Early in this report I explained that the influence of forest tenure policy on the structure and development of the forest industry has emerged as a matter of major concern during the course of this inquiry. This was perhaps inevitable, in view of the preponderance of Crown ownership of forest resources, the importance of industrial forestry for the entire economic and social development of the province, and the rapid changes that have been occurring within the industry itself.

Over the last century, forest policy has been designed and continually revised to accommodate and promote industrial development. And, as I have pointed out in previous chapters, special policies have been directed toward particular phases of the industry. But there has been very little analysis of the impact of forest policy on the structural evolution of the forest industry, and no public policy has been clearly articulated with respect to the desired form of industrial growth. Yet in view of the importance of this issue, any review of forest tenure policy should consider its effects on the industry's structure and the direction of industrial development that will best serve the public interest.

My terms of reference instruct me to inquire into the structure of the forest industry and its pattern of ownership and control, concentration, and integration, and in formulating recommendations to recognize the need to maintain a vigorous and efficient industry. In Chapter 4 and Appendix B, I report the results of my investigations of the present structure of the industry, and in other chapters I have made recommendations that would have considerable consequences for its future development. In this chapter I attempt to put the prospects for the industry into some perspective, to draw together some of my earlier proposals to indicate how they should contribute to industrial vigour, to deal with some additional related matters, and generally to indicate what I consider to be the priorities for industrial policy.

BRITISH COLUMBIA IN THE GLOBAL PICTURE

Commentaries on forestry in British Columbia typically emphasize the enormity of the timber resources, the size of the forest industry, and its importance to the provincial economy. The significance of forestry in the provincial context is hard to exaggerate, but there is the danger that emphasizing it may give a misleading picture of the industry's position in forest products markets. Even in terms of the existing stock of world softwood timber, British Columbia contains only a small fraction; about 55 per cent of the world's softwood timber is believed to be in the Soviet Union alone, North America contains 25
per cent, Canada has 12 per cent, and British Columbia only 6 per cent.\(^1\) I have already noted that the forest industry of this province is an export industry, and it competes in international markets with the other major world sources of softwood timber products.

Correspondingly, British Columbia producers of lumber, pulp, and other forest products serve only a small fraction of the markets in which most of their products are sold. In Chapter 21 the general pattern of marketing was described. The share of consumption in the main export markets accounted for by B.C. production is shown in Table 23-1. The relatively minor position of British Columbia's share in these markets is conspicuous, even though this province is among the world's main exporters of forest products. The inference to be drawn, coupled with the competitiveness of international marketing, is that the province's industry has limited market power in the consuming regions where its products are sold.

<table>
<thead>
<tr>
<th>SHARE OF CONSUMPTION ACCOUNTED FOR BY BRITISH COLUMBIA FOREST PRODUCTS IN MAJOR MARKETS, 1974</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
</tr>
<tr>
<td>lumber</td>
</tr>
<tr>
<td>pulp</td>
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<tr>
<td>newsprint</td>
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</table>

\(^1\) Sales by B.C. producers are mainly restricted to western states, where they account for a significantly higher proportion of consumption.


Forecasts of future world demand for forest products suggest substantial growth in the foreseeable future. The Food and Agriculture Organization of the United Nations predicts that, during the last three decades of this century, the demand for solid wood products will nearly double and that the requirements for paper and paperboard will triple.\(^2\)

However, it cannot be assumed from such projections that the industry of this province will experience growth of these proportions, for several reasons. First, long-term predictions of this kind are inherently precarious, and are susceptible to changes in the basic relationships which underly demand. Second, while the province's resources are capable of supporting increased production, it is by no means clear that they could support the expansion implied by these projections over the next three decades. Third and most important, the growth of the province's industry will depend primarily on its ability to compete against other world suppliers.


In this connection, the prospects for increased production in competing supply areas must be considered. Both in established areas of the western world and in developing countries very substantial industrial and forestry developments are in train which will almost certainly have a significant impact on the markets served by B.C. producers. Even the United States, by far our biggest customer, is likely to increase production considerably, and one official study suggests that under certain (albeit not "likely") conditions, that country could become practically self-sufficient in wood products by 1990. At least some parts of the U.S. industry appear to enjoy lower capital and labour costs and higher productivity than their counterparts in this province. In short, while I have not made an independent study of world market prospects, the available evidence suggests that we cannot assume that world consumers of forest products will exert heavy new demands on this province's forest production in the foreseeable future.

Other circumstances also colour the outlook for expansion of the province's forest industry. Certainly, the capital costs of construction in British Columbia are very high by international standards, as is the cost of labour. The relatively poor profit performance of the industry in recent years, which I discussed in Chapter 4, is another cause for concern. Also, during the last few years especially, it has become apparent that the primary advantage upon which the provincial forest industry was established—that of high quality timber—is rapidly being eroded. In the course of its development, the industry logically exploited the better, more accessible, and lower cost stands first, turning to less desirable resources as technology and market conditions brought them within the margin of economic recovery. As a result, inventories now consist, to an increasing degree, of stands which present difficult problems for recovery and manufacture. In most regions of the province, the industry's future rests on its ability to utilize low quality timber—defective stands, small dimensions, and heretofore under-utilized species like cedar and hardwoods—harvested at high cost in areas where the threat of environmental damage is often severe. These are constraints that will not impinge on many of our competitors in more favoured regions, at least not to the same extent.

Higher prices would undoubtedly spur industrial growth in British Columbia, but forecasts of price trends appear highly uncertain. In any event, the relevant prices are international prices, and any increases in them will generate supply responses in all producing areas and therefore will not necessarily improve the relative position of B.C. products.

These trends do not augur well for future industrial expansion. However, in drawing attention to them it is not my intention to paint a bleak picture for the province's forest industry but rather to emphasize the critical importance of public policies that will allow and encourage producers to achieve high levels of efficiency, minimize costs, realize the full values that markets poten-

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8 For an assessment of the prospects for forest products in the "third world", see the brief submitted to this Commission by Forestal International Ltd. Vancouver, November, 1975.


tially afford, and respond flexibly to changing technology and market conditions. It is to this end that many of my recommendations are directed.

INDUSTRIAL CONSTRAINTS AND POLICY IMPLICATIONS

In spite of the declining quality of available timber (and in part because of it) it is unlikely that the physical limits of the natural resource will be the binding constraint on industrial expansion in the foreseeable future. Much more critical is the relationship between the costs of harvesting, manufacturing, and transportation and the prices that can be realized for forest products. In the following paragraphs I touch on some of the ways in which governmental policy can influence these, and hence the scope for industrial growth.

Control of costs. With respect to costs, some of the most severe problems are only peripherally related to forest policy. Certainly a major constraint on new developments, especially in the more remote areas, is the high cost of labour. Even leaving aside prevailing wage levels, unstable industrial relations and high rates of labour turnover impede pioneering ventures. Evidence presented to this Commission suggests that in spite of statistically high unemployment rates, the difficulty of attracting and keeping a stable labour force has become a major impediment to steady and efficient industrial operations. This complicated problem clearly calls for the attention of specialized departments of government, and it should figure importantly in decisions about the location of new industry.

Perhaps an even more serious constraint on new developments has emerged in the last couple of years in the form of rapid escalation of capital costs. Evidence suggests that plants built only two or three years ago would cost double or more to construct today, which, in view of their present profit performance, would have precluded their undertaking. Industrial spokesmen maintain that unless some change in these cost trends occurs, we cannot expect many substantial new ventures of the kind that were undertaken with such frequency during the last 15 years.

The escalation of capital costs also presents difficulties for firms in making the repair, maintenance, and up-grading expenditures required to maintain efficiency and productivity. On the Coast particularly, many of the older mills need modernizing in order to remain competitive. Unless the industry's profitability improves, these firms are likely to find it difficult to raise the capital for these purposes.

There are, therefore, serious obstacles to forest industrial development, at least for the next few years. If the government is to accommodate further industrial expansion, particularly in manufacturing, it should encourage those particular activities in which producers in this province enjoy a

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6 One study of labour turnover in a sawmill that experienced a turnover of 235 per cent in one year revealed a cost of $1,000 per turnover, or $2,350 per person employed. William C. Wedley, Community and Corporate Development in the Pemberton Valley, a report prepared for the Pemberton Valley Labour Force Development Committee, October, 1975. Turnover rates of this magnitude are not uncommon in remote areas throughout the province.

7 Recent proposals of the federal Anti-Inflation Board to restrict the profits of manufacturing companies to 85 per cent of their level in either their most recent fiscal year or the 1970-74 5-year average would not likely permit sufficient earnings in the forest industry for either maintenance or expansion.

8 The Department of Economic Development has recently initiated a series of studies to identify opportunities for industrial growth. The first of these, The North East Report 75, A Summary Report on Development Possibilities in the North East Region of British Columbia (125 pp.), has been published by the Department and others are being prepared.
comparative advantage in trade,⁹ and generally attempt to assist the industry in coping with escalating costs.

The latter bears directly on forest policy through the cost implications of controls on logging and development practices exacted under harvesting rights. It appears to me that two areas of policy have imposed particularly excessive costs: the regulation of recovery standards, and controls on logging which aggravate the need for road construction. I have already examined these issues at some length, and it is my impression that both policies substantially increase the aggregate cost of timber recovery without providing compensating benefits.

In Chapter 18 I explained that current recovery standards are applied under uniform and rigorous specifications over widely divergent conditions, and have apparently been influenced less by economic analysis than by attempts to reconcile harvests with the inventory, to facilitate cut control accounting, and to expedite slash disposal. I have commented on the severe economic implications of these regulations both for the Crown and licensees, and recommend changes which are designed to permit recovery standards to be determined discriminatingly in light of economic factors and the special needs of each site. I have also proposed methods of granting harvesting rights that will develop operators' incentives to recover marginal material. If these modifications are adopted I have no doubt that they will significantly reduce the costs of harvesting and hence broaden the opportunities for feasible forest development.

The problem of roads was discussed in Chapter 20, where I emphasized the heavy environmental and economic impacts of road construction that have resulted from controls on harvesting patterns. It seems clear that much more emphasis should be put on economizing on road construction within the limits of proper silviculture and the environmental needs of each site. Revision of policy in this manner offers significant scope for reducing the costs of resource development.

While these two areas of policy probably offer the greatest promise for reducing the costs of timber production without prejudicing high standards of resource management, I have recommended other policy revisions as well, such as more suitable means of financing the enhancement of non-timber values (in Chapter 11) and more systematic administrative arrangements (in Chapter 24).

Realization of timber values. Government should also direct its attention to ensuring that the highest possible values can be realized on the forest products produced, and I have made a number of recommendations toward this end. With respect to marketing structures, most potential for improvement lies with intermediate products. In Chapter 21 I emphasized the importance of ensuring an active and open coastal log market, not only to provide opportunities for unintegrated manufacturers and log producers and to protect the public interest in stumpage revenues, but also to ensure that timber will

find its way through competitive market channels, to users who can put it to the most beneficial use. I have also criticized the strictures on chip marketing in the Interior, and recommended that they be relaxed so that the unrestrained forces of supply and demand will enable their value to be reflected in competitive prices. In the previous chapter I reviewed the restrictions on exports, explaining their depressing impact on log and chip values. My proposals for revising export controls offer a particularly easy means for broadening the demand for forest production and taking better advantage of potentially available market prices.

It should be recognized that policies directed towards increasing the demand and price for timber complement efforts to achieve higher standards of recovery. At present, there can be little doubt that recovery standards which compel operators to remove sub-marginal material depress the value of low quality logs on the Coast, and contribute to problems of residual chip surpluses throughout the province. In consequence, a significant fraction of productive activity involves a financial loss, and results in lower average returns for both operators and the Crown.

Finally, to provide a stimulating environment for industrial development, the government should concern itself with the policies of other agencies and other governments which go beyond forest policy itself. Certainly, rail transport difficulties have affected the efficient operation of the industry in the Interior and the lack of certain harbour facilities has impeded the development of export opportunities. Federal import tariffs on industrial machinery and equipment leave the capital costs faced by provincial producers well above those of competitors in the United States and elsewhere—increases that cannot be passed on to consumers in export markets. The federal government should also be encouraged to press diligently for lower import tariffs on forest products in foreign markets. And the provincial government should use its full influence to discourage the federal government from adopting such restrictive policies as were included this year in proposed new shipping legislation.

PRODUCTION FLEXIBILITY AND EFFICIENCY IN RESOURCE USE

I have emphasized that the extent to which the B.C. forest industry will be able to prosper will depend primarily on its ability to develop and use resources of declining quality under conditions of rising costs within the limits of externally generated prices for final products. I have also emphasized that the government can improve the environment for meeting this challenge. But the limits of economic feasibility are constantly shifting with changes in product prices, technology, and production costs. Therefore, another dimension of policy concern is to ensure that the industry can respond in the most advantageous way to changing opportunities. I am convinced that the most effective way of meeting this need is not through administrative regulations, controls, or subsidies, but rather through policies that will provide the scope, flexibility, and incentive for producers to respond to these changing external conditions which are beyond both their own and the government’s control. I have touched on this matter in several previous chapters. Most of my recommendations are directed toward unshackling the industry from restric-
tions and controls that suppress industrial responses to market fluctuations without producing identifiable offsetting benefits.

*Harvesting controls.* In Chapter 18 I examined the present cut control policy, and while I recommended that controls be retained my proposals will allow considerably greater response to fluctuating markets. This will not only enhance the viability of enterprises over market cycles, but will also ensure that, in the long-run, higher values are realized from resources by both producers and the Crown.

Correspondingly, in the same chapter, I proposed approaches to utilization controls that will promote flexible and efficient adjustments in the face of changing circumstances. Too often, efficiency is judged in purely technical terms, implying that the recovery and use of more material is by definition more efficient. But it must be recognized that beyond a certain point the recovery of more "waste" in the form of timber involves a waste of labour and capital and dissipates the value of the resources harvested. The criteria used to assess harvesting efficiency must recognize this economic dimension if the full potential value of timber is to be realized. These arguments also underlie my proposals for more flexibility and more rigorous evaluation in determining harvesting priorities among old-growth and second-growth stands, and those requiring rehabilitation.

*Markets for intermediate products.* Throughout this report and again in this chapter I have referred to the desirability of maintaining vigorous and competitive markets for intermediate products. As well as enhancing product values, markets for intermediate products promote flexibility in industrial activity. In the absence of such markets consumers of logs and chips are restricted to those they produce themselves, regardless of whether they are best suited to their needs, whereas active marketing permits more flexible inventory adjustments and more efficient allocations of raw material among users. Thus my recommendations for promoting log and chip markets will also contribute to desirable flexibility in production.

*Appurtenancy requirements.* Another thread of forest policy which restricts industrial flexibility involves the appurtenancy requirements contained in many licence contracts. These provisions tie the allocation of timber rights to the maintenance and operation of manufacturing facilities, and in some licences have been interpreted to mean that the timber harvested under the authority of that licence must be processed at a specified mill. To the extent that such requirements are enforced, they obviously eliminate opportunities for log selling or trading and thereby threaten to impede the efficient allocation and utilization of timber. Recognizing this, the government frequently waives appurtenancy requirements, and in at least one instance has transferred the appurtenancy of rights from one mill to another. Such controls, in short, constrain advantageous reallocations of raw material, and except where they offer the only means of meeting a particular and compelling need I recommend that they be waived in current agreements and excluded in future contracts.

**Structural Diversity**

The preceding discussion has dealt with policies for enhancing the scope for industrial growth and efficiency. I now turn to policies affecting the
structural pattern of industrial development. I have repeatedly emphasized the desirability of a broad and diverse forest industrial base, and expressed concern about current trends toward industrial concentration. It is most urgent for the government to address its attention to this matter, to carefully consider the implications of these trends, and to design explicit policies for the desired structural pattern of industrial development. My main concern in this matter is that, while the public interest is best served by a diversity in firm size and structure, public policy has been biased to the disadvantage of smaller and less integrated enterprises. The thrust of my proposals is therefore to remove these distortions.

There are two related aspects of this issue; one is the balance between firms of different size, the other relates to the degree of integration within firms. These are related, of course, because the larger firms tend, for various reasons, to be the most broadly integrated, but it is convenient to discuss the two problems separately.

Policy impacts on firm size. In Chapter 4 I examined the degree of concentration in the forest industry and noted that a large and increasing proportion of the industry is controlled by relatively few large controlling companies. Some of these companies are very large, although not conspicuously large in relation to other international forest companies. The urgent policy question now facing the government is whether continuing consolidation of the industry into the hands of fewer large companies is in the public interest.

The issue is not, as I have emphasized, that the size of these large firms is, in itself, disadvantageous, but rather that their progressive control over the timber supply and manufacturing capacity threatens to eliminate opportunities for the survival and development of small, specialized firms and new enterprises. If it were clear that this would lead to a more efficient industry, more capable of serving the public interest in generating the maximum value from timber, there would be less cause for concern. But there is scant evidence to suggest that the best industrial structure for this province is one composed of only a few, large, integrated corporations. On the contrary, the variety of forest conditions, manufacturing processes, and potential market opportunities, in addition to the self-regulating features of a diverse and dynamic industrial structure, suggest that superior performance can be expected from an industry that provides opportunities for a broad range of sizes and forms of enterprises.

Some of the growth in average firm size can be attributed to economic and technological developments that have produced economies of larger scale, and to this extent the trends have enhanced industrial efficiency. But certain public policies have undoubtedly worked to the disadvantage of small, unintegrated, specialized firms and potential new entrants, and have thereby biased the pattern of industrial development in favour of large firms. Some of those policies are the following:

i) When Public Sustained Yield Units were created in well-developed areas and established operators' cutting rights brought into conformity with allowable harvesting rates, the impact of the proportionate reductions often left smaller operators with insufficient "quota" to maintain a viable operation. Most had little alternative to selling their rights
to larger operators who could amalgamate them with their own, and many smaller firms thereby disappeared.

ii) When "quotas" were subsequently increased with the introduction of "close utilization" harvesting standards, established licensees were awarded increases in timber rights in proportion to their existing rights: by one-third in the Interior and one-half on the Coast. Thus licensees holding large "quotas" obtained proportionately greater additional timber rights than those who held small allocations.

iii) Hitherto, the government has been willing to endorse amalgamations of all of a licensee's timber rights in a Public Sustained Yield Unit with those of another firm, but has refused to permit any fragmentation of rights; hence all such transactions have had the effect of consolidating rights into fewer hands.

iv) By virtue of the "quota" system, the only means available for obtaining timber rights in the developed regions of the province has been through the acquisition of an established operation, the price including the capitalized value of the tenure. This has inevitably raised the barriers to entry into the industry, particularly for smaller firms with limited access to capital.

v) The Tree-farm Licence system undoubtedly favoured the larger firms. It was designed (among other things) to enable companies with holdings of Crown-granted lands and old temporary tenures to combine these with other Crown timberlands in integrated sustained yield units. Such companies were thus able to add to their earlier holdings (with their preferred terms and lower Crown charges) extensive new rights to Crown timber, without competition. Moreover, since the older tenures were concentrated in the more accessible and preferred timberlands, especially on the Coast, these tenures absorbed much of the best Crown timber, leaving only less attractive, higher cost opportunities for other firms in the Public Sustained Yield Units.

vi) The increases in allowable annual cuts approved for Tree-farm Licensees have greatly exceeded those granted to licensees in Public Sustained Yield Units, with the result that the balance of the available harvest has shifted in favour of Tree-farm Licensees.

vii) Public Sustained Yield Units were intended (judging from policy discussions at the time they were introduced) for smaller operations, but the special arrangements to accommodate small firms, such as governmental assumption of most of the burdens of management other than logging, have been substantially eroded. No particular advantage is afforded smaller firms, and today 39 per cent of the timber rights in these units is held by ten large integrated controlling companies.

viii) The rising costs of road construction, forest development and management, coupled with the policy of delegating more of these responsibilities to licensees, falls particularly heavily on smaller companies with more limited professional staffs and more restricted access to capital.

ix) On the Coast, reimbursement of these costs through stumpage adjustments falls short of approved expenditures where stumpage rates are at minimum. Insofar as smaller firms more often operate in less valuable
timber in Public Sustained Yield Units where costs are also higher, they more frequently suffer non-reimbursement.

These are only some of the more conspicuous ways in which government policy appears to have been biased to the disadvantage of smaller firms. I have made recommendations in earlier chapters that should provide a more neutral policy environment. These include arrangements for competitive access to Timber Sale Licences, provisions for licencees of smaller volumes and shorter durations, modification of special bidding privileges of “quota” holders, and more definitive rights to timber under the Tree-farm Licence system.

I have little doubt that if they are afforded equal opportunities, the smaller and more specialized firms will be able to compete effectively and maintain their place in the province’s forest industry. It is important that they do so, not only from the point of view of the public interest for the reasons I have mentioned, but also for the large corporations themselves, because increased governmental regulation of their activities is inevitable if rights to timber and manufacturing activity become monopolized over large regions of the province. Indeed, if my proposals for a more neutral policy environment prove to be insufficient to maintain a vigorous complement of smaller, unintegrated firms or to provide continuing opportunities for new enterprises, then I would advocate another reassessment of policy to find further means of maintaining this sector of the industry.

**Industrial integration.** A related matter is the impact of public policy on the pattern of industrial integration, including both horizontal integration (the diversification of activity at a particular level of the industry) and vertical integration (the spread of activity into different levels of the industry). Integration of both kinds offers clear benefits in terms of fuller utilization of timber resources, and is widely advocated. But insufficient attention is directed to the important distinction between integration within the industry as a whole and integration within individual firms. Clearly the two are not synonymous; an integrated industry can consist of firms which are individually integrated into all phases of activity or of firms specialized in particular sectors of the industry which, in the aggregate, provide integrated resource utilization. The latter depends on markets for intermediate products like logs and chips to provide the links between the different phases of industrial production. Both forms of integration are found to varying degrees in the B.C. forest industry.

Conspicuous examples of a policy aimed at achieving industrial integration without intra-firm integration were four of the original Pulpwood Harvesting Area Agreements, which were intended to create a complementary pulp industry alongside a sawmilling industry without disturbing its independence. But as I explained in Chapter 9, the provisions aimed at maintaining the separation of control between the two sectors were abandoned, and other incentives have since led to the integration of all the relevant pulp companies into logging and sawmilling.

10 Until 1972, the federal income tax authorities permitted a licensee who sold his “quota” rights to treat the proceeds (with some qualifications) as a tax-free capital gain, while the purchaser was permitted to write off a varying proportion of the cost against his taxable forestry income. Thus the tax-free gains from selling rights were often more attractive to “quota” holders than the taxable income they could anticipate from exercising them, and this undoubtedly contributed to the concentration of timber rights.
From the point of view of maintaining a broad and resilient industrial base, an integrated industry consisting of specialized firms dealing in intermediate products markets offers obvious advantages: firms can vary widely in size; they can specialize in activities in which they have particular expertise; resources can be transferred among firms to ensure that they will be utilized in the most beneficial way at each stage of production; and exposure of intermediate products to competitive markets sharpens incentives to make the best use of raw material supplies. Nevertheless, in certain important respects, forest policy appears to have been biased toward integration within individual firms:

i) Many rights, including some old temporary tenures, Tree-farm Licences, Timber Sale Harvesting Licences, and others include appurtenant mill provisions which require licensees to maintain a mill capable of processing the timber harvested under their licences. These provisions effectively condition the allocation of timber rights on licensees’ integration between logging and manufacturing.

ii) The criterion of “need” invoked in granting “third band” Timber Sale Licences links eligibility for timber rights to the capacities of the applicant’s processing plants.

iii) On the Coast, particularly, these links between timber rights and processing plants have substantially eroded the role of the log market, with the result that it is no longer regarded as a reliable source of timber by independent milling companies, nor as a dependable sales outlet by independent logging companies. Few firms in either category have been able to survive without integration into the other sector.

iv) Harvesting regulations that require removal of material that is difficult to utilize or to sell inevitably bear most heavily on firms lacking the full range of processing facilities.

The impact of some of these biases toward integration within firms is supported by evidence given at the time when these trends began to accelerate with the introduction of new tenure policies some thirty years ago. The perspicacious H. R. MacMillan, testifying before the Royal Commission on Forestry in 1946, emphasized the value of maintaining a competitive environment for timber on the Coast.

"Competition should be maintained throughout the Coast district amongst those who can pay the highest prices for raw material. The result of such a policy will be to encourage the best use of all the forest crop and the greatest return from growing timber."

He pointed out, however, that owners could be expected to support this policy only if they could be

... confident that on equal terms, by buying cutting rights or buying logs, they have access to the product from the whole Coast forest.

Accordingly, he disapproved of proposals to grant extensive timber rights to the large manufacturing companies where they would impinge on independent logging and milling enterprises. However, ten years later, after several Tree-

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12 Ibid., p. 38.
farm Licences were allocated on the Coast, the protection of corporate positions called for a different approach.

... when we saw these applications covering the country we thought the first thing we know everybody else is going to have ... [Tree-farm Licences] ... and we would have nothing. So we applied ... 14

The point that warrants emphasis is that the integration of manufacturing companies into forestry and logging was seen to be unnecessary and undesirable as long as there was a competitive market for logs. The integration that took place was, in part at least, a defensive reaction to public policies that threatened to put control of timber rights in the hands of competitors.

There can be little doubt that forest tenure policy has created an environment in which coastal manufacturers feel compelled to secure rights to standing timber rather than rely on log markets. Once created, such apprehensions about raw material supplies become self-fulfilling; as firms seek to avoid dependence on them, markets decline in size and competitiveness.

I cannot over-emphasize the importance of vigorous markets for intermediate products, like logs and chips, for the healthy development of the province's forest industry. The resilience of the separate phases of the industry, the efficiency with which resources will be utilized, and the extent to which the public interest can be protected by market forces rather than government controls, will hinge significantly on the vitality of such markets. Thus I have suggested that the development of markets for intermediate products should be an explicit goal of public policy. I have made specific recommendations toward this end in Chapter 21.

While integration among firms calls for healthy intermediate products markets, it is also clear that the manufacturing capacity in the province is not perfectly fitted to the raw material supplies. The most serious imbalance arises from excess pulp material relative to pulping capacity, a problem which is likely to become more conspicuous as timber quality declines. For the foreseeable future, until and unless pulp capacity expands, the government should endeavour to alleviate this difficulty by facilitating the development of export markets, as I recommended in the previous chapter. The government should also encourage new pulping ventures, recognizing that their benefits are likely to extend beyond the private gains because of their complementary effects on the wood products sector. Certain new techniques, such as the relatively small scale and versatile thermal-mechanical pulping process, probably hold more promise for future development in this area than the traditional processes. Obviously new pulp ventures will be most beneficial if they draw their raw material from the surpluses in intermediate markets, rather than depend on new timber supplies. Thus I have endorsed the Pulpwood Agreement system of providing needed assurances of raw material.

I have made a number of other recommendations in previous chapters that should also contribute to industrial diversity. The promotion of special products industries, small scale forestry, and more variable licensing arrange-

13 Then called Forest Management Licences.
14 Commission of Inquiry on Forest Resources, 1955, Proceedings, Book 76, p. 9091. I cite the testimony of Mr. MacMillan here because it indicates the contemporary assessment of the province's most prominent forest industrialist, whose acute perception and concern for public policy were well known. It should not be inferred that the testimony cited reflects the views of the companies that bear his name today.
ments to accommodate the needs of different kinds of enterprises should all help to broaden the forest industrial base.

THE CONTRACTING SECTOR

The government has made special provisions in forest tenure arrangements to secure the position of the contract logging industry. Beginning in 1959, apparently out of concern for the position of smaller logging firms as timber rights were becoming increasingly consolidated, "contractor clauses" were included in Tree-farm Licences, requiring the licensee to provide an opportunity to contractors to harvest a stated proportion of the harvest from "Schedule B" lands. Eight of these licences direct that 30 per cent, and eighteen that 50 per cent,\textsuperscript{15} of the harvest be treated in this way, while seven of the earliest licences contain no such requirements. A number of Timber Sale Harvesting Licences carry a 50 per cent contracting obligation.

Several aspects of these contractor provisions require some comment. A minor problem is that some recent licences stipulate that the licensee's contracting obligation extends over a volume "up to" 50 per cent. Interpreted literally, this provision does not ensure any opportunity for contracting, but administration of the contract has overlooked this apparent drafting error. A more serious problem of interpretation arises in all relevant contracts, which fail to specify clearly whether the fraction to be offered to contractors applies to the allowable annual cut or the licensee's actual cut. In practice it is interpreted to refer to the latter, as it undoubtedly should, since if it were applied to the constant allowable annual cut the licensee's logging work force would have to bear the full brunt of adjustments in cutting rates from year to year, and could conceivably be thrown out of work altogether within prescribed cut control limits.

A third issue is the way in which fulfillment of the contracting obligation is measured. A licensee may let a single contract for an entire logging operation—to a so-called "stump to dump" contractor—or alternatively deal with a number of "phase contractors" which individually perform road construction, harvesting, yarding, trucking, and so on. In the latter case it is necessary to weigh the contribution of different phase contracts toward meeting the general contractual obligation. The Forest Service has recently developed a formula for this purpose which ascribes weights to each phase in proportion to its relative cost in appraisals, and requires licensees to meet a minimum balanced percentage for each phase. This formula appears generally satisfactory for this purpose.

A more fundamental question concerns the need for generating opportunities for contractors through these licence requirements. Some contractors hold that the requirements should be increased, or applied more widely, but the evidence does not suggest a need for securing further the position of contractors by these means. Under most licences that contain these provisions the requirements are exceeded, and as allowable annual cuts have been increased over the years the volumes that must be contracted have increased roughly in proportion. In the Interior, most logging is contracted regardless of contractor clauses, and contractors now account for a substantial propor-

\textsuperscript{15} One of these requires, in addition, that 65 per cent of the cut from "Schedule B" lands in two of the five blocks included in the licence area shall be offered to contractors by the licensee through competitive bidding procedures.
tion of coastal logging as well. Indeed, one of the most conspicuous features of the logging industry in recent years has been the remarkable expansion in contracting, which testifies to the relative efficiency of these smaller enterprises (and, incidentally, to my earlier conclusions about economies of scale in logging). As a general matter, this growth in contracting cannot be attributed to contractor clauses; the success of the contracting industry undoubtedly reflects the relative efficiency of this form of enterprise.

Government intervention aimed at manipulating industrial structures through these means should be used discriminatingly, otherwise it has a tendency to impede industrial flexibility. Contractor clauses should be designed in the light of local needs to forestall serious disruptions to established operations that are likely to result otherwise, where new licences are issued. I see no justification for this artificial protection where these dangers do not exist, or where contracting is well established under normal arrangements with licensees.

A much more urgent matter, according to evidence available to the Commission, concerns the contractual arrangements governing the relationships between contractors and licensees. In some cases these are only oral agreements. Where they are written they are usually drafted by licensees and seem to afford excessive protection to them while offering little security to the contractors. It should be emphasized that in the great majority of cases the relations between the parties are smooth, the licensees recognizing the value of dependable contractors. But there are evidently repeated examples of friction arising from unbalanced contractual provisions and this problem should be rectified.

It has been suggested that the government should prescribe the form of contracts to be used between licensees and contractors but, in my judgment, this should be regarded only as a last resort. The government should not intercede in private business relationships of this kind unless the two groups are unable to develop satisfactory arrangements by dealing with each other directly. Accordingly I recommend that the government encourage contractor associations and representatives of licensees to address themselves jointly to this problem, with the objective of designing standard contractual forms to be used in the industry, as has been done in the construction industry. Only if these groups are unable to reconcile their differences should the government take the initiative in developing a prescribed standard form of contract.

Finally, my recommendations respecting the structure of tenure forms would broaden opportunities for smaller, independent licensees. In recent years contracting firms have not often sought to obtain their own harvesting rights: many existing licensing arrangements impose heavy capital requirements for roads and extensive management obligations; they have been oriented toward the needs of manufacturing concerns; and dependable log markets have waned. My proposals for revising the Timber Sale Licence system will remove many of these obstacles, and my recommendations to enhance log marketing should expand opportunities for independent logging, both on the Coast and in the Interior. It is to be hoped that many contractors will take advantage of this new scope for independent logging, adding a vigorous new element to the distribution of timber rights.
The future of forestry in British Columbia holds enormous potential for the development of a new silvicultural industry. Hitherto, responsibilities for forestry have been largely delegated to licensees, with the Forest Service undertaking direct responsibility for certain activities such as seedling production and reforestation on some lands. In the future, forestry practices will undoubtedly expand, in the form of planting, spacing, thinning, and other types of stand improvement, seed collection and, as I suggested in Chapter 20, perhaps forest nurseries. Already some enterprises specializing in contractual forestry services of this kind have begun to emerge, and the government should encourage their development.

I have recommended that licensees be relieved of most forestry responsibilities under certain forms of rights, but it is not necessary for the Forest Service to carry out all this work itself. Both the agency and licensees have considerable experience in contracting such work to others, an arrangement which undoubtedly affords significant advantages in terms of the flexible availability of specialized personnel and facilities. As silvicultural activity expands with the management of new crops, the forestry industry could well develop into a significant new sector, embodying needed forestry expertise and improving the efficiency of many aspects of resource management to the benefit of both timber companies and the Crown.

External Ownership and Control

My terms of reference instruct me to consider the degree of domestic participation in the ownership and control of the province's forest industry. In Chapter 4, I reported the results of my investigations of this issue, which indicate that companies which are entirely or mostly owned by foreign shareholders control about a third of the industry.

The extent of foreign participation in the Canadian economy has received a good deal of attention in recent years, and there is no doubt that it is very extensive in comparison with other industrialized countries and that it has been comparatively unrestricted. The federal response to this problem was creation of the Foreign Investment Review Agency, which in 1974 began to exercise surveillance over non-resident takeovers of Canadian business enterprises. However, the Agency does not concern itself with by far the largest source of increase in foreign ownership and control, namely the expansion of existing foreign enterprises into related businesses, and has only recently concerned itself with the establishment of new businesses in Canada by foreign firms.

The arguments for and against foreign participation in the economy are many and varied, and I cannot review them all here. The alleged advantages are mainly linked to the beneficial effects of capital inflows, improved marketing connections, and associated transfers of technology and managerial skills. Critics contend that continued foreign investment aggravates balance of payments problems, distorts exchange rates, biases domestic industrial development (particularly toward capital intensive resource industries), creates truncated export industries, allows profits to be shifted to foreign parent companies, discourages domestic research and entrepreneurship,
creates instability through vulnerability to decisions of foreign owners and governments, and leads to undesirable external influences on domestic public policy. All of these arguments require a good deal of careful analysis, and many of them obviously fall well beyond the scope of this inquiry.

However, certain features of British Columbia's forest industry have important implications for some of these arguments. First, the resource base overwhelmingly is under Crown title, and the government maintains very close control over its management. The result is that there is little scope for foreign firms to use forest resources differently from domestic users. Second, my investigations reveal no obvious differences between domestically and foreign owned firms with respect to their structure—their horizontal and vertical integration or their methods of marketing. There is no apparent truncation of foreign firms, nor any less research activity on their part relative to domestic firms.

Third, the stumpage system which serves as the primary means of capturing the Crown's interest in timber is based on competitive market prices and does not afford much scope for foreign firms to appropriate an undue share of domestic resource values for foreign owners.

Government should be concerned, however, about sales arrangements between domestic producers and their affiliated or associated companies abroad. Through adjusting transfer prices it is possible for multinational companies to shift profits from one country to another, and there are sometimes tax or other incentives to do so. In addition, a subsidiary company may be restrained from competing with its parent or affiliates in product markets.

I have no evidence that profits are shifted abroad through transfer prices by companies operating in British Columbia's forest industry, and if it happens it is probably confined to pulp and paper sales where marketing links with parent companies are most common. Even in these cases, spokesmen for the relevant companies maintain that their prices are fixed at competitive levels. But there have been examples of such practices in other industries and in the forest industry elsewhere, and they are clearly prejudicial to the public interest. Responsibility for surveillance of these matters rests largely with the federal income tax authorities, but the province has an obvious interest in them as well.

Apart from these general remarks I can say little about the adequacy of domestic ownership and control in the province's forest industry in isolation from the general question of foreign ownership in the Canadian economy. By this I do not mean to imply that governments should be acquiescent about foreign ownership and control; it undoubtedly has significant economic consequences for both the patterns of domestic development and for Canada's international flows of capital and payments. It also raises serious questions relating to the susceptibility of Canadian industry to external private and governmental influence.

18 One recurrent concern in the literature on foreign ownership is that large foreign corporations may exert inappropriate external influences on a host government. Whatever the case in other sectors, it is my impression that in British Columbia's forest industry the problem is, if anything, the opposite; that the foreign companies tend to defer, in public debates and representations to government, to their domestic counterparts. If this is so (and it is only a superficial impression) it is nevertheless a problem in a society which depends on the vigorous participation in public affairs by all vested interests, because it may leave too much influence in the hands of others.
policies, extraterritoriality, and other implications for national economic and political integrity. In view of the current level of foreign ownership and control in the Canadian economy and its trends, these issues warrant careful attention and a clear policy for dealing with them.

But the degree of foreign participation in British Columbia's forest industry does not appear to warrant as much concern as that in many other sectors of the Canadian economy. It is certainly lower than in most other natural resource industries, rather widely dispersed among foreign countries, and the close governmental control over the use of forest resources as well as the generally competitive marketing arrangements limit opportunities for foreign firms to deviate from the practices of the rest of the industry. Moreover it is probably declining. In short, the present level of foreign participation in the province's forest industry does not appear to be especially critical in the context of the general issue of foreign ownership and control in the Canadian economy, and I can see no justification for special measures to alter it independently from other industries.

The appropriate national policy toward this question goes well beyond the scope of this inquiry, but it should be noted that the province has independent means of influencing ownership and control in British Columbia's forest industry. The government has (and will continue to have under my proposals in Chapter 10) broad discretionary powers to ensure that transfers of rights do not adversely affect the public interest and has the same powers with respect to the allocation of new rights. Clearly, the government should discourage changes in ownership and control that will reduce competition, unduly consolidate rights to timber, or cause unwarranted dislocation of communities through transfers of industrial activity. Indeed these problems may arise whether the relevant owners are domestic or foreign. In addition, the province can act through the provisions of the Foreign Investment Review Act to influence proposed acquisitions or development of new ventures, by foreign interests. Thus the province appears to have adequate means to oversee the pattern of ownership and control, including the extent of foreign participation, in the B.C. forest industry.
PART VII

ADMINISTRATION AND POLICY REVIEW

Chapter 24. Resource Administration
Chapter 25. Policy Implementation and Review
Chapter 26. Retrospect
During the course of this inquiry it has become apparent that the processes of public administration are as critical in determining the pattern and efficiency of forest resource use as is the tenure system itself. Indeed, the two are inextricable. While formal licensing arrangements convey the essential contractual rights and responsibilities to those who use the public forests, the manner of harvesting and management is controlled in varying degrees by discretionary powers exercised by the Forest Service, and indirectly by decisions of other government agencies as well. In this way the government’s administrative structures, procedures, and practices govern the impact of the legislation, regulations, and contractual arrangements that form the legal basis for forest policy.

Concern about present forest administration is pervasive, as submissions at my public hearings revealed. Numerous commentaries and critiques of administrative arrangements and procedures and many suggestions for improvements were received not only from representatives of the forest industry but also from spokesmen for government agencies, environmental organizations, other forest users, and professional organizations. In view of all this evidence, and the importance of many of the problems raised, I have found that, in order to deal adequately with the issues in my terms of reference, it is necessary to consider administrative matters in more detail than I had originally anticipated. This chapter reviews problems of organization and financing in the administration of forest resources.

ADMINISTRATIVE STRUCTURES

A conspicuous feature of natural resource policy in British Columbia is the great variety of systems used for allocating rights over Crown property. A host of licences, leases, permits, and area designations has been developed to make each resource available to users, and these are administered by the several resource agencies. As a result, a single tract of Crown forest may simultaneously be covered by one or more authorizations, giving access to Crown resources for such diverse purposes as timber production, water withdrawal, grazing, guiding, trapping, mining, and outdoor recreation. The administrative arrangements that govern these overlapping uses for Crown land have extremely important consequences for the efficiency of resource use.

A major issue is the division of responsibilities among the several agencies of government. This is presently undergoing change; several significant alterations in Ministerial responsibilities have been made during the past year, and as this report is being written, a number of organizational changes are being introduced under the recent Government Reorganization Act.
AGENCY ORGANIZATION

Figure 24-1 schematically portrays the lines of responsibilities relevant to forest management that appear to have emerged. The Lands and Water Resources Services, which for several decades had, like the Forest Service, been part of the Department of Lands, Forests and Water Resources, were separated and placed under a newly created Department of Environment. The Forest Service is now the sole agency in the new Department of Forests, responsible to the Minister of Forests (although the current incumbent holds the position of Minister of Mines also). The Department of Recreation and Conservation, which included the Fish and Wildlife, Parks, and Commercial Fisheries (now Marine Resources) Branches, was eliminated and these agencies now form part of the new Department of Recreation and Travel Industry. A proposed Outdoor Recreation Branch in the Department of Recreation and Travel Industry is not yet functioning but will, if constituted, be directly concerned with recreational use of forest lands. The Land Commission, formerly responsible to the Minister of Agriculture, and the Environment and Land Use Committee Secretariat, now report to the Minister of Environment.

Besides the Forest Service, the provincial agencies most directly concerned with forest resource management and use are the Lands Service, the Fish and Wildlife Branch, the Parks Branch, the Water Resources Service, and the Environment and Land Use Committee Secretariat. There is, of course, a wide range of other provincial and federal agencies that are concerned with forest related activities—dealing with such diverse matters as fisheries, navigation, safety, highway use, and so on—but the concern here is with the agencies involved mainly with forest resources.

Forest Service. The Forest Service is the agency with widest responsibilities for managing and regulating the use of forest land in the province. By statute it is specifically charged with responsibility for "all matters relating to or otherwise connected with forestry". Only the Minister in charge of the Forest Service is empowered to grant timber rights over Crown land, and the agency has jurisdiction over forest revenues, resource management and administration, and execution of its legislation—the Forest Act and the Grazing Act.

These overriding responsibilities for forestry extend throughout the province, but the Forest Service asserts even wider jurisdiction in the 94 Forest Reserves which cover some 75 million acres of Crown forest land. Once areas are given this designation by Cabinet, they are to be used only for timber production, grazing, recreation, or other forest uses. They lie outside the jurisdiction of the Crown's land agency, the Lands Service; and rights to occupy them may be conferred only by the Forest Service, under its system of forest licences, Grazing Permits, and Special Use Permits.

The organization of the Forest Service is depicted in Figure 24-2. Directly responsible to the Minister is the Deputy Minister of Forests. The Chief Forester of the Forest Service reports through the Deputy. At Victoria headquarters, responsibilities are then spread among six officers who report to the Chief Forester. The Director of Services supervises the Training

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1 By virtue of the Government Reorganization Act the traditional statutory responsibilities of the Forest Service now technically are those of the new Department of Forests.
2 Forest Act, s. 5.

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Figure 24-2

ORGANIZATION OF THE B.C. FOREST SERVICE

School, the Comptroller, and the Personnel, Protection, Engineering, and Information Divisions. Two Assistant Chief Foresters share responsibilities for six other Divisions: Valuation, Research, Administration, Reforestation, Inventory, and Resource Planning. Also reporting directly to the Chief Forester are the Special Studies Division, the officer in charge of range management, and the Staff Consultant to the Forest Service’s Executive Committee. The latter committee is composed of the Deputy Minister, the Chief Forester, both Assistant Chief Foresters, and the Director of Services.

Each of the six Forest Districts is headed by a District Forester, who is responsible to the Chief Forester. However, routine operational problems from the Districts are usually channeled directly to the Assistant Chief Forester (Operations). Each District Forester is supported by a District staff: an Assistant District Forester, and foresters in charge of operational divisions which correspond, with a few exceptions, to the divisions at headquarters. Within the Districts, zone foresters take responsibility for operational administration over specific areas. And there are 99 smaller Ranger Districts, administered by Forest Service Rangers.

As the principal agency for administering forests, the Forest Service has taken the lead in co-ordinating forest development with the other relevant branches of the provincial and federal governments. The functions of these other agencies and the ways in which their responsibilities interact with those of the Forest Service are briefly described in the following paragraphs.

**Lands Service.** The Lands Service acts as the Crown’s agent in granting rights over public land for most general purposes. It transacts fee simple grants, and conveys agricultural, grazing, and residential leases under procedures prescribed in the Land Act. The authority of the Service to dispose of Crown forest land is qualified, however: it has no power to convey rights over lands in Forest Reserves, and even outside these areas the Land Act prohibits it from granting title over Crown lands suitable for timber production unless, in the opinion of the Minister of Environment, they are “required for agricultural settlement and development or other higher economic uses”.

As well as discharging its Crown land disposition responsibilities, the Lands Service acts as the central agency for recording the legal status of all lands under provincial jurisdiction and acting as a clearing house for information about the rights conferred by the other resource agencies. Finally, the Lands Service administers the Ecological Reserves Act and the Green Belt Protection Fund Act.

**Fish and Wildlife Branch.** In spite of their close physical interdependence, fish and wildlife resources are administered separately from forests. In the Canadian constitutional framework the province enjoys exclusive jurisdiction over resident wildlife, and the federal Parliament is assigned responsibility for all fisheries and migratory birds. Under a long-standing federal-provincial agreement, the Fish and Wildlife Branch has assumed responsibility over fresh water fisheries and certain shellfish, while the federal Department of the Environment—through its Fisheries and Marine Service—controls marine fisheries and anadromous salmon. As a result, the division of responsibilities for fish and wildlife is rather complicated, as summarized in Table 24-1.

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3 Land Act, s. 19.
Table 24-1

DIVISION OF RESPONSIBILITIES FOR FISH AND WILDLIFE RESOURCES

<table>
<thead>
<tr>
<th>resource</th>
<th>responsible agency</th>
<th>relevant statute</th>
</tr>
</thead>
<tbody>
<tr>
<td>marine fisheries (including salmon and other commercial anadromous fish, most shellfish and marine animals)</td>
<td>federal Fisheries and Marine Service</td>
<td>Fisheries Act of Canada</td>
</tr>
<tr>
<td>resident freshwater fish and anadromous sport fish (steelhead trout)</td>
<td>provincial Fish and Wildlife Branch</td>
<td>Fisheries Act of Canada</td>
</tr>
<tr>
<td>oysters</td>
<td>provincial Marine Resources Branch</td>
<td>Fisheries Act of B.C.</td>
</tr>
<tr>
<td>migratory birds</td>
<td>federal Canadian Wildlife Service</td>
<td>Migratory Birds Convention Act of Canada</td>
</tr>
<tr>
<td>all other wildlife</td>
<td>provincial Fish and Wildlife Branch</td>
<td>Wildlife Act of B.C.</td>
</tr>
</tbody>
</table>

Each of these agencies regulates the harvest of the resources under its jurisdiction through use permits or rights over areas. Thus commercial and sports fisheries, as well as game, are regulated by means of licences and bag limits. In addition, the Fish and Wildlife Branch, under the Wildlife Act, allocates guiding territories and registered traplines that convey commercial rights over designated areas covering most of the province, and oyster culture and harvesting rights are granted by the Marine Resources Branch over tidal beaches.

The Fish and Wildlife Branch is headed by a Director and three Assistant Directors comprising an executive committee at headquarters in Victoria. Of the six sections of the Branch, three—wildlife management, fisheries management, and habitat protection—are directly concerned with forestry matters. For field administration the province is divided into seven resource management regions, each of which is headed by a regional supervisor and a staff of conservation officers, biologists, and service personnel. The total permanent staff of the Branch is about 340: about 70 per cent field personnel, the remainder being divided among the Victoria headquarters, fish hatcheries, and an information and education office in Vancouver.

The Fish and Wildlife Branch has traditionally been concerned with regulating hunting and fishing, but over recent years it has gradually expanded its role to include environmental protection. The quantity and quality of fish and wildlife resources is dependent upon the condition of their natural habitats, which in turn are heavily influenced by forests and the patterns of forest development. With rapid expansion of industrial forest operations and growing public concern over the quality of the natural environment, the scope of the Branch’s activities has broadened markedly; its involvement in forest development planning, particularly, has become one of its major functions (see Chapter 19).
Parks Branch. Before 1957 the Parks Branch was part of the Forest Service, and until the recent reorganization of government departments it was included in the Department of Recreation and Conservation. It is now an agency of the new Department of Recreation and Travel Industry, and administers the Park Act.

In Provincial Parks, industrial timber harvesting is generally prohibited. The main exceptions are certain old temporary tenures issued before the lands were designated as parks. In addition to administering and developing existing parks, the Parks Branch concerns itself with identifying the recreational potential of other lands and assessing the desirability of reserving and dedicating new areas as Parks or Recreation Areas.

The Parks Branch is headed by a Director who oversees two units, one concerned with operations and the other with development of new parks. As well as the Park Act, the Branch administers the Archaeological and Historic Sites Protection Act and is responsible for special Wilderness Conservancies established under the Environment and Land Use Act.

Water Resources Service. The Water Resources Service, now under the administrative umbrella of the Department of Environment, is concerned with allocating rights to use surface fresh water and regulating discharges into streams. For these purposes officials of the Water Rights Branch are authorized by the Water Act to issue Water Licences, and the Pollution Control Board issues discharge permits under its legislation, the Pollution Control Act. The third branch of the Service, the Water Investigations Branch, plays a technical role, taking inventories of water resources, monitoring snow accumulation, runoff, and so on.

The most important interfaces between the Crown's forest and water resources relate to the interaction of forest practices and stream flow regimes, and loss of productive forest land in valleys through flooding by water licensees. The dominant examples of the latter are the massive developments of the B.C. Hydro and Power Authority in the northeastern and southeastern regions of the province.

Environment and Land Use Committee Secretariat. The Environment and Land Use Committee was established by the 1971 Environment and Land Use Act, as a forum for consultation among the Ministers whose responsibilities relate to natural resources. It is now comprised of the Ministers of Environment, Forests, Mines and Petroleum Resources, Health, Agriculture, Highways and Public Works, Economic Development, Municipal Affairs, and Recreation and Travel Industry. It is chaired by the Minister of Environment. In 1973, a Secretariat to the Committee was created to serve as a central repository for land inventories, and to carry out special studies assigned to it by the Committee. Special assignments have involved analysis of particular land and resource use conflicts, evaluation of major resource developments, and preparation of guidelines designed to mitigate and reconcile conflicting resource uses.

The Secretariat is not included in any government line department, but is responsible to the Committee of Ministers. Since the recent reorganization of Ministerial responsibilities, the Minister of Environment, as chairman of the Cabinet Committee, has directed the Secretariat's activities.
PROPOSED STRUCTURAL CHANGES

I have received many suggestions about the structural organization of these resource agencies, ranging from the maintenance of the status quo to complete amalgamation of all of them into a single resource department. The most common criticism of forest licensees is that they must now deal with several agencies, resulting in repetitious field inspections, delays, and contradictions, when seeking approval of operational plans. Understandably, they tend to advocate arrangements that would permit them to conduct their business with the government through a single, authoritative agency.

Amalgamating all resource agencies into a single department has some intuitive appeal, but it also poses problems. A major concern is that specialized agencies such as those reviewed above vary considerably in size and strength, and a small agency may be so submerged in a larger organization that it would lose its identity and weaken the influence it can exercise as an independent specialized group—particularly if it is identified with a different sector of the public which expects its special interests to be advanced in Cabinet by a separate Minister. Amalgamation may therefore result in less effective assertion of conflicting interests, and a less attractive professional environment for certain specialists. The danger of creating a bureaucracy so large and with such diverse responsibilities that it lacks focus and responsiveness must also be faced. It is my impression that some of these difficulties have been encountered in omnibus resource departments established in some other provinces and elsewhere. Any amalgamation of agencies should therefore be done selectively, and only where the advantages to be realized clearly outweigh these dangers.

In my judgment the appropriate administrative structure must be determined primarily on functional grounds. In this connection there is a tendency to confuse the authority to regulate industrial operations (through forest licensing) with the responsibility for planning forest development, discussed in Chapter 19. There is an important distinction, conceptually at least, between planning resource use and regulating operations. Planning can involve the co-ordinated efforts of several separate agencies, while supervision of particular users such as timber licensees can remain the responsibility of a specialized agency. Indeed, it would be clearly impractical (and in some cases constitutionally impossible) to bring under one departmental umbrella all the agencies that need to be consulted in the planning process, because in particular circumstances they include such diverse entities as the Provincial Archaeologist’s Office, the Departments of Agriculture, and Highways and Public Works, the federal Department of the Environment, local governments, and so on. In short, while I consider that the Forest Service should be the agency directly and solely responsible for administering the forest tenure system and regulating forest operations, this does not imply that all agencies involved in planning forest development should be amalgamated with it.

To the contrary, it is desirable that some agencies maintain their separate identities. There would be few advantages to be gained from relocating the Water Resources Service, because most of its activities bear no direct relationship with forest resource use. Although the Parks Branch is mainly concerned with Crown forest land, there is little interaction between its activities...
and timber extraction. For the time being at least I see no compelling need to merge it with the Forest Service.

The Lands Service and the Environment and Land Use Committee Secretariat should remain independent for other reasons. In contrast to agencies concerned with the use and management of particular resources (such as water, forests, and fish and wildlife) these are more concerned with the allocation of resources among alternative uses, and therefore have an important role in guiding broad patterns of resource use. Such choices should not be left to agencies that have special, and often conflicting, interests, and that vary in strength and influence. For this reason I consider it essential in an environment of public ownership that the specification of broad planning objectives and the determination of general patterns of resource development and use be the responsibility of an expert, neutral agency which is not identifiable with any particular use or group of users. The Lands Service, and especially the Environment and Land Use Committee Secretariat, are well structured for this purpose.

If responsibility for broad provincial and regional planning is assumed by a neutral agency as I have suggested, and if other agencies having only a tangential interest in forest management remain separate, the issue reduces to the desirability of integrating the Forest Service and the Fish and Wildlife Branch. There is now a very strong case in favour of bringing together the expertise in environmental protection, that has been developed within the Fish and Wildlife Branch, and the forest management responsibilities of the Forest Service. Their responsibilities have converged to such an extent, and improvements in resource management depend so heavily on continuous and intimate interplay between the disciplines now embraced by these two agencies, that their present structural separation in different departments is an impediment to progress in environmentally sound resource development. Moreover, some of the most critical wildlife management problems relate to range use and competition between livestock and big game. I have already endorsed the current arrangement in which the Forest Service is responsible for grazing, and I have no doubt that range management, which increasingly requires coordination of livestock, wildlife, and forestry uses, would benefit from more direct participation of the staff biologists and agrologists now within the Fish and Wildlife Branch.

The primary benefit of integrating these two agencies would be the undivided responsibility, within a single organization, for ensuring that resource planning and administration at all levels recognize the constraints of both industrial needs and environmental protection. Judging from problems discussed at my public hearings, other more specific benefits may be expected as well:

i) Conflicts would be more easily resolved at the field level, avoiding the tendency to refer disagreements to higher authority where lines of responsibility are separate.

ii) There would be greater scope for decentralization of decision-making authority with field staff responsible for a wider range of resource uses. (Later, I point to the need for more delegation of responsibilities to forest officers in the field; the traditionally greater independence of field officers of the Fish and Wildlife Branch may well complement this objective.)
iii) Efficiency in field work would be enhanced, particularly through co-ordinated gathering and interpretation of inventory data for development planning. Presently, independently determined priorities and separate budgeting constraints often lead to duplication of survey work or gaps in required information.

iv) Dealing with licensees on the most important issues affecting forest operations would tend to be more co-ordinated.

v) Administration would be more efficient if field officers, support personnel, equipment, and other facilities were shared.

Integration of the Fish and Wildlife Branch with the Forest Service would forestall two other adverse tendencies in resource administration. Since each agency requires the kind of expertise found in the other, there is a trend toward duplication of personnel. Thus the Fish and Wildlife Branch has already begun to recruit foresters, and the Forest Service recreation specialists. These staffing arrangements tend to isolate specialists from the centres of strength of their disciplines and sometimes to retard their professional development.

Another tendency, which I regard as very serious, is toward decision-making by consensus where public officials with different lines of responsibility seek to co-operate. There is a natural inclination in such circumstances for the representatives of one agency to make every effort to obtain the concurrence of other agencies before making decisions, to avoid vulnerability to public criticism and inter-agency conflicts. But this often results in lengthy delays, unreasonable compromises, and a clouding of accountability. In extreme cases, separate agencies may involve private groups in their efforts to seek concessions from other resource interests, and professional public servants may thereby lose the initiative in resource planning. In Chapter 19 I emphasized that while consultation and co-operation among agencies is obviously necessary for integrated resource use management, responsibility for the design and execution of operational plans must be vested in a single accountable agency with authority to make decisions, however awkward, in light of the information and advice available. The adverse tendencies noted above would be alleviated by ensuring that the responsibilities of the officers of the relevant agency encompass the major interests affected by its decisions.

All these considerations lead me to conclude that structural integration of the Fish and Wildlife Branch and the Forest Service is desirable. However, I am reluctant to recommend that this be done precipitously, for two practical reasons. One, while there has been considerable progress in the development of understanding between foresters in the Forest Service and fisheries and wildlife biologists in the Fish and Wildlife Branch in the last few years, it cannot be said that this has progressed to the point at which either can accept responsibility for the work now done by the other. This is important, because successful integration of the two agencies would require that personnel for supervisory positions could be drawn from any of the pertinent disciplines represented in the agency, such as forestry, biology, or agrology. In my judgment, the training and experience of professionals has not yet left them with sufficient breadth to make this practicable. Second, the Forest Service is a much bigger agency, and has been perceived to have
much more power than the Fish and Wildlife Branch although, as I have explained, the influence of the latter in resource management has been increasing rapidly. I fear that if the two were integrated now, fisheries and wildlife personnel would be smothered in an agency dominated by foresters; their effectiveness, which is now augmented by their separate identity, would tend to be diminished. Moreover, those who now look to the Fish and Wildlife Branch to represent their interests may well feel alienated from an agency responsible for industrial forest development.

I therefore propose that the two agencies retain their separate identities for the time being, but that they be brought together in a single Department of Forest and Wildlife Resources under the authority of a single Minister. It would be most desirable, also, for these two agencies to have their offices in the same premises, both for greater efficiency and for the convenience of industry and members of the public. This should apply to regional headquarters and, where practical, to field offices (such as in Ranger Districts) as well. Initially, at least, each should be represented at the policy level by its own Deputy Minister or Associate Deputy Minister. This will permit closer co-ordination of policies, priorities, and budgeting while preserving the specialized functions of each agency. I believe that this is in itself a logical grouping of Ministerial responsibilities, but it will also provide valuable experience in assessing the desirability and feasibility of further integration, particularly of responsibilities for habitat protection.

**Administrative Districts**

For purposes of administering Crown land and water resources, most of the major resource agencies of the province developed, over the years, their own field organizations and deployed their staff in response to their work demands. The result is that each agency divided the province into a different number and pattern of administrative districts, and the regional offices had differing degrees of responsibility. Thus the Lands Service had six Land Districts, subdivided into smaller administrative units; the Fish and Wildlife Branch had eight regions, with 67 district offices; the Forest Service had six Forest Districts divided into Ranger Districts, and so on.

Until recently, these inconsistencies in regional designations and administrative centres were of little consequence, because each agency carried out its functions more or less independently. But in response to the new demands for co-ordinated resource planning, a programme of unification of administrative districts and regional headquarters has begun.

In 1973 the Legislature's Select Standing Committee on Forestry and Fisheries, concerned about co-ordination of the activities of various resource agencies, recommended that their varying administrative districts be rationalized and all district staffs be located in the same centre. Subsequently, following discussions among the resource departments, the Environment and Land Use Committee Secretariat designated new Resource Management Regions for the province, as shown in Figure 24-3. The several agencies are now in the process of re-deploying their field organizations to conform to these seven Resource Management Regions, with headquarters at Nanaimo, Vancouver, Nelson, Kamloops, Williams Lake, Prince George, and Smithers.
The Lands Service, the Fish and Wildlife Branch, and the Water Resources Service have already adopted the new regions and headquarters.

The Forest Service, with its considerably larger staff and regional organization, so far has retained its six Forest Districts with headquarters at Vancouver, Nelson, Kamloops, Williams Lake, Prince George, and Prince Rupert. Because of the special complexity and cost of reorganizing the Forest Service’s field work, adoption of the seven Resource Management Regions will require several years to complete.

![BRITISH COLUMBIA RESOURCE MANAGEMENT REGIONS](image)

Since the earliest days of forest regulation the “Coast” has been distinguished from the “Interior”, in recognition of the sharply differing forest and industrial conditions in the two zones, which are legally defined as being west and east, respectively, of the summit of the Cascade Mountains. Nearly all of the Vancouver Forest District and a major part of the Prince Rupert Forest District are in the Coast zone, the remainder being in the Interior. Some important aspects of forest policy distinguish between these two regions.

I have not studied the delineation of the new Resource Management Regions in detail, but I should like to make three observations with respect to them. First, as a general principle I strongly endorse the rationalization of administrative districts and unification of the centres for the field headquarters of the various agencies. The problem of co-ordinating public administration
is difficult enough without geographical separation of authority and inconsistencies among jurisdictions. Second, I consider it important, in particular, to designate a District forest administration for Vancouver Island. Vancouver Island has hitherto been administered by the Forest Service as part of the Vancouver Forest District, from Vancouver. But the magnitude of forest activity and special complications both on the Island and in the lower mainland, coupled with the difficulties of communication between the two, call for separate District administrations, as provided by the new regions.

Third, I am concerned that the demarcation of the Cariboo region, including as it does a strip of the central Coast as well as the central Interior, may prove to be awkward for forest administration. I have already mentioned the different administrative arrangements between the Coast and Interior, which relate to such matters as stumpage appraisals, scaling, and utilization controls, and so linking the zones in administrative units will tend to complicate administration. Moreover, few, if any, licensees operating in the Coastal portion operate in the central Interior, so that administration of their operations from Williams Lake is likely to be an inconvenience for both them and the Forest Service—a problem that is aggravated by poor road connections through this part of the Cascades. The maximum benefits from rationalized resource administration districts will be realized only if they take account of the particular problems of each agency. I have not considered the problems of other agencies, but I believe that those of the Forest Service are sufficiently serious to justify a reassessment of this particular boundary.

FOREST SERVICE ORGANIZATION

The internal organization of the Forest Service has gradually evolved over the years to accommodate the agency’s increased size and broader responsibilities. It has frequently undertaken studies, in varying degrees of formality, of its own organizational problems; their success in finding solutions has also varied. Today, both officers of the Forest Service and others who deal with the agency point to organizational problems that warrant attention.

I have considered some of these problems, but I have not undertaken the detailed study of the Forest Service’s administrative structure that would enable me to recommend reorganization with confidence. It is nevertheless clear that serious organizational problems exist, and if the extensive recommendations in this report are implemented they will call for new administrative arrangements as well.

I therefore propose that the government initiate a thorough external review of the Forest Service’s administrative structure and organization. I suggest it be external because, although the Forest Service itself would provide much of the needed information and advice, an outside reviewer can often make recommendations for changes with fewer inhibitions than internal assessors, and may be able to take better account of external interests in Forest Service organization. It is essential, however, that the reviewers understand and be sensitive to the complex problems faced by the Forest Service. I suggest that a qualified public administration consultant, assisted by someone intimately familiar with forest administration, be retained for this purpose.
This review should be comprehensive, examining Forest Service administration at all levels. I feel I should draw attention to several issues that warrant particularly close scrutiny, and possible approaches to their resolution.

**On-site field responsibility.** As a general matter, Forest Service administration appears to be characterized by insufficient delegation of responsibility. There seem to be too many instances in which those at the first line of communication with licensees and others either lack authority to make decisions or are not required to make them, with the result that problems are too often passed on to higher levels. This tendency, repeatedly alluded to by those who deal with the Forest Service, is undoubtedly linked with the calibre of staff the agency is able to recruit and retain, and to the adequacy of in-service training arrangements.

A major priority in any restructuring of lines of responsibility within the Forest Service is the need for a framework that will facilitate on-site field responsibility and authority. As I have repeatedly emphasized in this report, *a sine qua non* for efficient forest management is the availability, in the field, of capable field personnel who can deal with problems as they arise.

Toward this end, the Forest Service began several years ago to subdivide the Forest Districts into zones, with a forester assigned to each. By 1971 all Districts had been divided up in this manner. A zone typically comprises several Public Sustained Yield Units, and the zone forester works out of District headquarters.

By encouraging government foresters to become familiar with the problems and needs of specific areas of forest land, this progressive innovation promises significant improvement in the quality of public forest administration. The zone forester system has been welcomed enthusiastically by the forest industry, and many participants at the public hearings urged that it be strengthened by moving zone foresters out of District offices into their areas of responsibility, where they would live and work as resident foresters. This suggestion has much to recommend it and I propose that it be fully explored.

There appear to be at least three other aspects of the zone forester system that warrant attention. One is that their zones of responsibility have hitherto been too large. To enable them to cultivate an identification with specific areas and the operations within them, they should probably not have responsibility for more than one or two management units containing a significant number of operations. Second, the Forest Service has found it difficult to recruit experienced foresters and retain them in these positions long enough for them to develop and benefit from the desired familiarity with field conditions and operational problems. Thus most zone foresters have been fresh graduates who soon pursue higher positions in District or headquarters offices. It therefore appears necessary to find means of raising the status of zone foresters and enabling them to advance in these positions.

Third, the functional relationship between zone foresters and Rangers appears to need rationalization. Rangers are in many respects the bulwark of the Forest Service, and are the first line of communication between the operating companies and the government. In comparison with zone foresters, Rangers often possess much greater experience and local knowledge; all have received special training in the Forest Service’s Training School and often forestry education in technical colleges as well. Traditionally, Rangers and Assistant Rangers have been the only staff resident outside the main District...
offices with specific, continuous responsibilities for prescribed local areas. But
the lines of responsibility between Rangers and zone foresters are confused.
While Rangers report to zone foresters on forest management matters, they
report through Ranger Supervisors to the Assistant District Forester on others,
such as protection. Zone foresters report separately to the District office
through the forester in charge of timber management. These irregular chan-
nels of accountability have apparently given rise to anxieties among the staff
involved and confusion in their dealings with licensees. This organizational
problem should be resolved in a way that will ensure a more consistent line
of responsibility from Rangers and zone foresters to District headquarters.
At the same time, it is important to preserve Rangers' opportunities for
advancement, so that through study, experience, and accreditation, they
can qualify for zone forester and other professional or specialized positions.

Headquarters organization. As Figure 24-2 shows, the Chief Forester reports
to the Deputy Minister of Forests. Some 17 years ago these two offices were
held by the same person, and it is my impression that their respective func-
tions have remained blurred. A clearer functional distinction between these
positions should be drawn, with the Deputy Minister assisting the Minister
to formulate and interpret policy, to make Ministerial decisions, to establish
budgeting and other priorities, and to oversee Forest Service relations with
other departments. That would leave the Chief Forester with responsibility
for all strictly administrative matters.

Under present headquarters organization the responsibilities assumed
directly by the Chief Forester appear to be excessive. In addition to con-
trolling the central Divisions through his Assistants and the Director of
Services, he is also directly responsible for all District matters, at least
nominally. The desirability of creating a third Assistant Chief Forester
position, to oversee and co-ordinate Forest District matters, should be
examined.

The position of range administration within the Forest Service should be
clarified. Traditionally a Division of the Forest Service, range administration
is currently headed by a Director responsible directly to the Chief Forester.
In view of the separate set of rights for allocating the use of rangelands and
the special management problems involved, there should probably be a
special Assistant Chief Forester in charge of this aspect of policy.

Professional and technical staff. An outside observer gains the impression
that the professional staff of the Forest Service, in headquarters as well as in
the field, is often excessively occupied with routine administrative and clerical
functions. To the extent that effort is spent on office work that could be
performed by less highly trained and expensive personnel, the Forest Service
is inefficiently deploying its scarce expertise, and threatens to create an
unattractive environment for professionals. Thus there should be a careful
examination of functions that can be performed by administrative, clerical,
and secretarial staff, thereby releasing the specialized professional and
technical forestry personnel for more productive duties.

As I have mentioned previously in this report, public administrators and
those who deal with them must be equipped with clear public objectives and
unambiguous legislation, regulations, contracts, and administrative rules.
Some scope for administrative discretion is essential, but as much guidance
as is practicable should be given to assist those who must exercise it. I have also emphasized the need for clear delegation of responsibility and decision-making authority. In designing my recommendations in earlier chapters I have tried to overcome some of the present deficiencies in these respects, which should therefore enable more efficient public administration.

FINANCING FOREST ADMINISTRATION

Inevitably, many of the Forest Service's difficulties are rooted in the strictures of its budget. Nearly all of the major criticisms of public forest management that were repeatedly brought to the Commission's attention can be traced to this underlying problem. The adequacy of Forest Service funding has two aspects which need to be considered: one is the level of financing it requires to properly fulfill its responsibilities; the other is the continuity of support required to enable it to undertake programmes that necessarily extend over decades.

The urgency of greater public support for the Forest Service was emphasized in the reports of each of the three earlier Royal Commissions of Inquiry into provincial forest policy; but in retrospect, those recommendations appear to have been largely ignored. Over the years, the staff and appropriations of the Forest Service have increased, but they have not kept pace with the growth in demands on forest resources, let alone the increasing public and governmental demands for improved resource management.

The Forest Service itself, referring to its limited financial resources in its brief to the Commission, observed:

It is unfortunate that the importance of British Columbia's forest resource and the magnitude of the administrative, technical and planning responsibilities involved is often not fully recognized. For example,

British Columbia has the greatest diversity of climatic, topographic and "forestry" conditions in Canada.

British Columbia has Canada's greatest range of social benefits derived directly or indirectly from the forest resource, including the nation's most important and diverse fishery resource.

British Columbia has Canada's most complex system of forest tenures, with some still-active tenures originating in the last century.

British Columbia has the most "intensive" stumpage appraisal system in Canada with its major demand on Forest Service capability.

British Columbia has a greater acreage of productive forest land and a greater annual harvest from these lands than all the United States National Forests combined.

In view of the above, we contend that British Columbia requires a greater level of integrated resource use planning than any other Province and, we believe, a good start has been made in this process. However, the magnitude and ever-increasing complexities of "forestry" in this Province are such that the British Columbia Forest Service and other resource departments will not be able to make any significant advance in integrated resource planning beyond the present, less than satisfactory level, with the present staffing capabilities.

Until we can upgrade the integrated planning of forested lands to provide the full range of goods and services which can be derived from them, our ability to respond to increasing demands will be progressively more limited: the benefits derived from each resource sector will continue to be far from optimum.4

Meaningful comparisons with other jurisdictions are tenuous because of differing circumstances and public responsibilities, but perhaps the closest parallel is the U.S. Forest Service. That agency administers a comparable area yielding about the same timber harvest as the public forest lands of British Columbia. Its total staff numbers 32 thousand, compared with less than 3 thousand in the B.C. Forest Service; and it employs 4,897 professional foresters while the B.C. Forest Service has 327. The U.S. Forest Service’s Pacific Northwest Region covers forest conditions most similar to those in British Columbia, and though the land area is somewhat smaller its timber yield equals the harvest in the Vancouver and Kamloops Forest Districts combined. Within these two comparable regions, the U.S. Forest Service employs a staff of 4,800 of which 678 are professional foresters, while the B.C. Forest Service has a staff of 774 of which 44 are professional foresters. In the wake of new budgetary restraints introduced by the provincial government in 1975 the full-time staff of the Forest Service has been reduced by some 15 per cent.

These stark comparisons, and others, are of concern not only to the Forest Service but also to licensees and representatives of the forestry profession. It is pointed out also that this province is one of the few jurisdictions on the continent that spends considerably less on forest administration than it receives in direct timber revenues (although this undoubtedly reflects as much about the lower timber value and less sophisticated revenue systems elsewhere as it does about the adequacy of funding).

But the adequacy of forest financing can properly be assessed only in terms of the Forest Service’s capability in dispatching the responsibilities assigned to it by the Legislature and government. There is plenty of evidence, in addition to Forest Service testimony, that it is inadequately staffed and funded to carry out its forest management responsibilities to the standards expected of it and to which it aspires. In Chapter 19 I pointed to the present inadequacies of resource planning. Elsewhere I have referred to the Forest Service’s inability to maintain adequate surveillance of forest operations and sufficient checking and supervision of licensees’ operations and forestry work. I have also mentioned the lack of administrative attention to minor products, the need for more site specific regulation and regional professional staff. In spite of a repeatedly stated objective to rehabilitate the backlog of lands that require rehabilitation and reforestation there remain some 1.8 million acres—five or six times the area currently logged each year—in need of reforestation. And licensees are constantly frustrated by the inability of the Forest Service to provide the staff necessary to resolve problems that lead to costly delays and interruptions in operations.

Moreover, while some of my earlier recommendations relating to tenure policy, marketing controls, and harvesting regulations would both simplify administration and shift some responsibilities to other agencies, it is clear that the solution to many of the problems I have discussed calls for expanded Forest Service activity. Direct responsibilities for developing access to timber, less dependence on licensees for planning, and expansion of the zone forester system will all require increased funding and personnel.

The government, the Legislature, and the public must come to grips with two opposing sentiments in this province: one is the historical predilection

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5 For a more detailed comparison, see Ibid., Appendix A.
toward retaining public ownership and responsibility for resource management; the other being a traditional distaste for growth of governmental bureaucracies. But if Crown title is to be retained, and if, as my terms of reference imply, a high standard of stewardship is expected, an extremely onerous burden of responsibility falls on the Forest Service and hence also on the provincial government to provide the financial resources required to dispatch those responsibilities. It appears that we have tended to regard our Forest Service in much the same light as public forest agencies are regarded in other provinces, but their responsibilities are hardly comparable. In none of the other provinces is public ownership so pervasive or the timber so valuable; nowhere in North America are forest conditions so varied and difficult and other forest values more intermixed. And in no other jurisdiction is the economy more heavily dependent on forest resources. If, as development of our forests for their multiplicity of values progresses, the present standard of management is to be maintained, let alone improved, a considerably broader and more secure base of public funding will have to be provided.

But in present circumstances it is extremely difficult for me, or indeed for the Legislature, to quantitatively assess the deficiency of Forest Service financing. Below, I propose means of overcoming this problem. But my recommendations rest also on the special need for continuity in funding.

CONTINUITY OF FUNDING

Many resource management projects and programmes can be efficiently executed only through planned progress over a number of years, and interruptions in funding can result in misallocations and waste. For example, the reforestation programme requires a long-term effort to build up the necessary expertise and nursery facilities, maintain the seed collection and improvement schedule, prepare seed, grow (for two or more years) the particular species and type of seedlings to meet expected needs, and have them planted. Once embarked on a production schedule, any interruption will result in wasted effort. Yet in 1975, the first year in which seedling production targets were met by the nurseries, unanticipated budgetary restraints left insufficient funds to plant the available stock. Other inventory, development, and silvicultural programmes are similarly susceptible to interruptions in funding.

Much concern was expressed at my public hearings about the lack of continuity in forestry appropriations, and several solutions were suggested. A popular one was the creation of a special forestry fund, perhaps through an earmarked portion of forest revenues. Indeed, the Forest Service has had considerable experience with funds established for particular purposes, but they have rarely endured. The Forest Protection Fund is no longer really a fund, insofar as revisions to the Forest Act in 1955 replaced it with provisions for a minimum annual allocation for fire suppression; surpluses cannot be carried over from one year to the next. A Forest Development Fund established in 1948 was abolished in 1966. The Scaling Fund was abolished this year, after large deficits had accumulated. An Accelerated Reforestation Fund set aside in 1972 had a short life insofar as the monies appropriated now have almost been exhausted. Provisions for two other funds, the Silviculture Fund and the Forest Reserve Fund are still made in the Forest Act; they require annual appropriations to them, but both have been ignored for some years.
In my judgment such funds are not appropriate for financing most governmental activities. They usually depend on an earmarked share of revenues, or allocations under some formula that rarely conforms to the needs of the planned programme. Moreover, as experience has shown, they are not invulnerable to the vicissitudes of government budget priorities, although that is presumably one of their purposes.

A continuing fund offers an advantageous means of financing a public programme only where the government is committed to carry out functions that require unpredictable expenditures over time, and hence cannot be systematically provided for through annual budgets. The only significant example in forest administration is fire protection, the cost of which is high, extremely variable from year-to-year, and totally unpredictable for purposes of budgetary planning. Moreover, standards of protection can be set readily and governments are not much inclined to alter them. In this case a fund, supported by a regular budgetary allocation in an amount which, based on recent experience, will be required in an average year and may be carried forward until needed, can be a significant convenience in public financing. It can also enhance the security of the Forest Service’s financing of its other activities, by removing a source of highly variable demands on its budget. I therefore recommend that the Forest Protection Fund be put on a firmer footing and financed in this way, although there will have to remain provisions for supplementary allocations in years of extreme need. But other Forest Service programmes and responsibilities do not require such stochastic expenditures, and hence can be financed through regular budgets.

**Toward Financial Planning**

Suitable public financing of forest management and administration requires reconciliation of two conflicting principles. On the one hand, for reasons explained above, the Forest Service needs to be able to plan its operations and programmes over periods of years, and the implications of any change in governmental support—in terms of its impact on the Forest Service’s ability to carry out its responsibilities—must be visible to the Legislature and the public. On the other hand, the Legislature must retain its ultimate authority over the expenditures of public funds and reserve the right to reallocate financial priorities.

The most suitable means for dealing with this problem appears to me to be through explicit long-term planning of Forest Service objectives and programmes with their expected costs. The Forest Service should be required—under the new Forest Act I recommend in the following chapter—to prepare a forestry programme for the next five years, providing estimates of annual costs for the various activities. After consideration and possible revision, the government should approve a programme in principle; it should be included in the Forest Service Annual Report and tabled in the Legislature for the information of elected representatives and the public at large. This will provide the much needed framework for assessing the activities of the Forest Service and for revealing the implications of annual budgetary appropriations for progress toward explicit objectives of management and administration. The newly constituted Auditor-General’s office should be well placed to assist with evaluating government’s performance of its forestry programme.
The plan could be revised from time to time, and a new programme designed each five years.

Somewhat related schemes have recently been introduced in at least two other jurisdictions. In 1972 the government of Ontario approved in principle a silvicultural programme to regenerate unproductive lands and to achieve a specified level of sustainable harvest by the year 2020. While I do not support the methods used to determine the particular targets or the narrowness of the objectives in this case, it is a significant commitment on the part of a provincial government to a long-term forestry programme with an explicit budgetary plan. The other is the United States Forest and Rangeland Renewable Resources Planning Act of 1974, which requires the U.S. Forest Service to prepare 10-year assessments of forest resources, needs, problems, and opportunities, with projections of supply and demand for timber and (significantly) their relation to price trends, as well as 5-year resource management programmes.

In several earlier chapters of this report I have referred to the way in which public funds are used indirectly to finance forestry and development through abatements to licensees’ stumpage assessments. As I have explained, it is often expedient to have licensees undertake such functions rather than the Forest Service itself (although I have recommended that the Forest Service assume a wider direct role) and when they do, adjustments to their stumpage liability offer an expedient way of reimbursing approved costs. Financing public forestry programmes, roads, and other developments in this way is obviously an alternative to direct budgetary appropriations, and so should be considered jointly with the Forest Service’s budget; but under present arrangements the Legislature cannot exercise systematic surveillance over the substantial portion of forest expenditures that is financed through stumpage adjustments. The proposed Forest Service’s programme and budgetary plan should therefore contain estimates of expenditures under both categories—direct outlays of the Forest Service itself and stumpage offsets for reimbursable expenditures by licensees.

This kind of forward planning will undoubtedly be beneficial for the internal purposes of the Forest Service itself, but a programme endorsed by the government would, for the first time, give the Legislature and the public a clear indication of needs, priorities, and financial implications. It would almost certainly result in more systematic funding, and the consequences of any deviations in the Legislature’s appropriations to the Forest Service will be readily identifiable. A necessary concomitant of this innovation is an annual reporting, in the Annual Report of the Forest Service, of its progress under the approved plan.

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CHAPTER 25

POLICY IMPLEMENTATION AND REVIEW

Throughout this report I have stressed the critical role of forest policy in moulding the environmental, economic, and social fabric of British Columbia. I have also emphasized the importance of clarity in forest policy for effective public administration, efficient private investment planning, and essential public understanding. These considerations converge on the urgent need for reform of the instruments of policy and for continuing policy review, the subjects of this chapter.

The instruments of policy to which I refer include legislation, regulations that supplement statutes, licence contracts and permits, and the less formal rules and procedures of administration. It is the interaction of all of these in the context of the tenure system that determine how our forest resources are used and developed, and in the course of this inquiry it has become clear that each is in need of overhaul.

There is also a conspicuous lack of provision for systematic resolution of differences between the Crown and private parties in the interpretation of rights and obligations, and I propose some innovations to deal with this problem as well. Finally, owing to the complexity of forest policy and the dynamic nature of the issues involved, means for reviewing policy and administrative problems are required, and so I suggest several approaches aimed at ensuring that policy and its administration keep pace with changing circumstances and public objectives.

POLICY INSTRUMENTS

Having already discussed administrative practices and procedures in some detail, I intend to focus attention here on needed changes in the more formal instruments of policy: legislation, regulations, and contractual arrangements. While I discuss these separately, it is important to bear in mind the need for a systematic relationship between them in the context of the tenure system. Legislation, being the fundamental expression of policy and intent on the part of the Legislature, should articulate the philosophical thrusts of policy and confer the powers needed by government to transact the public’s resources; regulations should supplement statutes to provide more detailed procedures for the guidance of officials in the day-to-day administration of the tenure system; and contracts executed pursuant to statutes and regulations should set out the specific undertakings between the Crown and private parties. As a result of decades of evolution, the special functions of these different devices have become seriously mixed and confused.
FOREST LEGISLATION AND REGULATIONS

It falls to an informed Legislature, in our parliamentary system, to articulate through statutes the government's responsibilities over public forest resources and to provide public officials with the necessary powers to dispatch them. Today's Forest Act has its roots in legislation enacted in 1912: the first Forest Act which established the Forest Service and reformed and codified the earliest forest policy. I should note that the name of this statute was changed in 1976 to the Department of Forests Act to accommodate a recent reorganization of government departments, and it now serves as the statutory foundation of the Department of Forests as well as a repository of forest policy. I have not adopted the new name in this report because the Forest Act is a much more familiar and concise title.

Over the decades this statute has been repeatedly amended to implement successive waves of public policy, but it has never undergone comprehensive revision. As a result it has become thickly encrusted with amendments, its structure is outdated, and its language fails to clearly express important features of policy.

A serious deficiency of current legislation is its failure to indicate the policy objectives to be pursued by the government. Management of natural resources as extensive and disparate as the forests of this province inevitably calls for decisions that take account of the special characteristics of individual sites in their physical, economic, and social contexts. Thus legislation should not presume to anticipate all the innumerable circumstances that will arise in the course of forest administration, but it should provide clear guidance to public officials, resource users, and others about the government's objectives and hence the manner in which discretion is to be exercised. Moreover, legislation should clearly specify the responsibilities of the public officials and agencies involved.

Today, some of the most fundamental policies are ignored by the legislation, and the degree of discretion given to officials is often excessive. Surprisingly, the Forest Service is under no formal obligation to manage most forests on a sustained yield basis, or even to designate Public Sustained Yield Units. Indeed, the latter term can be found nowhere in the Forest Act. The various planning procedures which have been adopted from time to time to rationalize forest development have been overlooked as well, technically leaving it open to the Forest Service to authorize timber operations without reference to any other agencies charged with administering resources. The stumpage appraisal system affords another conspicuous example; although it yields millions of dollars to the public treasury and constitutes the critical financial link between licensees and the Crown it is given only passing reference in the legislation. By simply altering its internal procedures the Forest Service can implement basic changes in its methods of evaluation which have a profound impact on the financial obligations of licensees. These are only a few examples of the lack of direction which generally pervades the Forest Act.

A second major shortcoming in statutory provisions relates more specifically to forest tenure arrangements: the failure of the Forest Act to circumscribe in unequivocal terms the dimensions of the authority given to government to deal in the public's resources. Many of the issues I have confronted
in this report have arisen from this feature of forest policy. The “quota” system, which has played such a profound role in the tenure system and has had a great influence on industrial development, rests entirely on Ministerial discretion and a sort of administrative legerdemain. Cloudy provisions concerning the duration of and rights to renew Tree-farm Licences and old temporary tenures are other examples.

Third, the legal foundations of some forms of tenure straddle both the Forest Act and the licence contracts, sometimes inconsistently, giving rise to serious ambiguities. For example, restrictions on the transfer of Tree-farm Licences set out in the Forest Act are at odds with parallel provisions in the licence documents themselves, and jigsawn provisions for renewability of old temporary tenures are found in both the legislation and the contracts.

Finally, the Forest Act gives detailed treatment to many aspects of forest policy which have diminished in importance with the passage of time. The inordinate statutory attention given to the fire protection responsibilities of railways has become largely anachronistic with the predominance of truck logging and the replacement of coal by diesel power. Royalties payable on minor forest products—such as ties, fence-posts, and even lagging and hop-poles—are recited in excruciating detail in the legislation. Thus the present legislation tends to place unwarranted emphasis on policy matters having minor significance, while it ignores others which are critically important.

Having considered these inadequacies, and reflected on the breadth of statutory reform implied by my other recommendations, I have concluded that a comprehensive overhaul of the Forest Act is warranted. In proposing a revision of the Act to the Legislature, the government should adhere to a few principles which will enhance the clarity of tenure rights and generally improve the usefulness of the legislation to administrators and citizens.

i) It is critical that the new legislation set out at least the fundamental attributes of all of the policy governing forest land in the province. For example, the basic policies governing the acquisition of rights to Crown forest resources, planning procedures, and resource pricing should all be clearly specified in statute. Conversely, finer details and minor matters should be prescribed in regulations. Fundamental policy questions should not be left to unqualified Ministerial discretion, as has been the case in the past with “quota” arrangements and informal planning procedures.

ii) It will inevitably be necessary for legislation to confer some discretionary powers, in recognition of the wide range of resource conditions, operational problems, non-timber values, and so on. However, where such powers are necessary, legislation should state the factors to be considered and the broad principles to be applied by officials in reaching their decisions. There are many examples of powers which should be qualified in this manner; the discretionary powers inherent in the stumpage appraisal system and planning procedures are two of the most obvious.

iii) A sharp line should be drawn between the legislation required to authorize government to enter into contracts on behalf of the Crown and the rights actually conveyed by the contracts. The legislation should be devoted to conferring on government the requisite powers to bind the
Crown, specifying the basic procedures to be followed in exercising them, and qualifying their scope by designating the central features of each form of licence. Thus it is generally unnecessary and inappropriate for legislation itself to set out the terms and conditions that will govern the parties; those should be set out in contracts.

iv) In the rare instances where it becomes necessary to alter existing contractual rights through legislation, the language of the amendments should be unequivocally framed, leaving no room for doubt about its intended application.

v) While the Forest Act defines in the broadest terms the jurisdiction of the Forest Service as a whole, it tends to delegate to the office of the Minister inordinate direct powers, while largely ignoring the roles of the Deputy Minister, Chief Forester, and District Foresters. The decentralization of authority recommended in earlier chapters should be given formal recognition, with specific responsibilities delegated in statute to senior headquarters and District staff. While comparisons between different natural resource fields are precarious, the provincial Water Act, which assigns responsibilities to regional staff and provides avenues of appeal from their decisions, may serve as a helpful model.

vi) The revised Forest Act should not be used to establish the Department of Forest and Wildlife Resources I proposed in the previous chapter. A separate enactment for that purpose will bring the forest administrative framework into conformity with well-established legislative practice.

I have emphasized the need for these basic revisions to the legislation because it is now so antiquated and incoherent that it is quite inadequate for its purpose as a vehicle for legislative control. Certainly, anyone who looks to the present Forest Act to acquaint himself with British Columbia's forest policy will obtain a most bewildering and distorted picture; and to those who must abide by it and administer it, it must be a most frustrating obstacle. I hope therefore that the present Forest Act will not be patched with yet more amendments, but will be subjected to a comprehensive redrafting.

**Contracts**

Serving the fundamental function of transferring resource rights from the public domain to private parties, licence contracts are the cutting edges of tenure policy. They should set out the rights and responsibilities of licensees and the Crown, consistent with the legislation that empowers the government to bind the Crown. Within the minimum terms and conditions specified in the legislation, licence contracts can accommodate the variety of conditions respecting the resource, the industry, the environment and the social setting across the province.

But it is important that these contracts express in clear and unequivocal language the intentions of both the Crown and the licensee; ambiguities undermine the security of licence holders and create confusion for public administrators. In earlier parts of this report I have identified features of contracts that are seriously inadequate in this respect, particularly in view of the value of the rights to Crown assets they convey. The Pulpwood Harvesting Area Agreements are particularly vague, and there are serious ambiguities in Tree-
farm Licences and other contracts as well. Many contracts leave open to
doubt the interpretation of crucial provisions for renewability, a matter that
should be carefully circumscribed as I have recommended in previous
chapters.

Other contracts, notably modern forms of old temporary tenures, Timber
Sale Harvesting Licences, and many Cutting Permits contain the startling con-
dition that the right to interpret the agreement rests with the Minister. Use of
this provision should be discontinued. For the government to reserve to itself
the power to interpret a bilateral agreement in which it is one of the contracting
parties is grossly unfair and undermines judicial recourse. Nor, obviously,
should the licensee be given the right to determine the scope of his rights, as
appears to have happened in at least one instance.

If future tenure contracts are drafted with closer attention to detail,
making full use of the legal expertise available to the government, they will
be less likely to present these problems. And the resulting improved clarity
and definitiveness of contracts, quite apart from the nature of the rights they
convey, will substantially enhance the certainty and security of licensees’
rights and simplify the task of public administration.

Supplementary Authorizations

In Chapter 19 I reviewed the planning requirements and the rather com-
plicated arrangements for obtaining authorizations for operations under the
various tenure forms. These supplementary authorizations give the Forest
Service an important degree of flexibility in regulating the activities of
licensees under their general contracts. But with the development of planning
procedures, these arrangements require some modification.

First, the required planning and approval procedures should be specifically
prescribed in the licence contracts, which should oblige the Forest Service to
issue Cutting Permits once these procedures have been complied with. All
new licences should provide that an operational plan be prepared for the
District Forester’s approval. The Forest Service can adapt the rigour and
detail of the plan to the needs of the particular circumstances; in some cases
a comprehensive resource folio plan, covering several years of logging, will
be required, while in others a relatively modest prospectus will be necessary,
as explained in Chapter 19. The Forest Service itself will be expected to
prepare plans for the revised Timber Sale Licences.

Then, once the operational plan has been submitted, amended as neces-
sary, and approved, authority to commence logging on prescribed areas
should take the form of Cutting Permits which should set out the require-
ments for operations on those areas.

In some cases Cutting Permits, and not licences, provide for the cutting
plan, having the effect of making the cutting plan the ultimate harvesting
authorization rather than the Cutting Permit. In the interests of clarification
of the licensee’s responsibilities, licence contracts should specify the planning
requirements that will condition the granting of Cutting Permits.

These proposals are consistent with the current arrangements for Tree-
farm Licences, but for other licences they offer some simplification. Thus,
in the new Forest Licence the separate cutting plan (now required under
Timber Sale Harvesting Licences) should be consistent with the operational
plan and be approved prior to issuance of the Cutting Permit. A parallel procedure should be adopted for the revised Timber Licences, eliminating the present operating plans. In all cases, the Cutting Permit will become what the term implies—a final authorization to begin harvesting.

PROVISIONS FOR APPEAL

Throughout this report I have stressed the importance of clear and secure arrangements between resource users and the government, and of consistency and fairness in administering legislation, contracts, and the other instruments of policy. Many of my earlier recommendations would add substantial equity to current policy: eliminating inconsistencies between various forms of tenure, clarifying statutory language and contractual rights and obligations, and specifying the criteria governing the exercise of discretionary powers by public officials. However, beyond these reforms there is still the need for administrative structures to meet certain other potential inequities in tenure administration, and so I propose new appeal procedures to rectify this deficiency.

The Forest Act makes limited and inconsistent procedural avenues available to licensees to appeal decisions of government officials. In an earlier chapter I drew attention to the 1974 amendment which repealed a long-standing right of Tree-farm Licensees to take recourse to the superior courts following cancellation of their rights by the Minister, and replaced it with the right to appeal to Cabinet. This procedure is not available to holders of other tenures, and rights to appeal other decisions are closely circumscribed.

The Forest Act provides that any decision of the Deputy Minister or an "officer of the Forest Service" may be appealed to Cabinet. This procedure is triggered only where the decision in question is specifically conferred on one of these officials in the Act, but not, for example, where it is formally given to the Minister and delegated by him to his Deputy or another Forest Service official. The statute divides responsibilities between the Minister and his officials along fairly arbitrary lines, so any advantages offered by this procedure tend to be rather unevenly distributed.

Finally, passage of the Crown Proceedings Act in 1974 removed obstacles that traditionally sheltered the Crown from private lawsuits, enabling aggrieved subjects to sue the Crown for breach of contract (among other things). Hence licensees wishing to dispute the manner in which government interprets their rights may launch judicial proceedings and obtain a court's interpretation of their contractual or statutory rights.

Having reviewed the provisions for appeal contained in the Forest Act I have concluded that they suffer from serious shortcomings and are unnecessarily limited and inconsistent. The security offered by a right to appeal decisions of either the Minister or Forest Service officials to the Cabinet is rather illusory. To my knowledge this procedure has never been invoked, and where similar appeals have been taken under other provincial resource legislation it is my understanding that supplicants' appeals have seldom if ever been successful. Not surprisingly, there is a tendency for the Cabinet to ratify the decisions taken in government departments. This procedure should therefore be abandoned.

Equity in public forest management requires that licensees faced with financial assessments, penalties, or other sanctions imposed by the Forest
Service be given the right to have such decisions reviewed by independent authorities. As agent for the Crown in forestry matters the Forest Service has a direct interest in the outcome of any of its decisions affecting licensees; it is therefore inappropriate to place that agency in the position of acting as the arbiter of disputes. By doing so (as it has in the past) the Forest Service is an interested party in disputes it is asked to judge, and this inherent conflict is aggravated by the Crown's near monopoly ownership of forest land in the province. Hence disputes appealed up through the ranks of bureaucracy are not appropriate; nor, for the reasons I have explained, are appeals to Cabinet. The courts or an independent tribunal offer sounder security to licensees while relieving the Forest Service of conflicting interests.

Earlier in this chapter I recommended that the objectionable clause contained in many contracts giving the Minister the power to interpret their terms and conditions be deleted in future. Coupled with the Crown Proceedings Act this reform will open the door to judicial interpretation of the respective rights and obligations of the Crown and licensees specified in tenure documents. Thus any ambiguities that arise in the interpretation of rights and obligations can be resolved by the courts if the parties are unable to reach a mutually satisfactory solution.

In this connection there is a valuable role to be played by the judiciary with regard to cancellation of licences. As I recommended in Chapter 10 this remedy should be used as a last resort, and licensees should have the contractual right to remedy alleged defaults within a stated period. Further, I proposed that the power of the Minister to cancel licences be carefully prescribed and that this remedy should be available only where the licensee substantially fails to fulfill his contractual or statutory obligations. It is important that when this power is exercised licensees are able to take recourse to the courts. This procedure will improve licensees' security of tenure significantly by transferring the ultimate power to cancel contracts from the Minister or Cabinet to the courts. To expedite judicial proceedings the new Forest Act should prescribe a summary procedure for bringing matters before the court.

It should thus be open to the courts to perform their traditional role in interpreting disputed provisions in contracts. But many of the differences that arise between the Forest Service and licensees are not of sufficient moment to warrant judicial determination, or tend to be highly technical in nature. According to testimony given at my public hearings licensees are sometimes asked to accept alterations in working plans and Cutting Permits imposed unilaterally by the Forest Service, for example, and in other cases honest differences of professional opinion concerning technical matters are a source of friction. To deal with these disputes I propose that licensees have the opportunity to be heard by a relatively informal administrative tribunal.

The Task Force on Crown Timber Disposal recently recommended that a specialized Appraisal Board be constituted to arbitrate similar issues arising from stumpage appraisals prepared by the Forest Service. I endorse that recommendation and suggest that such a tribunal would be well suited to

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1 Under that statute the courts are not given jurisdiction either to order the Crown to abide by its contracts or to restrain it from acting inconsistently with its contractual obligations. They may merely make a declaration of rights and obligations, but I assume that in such cases the government will in practice give effect to such determinations.

2 Task Force 2nd Report, 1974, pp. 136–143. This proposal has not been implemented at the time of writing this report.
deal with other technical forestry issues as well as appraisal matters. Indeed the two are interrelated; in cases where the government imposes new harvesting conditions, licensees' objections are often rooted in inadequate provisions for compensation. Therefore, in addition to resolving appraisal problems the Board should be given jurisdiction to hear appeals concerning disputed questions of fact which arise in connection with administration of management and development plans, waste billings, cut control penalties, Cutting Permits (including suspensions), and other similar technical matters. Licensees should be given the option of either referring such questions to the Board for binding decisions, or pursuing them in court.3

POLICY REVIEW

If he were not already aware of it, any reader who has perservered through the lengthy chapters of this report will be struck by the complexity of forest policy in British Columbia. In some respects it is too complicated, and many of my recommendations aim at simplification. But as I argued at the outset, public policy that must cope with issues of such enormous importance to economic and social welfare, and satisfactorily accommodate the wide diversity of the resource base, industrial demands, and environmental requirements will inevitably be complex. Moreover it must constantly change. If we have learned any lesson from history it is that policies designed to deal with circumstances of the time will sooner or later be rendered unsuitable as a result of the inexorable forces of technological advance, economic development, and shifting social attitudes and expectations.

In this report I have tried to unravel what I perceive to be the most conspicuous knots in a confusing web of policies that has become exceedingly tangled over the decades. I have endeavoured to propose new policies that will better meet the needs of our time and the foreseeable future, but apart from my hope that they will enhance flexibility I do not pretend that they will be suitable for the next generation. The prescription of natural resource policies that will serve the public interest for all time, enduring exogenous change, is too much to expect of any single advisor, or indeed, government or Legislature.

Forest policy must continue to evolve, and in view of its importance in this province the government and Legislature should receive guidance from the full spectrum of public and private expertise in reviewing and revising it. During my public hearings many participants emphasized the need for continuing policy review and proposed various institutional arrangements for this purpose. A frequent suggestion was a permanent forestry commission or council which would serve as a policy overseer and advisor to the government on forestry matters. This proposal has strong appeal insofar as it holds the potential for an independent and continuing assessment of policy and I have considered it carefully. However in light of the needs as I perceive them and the record of permanent commissions elsewhere I have decided to reject it. I fear that while such an agency might well inject a fresh and vigorous view initially, with the passage of time its vitality and independence would

3 I have considered alternative suggestions for *ad hoc* arbitration boards of foresters, appointed by the parties, for resolving such disputes. The flexibility of this approach is appealing, but I have concluded that a continuing board hearing all disputes would yield more consistent results. For suggestions about the structure and operation of the proposed board, see *ibid.*
tend to diminish through constant dealings with public agencies, the industry and other groups, and it might even become identified with the interests of one or another. More fundamental is the need to preserve and develop the Legislature's involvement in policy-making, and this will be most effectively ensured if a Minister of the Crown is clearly and directly accountable for policy development and administration. Moreover, the kinds of issues needing reassessment vary widely from very technical problems to matters of high policy, calling for a variety of approaches. I therefore propose a more eclectic approach to policy review.

Before turning to mechanisms for external reassessments of policy I should note that certain of my recommendations imply a spreading of responsibility for forest related matters within the government itself. As the forest economy has expanded and the demands on the resource have multiplied in kind, the Forest Service has assumed responsibilities well beyond the administration of forests, to matters in which it cannot reasonably be expected to have a special capability or, indeed, even the best expertise available within the public service itself. As a result, the time and effort of specialized Forest Service staff may often be mis-spent and the quality of programmes calling for other experts has suffered. I refer especially to the planning of regional industrial growth, highway development, the regulation of markets for certain products, and export controls. Even if the Forest Service is provided with the expanded and more systematic support I have recommended in the previous chapter, it should remain a specialized forestry agency and not be burdened with responsibilities that lie outside its sphere of expertise and that can be administered better by others.

Thus I have reviewed the increasing participation of other resource agencies in resource planning and proposed means of improving their effectiveness. I have drawn attention to the obvious role of other agencies of government such as the Department of Economic Development in determining priorities for regional development, and that of the Department of Highways and Public Works in planning main road construction. I have also proposed measures to engage regional authorities in determining appropriate objectives for local forest practices.

In addition, I wish to reiterate the urgent need for a specialized agency—such as the Forest Products Board of British Columbia—to maintain surveillance over intermediate forest products marketing and export controls, and to advise the government on these matters. I have stressed the critical (though in some respects subtle) influence of these markets, not only on public revenues but also on the structural patterns of industrial growth, and indicated serious deficiencies in current arrangements. This problem calls for the continuing attention of a specialized body, however modest in structure.

MECHANISMS FOR POLICY REVIEW

To obtain the full benefit of the expertise in the province for the task of policy review it will be necessary to seek means beyond the public service and regulatory boards, such as research institutions, consultants, task forces, and Commissions of Inquiry. Each of these is most suitable for particular purposes, and having had some experience with all of them I consider it important
to recognize the strengths and limitations of each in contributing to reassessments of public policy.

*Research Institutions.* There are now several more or less independent research institutions in the province that can contribute to examinations of forest policy issues, and should be encouraged to do so. Undoubtedly the largest and most independent are the universities, especially the University of British Columbia with its strong Faculty of Forestry, specialized natural resource institutes, and natural resource programmes in several disciplines. The universities contain much of the most highly qualified expertise that can be brought to bear on policy questions and in recent years (in rather sharp contrast to a decade ago) there has been a burgeoning research interest in this area.

However, university research is properly directed toward the more fundamental theoretical or conceptual problems, and academic researchers have research priorities which do not necessarily correspond to those of governments. They are not well adapted to direct their attention suddenly and single-mindedly to immediate policy issues, and governments should not expect them to do so. Nevertheless, certain kinds of resource policy problems are well suited to university research, and attention can be directed to them through appropriate research funding. I refer to problems of a scientific nature, such as ecological and silvicultural impacts of harvesting regulations; economic questions such as controls on markets, international trade, or taxation; and problems in other disciplines such as engineering, business, and law. In short, the government can benefit from university research into fundamental analytical problems, but university researchers are not well placed to deal with problems of immediacy, or those that call for mainly data collection, practical knowledge, value judgments, or the definition of the public interest.

Most other research organizations are more specialized. The federal government sponsors the Western Forest Products Laboratory in Vancouver and the Pacific Forest Research Centre in Victoria. It should perhaps be noted that this province receives considerably less federal spending for forestry, in relation to its forest resource base and production, than most other provinces. Nor can the federal effort in forest research in British Columbia compete with its extensive activity in agricultural research and experimentation, in spite of the overwhelmingly greater importance of forests to the environment and economy of this province.

The federal government should be urged to increase its contribution to forest research in British Columbia, but not necessarily through its own research institutions. Federal research institutions respond to priorities in scientific research perceived by that government, and for obvious reasons tend to avoid problems of provincial policy. Moreover, purely governmental research organizations often lack vitality, avoiding controversial questions, adopting more cautious attitudes toward dissemination of research findings, and offering less stimulus to critical commentary. To promote research into matters of policy, especially, the federal government should therefore be urged to direct its funding through universities and other independent institutions.

The Research Division of the Forest Service specializes in silvicultural research, although the new Special Studies Division has been expanding its expertise in economic and industrial affairs. The Forest Research Board is
a consultative committee of relevant provincial, federal, and industrial research interests which performs no independent functions but attempts to identify priorities and co-ordinate the research efforts of its member organizations.

Last year saw the establishment in Vancouver of a western division of the Forest Engineering Research Institute of Canada, which is supported by matching contributions from the forest industry and the federal government. At several points in this report I have stressed the need for more attention to the economic implications of regulations governing such matters as utilization and road building and this institution is well placed, and I understand willing, to undertake the assembly of the needed information from private companies for the guidance of the Forest Service and others.

Although these various institutions can contribute to the resolution of forest policy problems in various ways, there is a conspicuous absence of any independent research organization devoted to public policy analysis. Unlike other jurisdictions—particularly the United States, where there is a plethora of such specialized institutions serving a valuable research role that neither universities nor the government can play—we have none, the fledgling B.C. Institute of Economic Policy Analysis having been disbanded this year. Yet in many respects they are even more urgently needed here, particularly in the natural resource fields, because of the pervasive impact of governmental policy and the importance of public understanding of it. This province needs at least one such institution to serve as a continuing forum for expertise drawn from a broad base to investigate problems relating to natural resource policies. Preferably it should be funded jointly by several governmental and private sources to strengthen its independence and stability.4

Consultants. During the last couple of decades an impressive forest consulting industry has developed in British Columbia, serving not only domestic firms and governments but clients in foreign countries as well. Much of their work consists of practical studies of project feasibility, operational engineering, and forestry planning, but many consultants today can help to throw light on special problems related to forest policy, particularly those of a non-contentious nature. Clearly, specialized forestry, economic, and other consultants offer a flexible means for gathering information necessary for policy decisions and conducting special studies when the public service lacks the personnel for such tasks.

In recent years the Forest Service has sought assistance from these quarters on such matters as the role of the forest industry in British Columbia's economy, future wood fibre demand, regional development, and some of the more esoteric aspects of stumpage appraisals. I recommend in Chapter 24 that the government retain managerial consultants to assist with a review of forest resource administrative structures and it should continue to utilize this source of expertise as the need arises. But consultants are generally less suited to conduct analyses of the kind done in research institutions, or for reviewing the broad issues of public policy where diverse interests conflict.

Task forces. Small, informally constituted and short-lived panels of experts afford a valuable means of examining issues of a highly specialized or tech-

4 A good model is Calgary's new Energy Research Institute, which is funded jointly by the Province of Alberta, the federal government, and private sources.
nical nature. Such task forces offer a number of advantages. Appointed to
review a specific aspect of policy, they are capable of mobilizing quickly and
usually inexpensively the combined expertise of a handful of professionals
familiar with the issue. Their informality does not preclude discussion with
interested members of the public, but neither does it call for the formal
trappings and more elaborate procedures associated with Commissions of
Inquiry. But this implies that task forces should be used discriminatingly, for
addressing problems in which the interested members of the public are easily
identifiable and whose views can be informally solicited. They must be given
very explicit terms of reference which do not require them to make value
judgments.

Thus the 1974 Task Force on Crown Timber Disposal provided an
efficient medium for a comprehensive review of the stumpage appraisal sys-
tem and certain royalty policies, and a parallel group investigated rangeland
administration. In this report I have urged a similar arrangement for a
thorough review of methods of harvest scheduling, and for log scaling. Once
the objectives of policy are clearly identified, other problems can also be most
suitably addressed in this way. One candidate is professional and technical
forestry education in the province—an issue I have not been able to deal with
in this inquiry; another is the organization of forest related research.

Inclusion of appropriate government personnel on a task force often will
be advantageous, providing a reliable channel of communication to the public
servants responsible for administering the impugned policy and enabling
studies to be based on a sound understanding of the details and problems of
government policy. By the same token where the policy under review has
serious implications for forest users whose specialized knowledge would
make an important contribution to the study, the task force should be struck
accordingly. Depending on the problems to be investigated, it may be advan-
tageous to include in task forces either public servants or experts drawn from
industry. But I stress that in neither case should either government per-
sonnel or other experts be appointed to act as representatives of any public
agency or private interest group; indeed, appointees should be encouraged
to sever any direct affiliations for the duration of the study. Maximum
effectiveness and integrity of these groups will be realized only if the
independence of their members is unquestioned.

Commissions of Inquiry. On four occasions the government of British
Columbia has sought forest policy advice from Commissioners appointed
under the Public Inquiries Act. Commissioner Sloan, in his 1945 report
considered that a periodic, comprehensive review of forest policy by means
of a formal public inquiry was of such importance that he recommended that
one be appointed each decade. This proposal was met with his 1955 ap-
pointment, but almost twenty years elapsed before I was appointed to conduct
the present inquiry.

Had a Commission of Inquiry been struck ten years ago, in the mid 1960's,
it would have perched on the threshold of the dramatic events that occurred
during the past decade: rapid growth of the Interior pulp industry, adoption
of new utilization standards throughout the province, consolidation of tenure
holdings, the groundswell of public concern about the integrity of the environ-
ment, and so on. Viewed with hindsight, it is apparent that at least some of
the problems that have since become so confusing and intractable may have been forestalled had those issues been publicly investigated at that time.

As a vehicle for obtaining an independent assessment of the major themes of policy, Commissions of Inquiry are particularly well suited. Their legal status protects their independence, their structure permits a concerted effort to be directed to specific areas of public policy, and their stature generates participation and advice from a wide range of interest groups. Particularly if they invoke public hearings, as Commissions traditionally have, their value—even apart from their recommendations—as outlets for expressions of concern on the part of both private interests and the governmental bodies, forums for interchange of conflicting views, and media for public education and discussion are benefits that cannot be overlooked.

Indeed, while Commissions' reports attract most attention for their recommendations, of at least equal value to government are their identification and articulation of policy problems with the benefit of diverse opinion and experience. This serves a most useful purpose for policymakers, who can hardly be expected to undertake such intensive inquiries themselves. If their reports are thorough, they can thus serve as a touchstone for debate on needed changes and enable governments to choose among alternative reforms with much better information than otherwise.

For all these reasons I support the previous Commissioner's endorsement of the value of Commissions of Inquiry, but I am reluctant to recommend any particular periodicity for them. He was clearly thinking in terms of a thoroughly comprehensive review of forest policy each decade. I hold that Commissions of this sort should be used more flexibly, to address particular areas of policy that demand attention from time to time. I am concerned that forest policy has grown so complex, and is of such great importance to the economic, social, and natural environment of the province that it cannot be adequately reviewed by one comprehensive inquiry per decade. It is more important that investigations be timely than regular. The government should therefore be guided by events, striking inquiries any time fundamental issues of policy that can best be reviewed by this method are raised. Having said this, I agree that none of the basic elements of forest policy should go unreviewed for more than a decade.

However, in endorsing the formal Commission approach to reviews of basic questions of forest policy, I consider it important to add three caveats that apparently did not concern earlier Commissioners. First, Commissions should be directed by their terms of reference to matters of manageable scope that emerge as pressing from time to time. My terms of reference, unlike those of earlier Commissions, did this. Thus I was instructed to focus my inquiry on matters relating to tenure policy, specifically excluding certain contentious issues of stumpage and royalty policy which had been reviewed by other means. Had I been required to investigate these and other matters such as forest education, research, and silviculture, it would almost certainly have diluted the attention that I, and participants at my public hearings, have been able to direct to the structure of the forest tenure system and would have delayed this report considerably. Prescription of some issues for investigation to the exclusion of others is hazardous insofar as many are inextricably related, but to the extent that the breadth of the inquiry can be circumscribed
it will result in a more systematic and thorough investigation of the main
issues at stake.

Second, forest policy now has such a pervasive influence on life in the
province, and touches so many divergent interests, that Commissioners should
not be forced to prescribe the broad objectives of public policy. This is the
proper responsibility of political authorities, and should be recognized in
drafting Commissions' terms of reference. Again, my terms of reference
broke with tradition in this respect; and although the goals of policy set out
in my terms of reference were so broad as to leave plenty of room for debate
in application, they were extremely helpful. They eliminated the necessity
of deciding many basically political questions relating to the objectives of
tenure policy and marketing controls, and provided a valuable framework for
evaluating policy alternatives. The efforts of Commissions will be much
simplified, and their recommendations more applicable, to the extent that
they can direct their efforts toward predetermined public objectives.

Finally, I want to emphasize in the strongest possible terms the need for
documentation of policy itself, preparatory to Commissions of Inquiry. In
conducting this inquiry I have been dismayed at the lack of documented
information on the policies I have tried to assess. Nowhere was I able to turn
for reliable descriptions of such basic policies and procedures as those relating
to harvest regulation, utilization controls, the taxation system, export and
marketing restrictions, the structure of the forest industry, or even (apart
from one study in anticipation of this inquiry) the forest tenure system.
Reliable information about current policies is an obvious prerequisite to the
prescription of needed reforms, and public hearings are not an appropriate
means for obtaining it. Indeed, it should be available in advance of public
hearings to facilitate discussion and criticism.

Undoubtedly the most frustrating and time-consuming part of my inves-
tigations has been the task of unravelling current policies, and the necessity
of describing them in this report has impinged on its brevity and readability.
And in spite of the efforts of my staff and myself to gain understanding
through interviews with those who administer policy, and notwithstanding
their consistent willingness to assist us, I fear that there may remain mis-
understandings of current policies and procedures reflected in this report.

The value of articulating policies extends well beyond facilitating the
work of Commissions of Inquiry, of course, to providing essential information
for legislators and the public at large. To the extent that documentation is
accompanied by analysis of problems (which touches on my earlier remarks
about research) its value will be increased. But the point I wish to emphasize
here is that a Commission should not be placed in the position of having to
initiate studies of current policy, or inferring it from fragmented evidence;
that information should be already publicly available so that the Commission
can turn its attention to its special task—that of identifying problems and
needed reforms.

Other media for policy review. I have not discussed policy review by the
Legislature itself. For this purpose, legislative committees can play a useful
role, but they are undoubtedly best suited for reviewing matters of broad
policy rather than issues of more detail or of a technical nature. Again, it is
to be emphasized that this kind of review mechanism can be efficient and
productive only if the advisors are equipped with clear and reliable documentation of existing policies and procedures.

For a brief period in the late 1950's a permanent Forest Advisor was retained to advise government on policy matters. I do not advocate that this permanent office be reintroduced, for the same reasons that I have rejected the idea of a permanent forest commission. However, if the government undertakes a major overhaul of forest policy of the kind I have recommended in this report (whether the reforms conform to my proposals or otherwise) it may well be advantageous to retain temporarily a forest advisor to assist with implementation of the changes decided upon. I make this suggestion in light of the enormous task that will be involved in redrafting legislation, reviewing contractual arrangements and regulations, negotiating structural changes in administration, and so on. These special tasks may prove to be an excessive burden on Ministers, Deputy Ministers, and others who must attend to regular matters as well as decide the general directions of policy change.
In the course of this rather lengthy report, I have made numerous recommendations, ranging from minor suggestions to proposals for fundamental shifts in public policy. I have not attempted a summary listing of all of them, because that would inevitably be disjointed, and hardly comprehensible in isolation from the discussion of the problems that the reforms are meant to resolve. But because of the complexity of the issues dealt with in preceding chapters and the difficulty of dealing with them in an orderly sequence, my recommendations may appear to lack coherence; so in this concluding chapter I review the major thrusts of my proposals in the context of what I perceive to be the most urgent issues in forest policy.

I devoted an early chapter to identifying general priorities for reform of forest tenure policy, and those priorities provide a useful framework for this retrospective review of my recommendations. There, I concluded that the public interest could best be served by maintaining the traditional policy of public ownership of forest lands, and that the central issue in this report was therefore the design of suitable contractual arrangements between the Crown, as landlord, and forest users. The broad public objectives that these arrangements must be designed to meet are set out in my terms of reference, reproduced in the Preface. My assessment of present policies, in light of these objectives, led me to identify five issues in most urgent need of attention in policy revision, namely: clarification of resource management goals; articulation of a deliberate policy for the pattern of industrial development; improvement of the security of timber supplies provided through the tenure system; enhancement of the scope for governmental flexibility in the allocation of rights to public timber; and development of improved structures and procedures for the administration of forest policy. Many of my proposals overlap two or more of these priorities, but I shall nevertheless attempt to summarize the way in which my main recommendations are designed to advance each of them.

RESOURCES MANAGEMENT GOALS

Because industrial forestry is typically in the vanguard of development in British Columbia, because timber crops take decades to grow, and because forestry has such broad ramifications for both the province’s economic health and the protection of other values, the proper development of forest resources calls for careful planning. Planning will be effective only if conducted pursuant to clearly stated objectives. Some of my most fundamental recommendations are directed toward clarifying and revising the present explicit or implied objectives in resource management, so that forest rights can be...
allocated and exercised in a manner that will systematically and reliably serve the broad public interest.

This issue has several dimensions. One of the most important is the rate at which timber should be made available for harvesting. During the last three decades the Forest Service has developed a rigorous system of sustained yield regulation, based on a calculation that shows the harvest that should be taken each year over a full crop rotation in each regulated unit. The mechanisms for these controls are well established, and it is now time to thoroughly reassess the objectives sought, the data on which the system is based, the criteria for determining the available timber supply, and the manner of achieving the desired results through tenure contracts.

The reliability of the system depends heavily on estimates of the forest inventory and rates of growth, and it is now apparent that current forest inventory data are deficient for purposes of harvest regulation. As a result, there are grounds for serious concern about the present calculated rates of sustainable harvests. In some regions, the allowable annual cuts almost certainly exceed those that better inventory data would indicate, and in others they probably under-estimate sustainable yields. Further, the criteria presently used in calculating harvesting targets from these data fail to take account of important economic and technological factors that influence the benefits and costs associated with alternative rates of harvesting.

Thus I have found that in important respects the present arrangements for determining harvest rates—or the scope for allocating harvesting rights—fail to provide the assurance, called for in my terms of reference, that "...the public interest is protected in the ... policies ... affecting the allocation and use of forest resources ...". To rectify this, I recommend that the sustained yield policy be directed more systematically toward enhancing industrial and environmental values. This calls for a shift in emphasis, from the traditional effort to achieve maximum equal annual harvests from all the province’s timberlands, to attainment of the fullest long-run economic and social benefits from available forest resources and to enhancement of their productive capacity. Toward this end I recommend that specific measures be undertaken to obtain more reliable working estimates of recoverable timber and that a new approach be adopted for harvest regulation that systematically recognizes economic values, technological trends, and industrial constraints. I also propose a new system of forest land classification to guide long-term planning for harvesting and silviculture, and adoption of more meaningful timber supply regions for purposes of regulating the flow of timber. Further, I suggest more flexible enforcement of controls on harvest rates under tenure contracts, in order that the value of the harvest can be maximized in the face of changing economic circumstances.

These recommendations imply rather fundamental changes in the arrangements for regulating the available timber supply, which govern the size and pattern of development of the province’s largest industrial sector. They are designed to provide a more dependable base for providing raw material supplies to the forest industry and to facilitate administration of a secure and resilient system of harvesting rights. Most of my proposals relating to this issue appear in Chapter 17.

Another aspect of the general need for redirection of resource management goals concerns the reconciliation of conflicting demands on the resource
base, a problem which has been thrust to the forefront of public controversy over forest development in recent years. The Forest Service, other agencies, forest operators, and other resource users all recognize the urgency of finding mechanisms and procedures to ensure that values other than timber—wildlife, fisheries, recreation, other non-industrial uses of forests, and the general integrity of the natural environment—are properly accommodated in the course of timber development and harvesting.

Much effort has been devoted to this task, and with mixed success a variety of methods focusing on integrated resource development, planning, and approval procedures has been tried. The present provisions are, in some cases, simply inadequate. In others they have become so burdensome that they exceed the capabilities of licensees and government agencies, threatening to obstruct orderly operations and to divert co-ordinated effort from areas of highest priority. Accordingly, I have made a number of recommendations directed toward ensuring that “The full contribution of the forest resources . . . is realized in terms of the diverse commercial and environmental benefits they potentially may generate . . .”.

Hitherto, planning effort has been concentrated at the operational level, but it is clear that operational planning can proceed efficiently only in the context of explicit developmental objectives for resource management units and economic regions of the province. Responsibility for prescribing regional objectives or plans should not rest entirely with the Forest Service, and therefore I have recommended that other departments and agencies participate in identifying regional development goals to provide a clear framework for long-term forest development planning. Planning for individual management units has been confined almost entirely to Tree-farm Licences, and I propose a concerted effort be made to attain comparable standards for the forests managed directly by the Forest Service.

The most critical immediate need, however, is to find more effective procedures for formulating and approving operational plans; the present bottlenecks at this level prejudice further progress in integrated resource use. At present, the alternative to excessively rigorous and time-consuming procedures is reliance on uniform standards or guidelines which are inappropriate to the widely varying forest conditions and needs in the province; they are often ineffective in protecting important values and impose high and unnecessary costs on both forest operators and the Crown. I urge that such undiscriminating regulations give way to controls geared to the circumstances of individual sites, with attention being paid to the values to be protected and the costs involved. I recommend that the most promising approach to site-specific management planning—the resource folio system—be developed and modified to ensure that the available planning resources are focused on areas of highest priority in terms of their silvicultural and environmental sensitivity. I also propose clarification of the responsibilities of licensees and various public agencies in planning, and rectification of the current diffusion of accountability among public authorities. Finally, I recommend more systematic provisions for public participation in the planning process. These matters are dealt with in Chapters 19 and 20.

A third important area in which present resource management goals are inconsistent with the objectives in my terms of reference is that of utilization policy. To ensure that the full value of harvested timber can be realized,
fundamental changes in current recovery regulations will be necessary. The existing controls impose rigid, uniform standards over widely varying conditions; they confuse licensee's obligations with administrative problems in reconciling inventories and timber depletion; they are not sufficiently sensitive to silvicultural and environmental needs; and they fail to stimulate entrepreneurial incentives for full utilization of timber.

I have made several recommendations to improve utilization policy. One involves the development of tenure arrangements in which the licensee's payments to the Crown are based on the standing timber he is authorized to cut rather than on the logs he actually recovers from the stand, a system that elsewhere has proven highly successful in generating incentives for close recovery, as well as offering other advantages. I propose that minimum utilization standards should vary with the forest conditions, the circumstances of logging, and specific environmental and silvicultural needs. The stumpage system should provide sharp incentives to recover marginal timber, and requirements to harvest sub-marginal material should be linked to identifiable management requirements that justify the losses involved.

These are the three main areas in which I have recommended a re-evaluation of management goals and a re-orientation of policies to conform more closely to the objectives in my terms of reference. There are others, having to do with reforestation and silviculture programmes, harvesting priorities, and cut control regulations. Two related themes run through these proposals. One is the need for less uniformity and more flexibility in regulatory policy, and especially the need for greater sensitivity to the conditions and needs of particular tracts of forest. The second is the need for more attention to economic evaluation in fixing objectives and controls. Most of these recommendations are presented in Part V of the report. In the aggregate they are designed to provide a more secure framework for allocating timber rights in the province and a system of regulation that is more consistently directed toward realizing the full range of potential forest values.

**Industrial Policy**

One of the main advantages of public ownership of forest land is that the government, through its resource policies, can mould the pattern of industrial development to best serve its economic and social objectives. Indeed, even in the absence of defined objectives, the methods the government chooses to allocate rights and regulate forest operations will almost inevitably affect the form of industrial growth. In view of the importance of this industry to the provincial economy, I have emphasized that the system of allocating rights to forest resources should be based on a clear industrial policy. I have drawn particular attention to two issues: one is the need for a policy framework that will allow the industry to achieve higher levels of efficiency and thereby increase the latitude for its growth; the other is the importance of an articulate policy toward the structural pattern of industrial development.

The province's forest industry has passed through a period of remarkably rapid expansion and change, but it is now clear that it faces serious obstacles to further growth. Its profitability has declined in recent years, its traditional advantage in superior timber is eroding, and its costs are high relative to
those of competitors elsewhere. In the foreseeable future, its growth will be constrained not so much by the physical limits of the timber supply but by its ability to produce forest products and profitably sell them at prices determined in competitive international markets. To ensure that "... the efficiency and vigor of the forest industry is maintained...", the government should therefore pay careful attention to avenues for reducing costs on the one hand and improving markets on the other, and I have found scope for both.

Two of the most conspicuous sources of excessively high costs imposed by governmental regulations are the present rigid utilization regulations and extensive road building requirements. I have already referred to several of my proposals concerning utilization policy. With respect to roads, I have recommended that the current controls on harvesting patterns be reassessed, with special attention paid to the environmental and economic consequences of the road construction they necessitate.

To enhance the value of timber, I recommend measures to develop more vigorous markets for intermediate products: in particular to revitalize the coastal log market, and to free chip marketing from some of its present governmental restrictions. In addition to these and other measures to bolster domestic markets, I have proposed changes to take better advantage of export markets for these products.

A more complicated policy issue is the government's role in shaping the structural pattern of industrial development, and my concern for this matter runs through many parts of the report. I have addressed this issue from three premises: first, the government and the public have an important interest in the pattern of development of the forest industry; second, the most advantageous industrial structure is one which includes a wide range of entrepreneurial forms with competition and opportunities for new entrants at all levels; and third, while British Columbia's forest industry is capable of sustaining these desirable features, current trends threaten to eliminate them. While the rapid concentration of timber rights into the hands of fewer, larger corporations in recent years is related in part to economic and technological changes, public policy has stimulated the process in important ways. In order to restore and maintain a balanced and diverse industrial structure I have made extensive recommendations to create a more neutral policy.

Small, unintegrated, and new enterprises are now, for the most part, facing serious disadvantages when they seek access to timber. On the Coast, most of the best timber is held by large companies under Crown grants, old temporary tenures, and long-term Tree-farm Licences. Elsewhere, the "quota" system has stimulated consolidation of rights, leaving little opportunity for those other than the established licensees to compete for the available Crown timber. I have therefore proposed changes in the tenure system which would accommodate a wider range of enterprises and make rights to Crown timber more accessible. Most important are my recommendations for a flexible new Timber Sale Licence system for competitive sales of certain rights, for varying the division of management and development responsibilities between licensees and the Forest Service, and for improving the methods used to reimburse approved costs incurred by licensees.
It is important to ensure a measure of balance not only between firms of different size but also among operations of differing structure. Hitherto, public policy has favoured integrated companies. There can be little doubt, however, that both the industry itself and the public interest can better be served by an industrial structure whose integration rests, in part at least, on a diversity of specialized firms operating in particular sectors or levels of processing, linked by freely competitive markets for intermediate products. Thus my proposals to invigorate log and chip markets are also designed to ensure that “The marketing arrangements for timber products permit their full value to be realized and are consistent with an efficient economic structure...”.

A rather wide variety of other recommendations is aimed at promoting diversity, flexibility, and balance in the industry. These include relaxation of appurtenant mill requirements in licence contracts, abandonment of procedures that link timber rights to licensees’ mill capacities, and adoption of clearer and more flexible rules for transferring rights. A chapter is devoted to arrangements for special products operations, with recommendations generally aimed at promoting development of this sector of the industry. New policies are also proposed to facilitate small scale forestry on Crown lands, and to encourage development of a forestry services industry.

My report reveals many opportunities for improving forest licensing arrangements in British Columbia, but it is probably safe to say that the government’s most difficult challenge is to design a tenure system that will shape industrial development in the desired pattern, encouraging and maintaining production and marketing structures that will best serve the broad public interest in resource management and economic development. This, I have suggested, will call for deliberate and careful shifts in priorities and introduction of new arrangements, but these new policies should build on the strength of established structures and enterprises, and respect the commitments the Crown has already made. The problem is urgent because continued acquiescence to current trends will soon foreclose options that could better serve the public interest. In the long-run, the government’s response to this challenge is likely to have the greatest implications for the success of forest policy. Many of my more fundamental recommendations are designed to assist the government in creating the policy environment needed to ensure balanced industrial development.

**Security of Timber Supplies**

One of the most pervasive concerns of forest companies in the province is for the security of their access to raw material. This anxiety is justified. Orderly industrial planning, investment, and operations require assurance of raw material availability, either through dependable markets for the inputs required by manufacturers or through rights to standing timber, both of which currently suffer from serious shortcomings. I have already referred to the inadequacies of log and chip markets and my recommendations for improving them. With respect to timber rights, I have found that the tenure system is riddled with inappropriate terms, inconsistencies, ambiguities and discretionary elements that threaten the security of licensees’ rights and undermine the legal clarity required of contractual undertakings between the Crown and private parties. These features undoubtedly impinge on systematic
industrial planning and development, create confusion for public administrators, and generate friction between the industry and regulatory agencies.

Accordingly, I have made extensive recommendations for improving the definitiveness of rights and obligations under all the major forms of licensing. In the Public Sustained Yield Units a major issue is the "quota" system which, although it now governs the allocation of most timber, lacks a contractual foundation. I recommend that this discretionary device be abandoned in favour of licences with appropriate terms and explicit renewal privileges. I propose that Timber Sale Harvesting Licences, which are the main embodiment of "quota positions", be transformed into new Forest Licences that will confer rights to defined tracts of timber, with terms of 10 or 15 years, provisions for advance renewal, and matching bid privileges to holders of expiring licences. Other Timber Sale Licences should be revised to provide adequate terms for orderly operations, increased scope for competition, and less onerous managerial and development responsibilities.

While the Tree-farm Licence system has proven highly successful in terms of improved forest management, significant changes are needed to clarify the respective rights and obligations of the Crown and licensees and to provide more suitable contractual terms and conditions. Among other things, I have recommended clear specification of the licensee’s harvesting rights over the term of his licence, clarification of renewal privileges, and an “evergreen” arrangement to provide for more orderly periodic renegotiation of contracts.

I have found that the old temporary tenures are in need of substantial overhaul, many of their terms and conditions being either unclear or inappropriate for modern needs. I have proposed that the several old forms of licences in this category be rationalized under a revised Timber Licence system that will ensure a consistently high standard of forest practice, and provide for orderly harvesting and liquidation of these tenures. This requires important changes in their present terms and renewability provisions, both within and outside Tree-farm Licences. I have found that Pulpwood Harvesting Area Agreements serve a valuable purpose in the tenure system, but the present contracts are so ambiguous that they should be renegotiated and simplified. My specific proposals for new Pulpwood Agreements will provide their holders with clearly defined options to timber in the event of interruptions of chip supplies, without impeding the use of timber for more valuable sawmilling purposes in the meantime.

Other recommendations to enhance the clarity and security of rights range rather widely. They deal with arrangements governing exchanges and transfers of licences, suspensions, cancellations, the Crown’s obligation to issue authorizations supplemental to licences, the scope for discretionary interpretation of contracts, and provisions for appeal. Related recommendations include streamlining and clarifying administrative procedures and accountability, and major revisions in legislation, regulations, and contracts to provide a more solid and reliable policy framework.

There are two dominant themes in these recommendations. One is that the complex forest tenure system has, over the years, accumulated numerous features which are now inadequate for orderly industrial operations and effective public control, and these shortcomings should be rectified as quickly as current contractual commitments permit. The other is that many critical aspects of the system rest only on understandings, discretionary practices,
and in some cases arrangements having questionable legal validity. My proposals imply that new emphasis be placed on clear legislation, explicit contracts, and well defined administrative procedures.

**Flexibility**

While the tenure system must provide the forest industry with secure rights to timber, it must also preserve the Crown’s flexibility to reallocate timber and redefine rights over time, to meet changing industrial needs and public priorities. This means that the duration of contractual commitments should be no longer than necessary to provide the assurance for systematic investment planning and resource development. They should also afford regular opportunities for review, revision, and reallocation, without resort to arbitrary administrative intervention or infringement on contractual undertakings.

The present tenure system has preserved substantial legal flexibility, but some of its important features unduly restrict the Crown. Conspicuous are the established “quota positions” which, although not legally binding on the Crown, licensees have been encouraged by the government to regard as akin to rights of indefinite duration. I have recommended changes that will acknowledge these “understandings”, while converting the licensing system to one that provides clearly defined terms and renewal privileges. Other examples are the remaining Tree-farm Licences that ostensibly bear perpetual terms. I have recommended legislation to clearly establish finite terms for these licences, with appropriate provisions for renewal.

In nearly all cases where renewability is provided in contracts or legislation, the scope of the licensee's renewal right is undefined. I have therefore proposed that these important privileges be specified clearly. For certain tenures I recommend that renewal rights extend to a minimum percentage of annual harvest authorized under the expiring licences, leaving a margin of flexibility to the Crown.

To provide additional flexibility (as well as for other important purposes) I have proposed restoration of orderly procedures for allocating certain forms of timber rights by competitive bidding. Proposed revisions of the Timber Sale Licence system, especially, are designed to provide flexibility in the allocation of Crown timber, by combining relatively short non-renewable terms with provisions for unrestricted competition. Recommended planning procedures for longer-term licences, reformed Pulpwood Agreements, and new arrangements for exchanges of rights will also contribute to flexibility in the system.

**Public Administration**

The fifth priority I identified at the outset of this report is the need for improving the framework of public administration for implementing forest policy. My proposals on this matter take three general forms: needed changes in the formal instruments of policy such as legislation, regulations, and contracts; reforms in the organization of administrative agencies and their financing; and new approaches to planning forest operations and reformed administrative procedures for regulating them.
One of the most obvious priorities is a thorough overhaul of the Forest Act which, as a result of its age and a succession of patchwork amendments since 1912, is now a ramshackle statute, grossly inadequate as the basic instrument of forest policy. I have recommended that the Act be revised in its entirety, with close attention being paid to the appropriate roles of statute, regulations, contracts, and other instruments of policy. I have already referred to the need for clarity of contracts and explicitness of contractual rights and obligations. Other proposals under this head include those relating to mechanisms for appealing administrative rulings, and procedures for external policy review.

The organizational structure of resource agencies should be reassessed. I have recommended certain specific measures, such as incorporation of both the Fish and Wildlife Branch and the Forest Service into a new Department of Forest and Wildlife Resources. I have also recommended that the Forest Products Board of British Columbia, as provided for in the Timber Products Stabilization Act, be established and charged with a variety of important functions relating particularly to development of log and chip markets. As well, I draw attention to organizational problems within the Forest Service and recommend that these be the subject of a special external investigation.

I propose a host of changes in administrative practices and procedures to ensure that "Proper provisions are made for the efficient management, protection, and enhancement of the forest resources and for the regulation of harvesting and utilization practices". Especially important are the procedures for planning forest development and operations; proper provisions should be made not only for silviculture but also for other forest uses and environmental values. I have already referred to my recommendations for improving the processes of integrated resource use planning. Some of the present rules governing operations, particularly those relating to cut control and recovery specifications, appear unnecessarily fastidious and divert administrative effort from more crucial field management responsibilities. Thus I have found that in some respects forests are over-regulated and under-managed, and many of my recommendations are aimed at correcting this imbalance.

Finally, there is a pressing need for more systematic forest financing arrangements, to provide legislators and the public with a clear framework for assessing the adequacy of Forest Service operations and to enable that agency to plan and dispatch its long-term responsibilities in an orderly fashion. I have proposed a system of budgetary planning that will permit the Legislature to appropriate funds with a clear appreciation of their implications for achieving defined objectives, and that will bring under surveillance both the direct expenditures of the Forest Service and the public funds that are spent indirectly by licensees under stumpage abatement arrangements. My proposals for more direct Forest Service involvement in resource management and development imply a heavier onus on orderly forest financing, increasing resource revenues on the one hand and Forest Service budgetary requirements on the other.

OTHER ISSUES

While most of my major proposals fall under one or more of these five priorities for policy revision, my terms of reference have required me to deal with other important problems as well. One is the complex system of public
charges (other than the stumpage formula and certain royalty arrangements) on timber and forest land, and on this matter I was instructed to ensure that “... the various forms of public revenues ... are systematic, equitable, and consistent with general taxation policy in the Province”.

My analysis of the total structure of taxes and miscellaneous levies, and the impacts of each on the others, reveals considerable scope for rationalization and simplification. Certain charges are circuitously levied and charged back to the Crown, including the costs of cruising and advertising timber sales, scaling costs, and the forest protection tax on Crown land. I recommend that these be abolished. I have found that where royalties apply to Crown-granted land they are so low in relation to the costs of collection, and are offset to such an extent in property tax yields, that they should also be eliminated. The present annual rentals on licensed Crown lands are inconsistent and inadequate, and I propose that they be rationalized and increased. Finally, the property tax system as it applies to forest lands is seriously deficient, and I have recommended an entirely new and simpler approach aimed at exacting a consistent share of the annual productive value of taxable lands.

I was specifically instructed to investigate the controls on exports, and to design recommendations toward ensuring that “The regulation of exports of forest products serves the best economic interest of the Province”. My review of this question has led me to the conclusion that existing federal and provincial restrictions on the export of logs and chips depress the value of timber and impede efficient utilization. Accordingly, I have proposed major modifications to these controls.

I have also found it necessary to deal at some length with other matters relating to the rights and obligations of forest operators. A special chapter is devoted to the complicated issue of roads. I have recommended a more systematic approach to their planning, construction, and financing, and more consistent arrangements to govern their legal status and use. I have also tried to untangle the existing provisions for forest protection, and propose that these be rationalized.

In short, I have found that there is substantial scope for improving nearly all of the arrangements that fall under my terms of reference. In view of the dominance of timber production and manufacturing in the economy of British Columbia, the critical role of forests in the province’s natural environment, and the central position of the government in regulating their development and use, attention to the deficiencies of forest policy deserves high public priority. I trust that my identification of problems will stimulate effort to resolve them, either through the reforms I have proposed or by alternative means.
Glossary

allowable annual cut  the regulated yearly harvest prescribed for a managed
forest unit under sustained yield criteria, or the annual harvest authorized
by a licence over its term.

bone dry unit (B.D.U.)  the usual measure of pulp chips in the Interior, con-
sisting of 2,400 pounds of chips in an oven-dry condition (see also gravity
packed unit).

board foot  a measure of lumber, or lumber content in logs, equal to the
volume of a board measuring 12 x 12 x 1 inches (see also Mfbm).

“close utilization” standard  a measure of the sound timber in a stand, con-
tained in all trees 9.1 inches in diameter at breast height or larger on the
Coast and 7.1 inches in the Interior, between 12-inch high stumps and
(usually) 4-inch diameter tops.

controlling company  (as used in this report) any company that holds rights
to timber or logs, or manufactures forest products, including the holdings
and activities of other firms in which the company holds 50 per cent or
more of the outstanding voting shares.

cunit (C cf)  100 cubic feet of wood.

forest inventory  the stock of timber covering an area of land, measured to a
specified standard of utilization.

forest land  under the Forest Act, land which, in the opinion of the Minister,
will find its best economic use under forest crop. The Taxation Act
defines this term, for property tax purposes, as lands under the old
temporary tenures.

gravity packed unit (G.P.U.)  the measure of pulp chips normally used on the
Coast, consisting of a gross volume of 200 cubic feet of uncompacted
wood chips (see also bone dry unit).

“intermediate utilization” standard  a measure of the sound timber in a stand,
contained in all trees 13.1 inches in diameter at breast height or larger on
the Coast and 11.1 inches in the Interior, between 18-inch high stumps
and 8-inch diameter tops.

Mfbm  one thousand board feet (see also board foot).

mean annual increment (M.A.I.)  the average annual growth in volume of a
stand, averaged over its life; usually expressed in cubic feet per acre.

Minister  unless otherwise indicated, the Minister of Forests.

old-growth  old mature stands of timber, usually natural stands several cen-
turies old.

old temporary tenures  Timber Leases and Licences, Pulp Leases and Li-
censes, and Timber Berths.

rotation age  the age at which a forest crop is harvested and replaced by a
new stand.
royalty the payment due to the Crown for timber harvested from private lands granted since 1887 and from old temporary tenures.

second-growth a stand of timber that has replaced a former or old-growth stand, and is in an immature and thrifty condition.

stumpage the price determined under Forest Service appraisal procedures and paid to the Crown for Crown timber harvested from Crown land, except the old temporary tenures. Where competitive bids have been received, stumpage includes any bonus bid.

sustained yield a forest management regime that involves more or less continuous harvesting, balanced by growth, over managed forest units.

ABBREVIATED TITLES OF FREQUENTLY CITED PUBLICATIONS


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Throughout this report the previous familiar title has been cited, in the
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