Gladner

PUBLIC INQUIRIES ACT

(BRITISH COLUMBIA)

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REPORT OF THE COMMISSIONER

Honourable Gordon McG. Sloan, Chief Justice of British Columbia

relating to

The Forest Resources of British Columbia

1956

VOLUME 1

LIBRARY

VICTORIA, B.C.
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1957

To His Honour the Lieutenant-Governor in Council.

MAY IT PLEASE YOUR HONOUR:

Pursuant to the powers contained in the "Public Inquiries Act," being chapter 162 of the "Revised Statutes of British Columbia, 1948," and in accordance with your Order in Council dated the 7th day of January, 1955, a Commission was issued under the Great Seal of the Province appointing me a sole Commissioner to inquire into and report upon the certain matters therein set out relating in general to the forest resources of British Columbia.

The Inquiry has been completed and I beg to submit my Report herewith.

I have the honour to be,

Sir,

Your obedient servant,

Commissioner.

Dated at Victoria, B.C., July, 1957.

CONTENTS

VOLUME 1

	Page
Terms of Commission	1
Growth of Industry during Last Decade	3
Economic Importance of Industry	9
Statement of Issues Involved	14
Historical Aspects of Forest Development	15
Tenures to 1945	19
Crown Grant	22
Timber Leases	24
Pulp Leases	26
Timber Berths	27
Timber Licences	27
Pulp Licences	31
Timber Sales	33
Pulpwood Timber Sales	33
Summary of 1944 Tenures	37
Recommendations of 1945 Commission	39
Tenures from 1945	45
Forest Management Licences	45
Public Working Circles	115
Tree-farms	139
Municipal Forests (Volume 2)	742
Farm Wood-lots (Volume 2)	752
Timber Sales	153
Forest Inventory	193
Sustained Yield	222
Allowable Cut	238
Forest Protection	245
Fire Protection	245
Forest Insects, Pests, and Diseases	269
Salvage	280
Regeneration	289
Industry	323
Sawmills	327
Shingle-mills	342
Pulp and Paper	345
Poles, Piling, Veneer, and Plywood	360
Utilization of Waste	366
Logging Residuals	366
Mill Residuals	378
Chips	390
Export of Chips	394
Future Trends Affecting Policies	398

VOLUME 2

	PAGE
Forest Finance	417
Assessment and Taxation	417
Stumpage	453
Forest Revenue	512
Forest Expenditures	519
Scaling	529
Coast	529
Interior	540
Administration	544
Forest Service Organization	545
Forest Commission	566
Advisory Boards	575
Provincial Advisory Council	579
Access Roads	599
Status of Roads and User	614
Research	625
By Federal Government	636
By Forest Service	640
By University of British Columbia	649
By Industry	651
Problems of the Interior	658
Tree-marking	658
Conflicts Arising out of Multiple Land Uses	681
Grazing	681
Mining	706
Watershed Management	721
Miscellaneous Subjects	724
Salmon-streams	724
Education and Public Relations	731
Municipal Forests	742
Farm Wood-lots	752
Parks Administration	760
E. & N. Belt	760
Conclusion	763
Appendices—	
Appendix A.—Forest Management Licence Sample Contract	767
Appendix B.—Forest Service Instructions for Preparing Working Plans	774
Appendix C.—List of Witnesses	778
Appendix D.—List of Counsel	782
Appendix E.—" Forest Act "	783
Index	865

Report of the Commissioner

INTRODUCTION

In December of 1945, as Royal Commissioner, I made a Report to the Government of British Columbia concerning many and varied phases of the forest resources and forest industries of this Province. In that Report I recommended as a prudential course of conduct (among other things) that another Royal Commission should be appointed ten years from then to take a look at what had transpired in the interval and to re-examine our forestry problems in the light of the knowledge and experience gained in that decade.

The Government accepted this suggestion, and on the 7th day of January, 1955, appointed me as a Royal Commissioner to examine into the present status of our forest resources.

The terms of my Commission read as follows:—

" WHEREAS it is desirable and in the public interest to cause to be re-examined all aspects of forestry in the light of developments during the last ten years and to cause an inquiry to be made into all phases and aspects of the forest resources of the Province and the legislation relating thereto:

"AND WHEREAS under section 3 of the ' Public Inquiries Act,' being chapter 162 of the ' Revised Statutes of British Columbia, 1948,' it is provided that whenever the Lieutenant-Governor in Council deems it expedient to cause inquiry to be made into and concerning any matter connected with the good government of the Province or the conduct of any part of the public business thereof, the Lieutenant-Governor in Council may, by Commission intituled in the matter of the said Act and issued under the Great Seal, appoint a sole Commissioner to inquire into such matter:

"AND WHEREAS His Honour the Lieutenant-Governor, by and with the advice of his Executive Council, hath deemed it expedient to appoint a sole Commissioner to re-examine all aspects of forestry in the light of developments during the last ten years, and to inquire into the following matters, namely:—

" The forest resources of the Province and all matters generally relating to or connected with the forest resources of the Province, including, but not limiting this reference to the following subjects:—

" 1. The extent, nature and value of the forest resources:

" 2. The conservation, management and protection of these resources:

" 3. The establishment of forest yield on a continuous production basis in perpetuity:

" 4. Forestation and research:

" 5. Forestry education and instruction:

"6. The utilization of the forest crop and its relationship to employment and social conditions:

"7. The use and management of forest and wild lands for parks, recreation, grazing and wild life in relation to forest administration:

"8. The relationship of the forest to soil conservation:

"9. The maintenance of an adequate forest cover with a view to the regulation of moisture run-off and the maintenance of the levels of lakes and streams:

"10. Forest finance and revenues to the Crown from forest resources:

"11. Acquisition of rights to forest lands and timber and the tenure of such rights, including existing rights and tenures, and the extent to which adequate and proper exercise of the rights thereunder is now made:

"12. Legislation and the amendment thereof:

"13. The relevant facts in relation to any matter that in the opinion of the Commissioner it is necessary to inquire into in order to carry out effectually the duties imposed upon him herein:

"NOW KNOW YE THEREFORE, that reposing every trust and confidence in your loyalty, integrity and ability, we do by these presents, under and by virtue of the powers contained in the said 'Public Inquiries Act' and in accordance with an Order of the Lieutenant-Governor in Council, dated the 7th day of January, A.D. 1955, appoint you, the Honourable Gordon McG. Sloan, Chief Justice of British Columbia, a sole Commissioner to inquire into the matters aforesaid."

The Commission opened its sessions at Victoria on the 21st day of February, 1955. Hearings were terminated at Victoria on the 23rd day of August, 1956. In the intervening months the Commission held sessions in Victoria, Vancouver, Nelson, Penticton, Kamloops, Prince George, Burns Lake, Quesnel, and Williams Lake. The evidence of 219 witnesses* was taken and is recorded in approximately 18,000 pages of transcript. The final summations by representatives of Industry and Commission Counsel occupied 3,500 pages of transcript. All told about 21,500 pages or about 6½ million words were included in the written transcripts now bound in forty-one volumes. This compilation does not take into account all the exhibits, totalling 440 in number—many of them long and detailed studies and reports upon various headings under review.

When I agreed to accept this present assignment, it was my impression that the inquiry would not be a lengthy one, neither would the issues be complex. I soon discovered the extent to which my uninformed expectations proved erroneous on both counts.

* For list of witnesses and appearances *see* Appendix C.

In 1944–45 the primary issue, while not easy of solution, could be stated simply enough: Were we to continue to follow a system of unrestrained and unregulated forest exploitation, regarding the forest as a mine to be exhausted of its wealth, or were we to move to a system based on the concept of sustained yield, wherein the forest was to be considered as a perpetually renewable asset like any other vegetable crop? The question when put in that form—as it was—supplied its own answer: We had to change our thinking and establish our forest resource on a more enlightened basis. Differences of opinion naturally arose as to how this could be accomplished, and it was my responsibility to weigh and determine the conflicts as best I could and report accordingly: which I did. What I reported and what has been accomplished will come later.

At the moment I propose to confine myself to the major changes occurring in the last decade resulting in the creation of new problems of challenging complexity. Before endeavouring, however, to frame the present problems in some crystallized form, it is, I think, necessary to fill in the economic background against which these problems find their measure and gravity. The growth during the last decade of the Forest Industries—and I use the term in its generic sense to include both the extractive and conversion processes—has been tremendous.

Later on in this Report, statistical material covering various phases of the Industry will be referred to in some detail, but at this juncture I limit my comments to some of the outstanding aspects of this enormous expansion.

The Provincial cut of all species in 1944 totalled 3,096,000,000 board-feet. In 1955 this had increased to 6,109,000,000 board-feet, an increase of about 100 per cent in volume of production.

The gross or sale value of production increased from $229,293,000 in 1944 to $896,963,000 in 1955, an increase of $640,670,000 or approximately 290 per cent.

Taking the year 1944 as representing an index figure of 100, the following table shows the relative growth of volume production of the products specified in the periods indicated between 1944 and 1955, inclusive. Attention is drawn to expansion of logging and lumber production in the Interior and the phenomenal increase in the volume of pulp-chip production, largely from Coast sawmills residuals. The output of plywood shows a very substantial increase as well. (The boundaries of the so-called Coast and Interior areas are shown on the map at page 35.)

TABLE 1

INDEX OF FOREST PRODUCTION IN BRITISH COLUMBIA, 1944, 1949, 1954, AND 1955

(1944=100.)

Products	1944		1949		1954		1955	
	Volume	Index	Volume	Index	Volume	Index	Volume	Index
Logging, primary products including pulpwood (M board-feet)	3,096,333	100.0	4,049,682	130.8	5,567,423	179.8	6,109,202	197.3
Coast	2,519,167	100.0	3,136,877	124.5	3,997,981	158.7	3,931,642	156.1
Interior	577,166	100.0	912,805	158.2	1,569,442	271.9	2,177,560	377.3
Lumber (M board-feet)	1,982,478	100.0	2,951,183	148.9	4,378,695	220.9	4,914,285	247.9
Coast	1,641,152	100.0	2,172,188	132.4	2,683,649	163.5	2,756,096	167.9
Interior	341,326	100.0	778,995	228.2	1,695,046	496.6	2,158,189	632.3
Pulp-chips produced at sawmills[1] ("units" of 200 cubic feet)	49,490	100.0	185,311	374.4	952,354	1,924.3	1,310,000	2,647.0[2]
Douglas fir plywood (thousand square feet, ¼-inch basis)	218,199	100.0	359,936	165.0	724,799	332.2	928,375	425.5
Apparent pulpwood production (cords)	630,916	100.0	763,631	121.0	1,362,109	215.9	1,279,000	202.7
Pulp production (tons)	489,690	100.0	666,542	136.1	1,277,082	260.8	1,364,092	278.6
Paper production (tons)	317,039	100.0	471,619	148.8	683,384	215.6	720,049	227.1

[1] Produced at Coast sawmills and mainly from so-called waste wood.
[2] Estimate.
Source: Bureau of Economics and Statistics, Department of Trade and Industry, Victoria, B.C.

Turning from volumes to values and using the same products and index for comparison, the following table shows the relative increases in gross values during those years.

TABLE 2

INDEX OF FOREST PRODUCTION IN BRITISH COLUMBIA, 1944, 1949, 1954, AND 1955
(GROSS VALUES)
(1944=100.)

Products	1944		1949		1954		1955	
	Value	Index	Value	Index	Value	Index	Value	Index
Logging, primary products including pulpwood	$59,906,045	100.0	$129,098,690	215.5	$219,448,210	366.3	$235,260,000	392.7
Coast	52,417,789	100.0	109,757,669	209.4	171,296,963	326.8	168,450,000	321.4
Interior	7,488,256	100.0	19,341,021	258.3	48,151,247	643.0	66,810,000	892.2
Lumber	70,080,622	100.0	177,708,047	253.6	293,429,444	418.7	337,000,000	480.9
Coast	59,579,134	100.0	142,141,480	238.6	198,277,115	332.8	211,100,000	354.3
Interior	10,501,488	100.0	35,566,567	338.7	95,152,329	906.1	125,900,000	1,198.9
Pulp-chips produced at sawmills	89,516	100.0	1,674,109	1,870.2	12,292,820	13,732.5	19,000,000	21,225.3
Douglas fir plywood	7,677,023	100.0	19,731,031	257.0	45,985,321	599.0	59,000,000	768.5
Apparent pulpwood production	9,274,946	100.0	18,051,217	194.6	33,175,299	357.7	31,100,000	335.3
Pulp production	19,739,476	100.0	36,737,722	186.1	99,629,620	504.7	107,067,325	542.2
Paper production	19,088,145	100.0	46,478,981	243.5	79,499,580	416.5	85,883,119	449.9

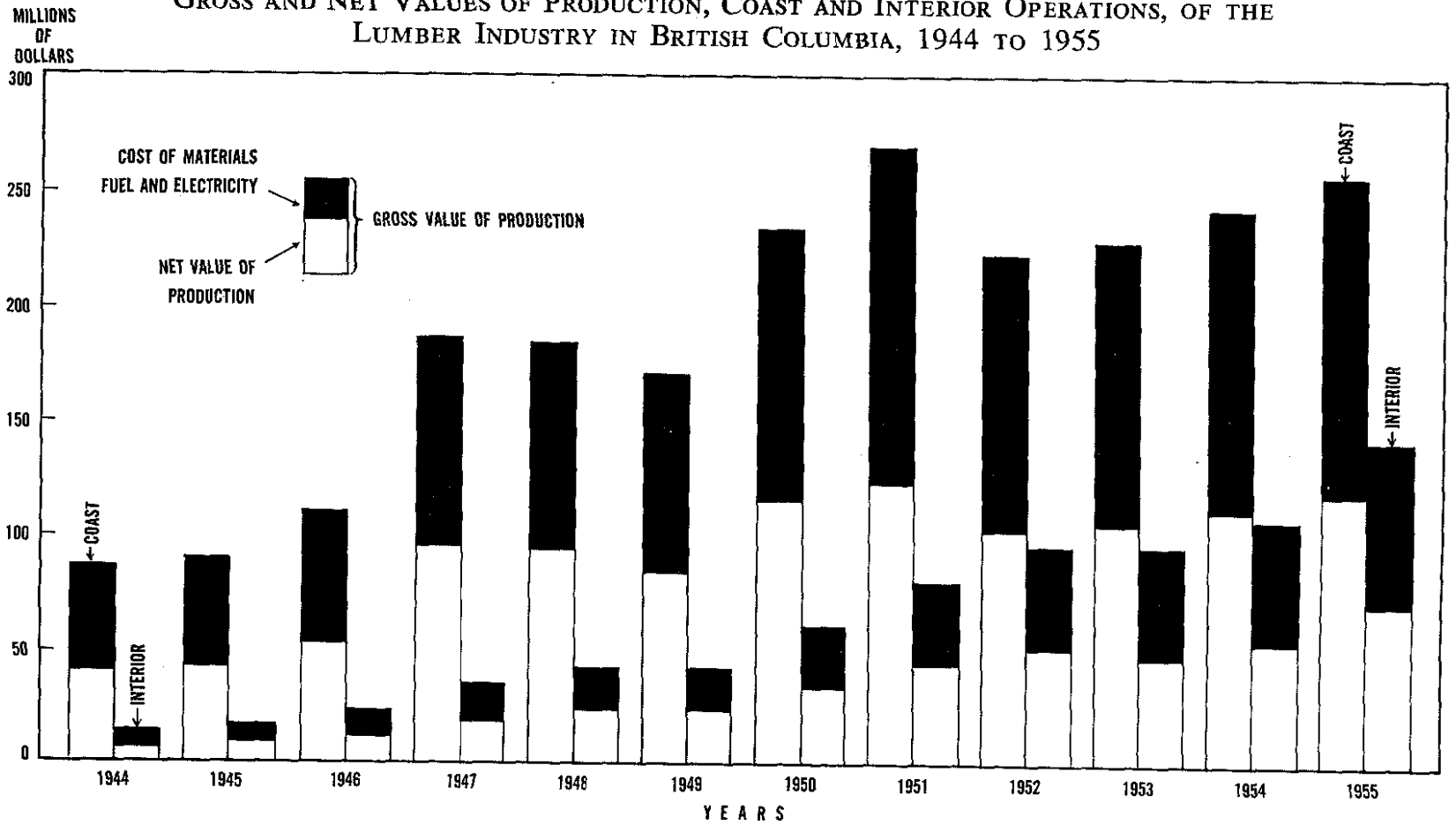
Source: Bureau of Economics and Statistics, Department of Trade and Industry, Victoria, B.C.

The increase in Interior productive values is notable. A 21,000-per-cent increase in value of chip production, from $89,000 in 1944 to $19,000,000 in 1955, is a most striking development.

The figures on Table 2 may be produced in graph form as follows:—

FIG. I

GROSS AND NET VALUES OF PRODUCTION, COAST AND INTERIOR OPERATIONS, OF THE LUMBER INDUSTRY IN BRITISH COLUMBIA, 1944 TO 1955



There is some discrepancy between the totals on Table 2 and the graphs on Fig. I. The explanation lies in the fact that the "lumber industry" represented on the graph includes not only those larger segments of the Forest Industries represented in Table II, but also extends to the production of shingles, laths, sawn ties, hardwood squares, box-shooks, staves, and headings, and the barking of pulpwood in plants other than pulp-mills.

I think it would be useful to break down the logging totals on Table I: wherein it is recorded that the total Provincial cut was 3,096,333,000 board-feet in 1944, 4,049,682,000 board-feet in 1949, 5,567,623,000 board-feet in 1954, and 6,109,202,000 board-feet in 1955. The result and comparison with 1944 as Index 100 is shown as follows:—

TABLE 3

INDEX OF TIMBER SCALED IN BRITISH COLUMBIA, 1944, 1949, 1954, AND 1955[1]

(1944=100.) (Volumes in thousand board-feet.)

Species	1944		1949		1954		1955	
	Volume	Index	Volume	Index	Volume	Index	Volume	Index
Douglas Fir—								
Coast	1,080,543	100.0	1,418,225	131.3	1,462,333	135.3	1,426,961	132.1
Interior	129,781	100.0	286,315	220.6	665,528	512.8	954,661	735.6
Total	1,210,324	100.0	1,704,540	140.8	2,127,861	175.8	2,381,622	196.8
Cedar—								
Coast	466,160	100.0	606,677	130.1	773,707	166.0	829,339	177.9
Interior	57,712	100.0	66,447	115.2	57,882	100.3	68,389	118.5
Total	523,872	100.0	673,124	128.5	831,589	158.7	897,728	171.4
Spruce—								
Coast	177,699	100.0	103,535	58.3	127,232	71.6	132,332	74.5
Interior	164,211	100.0	313,100	190.7	468,762	285.5	649,331	395.4
Total	341,910	100.0	416,635	121.9	595,994	174.3	781,663	228.6
Hemlock—								
Coast	597,469	100.0	787,767	131.9	1,235,065	206.7	1,145,694	191.8
Interior	24,983	100.0	20,513	82.1	59,192	236.9	81,514	326.3
Total	622,452	100.0	808,280	129.9	1,294,257	207.9	1,227,208	197.2
Balsam fir—								
Coast	143,670	100.0	179,621	125.0	347,996	242.2	334,026	232.5
Interior	4,948	100.0	9,430	190.6	38,439	776.9	47,336	956.7
Total	148,618	100.0	189,051	127.2	386,435	260.0	381,362	256.6
Total, all species—								
Coast	2,519,167	100.0	3,136,877	124.5	3,997,981	158.7	3,931,642	156.1
Interior	577,166	100.0	912,805	158.2	1,569,442	271.9	2,177,560	377.3
Total	3,096,333	100.0	4,049,682	130.8	5,567,423	179.8	6,109,202	197.3

[1] Annual Reports of British Columbia Forest Service.
Source: Annual Reports, British Columbia Forest Service.
Source: Bureau of Economics and Statistics, Department of Trade and Industry, Victoria, B.C.

It is apparently the habit of statisticians when determining in a relative way the economic relationship of one group of industries to another to use the net values of production as a comparative " yardstick."

The net value of production is defined " as that portion of the gross or sale value of production which has been added by the manufacturing process and is obtained by subtracting from the gross value the cost of materials and supplies, fuel and electricity."

Thus, when we compare the productive value of the Forest Industries with the Provincial total production of wealth, the net value principle is adopted, with the following result:—

TABLE 4

Year	Estimated Net Value of Primary and Secondary Forest Production in British Columbia	Estimated Net Value of Total Production in British Columbia	Per Cent of Forest Products of Total Production in British Columbia
1946	$174,493,309	$609,337,792	28.64
1947	279,371,678	784,630,095	35.61
1948	317,635,313	921,500,886	34.47
1949	292,104,291	884,820,749	33.01
1950	384,349,181	995,233,672	38.62
1951	486,478,692	1,240,224,661	39.23
1952	452,313,906	1,239,008,819	36.51
1953	477,191,638	1,319,826,559	36.16
1954	511,789,407	1,301,084,000	39.34
1955 (estimated)	567,700,000	1,459,000,000	38.91

Source: Bureau of Economics and Statistics, Department of Trade and Industry, Victoria, B.C.

The expansion of the Forest Industry and its contribution to the Provincial economy is again very apparent from these figures.

If we compare the estimated net values produced by the Forest Industries with the estimated net values derived from the other Provincial basic sources of our wealth, we get the following approximate results for 1955:—

Forestry	$600,000,000
Mining	175,000,000
Agriculture	130,000,000
Fisheries	70,000,000

It is generally agreed that the Forest Industries as a whole comprise the most important industrial group in the Province, accounting for about 40 per cent of the total Provincial net value of production. This 40-per-cent contribution is produced by various branches of the Industry in the approximate following proportions:—

	Per Cent
Lumber industry	14
Logging	13½
Pulp and paper	7½
Other wood- and paper-using industries	5
	40

It must also be borne in mind that the Forest Industries of British Columbia are playing a major role in the contribution they are making to the national economy.

Taking a look at lumber for a moment, we see that British Columbia's production in terms of comparative percentages of total Canadian volume increased from about 44 per cent thereof in 1944 to 60 per cent in 1954 and in terms of value from 48 to 63 per cent during that same period.

This Province is, in other words, producing well over one-half of all the lumber produced in the whole of Canada, not only in terms of volume, but of value as well.

Other details of interest may be discovered in the following table.

TABLE 5

SELECTED STATISTICS DEALING WITH THE FOREST INDUSTRIES OF BRITISH COLUMBIA AND CANADA, 1944, 1949, AND 1954

	Unit	1944			1949			1954		
		British Columbia	Canada	Per Cent	British Columbia	Canada	Per Cent	British Columbia	Canada	Per Cent
Logging										
Net value of production	$	46,947,472	236,336,547	19.9	102,767,911	446,907,281	23.0	177,602,325	628,270,706	28.3
Volume of production	M cu. ft.	503,852	2,508,046	20.1	694,928	3,140,137	22.1	1,002,814	3,661,963	27.4
Employment[1]	No.	9,111	118,503	7.7	11,280	126,120	8.9	12,261	135,051	9.1
Salary and wages[1]	$	21,705,809	195,000,000	9.9	36,028,431	321,000,000	11.2	56,195,020	471,467,305	11.9
Lumber										
Net value of production	$	46,251,574	96,528,955	47.9	104,089,164	186,120,981	55.9	166,672,420	263,629,457	63.2
Volume of production (lumber only)	M bd.-ft.	1,982,478	4,512,232	43.9	2,951,183	5,915,443	49.9	4,378,695	7,243,855	60.4
Employment	No.	15,274	43,516	35.1	24,027	55,032	43.7	29,342	57,010	51.5
Salaries and wages	$	27,110,882	51,516,085	52.6	56,527,596	97,449,091	58.0	92,479,036	139,571,531	66.3
Pulp and Paper										
Net value of production	$	18,131,055	174,492,103	10.4	42,881,670	423,375,527	10.1	90,056,949	641,410,070	14.0
Volume of production (wood pulp only)	Tons	489,690	5,271,137	9.3	666,542	7,852,998	8.5	1,277,082	9,673,016	13.2
Employment	No.	3,901	37,896	10.3	4,586	52,050	8.8	6,881	60,837	11.3
Salaries and wages	$	8,411,434	75,833,408	11.1	14,374,571	157,703,868	9.1	31,455,638	252,598,383	12.5
Forest Industries Total (Including Other Wood- and Paper-using Industries)										
Net value of production	$	130,392,962	668,408,213	19.5	292,104,291	1,373,124,675	21.3	509,436,407	1,996,737,762	25.5
Volume of production	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Employment[1]	No.	35,167	267,613	13.1	50,028	324,223	15.4	61,274	351,352	17.4
Salaries and wages[1]	$	67,504,997	412,601,401	16.4	128,936,857	754,251,265	17.1	218,953,774	1,126,145,545	19.4

[1] "Operations in the Woods" present statistics for employment, salaries, and wages for Canada, but not for the Provinces. Statistics for British Columbia are from the British Columbia Department of Labour and therefore are not comparable.

[2] Same as in "Logging."

Sources:—

Annual reports of the Dominion Bureau of Statistics, Ottawa:—

(1) Operations in the Woods.

(2) The Lumber Industry.

(3) The Pulp and Paper Industry.

Annual reports of the British Columbia Department of Labour, Victoria, B.C.

Bureau of Economics and Statistics, Department of Trade and Industry, Victoria, B.C.

The foregoing synoptic look at the figures of volume and value in 1954 and 1955 as compared with what they were in 1944 demonstrates clearly enough that my description of this past decade as one of " tremendous " growth and expansion was not an over-statement of the facts.

It will also be noted from the foregoing tables that, in 1944, 35,000 employees in the Forest Industries were paid 67.5 million dollars in wages and salaries and produced forest products to an approximate net value of $130 million dollars. Ten years later, in 1954, 61,000 employees were paid 219 million dollars in wages and salaries and produced forest products with a net value of about 500 million dollars.

The volume of wood and wood products flowing from our conversion plants of various kinds in a prodigious daily stream must find a buyer's market. The entire Forest Industry is really engaged in one basic process: the translation of wood, by various techniques, into money. It is a chain-process in which each link, from the tree in the woods to its manufacture and ultimate sale, must effectively fulfil its allotted function. The sum total of these functions is to produce a product at a cost low enough to supply a market willing to pay a price high enough to return to the producer his cost plus profit.

If there is no such available market, the elaborate structure of primary production becomes an exercise in futility.

This Province, with a domestic market limited by the needs of a relatively sparse consumer population, can absorb a comparatively small proportion of this tremendous daily output of forest products. The following table summarizes, in general, the markets presently buying these products in terms of dollar values:—

TABLE 6

Exports to—	1951		1952		1953		1954		1955	
	Value	%	Value	%	Value	%	Value	%	Value	%
Canadian Provinces	$84,564,000	21	$106,972,000	27	$96,537,000	22	$116,103,000	23	$134,501,000	21
Foreign countries	321,661,941	79	291,464,456	73	348,060,229	78	393,409,808	77	505,343,011	79
Totals	$406,225,941	100	$398,436,456	100	$444,597,229	100	$509,512,808	100	$639,844,011	100

Average annual export to Canadian Provinces	$107,735,400
Average annual export to foreign markets	$371,987,891
Percentage average export to Canadian Provinces	22%
Percentage average export to foreign markets	78%

The percentage of Provincial export of wood, wood products, and pulp and paper to total Canadian export of these materials is shown hereunder for the year 1954:—

	Per Cent	Value
Wood and wood products—		
Canadian export	100.0	$679,055,537
Originating in British Columbia	42.2	333,792,011
Pulp and paper—		
Canadian export	100.0	1,179,665,443
Originating in British Columbia	9.3	110,805,218

Sources: Estimates of the Bureau of Economics and Statistics, Department of Trade and Industry, Victoria, B.C.

When we realize that we sell about 78 per cent of our exported wood and wood products in foreign markets and must continue to do so in order to maintain a healthy economy, it does not need much imagination to appreciate how vulnerable we are to the impact of international and world conditions, to which we must respond, but over which we can exercise no control.

The adverse effect of a weakening market in the fall of 1956 (as this is written) due to international trade dislocations, a decline in housing and building construction because of credit restrictions and higher interest rates, the discount of the American dollar, a shortage in shipping tonnage with concomitant high railway freight rates, all these working in combination and allied with other export trade restrictions, due to varying causes, has darkened the immediate outlook and is illustrative of our dependence on foreign buyers.

From the studies and reports filed as exhibits or brought to my attention during the hearings of the Commission, it is, I think, reasonably clear that the world demand for wood and wood products is far from being satiated. The potential future demand for paper products, should it materialize, is beyond the capacity of presently existing mills to meet. The secular trend, despite periodic recessions, gives no indication that world demand for wood products in one form or another will diminish.

It is, however, equally clear, I think, that, in time, present centres of demand and supply will shift in accord with future economic currents even now taking form and substance and seeking new channels. Looking out of our windows at the world, we can see, in almost every direction, vast new areas of forested land growing into production and yielding ample supplies of low-cost raw materials for large modern conversion plants. These areas, until of recent years, looked to us for their supply of lumber, for their pulp and newsprint, and for the other wood products. They are becoming self-sufficient, and those that have achieved that objective because of expanded production or shrinkage in their own domestic demand are now exporters in competition with our mills in the markets of the world.*

We are entering a new business cycle. The days of the eager buyer standing hat-in-hand are drawing to a close. We must be competitive in world markets or reap a bleak future, not only in our Forest Industry, but in our entire Provincial economy.

* *See* section Future Trends Affecting Policy.

This brief look at the economic importance of the Forest Industry points out the imperative necessity of maintaining its relative position of prominence in the domestic, provincial, federal, and world scheme of things. It is manifest that the problems confronting this industry should, if possible, be resolved.

During the Inquiry many conflicting view-points were advanced by various groups of witnesses in relation thereto. The problems discussed lie, in part, in economic and social fields, and, while not peculiar to the Forest Industry, were brought into question and call for resolution because of the impelling importance to this Province of maintaining the continued prosperity of this industry, and the economic and social well-being of those engaged therein.

At this stage of this Report I am speaking in very general terms; definition will come later. In this context perhaps I may formulate as a question the primary economic and social problem emerging from the evidence in this Inquiry: Are we to seek the continued and full realization of our forest resource in a system wherein competition is completely free and unregulated or within a framework of rigid state control, or in a system wherein the free enterprise concept finds expression within a co-operative pattern between Government and Industry wide enough in scope to embrace both private and public interests?

Those who expressed opinions on these and related subjects were, I believe, in many instances, influenced to a marked degree by the time factor. Those with a pressing and urgent need for timber to-day or to-morrow are driven to think in contemporary terms limited by short-term policies—to-morrow's timber sale. Those with large investments and corporate continuity are more likely to think in terms of long-time tenures, sustained yield and forest management stretching into centuries.

Just as a map of an area contracts or expands in accordance with the scale used in its delineation, so do the problems of the Forest Industry differ when viewed in the short or long perspective. In general, the short-term view is that of the so-called " small man " who is vitally interested primarily in conducting a profitable operation within the span of his own expectancy; the long-term view is that held by the large integrated extraction and conversion operations made possible by the investment of hundreds of millions of dollars of shareholders' money and employing thousands of men. These corporations are, by the very nature of their operations, physical and financial, vitally interested in the long-term maintenance and security of their raw-material supply. Thus their management thinks in terms of tree-farms and of second- and third-crop rotations, and each rotation, on the Coast, may be presently estimated at ninety years.

To-day we stand at a momentous period in the economic and social development of this industry. We are in a stage of transition from a discarded policy of forest liquidation to one of sustained yield and forest

management. We are nearing the end of the era when virgin fir was the major producer of our forest wealth and are approaching an economy dominated by hemlock. We must evaluate and resolve the conflicts existing between those of the long and the short view of our future policies—a task of great complexity, not only because of the divergence of opinions between opposing interests, but by clashes of interest within groups seeking the achievement of similar objectives. These and other inexorable pressures are upon us now.

Our economy needs, and must plan for, the continued existence of the small man. We must also plan for the social and economic future of the large integrated operations. The problem, in essence, seems to resolve itself into a search for a policy which, while retaining and assuring the continuing benefits flowing from large integrated industrial units, does not in itself militate against those competitive forces operating in a free-enterprise society. In an endeavour to blue-print, even in broad outline, a future course to pursue our perspective must in consequence include, in proper focus, and with impartial detachment and objectivity, the long- and short-term concepts.

This design must be more than a mere forecast: it must fashion and mould the future. In that larger and creative sense, the paramount and guiding consideration must be the welfare of the people of this Province as a whole, an objective transcending in importance the future of individual industrial units, large or small. What we plan now is, in its larger and comprehensive aspects of principle, irrevocable to the extent the plan is carried into operation. In this extension into time of present planning there comes a point from, and at which, there can be no return and no rational departure from the principle of the plan unless accompanied by severe dislocations. In certain aspects we have already reached that point of no return, because our past planning has projected itself, in action, into the present. We cannot, for instance, return to the outmoded system of forest liquidation without catastrophic results to our whole Provincial economy. We have accepted and acted upon the principle of sustained-yield forest management. The question now, therefore, is whether or not in the execution of that broad principle due regard has been had, in the public interest, to the presently existing economic and social conflicts that have developed as a consequence of economic evolution and of the competitive conditions bred by the general buoyant economy of the industry.

There are those who strive to destroy the forest management licence system by claiming (*inter alia*) that this system and its implementation is directly responsible for timber being in short supply for them in certain Coastal areas. That premise cannot be supported. Conditions prevailing to-day in this Province are in the light of the known facts, the direct and inevitable results of patterns established as far back as 1907, or earlier, and are not of recent creation. Then, too, regional shortages must be inevitable

if the sustained-yield concept is maintained, no matter what techniques of management are applied.

Competition for timber where timber is no longer available in sufficient quantity to meet all demands has created pressures in those areas of short supply. In turn, the impact of those pressures has made manifest a condition that has been, for a long time, latent. If the present recession worsened and lasted any considerable time, that would in itself reduce the pressure and dissolve many of the present difficulties requiring adjustment. We cannot, however, fold our hands and wait for the occurrence of such an untoward event. It is, I think, as I have said, generally accepted that barring ineluctable contingencies the demand for wood volume in varying forms will not diminish but increase over at least the next decade. That being so, the difficulties of to-day are not going to diminish but increase during that decade, unless means are found to relieve those causative pressures which we have inherited from the past. Because of this inheritance it is essential to the understanding of the problems of to-day that the historical background of our forest policies be examined.

HISTORICAL

Nature has played, and will continue to play, an extremely important part in all our forest planning. A tree is a large plant. Some of them, like the plants in our gardens, will grow in the shade; others require more sunlight. In a mixed stand these species that are more tolerant of shade will reproduce themselves and grow at the expense of the more intolerant. In comparison with hemlock, balsam, spruce, or cedar, Douglas fir is a sun-loving plant. One school of thought holds that our magnificent stands of old-growth fir, of almost the same age-groups, resulted from holocaustic fires that swept away the then climactic forests of hemlock and cedar, thus allowing the sun to reach the forest floor.

In any event, and whatever the cause, the earliest explorers and pioneer settlers found in this Province vast and seemingly limitless forested areas, in great part composed of tall and lordly trees later to be designated as "Douglas fir." As far back as 1778, tall trees growing close to the shoreline in Nootka Sound were cut and fashioned for spars and masts by Captain Cook. The first reported commerce in timber was in 1788. In that year Captain John Meares loaded a vessel with furs and a deck-load of spars for the China trade. These and other early and historical events are interesting, but bear no real relationship to the conditions of to-day.

We can, therefore, disregard these early events and take up the narrative at a period of 1865, a year before the Mainland of British Columbia and Vancouver Island joined together to become the Crown Colony of British Columbia. Prior to that date, timber lands in the Colonies were regarded in the public estimation as of little or no value as such. They could be acquired by purchase and Crown grant in the same manner and

for the same price as any other Crown land. This public attitude continued until 1865, when the Land Ordinance of that year introduced for the first time in the Colony of British Columbia the system of granting the right to cut timber on Crown lands without alienation of the land itself. These leases or cutting rights were restricted to those " actually engaged " in the cutting of " spars, timber or lumber " as a measure, no doubt designed to encourage the then existing industry and to prevent speculation. It was at this juncture then that the important first step was taken toward the development of our present forest policy—the retention by the Crown of title to forest land, and the granting of cutting rights thereon by various forms of licence. (I use " licence " in this context in its wide sense.)

It might be well to pause here for a moment to reflect upon the conditions existing in the Crown Colony of British Columbia in, say, the year 1867, the date of Confederation. In 1866 the Mainland of British Columbia and Vancouver Island joined hands to create the Colony of British Columbia. This vast area, containing over 365,000 square miles, was virtually an unknown wilderness and was, except for fur brigades, untravelled. It was isolated from the Eastern Provinces by a similarly unknown stretch of wilderness, reaching 1,200 miles, from the Rocky Mountains to Ontario, broken by only one small settlement at Red River. Travellers to the East proceeded from here to San Francisco by ship and then by rail over American lines.

The population of this Colony at the time of its entry into the Confederation of Canadian Provinces in 1871 was estimated at about 40,000 people. Of these, 9,000 were white, 25,000 were Indians, and the balance chiefly Chinese. In 1865 or 1867 it is safe to assume the population of white people was less than the 9,000 estimate of 1871. The greater portion of the population was to be found on Vancouver Island.

These, the people of British Columbia, were at that stage the owners of millions of acres of rich forest land. The magnificent Coastal virgin forests, heavy with old-growth fir, growing in silent and untouched splendour for hundreds of years, stood waiting at their doorsteps—a free gift of nature. The vast and boundless forests of the Interior were largely unknown. Sawmills were few and scattered. At Hudson's Bay trading-posts sawing was by hand, and it was not until 1848, on the Mill Stream near Parson's Bridge at the head of Esquimalt Harbour, that the first machine-operated sawmill began operation. In relation to the then established industries, the abundant forest resources even close to hand must have seemed, to the few citizens of British Columbia, virtually inexhaustible.

It is a matter of considerable interest to remember that, under the circumstances prevailing in 1865, and to which I have made brief reference, the first sign-post was erected which pointed the way to our present system of retaining the Crown ownership of forest land.

This policy, however, took some further time to emerge from an embryonic stage. After the entry of British Columbia into Confederation in 1871, timber lands continued to be sold and Crown-granted and cutting rights leased under the Ordinance of 1865. These leases were issued without reservation of royalty, without restriction on export, and generally without limitation as to size, except perhaps that the area or volume was related to the productive capacity of an appurtenant mill.

In the following years, cutting rights took various forms and were subject to varied conditions. It was an uneven and somewhat complex development, motivated by conditions thought impelling at the time these various forms of tenure were devised. To conclude that the earlier settlers, who had a hand in framing the forest laws and policies of those days, were, in so doing, deliberately thinking in terms of generations ahead is, I think, with respect, to attribute to them an unwarranted prescience. Early administrations were, in my view, motivated by the immediate objectives important to the era in which they lived. They were confronted with the critical necessity of obtaining Crown revenue and of finding means to encourage the utilization of forest products. The developing pattern of Crown ownership was the consequential result and not the design of their pioneering policies. This opinion is, I believe, substantiated when the history of these tenures is examined with some particularity. At this juncture I feel I must consider this development in some detail.

FORMS OF FOREST TENURE

The historical background and development of various forms of tenure up to 1945 were discussed in considerable detail in the 1945 Report, and it is essential to reproduce here in substance the salient points of these systems designed to facilitate the right to possess and cut Crown timber. This review will, I believe, demonstrate that the present methods of alienation and tenures, including forest management licences, both as to concept and areas covered by these contracts, are the logical projections of earlier methods of disposing of Crown timber.

The ownership of forest land and the right to cut timber on Crown land without land-ownership are to-day held under a variety of tenures which have been developed during the last hundred years. The Royal Commission on Forestry of 1910 noted that " in the early days of the Province timber lands seem to have had little or no value in the public estimation. They could be acquired by purchase and Crown Grant from the Crown in the ordinary way and at the same rates as any other land. Crown Grants carried all the timber without any reservation of royalty, and valuable tracts of timber were acquired for what would now be considered nominal prices."

CROWN-GRANTED LAND OWNERSHIP

The earliest disposal of Crown lands in 1858 carried with it all the natural resources appurtenant thereto, and in case any doubt existed that timber was included in the grant, a proclamation of 1859 by the Governor of the Colony of British Columbia recited that " unless otherwise specially announced at the time of the sale, the conveyance of the land shall include all trees. . . ." Incidentally, the prevailing price for land, timbered or untimbered, was 10 shillings an acre. This was considered too high a valuation, and in 1861 the price was reduced to 4s. 2d. an acre. In 1870 the price remained the same, but the wording was changed to read " $1.00 per acre " in accordance with the Currency Ordinance of 1867.

In 1884 the price for purchase of land, including timber, was raised to $2.50 an acre but remained at $1 an acre for land acquired by pre-emption for farming, limited to 160 acres per individual pre-emptor.

In 1887 a royalty of 25 cents a thousand board-feet was applied to new applications to purchase or pre-empt and applicants were required to make a declaration that the land in question was " not chiefly valuable for timber." The land-owner had to obtain a licence to cut timber on these lands until 1903, when this requirement was revoked.

In 1888 the price of land suitable for cultivation or lumbering was still $2.50 an acre, other land $1 an acre. Individual sales were limited to 640 acres. The price of land acquired by pre-emption remained at $1 an acre. Royalty was raised to 50 cents a thousand board-feet.

The Land Act of 1891 provided that the land should be surveyed before purchase, and that the surveyor should classify lands that were suitable for cultivation or lumbering as *first-class lands,* to be sold at a fixed price of $5 per acre; lands suitable for agricultural development but not lumbering to be classified as *second-class lands,* sold at $2.50 per acre; mountainous and pasture lands, not suitable for agriculture or lumbering, as *third-class lands,* sold at $1 per acre. Land suitable for lumbering was defined as land containing milling-timber to the average extent of 5,000 feet per acre to each 160 acres. The limits to a sale were a maximum of 640 acres and a minimum of 160 acres.

In 1896 " timber land " was first defined to mean land containing 8,000 feet board-measure per acre on the Coast and 5,000 feet board-measure per acre in the Interior. The sale of such land was prohibited. However, as proper administrative measures were not introduced at that time, the Act was loosely enforced and it was still possible for " timber lands " to pass into private ownership.

The surveyors who classified the land were not foresters or lumbermen, and much of the first-class land sold under these Acts was chiefly of value for timber, until the practice was gradually checked by the requirement that applications should be examined by the Forest Branch, after its organization in 1912.

Thus it appears that the policy with regard to the sale of timber land was not on a very stable foundation. For four years, 1887 to 1891, sale of such land was refused, but the decision depended merely on the applicant's declaration. For five years, 1891 to 1896, sale of timber land was authorized at $5 per acre. From 1896 the sale of timber land was prohibited, but the prohibition was not strictly enforced until after 1912.

While the 1896 Act and its delayed enforcement were the first effective steps taken to establish the principle conceived in 1865 and formulated in 1887, that mature timber lands should be held by the Crown and not permanently alienated, logged-off and reforested lands, not coming within the statutory classification of " timber lands," could still be purchased. The sale of such forest land was not prohibited by the Legislature until 1947. " Forest land " is defined by the " Forest Act " as " land that in the opinion of the Minister will find its best economic use under forest crop."

In 1908 the price of $1 for third-class land was repealed, and no provision for the price of such land was made until 1937, when the rate of $1 per acre was re-established. The minimum prices for first and second class were raised in 1911 to $10 and $5 respectively, but were lowered again in 1919 to the former prices of $5 and $2.50 per acre.

While Crown land was, and is, sold in comparatively small parcels on individual application, large tracts were granted in aid of railway construction. In 1871 British Columbia entered Confederation and became part of the Dominion of Canada. By section 11 of the Terms of Union the Domin-

ion undertook to construct a railway to connect the seaboard of this Province with the railway system of Canada and in return this Province agreed to transfer to the Dominion certain public lands in aid of such railway construction. Difficulties arose which are not pertinent to this Inquiry, and in 1883 and 1884 these differences were finally resolved between the two Governments, as a result of which the Province conveyed to the Dominion a belt of land extending for 20 miles on each side of the main line of the Canadian Pacific Railway, totalling 17,000 square miles. Then, because some of this land was valueless for agriculture or other productive enterprises, the Province also conveyed to the Dominion as " lieu lands " a block containing 5,470 square miles in the Peace River District. In a separate transaction the Province conveyed to the Dominion 3,000 square miles of land on Vancouver Island, which the Dominion agreed to convey to a company, the Esquimalt and Nanaimo Railway Company, which was then formed to construct a railway from Esquimalt to Nanaimo. The Dominion granted this land to the Company on the 21st of April, 1887.

Large areas of this grant have since been sold by the Railway Company (now controlled by the Canadian Pacific Railway Company) to timber operators and settlers. It contained some of the finest stands of Douglas fir on the Pacific Coast, which have supported, and still support, some of the largest sawmills and plywood-mills in the Province. As in the case of other grants made during this period, no royalty was reserved on timber in this grant, but the land, after sale by the Company, was and is subject to the same annual taxation as other Crown-granted land in its class. In addition, a special tax of 25 per cent of assessed value is imposed, effective since 1946, on each sale when made by the Company.

The period between 1875 and 1899 was an era of railway speculation in British Columbia. A great number of railways were incorporated in the Kootenay District and in northern British Columbia, and other Crown grants were made to many of them in furtherance of railway construction. These are of minor consequence now. Much of the land reverted to, or was repurchased by, the Crown. A total of 8,203,400 acres were granted to various railways during this period; 4,065,076 acres were revested in the Crown in 1910 and 1912. The E. & N. land grant accounts for 2,057,000 acres of the remainder. Of the 470,000 acres still owned by this Railway Company, an unknown but appreciable percentage does not carry merchantable timber. Most of the remaining area has not been adequately cruised, but the Forest Service reported in 1952 that the Company still had an estimated 22 billion feet board-measure including 8,768 million feet of Douglas fir. Since that time the Company has sold 100,000 acres. During the ten-year period 1946 to 1955 it sold 226,100 acres.

STATUS OF CROWN GRANTS RELATIVE TO ROYALTY AND EXPORT

At present all Crown-granted lands, other than lands still owned by the Esquimalt and Nanaimo Railway Company within the E. & N. Land Grant, which are governed by special Acts, are subject to taxes in accordance with the provisions of the " Taxation Act " and to forest protection tax. Lands within the Grant after sale by the E. & N. Company are also subject to the same timber-land or other taxes as provided by the " Taxation Act."

In my 1945 Report I discussed in detail the exemption from royalty of timber cut from lands within the E. & N. Land Grant and the exemption from taxation of all land within the Grant while still in possession of the Railway Company. I concluded that it would not be unjust or inequitable to impose a special tax on purchasers of E. & N. timber. I recommended accordingly that steps be taken by the Crown to have determined by the Courts the competence of the Provincial Legislature to impose such a tax, and if the decision should be that the tax would be *intra vires* the Province, then it should, in the public interest, be imposed on future sales of Company timber. I recommended that the amount of the tax should approximate prevailing rates of royalty. The Privy Council gave a favourable verdict and, as a result, the " Esquimalt and Nanaimo Belt Land Tax Act " was enacted by the Legislature in 1950, making the lands within the Land Grant, as and when alienated from the Company, liable to taxation at the rate of 25 per cent of the actual assessed value at the date of alienation; the assessment to include the value of the timber.

The position in regard to the incidence of royalty and the right to export unmanufactured timber is complicated.

First, it is necessary to distinguish between " acquiring lands " and " Crown grants to land."

Land may be acquired by pre-emption record and entry, or by an application to purchase. In each case a Crown grant may thereafter be obtained, thus perfecting title.

As we have already seen, prior to April 7th, 1887, there was no reservation of timber royalty nor restriction on export. Clearly, therefore, timber cut from land actually Crown-granted prior to this date was free of royalty and exportable. This was felt to cause a hardship on persons who had acquired land prior to this date but had not perfected their title by obtaining a Crown grant. Consequently, it was enacted that persons who had acquired the lands in question prior to April 7th, 1887, and who afterwards obtained a Crown grant before the effective date of the " Timber Manufacture Act "—March 12th, 1906—should enjoy this same freedom from royalty and restriction on export.

Esquimalt and Nanaimo Railway lands are in this group by reason of the date on which the lands were acquired and Crown grant obtained by

the Dominion. Timber cut from Dominion " patented lands " had the same freedom from royalty and export control.

The passage of the " Timber Manufacture Act," effective March 12th, 1906, provided that timber cut from all Crown grants after that date should be non-exportable. Later the Lieutenant-Governor in Council was given power to approve such export in an unmanufactured state upon such terms and conditions as he sees fit.

Consequently, those persons who had acquired lands prior to April 7th, 1887, but did not obtain their Crown grants until after March 12th, 1906, still had freedom from royalty but cannot export timber cut from such lands in its unmanufactured state unless such export is approved by the Lieutenant-Governor in Council as aforesaid.

On and after April 7th, 1887, and on or before the effective date of the " Timber Manufacture Act "—March 12th, 1906—there was still no restriction on export in respect of timber cut from lands acquired by purchase or pre-emption. Royalty, however, was reserved. Thus timber cut from lands acquired and Crown-granted in this period are subject to royalty at the rates set forth in subsection (1) of section 54 and subsections (1) and (2) of section 57 of the " Forest Act," but can be exported in its unmanufactured state.

If, however, the Crown grant to such lands acquired on and after April 7th, 1887, was not obtained until after March 12th, 1906, but on or before March 1st, 1914, which last date is the effective date of the " Timber Royalty Act," then the timber cut therefrom is subject to the same royalties as are stated in the last paragraph, but is non-exportable in its unmanufactured state, save with the approval of the Lieutenant-Governor in Council.

If the Crown grants to lands acquired after April 7th, 1887, were not obtained until after March 1st, 1914, then the timber cut therefrom is under the same restriction as to export, but royalty became payable in accordance with the terms of the " Timber Royalty Act " of 1914. This royalty is found in sections 55 and 57 of the " Forest Act."

The various classes of Crown grants and the incidence thereof may be summarized for convenience as follows:—

Lands Acquired prior to April 7th, 1887, and Crown-granted on or before March 12th, 1906, E. & N. Lands and Dominion Patented Lands.—Exempt from royalty, and timber cut on such lands may be exported from the Province without permit.

Lands Acquired prior to April 7th, 1887, and Crown-granted after March 12th, 1906.—Exempt from royalty, and unmanufactured timber is non-exportable unless the export from the Province of such timber is approved by the Lieutenant-Governor in Council upon such terms and conditions as he sees fit.

Lands Acquired on and subsequent to April 7th, 1887, and Crown-granted on or before March 12th, 1906.—Royalty is payable in accordance with the provisions of subsection (1) of section 54 and in subsections (1) and (2) of section 57 of the "Forest Act," and timber cut on such lands may be exported from the Province without permit.

Lands Acquired on and subsequent to April 7th, 1887, and Crown-granted subsequent to March 12th, 1906, on or before March 1st, 1914.—Royalty is payable in accordance with the provision of subsection (1) of section 54 and subsections (1) and (2) of section 57 of the "Forest Act," and unmanufactured timber is non-exportable unless the export from the Province of such timber is approved by the Lieutenant-Governor in Council upon such terms and conditions as he sees fit.

Lands Acquired on and subsequent to April 7th, 1887, and Crown-granted subsequent to March 1st, 1914, or Lands Held under Pre-emption Entry and Record.—Royalty is payable in accordance with the provisions of sections 55 and 57 of the "Forest Act," and unmanufactured timber is non-exportable unless the export from the Province of such timber is approved by the Lieutenant-Governor in Council upon such terms and conditions as he sees fit.

Total area of Crown-granted forest lands, including Esquimalt and Nanaimo Grant, amounts to 5,480,049 acres, including 1,571,149 acres of mature and 2,758,134 acres of immature timber.

TEMPORARY TENURES

Co-incident with the disposal of forest land by Crown grant through sale to individual purchasers and grants for railway construction, alienations were made under a variety of conditions and terms by means of leases and licences.

Timber Leases

Seven years after the first sales of Crown lands in 1858, leases were authorized by the Land Ordinance of 1865 as follows: "Sec. 53. Leases of an extent of unoccupied Crown lands may be granted by the Governor to any person, persons or corporation duly authorized in that behalf for the purpose of cutting spars, timber or lumber, and actually engaged in those pursuits subject to such rent, terms and provisions as shall seem expedient to the Governor." While this was a precedent for other forms of leasing and licensing forest land for cutting timber without granting the land itself, it seems that the major objective was to obtain by this device more revenue from the forests than could be obtained by outright sale of the land. It will be recalled that demand was so weak during this period, even at the low price of 10 shillings an acre, that in 1861 the sale price was reduced

to 4s. 2d., later $1, an acre. Moreover, as no limit was set to the period of tenancy, the tenure was almost as secure as outright ownership.

There was a definite policy of discouraging investment in timber land without operating it, indicated by limiting the lease to those who were actually engaged in industry. This principle was maintained in later forms of leases and licences until December 24th, 1907, when the granting of timber land by lease or licence was discontinued.

In 1871 and 1888 enactments were passed having the effect of imposing a ground-rent of 5 to 10 cents per acre on all leases granted between 1871 and 1888. Those granted under the 1888 Land Act amendments were limited to a period of thirty years, subject to ground-rent of 10 cents per acre and a royalty of 50 cents per thousand board-feet. The Lieutenant-Governor in Council was empowered to allow, on the exportation of manufactured timber on which the royalty imposed by this Act had been paid, a drawback or rebate equal to one-half of the royalty.

Coincident with this aid to export of manufactured timber, each lessee was required to erect within the Province a mill with a capacity of not less than 1,000 board-feet per day for each 400 acres under lease. The apparent intention of this provision was to limit the miller's holdings to his actual requirements.

In 1891 a system of selling the leases by tender to the person paying the highest cash bonus was introduced. It was also enacted that all timber cut from lands held under leases be manufactured within the Province.

By amendments in the year 1892, the term of leases granted thereafter was reduced to a maximum of twenty-one years, and provision was made that the required mill be appurtenant to the lease. If the highest tenderer had no such mill, he was required to deposit 10 cents per acre to guarantee its erection within two years. Royalty and rentals remained the same.

In 1895 it was made possible for non-mill-owners to acquire leases upon payment of a substantially increased rental. The existing rentals of 10 and 15 cents per acre for mill-owners and non-mill-owners respectively were increased to 15 and 25 cents per acre. In 1899 amendments were passed to make it clear that mere ownership of a mill was not sufficient by providing that the mill must be actually kept in operation for six months each year, unless excused by the Lieutenant-Governor in Council for some reason such as bad weather or poor markets. Rental was made 15 cents per acre and royalty of 50 cents per thousand board-feet, with a minimum total of fees collected of 50 cents per acre.

In 1901 all existing leases were made renewable for consecutive and successive periods of twenty-one years, subject to royalties and rents in force at the time of renewal, and subject to surrender of existing leases within one year. The terms of the existing lease could be renewed to date of normal expiry, and thereafter for the remainder of the twenty-one years the lease was subject to royalty, rents, and conditions effective when the

normal term of the first lease expired. This renewal privilege was made in the public interest as the total of timber then held under lease and licence was far in excess of a twenty-year supply. This Act also required that all timber cut from timber leases or timber licences must be used or manufactured within the Province. Later the Lieutenant-Governor in Council was authorized to allow export on terms.

Under sections 35 and 36 of the "Forest Act," leases may be renewed for periods of twenty-one years, as above stated, subject to

> "the like terms, conditions, and royalties as under any Act of the Legislature and regulations made thereunder are from time to time in force in respect of timber held or cut under special timber licence in that portion of the Province wherein the lands covered by the lease are situate; and the lease shall also during that period and any renewal period be subject to the payment of ground-rent each year at a rate per acre calculated as the six-hundred-and-fortieth part of the annual renewal fee payable that year in that portion of the Province for a special timber licence covering six hundred and forty acres."

In 1910 the Royal Commission of Inquiry on Timber and Forestry reported* that there were 478,049 acres under lease with the obligation to operate sawmills and 140,976 acres under lease without such obligation, total 619,025 acres in 172 timber leases, with an average annual rental of 12.6 cents per acre, varying in size between 168 and 35,360 acres each.

In 1915 provision was made for conversion of leases into special timber licences. Since that date, when leases were renewed they became subject to full statutory royalty in force at the time of renewal in place of the rate of 50 cents per thousand board-feet, all species and grades, to which they had hitherto been subject. Annual rental was payable at the rate of $140 per square mile on the Coast and $100 per square mile in the Interior, approximately 21.9 cents and 15.6 cents per acre respectively.

In 1945 there were 152 timber leases with a total area of 197,900 acres. The 1945 cut was 209,542 M f.b.m. The average for the preceding ten years was 506,514 M f.b.m.

Pulp Leases

A form of lease, available between 1901† and 1903, was provided for owners of pulp-mills with a capacity of 1 ton of pulp per square mile of lease, with the provision that the mill be operated for at least six months a year unless excused. The pulp leases were for a term of twenty-one years, renewable. As they were intended to cover pulp-timber of a quality or size making it less valuable than saw-timber, the rental and royalties payable were at first less than those ordinary timber leases or timber licences.

* Pp. 23, 24, 108.
† 1901 Statutes, chap. 30, sec. 6.

If saw-timber were cut on these pulp leases, the following provision of the 1901 Act applied:—

> "All timber cut on Crown timber limits under such lease and not used for the manufacture of wood pulp or paper will be subject to the provision of the Land Act governing timber licences and leases in respect to royalties and returns."

This provision was not strictly enforced for several years. Later it was clarified so that, if saw-timber were cut, back rental, computed from 1914, became payable at the timber-licence rate, approximately 21.9 cents per acre, on the basis of 1 acre for each 15 M f.b.m. of timber cut.

Prior to 1944, royalty was at the rate of 25 cents per cord; it was then raised to 55 cents per cord or $1 per thousand board-feet.

The area alienated under pulp lease was 354,399 acres.* Apparently few, if any, reverted to the Crown; instead they have been held as reserves for future supply of the large pulp and paper mills operated by their owners, a basic requirement in management for continuing production where well-established immature age-classes are not available. Thirty-three pulp leases, with a total of 335,611 acres, were still in good standing in 1945. There was a cut of 39,088 M f.b.m. in 1945 from pulp leases.

Timber Berths

Within the Dominion Railway Belt of 20 miles wide on each side of the Canadian Pacific Railway main line through the Province, cutting rights were granted by the Dominion Government in so-called "timber berths," of which 178 are still in good standing with a total of 387,047 acres. The largest individual berth covers 25 square miles (16,000 acres). These are now under Provincial administration as a result of the transfer to the Province of the Railway Belt in 1930. Rental of 10 cents per acre is payable on berths lying south of the latitude of Yale and $10 per square mile on berths north of that line. Royalty of $1.50 per thousand board-feet, all species and grades, is payable on berths lying west of the Cascade Mountains and $1.25 per thousand east of the Cascades.

Timber Licences

This form of temporary alienation of timber is of later development than leases and was not established until 1884. The 1884 "Timber Act" makes it clear that its purpose was to derive revenue from the cutting of timber on Crown lands. The Act did not apply to hemlock.

The licences thus provided were for four years at an annual fee of $10. Unoccupied Crown lands, other than Indian reserves or lands exempted by the Lieutenant-Governor in Council on grounds of public policy, were available for licence. Each licence was limited to 1,000 acres and to one person.

* Report of Royal Commission, 1910, p. 50.

In 1887 a conflict between pre-emptors of land and licensees thereof was solved by insertion of a provision that any timber licence did not include the right to cut timber on pre-empted lands within the area of the licence. Timber dues at the rate of 20 cents per thousand board-feet, plus 15 cents per tree (excluding small trees used for skids), were imposed.

Prior to April 7th, 1887, no royalty was reserved on timber cut from lands sold by the Crown, and the sale price of such lands was only $2.50 per acre. There was no Act in effect setting any specific rate of royalty in respect of timber cut from leased lands; thus the licence system was more profitable to the Crown than any form of temporary or permanent alienation then in effect.

Generally speaking, leases were granted only to mill-owners. No such limitations were ever imposed in respect of timber licences.

In 1888 the licensing system was changed. The licences became "special timber licences" and were given for one year, renewable at the discretion of the Chief Commissioner of Lands, but were not transferable. The area was still limited to 1,000 acres, and each licensee could hold only one licence. The annual fee was increased to $50 and royalties were also increased.

Until 1901 there was no restriction on export in respect of timber cut from lands under licence. The 1901 legislation, in addition to prohibiting the export of timber cut from leases and licences, increased the licence fee to $100 and reduced the area to 640 acres. Each licensee was now allowed to take two licences which were still non-transferable. Conditions of renewal and royalty were not altered.

It will be noted that the principle behind the earlier forms of alienation of Crown timber was encouragement of manufacture within the Province. Up to 1895, leases were granted only to mill-owners. Licences, though not restricted to mill-owners, were for very short terms, for the most part one year, renewable at discretion. After 1895 the door was opened to investors in timber, though only partially. The leases available then to non-manufacturers required increased carrying costs. In 1903 the timber-licence term was lengthened to five years, renewable still "at discretion," and annual renewal fees were further increased, to $140 west of the Cascades and $115 east of the Cascades, the whole five-year fee being payable at date of application. Royalty was fixed at 50 cents per thousand board-feet and 25 cents per cord.

In comparison with this short-term licence, with only discretionary renewal and non-transferable, an annual fee of 22 cents an acre payable for five years in advance, subject to a fixed royalty of 50 cents when cut, the lease, at the same period in these parallel developments, was made renewable for consecutive and successive periods of twenty-one years, with a rental of from 10 to 15 cents per acre and royalty of 50 cents, but both rental and royalty rates subject to change at each renewal date, and the

lessee was required to own a mill. Of the two forms of tenure, the lease was the more secure but necessitated a greater investment on account of the mill requirement.

In 1905 an important change was made in the licensing system, which combined some of the features of both. Licences were made renewable annually for a period of twenty-one years and were transferable. In order to put the existing five-year licences on the same basis, they were made renewable for sixteen years after the expiry of their original five-year term. No limit was placed on the number of licences that an individual might acquire. The licences were subject to such royalty as might be in force at the time of cutting.

Official thinking at the time this policy was introduced is expressed in the words of the then Minister of Lands, Hon. W. R. Ross, on January 23rd, 1912, in the Legislature:—

> "In 1905 the administration realized that the leasing system was an extremely bad one, the timber being sold for twenty-one years ahead at the low prevailing rates. It was obvious that the public timber was being sold at a sacrifice price. It was decided to substitute a constructive forest policy which would revolutionize conditions in the province. This marked the beginning of the modern epoch in forest policy.
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> "For years the province had been in a bad way. The public revenue was insufficient. Development was starved for want of money. The credit of the province was low and immigration had been reduced to a trickle. These conditions could not do more than retard the progress of the lumbering industry, but the cut was small. So also was the forest revenue, which was only $455,000 in 1904. There existed then the extraordinary situation that in a country of magnificent forest resources the revenue derived from them was only about one-seventh of the scant provincial revenue of $3,000,000. The forest wealth of the province was locked up, it was no help to the progress of the young community. The province was starving for capital and had no means of drawing upon its natural wealth. And yet the rest of the continent was even then beginning to realize that the timber supply was insufficient; in fact a shortage, a timber famine, was predicted in thirty years by those in a position to know.
>
> "Stumpage in consequence was being sought almost feverishly by investors. Here in British Columbia was the timber; here the crying need for public revenue to open up the province, for capital to invigorate our anæmic industries and there, throughout the older regions of the continent, was the capital we needed, capital which was seeking to invest itself in the fast diminishing western reserve of timber that in consequence of the exhaustion of the eastern forests was destined to control the lumber markets of America before another thirty years should pass.

"It was a moment of danger for the province. Modern history is full of sad examples of young countries determined to get capital at any price, at any ruinous sacrifice of their future.

"The administration of 1905 nailed its colours to the mast; its motto was 'public ownership of forests.' But it was essential to encourage one of the mainstays of the province, the lumbering industry; also it was essential to give a supply of timber for the future operations of existing mills; to encourage by the same means the building of new mills.

"What, then, did the Government do? The Government threw open all Crown timber lands, but it handed over merely the cutting rights. In return licensees were required to pay only annual interest on the value of the timber reserved for them, which was to be paid for when it should be cut. No tenure could be simpler and none more advantageous, since it made possible the holding of timber until a market should be favourable for its cutting. In this way 15,000 square miles were taken up, and no less than thirteen million dollars were yielded to the treasury in seven years. The Government's policy was to extract a steady even flow of annual revenue from the vast area of timber, the poor along with the good, which might, perchance, not be exploited for fifty years. Profit was extracted from the forest by holding the timber and also by cutting it. The forest policy of 1905 caused the world to realize something of this country's resources, it let loose the flood of prosperity which the province has enjoyed ever since.

"By the end of 1907 an annual revenue of two and a half million dollars had been secured. This being sufficient for the opening for settlement of central British Columbia and other new regions, the Government ceased to issue timber licences and placed the remaining timber lands under reserve until further sales should become necessary. The issuance of cutting rights over 9,500,000 acres placed the Government in a position of very heavy responsibility, both as trustee of the people's timber lands and in respect of its duty of fostering the lumbering industry and recognizing the just rights of licensees. In consequence, in 1909, it appointed a Royal Commission of investigation (Hon. F. J. Fulton, K.C., Chairman). This Commission collected an immense mass of evidence, visiting every important centre of the province. After a most painstaking inquiry for a year and a half the Commission reported in 1910. One of the first points referred to it was the question of time limit for cutting timber under the licences and the Commission had no hesitation in advising removal of the limit as the logical sequence of the forest policy, since it was not in the interest of true conservation to force cutting at any time by arbitrary regulations.

"British Columbia is in a strong position with regard to the future and there is the great and glorious fact that our forests are in public

ownership and that every citizen is thus a timber-owner. Two things are plain; one, that the value of standing timber in British Columbia is destined to rise to heights that general opinion would consider incredible today; the other, that under careful management heavy taxation need never fall upon the population of this province. The profits from a permanent Crown timber business should make British Columbia that phenomenon of statecraft and good fortune, a country of semi-independent means."

At the time when the Forest Service was established, forty-five years ago, the Government and Legislature made it plain that their policy was to retain control of timber lands and to bring the various classes of tenure on to an equitable basis. The Minister expressed this policy thus: "Uniformity of tenure is most desirable, so that no commercial handicaps shall be created between different classes of holders of Crown timber. For this reason all future sales will be of licences." And the Premier, Sir Richard McBride, at the same session: "Under the special licence plan Parliament retains the power to increase both rental and royalty charges, so that as the timber values grow, so does the interest in the timber retained by the Province increase. The people are guaranteed a fair share in the rise in values, the unearned increment."

Forty-five years later, uniformity of tenure has not been achieved; in fact, there are probably more varieties now than then. The new timber licences were a prototype of our forest management licences, and similar claims were made for them as are made for management licences now. The stumpage—i.e., royalty—was not to be appraised and paid until the time of logging, the licences were to be subject to regulations in force from time to time; they fell short of the present management licences in that sustained-yield management was not required. They have, through fifty years, as was planned, provided annual revenue from rentals when held as an investment, and from royalty when logged.

At the beginning of 1909, 15,109 licences were still in existence. During the next four years 907 lapsed, leaving 14,202 at the time the Forest Branch was established.* The 1914 cut from them was 211,191 M f.b.m. The annual cut from this tenure increased as their numbers decreased; in 1925 it was 530,864 M f.b.m. and in 1945 637,297 M f.b.m., by which time the numbers had dwindled to 2,850.

By 1924 it became obvious that the Royalty Act of 1914, which set royalty rates for forty years ahead, was no longer a practical instrument for this purpose. As a result, the Royalty Act was repealed and the rates applicable to each tenure, species, and grade were incorporated into the "Forest Act" and have been subject to amendment from time to time as conditions indicate without any attempt to follow a set formula or basis for the timing or amount of such amendments.

* 1912 Annual Report Forest Branch, p. 29; 1937 Annual Report Forest Branch, p. 35.

During the fifty years the rates of royalty on timber cut on timber licences have been increased from time to time. I have quoted the present rates on pulpwood and the definition of pulpwood for these reduced rates. Other products, from the largest old-growth logs down to pea-sticks, are subject to royalty when cut on timber licences and leases and also on certain classes of Crown-granted land to which I have referred. Present royalty rates have been in effect since May 1st, 1948, and will be referred to in more detail later in the section relating to Forest Finance.

Pulp Licences

This term was given to special timber licences which were converted between 1919 and 1921, under provisions of the "Forest Act," so that their owners could get somewhat similar advantages to those given to holders of pulp leases. These advantages included half the special timber licence rate of annual renewal fee and royalty of 40 cents per cord, up to 1945. Royalty on pulp leases during the same period was 25 cents per cord. If saw-timber were removed, the same upward adjustment of royalty and rental applied as for pulp leases. The licences were held as part of the timber reserves of large pulp and paper companies. Timber from them is not exportable. In 1944 there were 252 pulp licences, covering 155,730 acres. Production in 1945 was 78,854 M f.b.m.

Hand-loggers' Licences

This is a form of personal licence to cut Crown timber which is subject to disposition by the Crown. It is restricted to persons on the Provincial voters list or Indians and is valid for one year only. The area to be cut over must be inspected and approved by the Forest Service. No machinery operated by other than muscular power may be used. The fee for each licence is $25. Timber cut is subject to standard royalty.

These licences were first issued in 1886. The former annual fee of $10 was raised to the present $25 in 1908. Provision for these licences is still in the "Forest Act" (section 22); none were issued in 1954 and 1955; one only in 1956, in the Prince Rupert District. This form of tenure appears to have fallen into desuetude, although a few hand-logger licence logs still come to market, presumably delayed in transit. Numbers of licensees and volumes produced are shown below for selected years:—

TABLE 7

Year	No. of Licences	Volume Scaled, F.B.M.
1915	222	(1)
1920	261	(1)
1925	111	10,542,541
1930	63	5,413,150
1935	43	5,324,156
1940	15	1,520,297
1945	6	401,085
1950	4	352,623
1953	2	126,114
1954	.....	266,674
1955	.....	139,733
1956	1	.....

[1] Not reported.

The largest number of hand-loggers' licences reported in one year was 388 in 1917, and the greatest annual production reported was 31,745,500 f.b.m. in 1916, 2½ per cent of the total Provincial cut. It is, however, probable that much greater volumes were cut by hand-loggers during the earlier years of the logging industry when there was little, if any, administration to control the areas on which they cut, and logging methods.

These facts are included here in order to record, perhaps for the last time, the existence of a colourful segment of early forest industry in British Columbia, and one of some social significance, especially on the Lower Coast, during the years of its activity.

TIMBER SALES

After the embargo on the granting of timber licences in 1907, there was no legal provision for disposal of Crown timber, with the exception of hand-loggers' licences, until 1912. In that year the " Forest Act," which also created the Forest Branch, provided for sale by public competition of licences to cut Crown timber after cruising, surveying, appraising, and advertising by the Forest Branch. In order to distinguish them from the " special timber licence " and all former licences, these new licences were, and still are, commonly referred to as " timber sales."

In 1912, although millions of acres of timber had already been alienated under various forms of tenure, the annual cut was not more than a fraction of the volume which could be sustained without diminution of the growing capacity. Many licences and leases were being held in reserve for future supply of conversion plants or as investments. There were also accessible stands which had been passed over in the 1905 to 1907 wide-open staking of licences. Many of these stands were fragments which could most efficiently be logged together with adjacent private timber. In the Interior, where the acquisition of timber licences had not been so widespread as on the Coast, there was a necessity for making timber available for operators who had no other means of obtaining it. The timber sale met this demand.

In most cases the area to be sold was cruised and advertised by the Forest Service after application, although sometimes an area might be cruised in advance for sale when opportune. The price included standard royalty, stumpage not less than the appraised upset rates, cost of cruising, surveying and advertising, and annual rental at the same rates per acre as the special timber licences; i.e., 21.88 cents on the Coast and 15.62 cents in the Interior. In addition, forest-protection tax was payable and each sale was subject to the special conditions written into its licence contract.

In the case of very small sales the charges for cruising, advertising, forest-protection tax, and rental might be remitted and the sale could be made without advertising or public competition. Larger sales were made by sealed tender or occasionally at public auction to the highest accepted bidder. Sales were for short terms, usually one to three years.

The numbers and volumes sold increased through the years with expanding markets, the cutting of other tenures and the disclosure by new forest surveys of much greater accessible volumes than were previously estimated, because of the development of roads, new and more efficient logging methods, and higher values for forest products. The total annual cut from timber sales of all classes gradually became an important part of the Provincial production; in 1945 it was 778 million board-feet, 25 per cent of the Provincial total from all tenures.

Pulpwood Timber Sales

There was a special class of timber sale provided for in the 1912 Act, with some of the characteristics of the pulpwood leases which were granted between the date of the 1901 "Land Act" and the 1907 Order in Council. These pulpwood timber sales were subject to the general conditions relative to all timber sales but, in addition, the applicant had to prove that he had spent $350,000 in construction of a pulp-mill or post a bond of $50,000 to guarantee the erection of a mill within three years.

The contract was renewable from year to year during the period of the contract and was made appurtenant to the pulp-mill. The pulp licences held by the pulp-mill operator must not contain more than thirty years' supply of pulpwood at any one time.

In the 1912 Act, rentals were set at one-half those payable on ordinary timber sales, with a provision for full rental in the event of the pulp-mill not operating six months in one year, and a provision for full rentals and full royalties in respect of saw-timber cut in pulp area but not manufactured into wood-pulp or paper.

In 1944 there were nineteen pulp-timber sales with an average area of 4,176 acres.