Monitoring, Evaluation and Adaptive Management Following INFFER Assessment

(INFFER step 7)

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Introduction

The Investment Framework For Environmental Resources (INFFER) is a tool for planning and prioritising public investments in natural resources and the environment. It focuses on achieving outcomes cost effectively.

This document relates to step 7 of the INFFER process (Table 1). It covers the process of monitoring and evaluation of the implemented projects, with an emphasis on adaptive management.

Table 1. Steps in the INFFER process

	Description of Step	Relevant Document
1.	Develop a list of significant natural assets in the relevant region(s)	"Significant Asset Identification Guide"
2.	Apply an initial filter to the asset list, using a simplified set of criteria	"Filtering Significant Assets Prior to Detailed Assessment"
3.	Define projects and conduct detailed assessments of them	"Project Assessment Form", and "Project Assessment Form Instruction Manual"
4.	Select priority projects	"Selection of Priority Projects"
5.	Develop investment plans or funding proposals	"Development of investment plans or funding proposals"
6.	Implement funded projects	"Implementation of funded projects"
7.	Monitor, evaluate and adaptively manage projects	"Monitoring, Evaluation and Adaptive Management following INFFER Assessment" (this document)

The thinking behind this step

Monitoring and evaluation of environmental and natural resource projects often tends to be conducted primarily for reasons of reporting and accountability. While the INFFER process

recognises the importance of reporting, it also emphasises the importance of monitoring and evaluation to learn from the project and improve its delivery of outcomes over time – i.e. adaptive management.

Reporting

A number of elements of the Project Assessment Form provide information that assists with reporting on project progress and outcomes:

1.1   Asset identification: makes clear the natural asset that is the focus of the project. This asset should be the focus of monitoring for outcomes.

2.1   Project goal(s): identifies the outcomes that are intended to be achieved by the project. Report on progress towards the goal(s). This goal is long term. Shorter term intermediate outcomes are provided at 5.4.

2.2   Works and actions: specifies the works and on-ground actions that the project aims to have implemented. Report on progress towards implementation of these works and actions.

2.6   Positive and negative spin-offs from the project: report on positive and negative spin-offs that actually occur.

3.3   Private adoption of works and actions: report on actual levels of adoption relative to the predicted levels. Some thought will be required on how adoption will be measured.

3.5   Approvals: report on approvals that have and have not yet been granted.

4.1 to 4.3   Delivery mechanisms: report on the extent to which delivery mechanisms have been implemented.

4.4   Socio-political risks: report on any impacts on the project of socio-political risks.

4.5   Costs: report actual budget expenditure compared to planned expenditure.

5.4   Intermediate outcomes: report progress towards the intermediate outcomes specified.

Most importantly, if the INFFER guidelines have been followed correctly, the project goal(s) specified in Q2.1 will be realistic, achievable goals that will be attained as a result of the project. The delivery mechanisms specified in Q4.1-Q4.3 will lead to the works and on-ground actions specified in Q2.2, which will lead to the goal(s) in Q2.1. Thus the project goals provide a strong basis for meaningful reporting. Reporting can be focused on outcomes, not just activities and expenditure.

Adaptive management

Adaptive management is a structured, iterative process of decision making in the face of uncertainty, with the aim of reducing that uncertainty over time through monitoring the system that is being managed. It should be more than just trial and error – it should involve systematic efforts to learn and improve.

Adaptive management is about information: collecting information, analysing its significance and implications, and responding to it. From the perspective of adaptive management, the key purpose of monitoring a project is to learn from the information collected so that this project and subsequent projects can be improved. This learning should be purposeful and directed towards improving the project.

INFFER focuses on the achievement of outcomes – we want to see natural assets in better condition than they would otherwise have been. Implementing the project's delivery mechanisms is not sufficient – they should deliver outcomes. INFFER helps managers to monitor a project in a way that pays attention to the achievement of outcomes.

In the course of completing the INFFER Project Assessment Form, users are required to provide information about the works and actions required to achieve the project's goal(s), and the likelihood that these works and actions will be adopted. Ideally, the information used is based on empirical evidence and/or computer models. A useful way to think about monitoring for adaptive management is that its role is to update the evidence and models that were used to conduct the original project assessment.

We recommend that, as the project proceeds, every year or second year, the organisation should update the Project Assessment Form for this asset. Much of the information would be unchanged, but some may need to be updated.

Sources of information to update the Project Assessment Form could include:

- Observations from the project itself. After some experience with the operation of the project, the original information about the impacts of works or the adoption of works may look too optimistic, or too pessimistic;

- The results of a feasibility assessment conducted as the first phase of this project. Particularly for large projects, we recommend that there should be an initial phase of more detailed feasibility assessment before project implementation commences.

- New research evidence or computer modelling. This could include research or modelling conducted as part of the project or independent of it.

When this further information is considered, project managers may wish to respond in any of a variety of ways, including:

- Expanding resourcing of the project;

- Changing the delivery mechanisms used;

- Changing the works and actions being targeted by delivery mechanisms;

- Changing the people being targeted by delivery mechanisms;

- Investing in further research or modelling to fill a knowledge gap whose importance has become more apparent;

- Withdrawing from the project or scaling it down.

The Conservation Measures Partnership (CMP) has developed a set of standards and guidelines for management of conservation projects[1]. The elements in these "Standards" are sequenced in a similar but slightly different way to INFFER. We suggest that it is most logical

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[1] Conservation Measures Partnership (2007). *Open Standards for the Practice of Conservation*, http://www.conservationmeasures.org/CMP/.

to refer to the Standards once you have identified which assets will be protected in the project (i.e. once you have reached INFFER step 5[2]). In the appendix we reproduce their advice about the adaptive management elements of their "Standards".

Appendix: Edited extract from Conservation Measures Partnership "Open Standards for the Practice of Conservation"

4. Analyze, use, adapt

This step involves managing your data as it comes in and regularly analyzing it to convert it 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. 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. 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 [in INFFER step 3] hold true in reality. By testing these core assumptions, you are in a better position to adapt and change your project activities accordingly.

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[2] If you have used INFFER, steps 1 and 2 of the CMP Standard are already done.

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:

- o Consider your results in the context of your conceptual model and results chains [i.e. are the observed results consist with the results that were predicted at this stage of the process, based on your understanding of cause and effect?];

- o 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;

- o Assess the utility of your indicators; and

- o Determine if your goals and objectives were set at an appropriate level and if the timeline for achieving them was appropriate.

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:

- o To what extent do you have sufficient resources (e.g., financial, human, administrative, political) to carry out your project?

- o To what extent do you have the physical infrastructure and equipment (e.g., office space, vehicles, computers) you need to do your job?

- o 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 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.

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 [of the Standard]), you should examine the findings and see how you can use them to adapt and improve your project and your strategic plan.

Output for this standard practice includes:

♦ Revised project documents (including action plan, monitoring plan, operational plan, work plan, and budget).

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. 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. 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.

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. 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.

To effectively reach your 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 (email, phone calls) to share lessons with your internal audiences (the project staff, partners and other stakeholders). You should make sure to provide:

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

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.