Environmental Evaluation: Challenges and Best Practices

Key findings from the 2010 Environmental Evaluators Network Forum Ottawa, ON, Canada, October 1st, 2010

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The evaluation of environmental and sustainability programs and policies has taken root in the evaluation community over the last decade. Canada's environmentally focussed government and non-government organizations are under increasing pressure to demonstrate that their activities lead to outcomes that maintain or improve the country's environment and/or sustainability of natural resources.

Although the base of literature on how to conduct environmental evaluations is growing, evaluators continue to experience a number of issues and challenges that affect their ability to complete evaluations that lead to evidence-based conclusions and pragmatic recommendations. Fortunately, as the environmental evaluation practitioner's community continues to grow, a number of best practices are beginning to emerge.

Recognizing that there is a need to identify and discuss the factors that can negatively or positively affect an evaluation's outcomes, environmental practitioners from the government, non-government, and private sector communities met again at the 2010 Environmental Evaluators Networking Forum to identify and discuss the issues, challenges and best practices that can influence the outcomes of an environmental evaluation.

This report provides a summary of the discussion from a session that was facilitated by Stratos and the Parks Canada Agency on October 1st, 2010. It presents an overview of the challenges commonly experienced by environmental evaluators as well as notable best practices for completing environmental evaluations at three stages: planning, collecting evidence, and reporting. It is intended to document five challenges and five success factors commonly experienced by the environmental evaluation community, and to provide a basis for further discussion at next year's Environmental Evaluators Networking Forum.

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Common Challenges

1. Planning: Ensuring that there is the appropriate culture for success.

Federal evaluators commented that despite a federal policy to guide evaluations, evaluation work itself is not second nature to program staff working in government organizations, and communicating the value or benefit of evaluation to program staff has become an overwhelming task. Other government and non-government organizations also reported a need to increase their capacity to conduct evaluations that lead to high quality results and ensure that their decision-makers are engaged throughout the evaluation process. All evaluators are required to play a more active role in selling the value of evaluation to program managers, executives, and decision makers. Evaluators are tasked with the responsibility of engaging program staff early in the evaluation design phase to ensure that relevant performance data are available when the evaluation is initiated.

Evaluators from the federal community noted that the current Evaluation Policy's requirements are difficult to meet with the existing resources. EEN participants underlined that there is a need to build capacity throughout the private sector to ensure that evaluations completed by consultants meet federal evaluation standards and expectations.

2. Planning and Evidence Collection: Developing indicators to measure long-term outcomes.

Evaluators are required to address a program's ability to achieve its expected outcomes, regardless of whether these outcomes focus on the short or long-term. More often than not, an environmental program is bound by short-term financial resources, yet is expected to achieve a long-term outcome. For example, a program designed to minimize human activities that produce greenhouse gas emissions (e.g. limiting vehicle idling) may only be funded for 3 years but will take many more years to demonstrate longer term environmental results. Indicators to address these long-term outcomes and systems to monitor these indicators are rarely in place; results take a long time to be realized. Consequently, evaluators are faced with the dilemma of determining whether short-term activities that can be measured will likely lead to long-term outcomes. There are issues of measurement as well as attribution in play.

Moreover, even when indicators are identified, evaluators highlighted that they continue to experience methodological challenges in the following areas:

- Designing data collections systems that are affordable but provide the necessary information to address an indicator and assess an outcome;
- Developing indicators which verify that completed activities have lead to outputs, and how the completion of outputs can lead to achievement of expected outcomes.

3. Evidence Collection: Data limitations can lead to evaluations that focus on process rather than on results.

The analysis supporting environmental evaluations is often limited by the data available to evaluators. As previously noted, evaluators highlighted that environmental programs are rarely designed with appropriate monitoring and data collection processes that are useful for evaluation purposes. Many environmental programs lack adequate investment in monitoring and data collection activities. This leaves gaps in performance information required to determine whether expected outcomes have been achieved.

Where information is available, evaluators often lack the capacity to determine its validity, including the systems and assumptions used to generate the information. Combined with a lack of available data, this often leads to evaluations that focus on process-based issues –i.e., whether or not all steps of a process were followed– rather than issues related to the outcomes of that process.

4. Evidence Collection and Reporting: Attribution and Accountability

While evaluations are designed to address the environmental programs delivered by specific organizations, the wider issues that these programs are designed to address are rarely the exclusive responsibility of a single organization. Environmental issues do not respect geographic or jurisdictional boundaries. Physical environmental processes may impact program outcomes. The inter-linkage of environmental issues (e.g., the impacts of climate change on the recovery of species at risk) can impact the ability of a program to achieve desired results. None of these factors are within the control of the program being evaluated. This can lead to challenges in terms of attribution for outcomes and accountabilities for performance. A program's influence and attribution are difficult issues to address, especially in the environmental field.

5. Reporting: Communicating evaluation results to decision-makers.

Evaluation results can be used to inform discussions on a variety topics ranging from program funding renewal to identifying alternatives for delivering specific program activities.

Striking the right balance and tone that resonates best with decision-makers is a common problem for evaluators working across federal, provincial, and non-government organizations. Evaluators expressed that it can be a challenge to translate evaluation findings into clear messages for decision makers. Environmental programs can operate within complex environments where the use of language often includes scientific principles and scientific terminology. Often highly detailed evaluation results are perceived to be too technical for decision-making purposes.

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Best Practices

1. Planning: Identify an "Evaluation Champion".

Evaluators stressed the importance of identifying an "Evaluation Champion", that is, an individual within the management cadre who views evaluation as an important tool for good program management. Evaluation Champions were characterized as individuals who can facilitate "buy-in" to the evaluation process and can motivate program staff to participate in the evaluation as a means of improving a policy or program.

Senior Managers or other Executives with influence over the organization as a whole were identified as the best candidates to become Evaluation Champions.

2. Planning: Develop a logic model in cooperation with program staff.

Participants underlined that an effective logic model should describe a program's rationale and the causal link between program activities, outputs, and expected outcomes. When described properly, a logic model can become the primary communication tool for evaluators and those who will be required to participate in the evaluation.

Participants highlighted several advantages when evaluators and program staff develop logic models together:

- Evaluators can play a significant role in ensuring that a logic model demonstrates the causal relationship between activities, outputs, and outcomes.
- Program staff is able to play a role in ensuring that activities and outputs are accurate and that outcomes are achievable and measurable. Furthermore, including program staff can facilitate early engagement into the evaluation process.
- By working together, evaluators and program staff are well placed to determine whether a program's expected outcomes include performance indicators that are specific, measurable, attainable, relevant, and time bound (SMART).

Evaluators underlined the value in using a Theory of Change (TOC) tool for developing a logic model. A TOC model can be used to formulate a solution to a complex problem that can explain how a group of early and intermediate accomplishments can set the stage for producing short and long-term outcomes.

3. Planning: Add a subject matter expert to your Evaluation Team.

Including subject matter experts as part of the evaluation team can provide greater assurance that evaluation results go beyond process and governance issues and address whether a program or policy has successfully met its objectives or led to a positive environmental impact (e.g. species and habitat protection targets, water quality objectives, etc.). Subject matter experts better understand the relevance and success of a program as they are knowledgeable and aware of the broader context, rationale and alternatives for the program.

4. Evidence Collection: Consider data limitations when choosing an appropriate methodology.

Participants advocated that an evaluation's objectives and methodology should be driven by the availability of and access to data and information to address performance indicators and determine whether expected outcomes have been achieved.

In light of data limitations, employing multiple lines of inquiry (e.g. balancing file and document reviews, key informant interviews, surveys, case studies, focus groups, benchmarking, etc.) to collect evidence can potentially increase the amount of information available for the evaluation.

Moreover evaluators highlighted that recording data and information from multiple sources of information in an evaluation template can lead to a more a consistent approach to collecting evidence and developing evaluation findings across an evaluation team.

5. Reporting: Ground-truthing evaluation findings with program staff.

Participants agreed that every evaluation should include a specific task where the Evaluation Team vets the evaluation's findings with program staff before final reporting. This can lead to a number of benefits including:

- Testing whether evaluation findings are factually correct and or considerate of all relevant sources of information;
- Building trustworthy relationships between evaluators and program staff by being transparent about the evaluation process and its results;
- Providing an opportunity for dialogue amongst all parties affected by the evaluation; and
- Identifying new perspectives that can shape the evaluation's conclusions and recommendations.

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