PROPERTY TAXATION TO ENCOURAGE TREE FARMING IN BRITISH COLUMBIA

By IAN MAHOOD¹

The costs of national defence, social services, education, public works and other government services are increasing with such rapidity that all of us are sensitive to taxation. It is refreshing to be able to discuss amendments to the Provincial Taxation Act which modify the impact of land taxes on the business of growing trees. It is significant to note that this act was prepared on the basis of understanding of the principle that forestry is tree farming.

CROP PRODUCTION

Man became a farmer early in history. The constant struggle to find enough food to eat soon convinced primitive man that the growing of crops or the raising of cattle afforded an easier and more secure mode of satisfying hunger.

Modern society has become more complex. It has advanced to the point where we must grow, not only our food, but most of the clothes we wear, the shelter we sleep in, and many of the luxuries we enjoy in our standard of living. Now more than ever, we are dependent upon farming and we must devote more and more time, energy and science to crop production. Economists emphasize the rapidly increasing human populations and warn that world crop producing capacity is not increasing correspondingly. It is becoming evident that human progress will depend more than anything else upon a sustained production of the world's renewable resources and extensive world trade to distribute these resources.

British Columbia with nine-tenths of its land capable only of forest production has its "eggs pretty much in one basket". We must grow trees and we must trade our wood products to other nations for goods we do not have. In other words, we must export and we must grow trees if we want to progress.

Our slogan could well be "as grows the forest crop, so grows B.C."

It is over a 100 years since the pioneers began cutting the timber resources of B.C.

It is certainly not too soon to bring into our Legislation and public affairs provisions for tree farming.

Until recently, our forest industries were established only on the basis of the reserve of virgin timber available. Now there is a rapid transition in outlook. Industries are reorganizing, capital is being invested in new developments and processes which have in view successive crops to be grown in the future. So that now, industries are being based on the amount of productive land available. The outlook is for tree farming and it has become vital to ensure the growth of second and successive timber crops on logged-over land if a continued large scale expansion of primary and secondary wood-using industries is to be possible.

1. Formerly with the Taxation Department, Government of British Columbia, now with H. R. MacMillan Export Company, Ltd., Nanaimo, B.C.

This necessity was emphasized in the Royal Commission on Forestry. Hon. G. Sloan recommended in his report "Forest Resources of British Columbia, 1945";

"New systems of tenure and *taxation* need be formulated to encourage *private* forestry and to remove the causes compelling liquidation".

This recommendation was accepted by the Provincial Government for *Crown lands only* in amendments to the "Forest Act" in 1947. A new tenure known as "Management Licence" with tax provision to encourage forestry was thereby provided. These amendments provided favourable tax provisions to Crown owned land within a management licence contract. Private land whether in a management licence or not was still subject to a frontier type property tax structure that was evolved in the early days to ensure the Crown revenue from virgin timber where no costs of growing existed.

The present amendments to the Taxation Act recognize the transition in forest land use and adjusts the Taxation policy to the forest management policy of the Government.

In British Columbia where the Crown still owns 90% of the productive forest land, most of which is in virgin timber, and public forest management is still considered in terms of conserving existing timber, the tree farmland amendment in the Taxation Act marks a forward step. It gives land owners some incentive and opportunity to grow trees. This enables the Crown to share some of its weighty forest management problems on cut-over land with private individuals. It opens up a new field for co-operation on forestry matters between the Government and forest land owners. It means individual land owners can undertake tree farming without the necessity of leasing Government lands and signing a forest management contract.

DEFINITION OF TREE FARM LAND

The use of the land for tree crop production presupposes that land so used will be kept productive either by planting or providing logging engineering methods to acquire natural regeneration. It is certainly in the self-interest of any owner to keep his land green and productive. So that it seems reasonable to classify cut-over land as tree farm land simply on the basis that a second crop exists or is being provided for. This requirement should present no hardship to any individual who is in the business of growing trees. In the case of mature timber lands, if logging operations are adjusted to the rate of crop replacement, then surely this is a tree farm land use. However, inclusion of mature timberland in tree farm land classification is likely to be somewhat complicated. Generally, when we talk about sustained yield forest management, we have in mind providing the annual wood requirement of a particular industry. Logically, during the transition period until a full second crop economy develops, there will be some provision to conserve the supply of present mature timber. This programme will probably vary with individual needs of each industry or land owner. For instance, in one management programme it may be advisable to speed, for a time, the cutting of mature timber to get more second growth established and then cut second

growth at an earlier than normal age in order to maintain production and adjust the age classes over a period of time. Such a programme can be interpreted as sustained yield management even though it deviates from the text book formula. The justification would be the requirements of the industry, the natural economics of the situation, the condition of the mature timber, the distribution of the age classes and many other variable factors. It will be appreciated that there could scarcely be a precise definition of what constitutes tree farm use as far as mature timber holdings are concerned.

Therefore, tree farm land is of necessity classified broadly so as to provide any combination of forest land which is logged over with young trees or with mature timber that is being operated on a sustained basis.

The determination of whether any land is being used according to satisfactory standards of forestry is a matter for decision by the Forest Service, and if so certified, the assessor may classify the land as tree farm land.

RETURNS

After certification is received from the Forest Service, the owner must make application to the assessor for tree farm classification and provide certain returns.

These returns are an extension of the data already supplied under timber land classification.

The first return will give a detailed outline of the nature of the proposed tree farm while the annual return will indicate the progress and costs of the tree farm operation.

The returns are necessary to enable the assessor to value tree farm land. For example, the amount of mature timber, the age classes and areas of productive land, the areas requiring to be planted and the protection programme needed all have a bearing on the value of the land as a producing unit.

The basis of the valuation is the productive value of the land. In determining this value the cost of forestry such as planting, protection and so on must be deducted from the gross value of the yield to obtain a net yield value. The primary purpose of the returns is to provide such information. Such returns coming in from a wide group of owners and operators will give the assessor good information on which to determine land values.

The returns have a secondary purpose. They provide an outline of the type of tree farm operation being undertaken and an annual statement of progress. These returns are not a contract in the legal sense but they are a statement of intention to use the land for tree farming and so long as the use continues it is agreed that the basis of assessment shall be restricted to the productive value of the land.

ASSESSED VALUATION

The best indices of tree farm land value are the revenue or rental value. Lands vary in fertility or productivity and, therefore, the quantity and quality of agricultural crops that they can produce has always been recognized. Likewise, the quantity of wood that an acre of forest land can produce in a given period of time varies. It is proposed to value tree farm lands on

this basis of productivity taking into consideration current market prices. Land with an annual cut and, therefore, an annual income will be valued by capitalizing the annual net income from growing trees. Land with a periodic cut and, therefore, a deferred income will be valued by determining the present value of the future net income expectation.

As an example, tree farm land having an annual income will contain a combination of mature timber, immature and cut-over land in the process of regeneration. Rather than the examination of each parcel of land individually to determine a land value it seems logical to treat the entire holding as one forest capable of a certain annual production. The net value of the stumpage produced is the index of capital value of the holding.

The following example illustrates:

Area of mature timberland	5,000 Acres	
Volume of mature timber	250,000 MBM	
Area of second crop (young forest)	5,000 Acres	
Sustained yield capacity	4,600 per MBM	
Present value of stumpage net of logging costs		\$10,000 per year
Gross value of yield		\$46,000 per year
Less cost of forestry-planting, etc. (estimated)		\$14,000 per year
Net yield		\$32,000 per year
Capitalized value allowing operating risk interest rate of 10% and 2% tax rate =		
	$\frac{32,000}{12}$	= \$266,700
Appraised value of tree farm		\$266,700
Annual Tax — Land	\$ 2,667	
School	2,667	
Tax cost per MBM of production	\$5,334	
	$\frac{5,334}{4,600}$	= \$1.15 per MBM

The foregoing example applies to land which is part of a producing unit. It would probably be owned by an industrial unit which has an annual income from tree farming and has a forestry programme to develop a constant supply of wood from the area.

To appreciate the change in assessment procedure, it should be explained that under timberland classification, which is applicable to liquidation forestry the inventory of timber is assessed over and over again annually. In the above example the stand of 250,000 MBM would be valued at perhaps \$1,750,000. The tax the first year would be $2\frac{1}{2}\%$ or \$43,750. The payment would decline as the logging progressed and increased due to the value increment in second growth. This would mean that the tree farmer producing 4,600 MBM of growth per year would have a tax cost of

something like \$43,750 + 4,600 MBM or \$9.50 per M. The old assessment procedure was developed in the early days before there was any consideration given to tree farming. The amended procedure is directly related to the productive value of the forest land. This is considered to be a theoretically proper basis of assessment. Administrative experience will undoubtedly overcome the practical problems.

In the case of cut-over land which is not a part of a sustained producing unit but is being held for the next crop to mature, say 60 to 100 years, the economic situation is different. The owner has no possibility of obtaining annual or closely periodic revenues from the land. The value will still be related to the productive ability of the land but the question of deferment of income must logically be considered.

For example an acre of cut-over land bearing a crop of timber of even age which will not be mature until age 60 years; i.e. income every 60 years. Condition of the land indicates a growth expectation of: 30,000 f.b. in 60 yrs.

Appraised value of the timber after allowing cost of logging:	\$ 6.00 M
Expected gross return in 60 yrs:	180.00
Less annual forestry cost of say 20 cents per acre year	
for 60 years at 3% interest	32.60
Expected Net Return	\$147.40
Present value of expected net yield at 5% $\frac{147.40}{5\%} =$	\$ 7.90
	18.68
Annual tax per acre — Land 1%	\$.079 per acre
School 1%	.079 " "
	\$.158 " "

The tax payment is a carrying charge which must be paid annually. This is money put into the property before the owner is able to get anything out. He could invest the same money and earn 2 to 6% interest, say an average of 3%. Alternatively, the owner could surrender title to the Crown and take out a management licence for the property under which he would pay 16% of the gross value of the yield at the time of logging.

In other words, the tree farmer has the choice of paying 16% of \$180. or \$28.80 at the end of 60 years of paying annually, say \$.16 per acre for 60 years. To draw a comparison the financial equivalent of the periodic total payment and the annual payment must be related.

In business, not the least of which would be tree farming, it is necessary to consider cost as deductible from income. The tree farmer in the example cited gets no income for 60 years; he must, in fact, continue to add to the cost at the rate of \$.16 per year. This money could be invested at 3% interest and would accumulate to \$26.00. Therefore, financial relationship being equal, the annual payment would be roughly an equivalent to the deferred payment from the viewpoint of the taxpayer.

From the standpoint of the Government, the deferred payment constitutes a more impressive total than the annual land tax. This is to be expected, but it is also true that Government services are financed from current revenue. If the capital value of land is to be a source, then deferment of taxes for 60 or 100 years to coincide with the periodic income from the land does not fulfill the needs of the Treasury. It seems evident that if deferred or periodic income is the characteristic of tree farm land the Treasury may be content with annual tax revenue which is the financial equivalent of the periodic tax revenue that could be obtained by sharing in the final value of the crop. A yield tax, that is, a tax on crop value is presently ultra vires the Provincial Legislature and is therefore a deferred tax method which is not currently possible.

In the long run the problem of periodic income at relatively long intervals of time is likely to be mainly an academic matter. Tree farmers in order to exist must organize to obtain income at frequent intervals. It is more likely that tree farming will result in sustained forest management and a major part of the proposed legislation is that before a tree farm classification is recognized, the land must be used so that it is maintained in a state of continuous productivity. It follows that if land is maintained productive, then logging of regional areas of managed forest land will automatically result in equal cuts adjusted to the productive capacity of the land and, therefore, income will result at closely periodic intervals.

The problem of deferred income from a tree farm unit is thought to be a problem which will exist in the most unusual cases and which will disappear when the conversion to sustained forestry is complete. Moreover, assessing the value of deferred income properties is an embryonic procedure and valuation methods will undergo refinements. Experience will reveal what problems exist both from the standpoint of the tree farmer and the assessor.

The main principle of these amendments is to present a fair method of assessing forest land values, and to collect an equitable land tax for the public treasury without providing an economic barrier to the use of the land for growing trees. Within these principles it should be possible to find a way because it is in the interest of the public, the Government and the industries that British Columbia's forests be kept green.

A CHALLENGE TO FORESTERS

At the outset it was stated that provision for tree farming in our tax legislation and public affairs marks a forward step. It does more; it offers a challenge to industrial forestry.

One of the great hopes of North American foresters is that they can have a chance to prove that forestry, like its companion agriculture, is well adapted to the North American private enterprise way of life. In British Columbia, in particular, the emphasis has been on public ownership of forest land and Government participation in forest management. Now there is an acceptance by the law makers that private land owners have a responsibility and a part to play in keeping B.C. green. Moreover,

the economic situation in the timber industry is now such that tree farming is a financial possibility. Money is available for investment in forest capital. Productive land is an almost indestructible asset. There are forest industries in B.C. which have reached a sufficient state of maturity that they are able to undertake genuine tree farming. All these factors provide a golden opportunity for private forest land owners to prove that they can keep the forest green, pay fair property taxes, provide stable employment and practise highly productive forest management at no cost to the Crown.

In the minds of the public generally, in the past, industry and private forest land owners have never adequately proved themselves as managers of the natural resources. It will be necessary to show by deed and action that there is no cause for concern. Industrial forestry with its greater flexibility should have much to contribute to the solution of technical forestry problems. These data will have equal application to Government managed lands.

Co-operation and exchange of data on management practices should follow between private and Government foresters.

Some friendly rivalry between these alternative management units should be beneficial to both and speed the progress of forest development.

It need hardly be said that, if private forest managers introduce sound tree-farming methods that reflects to the benefit of themselves and the population generally, a little bit of old-fashioned horn blowing—it is called public relations in most quarters—would well be in order.

The tree farm movement began as window dressing in the U.S. It is now an effective force in forest management and forest relation. In B.C. there is an opportunity to do likewise. Foresters have a challenge and if they meet it, they will succeed in shaping much of their own destiny.