Sustained Yield - Its Legislative Basis in Canada

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Recent discussions among foresters in Canada as well as expressions in several papers that have appeared, have brought to the surface the fact that there are radical differences of opinion on many questions of fundamental importance. To the writer it seems unlikely that the practice of forestry will make much headway as long as there is no reasonable agreement among foresters as to the objectives of the profession. It also seems unlikely that such differences will ever be composed so long as authoritarianism flourishes and the means of discussion either oral or in print remain as rudimentary as they are in Canada. It would take too long even to list the fundamental questions on which diametrically opposite views have been dimly revealed in recent expressions. The object of this paper is to discuss only one such question, that of the legislative basis for the practice of forestry including forest regulation as we find it in Canada to-day. This question is selected from a long list for the reason that a leading Government department has circulated a categorical statement of the legislative position of sustained yield forest management which the writer does not believe accords with the facts of forest legislation in Canada. The publication referred to is Forestry Topic No. 4 of the Dominion Forestry Branch. This paper opens with the unqualified statement that in Canada "we have no definitely stated or legislatively enacted forest policy on the part of the Dominion Government or that of any province, based on the fundamental essential of continuous production".

In a country such as Canada, where about 90 per cent of the existing forest land is state owned, the forest legislation

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defining the purpose of the forest owner is obviously the most fundamentally important forest statutes that can exist. Fortunately the text of existing statutes is not a matter of opinion, but of fact. That the facts of forest legislation in relation to continuous production may be distinguished from such fancies as have been engendered in relation to them, the most obvious step is to read the statutes themselves. The following is a series of excerpts with citations giving the essentials in as brief a form as practicable.

Province of New Brunswick - An Act Respecting Crown Timber Lands of the Province, dated March 20, 1913.

(a) Preamble - Whereas the Crown Lands comprise a large percentage of the total land of the Province and it is desirable to conserve these lands in order that they may continue to supply raw material to maintain our great lumber industry, etc., etc.

Section 6 - The Surveyor-General is hereby authorized to employ the necessary number of competent men who will be charged with the following duties:

(a) To examine, survey and classify the Crown lands.

(b) To report, with as much detail as possible, upon the character and quality of the lumber; to estimate the quantity of timber and the reproductive capabilities of the various areas, estimating as accurately as may be the annual growth of the timber upon each area or tract, and to report upon the accessibility of the timber in each section, estimating as nearly as possible, the cost of logging the different areas, and the cost of stream-driving to the point of manufacture; to report the location of the lands deemed suitable for agriculture purposes, distinguishing them from other lands that might be

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regarded as specially suitable for the growth and reproduction of timber; such survey, examination and classification of the lands, shall be completed not later than the first of August, 1917.

Province of Quebec - (a) R.S.Q. 1338; 6 Ed.VII, c. 15, s. 4. - An Act Respecting Forest Reserves and the cutting of timber thereon. After the usual clauses, specifying how forest reserves are to be established, this act in R.S.Q. 1340 defines the purpose of the management as follows:

1630. Such lands, so set apart for the maintenance and preservation of the forest, for the production, conservation and cultivation of trees, as well as for the purpose of assuring a constant supply of timber and perpetuating and regulating the flow of waters which take their source within such limits, shall be kept up and administered under regulations which may, from time to time, be put in force under the authority of the Lieutenant-Governor in Council.

(b) I Geo. V (2nd session) c. 17, s.1. An Act Respecting Township Forest Reserves. After the usual provisions for the creation of township forest reserves, this act defines the purpose of their management as follows:

1631d. The Lieutenant-Governor in Council may make, amend and repeal regulations for the whole or any of the said reserves, for the administration, protection and maintenance thereof, from the point of view of the maintenance, exploitation and preservation of the forest and the protection of the sources of streams.

(c) An Act to Amend the R.S.Q., 1909, with respect to the Creation of Domianial Forests:

1. The following article is inserted in the Revised Statutes, 1909, after article 1630, enacted by the Act 14 George V,

chapter 27, section 4.

"1631. 1. The Lieutenant-Governor in Council may select and reserve certain vacant areas of Crown lands in order to constitute same into domanial forests which shall serve specially as reserves for the requirements of forest industries.

2. The Minister of Lands and Forests shall administer such domanial forests. He may exploit them by having lumbering done under control or by contract, under the direction of the forest service, and in such case the products therefrom shall be sold by auction after public notice of at least sixty days. He may also lease certain portions of such domanial forests for a limited period of time, in which case lumbering shall be conducted as indicated by the forest service. Such leases shall be made in the usual manner by law provided.

(d) Lands and Forests Regulation relating to the cutting of trees and lumbering operations upon Crown Lands.

;597a. In all forests belonging to the Crown, no clean cutting and no operations constituting an exception to the regulations in force may be carried on without a special authorization from the Lieutenant-Governor in Council.

The license-holder who wishes to obtain such authorization shall make application therefor to the Minister of Lands and Forests, and shall, at the same time, produce a working plan based on a proper inventory and made according to the instructions of the Department of Lands and Forests.

Province of Ontario - The Forest Reserve Act, 10 Edw.
VII, c.8,s.1. R.S.O., 1914.

2. The Lieutenant-Governor in Council may by proclamation set apart any portion of the public domain as a Crown Forest

Reserve. 10 Edw. VII, c. 8. s. 2.

4. (1) Every Crown Forest Reserve shall be under the control and management of the Minister of Lands, Forests and Mines, and the Lieutenant-Governor in Council may make regulations for its protection, care and management.

Provinces of Manitoba, Saskatchewan and Alberta,
Dominion owned portion of British Columbia, Yukon and Northwest Territory.

(a) The Dominion Forest Reserves Act - 6 Edw. VII -
Assented to 13th of July, 1906 - Preamble as follows:- Whereas it is expedient that reserves of Dominion lands be made in order to protect and improve the forests for the purpose of maintaining a permanent supply of timber,: Therefore His Majesty, by and with enacts as follows:-

Section 2 - The said reserves are set apart for the maintenance and protection of the timber growing or which may hereafter grow therein, etc.

(b) The Dominion Forest Reserves and Parks Act of May 19th, 1911.

Section 3 - The said reserves are hereby set apart for the maintenance, protection and reproduction of the timber growing or which may hereafter grow therein, etc.

Province of British Columbia - 1. Legislation - The Forest Act of 1912, 2 Geo. V, Part III, Sec. 12, Subsec. 1 - The Minister shall cause an examination of Crown lands to be made for the purpose of delimiting the areas that it is desirable to reserve for the perpetual growing of timber, etc., etc.

Subsec. 2 - Forest Reserves constituted in the manner provided in this section shall be under the control and management of

the Minister for the maintenance of the timber growing or which may hereafter grow thereon, etc.

It will be evident from the foregoing quotations (P. 1 & N. 3.) that in all provinces of Canada except the two small Maritime provinces not mentioned and the province of Ontario there are statutes which make specific and unmistakable provision for the handling of some parts of the Crown forest lands for continuous forest production. The details of these provisions necessarily vary with varying conditions inevitable in a country of continental expanse of territory. It may be of interest, however, to inquire into the sufficiency of these statutes to provide a complete legislative basis for the practice of forestry for continuous production. The desirable statutory provisions are:-

(a) Authority to examine and classify the Crown lands for the purpose of delimiting lands suitable for timber culture.

(b) Authority to dedicate these lands to the production of timber and to withdraw them from acquisition for other non-compatible purposes.

(c) Authority to place these lands under the charge of suitably trained technicians for purposes of administration.

(d) Such provision for the acquirement of the necessary working capital as conditions may indicate.

A study of the existing statutes in Canada authorizing the use of Crown lands for continuous forest production reveals the fact that in no instance have all four of these fundamental provisions been embodied in statutes. In no case in Canada is there mandatory provision in a forest act requiring that the administration of forest lands be entrusted only to forestry trained technicians. Although in all cases except Ontario the administration of forest lands

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for continuous production has actually been entrusted to technical foresters, this has been done under the general authority to administer such lands conferred by statute on the Minister of Lands and Forests or a corresponding cabinet member and not by specific statutory clause. In Ontario, Crown timber lands including those specifically reserved as forests and as parks are administered by a non-technical staff with forest protection alone entrusted in part to a technical personnel by executive and not by legislative authority.

In Quebec, however, the practice of forestry is confined to members of a corporation created by provincial enactment and empowered to set standards for admission to membership and control the qualifications of all who undertake to practise the art of forestry in that province. Presumably, this statute would limit the control of the forestry business of the province to technically trained foresters, thus arriving at the objective by an indirect route.

In British Columbia alone is there complete statutory provision made for examination and classification of lands, dedication of lands to forest production and supply of working capital. Since British Columbia also by executive action in 1912 has entrusted the conduct of its forest business to a technical staff, it has therefore complied with all the necessary fundamentals which are within the province of the government.

On Dominion Lands, although no statutory mandate directing that forest lands be classified exists, the need for it was obvious to the executive as an essential preliminary to the creation of forest reserves under the existing statutes. Land classification was therefore begun by executive authority about 1906 and continued until 1916, by which time all areas on which such activities seemed justified were

covered. By executive rather than legislative initiative, land erected by authority of legislative mandate into forest reserves handled for continuous production, has been entrusted to a technical staff of foresters. Technical administration of lands for continuous forest production by the Federal Government dates from 1905, when the late Abraham Knechtel first assumed this task.

On Dominion forest lands therefore, three of the four essential provisions for forest management are present, two by executive and one by legislative action. The fourth, provision of a fund for working capital is accomplished by the usual practice of an annual appropriation. It is to be noted in this connection that the expenditure made by the Dominion Government on its forests is vastly in excess of the receipts therefrom. The land specifically set apart for continuous forest production after 21 years of technical administration return barely 20 per cent of the sum annually expended on them. They have thus far proved not a valuable asset to the Dominion, but a vast drain on Federal resources.

In New Brunswick, it would appear on superficial reading of the acts providing for continuous production of forest materials that no one of the indicated four essentials was provided except land classification. No provision is made for dedication of lands to continuous forest production, the employment of a technical staff is not made mandatory nor is there specific provision for working capital. In this connection, however, it is necessary to remember that cutting of timber under government regulation on Crown lands had its origin in New Brunswick nearly a century in the past. While the Forest Act does not specifically provide for dedication of Crown timber lands to continuous production, the elaborate provisions

made for securing continuous forest growth together with the terms under which the entire body of timbered lands are leased for a long period for exploitation clearly implies that no other use of these lands is contemplated or indeed thought practicable.

Technical administration has been provided by executive action since 1915. Working capital is secured by annual legislative grant, except for forest protection, for which special legislation exists. The forest lands are profitable and return to their owners an annual revenue much in excess of the annual expenditure.

In Quebec the legislative basis for the practise of forestry for continuous production is somewhat more complex than in any other province. This is readily explainable, however, in terms of the two different types of colonial forest policy to which Quebec alone among the Canadian provinces has fallen heir. On the one hand as a legacy of the French regime, Quebec has a greater area of privately owned timber land in the old seigniorial grants than any other province. On the other hand, as a result of the colonial forest policy imposed by the conquest, Quebec has a form of forest administration not markedly unlike the model followed in Dominion lands. In between, however, there is a vast area of forest land the precise tenure of which can only be understood in the light of the inevitable conflict imposed by the peculiar circumstances of the history of Quebec during the last century and a half.

Briefly, continuous forest production is prescribed in Quebec only for Crown forest lands, private forest management being as yet ignored. Crown lands are divided between forest reserves and timber limits and a different regime is applied to each.

Forest reserves are of two types, township forests and

domanial forests, the latter dating only from 1925.

The four fundamentals for the establishment of continuous forest production under Government auspices have never been met in Quebec in the clear cut logical way illustrated in British Columbia or even as concisely as on Dominion Lands. Nevertheless, at least three of them are recognizable in existing statutes.

Examination of forest lands has legislative authority, but not for the purpose of creating forest reserves.

Forest reserves are, however, authorized by legislation for the purpose of continuous production of timber and such exist. By implication, therefore, as on Dominion Lands, classification of lands for this purpose is needed.

The administration of Crown forest lands for continuous production while provided for by statutes, is not specifically entrusted to a technical personnel by mandatory legislation. Nevertheless, by the device of limiting the practice of forestry in the province to a corporation created by the provincial legislation, this fundamental is attained by indirect route.

The provision of working capital for forest lands is alone not met. An earmarking of 50 per cent of the gross revenue from domanial forests on which direct governmental exploitation is authorized was sought, but not granted. Capital is provided by annual grant.

The situation on unreserved Crown lands under license as regards continuous production is unique among Canadian governments. All such lands are held subject to a diameter limit cutting regulation, a device for reproduction common to all provinces except British Columbia. In Quebec, however, statutory authority already quoted makes provision

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for departure from this diameter limit by the process of filing with the Director of Forestry a complete working plan made under his instructions and supervision in which a satisfactory scheme for obtaining reproduction by means other than the inflexible diameter limit is provided. This act has been very largely employed and is the only large scale attempt in Canada to depart from the diameter limit on licensed Crown lands in the direction of a more suitable system of silviculture. Incidentally, the application of this law by the Director of Forestry has involved the introduction of forest regulation into the conduct of the forest business on licensed Crown lands, the first step in that direction actually taken by the initiative of any Canadian Government except that of New Brunswick.

In Ontario the situation as regards legislative provision for continuous production on Crown forest lands is more simple than in any other part of Canada. In brief, no such provision exists. No one of the four legislative requirements which are desirable in formulating a policy of forest management in public lands has been embodied in statute. Certain developments originating in executive initiation are, however, to be noted in Ontario.

While examination and classification of Crown timber lands with the object of delimiting tracts suitable for continuous use for forest production has not been authorized by statute, a considerable area of the province has been cruised. A timber cruise is obviously not a correct basis for the selection of lands suitable for continuous forest production, but it is a step in that direction.

The forest reserve act does not appear to contemplate the employment of the lands contained in reserves for continuous production of timber. This act was one of the first passed in Canada

and plainly has as its purpose not the production of timber by cultural processes, but merely the hoarding of a supply against an envisaged period of scarcity. This is a view of forest policy which had a vogue some thirty or forty years ago, but has no standing among technical foresters. It is a popular misconception of forestry which was never translated into legislation in Canada except in Ontario, where alone it exists at the present day.

Technical administration of forest reserves is not provided for by statute nor embodied in practice. Although a body of technical foresters exists in the Department of Lands and Forests, forest management is not entrusted to them. In this respect Ontario differs from all other Canadian forested provinces. Outside of Ontario the technical forester has had control of forest administration for about 20 years.

Not being engaged in forest management, the question of working capital has not arisen in Ontario, except incidental to forest protection, which is the main activity of the technical staff. For this it is provided by annual legislation appropriation, but, as in several other provinces, it is partly derived from an annual fire tax levied on an acreage basis against timber licensees.

The foregoing discussion takes no account whatever of that large body of statutory enactment known as the Crown timber acts, nor of the still larger body of regulations by which these acts have been extended.

Except in the Crown timber act of New Brunswick of 1913, wherein forest regulation is specifically imposed, it is perhaps safe to say, that no such act in Canada contemplates regulation in the technical forestry sense, nor should it. Crown timber acts are merely

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the statutes which embody a special forest policy characteristic of Canada, namely, the disposal of timber on Crown lands irrespective of the character of the land itself for purposes of exploitation independently of the land surface. A large part of this land is obviously suitable for agriculture or grazing once the timber is removed. A very much larger part is of debatable agricultural value. But it is a mere waste of time to debate agricultural use versus forest use in the present state of public thought in Canada. So long as it is possible to arouse enthusiasm in an audience by dangling before their eyes a picture of a population of 50 or 100 millions in the measurable future, just so long will it remain impossible to advance a reasonable forest policy which contemplates the use of the vast areas of marginal lands for timber culture on a basis of regulated production. This means that in general, outside of New Brunswick, regulation can be extended only to forests on absolute forest soils. That forest production in such soils in Canada will ever be profitable is debatable. Certainly, only the most rigid economy of expenditure can be justified on such soils if forestry is to rank as anything but a fad.

In this situation the Crown timber acts offer a promising outlook, which is realized everywhere in Canada except on unreserved Dominion lands and in Ontario. All Crown timber acts contain provisions for silviculture of a sort, though not for forest regulation. To understand this distinction, it is, of course, essential that the confusion between silviculture and regulation introduced into Canadian forestry discussion by the British Empire Forestry Conference be successfully banished. To ignore for the time being the question of regulation on unreserved Crown lands and concentrate on the problem of keeping such lands fully clothed with second growth timber

seems to the writer a vastly more profitable forest policy than many others that have been suggested. Whether the steps taken to ensure this object should be limited to protection from fire as is held in Ontario or whether the forestry profession should take a further step and undertake to so direct the logging of virgin timber as to ensure speedy regeneration as well as maintain adequate fire protection, is obviously a question of policy on which opinions may differ. The author, as is well known, looks upon the Ontario forest policy as many years out of date and as a side-stepping of an important public question for which the responsibility rests directly on the forestry profession.

Outside of Ontario, the legislature situation is favorable. If, as has been alleged, silviculture and regulation are making no appreciable headway on public forests under technical management by trained foresters, the fault lies either with the profession of forestry or with the economic situation and not as alleged in Forestry Topic No. 4 with the people and governments. The writer considers it an essential fundamental to progress that we realize just where the obstacles to progress are to be found, and hopes that those who find them in the existing statutes will explain publicly wherein these statutes constitute a bar to forestry practice.