

FRPA Resource Evaluation Program Terminology

The FRPA Evaluator

Technical Note #2
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Introduction

The purpose of this document is to clarify some of the terminology commonly used in the resource evaluation field, particularly those terms used in the FRPA Resource Evaluation Program (FREP).

There are two primary components to FREP – effectiveness evaluations and resource stewardship monitoring. Effectiveness evaluations are carried out at the provincial or regional level, and are generally intensive in nature. Resource stewardship monitoring is carried out at the district or regional level, and consists of routine and extensive overview monitoring of on-the-ground forest practices to assess whether resource value objectives or strategies are being achieved. Resource stewardship monitoring provides valuable information on the status, trends and implementation issues related to specific resource values. This information identifies “red flags” that may require further investigation, and helps to focus the efforts of more detailed effectiveness evaluations.

The terminology provided here applies to both effectiveness evaluations and resource stewardship monitoring.

Types of Evaluations

There are four different types of evaluations that can be used to assess the outcomes of forest management practices.

Compliance

Definition – *An assessment of compliance with legal requirements.*

Answers the question, “Have they done what they were legally required to do?”

Compliance evaluations examine adherence to current legislation and standards – they do not evaluate effectiveness. As a result, compliance evaluations provide limited guidance for improvement. An example of a compliance evaluation would be determining if a riparian reserve for a particular stream class meets the width requirements specified in either an approved Forest Stewardship Plan or the default standards in regulation.

The FRPA Evaluator is a regular publication of the FRPA Resource Evaluation Program designed to inform stakeholders on program development and implementation, and report on the results of evaluation projects.

The objective of the FRPA Resource Evaluation Program is to determine if forest and range policies and practices in British Columbia are achieving government’s objectives for the resource values identified in FRPA, with a priority on environmental outcomes and consideration for social and economic parameters, where appropriate.

Implementation (Performance)

Definition – *An assessment of progress towards a specific goal and whether practices were implemented as planned.*

Answers the question, “Have they done what they said they would do?”

Implementation evaluations are undertaken to determine the rate of progress towards specific goals (including the adoption of new practices, policies or guidelines), and whether proposed practices were implemented as planned. This is a frequently used type of “internal” evaluation. An example of an implementation evaluation would be assessing the type of stand-level biodiversity attributes in wildlife tree retention areas.

Effectiveness

Definition – *An assessment of whether policies or practices are meeting desired objectives based on evidence of outcomes.*

Answers the questions: “Did their actions achieve desired objectives?” “Are they heading in the right direction?” “Are current practices, plans and standards effective?”

Effectiveness evaluations are used to determine whether the plans and practices being implemented are actually achieving the anticipated outcomes. In other words, are they effective? Effectiveness evaluations assess the impacts of operational activities on specific resource values, often using comparisons with baseline data. An example of an effectiveness evaluation would be assessing post-harvest stand structure and comparing it to baseline data for that ecosystem. (Baseline refers to the condition of a system at time zero to which changes to the system may be referenced and compared.)

Validation

Definition – *An assessment or verification of the basic assumptions under which a specific management direction was developed.*

Answers the question, “Are the assumptions upon which we base our policies and practices correct?”

Validation evaluations are primarily research tools for examining the cause and effect relationships between an ecological system and management actions. The purpose of validation evaluations is to verify the basic assumptions upon which forest management strategies, practices and standards are based. An example of a validation evaluation might be to answer the question, “Are wildlife tree patches an appropriate method for maintaining required habitat for wildlife tree users?”

Evaluation Intensity

There are three levels of intensity for evaluations conducted under FREP. All three levels can be used to assess the current status (snapshot) of a resource feature or to identify trends by conducting a series of evaluations over time.

Routine – A relatively low intensity evaluation calling for typically inexpensive and rapid data collection.

Routine evaluations are low-cost overview evaluations that often involve visual estimates and “yes/no” checklists. These types of evaluations are useful for identifying management trends or issues that may require more detailed evaluations. An example of a routine-level evaluation might be an overview survey of impacts related to riparian management, which could include visual assessments of stream bank disturbance.

Extensive – A more detailed evaluation involving the collection of categorical data using visual estimates or relatively simple measurements.

Extensive evaluations are more rigorous and quantitative than routine evaluations, and are used to collect more detailed information on a given area. An example of an extensive evaluation might be collecting categorical and quantitative data on the

impacts of forest management on karst resources, such as assessing the level of soil disturbance on high vulnerability karst terrain.

Intensive – An in-depth evaluation involving detailed quantitative data collection and analysis.

Intensive evaluations are more time consuming and expensive to conduct than routine or extensive evaluations. Comprehensive quantitative data is collected and compared with control or benchmark data. An example of an intensive evaluation might be conducting a series of direct measurements on randomly selected sites to evaluate the effectiveness of wildlife tree retention at a provincial level, which could include comparisons of pre- versus post-harvest heights and distributions of wildlife tree classes.

The different types and intensities of evaluations under FREP are illustrated in Figure 1.

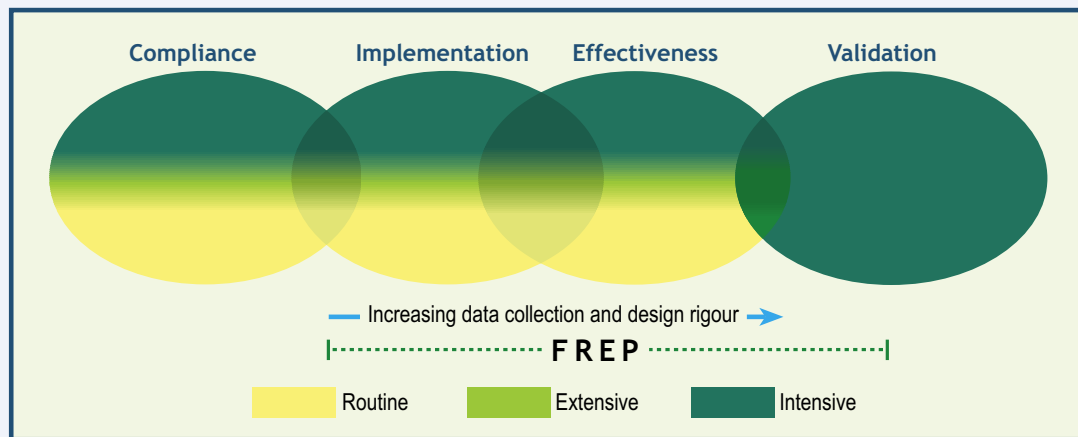


Figure 1 Types and Intensities of Evaluations under FREP.

Indicators

Effectiveness evaluations and resource stewardship monitoring both use indicators to assess the effects of forest management on a specific resource value. Indicators are measurable attributes or components (often environmental or social) of a resource value that provide reliable information on the status or state of that resource. The standardized methodology for collecting and analyzing data for a particular indicator is referred to as a protocol.

There are several types of commonly used environmental indicators:

Function-based indicators – measures physical processes and their rates (e.g., water flow or nutrient cycling).

Structure-based indicators – measures ecosystem attributes that reflect broad-scale patterns (e.g., wildlife tree patch type, distribution and abundance).

Species-based indicators – measures some aspect of an individual species' life history, behaviour or demography (e.g., presence of Lewis's woodpecker).

Another important concept related to indicators is "pressure-state-response." Pressure (or stress) refers to the agent of change that operates through ecological processes to directly or indirectly cause a response. For example, stream side cattle grazing is a pressure or stress. The state may be decreased stream bank vegetation and reduced bank stability. The response can be viewed from an ecological perspective (e.g., bank erosion and sedimentation of the stream) or a management perspective (e.g., streamside fencing or reducing the number of cattle).

Relating International Terms and Definitions to Those Used in FRPA

The meaning of different evaluation terms can vary significantly in the natural resource sector. For example, the terms ‘criteria’ and ‘indicators’ are used in a variety of ways by different agencies and jurisdictions throughout the world.

The Montreal Process developed seven criteria and 67 indicators for the conservation and sustainable management of forests at the national and international level. The term ‘criteria’ as used by the Montreal Process is equivalent to FRPA ‘resource values.’ The Montreal process and FRPA both use the term ‘indicator’ to describe a variable or attribute used to measure or describe the status or trend of a criterion/resource feature.

Sustainable forest management terminology generally uses the term ‘goal’ to refer to a broad statement describing the desired outcome or future condition of a criterion. The FRPA equivalent to goal is ‘objective,’ which is used to describe the required outcome or future condition of a resource value.

Under sustainable forest management terminology, a ‘target’ is the desired future state of a criterion that is consistent with an established goal. The FRPA equivalent is ‘result,’ which describes the required future state or range of a resource value consistent with an established objective.

A ‘strategy’ as used by sustainable forest management terminology, refers to an action designed to achieve an established target. ‘Strategy’ as used by FRPA describes the process to achieve an established objective.

Figure 2 illustrates the relationships between international sustainable forest management terms and the terms used by FRPA.

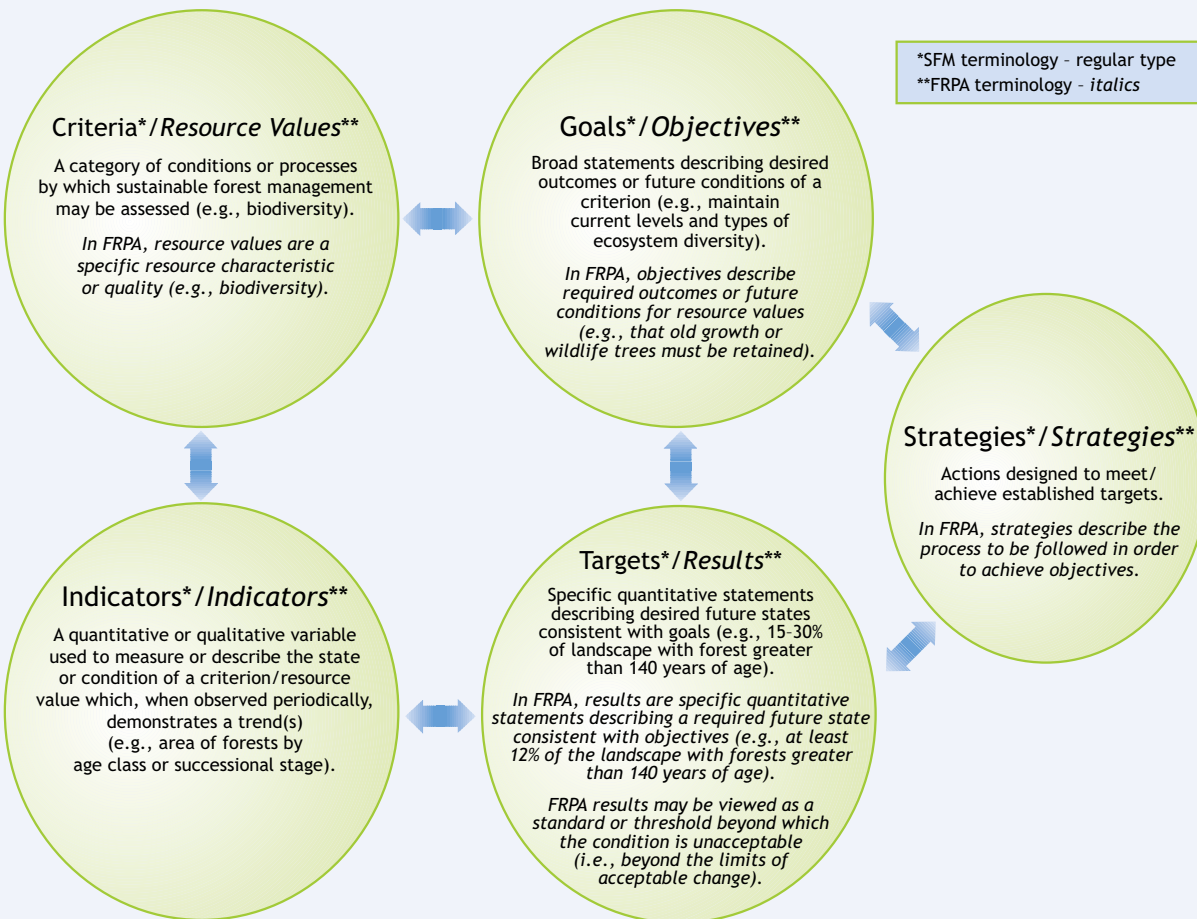


Figure 2 Relationships between International Terms and FRPA Terms (adapted from CSA Z809 and the Montreal Process).

Common FRPA Acronyms

FRP – FRPA Resource Evaluation Program.

FRP – FRPA Resource Evaluation Working Group.

FRPA – *Forest and Range Practices Act*.

FSP – Forest Stewardship Plan.

JSC – Joint Steering Committee.

MSRM – Ministry of Sustainable Resource Management.

MWLAP – Ministry of Water, Land and Air Protection.

PAC – The Minister of Forests' Practices Advisory Council.

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Web Sites

- FRPA Resource Evaluation Program and Resource Stewardship Monitoring Program
<http://www.for.gov.bc.ca/hfp/frep>
- FRPA and Regulations
<http://www.for.gov.bc.ca/ftp/HCP/external/!publish/FRPA/>

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For additional information, please refer to our website at: <http://www.for.gov.bc.ca/hfp/frep>, or contact any member of the FRPA Resource Evaluation Working Group:

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