Monitoring Frameworks

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1. What is the tool?

Monitoring Frameworks: A strategic planning tool that clearly defines your monitoring objectives, methods of data collection and the indicators you will use to measure progress towards these objectives. Monitoring objectives can be defined at three levels:

♦ the implementation of interventions (i.e., were ecoguard patrols conducted as planned; were as many people trained as planned?)

♦ level of threats (are threats being reduced?); and

♦ status of wildlife and their habitats (has the desired conservation impact been achieved?).

2. What will this tool do for your project (or what conservation challenges will using this tool help you solve)?

Direct benefits

♦ Measuring the effectiveness of conservation actions is universally recognized as a vital yet challenging task. Monitoring Frameworks can directly benefit you by determining whether or not the project is meeting its conservation targets and showing progress towards these targets. Monitoring Frameworks are useful because they require you to explicitly articulate:

1. your monitoring objectives;

2. the method you will use to measure these objectives: where you will work, how the monitoring will be conducted, by whom and within what timeframe; and

3. the specific indicators that you will choose to monitor.

♦ When linked explicitly with a Conceptual Model, Monitoring Frameworks can be the basis for adaptive management (i.e., revision of the model) in the landscape, by:

1. identifying which actions lead to the success or failure of a particular conservation approach; and

2. evaluating and revising your assumptions of *why* and *where* conservation efforts are needed.

♦ Monitoring Frameworks allow you to clearly describe to donors and stakeholders how you intend to assess your progress and conservation impact.

♦ Monitoring Frameworks will help to ensure that data collection is focused on evaluating conservation interventions, and will help to avoid redundant or non-strategic monitoring activities.

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Indirect benefits

♦ Implementation of Monitoring Frameworks can lead to greater field presence and further opportunities for collaborations and partnerships.

♦ Monitoring Frameworks allow us to learn from the results of the project and use this knowledge to improve the implementation of future conservation programs.

Material products

♦ A clearly articulated Monitoring Framework (e.g., a table in a MSWord document)

♦ Critical information to use for guiding decision-making (e.g. trends in wildlife populations and abundance, threat levels such as deforestation rates, etc…)

♦ Eventually, reports on the results of monitoring activities can be generated and potentially expanded into publications.

3. What will this tool NOT do for your Project?

♦ While the Monitoring Framework provides information on current activities, known threats and present conservation targets, it may not detect the appearance of new threats within the landscape.

The Landscape Species Approach

The Landscape Species Approach is a wildlife-based strategy to define ecologically meaningful conservation areas, recognizing the complexity of the biological and social landscape in which conservation occurs (see **Living Landscapes Bulletin 2**). The Landscape Species Approach depends on selecting a set of species with complementary ecological needs (a suite of Landscape Species which collectively represents the biodiversity of the landscape as a whole) (see **Living Landscapes Bulletin 3**). The goal of the approach is for conservation of the suite of Landscape Species to lead to conservation of not only those species, but of all biodiversity in the landscape.

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♦ The tool does not help you to evaluate those areas where your project is not currently engaged in conservation interventions, since it focuses monitoring activities in those areas where interventions are occurring. Therefore, it is important to remember to also consider targets and threats across the landscape; in order to evaluate those areas where you are not currently intervening.

♦ The tool will not help you to decide how much money, resources, or staff time to allocate to different conservation interventions, or to your monitoring activities.

♦ The tool doesn't prioritize different monitoring activities; nor does it prioritize among the monitoring levels (threats, interventions and targets).

♦ The tool does not currently have a structure for reporting, or for setting regular target benchmarks for each of the monitoring components (e.g., annual or monthly benchmarks). However, these features may be incorporated in the future.

Law enforcement monitoring data indicated increased elephant poaching on the northern and western border of *Nouabale-Ndoki National Park* in the Republic of Congo, resulting in a 2003 revision of the anti-poaching strategy.

In Thailand's *Hua Kha Kheng – Thung Yai* landscape, the Monitoring Framework could not help decide between different intervention possibilities such as implementing law enforcement patrols versus increasing community education efforts versus working with national policy-makers. Neither would it give the detailed monitoring design for the camera trapping and line transects that were needed for accurately measuring tiger and tiger prey population levels. But it did allow project staff to construct clearly stated monitoring objectives (e.g., achieving the law enforcement targets will lead to a reduction in the poaching of tiger prey at the site and an increase of tigers to $5/100km^2$).

Turtle nest monitoring in *Glover's Reef*, Belize garnered the involvement of resort owners, marine reserve staff and researchers in turtle nest counts. Also at that site, local fishermen were involved in community-based monitoring in order to stimulate their recognition of the need to modify their own fishing practices.

Ndoki-Likouala and *Glover's Reef* staff chose to implement a sub-set of monitoring activities from the framework, providing key information on the highest priority components.

4. What are the requisites for using this tool?

Project type and stage of development

♦ The Monitoring Framework is tightly linked to the Conceptual Model. Therefore, development of the tool is best done along with the Conceptual Model, at an early stage of project development. Monitoring Frameworks will be useful for adaptive management purposes as soon as interventions have begun in the landscape.

A Monitoring Framework's use as an adaptive management tool, however, can be implemented *at any stage* of a conservation project. The monitoring framework may become more detailed as the project progresses, once more information about threats and conservation targets is available and as more conservation interventions are implemented.

♦ Specialized research projects may not find this tool necessary.

Information and data

The prerequisite data for a monitoring framework include baseline data on:

♦ species populations,

♦ habitats,

♦ key threats,

♦ socio-economic attributes and

♦ planned interventions.

Developing the framework will require collecting available information on the biology of the species or habitats, the impact of identified threats on these conservation targets, and the underlying socio-economic drivers of these threats. This information is required to construct a Monitoring Framework that is internally consistent.

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Technical staff skills

♦ Skills in strategic conservation planning.

♦ Knowledge of proven monitoring techniques (e.g. achievable outcomes from remote-sensing, camera-trapping, etc…).

♦ The technical staff skills required to implement the framework will depend on the types of monitoring methods identified.

LLP tools

♦ A Conceptual Model, see Bulletin 5 and Technical Manual 2

♦ Participatory Threats Assessment, see Technical Manual 1

♦ Household Surveys, see Technical Manual 4

♦ Landscape Species Selection (and/or other target selection), see Technical Manual 5

5. How to use the tool:

♦ Your Monitoring Framework should provide a reasonable yet comprehensive suite of indicators and monitoring activities according to the details given in Technical Manual 3. Once this is completed, strategically assess and prioritize the monitoring components that can be realistically and reliably implemented for each target, intervention and threat. Do not expect to monitor everything all of the time! This is a dynamic process that can be regularly reviewed and expanded as capacity grows.

♦ Read LLP Technical Manual 3: Measuring our effectiveness – a framework for monitoring

♦ Read Bulletin 7: Setting priorities: Threats reduction or monitoring effectiveness?

♦ Consult Salafsky & Margoluis. Measures of Success. http://fosonline.org/

6. Who should be involved in using the tool, and why?

♦ Developing the tool is largely a technical process to be conducted by site managers. Where local and/or non-technical partners are involved in monitoring activities, these same partners should also be engaged in the development of those components of the tool.

♦ Monitoring Frameworks can be used internally by project staff or developed in a participatory manner with project partners and other stakeholders (e.g. government agencies). The degree and type of participation will depend on the role of different partners in the landscape and their relative contribution to enacting change; the people involved will vary depending upon the nature of your project and the number of partners. Involving project partners will be necessary if you would like them to agree to the objectives of your Monitoring Framework and to share data.

♦ It is recommended to consult statistical specialists for advice on monitoring design.

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7. How long will it take?

♦ Quick option:

   1. assemble background information from a literature search or existing data or expert opinion;

   2. internal discussion with project staff; and

   3. writing up initial draft. 2-3 days.

   ♦ The process could be extended, if required, by involving current or putative project partners in the above steps.

♦ Developing a more rigorous Monitoring Framework may require surveys to determine species or habitat baselines and biological information. Staff may need to evaluate the proposed monitoring methods to determine if they are appropriate, or attend training courses to familiarize themselves with different techniques before deciding on their suitability.

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Living Landscapes Program Manuals

WCS-International saves wildlife and wildlands by understanding and resolving critical problems that threaten key species and large, wild ecosystems around the world. Simply put, our field staff make decisions about what causes the needs of wildlife and of people to clash, and take action with their partners to avoid or mitigate these conflicts that threaten wildlife and their habitat. Helping our field staff to make the best decisions is a core objective of the Living Landscapes Program.

We believe that if conservation projects are to be truly effective, we must: (1) be explicit about what we want to conserve, (2) identify the most important threats and where they occur within the landscape, (3) strategically plan our interventions so we are confident that they will help abate the most critical threats, and (4) put in place a process for measuring the effectiveness of our conservation actions, and use this information to guide our decisions. The Living Landscapes Program is developing and testing, with our field programs, a set of decision support tools designed to help field staff select targets, map key threats, prepare conservation strategies, and develop monitoring frameworks.

We describe the application of these tools in a series of brief technical manuals which are available by email from llp@wcs.org.

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