

Evaluation of the Innovative Forestry Practices Agreements Program

May 23, 2006

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Executive Summary

Introduction

The Innovative Forestry Practices Agreement (IFPA) program was announced at a time when there were growing concerns that the flow of benefits from forestry-related activity could not be sustained. The timber supply was being constrained by implementation of the Province's Protected Areas Strategy, by land use plans which were placing greater emphasis on non-timber objectives, and by the Forest Practices Code which was posing additional management constraints.

The impetus for IFPA's was 1994's Forest Renewal Plan which recommended new approaches to resource stewardship and presented a plan for renewing the forests of British Columbia. One of the commitments made in the plan was to "pilot programs to enhance the sense of long-term commitment that licencees have for specific operating areas. In response, government received three unsolicited proposals from licencees

We believe that the operational goal of the IFPA was to optimize available timber supply for specified operating areas within TSA's. The goal was to be achieved through a number of objectives: - enhanced quality and efficiency of forest resource management, increased forest productivity and new approaches that enhance licensee commitment. In practice, the objectives are expressed in a range of ways and also included job creation, sustainable forest management, community involvement and other non-timber values.

The Ministry entered into eight IFPA's from 1997 to 2001, three with individual companies and five with groups representing licencees in Timber Supply Areas. Approximately \$77 million in provincial funds has been spent on the pilot program since inception.

For the purposes of this summary, we have organized the report into five sections: - program design, program results, timber administration, program management, and cost effectiveness and ROI.

Program design

There was a clear rationale for the IFPA pilots – if productivity of the land could be improved through innovative techniques some of the consequences of the loss of productive forest land would be mitigated; and, there was money in the FRBC super stumpage account to fund licencees to pursue the innovation.

The broad objectives provided for a broad range of activities, consistent with the legislation. The legislative and regulatory framework for the IFPA pilots generally enabled the activities required to achieve the central objective of the program. But the IFPA program contained an incentive structure that encouraged inventory activities that absorbed a substantial portion of the IFPA program resources, were not shown to have added to forest productivity and yet were the basis of awards of AAC uplifts.

Program results

Investments were made in a wide range of activities, including investments in inventory, enhanced silviculture, habitat studies, sustainable forest management systems and First Nations studies. The major investment was in inventory composition and growth data, resulting in AAC increase or maintenance in the face of environmental and social constraints. In addition, the

program has promoted the improvement of TSA management and working relationships between TSA licencees, and in some cases has contributed to better relations with First Nations.

The Merritt IFPA is an example of a significant success in creating and advancing opportunities for meaningful First Nation involvement in the operation and management of a TSA for the benefit of existing licencees and First Nations. However, the IFPA program was not designed, nor intended, to generate timber volumes that would be available to accommodate First Nations' interests. The use of IFPA's for this purpose is unlikely to be a long term or predictable way of responding to the general need for such volumes - another means to obtain these volume should be found.

The IFPA program improved the capacity to manage forest resources within defined areas on TSA's and there is evidence that this new capacity is being used to optimize the flow of benefits derived from it. However, the initial objective of enhancing forest productivity was not realized in any substantial way since an AAC uplift was much more easily achieved through inventory work. The incentive system for IFPA's has resulted in most resources being directed at inventory work – "the low hanging fruit", and no attempt has been made to find an alternative means of introducing innovative productivity enhancing practices in TSA's.

When assessed against typical public/private partnership criteria, the IFPA pilot program is deficient in its risk/reward equation and its effective use of the competitive market for procurement. Licencees funding contributions to the program were not material, and uncertainty around the reward for performance in each activity reduced the value of the incentive.

Projects and strategies integral to IFPA's could have been funded and implemented in the absence of an IFPA agreement. However, to our knowledge progress has been much slower for initiatives pursued outside of the IFPA vehicle. For this reason we feel that the impacts generated through the IFPA program can generally be considered incremental in the short-term.

Timber Administration

The main issues for timber administration are how the IFPA's were awarded, the confusion created when parties other than the Chief Forester can determine AAC, and the issue of permanency of AAC following uplifts under IFPA's.

The first three IFPA's were directly awarded. The Ministry then competitively awarded the next four, before directly awarding the final IFPA. There was no single procurement strategy and concerns were expressed that the rationale for selecting IFPA's was inconsistent. In the context of the benefits potentially available under the program, the concern over program inequity is an issue of some significance.

The legislation provides for the Regional Manager (now Regional Executive Director or RED) to review uplift applications and to award/allocate AAC to IFPA holders, based on the impact that the strategies were having on productivity. Any increased AAC remains in place during the term of the agreement, subject to periodic review of AAC by the Chief Forester. The ability of the RED to allocate AAC has created confusion and/or ambiguity in the administration of timber supply. Determinations of AAC should be made exclusively by the Chief Forester.

There are serious issues with respect to the permanence of uplifts. It is unclear as to how this confusion developed. However, business investments and transactions appear to have been consummated on the basis that the uplift was a permanent allocation of an interest in the TSA and working relations have been established with First Nations on the basis that the uplifts were permanent allocations. The Ministry should review these allocations.

Program management

Government responsibility for the overall IFPA program was divided between Forest Renewal BC and the Ministry, between funding and stewardship respectively. Ministry Head Office had little to do with the program – it was largely devolved to the regions, and no staff resources were added for the Ministry's administration of the program.

Division of management responsibilities reduced the effectiveness of program management. The Ministry did employ control at the approval point for Forestry Plans and at the point of an AAC uplift (or maintenance) request. However, the Ministry chose to manage the IFPA pilots on an individual basis rather than as a program. The failure to develop performance measures and to require and enforce regular progress reporting limited the Ministry's ability to learn and monitor progress of the IFPA pilot program as a whole, and to demonstrate the success of the program.

The Ministry's approvals of uplift submissions addressed the achievement of standards and adherence to aspects of forestry plans, and audits by Forest Renewal and later under the Forest Investment Account addressed contract performance. Therefore, despite this diffuse management control, there was generally substantial project progress and funds were expended in reasonable adherence to each IFPA's approved plans. There was generally a high level of compliance with legislative, regulatory and agreement requirements.

Finally, the IFPA Program evolved to be primarily an inventory program, and no attempt appears to have been made to respond to this design flaw by adjusting the incentive structure to cap the eligible AAC uplift attributable to data collection.

Cost Effectiveness and ROI

Most of the IFPA activity was in inventory work. In substance, many of the IFPA's became inventory contractors to the Crown and the effect was to have let sole-source contracts. We believe that the inventory work would have been completed more cost effectively, and to a more consistent standard, had the Ministry managed the inventory work more directly.

There are outcomes of the IFPA pilots that have been achieved in what we consider to be a cost effective fashion – improved First Nation relations and TSA management. We do not believe that either of these activities could be effectively analyzed using the return on investment method. Accurate inventory data is a necessary cost to effectively manage the forest resource and is justifiable on that basis.

1 Introduction

The government of British Columbia (“the Province”) has retained ownership of over 95% of the provincial land base and forest lands. Interest in optimizing the value derived from this asset was expressed as early as 1910, when a Royal Commission identified the need to ensure that the Province reinvested a portion of the revenues generated from the forest resource to ensure a continued flow of benefits. The Commission recommended that the Crown be responsible for managing the resource because it was more likely to have a long-term perspective, as opposed to what it saw as a shorter-term view in the private sector. The Commission recommended that Crown revenues generated through the allocation/sale of timber rights be put into a fund that could be drawn on to finance forest resource management activities and remain free of the vagaries of the annual budgeting process.

The Forest Service was established shortly afterwards and a formal tenure system was introduced in 1912. Since that time, the Province has revisited the problem of how to optimize the value generated from British Columbia’s forest resource over the long-term and how to fund strategies to do so. The introduction of the Tree Farm Licence (“TFL”) in 1947 was a significant policy development. It was premised on the belief that providing substantial certainty of tenure would result in private sector forest managers adopting a long-term perspective and making necessary investments in the forest to sustain its value. Within a few short years, most of British Columbia’s current TFL’s had been awarded and currently approximately 20% of the AAC for the province comes from TFL’s.¹

The remainder of the current cut originates from a range of tenures including forest licences, BC Timber Sales, private lands, woodlots licences, community forests, pulpwood agreements and major timber sale licences. Of these, forest licences account for over half of the cut in British Columbia. Forest licencees have the right to harvest a certain volume of timber and the Crown retains the responsibility for management of the licence which it does as part of a larger Timber Supply Area²

The Innovative Forestry Practices Agreement (IFPA) program was announced at a time when there were growing concerns that the flow of benefits from forestry-related activity could not be sustained. The forest sector was facing many new challenges including:

Implementation of the Province’s Protected Areas Strategy was leading to the removal of lands from the forest land base;

- Land use plans being developed through the Commission on Resources and Environment (CORE) were placing greater constraints on the forest land base in order to maintain or achieve non-timber objectives (environmental values, community and cultural heritage values and non-timber resource values); and
- The Forest Practices Code was increasing the cost of doing business on the land base and posing additional management constraints.

The impetus for IFPA’s was 1994’s Forest Renewal Plan which recommended new approaches to resource stewardship and presented a plan for renewing the forests of British Columbia.³ One of the commitments made in the plan was to “pilot programs to enhance the sense of long-term

¹ The State of British Columbia’s Forests – 2004.

² The State of British Columbia’s Forests – 2004.

³ The Forest Renewal Plan followed the CORE regional planning processes, implementation of the Protected Areas Strategy and the aborted plan to convert volume-based tenures to area based tenures in British Columbia.

commitment that licencees have for specific operating areas.”⁴ In response, government received three unsolicited proposals from licencees (Weyerhaeuser Company Ltd., Lignum Ltd., Interfor).⁵

Subsequent policy deliberations led to a firm government commitment to fund the IFPA pilots. In consultation with the Ministry of Environment, Lands and Parks and pilot project proponents, the Ministry of Forests (the “Ministry”) developed a legislative and regulatory framework to enable and guide IFPA’s (Section 59.1 of the Forest Act and the associated B.C. Reg 197/97.). IFPA’s were then included as a key element of the Jobs and Timber Accord announced in 1997 and a decision was made to expand the pilot.

While the first three pilots were approved through direct award, subsequent pilots were selected through a competitive tendering process. The Okanagan IFPA, which was the last one approved, was procured through a direct award

At present the program consists of eight pilots:

- Lignum (announced 1997);
- Arrow (announced 1998);
- Adams Lake (announced 1997);
- Hope (announced 1997);
- Merritt (announced 1998);
- Vanderhoof (announced 1999);
- Morice-Lakes (announced 1999); and
- Okanagan (announced 2001).

1.1 Evaluation Terms of Reference

This evaluation examines the IFPA pilots and assesses their effectiveness and identifies lessons generated through the pilot program that can be used to inform policy and program design within the Ministry.

1.1.1 Evaluation Objectives and Issues

The objectives of this evaluation are to review:

- The purpose and objectives of IFPA’s;
- How effectively the IFPA program was implemented; and
- The extent to which the program is achieving its objectives.

For each of these objectives, the RFP identified a number of issues and considerations. The general evaluation issues have been grouped into eight themes which are summarized in Exhibit 1-1.

⁴ Government of British Columbia (1994), *British Columbia’s Forest Renewal Plan*, p. 10. The plan also advocated the need to share responsibility for management of forests.

⁵ It should be recalled that there has been considerable pressure for tenure reform and conversion of volume based tenures to area based tenures. Area based tenures have long been a preference by both industry and some within the public sector. In this regard, the Ministry of Forests proposed implementation of a policy to do just this in 1988. The policy was abandoned quickly following significant opposition, and policy reform has remained an issue since.

Exhibit 1-1: Summary of Evaluation Themes and Issues

Evaluation Themes	Evaluation Issues
1. Program rationale and relevance	<ul style="list-style-type: none"> Was the program a rational response to an identified need? Is the program still relevant?
2. Clarity and Appropriateness of Program Purpose (objectives/planned results) and Program Alignment	<ul style="list-style-type: none"> Are the intended results (objectives or outcomes) clear at the program and IFPA levels? Are objectives at each level in alignment?
3. Program Policy and Administration	<ul style="list-style-type: none"> Does legislation, policy, guidelines and Forestry Plans enable the achievement of objectives? Do IFPA holders and the Ministry conform to legislation, policy, guidelines and Forestry Plans? Was program management effective and consistently carried out?
4. Capacity to Deliver	<ul style="list-style-type: none"> Is (was) there sufficient resources to achieve the intended purpose? Is (was) there sufficient capacity and capability to manage and deliver the pilots?
5. Efficiency and Effectiveness of Delivery Model	<ul style="list-style-type: none"> Compare efficiency between Forest Renewal BC and FIA models How have single licensee IFPA models compared to multi-licensee models?
6. Achievement of Purpose a. IFPA Level b. IFPA Pilot level	<ul style="list-style-type: none"> To what extent have program objectives been achieved (consider short and long-term benefits)? Are methodologies for estimating impacts appropriate? What factors have had the greatest impact on effectiveness?
7. Cost-effectiveness	<ul style="list-style-type: none"> What is the rate of return for the program?
8. Effectiveness of Performance Measurement	<ul style="list-style-type: none"> Are there performance measures? Are they appropriate, useful and used?

1.2 Approach

The evaluation was undertaken in two phases.

In the first phase a preliminary review of file materials was undertaken. Files covered the IFPA program since inception and included files held in Victoria and at the regional level. Preliminary interviews were also conducted to collect basic information about the program and the results desired from the evaluation. This information was used to develop a workplan which was then presented to the Ministry steering committee.

In the second phase of the evaluation, the workplan was implemented. This included:

- Site visits to seven of the eight IFPA's, which included in-person interviews with representatives from IFPA's and interviews with regional and district staff from the Ministry involved in the delivery and management of IFPA's;
- Supplementary interviews with Ministry staff; with representatives from forest companies involved in the IFPA pilots; and with executives of forest companies that had no involvement with IFPA's;
- Additional focused file review to supplement the research conducted in phase 1; and
- Assessment and analysis of the data and information collected through the course of the evaluation.

1.3 Report Outline

The remainder of the report is organized into six chapters as follows:

- Profile of the IFPA pilot program;
- Profile of the individual pilots established through the program;
- Assessment of key issues
 - Program rationale and relevance-
 - The enabling frame work
 - Program delivery
 - Enhanced productivity
 - Cost effectiveness
 - Incentive structure
 - Non-timber values
 - Performance measurement
 - Cost Effectiveness;
- Conclusions; and
- Moving Forward – Achieving an appropriate level of Investment in British Columbia's forest resource.

2 Program Profile

2.1 Goal and Objectives of the IFPA Pilots

The IFPA pilot program was announced on July 12, 1996.⁶ The Innovative Forestry Practices Experimental Trial was “aimed at improving forest productivity and increasing jobs” according to the Forests Minister of the day, David Zirnheld. The initiative was portrayed as a key piece of the Jobs and Timber Accord and in the backgrounder to the program it was noted that: “The Forest Service will monitor the experiments and assess them after five years, or earlier if appropriate, to determine their effectiveness in meeting the goals of the Jobs and Timber Accord.” In broad terms, the accord committed industry and government to “create and sustain jobs with new investments to increase the growth, yield and value of available timber, and by adding more processing value to that timber.”⁷

While we had difficulty finding a consistent and formal statement of goals and objectives for the program, we believe that the operational goal of the IFPA was to optimize available timber supply for specified operating areas within TSA's. We see the following objectives as ways in which the goal was to be achieved:

- Enhanced quality and efficiency of forest resource management for specified operating areas within TSA's;
- Increased forest productivity for specified operating areas within TSA's; and
- New approaches that enhance licensee commitment (i.e., investment and planning horizon) for specified operating areas within TSA's.⁸

In practice, the objectives are expressed in a range of ways and also included job creation, sustainable forest management, community involvement and other non-timber values. (We discuss the clarity of program objectives in our findings section.)

2.1.1 Eligible Activities

The Innovative Forestry Practices Regulation specifies innovative practices and regulations that may be the subject of an agreement under Section 59.1(1) of the Forest Act. In broad terms, the regulation considers all practices that are beyond what would normally be undertaken by the licensee at the time that the agreement was signed.

⁶ Province of British Columbia News Release (July 12, 1996), “Amendments to Make Better Use of B.C. Forests.

⁷ Ministry of forests News Release (January 8, 1998), Five Kamloops-Area Companies Sign Agreements to Keep Jobs, Increase Wood Fibre.

⁸ Ministry of Forests (July 31, 1998), *Innovative Forestry Practices Agreements Handbook (draft)*, p. 4. According to the handbook, the primary objectives of the pilots were to:

- To test new and innovative forestry practices intended to improve forest productivity
- To encourage designated licensees to carry out the forest practices by offering them the opportunity to apply for an increase to their allocated harvest levels to enhance and maintain employment in the forest industry.

They include:

- (a) the implementation of harvesting methods or silvicultural systems that may increase the total amount of timber available to harvest in the timber supply area, or reduce the loss of productivity associated with permanent access structures;
- (b) activities that result in the establishment of free-growing stands on
 - previously unforested areas, areas that are below stocking requirements and are not part of the holder's free-growing responsibilities; or areas that have stands of timber with repressed growth or that contain brush or species that are not commercially valuable, and are not part of the holder's free-growing responsibilities;
- (c) silviculture treatments on free-growing stands;
- (d) silviculture treatments on sites that are not free-growing in order to produce stands that exceed current growth performance or standards;
- (e) the collection and analysis of new data, to provide a more accurate representation of the forest composition and its rate of growth.
- (f) activities that will enhance and protect other resource values, including, but not limited to: water, fisheries, wildlife, biological diversity, soil productivity and stability, forage production, grazing and recreation values.

2.2 Logic of the IFPA Pilots – Increased Productivity and More Efficient Forest Resource Management

Program logic models are used in evaluations to help illustrate how programs work towards stated objectives. Generally, a program logic model will identify the key activities enabled through the program and then illustrate the cause and effect relationships that are necessary to achieve program objectives. While there are a whole range of activities funded through the program, we are interested in illustrating how program activities work towards the central objectives of increased forest productivity and more efficient (and higher quality) forest resource management.

The Ministry and industry anticipated that a range of strategies could be pursued to achieve these objectives including:

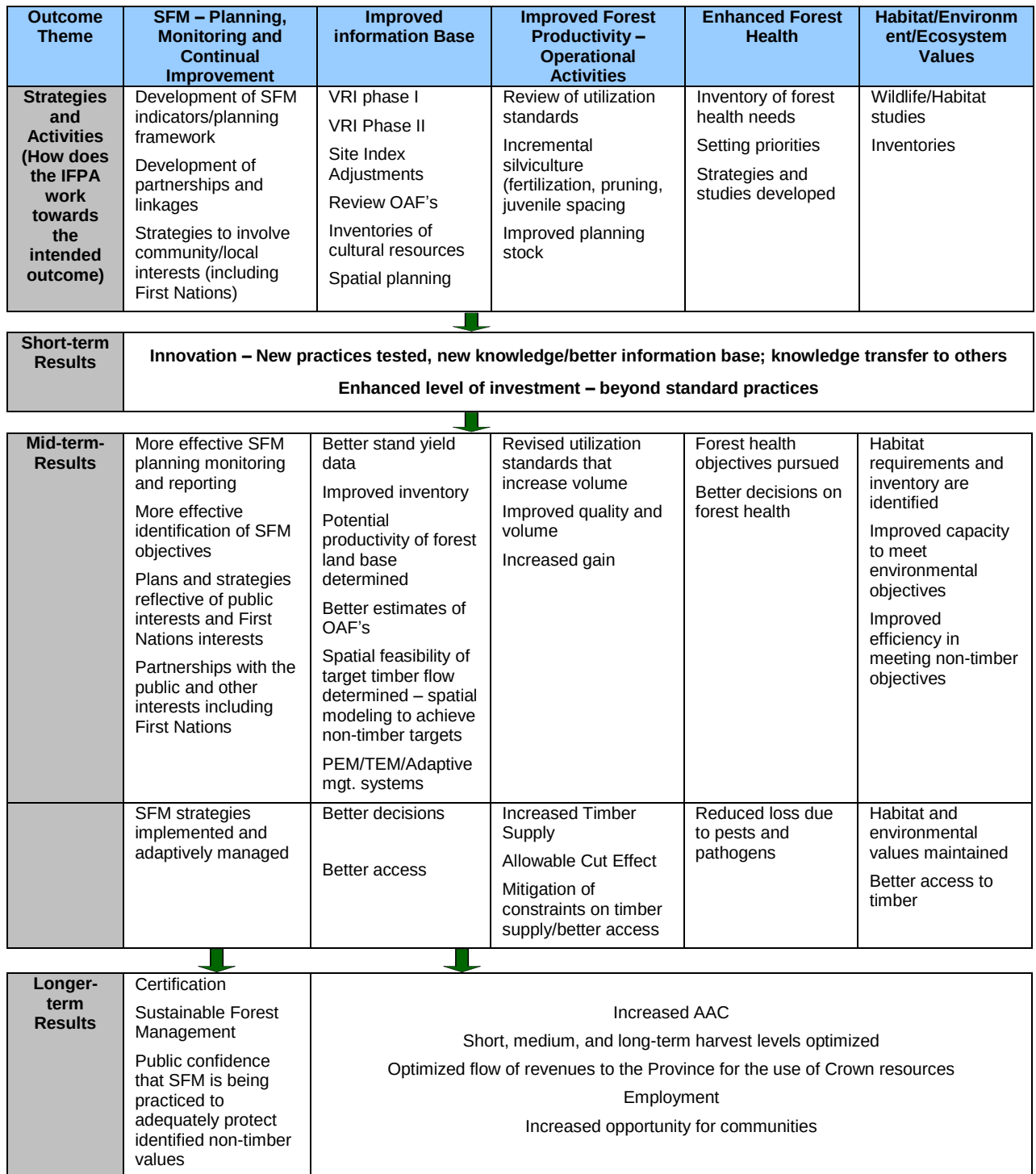
- Improving the information base, including improved inventories;
- Improved planning and management;
- Silvicultural enhancement (through stand tending or stand harvesting); and
- Enhanced forest health and habitat values.

These activities are expected to lead to a range of core outcomes including:

- Increased productivity;
- Increased timber supply;
- Fewer access constraints;
- Improved ability to manage forest resources; and
- Increased AAC.

The logic is illustrated below, in Exhibit 2-1.

Exhibit 2-1: IFPA Logic Model – Increasing Forest Productivity



2.2.1 Increased Licencee Commitment to defined Operating Areas within TSA's

In order to achieve the results identified above, the program aimed to increase licensee commitment to the program through the negotiation of agreements that provided IFPA holders with an opportunity to apply for an uplift in their AAC following the development and implementation of strategies to improve forest productivity or to mitigate anticipated timber supply shortages, and improve the stability of their fibre supply.

2.3 IFPA Pilot Program Development – Structure and Delivery

2.3.1 Enabling Framework – Provincial Level

Development of the pilot was initially stalled by concern within government that agreements to provide licensees with increased assurance that they would be provided the benefits of incremental investments on the land base in TSA's could not be negotiated under the terms of the then current Forest Act.

As a result, various options were reviewed including tenure conversion; doing nothing until a broader review of tenure policy was completed; and implementing changes to the Forest Act to enable area based management on TSA's. While there was much debate on the relative merits of each option, the Province eventually settled on the IFPA model.

The IFPA pilots were enabled through an amendment to the Forest Act, development of the supporting Innovative Forest Practices Regulation and legal agreements negotiated with holders of replaceable forest licences.

2.3.2 Implementation

IFPA holders were required to submit Forestry Plans within 24 months of signing an IFPA agreement. The Forestry Plan specifies the innovative forestry practices to be undertaken under the IFPA and it is on the basis of these practices that an application for an increase in AAC would be based. According to the IFPA handbook, the Forestry Plan “defines the forest management strategy the IFPA holder will follow to improve the productivity of the forest resource.” The plan also “describes what, where, how and when innovative forestry practices or other activities will be undertaken, culminating in a request for an increase to the IFPA holder's allocated harvest level.”

Once approved, IFPA holders were eligible for IFPA program funding to implement the plan. In order to access these funds, IFPA holders were required to submit an annual work plan and report.

As implementation progressed, IFPA holders could submit a Plan amendment, in which an uplift to the IFPA holder's AAC could be requested, based on the impact that the strategies were having on productivity. These requests were then reviewed by the Regional Manager (now Regional Executive Director or RED). Regional AAC decisions were then made specific to IFPA holders. The RED has the power to limit the AAC decision as specified in the Regulation and IFPA Agreements.

2.3.3 Funding Sources for the IFPA Pilots

The implementation of the IFPA program was dependent upon Forest Renewal BC funds and a specific program and funding envelope to support the IFPA Program initiative was established. Forest Renewal BC and its programs were wound down in 2001/02 and replaced by the Forest Investment Account (FIA), which then became the primary funding vehicle for IFPA's.

Funding was provided through the following sources.

1. Forest Renewal BC funded the development of forestry plans and their implementation from initiation in 1997/98 to 2001/2002.
2. The Forest Investment Account, established in 2001/02, began to flow funds in 2002/03.
3. IFPA holder funds and in-kind contributions.
4. A range of other programs (federal and provincial) and contributions from government agencies including:
 - Ministry of Sustainable Resource Management;
 - Forestry Innovation Investment (Research Program);
 - Federal research programs; and
 - Western Economic Diversification.

Forest Renewal BC funding has accounted for approximately 80% of total expenditures to date by IFPA pilots and FIA has accounted for approximately 20%. Direct funding from IFPA holders was not material, however, they made in-kind contributions to program administration and management.

As an IFPA holder, a licensee could receive funds from Forest Renewal that were in addition to other available funding by the corporation. So, in essence, IFPA holders were able to access significant funding sources within Forest Renewal that were not available to others.

We were unable to determine with precision the actual expenditures over the life of the program because complete financial records are not available at a level of detail to support analysis. There are a number of reasons for this.

- While IFPA holders were able to access Forest Renewal's IFPA program, they also continued to be eligible for other funding from the Enhanced Forestry Program, the Watershed Restoration Program, the Research Program and the Inventory Program, which were also administered by Forest Renewal. The Handbook prepared for the IFPA program encouraged licensees and government to fund IFPA program activities through other funding envelopes whenever possible before accessing the IFPA program. For this reason, it is not easy to determine definitively how much funding was received by IFPA holders as IFPA holders.
- Once Forest Renewal's programs were wound down, IFPA holders accessed the newly created Land Based Investment Program (under the Forest Investment Account). There has been no specific IFPA envelope within this account.
- In two of the IFPA's, activities were administered by consultants who are no longer in place. Complete financial records are not available in these cases.
- In many projects there was an overlap between strategies, in that a project could address, for instance, an inventory objective and also a sustainable forestry management objective. Distinguishing between these overlapping objectives, in the absence of criteria, would be arbitrary.
- Provincial administration was performed by the Ministry and Forest Renewal BC, with the involvement of the Ministry of Environment, Lands and Parks. None of the agencies tracked their time costs.

Inaccessible data reduces the ministry's ability to assess the performance of the pilot program. Although we see evidence of reasonable management by the Ministry for each IFPA, one of the weaknesses in program management is the inability to determine overall government expenditures on the IFPA program.

2.3.4 Program expenditures

We estimate that IFPA's have received approximately 77 million dollars in program funding over the 1997-2005 period. Expenditures were highest in the first few years of the program when groundwork was undertaken to develop Forestry Plans and in the first few years of implementing the plans. Program expenditures by IFPA are identified in Exhibit 2-2.

Exhibit 2-2: Expenditures by IFPA

IFPA	Total (\$ millions)
Lignum	24.8
Interfor-Adams Lake	6.4
Interfor – Hope	3.4
Merritt	11.9
Arrow	6.8
Morice Lakes	10.6
Vanderhoof	6.9
Okanagan	6.5
Provincial Administration	Unknown
Total	77+

The funds were invested into a range of strategies. The majority of funds however were invested into the development of better inventories and information about forest composition and growth.

Exhibit 2-3: Expenditures by Strategy

Strategy	% of Total Budget
Inventory, composition and growth	60-80%
Other: <ul style="list-style-type: none"> • Silviculture investments • Habitat studies • SFM management systems • First Nations partnerships/studies 	40-20%
Total	100%

3 FPA Pilots – An Overview

This section presents a brief profile of each of the pilots:- what they were trying to do, structure, achievements to date, and key issues.

As the discussion illustrates, a range of delivery models including single and multi-licence formats were tested. Geographic, ecosystem and forest composition varied considerably. Some IFPA's were quite small and included only a part of a TSA while others encompassed a whole TSA and in the case of Morice-Lakes, two TSA's. As will be seen in the discussion of each IFPA below, there were also a range of objectives and management philosophies at play. Consequently, the strategies to enhance productivity have to be viewed within the particular IFPA context.

3.1 Lignum IFPA

The Lignum IFPA was officially announced in 1997, the same day that the Province's Jobs and Timber Accord was announced. This was the culmination of several years' effort which began when the company submitted a proposal for managing its operating areas within the Williams Lake and 100 Mile House Timber Supply Areas more intensively in return for greater security over the land base. This proposal was submitted in response to the Province's Forest Renewal Plan announced in 1994.

The primary objective of the IFPA was to put in place an approach to managing the land base that would support implementation of the Cariboo Land Use Plan, and at the same time mitigate the constraints posed by the plan's non-timber objectives. The IFPA supported Lignum's vision which was: "Sustaining the ecological integrity of the forest ecosystem while maintaining long-term profitability through fibre security and sawmill configuration".

The goals of the IFPA were to achieve sustainable management of timber and non-timber resources, increase the timber supply and maintain and enhance local employment in resource management and wood processing.

The IFPA adopted the philosophy that by looking after biodiversity and habitat requirements first, a sustainable timber supply would be achievable and higher than if a less focused approach to planning was pursued. This philosophy was reflected in the forestry plan which adopted a longer-term view of how to achieve an increase in the AAC. Lignum aimed to create a performance based, adaptive management approach to managing the forest resource. The approach was data intensive and required considerable investment to create the necessary inventories, understand habitat requirements and develop regimes that could be used to manage to defined forest resource values and targets.

The practical problem that the IFPA was attempting to solve was how to implement the Cariboo Land Use Plan and its associated non-timber targets. These targets posed constraints to forestry and the company felt that there were opportunities to adopt innovative approaches and tools to address constraints and to do a better job of working towards the non-timber targets.

The forestry plan was approved in June 2000 and pursued strategies in seven key areas:

- Inventories;
- Ecosystem management planning;
- Silviculture;

- Monitoring and adaptive management;
- Land use planning;
- Forest health; and
- Job creation.

At present, the company's adaptive management framework and supporting systems are close to being operational. Representatives of the IFPA note that the system is now being employed to help maintain key non-timber values and mid-term and longer term harvest levels in the wake of the MPB infestation.

In the short-term, the IFPA believes that the MPB infestation and necessary control strategies have had the effect of mitigating the access constraints originally posed by the land use plan. However, the company notes that if social licence is to be maintained, a continued commitment to maintaining non-timber values will be necessary, and the legacy of the IFPA to date is the provision of knowledge and management tools that improve the capacity to do this.

As the IFPA looks forward, they anticipate applying for an uplift which could include MPB control strategies and alternative silvicultural systems for the management of Interior Douglas-fir stands.

3.2 Interfor - Hope and Adams Lake IFPA's

Interfor submitted a proposal for area-based management in two of its divisions (Adams Lake Lumber and Hope Logging). The proposal was submitted in response to the Forest Renewal Plan, around the same time that Lignum and Weyerhaeuser had submitted their proposals. IFPA agreements were negotiated in 1997.

3.2.1 Hope

The Hope IFPA covers three landscape units within the Fraser TSA. The primary purpose of the Hope IFPA was to mitigate a timber supply deficit that was expected in the short-term. Prior to the establishment of the IFPA, it was expected that the TSA would experience a further decline in AAC of approximately 25% in Timber Supply Review 3 (TSR3), following the 18% decline already realized in April 1999 through TSR2, in which the AAC was reduced from 1,550,000 to 1,270,000 m³.

The IFPA forestry plan was approved in December, 1999 and three strategies viewed as critical to addressing timber supply issues were subsequently implemented.

- Vegetation Resources Inventory (VRI) determined that the standing mature timber volume was 10% higher than previously tabulated;
- Site index work resulted in a 22% increase in adjusted site index; and
- Biogeoclimatic subzone lines were revised through TEM (terrestrial ecosystem mapping) to improve the quality of site productivity estimates.

The updated information was considered in the Chief Forester's determination for the Fraser TSA in TSR3. In that determination, the Chief Forester noted that, "with the new information applied the base case forecast projected that the current AAC of 1.27 million cubic metres per year can be maintained for 140 years."⁹

All licencees in the TSA benefited from the work of the IFPA in so far as the strategies employed through the IFPA helped to mitigate downward pressures on the Timber Supply. Interfor is no longer active in the Fraser TSA, as a result of an exchange of volume and licence. There has been some interest by First Nations in taking over the Hope IFPA.

⁹ Fraser Timber Supply Area – Rationale for Allowable Annual Cut Determination – August 1, 2004 Pages 7 & 8.

3.2.2 Adams Lake

The Adams Lake IFPA was approved in 1997 and covers parts of the Kamloops and Clearwater Forest Districts and is part of the Kamloops TSA.

The vision for the Adams Lake IFPA is “to increase the allowable annual cut of the Adams Lake Division while maintaining and/or enhancing non-timber values such as fish, water, wildlife, and recreation in a manner that is acceptable to the general public.”

A full-time project manager was appointed to manage the IFPA and a multi-agency steering committee was established in support.

Forestry Plan #1 was released in April, 2000. With the winding down of Forest Renewal BC and the gearing up of the new FIA, the Adams Lake IFPA saw a significant drop in its budget (from \$2,000,000 down to \$340,000). This caused the IFPA to scale back the scope of its workplan.

In June of 2002, the IFPA holder was awarded an uplift of 14,870 m³ (one half of what was requested). The IFPA continued to work towards a supplemental uplift so that it could satisfy a draft arrangement reached with local First Nations in which Interfor would receive the first 15,000 m³ and First Nations would receive the second 15,000 m³.¹⁰ In response to the determination, Interfor submitted a request for a further 38,211 m³ uplift.

Since, the transition from Forest Renewal BC to FIA funding, the IFPA has scaled back its program significantly.

3.3 Merritt

The Merritt IFPA was the first multi-licencee pilot established through the program. Weyerhaeuser proposed an arrangement similar to the Lignum and Hope IFPA's whereby the company would manage its operating areas within the Merritt TSA in a manner which would result in incremental productivity enhancements and employment, in return for increased security over the right to any benefits resulting from licensee investments.

Regional staff encouraged the company to expand the proposal to encompass the whole TSA.

The licencees worked closely with the First Nations communities in the area from the start and this was formalized through the non-profit society that was established to manage the IFPA on behalf of IFPA holders - The Nicola-Similkameen Innovative Forestry Society.

The First Nations partnership was viewed as critical to the success of the IFPA. Ardew, the holder of a small replaceable Forest Licence, had its licence partitioned and 1,000 m³ of its licence was transferred to First Nations. Thus the First Nations would hold a replaceable forest licence and could participate in the IFPA and any benefits it might receive in the way of AAC increases. The Society was an active participant in this arrangement and the Ministry was supportive.

The Forestry Plan was approved in January 2001 and the society has applied for two uplifts under the IFPA. The first application was made in December 2001 and requested a total uplift of 430,000 m³. Further work was requested by the Ministry and this was provided by the IFPA in May of 2003. The Ministry reviewed the application and a regional determination was made on January 1, 2004 which resulted in an increased AAC of 330,700m³. The uplift was generated primarily by strategies that aimed to improve the quality of forest inventory information and through improved site index estimates. This uplift was allocated by the Regional Executive

¹⁰ Presumably, any award to First Nations would be made through means other than the Regional Manager's determination.

Director (RED) according to the sharing agreement negotiated by the IFPA holders. As a consequence, 50% of this uplift went to Stuwix Resources Ltd, the company incorporated to hold the licence on behalf of the various First Nation bands, and the remainder was shared amongst the other IFPA members' licences.

A second application for uplift requested a total increase of 500,000m³. This application was based on MPB management strategies intended to control the spread of infestation in the TSA. This uplift application was reviewed by the RED along with other beetle management strategies and, as a consequence, the RED awarded an uplift of 500,000m³ under the IFPA.

While the uplifts have been significant, IFPA holders in the TSA identify the quality of the partnership and the economic opportunity created through the First Nations partnership as equally important. Ministry staff and society members have noted that the partnerships created through the IFPA have improved business efficiencies, relationships and TSA wide strategic thinking. The IFPA agreements also made it easier for industry and the Ministry to implement MPB management strategies because AAC could be directly allocated under the IFPA rules as opposed to putting it out to bid.

IFPA Partners (IFPA holders unless noted otherwise)	
Ardew Forest Products Ltd. Aspen Planers Ltd. Nicola Tribal Association (NTA) (does not hold an IFPA) BCTS (does not hold an IFPA) Riverside Forest Products Ltd.	Tolko Industries Ltd. Upper Similkameen Indian Band (does not hold an IFPA) Weyerhaeuser Company Ltd. Stuwix Resources Ltd.

3.4 Arrow

The Arrow IFPA was awarded in September 1998 through a formal procurement process requesting proposals from multi-licencee groups. This represented a departure from the direct awards that had characterized the first three IFPA agreements. A Request for Proposals (RFP) was issued and in response, four proposals were received (Arrow TSA, Boundary TSA, Cranbrook and Invermere TSA's, and Kootenay TSA - 5 of the 7 TSA's in the region).¹¹ The public was provided an opportunity to review the proposals and provide feedback to the Province.

The Ministry recognized that the primary role of an IFPA in the Kootenay would be to increase productivity in order to minimize or mitigate declines in Timber Supply. At the time that the RFP was issued, implementation of the Kootenay-Boundary Land Use Plan and the Forest Practices Code were expected to result in a decrease to the AAC, an impact that was likely to be greater in Arrow than in the other TSA's in the region.

The Chief Forester in April 2001 (TSR2) had reduced the AAC in the Arrow TSA from 619,000 m³ to 550,000 m³, and a further falldown was projected to about 470,000 m³ in TSR3. Environmental pressure was also making it difficult for some licencees to harvest at established levels, and there was an interest in demonstrating that wildlife, bio-diversity and other non-timber values were being managed for in a sustainable way.

The objectives of the IFPA per the Forestry Plan (June 3, 1999) were to:

¹¹ Recommendations for Future Innovative Forestry Practices Agreement (IFPA) Pilot Evaluations – Based on the Nelson Forest Region Process, March 18, 1998.

- Integrate the forestry related environmental, social and economic needs of the Arrow TSA; and
- Develop options for maintaining or enhancing ecological function, the AAC and employment over the short and long term.

The main accomplishments of the IFPA were maintenance of the AAC at the 550,000 m³ level, primarily through improvements in VRI (timber typing and growth and yield), and improvement in knowledge, providing for understanding and certainty, particularly with respect to wildlife tree patches and habitat supply. A set of draft criteria and indicators for sustainable forest management (SFM) was also developed.

IFPA Partners (IFPA holders unless noted otherwise)	
Slocan forest Products Ltd. Atco Lumber Ltd. Keleshikoff Lumber Co. Ltd.	Bell Pole Co. Ltd. Riverside Forest Products Ltd.

3.5 Morice-Lakes

The Morice-Lakes IFPA was awarded to six licence holders in 1999 following a formal Request for Proposals from licencees within the forest region. The IFPA area encompasses both the Morice and Lakes Timber Supply Areas

The purpose of the IFPA is to provide a management framework for developing, implementing and monitoring socially acceptable resource management plans by assimilating such strategic needs into a single adaptive management framework for operational planning and implementation. Specifically it proposed to:

- Develop socially acceptable plans and practices;
- Enhance basic drivers of timber supply;
- Maintain environmental values; and
- Implement innovative approaches, affect policy and transfer learning.

The first Sustainable Forest Management (“SFM”) Plan for the IFPA was completed in October 2002. A second version of the plan was completed in 2004 and a third version was completed in November 2005.

Through the work of the IFPA, SFM targets were established drawing on the criteria and indicators proposed by the CCFM (Canadian Council of Forest Ministers). The IFPA manages to the SFM targets and reports on performance annually to the public and licencees. The SFM plans and targets were developed through a series of public meetings and the IFPA continues to promote public meetings and involvement.

The SFM approach currently integrates beetle management strategies and includes indicators and targets to help monitor SFM in the context of MPB infestations. The SFM approach was designed to support licencee efforts to achieve certification. As of fall 2004, three licencees have achieved certification. The IFPA operations are able to support CSA SFM Z809-2002.

An AAC uplift has not yet been requested by the IFPA but there are plans to do so in the future.

IFPA Partners (IFPA holders unless noted otherwise)	
Babine Forest Products Canadian Forest Products Decker Lake Forest Products	Fraser Lake Sawmills Houston forest Products L&M Lumber BCTS (not an IFPA holder)

3.6 Vanderhoof

Following a formal request in June 1998 for proposals from licencees in the Prince George Forest Region, the Vanderhoof IFPA was awarded to five major licencees in the Vanderhoof Forest District. The IFPA is administered by a strategic committee that includes the licencees, the Ministry of Forests' Small Business Forest Enterprise Program (now BCTS), First Nations, local mayors, MOF and MELP. This strategic committee is supported by a technical committee and considers input from a public advisory group (the Stakeholder Committee). An IFPA manager carries out the day-to-day operations and management and coordination of the IFPA.

The overall goal of the IFPA is to "... clearly demonstrate that the Vanderhoof Forest District harvest levels can be increased without compromising the objectives of the LRMP or long-term environmental and forest resource sustainability."¹²

An IFPA Forestry Plan and Implementation Agreement was entered into January 2000 and work on the forestry plan commenced in 2000. IFPA agreements with each licensee were signed in June 2001, effective January 1, 2000. The completed Forestry Plan was submitted in December 2001 and was approved by the regional manager (now Regional Executive Director) in June 2002.

An AAC uplift request was made in August 2002. Based on an assessment of PEM/SIBEC productivity estimates, altered stump height practices, forest genetic adjustments and green up impacts, the RED approved an AAC uplift request of 328,000 m³ in September 2002.

The RED referred in his allocation decision to the Chief Forester's recent decision to increase the AAC in the Prince George TSA by 3 million cubic metres. He noted that the increase is an appropriate response to the mountain pine beetle epidemic, but that the increase was not sustainable in the long run. He also noted that further "timber supply analysis would be required that takes into account the depletions for harvesting and unsalvaged beetle damaged timber". He decided, for those reasons, "that the Ministry will administer the 3 million m³/year AAC increase so that the IFPA uplift does not result in a harvest level in the TSA in excess of that set by the Chief Forester."

IFPA Partners (IFPA holders unless noted otherwise)	
Canadian Forest Products Ltd. Fraser Lake Sawmills Lakeland Mills Ltd.	L&M Lumber Ltd. MOF Small Business Forest Enterprise Program (now BCTS)(signatory to the plan but not an IFPA holder) Slocan Group – Plateau Division

¹² Vanderhoof Forest District IFPA Forestry Plan 2000-2005, p. 16

3.7 Okanagan

On February 18th, 2001 the major licencees in the Okanagan TSA agreed to temporarily forego 5% of their AAC (107,581 m³/yr for 10 years) through a Cooperative Forestry Agreement.¹³ The Okanagan IFPA was negotiated in 2001 as a condition of this Agreement between the Government and the major forest licencees and was a response to government's desire to secure 5% of the current AAC volume to help resolve First Nations issues in the Okanagan TSA. The Province used half of this 5% volume to grant the Westbank First Nation a Community Forest Licence Pilot Agreement and to encourage their continued participation in the treaty process. The remainder of the volume was not allocated.

The Okanagan Innovative Forestry Society (OIFS) was established on July 19, 2001 to implement the IFPA's in the Okanagan TSA. The vision of the Society is "... to pursue sustainable forest management to enhance forest productivity so as to increase the harvest level of the Okanagan Timber Supply Area and sustain economic, social and environmental values for local communities." The Society also made a commitment to support implementation of the Okanagan-Shuswap Land and Resource Management Plan which had been adopted in January 2001.

The OIFS submitted a Forestry Plan on December 20, 2001, which was approved by the Ministry on March 19, 2002.

An application for an AAC uplift totaling 345,000m³ was submitted by the IFPA on January 31, 2003. The key strategies supporting the uplift included:

- Phase II VRI inventory adjustments which showed that mature volumes in the IFPA area were 7% higher than indicated by the current inventory for the productive forest land base; and
- New site index information and managed stand yield tables for dry-belt and wet-belt stands.

In his AAC uplift determination, the RED noted that the short-term proposed AAC increase should be reduced by about 12,800 m³ to account for the Community Forest within the TSA, woodlots, and sites with First Nations spiritual value, which suggests an AAC increase of 332,000 m³ that could be attributed to the innovative forestry practices employed by the IFPA holders.

The RED noted in the determination that "it is not my decision to determine the allowable annual cut for the timber supply area but to determine an AAC increase for IFPA-holders that is attributable to the innovative forestry practices."¹⁴ In making his determination he noted the need to accommodate aboriginal interests and stated, "I find it reasonable that I purposely not award volume to IFPA-holders by 50% of a total of 166,100 m³. The level of reduction, if applied towards First Nation accommodation, will increase the amount of volume of timber that is available to disposition as an economic benefit to First Nations under Forest and Range Agreements within the Okanagan TSA to a level similar to other TSA."¹⁵ This was consistent with the desire expressed by the Okanagan Nation Alliance chiefs to see that "50% of any increase be made available to First Nations."¹⁶

¹³ <http://www.okanagan-ifpa.org/IFPA.html>

¹⁴ Regional Manager (December 5, 2005), Okanagan TSA Innovative Forestry Practices Agreements – Rationale for Increase in Allowable Annual Cut (AAC) Determination – Effective January 1, 2006, p. 34.

¹⁵ Regional Manager (December 5, 2005), Okanagan TSA Innovative Forestry Practices Agreements – Rationale for Increase in Allowable Annual Cut (AAC) Determination – Effective January 1, 2006, p. 35.

¹⁶ Regional Manager (December 5, 2005), Okanagan TSA Innovative Forestry Practices Agreements – Rationale for Increase in Allowable Annual Cut (AAC) Determination – Effective January 1, 2006, p. 29.

IFPA Partners (IFPA holders unless noted otherwise)	
Bell Pole Company Federated Co-operatives Ltd. Gorman Bros. Lumber Ltd. LP Engineered Wood Products Ltd.	Riverside Forest Products Ltd. Tolko Industries Ltd. Weyerhaeuser Company Ltd. Selkirk Timber Company (IFPA awarded in 2002)

3.8 Summary of Results by IFPA

The high level results by IFPA are summarized below in Exhibit 3-1

Exhibit 3-1: Summary of Results by IFPA

IFPA	Results
Lignum	<ul style="list-style-type: none"> Adaptive management tool Support implementation of LUP Improved ability to harvest AAC Uplift application contemplated
Interfor – Hope	<ul style="list-style-type: none"> Mitigation of threat to timber supply: (IFPA had significant impact on maintaining AAC – possible impact about 300,000 m³)
Interfor – Adams Lake	<ul style="list-style-type: none"> AAC determination – Jan. 1, 2003 (30,000m³ ; 14,870m³ to Interfor and remainder was not awarded.) Improved ability to harvest AAC
Merritt	<ul style="list-style-type: none"> Uplift (non-MPB): 330,700 m³ Uplift (MPB): 500,000 m³ First Nations inclusion in the TSA as a replaceable licence holder and receipt by them of AAC allocations of 179,000 m³ non-MPB and 275,000 m³ MPB)
Arrow	<ul style="list-style-type: none"> Support implementation of LUP Maintenance of AAC SFM model contributing to social licence
Morice-Lakes	<ul style="list-style-type: none"> SFM planning model/adaptive management model Mitigate threats to social licence Certification Uplift application contemplated
Vanderhoof	<ul style="list-style-type: none"> Uplift of 328,000 m³, effectively to be administered as part of 3 million m³ increase in the AAC of the Prince George TSA.
Okanagan	<ul style="list-style-type: none"> Uplift awarded to IFPA holders of 166,100 m³; 166,100 m³ in additional AAC capacity identified but not awarded

4 Key findings

The key findings are organized by:

- Program rationale and relevance;
- Program policy and framework;
- Program delivery and management;
- Results;
- Incentive issues;
- Relationships at the TSA and IFPA level;
- Performance measurement;
- Incremental impacts;
- Cost effectiveness; and
- The relevance of IFPA's today.

For each of these theme areas, findings and conclusions are presented.

4.1 Program Rationale and Relevance

4.1.1 Increased Constraints and Timber Supply Shortages

In the mid 1990's, enhancing productivity was viewed as a necessary response to threats to the long-term security of timber supply posed by:

- Land use planning initiatives that were leading to increased constraints to forestry activity - the Commission on Resources and Environment was finalizing regional plans in the Cariboo and Kootenay Boundary regions;
- Implementation of the 1992 Protected Areas Strategy (PAS) which was shifting land from the working forest to parks; and
- New regulations, such as the Forest Practices Code, which were increasing constraints on forestry operations.

The first round of timber supply reviews conducted between 1992 and 1996 concluded that the volume of timber harvested each year in B.C. was projected to decline by 15-20% over the next 60 years. It also concluded that there were opportunities to increase AAC through better utilization, better information about the forest resource and better management.¹⁷

4.1.2 The Emergence of Forest Renewal BC

Canada/U.S. softwood lumber issues led to higher stumpage charges – so called super stumpage – with the incremental charge being retained and managed by Forest Renewal BC (“FRBC”), an agency external to the Ministry of Forests. FRBC was charged with enhancing the forest resource, creating jobs and sustaining communities and the super stumpage provided substantial financial ability to do this.

¹⁷ Timber Supply Review – Background.

4.1.3 IFPA as Response

IFPA's were proposed as a way to enhance productivity on defined areas within TSA's. As well, they were promoted by industry as an opportunity to establish a defined area in a TSA over which there would be a long term commitment for a licensee to perform some management tasks, thus providing the licensee with some aspects of an area based tenure. The Ministry was under continual resource pressure and Ministry officials saw the IFPA pilots as an opportunity to test the transfer of area based activities to holders of volume based tenures to achieve Ministry objectives that were currently not resourced.

Conclusion:

- ***There was a clear rationale for the IFPA pilots – if productivity of the land could be improved through innovative techniques some of the consequences of the loss of productive forest land would be mitigated; and, there was money in the FRBC super stumpage account to fund licensees to pursue the innovation.***

4.1.4 Clarity and Appropriateness of Program Objectives

Based on the *Forest Act*, the objective of the IFPA program is to use innovative measures to enhance productivity of the forest in TSA's (with a resulting increase in the volume and value of the TSA timber supply). In practice, based on the rationale for amounts advanced as IFPA funding, it appears that other results were also foreseen from IFPA investments. These included: employment; environmental and social sustainability; and, First Nations and community involvement. When FIA became the primary funding source, investment in these other results was substantially diminished.

Forestry Plans were developed during the period when IFPA's were funded through FRBC's IFPA Program. As a consequence, many of these secondary objectives are embedded in the plans.

In practice, we see that the IFPA program appears to have been guided by the following key goals and objectives:

Goal: Optimize available timber supply for specified operating areas within a TSA.

Objectives:

- Enhanced quality and efficiency of forest resource management for specified operating areas within a TSA;
- Increased forest productivity for specified operating areas within a TSA; and
- New approaches that enhance licensee commitment (i.e., investment and planning horizon) for specified operating areas within a TSA.

Conclusion:

- ***The “enhanced productivity” objective of the IFPA program is clearly articulated and understood. At the secondary objective level there was less clarity and agreement as to their importance and inclusion in the IFPA pilot program.***

4.2 Program Policy and Framework

Section 59.1 of the *Forest Act* provides for IFPA's. The Innovative Forestry Practices Regulation (B.C. Reg 197/97) sets out innovative forest practices and activities. Section 59.1 of the *Forest Act* has the following key elements:

- For the purpose of improving the productivity of the forestry resource, the Minister of Forests may enter into an agreement to allow a licensee to undertake innovative forestry practices where the licensee has submitted a proposal to the Minister;¹⁸
- Operations under the agreement must be in compliance with the Forest Practices Code;
- IFPA's have a maximum term of 15 years;
- Innovative forestry practices are specified in the regulation;
- Agreement holders must submit a forestry plan describing the management area, the forestry practices and how and when they will be carried out;
- Licence AAC's can be increased by the Regional Executive Director, if justified according to timber supply analysis methodology approved by the Chief Forester. The increase can be limited to a period of time, area of land or type of timber; and
- AAC's can be reduced by the amount approved if the increase is proven unjustified.

The legislation and regulation define a broad range of innovative activities to enhance productivity. Perhaps because the regulation was drafted prior to the impact of the Mountain Pine Beetle there are no innovative activities that directly address prevention or minimization of loss from insects and pathogens.

The linkage between the IFPA regulation and timber supply and AAC is illustrated in Exhibit 4-1. Generally, the IFPA promoted innovation in the areas that are to be considered in AAC determination according to Section 8 of the Forest Act.

Exhibit 4-1: Strategies Enabled by the IFPA Regulation

Strategy	Innovative Forest Practices Regulation	Factors Considered in AAC Determinations ¹⁹
Identify sustainable cut levels for the management unit	Collection and analysis of data with respect to the land base	Area of productive forest land base
Direct productivity enhancements	Establishment of free growing stands	Time required for re-establishment of forests
	Silvicultural treatments - free growing stands	Silvicultural treatments
	Harvesting methods of silvicultural systems that increase the total amount of timber available or reduce loss of productivity associated with permanent access structure	Timber utilization
	Silviculture treatments on non-free growing stands to increase growth performance	Silvicultural treatments
Indirect productivity gains through better data and enhanced forest mgt.	Collection/analysis of inventory information; forest composition and rates of growth	Composition of the forest and expected rates of growth
Improved mgt. and knowledge to achieve other objectives	Activities that will enhance and protect other resource values	Constraints on amount of timber that may be produced due to the use of forests for other purposes
	Not addressed	Implications of alternative rates of timber harvesting in an area
Protect forest health	Not addressed	Extent and impact of insect or disease infestation and major salvage programs planned in response

¹⁸ IFPA's are restricted to holders of Forest Licences and Small Business Forest Licences over 10,000 m³.

¹⁹ These include the factors identified in Section 8 of the Forest Act.

The IFPA's focused on inventory work and generally applied minor resources to other eligible activities. It is clear that this was not intended by the Regulation although it was anticipated by some.

If inventory data collection was not intended to be the overwhelmingly substantive activity of the IFPA program, the reality that it was such reflects a design flaw in the incentive structure of the program. Whereas the other innovative activities in the Regulation dealt with direct productivity gains through harvest and silviculture processes (or activities to protect other resource values), productivity gains from improved data on the composition of the forest and its growth rate presumably would arise from better management enabled by the data. As well, the better data could permit more accurate determination of AAC. But, to permit AAC increases that arise from improved data without any evidence of enhancement of forest productivity does not appear to be consistent with a program "for the purpose of improving the productivity of the forest resource." (Section 59.1 of the *Forest Act*)

Forest productivity is not defined in the *Forest Act* or Regulations. In the context of a forest, productivity is generally defined as the rate at which biomass is produced per unit area (University of Wisconsin Forestry Program). Inventory taking itself does not increase the rate at which biomass is produced and thus does not directly enhance biological productivity of the forest. But, good inventories can permit planning to maximize the sale value of biomass and, from an economic point of view, forest productivity would measure the net increased value of biomass added and any value increments achieved with respect to the means of harvesting or the timing of biomass harvest (such measures will be relevant when developing strategies to minimize the economic damage of the mountain pine beetle).

Conclusion:

- ***The legislative and regulatory framework for the IFPA pilots generally enabled the activities required to achieve the central objective of the program. But the IFPA program contained an incentive structure that encouraged inventory activities that absorbed a substantial portion of the IFPA program resources, were not shown to have added to forest productivity, and yet were the basis of awards of AAC uplifts. The inventory work by licencees did result in enhanced inventory data to enable improved TSA management and contribute to AAC determinations***

4.3 Program Delivery and Management

4.3.1 Program Management

Government responsibility for the overall IFPA program was divided between Forest Renewal BC and the Ministry, between funding and stewardship respectively:

- Forest Renewal was initially the funding agency, while the Ministry, as the steward, retained technical approval;
- Forestry Plans were approved by the Ministry, while workplans and project performance were reported to Forest Renewal; and
- Ministry Head Office had little to do with the program – it was largely devolved to the regions, of which only one had the IFPA volume and critical mass to think of the pilots in aggregate as a program.

It is also worth noting that no additional staff resources were added for the Ministry's administration of the program.

This diffuse accountability affected program management in a number of ways.

There was little attempt by the Ministry to manage the IFPA's as a formal program:

- Clear criteria for success were not established;
- There was no apparent analysis of progress and issues, other than at the individual IFPA level; and,
- There was no comprehensive program reporting, and
- The focus was at the level of each IFPA.

The Ministry used several processes to monitor and manage the program. The Ministry:

- required that IFPA holders submit Forestry Plans;
- approved Forestry Plans and, in some cases, assisted in their development; and,
- in most cases, received individual project reports or was involved in field trips as part of the annual 'report out' process. In addition, some of the IFPA's reported locally through public presentations.

This diffuse accountability was further reflected in the regions not insisting on annual reports from each IFPA. The main controls imposed by the Ministry were therefore at the approval point for Forestry Plans and at the point of an AAC uplift (or maintenance) request. This was a logical control point from the perspective of the timber supply aspects of the program. However, the failure to require and enforce regular progress reporting limited the Ministry's ability to learn and monitor progress of the IFPA pilot program as a whole.

With the inception of FIA in 2002, the Ministry took control of all aspects of management, including funding and financial management, and requires the program administrator to conduct audits of a sample of recipients' performance each year. However, there is still no specific reporting on IFPA's as a program.

Conclusions:

- ***Division of management responsibilities reduced the effectiveness of program management. The Ministry chose to manage the IFPA pilots on an individual basis rather than as a program.***
- ***Inaccessible financial data reduced the Ministry's ability to assess the performance of the pilot program. As outlined in section 2.3.3 a material weakness in program management has been the inability to account for overall government expenditures on the IFPA program.***

4.3.2 Compliance with Legislative, Regulatory and Agreement Requirements

The Ministry's approvals of uplift submissions addressed the achievement of standards and adherence to aspects of forestry plans. For some IFPA's without uplifts, we were able to observe substantial progress against forestry plans. Also, under both Forest Renewal and the FIA, audits were conducted of IFPA holders' operational and financial performance against commitments in agreements and forestry plans. While these mechanisms would ensure that projects and costs were eligible, they might not always address the question of projects in forestry plans that had not been acted upon.

There was generally substantial project progress and funds were expended in reasonable adherence to each IFPA's approved plans.

Conclusion:

- ***There was generally a high level of compliance with legislative, regulatory and agreement requirements***

4.3.3 Procurement

The program was initiated following submissions of proposals by Lignum, Interfor and Weyerhaeuser for a new form of enhanced tenure on defined areas within TSA's. The first three IFPA's were awarded to Lignum and Interfor and involved designated areas within the Williams Lake, Fraser and Kamloops TSA's.

Opposition to the procurement model was evident. In the Cariboo, for example, some forest companies expressed concern that the opportunity should be equally available to all licencees. Others expressed concern that the awarding of tenure to Lignum would compromise the work of the Williams Lake Timber Supply Association which was in the process of resolving conflicts between Lignum and TimberWest over operating areas. A final theme identified by licencees in the area was that they would be disadvantaged by the agreement with Lignum. More broadly the criticism was around the lack of consultation with other licencees and users in the Cariboo.

The Cariboo Enhancement Group submitted a briefing package to the Minister of Forests and sought approval in principle for an IFPA with a multi-licencee approach to the management of a TSA. This was not approved. A proposal from a Kamloops TSA group at the time was also rejected.

Both the Cariboo and the Kamloops proposals would have essentially expanded the Lignum IFPA and the Interfor Adams Lake IFPA. Although the Ministry came to prefer the multi-licencee TSA-wide approach, it retained existing single licencee IFPA's.

Following the controversy around the initial direct awards, the Ministry expanded the pilot and a competitive process was used to award IFPA's in the Kootenay, Prince George, and Prince Rupert Forest Regions – the Arrow, Vanderhoof and Morice-Lakes IFPA's.

A final IFPA was approved in 2001 for the Okanagan through direct award. As noted in communication materials at the time, this IFPA was awarded in return for licencees voluntarily foregoing 5% of their AAC for ten years which then was used in part to encourage the Westbank First Nation to more fully commit to the treaty process.

To date, no additional IFPA's have been awarded.

Conclusion:

- ***There was no single procurement strategy in place to support the program and procurement approaches and the rationale for selecting IFPA's was inconsistent. As a consequence, there are concerns that there was not equal access to the program.***

4.3.4 AAC Determinations

Section 59.1(7) of the *Forest Act* provides:

(7) After approving a person's forestry plan, the regional manager may increase the allowable annual cut authorized in the person's licence or agreement referred to in subsection (2)(a) by an amount that is justified according to timber supply analysis methodology approved by the chief forester or the chief forester's designate.

Thus, the Regional Manager, who is now designated the Regional Executive Director (or "RED") (and so referred to in this report), may increase the AAC of an IFPA licensee's licence by an amount justified by analysis methodology approved by the Chief Forester. Previously AAC determinations were made exclusively by the Chief Forester. Benefits in having the Chief Forester make these determinations include:

- Consistent factors and analysis can be applied province-wide to all AAC determinations;
- The Chief Forester's office has staff with the necessary timber supply expertise to make rational and consistent determinations on timber inventories, growth and yield determinations and harvesting constraints; and,
- The Chief Forester is less subject to local pressures and less likely to create a precedent that would be undesirable in other circumstances or regions.

Conclusion:

- ***Determinations of AAC should be made exclusively by the Chief Forester. The ability of the RED to allocate AAC has created confusion and/or ambiguity in the administration of timber supply.***

4.4 Results

4.4.1 Enhanced Productivity and AAC

There is a tendency to look at any adjustment of AAC as reflecting a change in productivity. AAC will only be a reflection of increased productivity if it increases the capacity to add biomass in the TSA. We are not aware of any substantive AAC uplifts that were awarded as a result of enhancement of forest productivity nor are we aware of any attempts to document substantive increased forest productivity by IFPA's as a result of eligible innovative practices.

Conclusions:

- ***Since the legislative objective of the IFPA program was to improve forest productivity, valid measures of productivity should have been developed at the start of the program and program success tested against these measures.***
- ***Failure to have such measures precludes the ability to demonstrate the level of productivity enhancement achieved by the program. However, given that few funds appear to have been dedicated to increasing biomass capacity of TSA's, it is doubtful that any material gains in forest productivity were achieved.***

Incremental Silviculture, Silvicultural Systems, Increased Utilization and Harvest Enhancements

Incremental silviculture activities such as spacing, brushing, fertilization, the planting of improved seed were considered in the development of forestry plans. In general, these strategies were viewed as costly and having minimal impact on AAC determinations relative to other strategies.

- The most predominant strategy adopted by IFPA's was the planting of superior seedling stock which had higher genetic gain than the standard and therefore would realize higher rates of growth and less time to reach green-up.
- In some IFPA's (Lignum and Merritt), silvicultural strategies for optimizing productivity of Interior Douglas-fir stands are of continuing interest and work is underway to develop silviculture regimes that increase the productivity of these stands.
- Both Lignum and Morice-Lakes IFPA's believe that appropriate silviculture investments can result in material increases in productivity and equivalent AAC impacts.

Generally, IFPA's noted that these on-the ground strategies have taken a backseat to the short-term needs of developing a sound, up-to-date and complete inventory for the IFPA area and the possible consequential positive AAC impacts. We have estimated that on the ground strategies account for less than 20% of IFPA expenditures. In total very little incremental silviculture appears to have been undertaken through IFPA's.

As well, relatively little in the way of utilization gains or enhancements of harvest methods have been introduced. Several IFPA's reviewed utilization standards and adjusted stump height which increased the amount of available fiber and had some influence on the AAC determinations made by the RED's

For licencees, substantive positive AAC results were achievable with inventory work that determined that the existing forest had greater capacity. The other eligible approaches to enhancing forest productivity have not attracted much interest or effort – perhaps because the size of possible AAC gains have not been viewed by licencees as large enough or as certain of attainment. It is not clear that any material work would have been done in IFPA's if there had not been a provision that was interpreted to permit direct AAC uplifts for inventory data providing evidence that there was greater capacity of the forest than previously thought.

The Ministry has not provided an opportunity to other than licencees to compete for contracts to deliver innovative practices in TSA's. Perhaps if an equivalent level of rewards for the development and application of productivity enhancements were to have been made available to the broader competitive market, more comprehensive results could have been achieved at lesser cost

Conclusions:

- ***Although positive productivity gains were believed available through appropriate silviculture, utilization and harvesting approaches, the reward system for IFPA's has resulted in most resources being directed at inventory work – "the low hanging fruit."***
- ***No attempt was made to find an alternative means of introducing innovative productivity enhancing practices in TSA's or, alternatively, to adjust the reward elements of the IFPA program.***

4.4.2 More Efficient Forest Resource Management Approaches

Many of the challenges that the program was responding to were associated with increased constraints on timber supply posed by new land use objectives and rules which afforded greater protection of non-timber values and objectives. The achievement of non-timber objectives or the accommodation of them was critical to the central objective of increased productivity and for this the forest manager needed new tools, information and knowledge to respond to these other values in an efficient and effective manner. In this regard IFPA's were expected to improve the understanding of the forest resources and to maintain and enhance non-timber values in a manner that enabled the achievement of timber objectives as well. Therefore, a key area of focus was the quality and efficiency of forest resource management.

Some of the strategies and initiatives in this regard, have included the following.

- The development of a broad SFM framework with criteria and indicators compatible with certification schemes; an adaptive management framework and decision tools to support quality forest management; and the development of PEM (predictive ecosystem mapping). One IFPA has enabled a licensee to achieve certification. It has also increased the capacity to report on the extent to which established objectives and targets on the landbase are being met. In a broader context, some IFPA's identify an increased ability to respond to new conditions and challenges as an important achievement. For example, one IFPA holder has noted that the framework has given them the capacity to adjust strategies and management approaches in the face of the MPB infestation in order to achieve established IFPA objectives and targets.
- Improved knowledge of habitat requirements.- generally, IFPA's have undertaken inventories and studies to determine habitat requirements and operational requirements to meet the needs of selected species.
- Development of processes for public input into strategies and plans for IFPA's and, in some cases, formal accountability mechanisms for reporting progress to communities within the IFPA area.
- Improved inventories and information about forest composition and growth

Additional information on each of these benefits is provided in Section 3 where each of the IFPA's results are presented.

Improved Inventories and the Allowable Annual Cut

Section 59.1 of the *Forest Act* created IFPA's, and the regulations to Section 59.1 (Reg 197/97) defined eligible innovative forest practices. The second last of the six defined innovative practice areas involved generating more accurate forest composition data and growth information. In essence, determining what is there and what would grow there in the future. If a licensee could show that there were more trees in place than the Ministry thought; that the land base would produce more fibre than currently believed; or, that factors such as other resource values that constrained access to timber inventory could be mitigated, then the IFPA holder could request an AAC increase. The Crown, through FRBC, and later, FIA, paid for the inventory work.

Exhibit 4-2: Uplift Applications and AAC Determinations

IFPA	AAC Determination - RED
Merritt	330,700 m ³
Merritt	500,000 m ³ (MPB Uplift)
Okanagan	166,100 m ³
Adams Lake	14,870 m ³
Vanderhoof	328,000 m ³ ,
Anticipated Uplifts	
Lignum	Intention to apply
Morice Lakes	Intention to apply
Hope	No intention to apply
Arrow	No intention to apply
Vanderhoof	Intention to apply

Supporting the attainment of AAC uplifts, or the mitigation of possible AAC reductions, is generally considered a major result of the IFPA program even if there was little or no impact on forest productivity itself. Increased AAC is considered of value because it allows a greater timber harvest which in turn results in more jobs, higher licensee profits and increased stumpage revenue to government. Exhibit 4-2 presents the AAC results associated with IFPA uplift applications including an AAC uplift in the Merritt TSA based on mountain pine beetle mitigation strategies. In the Hope and Arrow TSA's it is estimated that inventory work by the licensees was instrumental in maintaining AAC's in areas facing significant downward pressures.

The size of AAC adjustments arising from IFPA holders' inventories of the estimated capacity of the forest to produce timber raises the following questions.

- Does the Chief Forester take a more conservative approach to AAC determination on behalf of the Crown than a RED?
- Is the Crown's knowledge of its resource materially deficient?
- Is the result in these eight TSA's generally reflective of inventory reliability in the other TSA's in the province?
- What is the relevance of existing inventory data to AAC determinations in forests subject to MPB deprivation?

Conclusions:

- ***The IFPA Program evolved to be primarily an inventory program.***
- ***The IFPA program improved the capacity to manage forest resources within defined areas on TSAs and there is evidence that this new capacity is being used to optimize the flow of benefits derived from it.***
- ***The difference in forest capacity as reflected in AAC determinations based on IFPA data and AAC determinations of the Chief Forester raises concerns with respect to the general reliability of provincial forest inventories.***

4.5 Incentive Issues

When the program was under development, correspondence from the Minister of the day affirmed that a licensee who makes an investment in a timber enhancement practice should realize a benefit if a resulting increase in stand productivity can be reasonably expected. As well, the general view within the Ministry and industry is that the IFPA holder who invests in activities that demonstrate that current inventory levels and growth and yield projections justify an AAC uplift should also share in that uplift. Although costs for IFPA activities are substantially covered by government, it is the opportunity to increase their allocated cut that provides the real incentive for licensees to perform eligible IFPA activities. We have identified several issues with respect to how incentives have been structured and applied.

- **Unbalanced Incentives** Although it is clear that the program was primarily intended to create investment in the productivity of the forest, relatively minor investments have been made in activities that would increase the capacity of the forest to grow fiber. Substantially all of the funds have been invested in inventory work. This is not surprising since it was clear to licensees that the easiest and quickest route to an AAC increase was to show that there were more trees on the land and/or a greater capacity for the land to grow trees than existing government data would indicate. This is indicative of a fault in the design of the reward/incentive elements of the IFPA program. Assuming that government desired that some of the IFPA resources were applied to inventory, it would have been more consistent with the objectives of the program to have limited the AAC uplift attributable to submissions based on inventory work. Such a limit might have required that not more than 20% of any uplift could be attributable to inventory data and/or strategies to mitigate habitat and other resource constraints and the remaining uplift would have to be attributable to the increase in

productivity of the forest as a result of innovative silviculture, utilization and/or harvesting methods.

- Uncertain Incentives The incentive structure is not clear as to what entitlements a licensee will receive for an AAC uplift in response to particular performance by the licensee. This uncertainty of reward substantially alters the value of an incentive to a licensee and can be expected to require the Ministry to offer a licensee a larger benefit to offset the risk perceived by the licensee. Because of the low risk assumed by the licensee in the IFPA program, the uncertain incentive structure is unlikely to have had an impact. However, in the future an incentive program would be more effective if the reward that can be earned is clearly detailed with respect to the activity to be completed and its level of success
- Permanence of Incentives. AAC uplifts have been awarded in several IFPA's and, as well, a particular uplift was awarded in the Merritt TSA with respect to strategies developed by the IFPA to mitigate the adverse impact of Mountain Pine Beetle. There appears to be general agreement by both the Ministry and all licensees that the Mountain Pine Beetle uplift was not permanent and was for a fixed term. However, there are substantial differences of opinion as to whether the other uplifts are 'permanent' or not. Under assumptions on whether uplifts are permanent or for a term, the table in Appendix 1 considers the different impacts of uplifts on the different forms of IFPA's. Under the same assumptions, the following example examines the consequences for an IFPA in which the sharing of AAC uplift and the interest in the TSA are different.

Example:

Total AAC of TSA	1,000,000 m ³
Licensee A has AAC of	50,000 m ³
Licensee B has AAC of	950,000 m ³
IFPA uplift of 400,000 m ³ sharing ratio 50/50	
Licensee A now has AAC of	250,000 m ³
Licensee B now has AAC of	1,150,000 m ³
If uplift is for a term (result is post expiry of the term)	
Licensee A again has AAC of	50,000 m ³
Licensee B again has AAC of	950,000 m ³
If Chief Forester decreases AAC by 300,000 m ³	
Licensee A has AAC of (50,000-.05x300,000)	35,000 m ³
Licensee B has AAC of (950,000-.95x300,000)	665,000 m ³
If uplift is 'permanent'	
If Chief Forester decreases AAC by 300,000 m ³	
Licensee A has AAC of (50,000+200,000-250/1400x300,000)	196,429 m ³
Licensee B has AAC of (950,000+200,000-1150/1400x300,000)	903,571 m ³

In the event of a further AAC increase after a fixed term has expired there are material consequences when the sharing ratio of IFPA uplift conforms to the TSA interest. The differences are more extreme when the sharing ratio for the IFPA uplift differs substantially from the percentage interest in the TSA. Effectively, the reallocation of TSA interest that occurs with the uplift allocation is lost and the TSA interests return to where they were before the IFPA uplift. This is the possible situation in the Merritt TSA where the First Nation share of the TSA's AAC went from 1,000 m³ to 180,000 m³ and will revert to 1,000 m³ if the uplift is not permanent.

Conclusions:

- *The initial objective of enhancing forest productivity was not realized in any substantial way since an AAC uplift was much more easily achieved through inventory work. No attempt appears to have been made to respond to this design flaw by adjusting the incentive structure to cap the eligible AAC uplift attributable to data collection.*
- *Licencees were uncertain as to the reward they would receive in response to particular performance by them – the percentage of AAC uplift justified by their work was uncertain. This uncertainty reduced the value of the incentive.*
- *There are serious issues with respect to the permanence of uplifts (excluding the Merritt Mountain Pine Beetle uplift which is acknowledged as having a fixed term.) It is unclear as to how this confusion developed. However, business investments and transactions have apparently been consummated on the basis that the uplift was a permanent allocation of an interest in the TSA and working relations have been established with First Nations on the same basis. The Ministry should review these allocations.*

4.5.1 Assessment of IFPA's as a Licencee-Government Partnership

The following table (Exhibit 4-3) uses criteria applicable to the assessment of government/industry partnerships to consider various elements of the relationship between the licencees, FRBC/FIA and the Ministry of Forests and Range. The criteria are based on a review of selection and evaluation criteria proposed by provincial and federal governments for assessing the need for partnerships and their quality.

Exhibit 4-3: Assessment of IFPA Pilots Against Partnership Criteria

Criteria	Assessment of IFPA
Clear objectives, scope and performance expectations.	Objectives were clear at the start but performance expectations were not developed and integrated with the incentive structure.
There is something that the licensee brings to the problem that the Province is unable or unwilling to.	The obligation of FRBC to expend funds on forestry development by industry plus the lack of resources within the Ministry meant that, practically, government was precluded from undertaking the work of IFPA's within the public sector.
Risk – Risks are known and some transferred to the partner.	Public paid for virtually all work undertaken by the private sector – risks were not transferred
Reward – Partner receives a share of the reward/benefit in return for taking on risk; partner receives a fair return on their investment.	Regulation/Act/Agreement do not provide assurance that productivity benefits will be allocated to licensee; term of the flow of benefits is not certain; but, industry assumed little, if any, risk. Province received some benefit.
Competition – there is a marketplace that will compete to provide services.	The marketplace was never tested for price competition. Presumably a competitive market exists since licencees contracted IFPA tasks through it.
The arrangement enables partners to employ creativity and innovation to alter the risk/reward equation.	Creativity enabled and it did alter risk/reward equation. Opportunities for truly innovative productivity gains were not realized because of a

Criteria	Assessment of IFPA
	faulty reward/incentive structure.
Security of arrangement – contract terms are clear and the contract term is sufficient to achieve the objectives of the partnership.	Contract terms clear; term of flow of benefits to licencees not clear.
Procurement –there is a fair and transparent process for selecting partners.	Went from direct award to competitive tendering back to direct award. Rationale for awards and rejection were not clear.

Conclusion:

- ***When assessed against typical public/private partnership criteria, the IFPA pilot program is deficient in its risk/reward equation and in the effective use of the competitive market for procurement.***

4.6 Relationships at the TSA and IFPA Level

4.6.1 First Nation Relationships

First Nations objectives were not initially associated with the IFPA program. However, the last IFPA entered into in the Okanagan was funded specifically to achieve government's objectives of advancing First Nation interests and treaty negotiations. The success of the Merritt IFPA in developing an effective partnership with First Nations undoubtedly provided an impetus for the decision to use the IFPA pilot program to respond to First Nations interests in the Okanagan.

Merritt was the initial TSA-wide IFPA. Merritt licencees had already formed a society for the purpose of dealing with TSA issues and the society became the effective home of the IFPA. There was a realization that to achieve the desired AAC uplift and resolve conflicts that licencees were encountering with First Nations' issues that a structure to work with First Nations would be beneficial for both the IFPA and First Nations. Negotiations between the society and First Nations resulted in the following.

- Ardew, a small licencee in the TSA, partitioned 1,000 m³ of AAC from its licence and the Ministry approved its transfer to Stuwix Resources Ltd, ("Stuwix"), a company formed by eight First Nations bands in the Merritt TSA.
- Stuwix thus became the holder of a replaceable forest licence which provided for its inclusion in the TSA society and the IFPA.
- The IFPA submitted an AAC uplift request and received approval for an uplift of 330,700 m³ and, on the recommendation of the IFPA, the RED allocated 179,000 m³ to Stuwix. As well, 275,000 m³ of Mountain Pine Beetle uplift totaling 500,000 m³ was allocated to Stuwix.
- As a result of these events, Stuwix is a valued and active member of the TSA society; licencees have become more aware of First Nations' interests; and, there is an effective forum in which conflicts between licencees and First Nations can be resolved.

Credit for this success is attributable to the efforts of the First Nations, the licencees and the Ministry.

The relationship achieved in Merritt may not have been possible without the AAC uplift arising from the IFPA submission since it may have been difficult to initially get agreement from licencees to give up in the order of 180,000 m³ of their AAC. There is a different realization by Merritt TSA licencees today, than at the start of the IFPA, of the benefits that can be realized through an effective partnership with First Nations.

The RED did not approve all of the AAC uplifts requested by the Okanagan and Adams Lake IFPA's. Some of the requested but not approved uplift may have been supportable from inventory analysis done by the IFPA. We understand that the portion of the uplift request that was not approved is viewed by some as being available for future allocation.

Conclusions:

- ***The Merritt IFPA is an example of success in creating and advancing opportunities for meaningful First Nation involvement in the operation and management of a TSA for the benefit of existing licencees and First Nations. The success of this initiative is dependent on the allocation of the AAC uplift to Stuwix becoming part of its replaceable forest licence. Where similar circumstances arise, the opportunity to pursue a similar result should be considered.***
- ***The IFPA program was not designed, nor intended, to generate timber volumes that would be available to respond to First Nations' interests. The use of IFPA's for this purpose is unlikely to be a long term or predictable way of responding to the general need for such volumes.***

4.6.2 Building Relationships within the TSA

The TSA-wide IFPA pilots provided an opportunity to build stronger relationships between licencees and the TSA.

The relationships developed between licencees were identified as providing a lasting benefit for the management of the TSA. The involvement of BCTS in the TSA IFPA pilots has provided opportunities to develop improved relations between an expanding BCTS program and licencees.

Benefits identified as coming from the working relationship amongst licencees which were enabled, to a large part, by working to the common objectives of the IFPA include:

- Collaborative approaches between industry and government to solve problems;
- Improved efficiency of TSA business processes, greater ease of doing business and more effective dispute resolution amongst licencees;
- An ability to recognize and adopt TSA-wide strategies;
- Pooling of resources to address common operational issues and a reduced focus on individual licensee projects;
- A more co-operative relationship with First Nations; and
- A forum that can address other issues of common interest to licencees.

Conclusion:

- ***The IFPA program has provided examples of the improvement of the working relationship between TSA licencees; the development of TSA-wide strategies and solutions to common operational problems; the realization of savings through economies of scale; the reduction of inter-licencee conflicts; and, the development of better relations with First Nations.***

4.7 Performance Measurement

Since inception, there have been several mechanisms for monitoring performance of the pilots. The agreements required IFPA holders to submit an annual report at the discretion of the regional manager. The report, if required, was expected to identify progress in relation to approved Forestry Plans. These reports have not generally been provided with regularity by IFPA holders and in the latter stages of the pilots (following the sunset of Forest Renewal's IFPA Program) few reports were submitted by IFPA's.

In addition, the formal review of Forestry Plans and Amendments to these plans (uplift applications) gave the Ministry the ability to monitor program progress in a less systematic fashion. However, it is not clear that the information generated through reports were ever rolled up into broader program performance reports.

Forest Renewal BC required that annual workplans and reports be submitted as a condition of funding. These reports were submitted regularly by IFPA holders. However, they were not prepared to a common standard and generally reported on project status, plans and expenditures.

A review of IFPA eligibility guidelines in August 1999 recommended that accountability for results be strengthened within the IFPA program. In particular, the review recommended that a performance management framework be developed for the program.²⁰ One theme noted in the review was the need to strengthen accountability for results and to reduce the focus on process in managing the program.

In spite of these recommendations, Forest Renewal BC and the Province continued to manage the program in the absence of any clear program outcomes and performance measures up until 2000/2001. At that time, the corporation embarked on the development of a comprehensive performance management framework for the IFPA program. While this framework was never finalized nor implemented, it did specify a range of performance measures and success criteria.

At the IFPA level, the mechanisms for reporting on performance to IFPA holders and stakeholders are widely varied. The Morice-Lakes IFPA has adopted one of the more comprehensive approaches to performance reporting within the pilot program. This IFPA has established targets for a range of indicators (CCFM) and reports against these targets and indicators annually. To the extent AAC uplifts were requested, such requests also constituted effective performance reports

Conclusion:

- ***Given that the IFPA's were intended as pilots and aimed to test new concepts and practices, a higher level of performance monitoring and reporting should have been expected. In our opinion the performance reporting associated with the pilots was inadequate. This limited knowledge transfer and the effectiveness of the pilots overall.***

4.8 Incremental Impacts

Assessments of the impacts of government programs should consider the extent to which the program impacts are incremental to what would have happened in the absence of the program. In this regard, we ask the following questions.

²⁰ McGregor Resource Analysis Group (August 1999), Review of Draft Eligibility Guidelines for Innovative Forest Practices Agreements – Summary of Findings (prepared for Forest Renewal BC)

- Could the activities and strategies employed by IFPA holders be pursued in the absence of the IFPA program?
- Did TSA's without IFPA's undertake similar strategies?

With respect to the first question, we note that all activities funded through IFPA's could be funded and undertaken in the absence of an IFPA agreement. For example, FIA would independently fund all activities central to the IFPA pilots. And, during Forest Renewal BC's tenure, one IFPA proposal was rejected partly on the basis that the strategies integral to IFPA's could be funded outside of an IFPA agreement and outside of Forest Renewal BC's IFPA program.

With respect to the second question, in spite of the fact that the activities and strategies integral to IFPA's could have been funded through other means, they typically have not been or have progressed at a much slower rate than was the case in IFPA's. This may be related to the fact that outside of the IFPA agreements, licencees making investments on TSA's cannot be directly awarded an uplift resulting from their investments. Other programs have not had the incentive of AAC uplift and it is clear that licencees are strongly motivated by the possibility of increasing their AAC.

Conclusion:

- ***Projects and strategies integral to IFPA's could have been funded and implemented in the absence of an IFPA agreement. However, to our knowledge progress has been much slower for initiatives pursued outside of the IFPA vehicle. For this reason we feel that the impacts generated through the IFPA program can generally be considered incremental in the short-term (say 5-10 years).***

4.9 Cost Effectiveness

To analyze the cost effectiveness of a particular activity or program requires that objectives be clearly identified (the effects) and that the costs to achieve these objectives be tabulated and compared to the costs of alternative means to achieve the same objectives; or, perhaps, similarly desirable objectives. For the IFPA program, we can conclude the following with respect to cost effectiveness of what we believe were the initial pilot program objectives and of the actual, and possibly unplanned, results.

- **Increase the Productivity of the Operating Forest**

We have not been able to identify the costs to government that were dedicated to improving the ability of the forest to grow timber, but it is a relatively low proportion, possibly less than 15% to 20% of total funded costs. On the other hand, we have also not been able to find any quantitative results that measure increased productivity of the land to grow trees. We are thus unable to reach any conclusion with respect to cost effectiveness of the activities, such as they have been, to improve forest productivity.

- **Establish a Working Partnership with Licencees of Volume-based Tenures with a view to Achieving a Management Approach Equivalent to that of an Area-based Tenure**

The first three IFPA's (Lignum plus two with Interfor) were single licensee IFPA's that identified operating areas within TSA's in which the licensee would carry on IFPA activities. The remaining five IFPA's were TSA-wide and thus involved all licencees in the TSA. The single licensee IFPA's were identified by the Ministry as creating equity issues between licencees and were also seen as de facto subdivision of the TSA which could give rise to unintended AAC impacts. The Ministry's decision to not further pursue

the single licensee pilot is indicative of a view that management gains that might be achieved would not compensate for perceived problems - this was not seen as a cost effective model by the Ministry. As well, the single licensee pilot is not a model transferable as a TSA-wide management solution.

The TSA-wide model has had some notable successes in encouraging the management of TSA's by an all licensee organization. The greatest success may have been achieved in the Merritt TSA where TSA-wide management has been combined with the acquisition of a substantive replaceable tenure for the benefit of First Nation bands and their inclusion in the TSA management committee. The Ministry has identified that, with appropriate incentives, it is possible to have licensees act in common to manage the TSA as a single resource and also to act in concert to include First Nations within the TSA, both as licensees and as part of the management team. In our view, these results have been achieved in a cost effective fashion.

- **Improved Land Base Data**

Substantially all the government funds transferred to IFPA's have been used to: improve the accuracy of standing timber inventory; enhance data on site index values; identify ways to mitigate constraints on harvesting because of wildlife and other forest resource issues; avoid possible constraints imposed by local populations; and respond to First Nation cultural values. We understand that much of the inventory work was done by contractors to the licensees. One of the industry observers characterized the pilot program as "an expensive inventory exercise." We believe this is a fairly accurate observation. If the Ministry had been provided the same funding, we believe that they may have engaged the same contractors at the same, or a lesser, price and could have ensured that the data generated was directly responsive to the identified needs of the Ministry and other government agencies. For these reasons we do not believe that the collection and analysis of TSA data has been achieved cost effectively.

- **Return on Investment**

On the basis of the legislation and regulations, it was apparently hoped that the pilot program would result in investments on innovations that would enhance the productivity of the land base. The return on these investments would be the value of the additional fibre that the land would be made to grow. But, the pilots have essentially gathered data about the pre-existing operating forest – what trees are there; what trees can be expected to grow there and how quickly; what constraints exist to harvesting the forest; etc. The new asset created has been data, and as outlined above, we do not believe it has been obtained in a cost effective way.

To manage the forest effectively requires accurate information about the resource and investment in that information produces economic returns. One of the major uses of the inventory on standing timber, growth and yield of the forest and harvest constraints is to determine more accurately the fiber that can be cut on an annual basis. With the objective of sustainable management of the resource, there is a return to the forest owner from accurate inventory information whether there is an incremental increase or decrease in the AAC. An increase in the AAC can permit timber to be cut earlier, with a consequential acceleration of cash flow but with a loss of growth increments. To calculate the return on investment of a more accurate AAC requires such substantial assumptions that the result is unlikely to be meaningful. It is not sufficient in such a calculation to include only the net sale proceeds of an incremental AAC increase.

Conclusions:

- *There are outcomes of the IFPA pilots that have been achieved in what we believe to be a cost effective fashion – First Nation participation and TSA management. We do not believe that either of these activities could be effectively analyzed using the return on investment method.*
- *A rate of return from investment in data would likely be misleading since, by necessity, it must be based on substantive assumptions. We believe that accurate inventory data is a necessary cost to effectively manage the forest resource and is justifiable on that basis. However, we do not believe the collection and analysis of data has been achieved cost effectively*

4.10 The Relevance of IFPA's Today

The IFPA program was announced at a time when there were growing concerns that the flow of benefits from forestry-related activity could not be sustained. In particular there were concerns that forest productivity enhancements were required to mitigate anticipated harvest declines and consequent economic and employment impacts. The perception was that this problem was more acute in areas where timber rights were granted through volume-based tenures.

With this in mind, IFPA's had two central objectives:²¹

- To test new and innovative forestry practices intended to improve forest productivity; and
- To encourage designated licensees to carry out the forest practices by offering them the opportunity to apply for an increase to their allocated harvest levels to enhance and maintain employment in the forest industry.

From the beginning, the Ministry has established the pilots with the intention of drawing on the experience of the pilots and using the lessons and knowledge in the development of policy and practices. The pilots had a clear sunset date and the Ministry fully intended to conduct an evaluation of the program to assess performance and determine at that time the appropriate strategy going forward.

Looking forward, we note that:

- The context has changed markedly;
- that many aspects of the program have demonstrated value that can be carried into the current operating environment; and
- that many of the IFPA's are still continuing to deliver results and that some IFPA programs can only be considered partly completed and so should be able to run their full term so that the results can be fully evaluated.

Several aspects of the operating environment are considered below and their impact on the relevance of the IFPA program or features of it.

- **Reviewing the Core Business within Forest Sector Companies:** Some companies in the forest sector have reviewed their core business and have moved to focus investment on the processing side of the business and reduce their role as a forest manager. The assumption

²¹ Ministry of Forests (July 31, 1998), *Innovative Forestry Practices Agreements Handbook (draft)*, p. 4. An implicit assumption that one could make was that if any productivity increases were to be made they would be made through a broader SFM framework. Certainly the emphasis on predictive ecosystem mapping and non-timber values for each of the IFPA's could support this observation.

that all in the forest sector will continue to be willing partners in forest management may be less valid today than it was when IFPA's were first established. At the same time, there is a significant portion of the industry that continues to express an interest in having greater involvement in the management of British Columbia's forest resource.

- **Forest Health:** Forest health issues have grown. At the time that the IFPA's were established, Mountain Pine Beetle was a key issue in only one IFPA (Vanderhoof). Since that time, the province has seen exponential growth in the area infested with the Mountain Pine Beetle. In many of the IFPA's piloted, access to fiber is no longer an issue in the short-term. The Province and the industry are implementing management strategies to reduce the losses associated with infested stands and this is resulting in uplifts in the AAC throughout BC's interior. In some IFPA's, these strategies have actually had the unintended result of mitigating constraints that the IFPA was initially intended to address.

This should be contrasted with the situation that existed when IFPA's were established and were faced with new constraints on fiber supply posed by land use plans, the protected areas strategy and the Forest Practices Code.. Today the key challenge is to mitigate the intermediate term timber supply shortages that will occur when the current greatly increased mountain pine beetle harvest levels are reduced.

- **First Nations Involvement in the Forest Economy:** At the time that the Forest Renewal Plan was established, British Columbia and Canada had just begun the process of negotiating treaties with First Nations and consultation and accommodation requirements and supporting policy and practices were still in their infancy. Since that time, the Province's approach to consultation and accommodation and expectations around treaty negotiation has continued to evolve. Today, the Province is negotiating a "New Relationship" with First Nations and the desire to see First Nations involvement in forestry and forest resource management is greater than it has ever been.²² The Merritt IFPA pilot demonstrated that working and productive partnerships with First Nations can be forged.
- **Area-based Management on Timber Supply Areas:** There continues to be a perceived need by the Ministry for some form of area-based management on TSA's.
- **Timber Supply Analysis:** At the time that the IFPA concept was first proposed, the Ministry had generally employed aspatial timber supply models and had recently begun regular review of AAC's. The IFPA's have proved to be one vehicle for improving timber supply data and revisiting AAC's - but likely not a cost effective one. The AAC awards arising in four of the IFPA's would indicate a general review of the state of provincial inventory data could be warranted.
- **Availability of Funding:** At the time that the IFPA's were established, funding was available through a range of Forest Renewal Programs. The majority of IFPA funds were provided through the Corporation's IFPA Program which had an annual budget significantly higher than the funding later made available through the FIA. The FIA Land Based Program allocates funding to licencees in proportion to their share of the annual harvest.²³ Given this context, in the absence of other government funding programs, any new pilots could not succeed if they

²² The New Relationship – documents the vision and goals of the province, the First Nations Summit, the Union of BC Indian Chiefs and the BC Assembly of First Nations as they craft the new relationship. The notion of a New Relationship draws a parallel to the New Relationship proposed by the British Columbia Claims Task Force in 1991 which recommended that "The First Nations, Canada, and British Columbia establish a new relationship based on mutual trust, respect and understanding – through political negotiations"

²³ The apportionment of LBIP funding to each management unit is calculated by the MoF according to its proportion of the volume of Crown timber harvested in all 37 timber supply areas and 34 tree farm licenses during the previous three calendar years.

required similar investment levels unless industry funds and funds from other partners could be levered.

- **Proof of Concept:** IFPA's were established at a time when there was no working model of public-private sector partnerships in area-based management on TSA's. While the vast majority of funds used to develop and implement Forestry Plans have come from publicly and provincially funded programs, there may be an opportunity to structure a partnership that is less dependent on public funds.
- **Prioritizing Benefits:** Enhanced productivity and jobs creation were viewed as the central objectives when the IFPA's were established. Arguably, these are less important today. British Columbia is experiencing high rates of growth and joblessness is at historic lows. In the forest sector, recent uplifts to address the devastating MPB infestations in the interior have created an overabundance of access to timber in the short-term. Other benefits realized through the IFPA program have grown in relative importance. The positive contributions that IFPA pilots could have in supporting the Province's First Nations new relationship; the value of creating partnerships among licencees; managing to mitigate AAC falldown in the mid-term through inventory and site index work; broader silvicultural strategies; certification; and, application of SFM are examples.

Conclusion:

- ***Although there have been substantial changes to the British Columbia forest industry and to the forests themselves – notable the mountain pine beetle infestation – some of the lessons learned from the IFPA pilots are still of relevance to forest managers today.***

A key issue for the Ministry is whether it views the IFPA as the best vehicle. We have a number of conclusions and recommendations in this regard.

5 Looking Forward – Conclusions and Recommendations

5.1 Summary of Conclusions

Program conclusions are summarized in Exhibit 6-1

Exhibit 5-1: Summary of Conclusions

Evaluation Themes	Conclusions
Program Rationale and Relevance	<p>There was a clear rationale for the IFPA pilots – if productivity of the land could be improved through innovative techniques some of the consequences of the loss of productive forest land would be mitigated; and, there was money in the FRBC super stumpage account to fund licencees to pursue the innovation.</p> <p>The “enhanced productivity” objective of the IFPA program is clearly articulated and understood. At the secondary objective level there was less clarity and agreement as to their importance and inclusion in the IFPA pilot program.</p> <p>The legislative and regulatory framework for the IFPA pilots generally enabled the activities required to achieve the central objective of the program. But the IFPA program contained an incentive structure that encouraged inventory activities that absorbed a substantial portion of the IFPA program resources, were not shown to have added to forest productivity, and yet were the basis of awards of AAC uplifts. The inventory work by licencees did result in enhanced inventory data to enable improved TSA management and contribute to AAC determinations</p>
Program Delivery and Management	<p>Division of management responsibilities reduced the effectiveness of program management. The Ministry chose to manage the IFPA pilots on an individual basis rather than as a program.</p> <p>Inaccessible financial data reduced the Ministry’s ability to assess the performance of the pilot program. As outlined in section 2.3.3 a material weakness in program management has been the inability to account for overall government expenditures on the IFPA program.</p>
	<p>There was generally a high level of compliance with legislative, regulatory and agreement requirements</p>

Evaluation Themes	Conclusions
	<p>There was no single procurement strategy in place to support the program and procurement approaches and the rationale for selecting IFPA's was inconsistent. As a consequence, there are concerns that there was not equal access to the program.</p> <p>Determinations of AAC should be made exclusively by the Chief Forester. The ability of the RED to allocate AAC has created confusion and/or ambiguity in the administration of timber supply.</p>
Results	<p>Since the legislative objective of the IFPA program was to improve forest productivity, valid measures of productivity should have been developed at the start of the program and program success tested against these measures.</p> <p>Failure to have such measures precludes the ability to demonstrate the level of productivity enhancement achieved by the program. However, given that few funds appear to have been dedicated to increasing biomass capacity of TSA's, it is doubtful that any material gains in forest productivity were achieved.</p> <p>Although positive productivity gains were believed available through appropriate silviculture, utilization and harvesting approaches, the reward system for IFPA's has resulted in most resources being directed at inventory work – "the low hanging fruit."</p> <p>No attempt was made to find an alternative means of introducing innovative productivity enhancing practices in TSA's or, alternatively, to adjust the reward elements of the IFPA program.</p> <p>The IFPA Program evolved to be primarily an inventory program.</p> <p>The IFPA program improved the capacity to manage forest resources within defined areas on TSAs and there is evidence that this new capacity is being used to optimize the flow of benefits derived from it.</p> <p>The difference in forest capacity as reflected in AAC determinations based on IFPA data and AAC determinations of the Chief Forester raises concerns with respect to the general reliability of provincial forest inventories.</p> <p>The initial objective of enhancing forest productivity was not realized in any substantial way since an AAC uplift was much more easily achieved through inventory work. No attempt appears to have been made to respond to this design flaw by adjusting the incentive structure to cap the eligible AAC uplift attributable to data collection.</p> <p>Licencees were uncertain as to the reward they would receive in response to particular performance by them – the percentage of AAC uplift justified by their work was uncertain. This uncertainty reduced the value of the incentive.</p> <p>There are serious issues with respect to the permanence of uplifts (excluding the Merritt Mountain Pine Beetle uplift which is acknowledged as having a fixed term.) It is unclear as to how this confusion developed. However, business investments and transactions have apparently been consummated on the basis that the uplift was a permanent allocation of an interest in the TSA and working relations have been established with First Nations on the same basis. The Ministry should</p>

Evaluation Themes	Conclusions
	review these allocations.
	<p>When assessed against typical public/private partnership criteria, the IFPA pilot program is deficient in its risk/reward equation and in the effective use of the competitive market for procurement.</p> <p>The Merritt IFPA is an example of success in creating and advancing opportunities for meaningful First Nation involvement in the operation and management of a TSA for the benefit of existing licencees and First Nations. The success of this initiative is dependent on the allocation of the AAC uplift to Stuwix becoming part of its replaceable forest licence. Where similar circumstances arise, the opportunity to pursue a similar result should be considered.</p> <p>The IFPA program was not designed, nor intended, to generate timber volumes that would be available to respond to First Nations' interests. The use of IFPA's for this purpose is unlikely to be a long term or predictable way of responding to the general need for such volumes.</p> <p>The IFPA program has provided examples of the improvement of the working relationship between TSA licencees; the development of TSA-wide strategies and solutions to common operational problems; the realization of savings through economies of scale; the reduction of inter-licencee conflicts; and, the development of better relations with First Nations.</p>
Performance Measurement	<p>Given that the IFPA's were intended as pilots and aimed to test new concepts and practices, a higher level of performance monitoring and reporting should have been expected. In our opinion the performance reporting associated with the pilots was inadequate. This limited knowledge transfer and the effectiveness of the pilots overall.</p>
Incrementality	<p>Projects and strategies integral to IFPA's could have been funded and implemented in the absence of an IFPA agreement. However, to our knowledge progress has been much slower for initiatives pursued outside of the IFPA vehicle. For this reason we feel that the impacts generated through the IFPA program can generally be considered incremental in the short-term (say 5-10 years).</p>

Evaluation Themes	Conclusions
Cost Effectiveness	<p>There are outcomes of the IFPA pilots that have been achieved in what we believe to be a cost effective fashion – First Nation participation and TSA management. We do not believe that either of these activities could be effectively analyzed using the return on investment method.</p> <p>A rate of return from investment in data would likely be misleading since, by necessity, it must be based on substantive assumptions. We believe that accurate inventory data is a necessary cost to effectively manage the forest resource and is justifiable on that basis. However, we do not believe the collection and analysis of data has been achieved cost effectively</p>
Relevance Today	<p>Although there have been substantial changes to the British Columbia forest industry and to the forests themselves – notable the mountain pine beetle infestation – some of the lessons learned from the IFPA pilots are still of relevance to forest managers today.</p>

5.2 Recommendations

1. ***We recommend that the Ministry resolve the issue of permanency of AAC awards and allocations as soon as possible.***

Background: We reviewed this issue in some detail in our findings. It is our perception that this is the issue of greatest interest and importance to licencees in IFPA's.

2. ***We recommend that the IFPA pilots not be renewed at the end of their current term and that the IFPA pilot program not become an on-going Ministry program. Where the Ministry can identify benefits that can be realized from continuation of activities of existing pilots that the Ministry enter into ongoing arrangements with the particular licencees to investigate ways to realize the benefits.***

Background: Generally, once an IFPA has completed its inventory work and made submissions for AAC uplifts, or provided data to minimize AAC reductions, and has developed the data to support its sustainable forest management objectives, there does not appear as strong an interest in continuing the IFPA. In any event, FIA funding for further work is available, whether or not it is for an IFPA. Several IFPA's have projects coming to completion that they believe will support an AAC uplift or realize other benefits and individual solutions should be sought for these situations.

3. ***We recommend that in the future the structure of rewards be reviewed and monitored to ensure incentives are such as to promote performance and outcomes desired.***

Background: As detailed in our findings, the incentive structure of the IFPA program directed a substantial portion of the investment into the areas of land base and habitat inventory with the result that the initial intent of the program – enhancement of forest productivity by silviculture, utilization and harvest methods – received little investment. As well, no attempts were made to correct the incentive structure.

4. ***We recommend that for future programs, such as the IFPA pilot, that clear outcomes, associated targets, costs and timelines be established and that performance be monitored against those at intervals relevant to the particular activity.***

Background: It is difficult to evaluate the delivery of the IFPA pilot program since there has been no consolidated or consistent reporting of results, costs and outcomes consistent with the program legislation. Specific, clear and measurable objectives were never established.

5. ***We recommend to the maximum practical extent, the Ministry look to the competitive market for the performance of tasks appropriately external to government and take advantage of the values achievable by appropriate contracting and, in particular, that the Ministry avoid long-term non-competitive contract arrangements.***

Background: To a considerable extent, the IFPA's were put in the position of being sole source suppliers. This may be attributable to the separation of funding and stewardship inherent in the initial FRBC/Ministry model. In the delivery of future

programs on the land base, the Ministry could consider providing contract opportunities to a broader and more competitive market. Such tasks as inventory, identification of forest productivity improvements, habitat studies, etc. might be contracted competitively by the Ministry.

6. ***We recommend that in cases where there are clear benefits to encourage licencees in TSA's to act co-operatively, FIA funding and other funding be directed only to the management committee of a TSA, which committee must have a constitution that meets minimum conditions, including a means of protecting the interests of individual licencees.***

Background: Where funds go directly to TSA licencees they may choose to spend them on pet projects. Where the funds go to a TSA committee they have the opportunity to make more strategic investments that provide benefits to the TSA as a whole; to realize savings because of the scale of larger projects; and, to provide through its activities the opportunity to develop a co-operative approach to management of the TSA for the benefit of all licencees.

7. ***We recommend that the issue of productivity of the forest resource be revisited particularly in the context of the impact of the Mountain Pine Beetle and that a plan be considered that would see the development of a culture of constant improvement. Proven practices should become a company obligation, in a manner similar to current free to grow obligations, with increased costs, on a normalized basis, offset against stumpage payments payable.***

Background: The initial IFPA program was established to improve forest productivity as a means of replacing forest land lost to parks and other resource priorities with greater productivity on the remaining land base. Circumstances have changed materially and the Mountain Pine Beetle dominates forestry issues in much of the province. Improved forest productivity and better inventories for planning can both contribute to mitigation of the loss of mid-term fiber.

8. ***We recommend that the Chief Forester be provided resources to survey the status of timber supply data in the province and to address identified deficiencies with particular reference to comprehensive data needed to address Mountain Pine Beetle issues.***

Background: The size of AAC uplifts found in several TSA's suggests that provincial inventory data may not be as current as it needs to be to determine AAC's to an appropriate degree of precision and that land base information in Mountain Pine Beetle areas may not be of sufficient and applicable detail to permit the development of effective strategies to respond to the situation.

9. ***We recommend that funding and program accountability be closely linked. This is most likely to occur where funding program management and accountability are centered in one organization.***

Background: For the IFPA program, licencees had reporting responsibilities to both the funder (FRBC or FIA) and to the Ministry. As well as reducing accountability as no agency took full responsibility for monitoring the program, administrative costs of the program were greater for both government and licensee.

Appendix 1: Impacts of Permanence, or Not, of AAC Uplifts

Chief Forester's Determination	IFPA Characteristic	Net Allocation Result After Chief Forester's Determination
RED awards a 400,000 m ³ uplift		
-300,000 m ³	All replaceable licencees in the TSA share in the IFPA in accordance with their TSA interest	If permanent 100,000 m ³ is shared in accordance with TSA interest. If RED increase not permanent IFPA licencees have a 100,000 m ³ net increase until the IFPA expires and then it all goes to the Minister for allocation.
+400,000 m ³	All replaceable licencees in the TSA share in the IFPA in accordance with their TSA interest	If RED award permanent, licencees share 400,000 m ³ and the Minister gets 400,000 m ³ . If RED award not permanent then all 800,000 m ³ is available for the Minister with 400,000 m ³ of it becoming available on expiry of the RED award
-300,000 m ³	Before award the single IFPA licencee has a 20% interest in a TSA with a total AAC of 1,000,000 m ³	If RED award permanent, IFPA licencee has a net 271,429 m ³ increase*. Other licencees share a 171,429 m ³ decrease. If RED award not permanent, the IFPA licencee has a 100,000 m ³ increase until the IFPA expires and then it all goes to the Minister for allocation.
+400,000 m ³	Before award the single IFPA licencee has a 20% interest in a TSA with a total AAC of 1,000,000 m ³	If RED award permanent, IFPA licencee has a 400,000 m ³ increase. Other licencees get nothing. If RED increase not permanent, IFPA licencee has a 400,000 m ³ net increase until the award term expires and then it all goes to the Minister
No IFPA uplift; IFPA licencee(s) make submission to reduce proposed AAC reduction from 600,000 m ³ to 200,000 m ³		
-200,000 m ³	All replaceable licencees in the TSA share in the IFPA in accordance with their TSA interest	All replaceable licencees share a 200,000 m ³ reduction. All licencees participated in the work to avoid a 400,000 m ³ reduction
-200,000 m ³	The single IFPA licencee has a 20% interest in a TSA with a total AAC of 1,000,000 m ³	The 20% licencee has a 40,000 share of a 200,000 m ³ reduction. The single licencee did the work to avoid the 400,000 m ³ reduction but has the same result as the non-IFPA licencees

*allocation of cut is based on percentage of AAC held by each licencee including the IFPA uplift.

