

CA9
NS
951
091

Subsidiary Agreement for Forestry Interim Evaluation

EXECUTIVE SUMMARY

Province of Nova Scotia,
Department of Lands and Forests
and Canada, Department of
Regional Economic Expansion, Nova Scotia

ACOA
Library

Bibliothèque
APECB



76065

July 1981

MacLaren Plansearch

Lavalin

Subsidiary Agreement for Forestry Interim Evaluation

EXECUTIVE SUMMARY

Province of Nova Scotia,
Department of Lands and Forests
and Canada, Department of
Regional Economic Expansion, Nova Scotia



EXECUTIVE SUMMARY

EVALUATION OF THE SUBSIDIARY AGREEMENT
FOR FORESTRY

<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
1. INTRODUCTION	1
2. AGREEMENT ACHIEVEMENTS:	
EFFECTIVENESS AND EFFICIENCY	2
2.1 The Subsidiary Agreement for Forestry - An Overview	2
2.2 Forest Management Program	7
2.3 Forest Industry Development Program	13
2.4 Support Services Program	16
2.5 Education, Public Information and Evaluation Program	20
3. RECOMMENDATIONS	22
3.1 Forest Management Program	22
3.2 Forest Industry Development Program	25
3.3 Support Services Program	26
3.4 General Recommendations to the Subsidiary Agreement	27

CHAPTER 1

INTRODUCTION

1. INTRODUCTION

In June 1977, a five-year Subsidiary Agreement for Forestry was signed which included four programs. These are:

- Forest Management
- Forest Industry Development
- Support Services
- Education, Public Information and Evaluation

These programs incorporated twelve projects with a total budget of \$25,570,000. In July 1978, a fifth program was added which increased the total Agreement budget to \$60,537,500. This new program subsequently became the Wood Salvage/Storage project.

This evaluation of the Agreement was conducted by MacLaren Plansearch between February and May 1981. It covers all projects, except the Evaluation project. The focus of the evaluation is on project effectiveness and efficiency as well as on certain specific questions included in the study's Terms of Reference. Based upon the evaluation, the consultant has made a number of recommendations that are intended to improve the effectiveness and/or efficiency of the Agreement during its final year. In addition, further recommendations have been made that relate to the design or implementation of a possible Second Subsidiary Agreement for Forestry.

CHAPTER 2

AGREEMENT ACHIEVEMENTS:
EFFECTIVENESS AND EFFICIENCY

2. AGREEMENT ACHIEVEMENTS: EFFECTIVENESS AND EFFICIENCY

2.1 THE SUBSIDIARY AGREEMENT FOR FORESTRY: AN OVERVIEW

The Subsidiary Agreement for Forestry has two objectives:

- o to maintain the existing aggregate employment based mainly on the softwood species, and
- o to increase employment opportunities and incomes in timber harvesting and processing based mainly on hardwood species.

The first objective of the Agreement was to be achieved principally through increasing the annual allowable cut (AAC) in order to contribute towards bridging the gap between current softwood cut and the existing AAC.

Although within the mandate and constraints of this evaluation the size of the Agreement's contribution to AAC cannot be calculated, several factors indicate that a contribution has been made to the overall objective of maintaining softwood-based employment:

- o the level of forest management, the single most important contributor to increasing AAC, is generally meeting or surpassing expectations;
- o the level of efficiency of the sawmill industry has been increased, thereby contributing to the industry's long-term viability and to reducing waste of wood fibre.

In addition, certain external factors have combined to increase hardwood utilization in the province. Since some of the increased harvest is from mixed stands, this should have the effect of increasing the quantity of softwood which is economically accessible.

On the basis of these factors and in the absence of mitigating external circumstances, it is reasonable to conclude that a contribution has been made to increasing the AAC and, consequently, to the stabilization of employment. On the other hand, the full achievement of this latter objective will require long-term forest management inputs. Furthermore, certain external factors such as the rapid spread of spruce budworm, may actually be increasing the immediate gap between AAC and actual cut, in which case both the level of current efforts and the objective of maintaining current softwood cut will have to be reassessed.

Much less success has been achieved in regard to the Agreement's second objective of increasing hardwood-based employment. Only two industries have been established which are partially attributable to the Agreement. These have created approximately 50 full-time jobs. Three reasons are principally responsible for the low effectiveness in this area:

- o financial and human resources allocated for this purpose were limited and did not reflect the apparent importance attached to this element by the preamble to the Agreement(1);
- o resources actually committed to this purpose were well below budget;
- o external factors, specifically an increased demand for hardwood pulp and the growing demand for fuelwood, have increased utilization of hardwoods without Agreement intervention.

The last of these factors has substantially reduced the apparent need for finding additional hardwood uses and accounts for much of the shift of emphasis away from this element of the Agreement. On the other hand, the large increase in hardwood as fuel does nothing to contribute towards the processing sector, part of the Agreement's second goal.

(1) See Schedule "A", p. 19.

In the first four years of its term, the Agreement created over 2,000 man-years of direct short-term in the implementation of supported activities.

As discussed in following sections, considerable success has been achieved in the implementation of the specific Agreement projects. Much of this success must be attributed to Lands and Forests' role in Agreement implementation. As well, over the term of the Agreement, Lands and Forest and DREE have established good working relations. Nonetheless, several problems have been identified with regard to management style.

In practice, the Management Committee charged with implementing the Agreement have kept their eyes on the major goals of the Agreement but have not felt obliged to investigate and document the effects of the removal or modification of specific elements. Two brief examples serve to illustrate this:

- (i) The construction of the Tree Improvement Centre cost much more than originally estimated. To ensure its completion, funds from silviculture on Crown Lands were reallocated. While the Centre will achieve its own specific goals, the impact of reduced funding on silviculture was never defined.
- (ii) Much of the funds originally allocated to identifying new uses for hardwoods were used to fund the development of site-index curves and the growth/yield model. While these latter activities will certainly improve knowledge about growth and management of hardwood, there was never any recorded evaluations of the benefits of these activities vis-a-vis those of identifying new hardwood uses.

These examples highlight two general, but related, problems:

- o Project Briefs were not seen as the instruments through which the Agreement, program and project objectives were operationalized. Rather they were considered only as indicating intended project orientation. The Management Committee did not subsequently systematically produce its own documents which would indicate specific targets by activity and by year and which would define the relationships between these activities and the project and program objectives.
- o Modifications, additions or deletions of activities were not documented in terms of their impact on other elements of the Agreements. The effect of this omission was to ignore the interrelationships between various elements of the Agreement.

These two problems emerge, to a large degree, from the difficulty encountered in estimating expected project results and project requirements. In combination, these two shortcomings can have several consequences:

- (i) It is possible that changes are made which gradually alter Agreement orientation without management being conscious that this is occurring.
- (ii) As more and more modifications are made to the Agreement, the logic linking the elements will tend to become less evident. As a consequence, required inputs and outputs will become increasingly difficult to detail. The effect of the absence of clearly defined goals, inputs and outputs will be felt most acutely by middle management who are directly responsible for project implementation.
- (iii) There can develop problems of continuity, should members of the management team change in the course of the Agreement, since the evolution of the objectives of the Agreement cannot be clearly traced through written documents.
- (iv) Evaluation of the performance of the Agreement becomes difficult, since the only complete statements of project aims and methods are contained in documents (Schedule "A" of the Agreement, and the project briefs) which are no longer considered reasonable statements of expectations and are, therefore, not the preferred reference points for an evaluation.

The Agreement worked well and was generally efficient and effective; however, in view of the above considerations, management should consider changes in the following areas:

- o The concept and role of Project Briefs;
- o The system of approving modifications to all elements of the Agreement.

Specific recommendations are presented at the end of this Summary.

2.2 FOREST MANAGEMENT PROGRAM

The program goal is to ensure long-term timber supply to forest industries. In turn, this is intended to contribute towards the objective of maintaining softwood-based employment.

With available data, it is not possible to calculate the increase in Annual Allowable Cut (AAC), although the program has generally been effective in applying anticipated silvicultural treatments. In the absence of intervening external factors, these treatments should certainly make a positive contribution to the AAC which, in turn should contribute towards the long-term stabilization of employment. Actual achievement of the stabilization goal, however, is dependent upon several factors beyond the control of the program:

- o the treatments must be maintained in the future;
- o the rapid spread of spruce budworm is decreasing AAC; current silvicultural efforts may consequently be inadequate;
- o the level of harvest of forest industry, if it continues to increase, may jeopardize long-term stability.

2.2.1 Forest Management on Private Lands Project

The level of effectiveness of this project has been high. Public response to the project has been greater than anticipated and Lands and Forests has had to employ more resources, both human and financial, than originally estimated in order to meet the demand for management plans. The quality of the plans prepared has reportedly been high. Furthermore, in all categories of forest management (silviculture, roads, boundary lines) performance is matching or surpassing expectations.

No major problems have been identified in the management of the project, which has generally been efficiently conducted.

Analysis indicated that in terms of cost to the project, the greatest silvicultural output per assistance dollar has been achieved on the pulp and paper companies' land, the least output per dollar on small woodlots.

Based on the experience gathered to date, it should be possible in the future to improve project performance in two areas:

- o in the area of project costs, where it should be possible to decrease costs without lowering project effectiveness;
- o in the area of owner commitment to implementing management plans, where it should be possible to increase commitment without seriously decreasing demand.

These objectives are achievable through specific modifications in the following four areas:

- o the type of management plan prepared;
- o the type of assistance available to woodlot owners;
- o the level of commitment required of woodlot owners before management plans are prepared;
- o the system of inspection by Lands and Forests staff.

Specific recommendations in this area are presented in the last section of this summary.

2.2.2 Forest Management on Crown Lands Project

The level of effectiveness of this project has been mixed. In the building and upgrading of roads, the creation of fire ponds and the construction of the Tree Improvement Centre, project

effectiveness has been good. On the other hand, silviculture has lagged considerably behind expectations. To date, the area actually treated is only 25% of the total area originally expected to be treated and, even with the concerted effort planned for the final year, not more than one-half of the original estimates is likely to be achieved. Three factors are principally responsible for this shortfall:

- the addition of the Tree Improvement Centre which required significantly more of the project's funds than originally estimated;
- certain delays in organizing silviculture crews, in part due to early inexperience on the part of several foresters;
- relatively low priority accorded silviculture with respect to road construction.

The efficiency with which the project was conducted has also varied. Early in the project, efficiency in road construction in particular was poor, but this has improved considerably with better supervision by increasingly experienced Lands and Forests staff, with the contracting of construction by job and with the introduction of contract-tendering. Efficiency in the silvicultural activities has undergone a similar evolution.

In all areas, project performance is now much higher than in the past and the recent hiring of a Director of Crown Lands has contributed to the improved situation. Current trends in project performance are considered satisfactory, and if they are maintained, no particular modifications should be required for the future.

2.2.3 Spruce Budworm Salvage and Wood Salvage/Storage Projects

The level of effectiveness of these projects has been high.

- o grants have been awarded for the construction of roads and considerably more miles built than anticipated, although these have been of lower-than-expected class; this shift has been required by the more rapid spread of budworm infestation than initially expected;
- o a consultant report on long-term storage alternatives of infested wood was satisfactorily completed;
- o infested wood is being stored with assistance from the Wood Salvage/Storage project; total wood stored will likely be over 90 percent of the maximum provided for in the project briefs;
- o the Strathlorne Nursery has been constructed as intended;
- o over 1,400 man-years of employment will have been created by the end of the project through project-supported activities;
- o on the other hand, there has been no sorting of sawlog quality logs, since quantities were not considered sufficient to justify the operation;
- o there has been limited forest restructuring, due to a lack of seedlings; the construction of the nursery should provide the missing input in the future.

Operational efficiency has generally been good, but two problems have been identified:

- o only 21% of stored wood has been debarked and debarking costs have been higher than expected; the problem is related to the capacity of the debarkers being used;
- o more roads have been required per cord of wood stored than originally anticipated.

While all major outputs have been effectively produced, it is impossible to evaluate project success in minimizing potential loss from budworm, until data is available on the relative rates of deterioration of wood on the stump and in storage.

The deteriorating safety factor in the forest will not permit current salvage operations to be much prolonged in the Highlands. Recommendations deal with:

- o the possibility of extending the operation to the Cape Breton Lowlands;
- o the need for greater understanding of the economics of salvage and storage.

2.2.4 Group Management of Private Lands Project

The project has been effective in creating eight group management ventures according to the specific requirements of the project team.

Within the groups, separate management plans are prepared for each woodlot. In certain groups, backlogs have developed in the preparation of the plans. The quality of the plans is reportedly high.

Land acquisition by the groups has not been necessary, freeing the total project budget for organizational and operational expenses. Despite this, the budget will be inadequate to cover expenses through the final year. This is due to the fact that the Project Brief increased the anticipated rate of group formation to eight within two years, well beyond the gradual increment specified in the Agreement, but it did not concurrently increase the project budget.

Forest improvement work for which the groups are responsible is funded under the Forest Management on Private Lands project, and is included in the discussion of that project.

The assessment of the long-term viability of the groups was not within the mandate of this study. It is analysed in another report, Viability Study, Group Management Project, the salient conclusions of which are summarized below.

The principle behind the Group Management project is sound but, given their present structure, the ability of most groups to become self-sustaining is a long-term proposition, while for some it is a virtual impossibility. Furthermore, should the project be maintained in its present format, the costs to the two levels of government will, over the short-term of only 10 years, become prohibitive - in excess of one million dollars per year per group.

Recommendations are made in that study which are intended to improve the groups' ability to become self-sustaining and to reduce project costs. Should a second Forestry Subsidiary Agreement be signed, the project should be continued, subject to the proposed recommendations.

2.3 FOREST INDUSTRY DEVELOPMENT PROGRAM

This program was designed with the mixed goals of expanding the use of hardwoods and making more efficient use of softwoods utilized for lumber.

Shortly following the signing of the Agreement, management recognized that rather than there being a surplus of good hardwood, the surplus was of poor quality. Furthermore, even that surplus largely evaporated as a result of an increased demand for hardwood for pulp and for fuelwood. What was obviously lacking were the tools to manage the hardwood species. This avenue has been vigorously followed and the results show excellent promise.

The encouragement of efficient, safe sawmills has been very effective. The project made full use of a range of inputs and has achieved the program's goals.

The continuation of this program should not hold a high priority in its present form. There may be reason to extend the identification of New Uses of Hardwoods should it not be possible to fund this under an industrial development package.

2.3.1 New Uses for Hardwood Project

Relatively little effort was directed towards the identification of new opportunities of hardwoods:

- o Only one market study was undertaken on contract to a consulting firm; the results of the study were circulated to three interested parties;
- o One survey of existing hardwood users was undertaken by DOD field staff; it provided some useful information but its use was generally limited;

- o A few small investigations were undertaken under the Opportunity Identification program of the Industrial Development Subsidiary Agreement; none of the results proved positive enough to pursue.

One pallet mill was established following the consultant study. A flooring mill was also established which may, in part, be attributable to the project. Together, these two firms employ some 50 persons.

The relative shift of emphasis away from this part of the project may be ascribed to three factors:

- o The identification of expansion potential in the hardwood industry was more difficult than expected.
- o The quality of the hardwood was lower than anticipated.
- o The unanticipated increase in wood as fuel and the increase in hardwood use by the two pulp mills reduced the urgency of the need to develop hardwood industries.

The use of hardwood as fuel, however, does not contribute to the processing sector, one of the goals of the Agreement. The effectiveness of the project in this respect is, therefore, low.

The project has been much more effective in producing the expected site index curves and growth/yield model. However, this aspect of the project will have used, by the end of the Agreement, about 96 percent of the project budget. It can be assumed that had the full funds budgeted for opportunity identification been employed in that way, funds for the site index curves and growth/yield model would have been insufficient.

No problems of efficiency of implementation were identified. Recommendations relate to the need for further attention to be paid to the identification of new opportunities for hardwood use.

2.3.2 Sawmill Improvement Project

This project has been highly effective in fulfilling its intended function. Its funds have been expended assisting mills to modernize their equipment. To date, eleven mills have received assistance (these account for 20-25 percent of provincial production) and ten percent of the initial budget remains. No further assistance is expected to be granted.

Certain minor operational inefficiencies exist at some mills and management standards are uneven. Nonetheless, the assisted mills have:

- o increased total production
- o increased productivity per man
- o increased the lumber recovery factor
- o upgraded work and safety standards

The success of the project is largely attributable to the effective coordination of assistance available under a variety of programs (RDIA, Nova Scotia Resource Development Board and CEIC).

The project has been implemented efficiently.

2.4 SUPPORT SERVICES PROGRAM

This program groups a number of activities necessary for the "successful implementation of the Forest Management and Forest Industry Development programs"⁽¹⁾.

The Support Services program as a whole has been effective and its activities implemented efficiently. Nonetheless, one area of concern has been identified which is inherent in the program structure. Although designed to provide services required for the successful implementation of the other Agreement programs, the formal organizational ties with these programs are weak. This might have two consequences:

- o activities can be added which are not directly related to the needs of the other programs;
- o activities can be conducted in ways which may be ill-adapted to the needs of the other programs.

To avoid these problems in the future, it is suggested that on-going monitoring of each support service include an assessment of the practical use being made of it by other Agreement projects.

2.4.1 Forest Inventory Refinement Project

The project has been effective in producing the data bases required. Lands and Forests staff have themselves conducted more of the work than anticipated and a surplus of over \$75,000 is projected for the activities originally included in the project. Part of the remaining funds will be employed in conducting a biophysical survey. The addition of an activity

(1) Schedule "A", p. 29

to determine annual cutover lands using satellite photography is also being contemplated. The possibility of a shortfall in funds exists.

The Project Brief was not ready until August 1977. This forced a postponement of much of the work planned for 1977 until the summer of 1978. Inclement weather in 1980 has delayed a scheduled aerial survey of budworm damage by one season. With these exceptions, work under the project has proceeded well and efficiently.

The activities originally included in the project have been useful in implementing the Forest Industry Development program and in the salvage projects. On the other hand, the proposed new activities, coming as late as they do, will not be immediately useful to the effective implementation of this Agreement.

2.4.2 Organization of Forest Management Crews Project

The project has operated well and effectiveness has been high. By the end of the fiscal year 1980-81, forty-two crews were created, employing 169 workers. The crews are well-distributed through the province.

The crews have been used extensively by the Forest Management on Private Lands project and some have also been used on pulp company and Crown lands.

The project has faced two problems in its implementation:

- o a delay of seven months in the drafting of its project brief;
- o a high "drop-out" rate within the first year, of those workers having completed one of the courses offered.

There appears to be little need for additional crews. No further expansion should therefore be permitted unless it is related to a specific and documented need.

2.4.3 Establishment of Consulting Foresters Project

The project has been very successful in achieving expected results. The two consultants assisted are located in areas of high demand. Both consultants became self-sufficient more rapidly than expected, due to the high rate of public response to the Forest Management on Private Lands project. Consequently, only about 50 percent of the budget has been required.

2.4.4 Survey of Private Ownership Characteristics Project

Both the effectiveness and efficiency of this project are low. Only one survey has been conducted and its analysis is only now being finalized. While useful information has been obtained covering a very wide range of data, the survey lacked focus and was probably too broad. The survey might have served as a useful basis for subsequent, more focused surveys, but long delays have severely restricted the possibility of this. The survey will be of very little use for a final Agreement evaluation, particularly since "time-series" data, showing trends since the start of the Agreement, will be lacking.

These problems may be linked to four causes:

- o lack of a well-defined goal in the project brief concerning the specific uses of data to be gathered;
- o lack of input from other projects concerning their data needs;

- o Lands and Forests' insistence on undertaking almost all aspects of the survey with their own staff, despite budgetary provisions for the contracting of consultants and despite their inability to commit adequate staff to the project;
- o long delays in implementation and analysis, largely attributable to manpower shortages at Lands and Forests.

Although it is too late to regain time lost or to recapture reference data on the situation existing at the time of Agreement initiation, the possibility remains of:

- o conducting an immediate second survey with a specific focus;
- o designing such a survey so as to minimize analysis time.

Specific recommendations to this effect are included following this Summary.

2.5 EDUCATION, PUBLIC INFORMATION AND EVALUATION PROGRAM

The effectiveness of this program is mixed. In the short-term, the Education and Information project has been very effective. In the medium to long-term, the results are uncertain. The Management Information system has not been effective in the short-term but shows good promise beyond that.

Efficiency in both cases is only moderate over the term of the Agreement but has improved greatly in the later stages, and may now be classified as good.

The program should have a reasonably high profile, should there be a Second Subsidiary Agreement for Forestry.

2.5.1 Education and Public Information Project

The effectiveness of this project in producing promotional material has been high. There has been little need to promote the projects of the Agreement since public response has, in any case, been very high. Focus, therefore, has switched to providing information on the importance of forest management practices.

Project outputs include a wide range and variety of printed and audio-visual materials. In terms of its wide distribution and the favourable reaction engendered, one of the most important has been the newsletter "The Forest Times".

The activities have been directed to the audiences specified in the project brief, with priority being given to woodlot owners and the general public.

While public response to activities has been high, no data is available permitting an assessment of the actual impact of the activities on their target population.

Project efficiency has been good, despite certain manpower shortages early in the project.

2.5.2 Management Information System Sub-Project

The system should improve the quality of collected data, and reduce time involved in data-handling and project monitoring. Furthermore, data should become available on a flexible basis, permitting retrieval in a variety of forms for different needs.

On the other hand, long time delays have largely undermined the usefulness of the system to this Agreement. The scope of the system was expanded beyond original intentions and total development costs rose considerably. Much of the data being collected would appear to be primarily useful for research purposes.

Overall, the effectiveness of the system to the Agreement will be limited, although it may prove of use in a final evaluation. The system should, however, improve the on-going monitoring of forestry projects after this Agreement.

CHAPTER 3

RECOMMENDATIONS

3. RECOMMENDATIONS

3.1 FOREST MANAGEMENT PROGRAM

- o In any future agreement which includes components similar to the Forest Management on Private Lands, the Forest Management on Crown Lands and the Group Management of Private Lands projects, all three projects should be combined and administered as a single project.

3.1.1 Forest Management on Private Lands Project

- o Flexible "off-the-shelf" plans should be developed through the preparation of standard plans by "stand-type" and the preparation of separate sheets describing pertinent management operations (e.g. silviculture, fire protection, marketing, etc.). A site visit would be undertaken to establish site-specific elements of the plans after which the forester would assemble the appropriate standardized sheets to prepare a single individualized plan.
- o Plans should cover periods of five to ten years, but within this total time-frame the woodlot owner should be free to schedule the precise rate of implementation of the suggested activities. Thus, as much as possible, woodlot owners should be encouraged to become their own forest managers. Expert advice should be available in two ways, however. First, on-going contact with Lands and Forests extension services should be encouraged. Second, each owner should be issued a specific number of chits for the hiring of a

- o Higher rates of assistance should only be given informal groups on the condition that the groups actively block their land. Informal groups which do not undertake joint management activities should be treated as individuals with regard to assistance offered.

3.1.2 Spruce Budworm Salvage and Wood Salvage/Storage Projects

- o Subsidized salvaged wood (1) should not be exported, unless the explicit objective of the activity is broader than capturing the economic value of infested wood (e.g. the creation of employment).
- o Given the higher than expected costs and lower than expected effectiveness of debarking, alternate debarking and/or storage systems should be considered.
- o The economics of the salvage of budworm-infested wood should be investigated. This investigation must consider the relative rates of deterioration of wood on the stump and in storage. Furthermore, salvage should be considered as being a first step in forest improvement work; calculations should consider the resulting savings on silviculture and forest protection from the salvage operations.
- o If economical, salvage operations should be extended to the Lowlands. Any Lowlands program undertaken, however, must be carefully adapted to the specific local land-tenure situation.

(1) The subsidy of the wood is not direct, but implicit. See footnote 3, p. 83, in the main report.

3.1.3 Group Management of Private Lands Project

- o Where possible, small areas of Crown Lands should be made available for blocking with private lands. Where the land is within the service areas of formal groups, the groups might be paid for the management of these lands. Long-term leasing of the parcels of Crown Land might also be considered in order to facilitate blocking.

Further recommendations concerning the operation and financing of groups are contained in the report Viability Study, Group Management Project, May 1981.

3.2 FOREST INDUSTRY DEVELOPMENT PROGRAM

3.2.1 New Uses for Hardwoods Project

- o Funds should be available for use by the private sector in undertaking feasibility and market studies of possible hardwood-related opportunities. The assistance for approved studies should be in the form of loans, becoming grants where the opportunities are shown to be non-feasible.

3.2.2 Sawmill Improvement Project

- o Any extension of the present project should be limited to areas of the province not presently served by upgraded mills. Total industry capacity should not continue to expand.
- o Future assistance should concentrate on upgrading mill management.

3.3 SUPPORT SERVICES PROGRAM

- o On-going monitoring of each support service should include an assessment of the practical use being made of the service by other Agreement projects.

3.3.1 Organization of Forest Management Crews Project

- o No further increase in the number of crews should be permitted unless it is related to a specific and documented need springing from work to be undertaken under this Agreement or from an existing demand amongst woodlot owners.

3.3.2 Survey of Private Ownership Characteristics Project

- o A second survey should be designed immediately based upon data available in the first survey and upon the needs of a final evaluation. The design should permit rapid coding and statistical analysis of the results. The analysis should include identification of changes which may have occurred between the first and second surveys.
- o Consideration should be given to having the entire survey and analysis conducted by a consultant experienced in this field.

3.4

GENERAL RECOMMENDATIONS TO THE SUBSIDIARY AGREEMENT

- o The project briefs should contain initial estimates of input requirements and expected project results by activity and by year. The categories used in the estimates should be ones which will be useful to management in an on-going monitoring system. Data on expenditures and actual performance should be recorded using the same categories.
- o Progress reports should be submitted on a regular basis, presenting expected and actual outputs and expenditures, using the previously selected categories. Evaluation criteria employed should include both qualitative and quantitative measures. The reasons for any deviations between actual and expected performance should be documented by the Project Teams. The progress reports should form the basis for an annual evaluation.
- o Estimates of expected inputs and outputs should be revised in light of any changed circumstances, which themselves should be specified in the documentation.
- o Changes or additions to activities should be justified in writing, explaining the benefits of the change in terms of the specific goals of the project or program. The effects of the change on the overall distribution of resources should be detailed; the change must then be justified in terms of its greater contribution to the project's goals than that of any activity which may, as a consequence, be removed or reduced in scope.

professional consultant forester. The chits, subsidized by the government, would be used at the discretion of the landowner.

- o The woodlot owner should be required to make a cash advance payment to the consulting or government forester before a management plan is prepared. The forester should then submit one copy of the plan to the government and another to the woodlot owner. In the case of a consulting forester, he would receive the balance of his payment from the Province upon submission of the plan. The government should guarantee the owner a rapid reimbursement of his initial payment upon his agreeing to implement the plan.

- o Reduced-interest loans should be offered for the construction of access roads on small private woodlots. These loans would become grants at the expiry of the management plans if the stated silvicultural work has been undertaken. Financial assistance for silviculture should be maintained, but merchantable thinnings, Christmas tree shearing and shelter thinnings, should not be eligible.

- o Consideration should be given to lowering the quality of roads built on small private woodlots: current class D roads provide a standard of access which is unnecessary in most cases.

- o Owners should be required to submit yearly signed statements concerning work undertaken in that year; the level of inspection by Lands and Forests staff should be reduced from its current 100 percent level.