learned. As you make changes, you should also document the rationale behind them so that others will understand what you learned and why you made these changes. This will also be an important input to Step 5 (Capture and Share Learning).

When updating your strategic plan, you should also incorporate findings from analyses done outside of your project team. For example, if your project has undergone a formal evaluation or audit (see Step 5C), you should examine the findings and see how you can use them to adapt and improve your project and your strategic plan. Similarly, you should stay informed about important research findings, new knowledge, and innovations that can help you improve your project work.

Output for this standard practice includes:

- ***Revised project documents (including action plan, monitoring plan, operational plan, work plan, and budget).***
- ***Documentation of discussions and decisions.***

5. Capture and Share Learning

The final step in the management cycle involves sharing lessons and formal products with key internal and external audiences. It also involves giving and receiving feedback, conducting evaluations and audits, and promoting a learning culture. Due to the iterative nature of the adaptive management cycle, this final step is also often an important input for the first (or subsequent) steps of the project cycle. In this step, it is important to foster learning not only within the project but also at an institutional level and, more generally, within the conservation community. With this in mind, these standards include practices that your organization should adopt at an institutional level to help foster learning and sharing.

5A. Document What You Learn

As you go through the process described in these standards, you should make sure you harvest and document the lessons that your project team is learning on a regular basis. Lessons can take the form of formal statistical results or anecdotal stories and can focus on something as large as your core project assumptions or something as specific as a new and improved way of tracking project expenses. They can also be as formal as a written report or as informal as hand-written log to which all team members have access. Where technology permits, using online tools can be a useful way of ensuring that team members can all access and update lessons in one central spot. One of the keys to harvesting lessons is to keep track of learning questions that emerge as you go through the project management process and then try to answer these questions when data become available to do so. Another key is to provide time and incentives to do this work. Harvesting lessons requires a balance between art and science – and will require patience and making time in any work plan for these tasks.

To a large degree, however, you will have already harvested those lessons in Step 4, based on the learning questions you have defined. Here, you should make sure that you document or record those lessons so that they are available in the future to your team and your organization.

Outputs for this standard practice include:

- ***Documentation of key results and lessons.***

5B. Share What You Learn

If you capture what you have learned in written or recorded documents, you will be able to remember from year to year what you have done, what you found worked and what didn't, and what you plan to do in the future. This will help your current project team over the long term and will ensure that new project staff will have a record of what you did and what you learned. If you use project management software like Miradi, you can record those comments in the relevant steps of the process and ensure that those comments become part of the historical record for that project file. Production of formal documents will also help you communicate your findings to practitioners around the world. Documenting and sharing what you have learned will help practitioners working under similar conditions, dealing with similar threats, and using similar tools to benefit from your successes and avoid any pitfalls or problems you may have encountered during the implementation of your project.

In order to create documents that a variety of audiences will understand, internalize and use, you must understand how they typically receive messages, and what they would be interested in learning. Although we present communications as the final step in the cycle, you really need to be preparing for communicating your results and other relevant project information much earlier. For example, in Step 2B, you should have identified your audiences for your monitoring results and what information they would be interested in having. To effectively reach these audiences, you need a clear communications and dissemination strategy. You need to decide which lessons you wish to communicate to these priority audiences, determine the best format to reach each key audience, and then develop and distribute your communications products. For example, you may use informal communications means (e-mail, phone calls) to share lessons with your internal audiences (project staff, partners and other stakeholders). You should make sure to provide:

- Clear management recommendations to all the right people based on your analysis;
- Necessary details to help interpret results;
- Alternatives and contingencies based on the results; and
- Regular reports to all team members.

For communicating and sharing lessons with your external audiences (donors, other practitioners, broader public), you will probably use more formal communications means (reports, presentations, videos). Communications products can encompass many different forms ranging from formal academic papers to stories and videos. It is important to evaluate each product to see if it effectively communicated your messages and to learn what you might do to improve similar efforts in the future. Again, monitoring, learning, and adapting happen at all stages of the project cycle.

Finally, you should also look to others in the conservation community as sources of information and learning for your project. Some of the best sources of lessons are the experiences of others.

Outputs for this standard practice include:

- ***Identification of key audiences.***
- ***Development of a communications strategy.***
- ***Regular reports or other types of communication to project team members and key stakeholders.***
- ***Development and distribution of appropriate communication products.***
- ***Use of other people's communication products.***

5C. Create a Learning Environment

The last standard of practice in the cycle involves creating a performance and learning culture within your project team, across your organization and partners, and among conservation practitioners around the world. A performance and learning culture at these levels is important to ensure that all parties learn and benefit from your team's experience. Although this is listed as the last step, it really is something you need to cultivate right from the start. To effectively apply these standards, you need to work in a project environment that promotes learning and adaptation

over time. This means that you, your team, and your organization should be constantly reflecting, seeking feedback, and providing feedback. That feedback could be formal or informal and might come internally from your team members or other staff members in your organization. Alternatively, it might come from external mechanisms, such as evaluations, which assess a project against its own stated goals and objectives, and audits, which assess a project against an external set of process standards, such as the ones outlined in this document. In creating a learning environment, it is important to be open to outside opinions that can give you fresh and insightful perspectives.

Creating a learning environment is not easy. It requires leaders and donors who understand the need to reallocate scarce resources from immediate action to the long-term work of adaptive management. It often requires enabling practitioners to take some chances and question the conventional wisdom related to specific conservation tools and strategies. It requires providing project teams with the institutional security that innovation and questioning assumptions are valued in their organizations. And it requires a commitment to share both successes and failures with other practitioners around the world – to create true communities of practice.

Outputs for this standard practice include:

- ***Regular feedback shared formally or informally.***
- ***Evaluations and/or audits at appropriate times during the project cycle.***
- ***Demonstrated commitment from leaders to learning and innovation.***
- ***A safe environment for encouraging experimentation and questioning the status quo.***
- ***A commitment to share success and failures with practitioners around the world.***

Close the Loop

The *Open Standards* outlined in this document are presented in the form of a cycle. A typical project team might go through Steps 1 and 2 fairly quickly (perhaps over a 4-5 day workshop) to sketch out the basic strategic plan for their project. They may then circle back and fill in the details over the next few months for Steps 1 and 2 while they are also beginning the implementation work in Step 3. The team might then conduct its first analyses in Step 4 after six months and use this work to develop their first communication products in Step 5.

As shown in Figure 1, once you complete Step 5, the arrow then takes you back to Step 1. The intent behind this cycle is not to put you and your project team is an endless loop of work. Instead it is to remind you that adaptive management is a dynamic process that requires you to constantly learn and change over time. For example, based on your analysis of your data, should you revisit your vision and conservation targets? Are there new factors or relationships that you had not previously considered that you believe should be incorporated into your conceptual model or addressed by a specific goal or objective? Have your audiences or their information needs changed? Do you need to change your Monitoring Plan? Do you need to adapt your Operational Plan? Closing the loop is about repeatedly going through the steps in the project cycle to determine if you need to augment or further develop any of them over time. It is the essence of transforming ordinary management into true adaptive management.

Annex 1. Glossary

There is an endless debate among planners as to the relative meaning of technical terms such as goals, objectives, activities, targets, milestones, outputs, and results. It seems that every office, project, and individual have their own preferred set of terms. There is no right answer – the most important thing is that the members of your project team and the people with whom you work, have a clear and common definition of whatever terms you choose to use.

Over time, however, there are real advantages to having a standard glossary. To this end, technical terms in this document were carefully selected, underlined when first used, consistently used thereafter, and defined in this glossary. These definitions are based on current usage by many CMP members, other conservation organizations, and planners in other disciplines.

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.

Activity – A specific action or set of tasks undertaken by project staff and/or partners to reach one or more objectives. Sometimes called an action, intervention, response, or strategic action. (See relationship to strategies below.)

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 strategies to one or more targets as reflected in a results chain diagram. Other assumptions are related to factors that can positively or negatively affect project performance **–** see also risk factor.

Audience – Those individuals or groups a project team is trying to reach, be it for communication purposes or to influence a particular behavior.

Audit – An assessment of a project or program 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 – A synonym for 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 identified through situation analysis that are believed to impact or lead to one or more conservation targets. A good model should link the conservation targets to threats, opportunities, stakeholders, and key intervention points (factors – threats, opportunities, or targets – in a conceptual model where a team can develop strategies that will influence those factors. It should also indicate which factors are most important to monitor.

Conservation Target – An element of biodiversity at a project site, which can be a species, habitat, or ecological system that a project has chosen to focus on. All targets at a site should

collectively represent the biodiversity of concern at the site. Synonymous with biodiversity target.

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

Direct Threats – Primarily human actions that immediately degrade one or more conservation targets. For example, "logging" or "fishing." They can also be natural phenomena altered by human activities (e.g., increase in extreme storm events due to climate change). Typically tied to one or more stakeholders. Sometimes referred to as a "pressure" or "source of stress." Compare with indirect threat.

Driver – A synonym for 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 program in relation to its own previously stated goals and objectives. See monitoring and 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. Also known as root causes or drivers.

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, impact oriented, measurable, time limited,* and *specific*.

Human Wellbeing Target - In the context of a conservation project, human wellbeing targets focus on those components of human wellbeing affected by the status of conservation targets. All human wellbeing targets at a site should collectively represent the array of human wellbeing needs dependent on the conservation targets

Impact – The desired future state of a conservation target. A goal is a formal statement of the desired impact.

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 – A specific result 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).

Key Ecological Attribute (KEA) – Aspects of a target's biology or ecology that if present, define a healthy target and if missing or altered, would lead to the outright loss or extreme degradation of that target over time.

Key Intervention Point – Priority factors (threats, opportunities, or targets) within a conceptual model on which a team should take action.

Learning Questions – Questions that define what you want to learn based on the implementation of your project. Learning questions drive the identification of information needs, and thus, your monitoring plan.

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, and indicators in tabular form, showing the logic of the project.

Monitoring – The periodic collection and evaluation of data relative to stated project goals and objectives. (Many people often also refer to this process as monitoring and evaluation (abbreviated M&E)).

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. A good method should meet the criteria of *accurate, reliable, cost-effective, feasible,* and *appropriate*.

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: *results oriented, measurable, time limited, specific,* and *practical.* 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 – A plan that includes analyses of: funding required; human capacity and skills and other non-financial resources required; risk assessment and mitigation; and estimate of project lifespan and exit strategy.

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 a threat.

Outcome – The desired future state of a threat or opportunity factor. An objective is a formal statement of the desired outcome

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

Primary Interests – What your stakeholders ultimately care about or value. Depending on the type of stakeholder, these could be conservation targets or contributing factors (indirect threats and opportunities) in a conceptual model.

Program – A group of 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 programs 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 program.

Project Area – The place where the biodiversity 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 and *outcomes* which are linked to threats and opportunities.

Results Chain – A graphical depiction of a project's core assumption, the logical sequence linking project strategies to one or more targets. In scientific terms, it lays out hypothesized relationships.

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.

Root Cause – A synonym for factor.

Scope – The broad geographic or thematic focus of a project.

Stakeholder – Any individual, group, or institution that has a vested interest in or can influence the natural resources of the project area and/or that 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, vision, and targets; an analysis of project situation, an Action Plan, a Monitoring Plan, and an Operational Plan.

Strategy – A set of actions with a common focus that work together to achieve specific goals and objectives by targeting key intervention points, integrating opportunities, and limiting constraints. A good strategy meets the criteria of being: *linked, focused, feasible,* and *appropriate.*

Stress – An impaired aspect of a conservation target that results directly or indirectly from human activities (e.g., low population size; reduced river flows; increased sedimentation; lowered groundwater table level). Generally equivalent to a degraded key ecological attribute (e.g., habitat loss).

Target – Shorthand for biodiversity/conservation target.

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

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*.

Work plan – A short-term schedule for implementing an action or monitoring plan. Work plans 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. Definitions of and Criteria for Key Terms

Vision Statement: A general statement of the desired state or ultimate condition that a project is working to achieve.

- **Relatively General** – Broadly defined to encompass all project activities
- **Visionary** – Inspirational in outlining the desired change in the state of the targets toward which the project is working
- **Brief** – Simple and succinct so that that all project participants can remember it

Goal: A formal statement detailing a desired impact of a project such as the desired future status of a target.

- **Linked to Targets** – Directly associated with one or more of your conservation targets
- **Impact Oriented** – Represents the desired future status of the conservation target over the long-term
- **Measurable** – Definable in relation to some standard scale (numbers, percentage, fractions, or all/nothing states)
- **Time Limited** – Achievable within a specific period of time, generally 10 or more years
- **Specific** – Clearly defined so that all people involved in the project have the same understanding of what the terms in the goal mean

Objective: A formal statement detailing a desired outcome of a project.

- **Results Oriented** – Represents necessary changes in critical threat and opportunity factors that affect one or more conservation targets or project goals
- **Measurable** – Definable in relation to some standard scale (numbers, percentage, fractions, or all/nothing states)
- **Time Limited** – Achievable within a specific period of time, generally 3-10 years
- **Specific** – Clearly defined so that all people involved in the project have the same understanding of what the terms in the objective mean
- **Practical** – Achievable and appropriate within the context of the project site, and in light of the political, social and financial context

Strategy: A group of actions 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 designed to achieve specific objectives and goals.

- **Linked –** Directly affects one or more critical factors
- **Focused** – Outlines specific courses of action 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

Indicator: A measurable entity related to a specific information need such as the status of a target, change in a threat, or progress toward an objective.

- **Measurable** – Able to be recorded and analyzed in quantitative and qualitative terms
- **Precise** – Defined the same way by all people
- **Consistent** – Not changing over time so that it always measures the same thing
- **Sensitive** – Changes proportionately in response to the actual changes in the condition being measured

Method: A specific technique used to collect data to measure an indicator.

- **Accurate** – The data collection method has little or no margin of error.
- **Reliable** – The results are consistently repeatable - each time that the method is used it produces the same result.
- **Cost-Effective** – The method does not cost too much in relation to the data it produces and the resources the project has.
- **Feasible** – method can be implemented by people on the project team.
- **Appropriate** – Acceptable to and fitting within site-specific cultural, social, and biological norms.

Annex 3. Summary of Standards of Practice and Outputs

Numbers denote steps and sub-steps, and diamond bullets (♦) denote outputs. Not all standards or outputs are appropriate under all conditions or for all projects, so you should adapt as needed.

1. Conceptualize

1A. Define Planning Purpose & Project Team

- ♦ Identification of planning purpose & decisions.
- ♦ Identification of decisions already made & constraints or limits.
- ♦ Selection of initial project team.
- ♦ Identification of key skills.
- ♦ Identification of gaps in skills or knowledge.
- ♦ Designation of roles & responsibilities.

1B. Define Scope, Vision, & Conservation Targets

- ♦ Brief description of project scope.
- ♦ Map of project area.
- ♦ Vision statement for project.
- ♦ Selection of conservation targets.
- ♦ Description of the status of each priority conservation target.

1C. Identify Critical Threats

- ♦ Identification of direct threats.
- ♦ Rating or ranking of direct threats.

1D. Analyze the Conservation Situation

- ♦ Identification & analysis of indirect threats & opportunities.
- ♦ If relevant, selection of human wellbeing targets.
- ♦ Assessment of stakeholders & primary interests.
- ♦ Initial conceptual model.
- ♦ Ground-truthing & revision of model.

2. Plan Your Actions & Monitoring

2A. Develop a formal action plan

- ♦ Goals for each target.
- ♦ Identification of key intervention points & draft strategies.
- ♦ Prioritization of draft strategies.
- ♦ Results chains that specify assumptions for key strategies.
- ♦ Objectives for key intermediate results.
- ♦ Finalized strategies, results chains, & objectives.
- ♦ Finalized Action Plan.

2B. Develop a Formal Monitoring Plan

- ♦ Audiences & information needs defined.
- ♦ Indicators & methods defined.
- ♦ Finalized Monitoring Plan.

2C. Develop an Operational Plan

- ♦ Assessment of human, financial, & other resources.
- ♦ Risk assessment & mitigation.
- ♦ Estimate of lifespan & exit strategy.

3. Implement Actions & Monitoring

3A. Develop Detailed Short-Term Work Plan & Timeline

- ♦ Work plan detailing tasks, activities, & responsibilities.
- ♦ Project timeline or calendar.

3B. Develop & Refine Your Project Budget

- ♦ Project budget.
- ♦ Potential funding sources identified.
- ♦ Funding proposals developed & submitted.
- ♦ Financial resources obtained.

3C. Implement Your Plans

- ♦ Implementation of strategic plan.
- ♦ Implementation of work plan.

4. Analyze, Use, Adapt

4A. Prepare Your Data for Analysis

- ♦ Development & use of systems for recording, storing, processing & backing up project data

4B. Analyze Results

- ♦ Analyses of project results & assumptions.
- ♦ Analyses of operational & financial data.
- ♦ Documentation of discussions & decisions.

4C. Adapt Your Strategic Plan

- ♦ Revised project documents - action plan, monitoring plan, operational plan, work plan, & budget.
- ♦ Documentation of discussions & decisions.

5. Capture & Share Learning

5A. Document what you learn

- ♦ Documentation of key results & lessons.

5B. Share What You Learn

- ♦ Identification of key audiences.
- ♦ Development of a communications strategy.
- ♦ Regular reports to project team members & key stakeholders.
- ♦ Development & distribution of communication products.
- ♦ Use of other people's communication products.

5C. Create a Learning Environment

- ♦ Regular feedback shared formally or informally.
- ♦ Evaluations and/or audits at appropriate times during project cycle.
- ♦ Demonstrated commitment from leaders to learning & innovation.
- ♦ Safe environment for encouraging experimentation.
- ♦ Commitment to share success & failures with practitioners around the world.

Close the Loop

Annex 4. Example Application of the *Open Standards* to a Thematic Project

This example was developed by a small working group to demonstrate how the *Open Standards* can be applied to thematic projects that are not place-based. The example is based on the WWF Market Transformation Initiative's work to address the threat that palm oil plantations pose to tropical forests in many countries, especially Malaysia, Indonesia, and Papua New Guinea.

Figure 16. Palm Oil Conceptual Model with Strategies and Links to Human Wellbeing

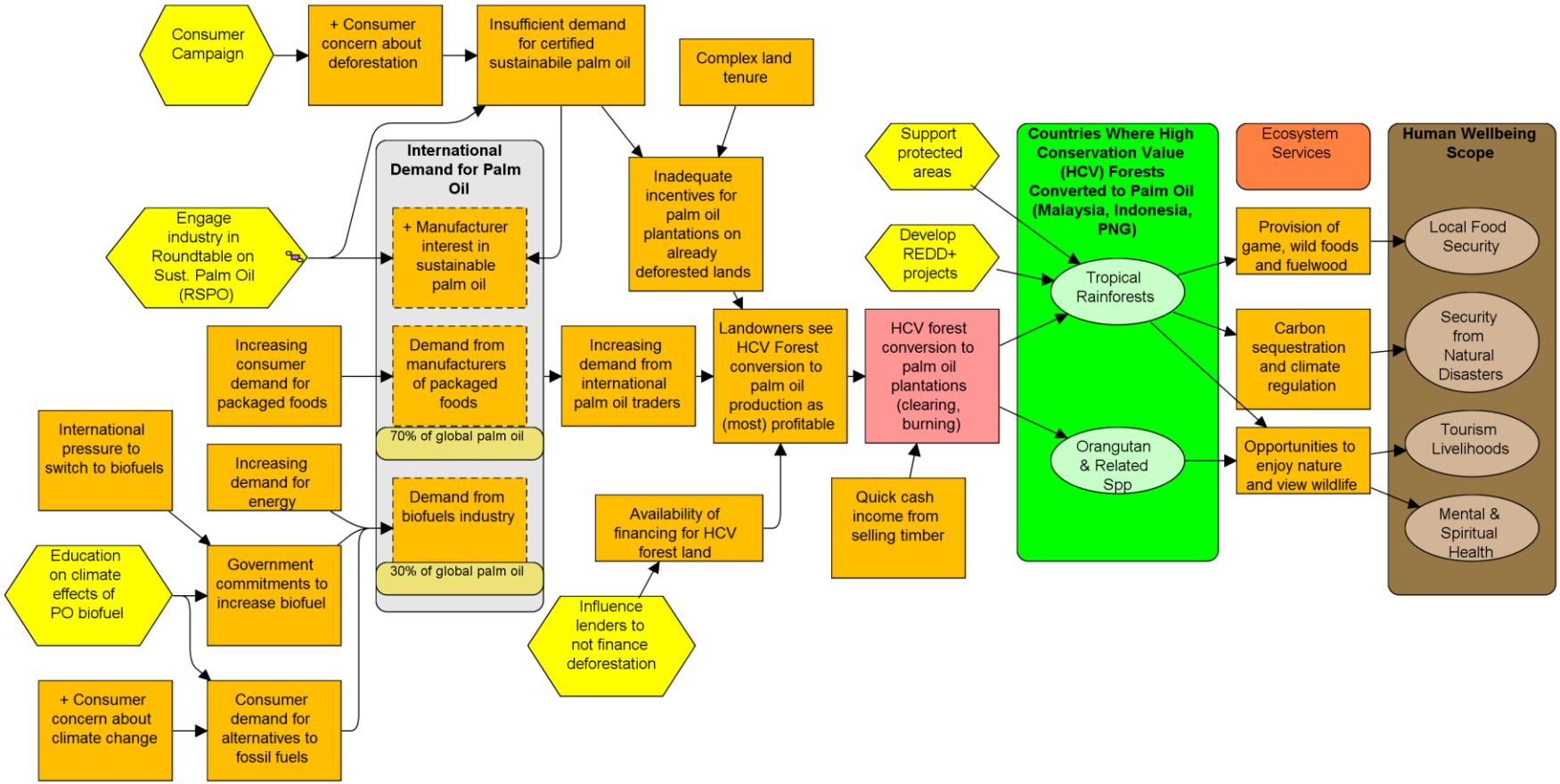
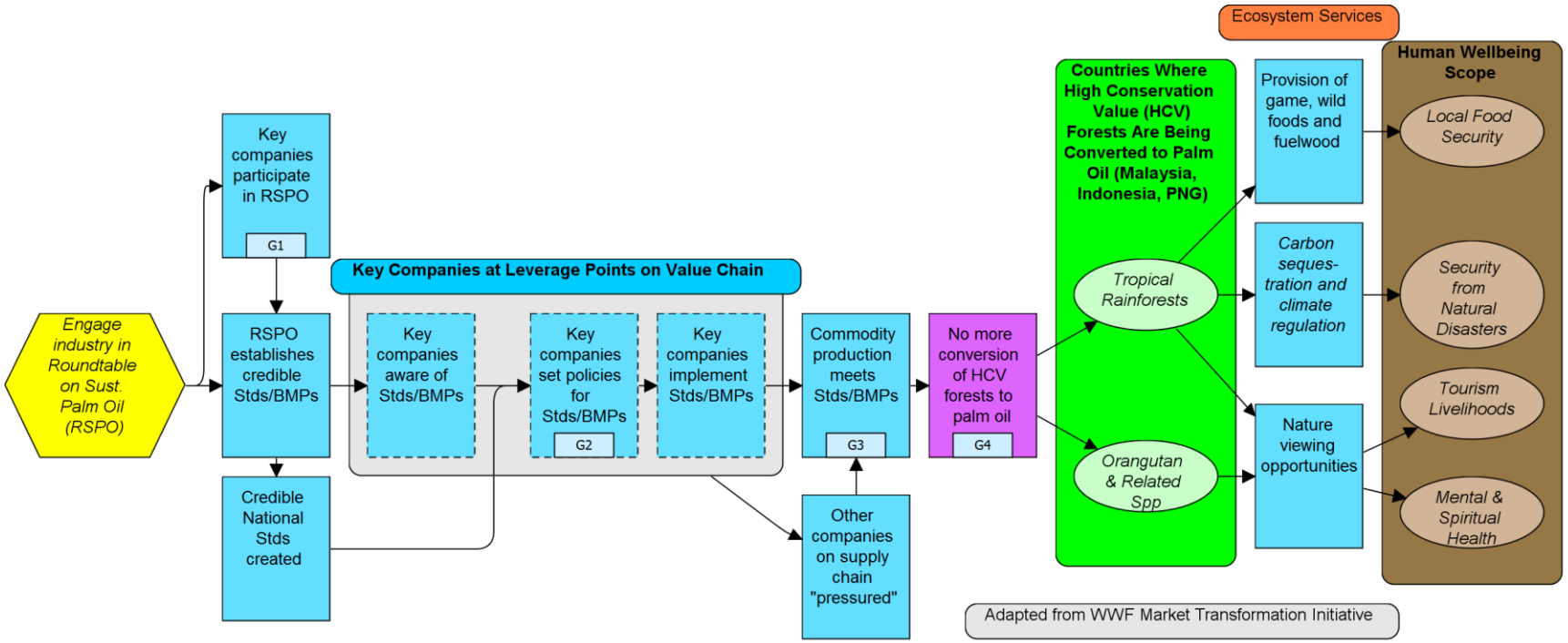


Figure 17. Results Chain and Corresponding Objectives for a Global Strategy to Engage Industry in Sustainable Palm Oil Production



Code	Objectives	Indicators
G1	By 2013, at least 75% of global production of palm oil is represented in RSPO membership.	% of global production of palm oil represented in RSPO membership
G2	By 2014, 50% of targeted palm oil manufacturers and retailers have committed to procure 100% sustainable palm oil.	% of targeted palm oil manufacturers and retailers committed to procure 100% sustainable palm oil
G3	By 2015, all top 20 global palm oil companies procure 100% sustainable palm oil.	# of global palm oil companies that procure 100% sustainable palm oil
G4	All new plantings of palm oil since November 2005 have not replaced primary forest or any area containing more than one high conservation value in WWF priority places (Heart of Borneo, etc.).	# of hectares of HCV habitat lost to palm oil production each year in X, Y, Z priority places

Note: This results chain does not include a goal because, at this global scale, the ultimate measure of success of this strategy is the elimination or reduction of the threat of conversion of tropical forests to palm oil plantations.



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