

PRINCIPLES AND PRIORITIES BEFORE TIMBER OBJECTIVES

TIMBER OBJECTIVE TASK FORCES

Of all Canadian provinces, New Brunswick has the highest percentage of its land area (approx. 85%) occupied by forests. These forests are composed of a great variety of softwood and hardwood tree species at various stages of development, from tiny seedlings on recent cutovers to giant, towering stems in old stands. Our forests cover about 6.2 million hectares and are owned and managed by a variety of land holders, including 51% by the provincial government (Crown/public land) (Figure 1), 2% by the federal government, 18% by large forestry companies (industrial freehold), and the rest, 29%, by owners of small private woodlots (Figure 2). All citizens of this province, rural and urban, native and non-native, rely on these forests for the ecological goods and services (EGS) they provide, and for the economic activity they generate. Ecological goods include clean air and water and ecological services include, to name a few, air and water purification, maintenance of biodiversity and greenhouse gas (GHG) mitigation through carbon sequestration. Economic opportunities arise from the timber and non-timber products forests produce, which generate silviculture and harvesting jobs in the forest, and jobs in processing facilities. Forests are therefore an essential element of our natural environment, our economy, and of our collective history, culture and future.

Last year, the N.B. provincial government created two task forces, one chaired by Norman Betts to establish timber production objectives for Crown land, and the other, chaired by Donald Floyd to establish similar objectives for private woodlots. It is my understanding that these two task forces worked independently, that is without considering interactions between these two sources of timber supply. In my opinion, this is an odd way to approach the provincial timber production challenge for several reasons. First, we can't set timber objectives unless we know how much land and money will be available to grow this timber. Second, provincial wood processing facilities use wood from all land tenures, and a comprehensive provincial timber production strategy needs to consider all tenures simultaneously because the amount of wood we grow on one tenure determines how much we need to grow on other tenures. In the following text I will briefly address these issues, with the focus on wood availability from Crown land and private woodlots. I will also present some principles and priorities which, in my opinion, need to be applied in order to determine how much timber New Brunswick can produce.

LAND ALLOCATION AND SILVICULTURAL INVESTMENTS

We can set any level of timber volume production objectives we want, in terms of cubic meters per year (m^3/yr) by species and products. For example, we could set levels which would allow us to meet the present and future needs of all our wood processing facilities running at 100% capacity. But if the forest is not capable of producing these levels, then what good are these objectives? The capacity of the forest to produce cubic meters of timber (m^3/yr) depends on how many hectares (ha) we allocate to different intensities of timber production in terms of cubic meters of wood per hectare per year ($m^3/ha/yr$) (Table 1). These different intensities include protected natural areas (PNA) with no harvest, non-PNA conservation forest (watercourse and wetland buffers, old forest habitats, deer wintering areas, etc.) with light harvest intensity, intensive timber production areas (plantations), and the remaining area referred to as the "general" forest which also has a timber production focus and within which these other uses are embedded (i.e. the matrix). The answer to the land allocation question depends on how much we

are willing to invest in different types of silvicultural interventions (e.g. plantations, precommercial thinning, various stand improvement practices, etc.). In the short term, silviculture creates jobs in rural areas where they are often greatly needed. In the long term, silviculture can create more wood of the species and products required by industry, and higher quality wood. The two task forces were mandated to recommend, for the Crown forest and for private woodlots, a wood supply objective for the last column of Table 1. However, the land allocation and silvicultural investment questions need to be answered first, as they determine the limits within which the forest can produce timber products.

The first question, i.e. the land allocation question, was already partially addressed in 2008 by the *Task force on forest diversity and wood supply*, a task force chaired by Thom Erdle of U.N.B., on which I had the privilege to participate. In our report, commonly referred to as the Erdle report, eight different land allocation scenarios were evaluated which produced quite different short (years 1-25) and long (years 26-100) term wood supply potentials. Scenarios differed mainly in their emphasis on EGS maintenance versus timber production. One shortcoming of this effort was the assumption of a constant silviculture budget in our analyses (24.5 million \$/year, the level currently being spent on Crown land) and, although a limited sensitivity analysis was carried out with an increased silviculture budget (30 million \$/year), time constraints prevented us from exploring further possibilities, including the impact of reduced spending on silviculture. However, in my opinion, the major shortcoming of this endeavour was the fact that our mandate was to only consider timber production possibilities on Crown land.

Provincial wood processing facilities purchase wood from all N.B. land tenures simultaneously. I would therefore suggest that a comprehensive provincial timber production strategy needs to consider all land tenures simultaneously, and not independently, as was done by the two New Brunswick task forces. In summary, before we can determine how many cubic meters of different timber species and products we can produce per year (m³/year), we have to decide how much money we are willing to invest in various silvicultural treatments, and how this will be divided up amongst the different land tenures, especially Crown lands and private woodlots. Subsequently, we can determine, for each land tenure (Table 1), what proportion of the total land area will be allocated to different land uses, each having different priorities for EGS maintenance versus timber production. Only then can we determine how much wood can be produced for our wood processing facilities. More precisely, the "?? ha" in Table 1 have to be replaced by numbers. Only then can we calculate how much wood, in terms of m³/year, we can produce.

SHIFT MORE TIMBER PRODUCTION TO PRIVATE WOODLOTS

Over the last 30 years, there has been increasing pressure from the citizens of this province to place a higher priority on the provision of EGS from the Crown forest and at the same time, increasing pressure from forest industry to produce more timber from this forest. Since the citizens of this province are the owners of the Crown forest, I would submit that their values and objectives need to take precedence over those of the forest industry. More to the point, the provision of EGS should be the main focus of Crown forest management and the pressure to produce timber from this forest should be reduced. It is time to return to the concept of Crown timber being the "residual source of supply" for our wood processing facilities. We also need to settle the issue of First Nations' access to timber and non-timber resources. This debate has been going on far too long and has created considerable uncertainty, which does not benefit anyone.

But where will the increased wood supply come from to ensure the survival and expansion of our wood processing facilities, and all the jobs they produce and taxes they generate? Many private woodlots, which are often closer to processing facilities than Crown lands and, because they were originally granted to encourage agricultural development on better sites than Crown lands, currently have poor stocking, a high proportion of non-commercial species and therefore, no or very low current and future timber production potential. I would therefore suggest that we need to shift some of the timber production pressure from the Crown forest to private woodlots by increasing their timber production potential with, of course, continued protection of ecologically sensitive areas (watercourses and wetlands, deer wintering areas, etc.). Some of the funds currently used for Crown land silviculture could be re-allocated to private woodlot silviculture.

I would also suggest that the current private woodlot silviculture program is : 1) too limited in terms of the types of silvicultural treatments which can be funded, mainly softwood plantation establishment and precommercial thinning, 2) places too much focus on volume versus quality production, and 3) places too much focus on softwood versus hardwood production. I would submit that a better strategy to ensure the future of our forest economy would be to fund a greater variety of silvicultural treatments which would allow us to produce quality stems of a greater variety of softwood and hardwood species.

SECURITY OF THE PRIVATE WOODLOT TIMBER SUPPLY

Traditionally, more silviculture dollars have been spent on Crown lands than private woodlots. I would submit that this has primarily been related to the greater degree of future security of the Crown wood supply. Silvicultural investments on Crown lands have been a more secure investment because of government policies and practices, which ensure that wood from treated stands is harvested at the right age, and first offered to wood processing facilities within the province.

I would suggest that in order to ensure the security of the private woodlot timber supply, private woodlot policies and programs need to be changed to more closely resemble those which apply on Crown lands. In particular, they need to be changed to ensure that silvicultural investments are made at the best locations and on the best sites, that these investments are closely monitored, and that the wood they generate be reserved for New Brunswick wood processing facilities. All of these issues need to be addressed in order to ensure that the interests of New Brunswick taxpayers, who pay for these investments, are adequately protected.

My understanding of the current situation is that local marketing boards can sign wood delivery contracts with forestry companies, but these boards have little or no direct control over how much wood will actually be cut. Individual woodlot owners make these decisions, often based on the price they can receive for their wood. This price is based on how much forestry companies are willing and able to pay. If the price offered by New Brunswick forestry companies is high, woodlot owners can decide to harvest their stands prematurely, i.e. before they are at their point of greatest value for society. If the price offered is too low, woodlot owners can choose to delay harvests, thereby jeopardizing supply to N.B. wood processing facilities or, worse, harvest and sell their wood outside the province to wood processing facilities offering higher prices.

Woodlot owners often demand greater levels of taxpayer funded silvicultural investments on their lands and also, taxpayer funded organizations to provide them with advice regarding woodlot management practices. But many also subsequently insist that : "Nobody is going to tell

me what to do on my land!". I would submit that access to taxpayer funds needs to be conditional on acceptance by individual woodlot owners that they relinquish some degree of personal control over their lands. Taxpayer funded investments need to come with strings attached. There should be no "free money".

Silvicultural investments on private woodlots should only be allocated to the best sites (fastest growth rates), closest to mills (lowest transportation costs), and provided to owners willing to sign "contracts" which legally bind them (security of supply), and all subsequent owners of the woodlot to a set of conditions. These could include the following requirements : 1) stands where silvicultural investments are made could only be harvested when they were scheduled to be harvested, as defined in a management plan prepared by a competent forestry professional, and 2) all timber harvested in these stands would need to be sold to a wood processing facility located within the province of New Brunswick, at a price established at that time by an independent third party according to prevailing market conditions. A system of "registered woodlots" could be established to keep track of woodlots, or parts of woodlots, where such conditions would apply. Owners not willing to be subject to these conditions would not have access to taxpayer funded silvicultural investments, and would continue to be free to harvest when they wished, and to sell to whomever they wished, including processing facilities outside the province.

The land taxation system could also be used to encourage woodlot owners to enter into such agreements. For example, land taxes could be waived for those with "registered woodlots", with equivalent increases in land taxes for those not wishing to participate. Given the difficult financial situation of the province, this would be necessary in order to ensure that total provincial land tax revenues do not decrease. Also, anyone with a "registered woodlot", including the original owner who registered the woodlot or a future purchaser, who would subsequently wish to remove a woodlot from this system, likely for a purpose of greater economic value such as agricultural production or a housing subdivision, could do so provided they reimburse the province for all silvicultural investments made on the woodlot since it was registered, including back taxes, with interest.

EGS FROM PRIVATE WOODLOTS

The preceding does not preclude the possibility of using the "registered woodlot" system for purposes other than timber production. This system could also be adapted to situations where the best use of all or part of a woodlot would be for the provision of ecological goods and services according to the concept of "beneficiary pays". EGS provided by our forests often have no market value, are more long term and provide benefits for all citizens. While some woodlot owners may voluntarily choose to do so for altruistic reasons, it is not reasonable to require that all private landowners be obliged to personally bear the costs associated with EGS maintenance. Since we all benefit, we must collectively be ready to pay.

Private landowners who implement stewardship practices on their lands in order to ensure the maintenance of these values in a manner which diminishes their ability to generate income from timber sales should be compensated through public funding (tax rebates and other financial incentives). For example, the owner of a registered woodlot containing a watercourse or wetland with buffers requiring a reduced harvest intensity should be compensated for the reduced income associated with this reduced harvest. The most obvious and easily implemented application of this concept is the case of "designated watersheds" established by Regulation 2001-83 under the *Clean Water Act*. These watersheds or parts of watersheds are used as sources of water supply

systems of many New Brunswick municipalities. In order to protect water quality, considerable restrictions apply with respect to the frequency and intensity of timber harvesting and other activities within these areas. Municipalities whose citizens benefit from this clean water should direct part of the funds raised through water taxes to affected woodlot owners who wish to be compensated. Municipalities also have the option of using water tax dollars to purchase, when they come up for sale, woodlots within these "designated watersheds" and manage them specifically for water quality protection. Finally, it should be noted that landowners who voluntarily wish to contribute their lands to EGS maintenance already have the opportunity to establish "conservation easements", or donate their land to private conservation groups such as the "Nature Trust of N.B." or the "Nature Conservancy of Canada", with associated tax advantages.

PRIVATE WOODLOT OWNER ORGANIZATIONS

In the *Forest Products Act*, a "producer" is defined as a person who produces primary forest products (products of forest trees, including woodchips and biomass) for sale from a private woodlot, and a "Producer Association" includes marketing boards, cooperatives and other associations established for the marketing of primary forest products from private woodlots. Currently, primary forest products are marketed through local marketing boards. These boards also administer the taxpayer funded provincial private woodlot silviculture program, which primarily pays for planting and precommercial thinning on these woodlots. Recently, funds have also been reserved for alternative silvicultural treatments, such as shelterwoods which encourage natural regeneration. Thus, the current role of marketing boards is fairly limited.

Would the marketing board system still be the best type of system to exclusively manage private woodlot issues should the above suggestions be implemented, i.e. a major shift of timber production from Crown land to private woodlots, a more diversified menu of taxpayer funded silvicultural treatments, and registered woodlots which would require the development and implementation of management plans for the maintenance of EGS and timber production, and a higher degree of monitoring ? Possibly, but we could also envision, as is currently allowed in the *Forest Products Act*, a complementary system of local woodlot management cooperatives (WMC) which could assume some of these new responsibilities.

The "*Coopérative forestière du nord-ouest* (CoFNO)" (www.cofno.ca), of which I am a member, is such a cooperative. This organization has recently been established in the Madawaska area to offer services not currently being offered by the local marketing board. In particular, members of this cooperative wish to develop and implement a variety of alternative silvicultural treatments on their woodlots in order to produce a greater variety of and higher quality timber products, find markets for currently unused or under-utilized timber products, but also develop and market non-timber products, and provide assistance to owners who wish to manage all or parts of their woodlots for the maintenance of EGS. Another major objective of CoFNO members is to eventually obtain certification of the woodlots the cooperative manages in order to guarantee future access to timber markets, an objective which is difficult to attain by woodlot owners working alone, but more easily attained when a number of woodlot owners work together. Also, a cooperative managing a large number of certified, registered woodlots subject to the conditions outlined above could sign more secure wood supply contracts with local wood processing facilities.

Another concept which could be facilitated by woodlot owner cooperatives is the concept of "community forests". When we refer to "community forests", we often refer to areas of Crown

land managed by local groups or communities in order to maintain forest values important to these groups or communities, and to achieve locally important objectives. But this does not have to be the case. The concept of a "community forest" could also mean a large number of private woodlots owned and managed by a cooperative to maintain these values and achieve these objectives. Local citizens, be they woodlot owners or not, could invest money in these cooperatives in order to allow these land purchases and in return, as shareholders, achieve a certain degree of control regarding how private woodlots in their community are managed. The province could also consider establishing income tax credits to encourage this type of investment.

Recent surveys indicate that the proportion of woodlot owners aged 50 or more is very high. Thus, in the next few decades, it is expected that a large number of woodlots will be sold either by these older woodlot owners when they are no longer able to actively manage their lots, or by those who inherit their estates but who have no interest or ability to manage them. Instead of selling these lots to an individual who would immediately clearcut the whole lot for immediate profit, a phenomenon which is entirely legal and regularly occurs in this province, sellers would have a more attractive option of selling to the local cooperative which would guarantee that the lots would continue to be managed responsibly for the long term benefit of the whole community.

N.B. FOREST CHARTER

A "charter" is a set of principles which defines how an organization will conduct or govern itself. I would submit that, before we can establish timber objectives for our Crown forest and private woodlots, the province first needs to establish a "Forest Charter" outlining the principles and priorities which will govern such decisions. We need to establish the framework within which we decide how we will use our public and private lands to provide the forest values desired by present and future generations of New Brunswick citizens. Several elements of a possible "New Brunswick Forest Charter" were presented in the preceding text, and these are summarized in Table 2.

Ideas presented here are generally high level concepts and, as we all know, difficulties always arise when we eventually need to decide on the details of implementation. However, one thing we can probably all agree on is that the "system" we have now for Crown land and private woodlot management in New Brunswick has problems, and that it is time to look at other approaches which consider both land tenures simultaneously.

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Figure 1. Natural softwood and hardwood stands surrounding a lake on Crown Land in northwestern N.B.



Figure 2. Taxpayer funded white spruce plantation in an old field on private land in northwestern N.B.

Table 1. Land allocation (hectares) and timber production potential (cubic meters per year) by land tenure and land use (Note : All numbers in this table are approximate)

Land tenure	Land use				Total
	Protected natural areas (PNA)	Non-PNA conservation forest	General forest (matrix)	Intensive timber (plantations)	
Provincial (Crown) (51%)	?? ha <u>x 0 m3/ha/yr</u> 0 m3/yr	?? ha <u>x 1 m3/ha/yr</u> ?? m3/yr	?? ha <u>x 2 m3/ha/yr</u> ?? m3/yr	?? ha <u>x 6 m3/ha/yr</u> ?? m3/yr	3,160,000 ha ?? m3/yr
Federal (2%)	?? ha <u>x 0 m3/ha/yr</u> 0 m3/yr	?? ha <u>x 1 m3/ha/yr</u> ?? m3/yr	?? ha <u>x 2 m3/ha/yr</u> ?? m3/yr	?? ha <u>x 6 m3/ha/yr</u> ?? m3/yr	124,000 ha ?? m3/yr
Industrial freehold (18%)	?? ha <u>x 0 m3/ha/yr</u> 0 m3/yr	?? ha <u>x 1 m3/ha/yr</u> ?? m3/yr	?? ha <u>x 2 m3/ha/yr</u> ?? m3/yr	?? ha <u>x 6 m3/ha/yr</u> ?? m3/yr	1,116,000 ha ?? m3/yr
Private woodlots (29%)	?? ha <u>x 0 m3/ha/yr</u> 0 m3/yr	?? ha <u>x 1 m3/ha/yr</u> ?? m3/yr	?? ha <u>x 2 m3/ha/yr</u> ?? m3/yr	?? ha <u>x 6 m3/ha/yr</u> ?? m3/yr	1,798,000 ha ?? m3/yr
Total :	?? ha 0 m3/yr	?? ha ?? m3/yr	?? ha ?? m3/yr	?? ha ?? m3/yr	6,200,000 ha ?? m3/yr

Table 2. New Brunswick Forest Charter : principles and priorities

New Brunswick Forest Charter

Whereas the forests of New Brunswick are of primary importance to the social, economic and environmental destiny of this province, be it resolved that these forests will be managed according to the following principles and priorities :

- **Priority of land uses** : The forests of New Brunswick will be managed for the following values, in decreasing order of priority

A. **public lands** -

1. Provision of ecological goods and services for all citizens of New Brunswick.
2. Respect for First Nations rights regarding timber and non-timber resources.
3. Timber production for New Brunswick wood processing facilities.

B. **private lands** -

1. Provision of ecological goods and services for all citizens of New Brunswick.
2. Timber production for New Brunswick wood processing facilities.

- **Residual source of supply** : New Brunswick forest industries must negotiate wood supply contracts with private woodlot owner groups and access wood from other sources, including their own private lands, before they can access Crown wood, which therefore constitutes the residual source of supply.

- **Prioritization of silvicultural investments on Crown/private land** : Silvicultural investments on both public and private lands will be concentrated on good sites closest to wood processing facilities.

- **Security of silvicultural investments on private land** : Taxpayer funds will only be invested in silvicultural activities carried out on registered private woodlots where owners sign legally binding contracts to follow silvicultural prescriptions until stands are scheduled to be harvested.

- **Priority access** : On public and private lands, New Brunswick wood processing facilities have priority access to wood from stands produced with taxpayer funded silvicultural investments.

- **Pricing of primary forest products** : An independent, non-government, third-party entity will set prices for primary forest products according to prevailing market conditions, and wood generated by taxpayer funded silvicultural investments will be sold at these prices when harvested.

- **Beneficiary pays** : All citizens/taxpayers of New Brunswick benefit from the ecological goods and services provided by forests (clean water, clean air, biodiversity, etc.). Therefore, all must contribute financially to ensuring the maintenance of these values on public and private lands.