

An Evaluation of the British Columbia

PROVINCIAL FOREST EXTENSION PROGRAM

**Forest Science Program, Forest Investment Account
Ministry of Forests and Range**



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Acknowledgments

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Nexus Consortium consultants were responsible for planning, conducting and reporting the evaluation. Nexus Consortium personnel who worked on this project include:

- ▶ Russell Graham, Associate
- ▶ Reed Early, Senior Partner
- ▶ Barbara Bowmar, Senior Partner
- ▶ Carol Kergan, Research Assistant
- ▶ Nadeane Nelson, Research Assistant.

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EXECUTIVE SUMMARY

The British Columbia Forest Science Board requested this evaluation to obtain feedback from users and stakeholders regarding the Provincial Forest Extension Program (PFEP), as delivered by FORREX. The program is largely funded through the Forest Investment Account Forest Science Program (FIA-FSP).

The evaluation focuses on securing the perceptions and opinions of people who use or are knowledgeable about the program; the scope does not include a review of program strategy, resources or implementation. This is the final report of the evaluation.

Research methods included the following:

- ▶ A web-based survey of program users and potential users; 362 valid responses were received
- ▶ Interviews with 92 people, of whom 74 were able to complete the interview
- ▶ Focus group sessions held in Prince George, Kelowna and Ladysmith, with total participation of 22 people.

Results from the research provide a series of quantitative indicators related to program awareness, use and effectiveness that could serve as baseline measures against which future change can be assessed. Because no target or threshold figures exist, interpretation of these results is largely subjective.

Research inquiries generated a wide variety of comments and feedback about PFEP and FORREX. In general terms, positive comments outnumbered negative by a factor of 10 to 1. Those who were most familiar with the program expressed the highest degree of praise, whereas many negative or neutral assessments came from those who professed to having limited knowledge of the program. Many respondents offered suggestions for improvement, almost all of which were expressed in terms of making a good program better.

Our analysis leads us to the following conclusions regarding the evaluation questions:

1. PFEP/FORREX has achieved good levels of awareness - about 70% of respondents - of its information products among most forest sector segments through its primary methods of electronic dissemination and regional workshops. Other methods may be required to achieve greater reach among "under-served" segments such as many field-based practitioners and First Nations.
2. About 70% of respondents to both surveys and interviews feel that the information products are relevant to their work.
3. As expected, awareness of the information disseminated through the program exceeds use of it. However, the program is perceived as helping move the

- forest sector in the direction of greater utilization of science-based information.
4. Nearly half of the recipients of information products used or applied them on their jobs in the past year. The consultant segment used the products to the highest degree; other segments were relatively uniform in their use.
 5. The program is perceived to have had a minimal effect to date on increasing public trust in forest sector's management, which is a long-term goal of PFEP. It is difficult to draw direct causal links between program activities and public trust in the sector.
 6. About one-third of program users felt that science-based decision making had increased and planning had improved in the forest sector, and half thought that the sector had increased its use of SFM principles, in the past year. Like public trust, however, it is difficult to link PFEP activities to this long-term goal.

INTRODUCTION

Background

The British Columbia Forest Science Board (FSB) wished to obtain feedback from users and stakeholders regarding the Provincial Forest Extension Program (PFEP). Funded in large part through the Forest Investment Account Forest Science Program (FIA-FSP), the PFEP developed and implemented a new five-year strategic plan in early 2006 that followed a previous five-year strategic plan. Forest Research Extension Partnership (FORREX), a BC non-profit organization with a broad mandate “to help people develop science and knowledge-based, innovative solutions to natural resource management challenges,” delivers the PFEP.

Forest extension programming essentially began with the *Southern Interior Forest Extension and Research Partnership*, in 1998. That Partnership was the subject of a preliminary evaluation in 2001 to determine what progress it was making towards meeting its mandate. The evaluation and accompanying framework proved useful in expanding extension programming from the southern interior to the entire province as the current PFEP was born.

Although FORREX regularly evaluates its programs and services to gauge user reactions, these internal evaluations have focussed mainly on assessing service delivery at the product level and have not necessarily sought widespread feedback on the program’s overall effectiveness. The FSB wanted to hear the views of a broad base of extension program users, stakeholders and partners concerning the program’s reach and effectiveness in fulfilling its goals to date.

On the recommendation of the FSB, the Ministry of Forests and Range (MoFR) contracted with Nexus Consortium (2001) Inc, who carried out the earlier evaluation, to plan and conduct this evaluation. The consulting team was directed by a Steering Committee comprised of members from the FSB, MoFR, and FORREX. The first phase of the evaluation was preparation of a plan to guide the evaluation. Approved by the Steering Committee in December 2006, the plan’s introductory sections are reproduced here; the methodology is shown in *Appendix 1*.

The Provincial Forest Extension Program

The PFEP is established to extend the knowledge generated through FIA activities and funding. A variety of strategies are employed to get this knowledge into the hands of forest practitioners, licensees, government agencies, consultants and others. As explained in the PFEP Strategic Plan 2005-06:

To manage provincial forest lands effectively, forest practitioners must understand and apply scientific, experiential, and indigenous knowledge. Extension is the process of delivering that understanding and knowledge. Extension professionals engage information providers and users in various strategies to move information along a continuum from questions to solutions. The PFEP has been established to work with knowledge providers to extend the knowledge generated from FIA activities and to leverage the knowledge capital generated by various related sustainable forest management (SFM) initiatives through a comprehensive program of technology transfer, extension education, and participatory strategies.

The formal mandate of the program is “to ensure access to and use of the best available science, experience and indigenous knowledge to support science-based sustainable forest management policy, planning and operational decisions in British Columbia. The PFEP will place priority on the extension of knowledge generated through the FIA-FSP, and secondarily on extension of the FIA-based programs for Land-Base Investment and Small Tenures.”

Goals of the program are:

- ▶ Increase public trust in forest sector productivity, stewardship, and sustainable forest management practices
- ▶ Increase use of scientific, experiential and indigenous knowledge in forest policies, plans and practices
- ▶ British Columbia is seen as a global leader in forest stewardship and environmental management.

The Extension Program is inextricably linked to the provincial Forest Investment Account and its Forest Science Program, which guide and fund initiatives designed to contribute knowledge to sustainable forest management in BC. Funding for applied research in such areas as improving timber growth, value and sustainability is complemented by extension strategies aimed at disseminating and using forest science research results more effectively.

PFEP targets a wide range of primary and secondary audiences in the Province, collectively referred to as the “forest community,” which includes:

- ▶ Forest and range licensees
- ▶ First Nations and other aboriginal organizations
- ▶ Forest companies and other practitioners
- ▶ Provincial, federal, regional and municipal government employees
- ▶ Researchers and academics
- ▶ Consultants
- ▶ Other environmental groups, advisory committees, and related organizations.

PFEP is the largest of the extension programs delivered by FORREX. While the organization’s mandate encompasses support for all natural resource sectors, forest resources has been its primary focus since it was incorporated in 1998. In the FORREX fiscal year ending March 2006, FIA-FSP funding accounted for just over half its \$2.5 million operating budget.

The PFEP Strategic Plan 2005-2010 includes a logic model that relates strategies, outputs and outcomes to program goals. Seventeen short-term (achievable within one year) outcomes and six medium-term (two to three years) outcome objectives are noted, as set out in *Appendix 1*. These outcomes provide a basis for design of this evaluation.

Evaluation Purpose and Scope

Purpose

The purpose of the evaluation is two-fold:

- ▶ Obtain feedback from program users and target groups about outcome achievement; and
- ▶ Provide baseline data or measures that may be used to assess change over time.

Feedback consists mainly of top-of-mind awareness, perceptions, satisfaction and perceived utility of the program. Target groups' levels of experience with the program vary from extensive to none at all. The aim is to compile and assess these views on critical dimensions in order to gain insights into users' and potential users' current perceptions. This data will provide a base against which management can assess possible changes in these perceptions in future years.

Scope

The scope of the evaluation is limited to gathering and assessing the views of primary target groups and generating baseline data about user and potential user perceptions. It is not intended to be an evaluation of PFEP strategies except to broadly compare technical transfer strategies to participatory strategies. Neither does it attempt to evaluate FORREX delivery of the program, except to the extent that users may comment in an unprompted fashion on factors related to delivery.

The evaluation is partially *formative* in the sense that it is intended to provide short-term feedback about program implementation. Its methodology focuses on techniques designed to record and interpret target group views on selected outcome measures. The methodology does not include reviews of program inputs, organization or delivery methods. Since the current strategy has been in place for a relatively short time it would be premature to attempt any assessment of strategy or delivery at this time. These elements of formative evaluation would normally be invoked after the program has operated for two or three years within a specified strategic framework, in order to allow sufficient time for the strategy to demonstrate its effects.

Reconciling Old and New Program Outcome Objectives

The current PFEP strategy was approved in May 2006. FORREX, however, has delivered similar programming in the province, since 1998. As noted previously, the PFEP reflects the Forest Science Program's goals and objectives for the provincial forest sector. As would be expected, pre-existing FORREX strategies and logic models for the same provincial forest sector have similar goals and objectives, although the wording and scope are somewhat different. With that caveat, PFEP goals and objectives (outcomes) do correlate fairly well with a subset of the pre-existing FORREX goals and objectives.

A comparison of the two is shown in *Table 1* below, using medium-term outcomes from the respective logic models as the common ground of interest.

Table 1
Comparing PFEP and FORREX Outcome Objectives

<i>Medium Term Outcome Objectives</i>	
<i>PFEP 2006</i>	<i>FORREX Pre-Existing</i>
1. Forestry professionals will be more aware of scientific, experiential and indigenous knowledge relating to SFM.	B-1 Increased use of innovation and expertise in policy development*
2. The forestry community will have increased trust in information products and providers.	B-2 Increased use of innovation and expertise in plans*
3. The forestry community will have increased knowledge, skills and use of current and relevant scientific, experiential and indigenous knowledge related to SFM.	B-3 Increased use of innovation and expertise in operations* B-4 Increased use of science and innovation in education and training
4. Increased science-based decision making leading to reduced risk and uncertainty and increased forest sector competitiveness.	B-5 Reduce time from problem identification to solution and use
5. Forest professionals and the engaged public will embrace ecosystem management principles and will adopt an improved way of defining values and strategies for managing for these values	B-6 Reduce information-based public conflict B-7 Increased awareness and trust in natural resource sector
6. Continuing education and extension education providers will have improved effectiveness and efficiency in cooperative education and extension program planning and delivery	

*These applications encompass both awareness and knowledge/skills

Hence, with caveats, this program evaluation can reasonably extend its timeframe to include the common program elements over the past half-dozen years. Feedback based on this timeframe is expected to provide important additional support for ongoing PFEP/FORREX investment decisions.

On a practical level, it is unlikely that most target-group respondents will be aware of or able to distinguish between the two sets of outcome objectives. Only the most knowledgeable users will be aware of formal PFEP and FORREX strategies, let alone the subtleties of language around the two sets of goals and objectives.

Furthermore, it is likely that most respondents will be more aware of FORREX as the delivery agent than they are of PFEP, the program being delivered. The research methodology therefore does not attempt such distinctions of origin or timing between the two groups of outcomes. Rather, survey and interview instruments employ language that reflects their common ground.

Evaluation Questions

The evaluation is guided by the following key questions that relate to achievement of some of the desired outcomes set out in the program's *Strategic Plan 2005–2010*. The methodology seeks to address these questions, which cover several areas of program performance including awareness, reach, relevance, utility, and results.

1. To what extent are information products being extended to the intended audience?
2. Are the delivered information products relevant to recipients? Are they satisfied with the extended knowledge?
3. Are the information products of use to the recipients? For instance, are they using them for science-based decisions?
4. Do recipients feel extension has increased the public's trust in the forest sector's ability to manage BC forests?
5. To what extent do recipients feel the forest sector has adopted ecosystem management principles? Has it adopted improved ways for defining values and strategies?

All of the questions may be viewed in terms of a continuum of responses, that is, respondents may hold varying perceptions concerning the performance of PFEP along these dimensions. Furthermore, those perceptions may change over time as the result of both program activity and increased recipient exposure to the program. It is important to establish baseline measures of these issues now so that progress and/or changes can be assessed in future years.

Two aspects of respondent perceptions were sought with respect to the questions:

- ▶ The extent to which the desired outcome is being achieved at present; and
- ▶ Whether the program is making progress towards these outcomes, i.e. do recipients believe that extension activities can or will accomplish these objectives?

Methodology

An evaluation matrix and methodology is set out in *Appendix 1*. These approaches describe the research program and how it will inform the evaluators with respect to the above evaluation questions. In summary, evaluation research consisted of three methods, all aimed at securing feedback from actual and potential program users: an online survey, telephone interviews, and focus groups by invitation. Our experience in applying each of these methods is described below.

Online Survey

The sampling frame for the online survey included the combined lists from FORREX, the Forest Science Program, Land Base Investment Program, and others. The total combined list, after eliminating duplicates, Ministers, and Deputy Ministers, included 4486 addresses, as shown in *Table 2* below.

Table 2
Online Survey Sample Frame

Source	Names	Non-Duplicates
FORREX combined lists: Forest sector contacts (active and potential, non-exhaustive) <i>plus</i> subscribers (LINK, etc)	4587	4161
FIA Land Base Investment Program Licensee contacts, PwC maintained	74	70
FIA Forest Science Program Research proponents, PwC maintained	131	122
FORREX Continuing Education Forum Registrants (Dec 6, 2006) CE provider and client representatives	55	43
FSP-FORREX First Nations Workshops: Registrants fall 2006	110	90
Total	4957	4486

Some contacts had incomplete information, i.e. lacking postal address, email address, or telephone numbers. Those with email addresses were isolated to be sampled for the on-line survey. This list of 3587 names was used to generate a systematic random sample of some 30% or 1131 email addresses, (i.e. 3:1 sample). This ratio included over-sampling to account for bad email addresses and to adequately represent smaller segments such as the North. The contact's region (North, South, or Coastal) was determined from the postal address.

Respondents were invited by email to go to a web based survey (*Appendix 2*) at <http://websurveyor.net/wsb.dll/81940/pfepevaluation2007.htm> (available for viewing until November 2007) which tracked initial responses, completions, and returned emails. Of the 1131 emails sent out, 981 or 87% had valid email addresses (i.e. email was not returned). In the final count, we received 362 completed surveys, a 37% response rate from the 981 valid emails. BC achieved an overall response rate of 32%. Regional response was north 40%, south 32%, coastal 32%, and outside BC 22%. Response data are summarized in *Table 3*.

Table 3
Online Survey Sample and Response

Sample	North	South	Coastal	O/S BC	Total
Survey Sample Frame	507	1217	1487	376	3587
Final Valid Sample	249	376	331	175	1131
Total Response	100	119	105	38	362
% of Final Valid Sample by Region	40%	32%	32%	22%	32%

Interviews

Contacts with telephone numbers (4037 names) were sampled for interviews, after ensuring no duplication with those sent the survey, and after deleting bad phone numbers. A systematic random sample of 250 names was generated.

A structured Interview Guide was used with each interview (*Appendix 4*). Initial screening questions directed the interviewer to ask items appropriate for that person. Their answers were written down and tabulated for analysis by the researchers (*Appendix 5*).

A total of 92 people, 37% of the sample list, were interviewed. Screening for ineligible respondents resulted in 74 completed (useable) forms. The regional breakdown of completed interviews is Northern Region 25; Southern Region 22; Coastal Region 40; and Outside BC 5.

Focus Groups

Three focus groups were arranged in February 2007. First, interviewees from the vicinity of Prince George, Kelowna, and Vancouver Island were invited, and when that did not yield enough participants, invitations were extended to others on the larger sampling list who had not been interviewed. Sessions were held at convenient locations and incentives in the form of cash (usually \$50) and food were offered. Reminder calls were made before the day of the focus group.

Final attendance featured a total of 22 participants, of whom 10 came from among the interviewees and 12 were recruited outside that list. Sessions were held in Prince George (6 participants), Kelowna (6 participants), and Ladysmith (10 participants).¹

Focus groups were moderated by a Nexus associate, and notes taken by a researcher. Results were summarized and tabulated (*Appendix 6*).

Summary Analysis

Findings and commentary regarding the evaluation questions drew together the analyses of all three methods. We observed commonalities and used triangulation to strengthen the findings and conclusions.

¹ The Vancouver Island session was originally planned for Victoria but we were unable to recruit a single individual in that city willing to attend.

RESEARCH RESULTS

Online Survey

The *BC Provincial Forest Extension Program Evaluation* survey yielded 362 valid responses between January 9 and February 12, 2007. A copy of the survey instrument is presented in *Appendix 2*. Regional responses were as follows:

Table 4
Regional Response to Online Survey

<i>Region</i>	<i>Responses</i>	<i>Regional %</i>
Northern Interior	100	28%
Coastal BC	105	29%
Southern Interior	119	33%
Out of BC	38	10%
Total	362	100%

Most respondents came from government, research, forest companies, consulting companies, and first nations; 28% were forest or range licensees. Their responses are summarized below; detailed results are presented in *Appendix 3*.

Awareness of FORREX and/or PFEP is generally high, and most were also aware that FIA-FSP funds forest research and extension in BC (Q3, 11). Respondents were most often aware through reports, publications and information, and to a lesser degree through workshops, the website, or colleagues (Q4, 5, 6, 7).

Respondents were strongly aware of information and knowledge related to sustainable forest management, trusted in the program as a provider of information, and felt the information products delivered by the program were trustworthy. However, only 43% ("don't know" responses are eliminated from these percentages) felt they had used or applied this information in their work in the past year and only 32% saw increased science-based decision making or improved planning in the forest sector in the past year (Q8, *Table 5*).

Most felt FORREX activities contributed to awareness of current scientific, experiential and indigenous knowledge related to sustainable forest management, it contributes to trust in information products relevant to the forest sector, and it contributes to use of current science in planning for sustainable forest management. Responses suggest that FORREX information is contributing to moving the forest sector in the right direction but use of the information is still limited, and respondents have not yet seen the impacts desired from the program (Q9, *Table 6*).

This sentiment is echoed by those NOT aware of the program, who believe that the greatest need regarding sustainable forest management is use of science in planning for SFM, use of SFM principles in the forest sector, use of this knowledge in the forest sector, and awareness of current scientific, experiential and indigenous knowledge related to it (Q10, *Table 7*).

Table 5

<i>Please indicate your agreement with these statements regarding the program (PFEP and FORREX) and the exchange of information and knowledge (scientific, experiential, and indigenous) it supports:</i>	<i>Agree & Strongly Agree</i>
I am aware of this information and knowledge related to SFM.	81%
I trust the program as a provider of information.	76%
The information products delivered by the program are trustworthy.	76%
The information products supplied through the program are relevant to SFM.	69%
I personally use SFM principles in my work in the forest sector.	64%
PFEP/FORREX has helped to increase my awareness of SFM information.	63%
My employer uses SFM principles.	57%
I have seen increased use of SFM principles in the forest sector.	51%
I have used or applied this information in my work this past year.	43%
I have seen increased science-based decision making in the forest sector.	32%
I have seen improved forest sector planning this past year.	32%

Table 6

<i>In your opinion, what is the contribution of FORREX activities to increasing:</i>	<i>Agree & Strongly Agree</i>
Awareness of current scientific, experiential & indigenous knowledge related to SFM	71%
Trust in information products relevant to the forest sector	67%
Use of current science in planning for sustainable forest management	56%
Use of this knowledge in the forest sector	51%
Use of SFM principles in the forest sector	51%
Trust in the forest sector's ability to manage BC forests in a sustainable manner	43%

Table 7

<i>In your opinion how great is the need in the BC forest sector to increase:</i>	<i>High & Medium</i>
Use of science in planning for sustainable forest management	91%
Awareness of current scientific, experiential & indigenous knowledge related to SFM	89%
Use of this knowledge in the forest sector	85%
Use of SFM principles in the forest sector	85%
Trust in information products relevant to the forest sector	81%
Trust in the forest sector's ability to manage BC forests in a sustainable manner	76%

In summary, and as expected, awareness of the information disseminated through the program exceeds use of it. Nevertheless, FORREX is perceived as helping move the forest sector in the direction of greater utilization of science-based information.

Interviews

We interviewed a total of 92 people from the sample list, of whom five were resident outside the province. The interview guide is presented in *Appendix 4*. Respondents were representative of all segments of the forestry community and all regions in BC (*Table 8*).

Table 8
Profile of Interview Respondents

<i>Forest Community Segment</i>	<i>Coast</i>	<i>North</i>	<i>South</i>	<i>O/S</i>	<i>Total</i>
First Nation or aboriginal organization	4	4	7	0	15
Forest products company	4	5	3	0	12
Government agency (not research or academic)	16	6	7	2	31
Research or academic	8	5	2	1	16
Consultant / consulting company	3	4	2	1	10
Other	5	1	1	1	8
Total	40	25	22	5	92

Of the 92 people interviewed, 73 respondents in BC and one outside BC were aware of PFEP/FORREX, as shown in *Table 9*. The remaining 18 respondents were unaware of the program and therefore were not sufficiently knowledgeable to complete the interview. The balance of this section focuses on the 73 respondents in BC who were aware of the program and completed an interview.

Because only one respondent located outside the province was aware of the program, that respondent's replies are NOT included in this analysis.

Table 9
Interview Respondents' Awareness of Program

<i>Aware of PFEP/FORREX</i>	<i>Coast</i>	<i>North</i>	<i>South</i>	<i>O/S</i>	<i>Total</i>
Aware	35	20	18	1	74
Not aware	5	5	4	4	18
Total	40	25	22	5	92

Respondents were aware of PFEP and FORREX through a variety of means. Virtually all received reports, publications or other information from FORREX. More than half had either attended a workshop or other program event, or used a website. These sources of awareness are summarized in *Table 10*.

Table 10
Sources of Program Awareness

Number of Interview Respondents Who:		Coast	North	South	Total
Received reports, publications, or info	Yes	34	20	18	72
	No	1	0	0	1
Attended a workshop or other event	Yes	25	7	10	42
	No	10	13	8	31
Used the PFEP or FORREX website	Yes	17	11	12	40
	No	18	9	6	33

A number of respondents also noted other connections or sources through which they are aware of the program; typical comments:

- ▶ Member of FORREX technical committee
- ▶ Former FSB member
- ▶ Organized a workshop in the past
- ▶ Attended a conference (mentioned X2)
- ▶ Does workshops and provides information to FORREX
- ▶ Partnered with FORREX on projects
- ▶ We share this information in our office.

The FSB wanted to know the level of awareness of the Forest Investment Account - Forest Science Program funding that the Board administers (this question is not related to the evaluation of PFEP). As shown in *Table 11*, about three-quarters of respondents who were aware of PFEP/FORREX were also aware of the FIA-FSP funding arrangement.

Table 11
Awareness of FIA-FSP Funding

Aware of FIA-FSP Funding?	Coast	North	South	Total
YES	25	15	14	54
NO	10	5	4	19
Total	35	20	18	73

The balance of the interview results are summarized in *Appendix 5*. These include feedback on respondents' trust in FORREX, the extent to which they used information provided through the program, and their assessments of selected measures of program effectiveness.

Focus Groups

As noted previously, focus group sessions were held in Prince George, Kelowna and Ladysmith. Notes from each of these sessions are presented in *Appendix 6*.

It is important to note that, even though all sessions followed the same guide and asked the same fundamental questions, discussions in each location pursued different issues and took different courses than the research envisioned. This is a common feature when staging such sessions, particularly when the initial questions are open-ended, as they were in this case. Facilitators found that participants were prepared - even eager - to give their views on the program, and did so even if they did not especially relate to the question on the table.

As a result, the discussions were generally robust, insightful, highly interactive and often divergent, notwithstanding that they did not necessarily follow the initial guide. The notes from each session reflect what is important to that particular group of participants about PFEP and FORREX, which was the intent of this particular research method. We have incorporated the main themes and ideas from the focus groups in the evaluation findings that follow. Prevalent themes that emerged from the focus groups included the following:

- ▶ The need for forest extension programming is universally recognized and supported, even though BC is fairly new in this field.
- ▶ FORREX is well-known and respected by users of information in the forest sector; it needs to be more aggressive in building additional awareness.
- ▶ Frequent users praised the ease of access and the “user-friendly” website.
- ▶ The forest community generally is unaware of distinctions between the program and FORREX, the FSB and the MoFR, and their respective goals and strategies; program users don’t particularly care about these things.
- ▶ Independence of the PFEP from the MoFR is a significant asset, but why is it attached to the FSB? It would make more sense to place it in an education ministry and fund it outside of FIA and even outside of ministry line budgets. It is time to look closely at the whole FIA/PFEP/FORREX governance issue.
- ▶ The many suggestions for improvement were offered primarily in a positive vein, that is, in the interests of improving or expanding a “good” service. Among the most-mentioned suggestions were (1) find ways to help users manage the large volumes of information available, such as syntheses of material; (2) do more workshops/events, particularly in remote areas such as the north; and (3) market the program more aggressively.

EVALUATION FINDINGS

This chapter provides analysis, discussion and conclusions regarding the evaluation questions posed by the FSB.

When considering these findings, readers should bear in mind the following limitations regarding methodology and scope of the evaluation:

- ▶ The majority of data reflects the *perceptions* or *opinions* of the various respondents concerning the questions posed in our research. These data on perceptions are intended only to convey what the target audience is thinking at this time about a particular issue; for many reasons, they may not accurately portray the actual situation. A number of interview respondents, for example, were reluctant to answer some of the questions that asked them to rate forest sector behaviours or program effectiveness because they did not feel sufficiently informed. Even with prompting, a significant number responded “don’t know” to some of these questions.
- ▶ The research methodology does not permit estimates of the numbers of program users or non-users, and readers should avoid implying such estimates when reviewing the data.
- ▶ No threshold or target figures exist against which to objectively compare much of the data, e.g. findings regarding reach of the program, the extent of information use, or opinions about program effectiveness. Since this is the first attempt to measure such factors, interpreting the data is largely subjective.

Many respondents brought forward issues not directly related to the evaluation questions and others offered suggestions for improving the program. To the extent that these themes may contribute to strengthening the PFEP, we have incorporated them in the discussion.

Program Reach

Q1. To what extent are information products being extended to the intended audience?

Information products disseminated through the program are readily accessible through the FORREX and other websites by anyone with an internet connection. The products appear to be reaching a significant portion of those targeted segments of the forest community who routinely use electronic communication and access the Web; these include public servants, researchers, academics and consultants. Awareness of the program or FORREX was 85% of online survey respondents and 74% of interview contacts. Furthermore, 81% of survey respondents agreed with the statement, “I am aware of the information and knowledge related to sustainable forest management.”

Online survey data indicate some differences in program awareness among forest sector segments, as shown in *Table 12* below.

Table 12
Program Awareness by Segment

<i>Program Awareness</i>	YES		NO		Total
	#	%	#	%	
<i>Forest Sector Segment</i>					
First Nation or aboriginal organization	17	77.3	5	22.7	22
Forest products company	51	86.4	8	13.6	59
Government agency (not research/academic)	113	83.1	23	16.9	136
Research or academic	62	89.9	7	10.1	69
Consultant / consulting company	49	92.5	4	7.5	53
Other	15	65.2	8	34.8	23
Total	307	84.8	55	15.2	362

Of these segments, the group that exhibits the lowest awareness of the program is First Nations involved in forestry. In interviews and focus groups, First Nation respondents painted a picture of little or no awareness of the program within their local governments, with the possible exception of the handful of staff or contractors directly involved in forest programming who are the PFEP targets. Many BC First Nations have only recently embarked on forest sector initiatives, and most of these use contractors both for program planning and implementation purposes.

While survey data indicate relatively high program awareness within forest products companies, qualitative data suggest that awareness is low among practitioners working in the field as managers, supervisors, contractors or hourly-rate employees. Professional Foresters seem divided on the awareness scale between office-based planners and managers with relatively high awareness and field-based occupations with quite low awareness. There are strong indications that a significant number of field practitioners have little or no awareness of PFEP and FORREX. As one consulting scientist put it, "I work with 30 to 40 foresters in the field and the only ones who know about FORREX are those who I have told."

Many users praised the ease of access to information and the simplicity of using the website(s). While several suggested ways to streamline or simplify access to such large quantities of information so as to be less time-consuming, no one expressed any difficulty in accessing the information. Similarly, participants in workshops and other program events overwhelmingly pointed to the benefits of these activities in disseminating information, focusing attention on current forest sector issues, and promoting forest community networking throughout the province. Appreciation of and support for such events was expressed most strongly in the north, where geographic remoteness can lead workers to feel isolated from forest sector information, issues and colleagues.

It is a simple truth, however, that ready access to information products does not ensure that they are used or even accessed. Access is not the sole or even the most important factor in promoting dissemination and use of these products, particularly to those segments that do not regularly search for or use information products. Electronic dissemination appears to be getting information products out to the “early adopters” - those predisposed to acquiring and using information. This group is a logical target in a program with quite limited resources. The aim and expectation is that this group will help build awareness through networking, and there is some evidence that this process is taking place. Additional strategies and more aggressive techniques will no doubt be needed to reach beyond these groups and get products into the hands and minds of targets that lack such a predisposition. Groups in this latter category include many forest sector practitioners and First Nations.

This issue raises the question of the intended targets of the PFEP. The current strategy identifies an intended audience of virtually everyone who works in the forest sector as well as members of the general public. It can be argued - and many of our respondents did so - that by targeting everyone, the program actually targets no one. If the purpose of the program is to change certain forest sector behaviours, its strategy must get beyond the present “accessibility” approach and focus on specific targets. It must recognize that different user or potential user segments have different needs and require different strategies to enlist their participation.

An issue related to program reach is that of trust. The program and FORREX engender a relatively high degree of trust: 76% of both survey and interview respondents (both sources had identical results) trusted FORREX as an information provider, and trusted the information products coming from the program. Several interviewees who reported mid-level trust scores said that they did not mistrust the program, they simply didn’t know enough about it to have a greater level of trust.

A further reality of the extension business, and particularly the networking that supports it, is that measurement and recall are problematic. Users may not recall that they used a FORREX portal, and a network-referred user may not know that the source is FORREX or PFEP. As one observer aptly put it, “Extension from FORREX is like the Sasquatch - it is supposed to exist, but no one has ever seen it.”

Program Relevance

Q2. Are the delivered information products relevant to recipients?

Q3. Are the information products of use to the recipients?

The majority of respondents felt that the program’s information products were relevant, and the two primary sources yielded virtually identical figures:

- ▶ 69% of survey respondents felt that information products are “relevant to SFM”
- ▶ 70% of interview respondents considered the products relevant

Interviewees and focus group participants expressed mostly positive views of program relevance. Many cited individual articles or workshops that were

particularly relevant to them. While the prevailing opinion was that material was relevant, two exceptions were noted:

- ▶ Some researchers/academics thought that some products were not particularly relevant to scientific research because they did not display scientific rigor, had not been peer-reviewed or properly vetted, and/or because other websites and sources contained more in-depth scientific material (it was pointed out that supporting scientific research is *not* the intent of the PFEP).
- ▶ Some First Nations representatives noted the lack of Traditional Knowledge products and questioned the relevance and value of scientific information that did not have such a component.

Data suggest that approximately one-half of program users recently applied the information products in their work:

- ▶ 43% of survey respondents stated they had “used or applied this information in my work this past year”
- ▶ 51% of interviewees “used or applied the information in the past year”

There were no significant regional differences among these data. Among forest sector segments, survey data indicate the consultant group registered the highest degree of use at 47%, whereas other groups showed no significant variation of use. One-third of survey respondents were not sure or failed to answer this question, which suggests that recollection may be a challenge for some people (Table 13).

Table 13
Information Use by Segment

<i>Used or applied this Information in the past year.</i>	AGREE		DISAGREE		Not Sure
	#	%	#	%	
<i>Forest Community Segment</i>					
First Nation or aboriginal organization	8	36.3	6	27.3	8
Forest products company	20	33.9	18	30.5	21
Government agency (not research/academic)	46	33.8	35	25.7	55
Research or academic	25	36.2	27	39.1	17
Consultant / consulting company	25	47.2	19	35.8	9
Other	7	30.4	2	8.7	14
Total	131	43.1	107	35.2	124

A common remark by managers within government agencies was that they did not necessarily “use or apply” the information themselves, but made note of it and passed it along to staff for follow-up purposes. *Results of Interviews (Appendix 5)* contains a number of examples of how respondents actually used the information, such as the restoration contractor who found articles on streambed rehabilitation and stabilization valuable to her work; and a public servant who “used material from the meta data workshop held three years ago a number of times.”

Many of those respondents who attended workshops or other events mentioned that they received work-related value or benefit from the event. Respondents in the North noted that such events serve to counter the isolation of small communities and provide good networking opportunities.

No thresholds or targets exist against which to compare these data. Nevertheless, the fact that nearly half of program users apply the information products to their work seems to be a positive indication of program achievement.

Trust in the Forest Sector

Q4. Do recipients feel extension has increased the public's trust in the forest sector's ability to manage BC forests?

There are two aspects to this question: the degree of trust that the public has in the sector's ability to manage; and the perceived affect that PFEP is having or might have on this level of trust.

Interviewees rated public trust² in the forest sector's management abilities as follows, on a scale of 1-10, with 1 being "minimal" and 10 being "maximum."

Table 14
Interviewees' Rating of Public Trust in Forest Sector Management

<i>Region</i>	<i>Coast</i>	<i>North</i>	<i>South</i>	<i>Total</i>
Average Ratings (Scale of 1-10)	4.6	5.7	5.2	4.9

Northern respondents felt that trust was higher in their region because the forest industry is more "close and personal" to northerners than it is to people in the Lower Mainland. As indicated in *Appendix 5*, there was a wide range of these ratings, from 1 to 8, although the vast majority were in the 4-7 range.

The perception of the majority of respondents is that PFEP is having a minimal effect in increasing trust in the forest sector's management ability, for several reasons:

- ▶ The program has operated for a relatively short time throughout the province
- ▶ A great many factors influence trust in the sector; dissemination of information is just one - and not the most important - factor
- ▶ Examples of mismanagement tend to be highlighted by the media and special interest groups more so than cases of good management and progress, so that most influencers of public opinion tend to be negative.

Notwithstanding this rationale, 43% of survey respondents felt that PFEP contributed to increasing public trust in the sector. A number of respondents pointed out, however, that it is difficult to draw cause-and-effect links between PFEP information

² Note that these are respondents' *perceptions* of public trust and not ratings by the public.

dissemination activities and changes in public trust in the sector. There seems to be minimal potential for the current, mainly self-selected, activities under PFEP to directly influence trust in the sector. Furthermore, a number of respondents questioned why this FIA-FSP goal was linked to the program: while it may be a long-term desirable impact, it should not be used to assess program performance and it should be linked to PFEP only in the most general way.

Impact on Forest Community

Q5. To what extent do recipients feel the forest sector has adopted ecosystem management principles? Has it adopted improved ways for defining values and strategies?

In the web survey, respondents were asked to rate the use of science-based decision-making and Sustainable Forest Management principles as well as planning in the sector. The percentages of respondents who agreed with the relevant survey statements (*Appendix 3, Q8*) are:

**Table 15
Survey Agreement**

Response to statements	Percent Agree or Strongly Agree
I have seen increased science-based decision making in the forest sector this past year	32.2%
I personally use SFM principles in my work in the forest sector.	63.9%
My employer uses SFM principles.	57.1%
I have seen increased use of SFM principles in the forest sector.	50.7%
I have seen improved forest sector planning this past year.	31.7%

About one-third of survey respondents felt that science-based decision making had increased and planning had improved in the sector, and half thought that the sector had increased its use of SFM principles, in the past year. A somewhat higher percentage (57%) agreed that their employer uses SFM principles (Table 15).

Similarly, about half of survey respondent felt that the program contributed to increases in the use of science and SFM principles in the sector, as seen in their agreement with the statements in *Table 16 (Appendix 3, Q9)*.

Interview results showed a similar pattern. Many interviewees, however, had difficulty responding to these issues because of the perceived ambiguity of such terms as “ecosystem management principles” and their own lack of knowledge of what was occurring within the sector.

Table 16
FORREX / PFEP Impact

Contribution of FORREX / PFEP activities	High and Medium
Use of current science in planning for SFM	56%
Use of this knowledge in the forest sector	51%
Use of SFM principles in the forest sector	51%

Like some other research results, these ratings tend to stand in isolation because no targets or thresholds exist for comparison purposes. Perhaps their best use is as baseline data against which future ratings may be compared.

Conclusions

1. PFEP/FORREX has achieved good levels of awareness - about 70% of respondents - of its information products among most forest sector segments through its primary methods of electronic dissemination and regional workshops. Other methods may be required to achieve greater reach among “under-served” segments such as many field-based practitioners and First Nations.
2. The vast majority of respondents to both surveys and interviews feel that the information products are relevant to their work.
3. As expected, awareness of the information disseminated through the program exceeds use of it. The program is perceived as helping move the forest sector in the direction of greater utilization of science-based information.
4. Nearly half of the recipients of information products used or applied them on their jobs in the past year. The consultant segment used the products to the highest degree; other segments were relatively uniform in their use.
5. The program is perceived to have had a minimal effect to date on increasing public trust in forest sector’s management, which is a long-term goal of PFEP. It is difficult to draw direct causal links between program activities and public trust in the sector.
6. About one-third of program users felt that science-based decision making had increased and planning had improved in the forest sector, and half thought that the sector had increased its use of SFM principles, in the past year. Like public trust, however, it is difficult to link PFEP activities to this long-term goal.

RESEARCH LESSONS LEARNED

1. The three methods of inquiry used in this project - web survey, interviews and focus groups - fulfilled expectations in terms of their utility and potential to triangulate responses. Together, they generated a rich load of both quantitative and qualitative data. The methodology confirms the value of using multiple lines of inquiry for evaluation research.
2. When asked their opinions in interviews or focus groups, respondents will in most cases readily comply, although they may not restrict their feedback to the researcher's agenda.
3. It proved challenging in all locations to recruit focus group participants, although for different reasons. In the Prince George and Kelowna locations, it was difficult to find sufficient qualified people within driving distance of the site who were able to attend; many respondents were willing but unable to attend. The planned session in Victoria was eventually cancelled because we could not find one person willing to participate, even when offered an enhanced participation fee of \$50.00. When the site was moved to Ladysmith, we had no problem recruiting a dozen people to attend on relatively short notice.
4. Questions using such terms as "ecosystem management principles" and "science-based decision making" were not well-understood by many respondents. Several questioned what they meant, correctly pointing out that such imprecise jargon can mean different things to different people. The term "sustainable forest management," on the other hand, was generally not questioned by respondents. Methodologies for future research should carefully consider such questions and avoid the use of such jargon.
5. It can be difficult for both analysts and readers to grasp the significance of data on such topics as program awareness and information utilization, particularly when no trend or other comparable data exist. It would be helpful in future evaluations to consider developing an index of awareness and possibly an index of utilization, to assist with interpretation and with assessing changes over time.
6. It would be useful to determine an actual level of public trust in the forest sector's ability to manage BC forests, against which to compare the sector's perception. Such an indicator would also be useful in assessing progress towards this particular FIA-FSP goal.
7. Mailing lists, no matter how current, will always have a significant number of unusable addresses; sampling must take this factor into account.

Appendix 1

Provincial Forest Extension Program EVALUATION METHODOLOGY

(Excerpt from the PFEP Evaluation Plan 2006)

Evaluation Matrix

The evaluation research will focus on the *primary* groups targeted by the program, namely:

- ▶ Forest licensees: large and small
- ▶ First Nations
- ▶ Forest companies and other practitioners
- ▶ Employees of (provincial) MoFR and MOE
- ▶ Researchers and educators/academia
- ▶ Consultants.

Secondary groups such as the engaged publics will not be included in the research at this time, although the evaluation scope could be expanded in future iterations to include these.

In addition to relating findings to these six groups, it is important that the research distinguish *actual* users or recipients of program services from *potential* recipients, i.e. those who belong to a primary target group but who are not aware of or have not yet participated in a service of PFEP. The intent is not to necessarily identify absolute levels of awareness of the program and its services; rather, it is to gain insights into any differences in perceptions between those who use the program and those who do not. This overall approach to the evaluation is set out in graphic form in the Evaluation Matrix, shown in *Table 3* below.

Table 3
Evaluation Matrix

<i>Primary Targets: Forest licensees, First Nations, Practitioners, MoFR staff, Researchers/Educators, Consultants</i>		
Evaluation Question	ACTUAL Users	POTENTIAL Users
1. To what extent are information products being extended to the intended audience?		
2. Are the delivered information products relevant to recipients?		
3. Are the information products of use to the recipients? For instance, are they using them for science-based decisions?		
4. Do recipients feel extension has increased the forest community's trust in the forest sector's ability to manage BC forests?		
5. To what extent do recipients feel the forest community has adopted ecosystem management principles? Has it adopted improved ways for defining values and strategies?		

Methodology

Three methods will be employed to obtain feedback from these respondent groups that will inform the evaluation questions; these are:

- ▶ *E-Questionnaires*: email invitations to complete a questionnaire via Internet
- ▶ *Interviews*: semi-structured interviews conducted in person and by telephone
- ▶ *Focus Groups*: facilitated nominal groups of invited guests at three designated locations in the regions of BC Coastal, Northern Interior and Southern Interior.

All respondent groups will be represented within each of the three methods, although composition of the focus groups will depend to some extent on location. The e-questionnaire and interviews will collect both qualitative and quantitative data, whereas the focus groups will explore qualitative issues in greater depth.

The following matrix outlines the methods and sampling relevant to the target groups.

Table 4
Methods Matrix

<i>Method:</i>	<i>E-Questionnaires</i>	<i>Interviews</i>	<i>Focus Groups</i>
<i>N (sample):</i>	1000	160	60
<i>Completed/Respondents:</i>			
Licensees	50	15	20 invitees to each of 3 sessions to secure 10-15 participants
Practitioners	60	15	
First Nations	20	5	
MoFR & MOE	60	15	
Researchers & Educators	60	15	
Consultants	50	15	
Total	300	80	~40

E-Questionnaires

Online WebSurveyor survey software will be employed to invite respondents by email to complete the questionnaire, track their completion, and send reminders where necessary.

A sample of potential respondents will be drawn from mailing lists compiled by FORREX, MoFR, and PriceWaterhouseCoopers, the manager of the FSP's financial assistance component. The FORREX mailing list consists of some 5,000 names and has been assembled over a number of years by amalgamating relevant lists obtained from partners and other sources. These include such lists as MoFR and MOE staff, First Nations in BC, forest licensees, forest companies and

other practitioners, and so on. They are intended to encompass the target groups identified in the PFEP strategy, and consist of both current and potential users. Some may have been contacted by FORREX and/or PWC and others may not. Respondents to the online survey and interviews will be asked to self-elect an affiliation from the designated list of target groups; hence, it is not necessary to use precise proportions when selecting a sample of names from each group.

A sample of potential respondents will be drawn from these mailing lists for each of the three methods. Sample lists will be stratified to reflect primary target groups and the three geographic regions. The sample is intended to be sufficient to gather management-level data that is representative of the target audience; it is not intended to be statistically significant.

Approximately 3,600 names on the mailing lists feature email addresses although not all will be current, and there appears to be some repetition of names. The target for the online survey is to have 300 or more completed e-questionnaires, so the initial sample will draw 1,000 distinct names after eliminating non-valid entries. Based on past experiences with similar online surveys, a 30% response rate is normally achievable. Reminder email messages and, if necessary, an expanded sample will be used to obtain the required completions.

Interviews

Semi-structured interviews will be conducted on the phone and in person by the *Nexus* team, which includes trained interviewers. Respondents will be selected from the lists of those with valid telephone information. A sample of approximately 160 names will be drawn with the intent to complete 80 interviews. Interviews will be conducted concurrently with the e-questionnaire; the respective samples will be mutually exclusive to avoid duplication and broaden the overall sample. The e-questionnaire sample will be removed before the interview sampling takes place.

Interviews will be semi-structured and questions will include both quantitative (e.g. ratings of satisfaction or forest community trust) and qualitative (e.g. open-ended) approaches. Responses will be recorded in paper and pencil form and then data-entered for analysis purposes using suitable software. Responses will be summarized thematically by question, major respondent groups, and other segments as appropriate.

Focus Groups

Three focus groups will be conducted, one in each of the province's forest regions:

- ▶ Central Vancouver Island to represent the Island/Coastal region
- ▶ Kelowna to represent the Southern Interior
- ▶ Prince George to represent the Northern Interior.

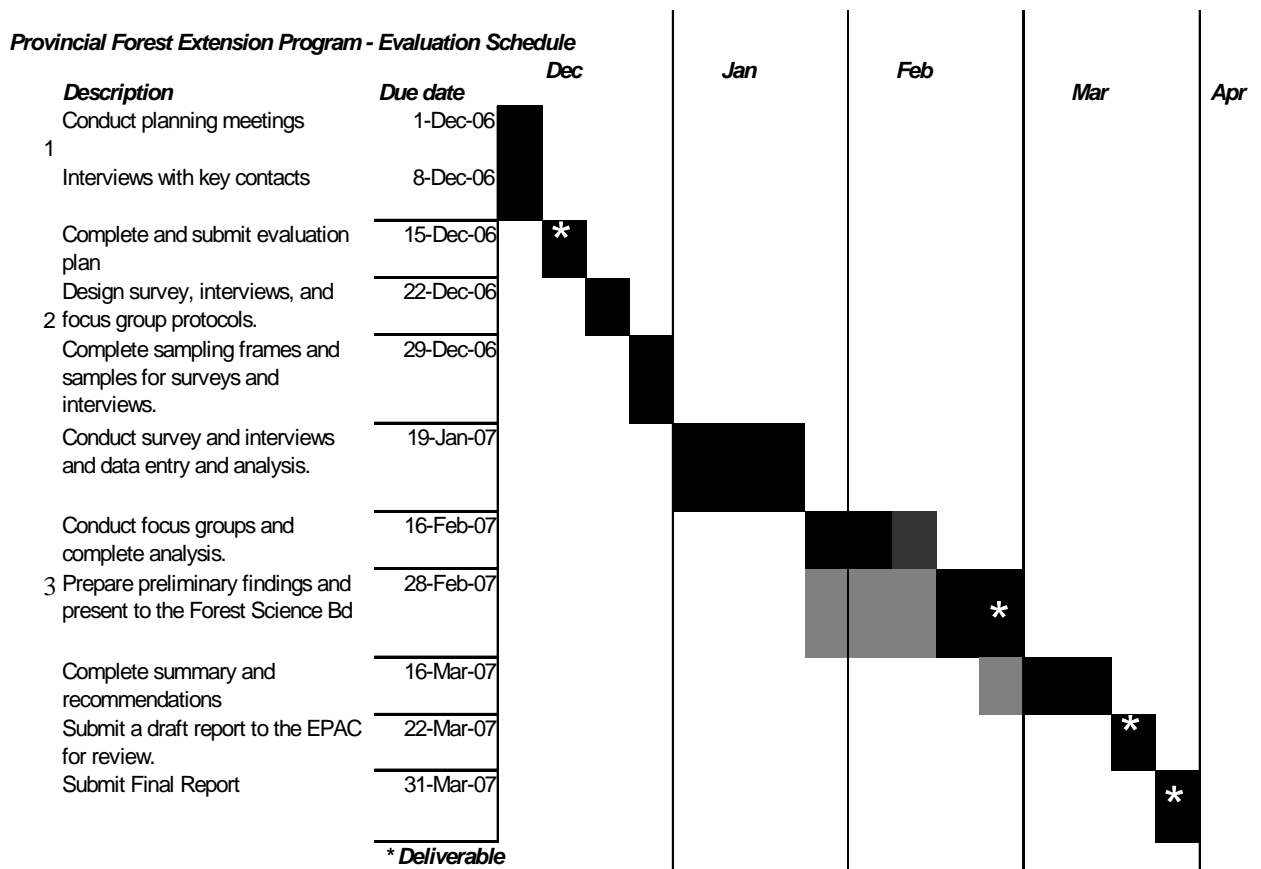
Focus group participants will be selected and invited to participate following the interviews. The interview questions and process will serve as an informal screening of respondents in terms of their location, program knowledge and interest in participating in such a session. Food will be provided and participants will receive a stipend of \$25.00 as an inducement to participate.

The focus group discussion guide will be based on the evaluation questions and supplemented with initial findings from both the online survey and the interviews. A dedicated note-taker will be employed at each session to ensure accurate reporting of the proceedings.

Reporting and Schedule

The evaluation is guided by a working group of three individuals representing the Forest Science Board, MoFR and FORREX, to which the *Nexus* consulting team reports.

The evaluation schedule is presented on the Gantt chart below. Reports and deliverables are indicated by the * on the Gantt chart. Key milestones are a presentation of preliminary findings to the Forest Science Board on 28 February, and presentation of a draft report on 22 March 2007.

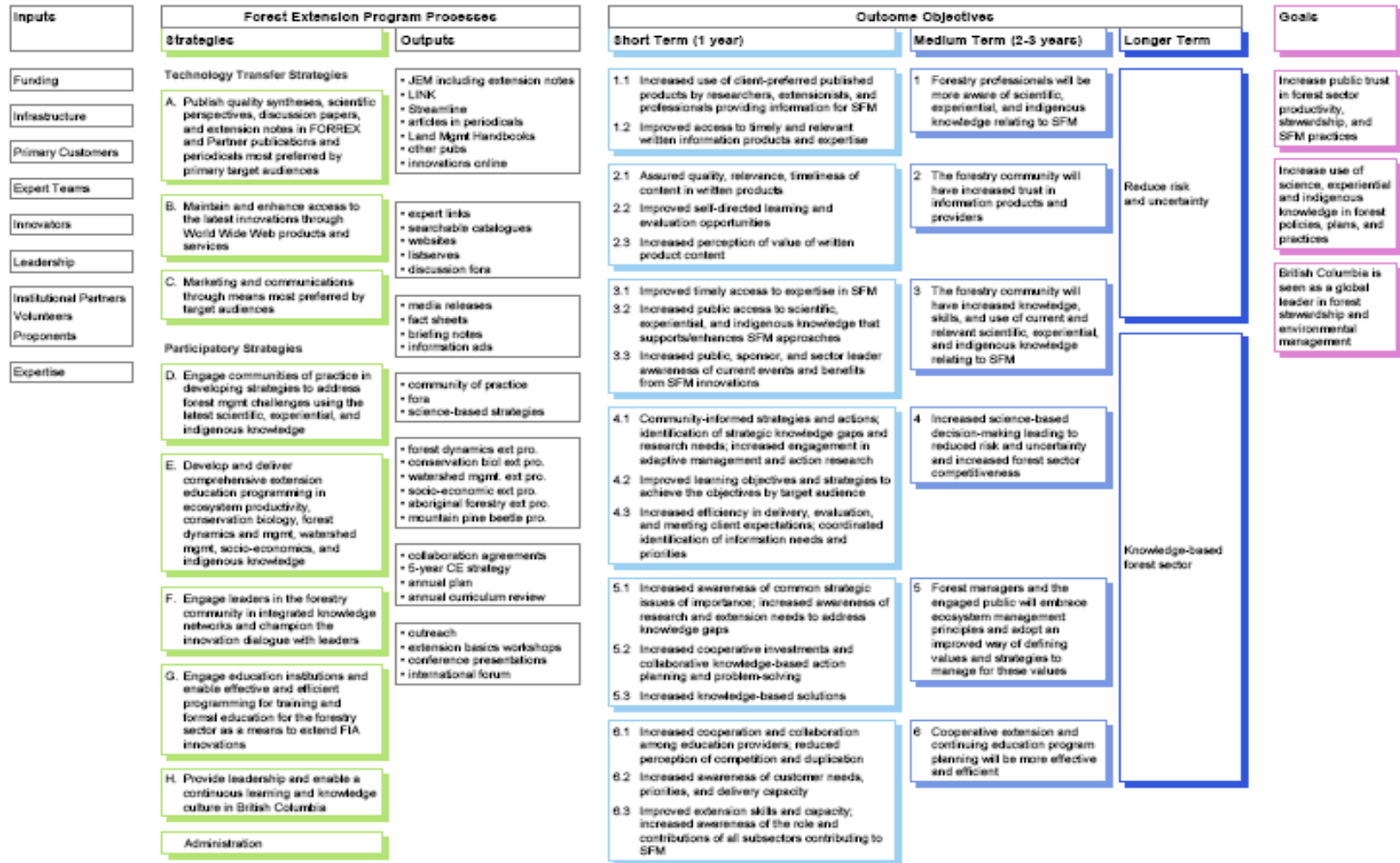


Attachment 1

PFEP Outcome Objectives

Medium-term Outcomes (2-3 years)	Short-term Outcomes (1 year)
1 Forestry professionals will be more aware of scientific, experiential, and indigenous knowledge relating to SFM	1.1 Increased use of client-preferred published products by researchers, extensionists, and professionals providing information for SFM 1.2 Improved access to timely and relevant written information products and expertise
2 The forestry community will have increased trust in information products and providers	2.1 Assured quality, relevance, timeliness of content in written products 2.2 Improved self-directed learning and evaluation opportunities 2.3 Increased perception of value of written product content
3 The forestry community will have increased knowledge, skills, and use of current and relevant scientific, experiential, and indigenous knowledge relating to SFM	3.1 Improved timely access to expertise in SFM 3.2 Increased public access to scientific, experiential, and indigenous knowledge that supports/enhances SFM approaches 3.3 Increased public, sponsor, and sector leader awareness of current events and benefits from SFM innovations
4 Increased science-based decision-making leading to reduced risk and uncertainty and increased forest sector competitiveness	4.1 Community-informed strategies and actions; identification of strategic knowledge gaps and research needs; increased engagement in adaptive management and action research 4.2 Improved learning objectives and strategies to achieve the objectives by target audience 4.3 Increased efficiency in delivery, evaluation, and meeting client expectations; coordinated identification of information needs and priorities
5 Forest managers and the engaged public will embrace ecosystem management principles and adopt an improved way of defining values and strategies to manage for these values	5.1 Increased awareness of common strategic issues of importance; increased awareness of research and extension needs to address knowledge gaps 5.2 Increased cooperative investments and collaborative knowledge-based action planning and problem-solving 5.3 Increased knowledge-based solutions
6 Continuing education and extension education providers will have improved effectiveness and efficiency in cooperative education and extension program planning and delivery	6.1 Increased cooperation and collaboration among education providers; reduced perception of competition and duplication 6.2 Increased awareness of customer needs, priorities, and delivery capacity 6.3 Improved extension skills and capacity; increased awareness of the role and contributions of all subsectors contributing to SFM

Attachment 2
PFEP Logic Model



Appendix 2 Web Survey Instrument

BC Provincial Forest Extension Program Evaluation

You have been sent this survey because you are a member of the BC forest sector and may be a current or potential user of the Provincial Forest Extension Program (PFEP) delivered by FORREX Forest Research Extension Partnership and funded by the BC Forest Investment Account, Forest Science Program (FIA-FSP). It takes only 5 minutes and your answers are confidential. Bill Bourgeois, Chair of the Forest Science Board, asks for your help in completing these questions.

"The Forest Science Board provides strategic advice on FIA-FSP investments to the Deputy Minister of Forests and Range. Your participation in this survey will help provide the Forest Science Board with an independent evaluation of the PFEP for use in providing feedback on its on-going investment in forest extension and establish a baseline for future PFEP evaluations. I would appreciate you taking the time to complete the survey."

Bill Bourgeois Chair, Forest Science Board of the Forest Investment Account, Forest Science Program.

1) Are you or your organization a forest or range licensee? (including BCTS and licensee associations) (must answer yes or no)

Yes No

2) Are you a member of or employed by a:

- First Nation or Aboriginal organization
- forest products company
- government agency (except research/academic)
- research or academic organization
- consulting company (including self employed)
- Other (please specify)

If you selected other, please specify:

3) Are you aware of FORREX and/or the Provincial Forest Extension Program (PFEP)? (must answer yes or no)

Yes No (this reply will take you to question 10.)

4) Have you received reports, publications, or information through FORREX in the past year?

Yes No Not Sure

5) Within the last year, have you attended a workshop or other FORREX educational event, or utilized FORREX extension services?

Yes No Not Sure

6) Have you used the FORREX website (www.forrex.org) in the past year?

Yes No Not Sure

7) Are you aware of PFEP and FORREX through other ways? Please specify.

8) Please indicate your agreement with these statements regarding the program (PFEP and FORREX):

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure/Not Applicable
I am aware of this information and knowledge related to Sustainable Forest Management (SFM).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PFEP and FORREX has helped to increase my awareness of SFM information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The information products supplied through the program are relevant to SFM.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have used or applied this information in my work this past year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have seen increased science-based decision making in the forest sector this past year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I personally use SFM principles in my work in the forest sector.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My employer uses SFM principles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have seen increased use of SFM principles in the forest sector.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have seen improved forest sector planning this past year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I trust the program as a provider of information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The information products delivered by the program are trustworthy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments:

9) In your opinion what is the contribution of FORREX activities to increasing:

Evaluation of the BCPFEP

	High	Medium	Low	None at all	Not sure/Not applicable
Awareness of current scientific, experiential and indigenous knowledge related to Sustainable Forest Management (SFM)					
Use of this knowledge in the forest sector					
Use of SFM principles in the forest sector					
Use of current science in planning for sustainable forest management					
Trust in information products relevant to the forest sector					
Trust in the forest sector's ability to manage BC forests in a sustainable manner					

Additional comments:

10) In your opinion how great is the need in the BC forest sector to increase:

	High	Medium	Low	None at all	Not sure/Not applicable
Awareness of current scientific, experiential and indigenous knowledge related to Sustainable Forest Management (SFM)					
Use of this knowledge in the forest sector					
Use of SFM principles in the forest sector					
Use of science in planning for sustainable forest management					
Trust in information products relevant to the forest sector					
Trust in the forest sector's ability to manage BC forests in a sustainable manner					

Additional comments:

11) Were you previously aware that the BC Forest Investment Account's Forest Science Program (FIA-FSP) provides funding (more than \$10 million per year) for forest research and extension, including the PFEP delivered by FORREX?

- Yes
- No
- Not Sure

12) Please note any comments or suggestions you have regarding how PFEP and/or FORREX could improve their effectiveness.

Nexus Consortium is an independent consulting firm contracted by the Ministry of Forests and Range (FIA-FSP) to evaluate the PFEP. If you have any questions or concerns with this survey please contact us at reed@nexus.ca.

We thank you most sincerely for completing this survey. Please click submit and your browser will automatically be re-directed to a website where you can learn more about the program and also find a link to FORREX.

[This online survey is powered by WebSurveyor.](#)

Appendix 3

Survey Results and Analysis

for

BC Provincial Forest Extension Program Evaluation

Wednesday, February 21, 2007

Powered by:



Survey: BC Provincial Forest Extension Program Evaluation
Responses Received: 362

1) Are you or your organization a forest or range licensee? (including BCTS and licensee associations) (must answer yes or no)

Analysis Commentary:

More than one-quarter of respondents (100 or 27.6%) were forest or range licensees. (N=362)

2) Are you a member of or employed by a:

Respondents were members of or employed by the following:

- Government agency 37.6%
- Research/academic 19.1%
- Forest company 16.3%
- Consulting company 14.6%
- First nations 6.1%
- Other 6.4%

(N=362)

3) Are you aware of FORREX and/or the Provincial Forest Extension Program (PFEP)?

Analysis Commentary:

The vast majority (84.8%) were aware of FORREX and/or the Provincial Forest Extension Program. (N=362)

4) Have you received reports, publications, or information through FORREX in the past year?

Analysis Commentary:

Of those that were aware of FORREX and/or PFEP most (85.3%) had received reports, publications or information through FORREX in the past year. (N=307)

5) Within the last year, have you attended a workshop or other FORREX educational event, or utilized FORREX extension services?

Analysis Commentary:

More than one-third (37.7%) had attended a workshop or other FORREX educational event or used FOREX extension services; 58.7% had not, and 3.6% were unsure. (N=305)

6) Have you used the FORREX website (www.forrex.org) in the past year?

Analysis Commentary:

Most (58.8%) had used the FORREX website in the past year; 38.6% had not used the website and 2.6% were not sure. (N=306)

7) Are you aware of PFEP and FORREX through other ways? Please specify.

Analysis Commentary:

These 35 respondents were aware of PFEP or FORREX through colleagues, involvement with FORREX/FIA/FSB, other institutions, the web, and workshops. (N=35)

COMMENTS	COMMENTS
As a member of the Forest Science Board	I am on the contact list
Association with UNBC	I have worked for FORREX as a consultant
Attended FOREX conference several years ago	I was on the board of directors for a while
BCFS partnership initiatives	I work for FORREX.
Committee participation	I'm not aware of PFEP
I contract a FORREX staff person to provide support services to the Recovery Team for Spotted Owls	Prince George Workshop of 2004.
Contact with FORREX staff	Industrial partners
DIRECT COLLABORATION	Industry related meetings
Email	Interaction with FORREX employees
E-mail notice of workshops and training opportunities	Involvement at conferences
Email updates on what's new	Involvement with recovery planning
E-mails	I've done contract work for FORREX in the past.
Extension provider; FORREX member	Occasional work involvement with FORREX
Extension specialist assigned to our Ministry	On an e-mail notification service
FERIC on UNBC campus	Personal contact with FORREX employees
FIA correspondence	Personal contact with local FORREX rep
FIA program	Personal networking with other foresters
FORREX and ILMB have funding arrangements	PFEP? Yes, FORREX from work.
FORREX Board Member	Presentations & Discussions
FORREX used to store wildlife inventory that we now store in the provincial system. I worked with FORREX staff to change the protocols to what we do now.	Conference two years ago. Member of Board of Directors for BLCOMFO

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COMMENTS	COMMENTS
I am a director of FORREX	Professional Associates
I am not aware of PFEP. FORREX is prominent with booths/displays at workshops and conferences. Individuals from FORREX often attend workshops, conferences and field tours - and are often involved to organize such events	Receive 'Link' in hardcopy; communicate with FORREX extension specialist in my geographic area and area of expertise (silviculture)
Word of mouth - a colleague is on the board	Web site
Workshop for FIA	Receive Streamlines and LINK in the mail
Working with post secondary institutes like UBC-Okanagan, En'owkin Centre and NVIT	Through publications and e-mails circulated in our office. As well as requests for project support.
Workshops	Requests for information: such as this survey
UBC (2 mentions)	SISCO Workshops
Yes - they're running some FIA info workshops I plan to attend	Spoke at a FORREX conference a few years ago
Yes seen publications	Sponsorship of events/workshops
Yes, communications with researchers	Staff participation in workshops and courses
Yes, I work with a number of persons involved with PFEP	Streamline bulletins
Yes, via colleagues	Talking to colleagues
Through discussion with CFBC Board of which I am a member,	Referral
Through staff and FERIC reps.	UNBC Seminar on Communities in 2003
Publishers of J. of Ecosystem Mgmt., I believe	Various other web services.

8) Please indicate your agreement with these statements regarding the program (PFEP and FORREX) and the exchange of information and knowledge it supports:

Analysis Commentary:

Respondents indicated their agreement with statements about PFEP and FORREX and the exchange of information and knowledge (scientific, experiential, and indigenous) it supports. Agreement with the statements (Strongly Agree and Agree combined) was as follows:

	<u>4 point scale</u>
	Strongly Agree and Agree combined
1. I am aware of the information and knowledge related to sustainable forest management	81%
2. PFEP and FORREX has helped to increase my awareness of SFM information	63.5%
3. The information products supplied through the program are relevant to SFM	69%
4. I have used or applied this information in my work this past year	43.1%
5. I have seen increased science-based decision making in the forest sector this past year	32.2%
6. I personally use SFM principles in my work in the forest sector.	63.9%
7. My employer uses SFM principles.	57.1%
8. I have seen increased use of SFM principles in the forest sector.	50.7%

9. I have seen improved forest sector planning this past year.	31.7%
10. I trust the program as a provider of information.	76%
11. The information products delivered by the program are trustworthy.	76.2%

9) In your opinion what is the contribution of FORREX activities to increasing:

<u>Analysis Commentary:</u>	<u>4 point scale</u>
Respondents' perceptions of the contribution of FORREX activities to these desired outcomes (combined high and medium) are as follows. Most respondents felt FORREX activities contribute to awareness of current scientific, experiential and indigenous knowledge related to SFM, and contribute to trust in information products. The perception is that they contribute to a somewhat lesser degree to the use of science in SFM planning. Responses suggest that FORREX information moves the forest sector in the right direction but use or application of the information is still limited. (least N=301)	high and medium combined
Awareness of current scientific, experiential and indigenous knowledge related to SFM	71%
Trust in information products relevant to the forest sector	67%
Use of current science in planning for sustainable forest management	56%
Use of this knowledge in the forest sector	51%
Use of SFM principles in the forest sector	51%
Trust in the forest sector's ability to manage BC forests in a sustainable manner	43%

10) In your opinion how great is the need in the BC forest sector to increase:

<u>Analysis Commentary:</u>	<u>4 point scale</u>
People who were NOT aware of FORREX or PFEP were asked a set of 6 questions comparable to question 9, relating to needs in the forest sector to achieve these outcomes. As the results below (combined high and medium percentage) indicate, respondents felt that all of these needs are relatively important, although the greatest needs are to increase use of science in planning and "awareness of current knowledge." Other factors scored marginally lower, with "trust in the forest sector's ability to manage" rated last at 76%. (least N=53)	high and medium combined
Use of science in planning for sustainable forest management	91%
Awareness of current scientific, experiential and indigenous knowledge related to Sustainable Forest Management	89%
Use of this knowledge in the forest sector	85%
Use of SFM principles in the forest sector	85%
Trust in information products relevant to the forest sector	81%
Trust in the forest sector's ability to manage BC forests in a sustainable manner	76%

11) Were you previously aware that the BC (FIA-FSP) provides funding (more than \$10 million per year) for forest research and extension, including the PFEP?

Analysis Commentary:

Most respondents (63.1% or 227) were previously aware that the BC Forest Investment Account's Forest Science Program (FIA-FSP) provides more than \$10 million per year for forest research and extension, including the PFEP delivered by FORREX. One-third (33.6%) were not aware of this fact and 3.3% were unsure. (N=360)

12) Please note any comments or suggestions you have regarding how PFEP and/or FORREX could improve their effectiveness.

Analysis Commentary:

Comments were received from fully 20% of respondents and were not directed at any topic in particular. Many gave feedback on specific issues outside the scope of the survey. All comments are displayed below verbatim. (N=72)

A legislative requirement for the use of SFM practices would provide the best impetus for FORREX to increase their effectiveness as nothing works quite like necessity for moving things forward.
Attempt to change societal norms to ensure SFM is actually done on the ground. Attempt to encourage ALL licensees to obtain some level of certification AND police their own professionals (advocate professional reliance/due diligence).
Comment - many worthy projects are not accepted for funding because forest practitioners lack the technical background to write scientific project proposals of adequate detail to meet review requirements.
Continue and expand funding in forest research, particularly towards the whole value chain, from forest to logging to engineered wood and finally to pulp and paper. BC needs to take advantage of the complete value chain to maintain competitiveness on the world stage.
Doing a good job and filling a niche in providing this information.
Ensure a greater proportion of funds are allotted to SFM/EBM.
Ensure role of extension clearly defined to avoid duplication of efforts with other government initiatives.
Extension from FORREX is like the Sasquatch, it is supposed to exist, but no one has ever seen it.
FIA investment and funding policies in innovative First Nations practices should be broadened in scope to make them more inclusive - i.e. FSPs.
Focus on innovative ways to create incentives for licensees to utilize sustainability practises
Focus on policy changes to lessen the administrative burden on small licensees (i.e. woodlots)
From my limited perspective they are effective now. I would urge additional emphasis on understanding how forest pest can be better managed.
Fund more science based research project on the non-forest value accounts (e.g. wildlife, water, etc)
Great program good outputs, today it is simply a matter of managing information which at times is overwhelming
Greater recognition and support by PFEP for the many extension events and providers (e.g. Northern Silviculture Ctte) other than FORREX
Have you considered using these monies in support of BC Ministry of Forest information resources, library and web site. Perhaps more could be achieved though a collaborative effort, and expanded mandate.
I found it difficult to find the information I was looking for the last time I went onto the FORREX website.
I am not sure. There is a lot of good work being done through extension services. My trouble with FORREX is that I am not

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sure what it adds in information storage beyond the library and other provincial data receptacles. Then again, I work in that area and I know what systems do exist provincially. Maybe others do not know what I know and use FORREX more.

I have been working on the bald prairies for the past 25 years and this contact with forestry in BC is welcomed.

I have found the survey slightly leading. In the end this may not be constructive input for FORREX. I have found FORREX to be very useful.

I have made my comments for additions and suggestions at a aboriginal workshop that was held in PG

I only know about the PFEP because I saw a poster at a conference. It did not seem like this was very accessible to industry to participate in. May be approach industry for input on projects and potential projects.

I still don't see FLs using all the up to date info that is available. Sometimes they can't even track or effectively use info from their own projects. Your Journal is very good. Maybe improve access to reports & monitor usage.

I still like the old publications - like LINK - got a pile on my desk and read research information all the time. If it's in an email note with just bullets I may not open it up - we get way too much email. I think still mailing out the LINK publications was a better way to communicate with some Foresters and other professionals. Keep the online stuff - but not everyone looks at that - you still need those publications or you'll miss out on some very experienced and educated individuals that may have something positive to contribute to Sustainable Forest Management in BC.

I submitted an article to BCJEM for publication. I found the review and editing process inefficient and unprofessional. Even more alarming was the page charges which were out of the league of most journals I am familiar with. This is especially troubling considering that the BCJEM is largely an electronic media! and there is no opportunity for low income agencies or individuals to see their BC work published. The journal is a good idea but costs & production time must be reasonable.

I think they FORREX does a pretty good job providing information on the nuts and bolts of forest management and technical issues, but I also think that many of the really important "big picture" issues are decided by people that don't concern themselves overly with the discussions on SFM that may appear on FORREX 's website.

I will look at the FORREX website to see if there is anything to help me do my work more effectively. Thanks

I would like to see an annual(?) workshop that will have a core focus of "Using Science for Decision making" and "Integrating Forest Science with Land Resources". My experience in land use planning and management has increased effectiveness by the regular public forums to keep the "thinking process" in a forefront position with those making operational and political decisions. We as scientists often spend too much time and energy talking to ourselves rather than bringing our knowledge and experience to the greater public arena.

Improve communications with the people doing the work. This is easy to say but very difficult to deliver.

Improve communication of FIA-FSP activities and current/proposed research projects to all forest sector staff

In general, I avoid people or organization that use the word "consultant" & "consulting" in their communications.

In general, I see a grave situation adopted by government in general by their attempt to gain greater program & project outcomes and outputs through tighter regulatory. My observation is that tighter project regulation stifles innovation, research potential and ultimately the greater impact in attaining provincial SFM objectives. My thought is that greater accountability can be achieved while still working toward the innovation required in research & development and the institutional change required for the forest industry to attain SFM principles in its practices.

In my view the funds are managed to suit industry's needs. They should be managed separately for public interest!

Incorporate community based social marketing into the list of skills training offered by FORREX. Increase partnerships with Ministry of Environment and the Species at Risk Coordination Office as well as with stewardship groups to increase forest stewardship. Expand assistance to range sector. Partner with the Grasslands Conservation Council and HCTF.

Increase the funding level to FORREX so important extension issues can be addressed.

Increased funding for development of scientifically defensible traditional use study methodology, information management and mapping systems for use in gov't to gov't and First Nation gov't to industry consultations

Just keep doing what you're doing - the contributions made are enormous.

Links to the info and easy search engines to publications need to be sent out to all practicing forestry professionals -- I don't have time to go SEARCHING for yet another library of information

Make their research relevant to local community issues on sustainability.

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<p>Limited access to FIA due to low stumpage in this area. Funds have been applied to questionable projects such as reducing wolves via trapper incentives in an area with low wolf predation on endangered caribou. More expertise by reviewers and reality checks on proposal content advisable.</p>	
<p>More research should be funded towards understanding the effects of climate change on the landscape i.e. slope stability from permafrost degradation to increase in extreme events.</p>	
<p>Must continually increase the awareness of the various constituent/user groups of the research that is available through FORREX. Have done a good job in the past year, please continue the effort and rigor.</p>	
<p>My only frustration has been the fairly high level of turnover of staff - the support person hired for our team has changed 3 times in the past several years which impinges on continuity and requires some retraining</p>	
<p>PFEP/FORREX is affective but the issue is that the forestry sector is slow to embrace extension as a tool.</p>	
<p>Not sure. One of the FORREX products I appreciate most is their regular monthly list serve message, listing events and recent articles of interest.</p>	
<p>Presentations at Regional industry/government meetings (e.g. TSA meetings; joint certification initiatives, etc)</p>	
<p>Reduce the bureaucracy and be more flexible in the type of projects funded</p>	
<p>Reword some of the questions on this survey so they are less obtuse/ambiguous.</p>	
<p>Scientific credibility may be increased beyond the perceived "grey literature" context as well as a greater readership outside of British Columbia. An expanded peer-review process and a less "glossy" or "news style" hard copy publications would increase credibility - as a personal preference the present format with "in bold repetitions" of text takes away from overall reader impression/acceptance of the information provided</p>	
<p>Stronger alignment with NGO's not just industry and government, promote triple bottom line</p>	
<p>The big problem has been the inability or lack of willingness of FIA/FII to list summaries and contact information of the research they have funded. Possibly FORREX could do this. Information is power, and government (including pseudo government such as FIA/FII) since the Provincial Liberals have come into power appear reluctant to share this information. This has affected my ability to be informed and effective as a member of the public and as a government employee.</p>	
<p>The FERIC/FORREX rep is doing a good job in this region. He is well known and communicates courses/seminars and other research information. I think most are aware that he can be used as a resource as well for a variety of needs/wants. I have never heard of PFEP before. Does it matter?</p>	
<p>The FORREX information I have seen has come to me in an ad hoc manner. It would be useful to have a mechanism (e.g. web site and e-mail notification) to disseminate information in a targeted manner to help a given practitioner focus on the information relevant to his/her area of practice.</p>	
<p>The removal of government direction quality control programs in the information collected through FIA projects has created a lot of information of unknown quality in non-priority areas. To improve the process needs involvement of statutory decision makers to ensure that the information collected is information required to make well informed science based decisions. To have confidence in the data collected some quality control is required.</p>	
<p>They don't seem to do much - or anything in northwest BC. I really have no clue what PFEP is about, but I haven't made the effort to find out.</p>	
<p>Unfortunately there is no incentive for the volume based licenses to use any of this information, and they aren't. My only suggestion would be to lobby the Gov't to get their act together.</p>	
<p>Whenever funds of this magnitude are invested in a particular activity, other potential activities critical to developing robust recommendations for SFM should also be identified and their demonstrated benefits compared via careful cost benefit analyses of how funds could be spent most efficiently.</p>	
<p>Why not roll FORREX back into the PFEP? While there is value in having it a little more "arm's length" from the Provincial government, it is chronically under funded to do the job it is assigned, and they seem to waste a lot of energy beating the bushes for additional grants and contracts.</p>	
<p>With the exception of publishing JEMS and organizing conferences & workshops FORREX should get out of the extension business.</p>	
<p>Unfortunately I do not use FORREX in my daily work program</p>	<p>Spread the word!!</p>
<p>Very necessary organisations, and doing good work.</p>	<p>Increased Public Awareness of services</p>

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Keep the bureaucracy to a minimum	e-mails are text heavy
Send out publications to the public via mail and email.	Stop using acronyms and give it time
More delivery events; less information gathering without delivery.	Keep up the good work!
More flexibility in using FIA money for forestry related programs.	

Appendix 4 Interview Guide

Introduction and Purpose:

Hello, my name is....and I'm part of a team conducting an evaluation of the Provincial Forest Extension Program, as delivered through FORREX. I'd like to ask you a few questions about your experience with the program. It will take 10-15 minutes, depending on how much you have to say.

Is this a good time to talk? [Answer any questions, secure agreement and continue]

1. Which of the following categories best describes your present connection to the forest industry? [Check one only]

- First Nation or aboriginal organization
- Forest products company
- Government agency (not research or academic)
- Research or academic
- Consultant / consulting company
- Other - please specify:

2. Are you aware of the Provincial Forest Extension Program or its delivery agent FORREX?
Y/N

3. Are you aware that the BC Forest Investment Account's Forest Science Program provides major funding* for forest research and extension, including the program delivered by FORREX?
(*more than \$10 million per year, if elaboration required) Y / N

NOTE THAT ALL REMAINING QUESTIONS GENERALLY REFER TO THE PAST YEAR.

4. IF YES TO #2: How are you aware? HAVE YOU:
IF NO TO #2: HAVE YOU:

If needed, use examples from FORREX website.

- a) Received reports, publications, or information through FORREX in the past year? Y / N
- b) Attended a workshop, educational, or participatory event organized by FORREX? Y / N
- c) Used the PFEP <http://www.cortex.ca/fia-fsp/ext.html> or FORREX website www.forrex.org?
- d) Are you aware of PFEP and FORREX through means other than those noted above? (specify)

If NO to all of the above, terminate the interview

5. On a scale of 1 to 10, where 10 is absolute trust and 1 is no trust, how much do you trust PFEP/FORREX as a provider of information? Rating:

- What would it take in order for you to increase your trust rating?

6. Is PFEP/FORREX increasing your awareness of information related to SFM?

- Specify: includes research, experiential and indigenous knowledge
- Can you provide an example (probe and follow up)?

7. What is your opinion about the information products supplied through FORREX?
 - Are they relevant? Useful? Timely?

8. Did you use or apply this information in your work during the past year?
 Frequency? Examples?

9. To what extent do you, or others you know in the forest sector, use science-based decision making?

10. To what extent do you, or others you know in the forest sector, use ecosystem management principles?

11. On a scale of 1 to 10, where 10 is absolute trust and 1 is no trust, how much do BC residents trust the forest sector's ability to manage BC forests in a sustainable manner? *Rating:*

12. *For this final set of questions, please answer YES or NO
 [IF YES, ask respondent to rate the "increase" on a scale of 1-10, 1=minimal and 10=substantial]*

In your opinion, have FORREX activities:

	YES 1 - 10	NO = 0	Don't Know
a) Increased <i>awareness</i> of current knowledge related to Sustainable Forest Management			
b) Increased <i>use</i> of current scientific knowledge in the forest sector			
c) Promoted ecosystem management principles in the forest sector			
d) Improved methods for developing forest industry strategies or plans			
e) Increased trust in information products relevant to the forest sector			

13. Do you have any further comments about the PFEP or how it could be more effective?

Conclude - thank you for your time and for giving us your opinions - they are most helpful...

Consider this respondent to participate a focus group...?
CRITERIA: Location near a focus group meeting place [determine before the interview]?
 Knowledge of/familiarity with PFEP/FORREX (more than just aware of...)
 Responsive, seems articulate

**Appendix 5
Results of Interviews**

A total of 92 people were interviewed, for a 37% response rate. However some were not completed due to the person or the question being inapplicable, which resulted in 74 completed (useable) forms. The regional breakdown of completed interviews is Northern Region 25; Southern Region 22; Coastal Region 40; and Outside BC 5.

This appendix contains aggregate summaries of responses to questions 5-13 of the Interview Guide. See pages 11-12 for responses to questions 1-4.

Q5. Trust in FORREX as Information Provider

Respondents were asked to indicate on a scale of 1 to 10, where 10 is absolute trust and 1 is no trust, how much they trust PFEP/FORREX as a provider of information. As shown in *Table 5-1* below, responses were remarkably consistent among regions.

**Table 5-1
Respondents' Trust in FORREX**

<i>Region</i>	4	5	6	7	8	9	10	<i>DK</i>	<i>Average Rating</i>
Coast	2	4	3	4	8	8	3	3	7.5
North	0	1	1	6	3	4	3	2	7.9
South	3	1	1	2	3	7	1	0	7.4
Total	6	6	5	12	14	19	7	5	7.6

The overall ranking of 7.6 is virtually identical to the 76% “trust” figure from the online survey, which reinforces this finding. Those respondents who indicated a low level of trust were asked what it would take in order for them to increase their trust ratings. Comments included:

- ▶ FORREX needs to develop a research ethical review process, particularly re First Nations traditional knowledge (or would this be done by FSB?)
- ▶ I skim information only; trust is not a factor.
- ▶ Awareness increases trust; I need to (be) more familiar with the program
- ▶ Would need time for interaction with the material.

Those respondents who were most familiar with FORREX and PFEP had a pronounced higher level of trust in them as an information provider. Many respondents who expressed a low trust rating indicated that they simply didn’t know enough about the program or FORREX to do otherwise.

Q6. Is PFEP/FORREX increasing your awareness of information related to SFM?

More than 80% of respondents answered this question positively. Responses were relatively consistent across all regions.

**Table 5-2
Increased Awareness of SFM Information**

<i>Increased Awareness</i>	<i>Coast</i>	<i>North</i>	<i>South</i>	<i>Total</i>
YES	29	15	15	59
NO	6	5	3	14
Total	35	20	18	73

When asked to elaborate on this awareness, respondents provided the following comments:

- ▶ Articles in newsletter are good
- ▶ Workshops bring numerous speakers who provide useful info
- ▶ Awareness of conferences and workshops is useful
- ▶ Technical staff uses info more than he (in mgmt); passes on info to staff (mentioned X2)
- ▶ Always researching resource items, and always looks to FORREX
- ▶ Interesting research on Mt Pine Beetle
- ▶ Articles on repairing habitat - what others are doing is most helpful
- ▶ Use the email communications to check on new material available
- ▶ Regularly read the online journals; they help to keep me informed.

Q7. What is your opinion about the information products supplied through FORREX?

After their initial reply to this open-ended question, respondents were prompted with the terms “relevant, useful and timely” and asked whether they found those qualities in the service. As shown in *Table 5-3* below, about 70% found the information products relevant and useful; a somewhat smaller percentage found them timely.

**Table 5-3
Opinions of Information Products**

	<i>Coast</i>	<i>North</i>	<i>South</i>	<i>Total</i>
Relevant	18	17	16	51
Useful	19	18	16	53
Timely	10	15	16	41
N =	35	20	18	73

Initial comments in response to this question included the following:

- ▶ Topical, timely, pragmatic

- ▶ Particularly useful re coming conferences and events
- ▶ Not as complete as they might be for my purposes (research)
- ▶ Mostly relevant and useful; much is too western-science based, not First Nation traditional knowledge
- ▶ This is a remote area; info helps to connect with other practitioners elsewhere
- ▶ There is LOTS of material and little time; always a matter of priorities to go through it
- ▶ LINK magazine provides excellent info.

Q8. Did you use or apply this information in your work during the past year?

**Table 5-4
Applied Information at Work**

<i>Applied Information</i>	<i>Coast</i>	<i>North</i>	<i>South</i>	<i>Total</i>
YES	14	11	12	37
NO / Unsure	21	9	3	36
Total	35	20	15	73

Respondents were equally divided concerning whether they had applied the information they had gained through the program, to their work during the past year. Considering that 80% of respondents stated they had increased their awareness of information (Q6) through the program, the 37 respondents who answered “yes” to this question represent 63% of the “aware” group.

Comments made by respondents related to this question include the following:

- ▶ Personally no but staff use it all the time
- ▶ FORREX did a CD of water quantity indicators that I use
- ▶ Used the website to research reports for scientists; it is the first place I go
- ▶ Used the material to help with land restoration work re beaver damage
- ▶ Passed on info to colleagues that they might be interested in
- ▶ Used the Mt Pine Beetle work
- ▶ Used the material for both research and teaching purposes.

Q9. To what extent do you or others in the forest sector use science-based decision-making?

This question elicited a range of responses. Government workers generally responded positively in terms of their own work or the work within their agency but

questioned the extent that science is used in the private sector. Those working outside government, on the other hand, felt that science played a significant role in forest licensees' decisions but that many licensing or regulatory decisions by government are dictated by political considerations. Several managers expressed the view that decision-making almost always involves both "art and science," and it is difficult to single out either set of factors.

- ▶ Some are better than others. Professionals use it more than others
- ▶ Use it every day (as a Biologist in MOE)
- ▶ Widely used in MoFR, e.g. FURPA initiative
- ▶ Likes to think she uses science-based approach 100% of the time
- ▶ As a researcher, not involved much in decision-making; certainly willing to apply science
- ▶ Don't know how to answer this question. Science and art apply in all our decision-making
- ▶ We use this form of information depending on practical considerations
- ▶ All the time / most of the time / nearly all the time (mentioned X3)
- ▶ Definition of management principles may vary, depending on definition but I would say we use them quite a bit - but the definition is key to this answer
- ▶ Quite a bit - being in the silvaculture field the decision-making is made using science based factors a lot
- ▶ It is the backbone of the task but the political decision making gets in the way.

Q10. To what extent do you or others in the forest sector use ecosystem management principles?

Responses to this question ranged from "rarely" to "all the time." The majority (about 75%) agreed that ecosystem management principles are observed to some extent throughout the forest sector, particularly within the MoFR (where a formal system is entrenched in policy) and by professional Foresters. Like the question regarding science-based decisions, however, use of these principles seems to depend on the situation and on what level of the hierarchy (e.g. planners versus operational staff) is involved. Typical comments:

- ▶ Extensively in MoFR; ecosystem management system is entrenched
- ▶ Important part of forest management
- ▶ Use it quite often (as a consultant), particularly when making recommendations; everyone I know does likewise
- ▶ People are trying to use ecosystem mgmt principles more and more; there is lots of information coming out on the topic; mostly at the planning level, less on the ground

- ▶ All Foresters use these principles; it is intrinsic in everything we do. However, we may not apply it as well as we could in all situations, such as the MPB infestation
- ▶ Depends; they are important and applied to different levels in different ways
- ▶ The definition is too varied for a clear answer
- ▶ Thinks these principles are used on virtually a daily basis
- ▶ We use them lots - seed transfer rules are based on these principles
- ▶ Individual people or programs use it extensively but overall I would say they are only used somewhat.

Q11. How much do BC residents trust the forest sector’s ability to manage in a sustainable manner?

Respondents were asked to use the 1-10 scale with 1 being “minimal” and 10 being “maximum.” As indicated in *Table 5-5*, ratings were somewhat higher in the north and south regions than in the coast region.

**Table 5-5
Trust in Forest Sector**

	1-2	3	4	5	6	7	8	DK	Rating
Coast	6	3	5	12	5	5	0	3	4.6
North	0	0	7	2	4	4	3	0	5.7
South	2	2	2	4	3	6	1	1	5.2
Total	8	5	14	18	12	15	4	4	4.9

When asked, respondents had a number of ideas about what the forest sector could do to increase public trust in its abilities. Many responses were in the vein of “do a better job of sustainable forest management” and several mentioned better means of measuring desired outcomes. Several respondents mentioned examples of poor management or mishandling that undermine public trust, such as the Mountain Pine Beetle infestation and raw-log exports. A few also noted the media focus on the negative - what is not working. Concrete suggestions included:

- ▶ Create consolidated stewardship plans and a ‘body’ responsible for oversight of all stewardship plans and for being alert to conflicting plans
- ▶ Provide greater visibility of cooperation between diverse interests
- ▶ Greater openness and accountability through public process and consultation; FIA-FSP granting mechanism needs to be cleaned up; make it transparent and accountable
- ▶ Industry is set up for high volume operations – don’t know how this can be sold to the public as a good management, i.e. mtn pine beetle and forest fires

- ▶ Educate public as to what SFM means; expand education and info dissemination; show public what is really happening in our forests (mentioned X5)
- ▶ Certify companies as meeting ecological and environmental standards and educate public about those standards
- ▶ Bring back forest practices code; results based practice was brought in too quickly.

Q12. Opinions re Program Effectiveness

Respondents were asked to rate the five measures of program effectiveness, as shown in *Table 5-6* below. They were asked to rate achievement on a scale of 1-10 with 1 being “minimal” and 10 being “substantial.”

**Table 5-6
Opinions of Program Effectiveness**

<i>In your opinion, have FORREX activities:</i>	<i>Rating (N=73)</i>			<i>DK</i>
	<i>C</i>	<i>N</i>	<i>S</i>	
a) Increased <i>awareness</i> of current knowledge related to SFM	6.4	6	5.6	17
b) Increased <i>use</i> of current scientific knowledge in the forest sector	6	6	4.9	22
c) Promoted ecosystem management principles in the forest sector	6	6.3	6	19
d) Improved methods for developing forest industry strategies or plans	4.2	4.3	5.4	38
e) Increased trust in information products relevant to the forest sector	5.8	6.2	5.3	30

As indicated by the large number of “don’t know” responses, this question did not produce a clear response. Many respondents felt they had inadequate information with which to make a judgement; they were further prompted to provide their perception only. Furthermore, many grappled with the meaning or definition of such terms as “ecosystem management principles” and were not comfortable responding. For these reasons, the ratings should be taken only as a broad indication of respondents’ perceptions and not as a definitive and informed judgement.³

³ Because of respondents’ difficulty in answering this question, we suggest that it not be repeated in future inquiries of this nature. Other methodologies are available that would provide more reliable feedback on these issues.

Q13. Suggestions to Improve PFEP Effectiveness

Virtually all respondents had one or more suggestions about how to improve the program. The most common themes and ideas mentioned are summarized below.

Kudos to FORREX

- ▶ FORREX does a good job; keep it up; appreciate high quality, relevant, impartial information and easy web access; has earned trust (20+ mentions)
- ▶ Regional workshops are appreciated to reach out into more provincial regions; great way to promote contact among sectors and regions.

Marketing

- ▶ Improve marketing - generate higher visibility of FORREX program, mandate, action; increase exposure to target segments
- ▶ Re-inform readership as to mission and purpose; be more focused and specific about what they are attempting to get across to consumers.

Strategy / Scope of Program

- ▶ If FORREX wants to be relevant, it needs to develop tools for decision-making, use and application of science; we are past the awareness stage.
- ▶ The challenge is how to communicate information to the end user; there is a need for a conduit to operations-level workers to inform and train them in forest use techniques such as those concerning wildlife habitats. Build a better bridge between scientific research and forest sector practitioners; get better at translating scientific work into field practice.
- ▶ Be more comprehensive in coverage of non-forest biodiversity; more articles and focus on innovation and value-added use of forests; greater inclusion of research related to all forest values, i.e. less focus just on timber harvesting.
- ▶ Broaden geographic focus; coastal and northern owners have been left out
- ▶ Re-instate the aboriginal link for aboriginal forestry/indigenous knowledge extension.
- ▶ Greater funding and promotion of peer reviewed scientific content to give international credibility; needs to be more objective and credentialed; perhaps confine their role to disseminate research and link data services of better credentialed sources.
- ▶ PFEP should be more involved with forest science research program. Researchers don't have time to create extension products or get the information out.
- ▶ Lobby government to put more emphasis and thus money into SFM
- ▶ FORREX needs to be more independent from Min. of Forests; not have some contract funding tied to use of FORREX materials

New or Different Methods

- ▶ People in the forest sector are overloaded - not a lot of time available to gather or review information; use an e-newsletter/announcement that contains a table of contents, allowing readers to click on individual articles/items.
- ▶ Best extension mechanism is one-to-one; use Extension Foresters who communicate well and are themselves open to learning from those in the field.
- ▶ Information products and workshops aimed at larger public audience
- ▶ The message that forestry needs to get out is that it is more than soil and water management
- ▶ The biggest area of opportunity would be continuing education with forest professionals

Appendix 6 Notes from Focus Groups

NOTES FROM PFEP FOCUS GROUP Ladysmith, BC, February 19, 2007

10 attendees - Malaspina U, consultants in forest sector, foresters, First Nations, national forestry organization, former forest science board, environmental auditor, research programs, former FORREX director

What is your perception of the need for PFEP?

- ▶ Definitely a need for the program (8 of 10 hands went up)
- ▶ Needed to help share information and research around, get it out in public domain
- ▶ Collaboration is promoted and supported
- ▶ No question there is a need – research has to be transferred to practitioners to get used
- ▶ The question is more one of structure, governance and delivery; FORREX is only one way; this needs discussion
- ▶ From a university angle – only a few university based researchers are willing to do extension research because there is little reward for doing it
- ▶ There is a great need to get research in many areas into the hands of forest practitioners; this is hard to get happening.
- ▶ An important question is “Who does the research?”
- ▶ Workshops run by FORREX, arms length from Ministry, means there is more room for non-ministry people to benefit from them
- ▶ There is value to having the delivery program one step removed from government, it also has its drawbacks
- ▶ We don’t know what research has already been done. There is a back log of research that hasn’t gotten out yet, that hasn’t been put to use
- ▶ There is community-based focus and a First Nation’s focus within FORREX mandate
- ▶ FORREX and decision makers have to stay more on top of what is current. That the pine beetle epidemic was coming has been known since the mid-80’s but nothing was done.

How aware are people in the forest sector of FORREX and its extension programs?

- ▶ There is a vague awareness
- ▶ On the ground practitioners aren’t as aware as they could be
- ▶ First Nations people are not well informed, not much aware
- ▶ The process, the forum by which First Nations stories can be told is not put in place
- ▶ Every person who is a member of Prof. Forester or Forest technician should know about FORREX
- ▶ Lack of consistency in program delivery due to government changes in funding, mandate, existence keeps people from knowing and information from being delivered.
- ▶ Lack of consistency as to who and what and how extension type programs are delivered is a long-standing problem.
- ▶ State of Virginia was spending \$16 MM per year on extension when BC was spending \$1.5
- ▶ FORREX is at a threshold right now. It needs to step up or step back
- ▶ FORREX has extremely dedicated employees and directors
- ▶ FORREX is doing a good job with what it is given. Could be doing more but needs more money to do that more well

- ▶ FORREX has survived 3 changes of government – this is because there is a tremendous commitment by forest companies of all sizes to FORREX – that it is not-for-profit and gets research information out
- ▶ The dream of many is that FORREX will one day be self-sustaining so it is not reliant on government funding
- ▶ Processes that support sustainability of extension work, and research that supports sustainability of forests, lands, and water – processes like this one, are important

Responding to FORREX stated goals “Build awareness of information” and “Increase use of current info”

- ▶ Unlike in Virginia, FORREX is not mandated to help small land owners, wood lot managers or foresters with their particular problems
- ▶ FORREX is not able to meet one on one with practitioners and likely never will
- ▶ Yes, FORREX should focus on getting research from researchers to practitioners.
- ▶ Some of the very best extension work ever done was when extension researchers did spend time with practitioners
- ▶ Human to human contact seems costly at the front end but there is a threshold and once that is reached it becomes more efficient and it is highly successful.
- ▶ FORREX is overly governed in that it is accountable to both Forest Science Program and Society’s Act.
- ▶ There has to be a demonstrated linkage between science and practitioner for extension work to be successful
- ▶ Practitioners are very limited in time. They need to have information presented in summary form, max. 2 pages in a way that makes it easy to see “here is how I can apply it in my work”
- ▶ Best would be one page summary linked to web page with more linked to full research paper
- ▶ Focus on the issues of the day such as mountain caribou. The rest will fall out as needed. Focusing on small issues is expensive and can be hard to engage the practitioner on.
- ▶ Story: Forcing researchers out into the field created good credibility of researchers by practitioners and vice versa. Researchers did better research and practitioners were more likely to apply the results of the research. This is the only way to be successful with the second goal
- ▶ Unfortunately this is not possible in FORREX current funding. These people who have the dual skills are not that common and they are more expensive. FORREX doesn’t have the \$.
- ▶ Again, continuity is fundamental to success of this approach

Should the primary target of PFEP be forest practitioners?

- ▶ No, everyone needs to be in the loop; can’t exclude anyone
- ▶ Re-examine the delivery model – info that is of particular interest to foresters or 1st nations or water management etc should be targeted to get to those practitioners
- ▶ No, too narrow a band width. Excludes or allow side-stepping of social issues such as 1st nations land claims
- ▶ Oil and gas and mining cause problems and leave messes that need to be cleaned up or addressed by forestry
- ▶ Goal 3 must include social science research and it must be robust

Can FORREX achieve Goals 3 and 4 (in their strategy)?

- ▶ No, too big
- ▶ If others have major jurisdiction on the land (oil or mining) then it is impossible for forest management practice and research to take the lead
- ▶ Science based decision making - whose science? Gov't/tradition/industry/social/...
- ▶ Mistrust is a major obstacle. The importance of face to face contact cannot be overvalued
- ▶ How can goals 3+4 be effectively met without a good feedback loop? None exists now...
- ▶ Politicians, chief foresters, deputy foresters are key decision makers and thus they need to be seen as significant focus of info dissemination
- ▶ What is known about the objectives of the forest managers/politicians? That is FORREX can be more effective in getting useful into out to the field if tailored to need and it is acknowledged that needs will vary area to area etc.
- ▶ FORREX needs to ask for feedback and 'needs' from the people on the ground not from those who spend every day behind a desk
- ▶ FORREX can be improved by considering when and where it adds value and when /where others can do it better
- ▶ The interface between researcher and practitioner is crucial to extension success. If it isn't good much, perhaps all, is lost
- ▶ The sharing of information, what other people are doing in research is very useful and FORREX can meet the need. Researchers it seems are often more interested in having their name on a paper than in researching if others have or are doing the same research.
- ▶ The group that has the least trust in FORREX are researchers
- ▶ There is a benefit to FORREX disseminating information at arms length as it will be more trusted, more read; e.g. if Timberwest publishes peer-reviewed research no matter how good it might be, many will not see it as credible.
- ▶ The credibility of FORREX can be improved by having better trust and links with universities and big forest companies at governance and board level.
- ▶ Ministry of Economic development should be a funder of FORREX and part of the Board
- ▶ The money to fund forest extension should come from 4-5 ministries, not just Min. of Forests. Governance would then also be less directed by one ministry's agenda
- ▶ FORREX is fragile and will remain so as long as they are contracted by a single ministry (Forests) FORREX needs to be interacting at Deputy Minister level and have governing board be multi-ministry. Oil and gas and mining companies could also be funders, as could universities. Having them committed with money would change their commitment to the research being undertaken as well as applied
- ▶ Natural Resources and 1st Nations Board rather than Forest Science Board as governing body
- ▶ We all have responsibility to work together and be accountable to developing the process

WHAT/ HOW to IMPROVE PFEP?

- ▶ Bring on a lot more people who are dirt foresters as staff/contractors for FORREX. There are very experienced foresters who might well want a semi-retirement project.
- ▶ Important to advertise wanting hands-on foresters rather than simply researchers
- ▶ With the larger cadre of experienced foresters on staff, FORREX could offer 4-6 week mid-career up-grade in forest science/research at a time of year when forest work is in ebb.
- ▶ FMIBC (Forest Management Institute) used to do just that but no longer as industry won't send employees off for more than 2 days.

- ▶ Could offer e-courses; Royal Roads does this very successfully.
- ▶ 1st nation perspective: gather the traditional knowledge that is seen as useful to share and work with FORREX to find appropriate ways to get it out, to make it accessible
- ▶ National Aboriginal Forest Association has lots of ideas to share; just put one of their members on FORREX board. Need BC members as well.
- ▶ Relationship as it stands between Forest science board and FORREX needs to change. FSB is too narrow a vehicle to provide direct oversight to a program with such a broad mandate.

**Provincial Forest Extension Program/FORREX
Prince George Focus Group
Wednesday, February 14, 2007**

Number of Participants: 6

Participant's Connection to the Forest Industry

- ▶ Research
- ▶ Practitioner
- ▶ Silviculture
- ▶ Academic

Introductions and purpose of session

What are participants' connections to or awareness of FORREX?

- ▶ Aware of FORREX and that it started in the Southern Interior
- ▶ Have used the FORREX website Forestry background information, documents
- ▶ Were aware that FORREX facilitated workshops
- ▶ Works for Ministry of Forests
- ▶ FORREX as an extension outfit to published works
- ▶ Receive monthly newsletters
- ▶ Have been involved in workshops
- ▶ Member of FORREX working groups
- ▶ Involved in monthly meetings and conference calls
- ▶ BC Model originally for Southern cooperative, then it amalgamated and is now a provincial thing

Impression and/or perception of FORREX

Positive Impressions/Perceptions

- ▶ PFEP Program – FORREX delivery agent
- ▶ Information they deliver such online journals and workshops are beneficial
- ▶ Streamline of delivery
- ▶ Disseminating information is useful for people
- ▶ 1982 there wasn't anything along these lines
- ▶ There were nursery extension groups
- ▶ Important because we are very spread out in the forest industry, where there are Foresters in small places and do not have a lot of contact with other Foresters
- ▶ Always a quest for information
- ▶ May be able to do beneficial experiments
- ▶ FORREX captures knowledge that will be beneficial to up and coming foresters
- ▶ Making system work better is the personal touch of the workshops
- ▶ Taking initiative with the workshops is good; shows initiative with bringing people together from all over the province to talk about issues

- ▶ Database is useful, however, may not be the first place users will look
- ▶ When information is in a newsletter, you get more people using it

Negative Impressions/Perceptions

- ▶ Very Southern Interior oriented; products reflect the Southern Interior
- ▶ Northern citizens may not be as aware of FORREX as they should be
- ▶ Aren't aware of science base philosophy of FORREX
- ▶ Information exists, but not getting to the right people
- ▶ U.S. has a much more useable system in place because they put out all the information
- ▶ In BC you need to do extensive amounts of research and it can sometimes be difficult to find information
- ▶ Fragmented information unless you do a synthesis
- ▶ Too much information and may not know how to relate to it unless it is information that is directly related to your field.
- ▶ Guide books do not exist anymore
- ▶ Trying to do too much and have their fingers in too many pots
- ▶ Too much information; overload of information available in sector; lack of time to go through all the information received
- ▶ What's the limiting fact of FORREX? TOO much information
- ▶ Do not market themselves, therefore, people don't know enough or anything about FORREX; does not stand out when users are searching for information
- ▶ Newsletter is good if you are looking for something specific because it is not what comes across you; it's what you are looking for.
- ▶ Staff is changing often, therefore, there is a loss of knowledge and experience
- ▶ Each person working for an extension has an area of expertise
- ▶ Organizational part: government farms out as much as they can; Ministry program out of FSB, contracted to FORREX
- ▶ Information overloads – FORREX cutting through that information overload,
- ▶ Would we expect FORREX to comment or provide extension for advances in science
- ▶ No reps from communities on the Board? (a question - not really sure)
- ▶ Practitioners have limited time to go through the information; they need guidance/help/syntheses
- ▶ Extension programs haven't learned much and appear to be making same mistakes; don't need another extension program because they provide information - need an extension person
- ▶ More for the practitioner because researchers have their colleagues.
- ▶ Some goals of PFEP are way too broad; too far out of reach; seem to affiliate with science board and Ministry instead of program
- ▶ Not doing a very good job at promoting in the North and haven't marketed the program as well as it could be

Value in an Extension Program

- ▶ Gives the opportunity to have one place to ask questions and research a topic
- ▶ Users will have confidence that the information is up to date and correct
- ▶ Can be used to make decisions, plan and rely on the information
- ▶ Beneficial tool for the research community
- ▶ Website assists with forest related searches

- ▶ Because researchers search in various areas, if they come across names regularly they will most likely research these particular websites
- ▶ Able to go through the search engine and find everything on forestry
- ▶ Extension program is partly responsible in bringing people together such as the user and provider to better understand each others' needs
- ▶ Go out into the field and understand the field
- ▶ Important for people working on issues not directly in forestry.
- ▶ FORREX is getting information into a forum; however, where is the application?
- ▶ Sometimes workshops are the only point of contact for small regions
- ▶ This program is beneficial to Silviculturalists because many of them work in very isolated regions
- ▶ The perfect extension program would be having the researchers and the operators all interacting

Synthesis

- ▶ Need to have a process of combining different ideas from different groups such as government, researchers, practitioners, and end users
- ▶ For example, researchers involved in the migration of trout work in conjunction with researchers involved in the forest industry
- ▶ FORREX should promote/facilitate training of machine operators to learn more about the tree species and have the knowledge to leave certain species alone
- ▶ Synthesis are useful but still have human factor
- ▶ Lack of continuity – people/staff change, take their knowledge and experience with them
- ▶ Mountain Pine Beetle - between epidemics, new staff came on board
- ▶ Have many influences; have a hard time quantifying the benefits
- ▶ Hard pressed to say a piece of PFEP benefits something because it is a combination of everything when it comes to extension groups.
- ▶ Using this information is up to the practitioner, e.g. Some farmers may use new technology while others don't
- ▶ Mass info available on MPB, but are we managing MPB any better?
- ▶ It is also up to the employer to encourage the use of this information.
- ▶ BC is variable – so many different areas of forestry
- ▶ Do Synthesis that pertains to the North because it seems there is not as much work done in the North - a major part of the forest industry
- ▶ Synthesis are useful if you are researching

Suggestions for Improvement

- ▶ FORREX is important element to do synthesis work
- ▶ Need to encourage people to find where resources are and use this knowledge effectively. This is an area where FORREX could play a very important role
- ▶ Should have some sort of research or assistance service
- ▶ Look at taking technical information to the end user and making it useable
- ▶ Most powerful tool is the Workshops
- ▶ Could get demonstrations by people who are using the extension program

- ▶ Seems like a very large operation and should simplify – what is the best way to get the information out to the end users and have it used?
- ▶ Making information simpler, digestible, applicable for the practitioner
- ▶ Important that FORREX work with researchers and acknowledge their contributions
- ▶ Federal, Provincial, Researchers, Practitioners, End Users, and Universities should all work together in close proximity
- ▶ CFS/BC Ministry of Forest, Research, seen extension to be attached to the University
- ▶ Need to see what people are doing such as going to workshops
- ▶ Groups of different interests should come together and share ideas
- ▶ Train people on how to conduct workshops as there appears to be no training; they say here is the knowledge and so something with it, need training in how to apply research
- ▶ FORREX facilitates the process, employer also should encourage the use of the process
- ▶ Should have a host come and talk once a week or every two weeks on different topics. Advertise sessions so that people can attend what workshops interest them; smaller version of workshops
- ▶ PFEP local rep should be put in the Ministry office
- ▶ Have FORREX promote the program through different types of media besides emails. Need to do commercials because people respond quicker to the entertainment value
- ▶ There is too much spam, therefore, users may not notice emails coming in
- ▶ If users were to receive one email to one link and so on they could click on what interests them and delete what doesn't
- ▶ Emails are not targeted to one subject which makes it difficult to find what you are looking for because different groups, researchers, practitioners, etc., have different needs
- ▶ Have the option to check off what topics interest you when signing up for the newsletter, then you won't receive topics that you are not interested in
- ▶ Should ask for feedback from users and potential users, to ensure satisfaction of the quality and accuracy of information
- ▶ Keep re-evaluating the program and look at where you are and what needs improvement
- ▶ Need to market to everyone, researchers, policies practitioners, end users
- ▶ Look around at the best techniques that are out there and bring the information back
- ▶ Look at using the tools, e.g. here is a successful practice, instead of giving the entire information on successful practices.
- ▶ Should have people who have credentials, written material, published journals, and area of expertise
- ▶ FORREX promoting information, role should be giving useful information to practitioner
- ▶ Researchers need to engage in providing information; FORREX is not the expert and needs to be well connected to the researchers
- ▶ Researchers should get it out to FORREX and the community
- ▶ Researchers and practitioners need to communicate with each other and condense their information
- ▶ Research Service or question (Would you use it?): look at referring to a specialist, do some searches on person's behalf, but should be a free service
- ▶ Published literature- easier to find yourself, therefore workshops would be helpful if a person had questions regarding the literature
- ▶ Would like FORREX to understand and have knowledge of issues and be ahead of the game, therefore, when the practitioner comes across something they can ask FORREX and get accurate information

- ▶ Extension means the end user, should involve everyone from ministry, academics, industries, and end user
- ▶ More criteria for search engines to break things down and narrow search, to be more specific
- ▶ FORREX needs to get their information out there
- ▶ Access and ability to know what is happening in the forest industry is important as well as knowing what is going on in the entire province

**PFEP FOCUS GROUP
Kelowna, BC, 19 February 2007**

Attendees:

All six participants were aware of FORREX but had different levels of engagement with the extension provider. Two attendees were involved in extension work- sponsored directly by Industry and their work was aimed at school age children. Two attendees were from a woodlot licensee perspective, one from Industry- Tolko, and one from a First Nation Forestry perspective.

1st topic: Looking for feedback on impressions about FORREX

- ▶ All thought that the focus of FORREX needed to be applicable to and to reach the broad target group of the forest sector.
- ▶ While realizing that FORREX has a difficult task, the following comments were made:
 - It was thought that the research was not entirely useful - for woodlot licensees
 - There was an absence of specific material-
 - The info in FORREX material is too technical - not very useful to a woodlot operator.
 - We don't need information on GPS, beetle kill.
 - As hands on non-academic – the usefulness of the FORREX material is wanting.
 - When one flips through the material (participant had a copy of LINK in his hand) - it is not reaching this extension user”.

2nd Topic: Have you ever been asked what you need from FORREX?

The feedback on this question was generally that no, there seems to be a one way communication –top down that does not interact with the specific needs of these users.

The Industry voice seemed to be better able to get the ear of FORREX as the larger corporations in industry are associated with the Board of FORREX and thus are able to influence it at that level.

3rd Topic: Discussion following questions about the survey results

A general critique was that the survey focused on SFM practices rather than the extension work of the PFEP with FORREX as the provider.

The conversation turned (before the Indigenous participant arrived) to the question of Indigenous Knowledge (TEK)...Some talk of the publications where indigenous knowledge was illustrated in relation to the land and forest papers regarding fire suppression and stream and water management. While this information seemed to be of value there was also some concern about the political tinderbox – of land claims and constraints of forestry programs that lie under the surface and haven't been addressed.

4th Topic- Are the goals that underpin FORREX relevant or achievable?

It seemed to be a point of consensus that perhaps the lack of focus FORREX gives to less economically valuable tree species research or to smaller ‘voices’ in parts of the forest

sector is simply natural and incongruent with the policies and mandates that FORREX is directed by.

Given the previous comment, most people in the group were not entirely familiar with the goals that underpin FORREX - we read them aloud and then there was some agreement that indeed they were being addressed.

5th Topic- We live in an information age- what can FORREX do to help people better use the information it provides?

- ▶ The data provided by FORREX could be better categorized
- ▶ The web resources seem to be duplicated everywhere so FORREX needs to be specific in this research so that the end users can find what they need (if it is there).
- ▶ There is a need for an **abstract to summarize the research topic** to give the encapsulated information – makes for an easier method of learning that would allow those in time constraints to better use the FORREX Information. (The participant had LINK in his hand and was referring to it).
- ▶ If extension is about education- the question is raised as to the provision of continuing education.
- ▶ There is a gap in what is available since the program of CSN (Continuing Studies Network) dropped.
- ▶ The recent issue of BCIT dropping its forestry program makes this topic all the more relevant.
- ▶ It was suggested that FORREX could be a central clearing place for Continuing Education training to be organized and facilitated in central offerings that use existing college and university facilities- just minimize the doubling up of trainings needed by individual users- re safety training, fire suppression etc.,
- ▶ FORREX's offerings do not need to be broader, but rather FORREX could coordinate and perform as a liaison for the education resources being proffered.
- ▶ Use the website to share the information about the courses being published.
- ▶ Post the other forms of extension that are going on in the Province- not solely FORREX's own courses.
- ▶ Question of tech transfer issues that have prevailed over time was raised. In fact the information through the Internet is more current and useful rather than published material, which was seen as less useful. Another comment disputed that view and the person said that both published and Internet material hit the target- so both are important.
- ▶ The universities can better tune to the forest sectors education needs. FORREX could better be the go between.
- ▶ Perhaps some of the FIA money would be better used to fund college supported training

An Indigenous voice was added to the focus group with the arrival of a person from the Spallumcheen band.

He noted a forum to work with First Nations Forestry council had been held. There was discussion about what the needs are but this seemed to go nowhere. Results weren't reported back. There was a top down discussion where the outcome never reached the Indigenous participants. How is that participation used by FORREX?

A big issue is lack of use of Traditional Knowledge. It is important that Indigenous peoples get their own practices recognized as being science- just from another modality. The fact is illustrated by the story about a science-based experiment planned to test results of fire suppression and controlled burning. Indigenous knowledge already exists that illustrates the value of the practice.

Aboriginal people need to be supported in working with the research grant work. That capacity is slowly being built up. Some access to resource tenure had changed this. It makes sense to develop in aboriginal communities the capacity to work with the research and be involved. The accreditation of science comes into question here. As there is a need to acquire the traditional knowledge, the input from First Nations is essential and evidently needed.

6th Topic: What could be done to improve PFEP/FORREX?

- ▶ The aboriginal resource worker is very much missed and needs to be replaced. He performed the immensely important task of being able to work well within forestry communities and to know the needs of the indigenous peoples (to a great extent). It has been two years and that is too long since he left the position. FORREX- seems to have dropped the ball in that area.
- ▶ Again the question of how TEK may be funded and the need for direct involvement provincially needed.
- ▶ There could be more focus on developing working relationships with Indigenous Peoples in cooperative research and land management questions.
- ▶ The present use of non- aboriginal researchers for research for topics involving aboriginal people was raised and seen as inappropriate.

All participants agreed that FORREX has a difficult challenge and that for the most part there is no major issue with the extension services. The main theme suggested fine-tuning what is being done. The challenge FORREX faces in providing such an industry with extension is enormous, particularly as there are competing sources of forestry extension available. Suggestions supported by most participants included refocusing on selected end users and delivering the training through revitalized Continuing Education.

There is a real benefit to the website and the information transfer technologies available today. As the practitioners make the effort to use it, it likely can be shaped more to the needs of its broader public.