THE FORESTRY SITUATION IN CANADA— PRESENT AND FUTURE¹

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The honour of being asked to deliver the theme address to this Forty-Fifth Annual Meeting of the Canadian Institute of Forestry carries with it a serious responsibility. I want you to know I appreciate both very deeply.

You are an important audience. You are also a critical audience. As the body of professional foresters you are one of the most important groups in the Canadian scene. You are charged with the technical direction of making Canada's greatest natural renewable resource a permanently increasing source of useful, healthy, harmonious and enlightened living for Canadians. That is an important responsibility. Being one of you, it is with a certain amount of pride I state that you are steadily getting on with the job. At the same time I cannot help but feel that the challenge is so great, and the problems are so complex, that if we are not on our toes all the time we will find ourselves unprepared to meet the challenge.

I can't expect in this address to add to the volume of technical knowledge which you have for getting on with the job, nor can I expect to strengthen your resolve to do so.

You are here to look at *The Forest Situation in Canada, Present and Future*, and that involves analysis and self-appraisal and out of that should come, as Ken Fensom has told you, new objectives and new understandings. If I can help in this analysis and self-appraisal, I will be very happy indeed.

So . . . what is the Forest Situation in Canada? How can I describe a situation that is in transition, changing rapidly, and which varies widely, some areas being so far ahead or behind in the transition process that is taking place.

My attempts to assess the situation must be general in character, touching only the highlights. Some of you may disagree with these general statements, because they won't apply in the area you know. Then if they induce discussion I will be satisfied. First the forest itself.

We have an abundant forest, the greater part of it mature to over-mature. So we are in a depreciative stage of forestry where we are removing capital stock which is not putting on increment, to make way for a growing stock. At the same time we have many thousands of acres of potential forest land that is rundown, you might almost use the expression "beat-up". These are the areas that were mistakenly cleared for settlement or were cut over and burnt over, and generally speaking neglected from a forestry point of view. They make up only a small proportion of our total forest land, but their value in the wood supply picture is great because they are in or adjacent to settled areas and they are comparatively high quality forest soils.

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For the rest, we have the beginning of an age class forest which is increasing year by year. For the past thirty years we have been making more or less intensive cuts on forest lands which will not be cleared for agriculture but will remain in forest.

These areas are not large in proportion to the whole. But again, their value is great because of their accessibility and the quality of the site.

Without getting statistical, there is plenty of well prepared evidence to show that we are not yet cutting the annual growth.

Every once in a while someone makes a calculation of total figures and proves that we are going to run out of wood in 25 or 50 years, and the next fellow makes a calculation and proves that we have two or three times as much as we need.

The temptation to do this is strong, and it's fun. But it is not the answer. We have to break the picture down into parts because it is only when we do that that we can determine what the problems are that we have to solve.

My guess is that by the time we have cut over our so-called virgin stands, and I don't expect to be among you, we will be producing three times what we now are per acre from our beat-up woodlots, and twice as much from our cut-over. There is still room for expansion of our capacity to manufacture wood as a raw material.

It is quite true that we have harvested most of the best of our virgin forests. Certainly we have harvested the most accessible. We could not have done otherwise and made the profits that have built our wood-using industrial structure into the giant supporting column of Canadian economy that it is.

It is equally true that established units of our industrial structure now go farther and farther away to get their raw material and that the delivery cost of that material to the mills is high.

It is also true that the complete removal of forests in some areas has created problems affecting agriculture and other industries.

These are problem to be solved. They are problems that are capable of solution.

Yesterday the forester's job was to convince people that forests were valuable assets which it was foolish to destroy. He did this while making himself useful in and around the forest and learning more about it. It was a tough nut to crack in a land of plenty, but it was comparatively simple and straight-forward.

Today he has one thousand problems in addition to that one, partially because he has in some degree been successful in that one. He is called upon to determine how to drop a salvo of water bombs on an incipient forest fire, how to design and experiment with a tool for hand seeding, how to regenerate softwood in competition with hardwoods, how to drain 2,500 square miles of swamp, how to log most economically an undeveloped terri-

tory of overmature forest and how to intensively manage by the continuous inventory method a small woodlot in the centre of an important market area.

Tomorrow the forestry profession will have ten thousand problems and some of them will be complex. By then we will have no end of specialists, because the total volume of knowledge will be far too great for any one man to use directly. We can see this picture developing. More and more the foresters has become less and less of a jack of all trades.

You are all familiar with the status of ownership of our forest land. Briefly, the Crown owns the abundant over-mature forest. There are only scattered private holdings by large corporations in that forest. The Crown also owns most of the newly created age class forest and of the more or less barren cut and burnt areas.

Private individuals own practically all of the "run-down woodlot" class of forest land.

Where so much of the forest land is held by the Crown, forest legislation plays a big part in the way it is managed.

Forest legislation in Canada originally governed only the licensing of timber cutting. Fire protection laws were introduced about fifty years ago, and in more recent times the working plan management of Crown land forests has been the subject of new forest laws. There are no laws governing the cutting on private land except the Small Tree Act in Nova Scotia.

Canadian Forest Legislation has had sound thinking behind it, but it has not kept pace with the transition processes. Even the more recent acts, those which are designed to encourage and govern sustained yield management, have carried over principles that are suitable only under a "cut and get out" practice. Our legislation needs thorough review and enlightened revision to fit the new management practices.

Furthermore, much of our legislation has not been fully implemented or has been implemented "by the book". To get the benefits of any sound thinking behind forest legislation, it must be implemented. Forestry can not be practiced "by the book" so when the forest laws are put into effect the spirit rather than the letter of the law should guide the administrator.

Therefore, when we give this question consideration, we do not want to listen to those who say "There ought to be a law against" or "There ought to be a law to make". Rather we want legislation that permits co-operation and has provision for penalizing constant offenders.

What about forest education? We have good professional schools and probably enough of them to meet an increased demand. Constant attention must be given to the type and quality of education. Constructive criticism is of inestimable value to university administrations. It was with this thought in mind that our Institute recommended and prepared a brief for a research project to study all phases of forest education in Canada. This project has not yet been realized due to lack of funds. Further effort should be made to interest a sponsor.

At the forest ranger level we also have good schools, but if we are to have the forest husbandry that is indicated, there is a lot of room for more such schools.

Research is closely allied to education. We have excellent research organizations. The Federal Forestry Branch stands out in this field—as it should. The provinces, the universities and the industry are all carrying out research. The quality of work done is excellent. However, it has lacked co-ordination and this has been a very serious lack. Also it has been small in quantity. Consequently the total available knowledge of our basic science, silviculture, is pretty small. I am neither critical nor apologetic. I am merely stating the situation. You only have to listen to some simple questions asked by owners of forest land who want to know what trees to cut and what increment can be expected, and to note the carefully guarded answers that are given, to realize that those answers are based more on opinion and common sense than on scientific knowledge and experience. As far as I am concerned, it is not unreasonable that that is the situation. Very few of us in Canada have had a long experience growing trees.

There is a point I would like to make clear at this time. Our lack of knowledge should not prevent us from giving answers with assurance. There are many things we do know that will assure greater production per acre from forest land—knowledge that can be applied with success and profit today in certain areas.

I feel that you would be disappointed if I didn't refer to forest management. So I will make this statement, "sustained yield forest management is being generally practised across the country". It is not involuntary as it was in the earliest days. It is planned. For the present it is based on advance natural regeneration and growth rates determined from existing stands. This picture will change materially as we start harvesting the more or less even aged young stands that have followed cutting operations or fires in our time.

I would also like to make this statement. We are only at the beginning of forestry practice which I define as "habitual activities in the forest planned to affect the kind or nature of future growth."

We are on the threshold of much wider spread forestry activities. An increasing proportion of our future operations will be on land that has been logged over in our time. When that proportion is over 50%, we shall be practising the appreciative type of forestry i.e. building up our capital stock so that every acre can produce the maximum of its capability. We will by then be carrying out "habitual activities in the forest planned to affect the kind or nature of future growth."

Turning now to a more detailed consideration of the policy statement itself we should pay tribute to the authors of that document. Incidentally the authors included practically the whole Society of Forester Engineers at that date. Some of you will recall the mechanics of preparing the drafts. A fairly large central committee met twice. Before, between, and after these

meetings, drafts went to the Sections and to special committees and were discussed, corrected and improved. The volume of material that was processed was tremendous, and when it was sorted out, we got what I consider a lasting document.

We will have a resolution presented during our meeting, calling for a review and revision. I don't want you to interpret my next words to mean that we are safe and can be complacent in our consideration of the forest policy we declare and try to follow in our own spheres, and to advocate that others follow in their sphere, large and small. One thing is sure in this world. Complacency is an enemy of progress, and a sure indication of decline.

What I do want to get across to you is that we have a lasting document. It is a document that, thanks to the vision of the contributors to it, is so worded that it is as sound in its *policy statements*, and I underline policy statements, as it was when it was written. It is the particular fields of action recommended that will require revision.

The authors had a reason for going a little beyond a mere statement of policy and recommending specific fields of action. One of the intents was to set forth objectives considered to be attainable under existing social and economic conditions, in other words recommendations which could be acted on immediately with some chance of success. And when you have that intent, you have to be a little bit specific.

In case some of you are worried, I am not going to do the whole job of the meeting and go over each section in the policy. I have picked out examples of accomplishment and failure and I find something of a pattern.

Under the heading of Forest Protection I offer you the recent release of the Canadian Forestry Association which can be summed up as follows:

In spite of the scores of thousands of people being added annually to the ranks of woods travellers, woods workers, settlers, etc., the number of forest fires does not increase and fire disasters of 1,000 acres and over are becoming fewer. Therefore, we have made progress both in public education and in control of forest fires.

I also offer the spectacular advances in forest insect research and the equally spectacular control measures last year and this year.

But as you go over each section, as you will do during the meeting, you will find that there is more to be done under most of them. We have not yet adequate protection. We have practically no organized protection in municipalities. We do not have strict enforcement of forest fire laws. And so on.

Under the heading Forest Administration the advances have not been as great though there is a fuller realization on the part of the federal and provincial governments of responsibilities and of the need for reinvestment of funds in protection and management. There have also been, in some cases, serious attempts to provide greater security of tenure. But again there are weak spots in the national picture. There is overadministration and there is underadministration.

Stock taking, or inventory, was an important item under forest management. We have made great strides in inventory work in the way of technique, in the way of accuracy, and in the volume accomplished. But we are not finished.

One thing I would like to emphasize is the idea behind Section 32:

"32. Intensive management of all the forests of Canada is not possible under present conditions. Attention should first be concentrated on securing increased production from the most accessible forest lands of good quality. Steps should be taken, with the least possible delay, to select those areas to which intensive management is first applied. In selecting these areas full weight should be given to both ecological and economic factors."

We have failed in this one, I think.

It all adds up to a great deal of progress made, not much wrong direction activity, and a whole world of things to do. Once again let me say these general statements are fine, but let's get down to cases as individuals, because that is how the progress was made, and that is how more progress is going to be made.

To sum up we have a policy that we can be proud of and the pride we justly feel must only strengthen our spirit and determination to make a job of the purpose of this meeting put, I think, most appropriately by our president when he said:

"Is this Statement as adequate today as an idealistic target as it was in 1943? If not, how should it be amplified or altered? And in the years since 1943, what progress has been made towards attaining the stated objectives? And, where we have failed, why have we failed?"

"All these are matters for dispassionate and self-appraisal and analysis. Every profession must take stock of itself periodically and make decisions as to what is good for it and what is bad for it. The Winnipeg meeting has been planned so that we, the forestry profession in Canada, can take an objective look at ourselves. If the interest and attendance at this meeting are what they are expected to be, out of this meeting will come new objectives and new understandings, and the Winnipeg discussions will go into the records as among the most important ever held by the Institute."

I can't refrain from adding one more thought which was included in the letter of transmittal when the policy was first issued. It bears repeating now because this is another such occasion.

Each individual forester, in his own field of duties and within his own sphere of operation, was exhorted to further the implementation of the forest policy. The policy statement was to serve to maintain a proper perspective of the whole forestry situation, but the individual paragraphs were to be used as the bases of specific programs of action.

Now here we are again ten years later, looking at what we have done,

assessing what we have accomplished and noting where we have failed. Let's raise our sights wherever we can, take a new direction where we can't raise our sights and head for new objectives under the same forest policy.