Forest Tenure and Underdevelopment

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Abstract

The forest tenure system in Northern Ontario is now under review by the provincial government. The current system was created to provide colonies with a source of revenue, not to promote development in the harvest regions. These regions were definition unsettled, and were managed to promote development of the settled regions. The system has failed to generate sustainable development in northern Ontario.

Drawing on several sources we describe well-known specific problems with the current tenure system and conclude that the system is incapable of supporting economic development in Northern Ontario. This is the third in a series of studies of the tenure system conducted for INORD.
Nations tolerably well advanced as to skill, dexterity, and judgment in the application of labour have followed very different plans in the general conduct or direction of it: and those plans have not all been equally favourable to the greatness of its produce

Adam Smith

1 Introduction

Development is stalled in Northern Ontario. The amount of labour required to harvest and process timber continues to decline. Population in much of Northern Ontario is falling. There has been an astonishing failure in the second half of the 20th century to convert an enormous natural resource base into the foundation for sustainable economic development in Northern Ontario.

Some of the most respected and most prominent forestry economists in Canada today have written that the forest tenure system is one of the fundamental causes of the underdevelopment of Canada’s forestry regions. In 2006 the BC Forum on Forest Economics and Policy published a synthesis paper by Haley and Nelson observing that

There is increasing agreement in BC that the provincial forest tenure system no longer provides the economic and social benefits it was designed to deliver and is a root cause of the forest industry’s failure to maintain its competitive position in the global economy. The need for reform is clear.

In 1998 Haley and Lukert pointed out that “The Crown tenure system, designed to liquidate a stock of old-growth timber and establish an efficient timber-processing industry, is ill-equipped to meet today’s challenges.”.

It is unlikely that the existing tenure system is even capable of producing social and economic development in Northern Ontario. Concentration of resource ownership similar to the regime we have in Northern Ontario is historically associated with underdevelopment. The regional resource most suited to providing a base for diversification of the economy is allocated and managed in a manner that obstructs economic diversification. Patterns

1This paper is based on a presentation to the 52nd Annual Conference of the Ontario Professional Foresters Association, Whose Forest is it Anyway? The Role of Tenure, Pricing and Ownership in the Future of Ontarios Forests April 22-24, 2009 Sudbury, Ontario as well as INORD discussion Papers 07-01 and 08-02
of investment and human capital accumulation associated with the current tenure system do not support the creation of small businesses. Outside control of resources systematically destabilizes communities and inhibits the development of human capital needed for development.

The challenge for regional leaders and provincial legislators is to understand how the current system inhibits development and then to go onto identify a politically feasible alternative that is capable of promoting development.

Resource tenure is a fundamental social relationship that shapes the organization of production, the distribution of benefits, and the pattern of economic and social development [?]. Existing tenure arrangements are part of a complex and well entrenched set of institutions that tend to reproduce themselves. As Druska (2003) points out, Crown ownership of forest land, the sale of timber from Crown land, and a dependence on timber sale for public revenue were enshrined in the Crown Timber Act of 1849. The basic features in fact were in place by 1837, when the rights to resources on Crown lands and to the revenues generated from them passed to the British colonies, beginning with New Brunswick. Not surprisingly, the way forest resources have been made available to timber enterprises has always been at the center of the debate on forest policy in Canada [?].

2 The problems

Adam Smith suggested long ago that under certain circumstances the selfish behaviour of individuals leads to efficient outcomes for society. In the case of the vast Canadian forest, however, as Luckert [?] puts it “Market/Private interests do not always coincide with public interests.” (1) As a result provinces have developed an array policies and regulations that are costly to administer (2) to prevent some public harms.

The most dramatic restriction is on the extent of the tenure rights. No Canadian government extensively transfers rights to non-timber forest resources to the private sector (Haley and Lukert, 1998). Provinces transfer only specific harvesting rights and only for a limited time.

Comprehensive rights lead a rights-holder to pay attention to the effect of his actions on the entire range of outputs. Allocating partial rights creates a situation in which agents are economically disconnected from the consequences of at least some of their actions (3). Building a road on a steep slope to harvest wood, for example, might degrade a stream that is crucial to a tourism operator. Since the harvester gains no benefit from the stream
he is unlikely to count any recreational losses as costs. The costs are “external” in the language of economics (4). Decisions made by an agent with partial rights are unlikely to be economically efficient.

Externalities may also be positive. A road can generate benefits that the harvester does not count in his planning. As a result roads that generate a net benefit for society may not be built because the net benefit for the rights holder is too small(5).

Externalities abound in a forest economy. Regulation is often required to minimize the negative economic spill overs. The opportunity to exploit positive externalities is often lost simply because the cost of getting an agreement that protects all the participants may be too high. Partial rights systems impose regulatory and transactions costs (6).

A model with only two goods can be used to illustrate some of the problems inherent in a strongly interlinked system and to show how assigning comprehensive or partial rights affect the outcomes. The right to harvest wood is one part of the comprehensive bundle of rights held by the province. The right to “harvest” recreational services is another part of that bundle. A Sustainable Forest License provides the right to harvest only the wood. Figure ??2 shows the possible combinations of wood and recreation for a hypothetical forest. The curve is special case of a production possibilities frontier, a concept introduced in most first-year economics courses. It shows the maximum quantity of wood for any given quantity of recreational services. Points below the curve are feasible but inefficient. We will call the curve a “Forest Possibilities Frontier” (FPF).

The generally negative slope of the FPF captures the notion that as we increase the amount of wood taken the recreational value of the forest will decline. The problem is to choose the right mix of these interconnected outputs. The right mix, of course depends on who you are. An SFL-holder with rights to just the wood would choose S* while a tourism operator would choose L*. A regulator might choose R*, attempting to take the interests of both sides into consideration. R* is closer to S* than to L* in the illustration, reflecting an assumption about the the relative power of the two interest groups. The theory of regulatory capture [?] suggests that groups or individuals with a high-stakes interest in the outcome of policy or regulatory decisions can be expected to focus their resources and energies in attempting to gain the policy outcomes they prefer, while members of the public, each with only a tiny individual stake in the outcome, will ignore it altogether (7). In this case R* is below the FPF, reflecting that the regulatory solution is unlikely to be economically efficient.

Harvey and Hillier [?] attribute the failure of the current system to “The tenuous relation-

\[ \text{2The analysis here is based on Robinson[?] } \]
ship between community, resource planner/decision-maker, and resource developer (that) creates a rift between community development and resource management.”

Market solutions work when markets are “complete”, meaning that all the relevant values are fully represented in the price system. Aboriginal claims are not currently supported by purchasing power. There are no markets for the environmental services provided by forests (8). Climate change introduces inter-temporal considerations that markets have so far failed to incorporate (9). And of course the squirrels have yet to convert their land claims to market power, so their interests cannot automatically appear in the price system (10).

As the number of claims on the forest increases, the problem becomes more complex and, in fact, less amenable to market solutions through privatization (11).

The principle of Sustained Yield is part of the conceptual framework of a regulatory regime responding to partial rights and incomplete markets. The Sustained Yield framework focuses entirely on timber production (12). Non-timber resources are treated as harvesting constraints, rather than joint products to be optimized (13). Luckert [?] has suggested that trying to indirectly maintain the conditions for non-timber forest products, by putting restrictions on wood harvest makes less sense than having direct performance requirements for the non-timber products. The allocation of limited rights results in placing relatively arbitrary constraints on wood harvest to achieve goals in other domains. In any case, tenure arrangements that suited the Sustainable Yield (SY) paradigm, Lukert [?] argues, are not
suited to a newer regime that mimics natural processes, conserves diversity and supports varying degrees of multiple uses.

With the current assignment of harvesting rights the shape of the future forest may be driven by current volume requirements (14). The ACE, or Allowable Cut Effect, for example, is the increase in today’s average annual allowable cut attributable to expected future increases in yields[?]. The ACE provides an incentive to plant faster growing trees on land subject to an Average Allowable Cut to benefit from the immediate increase in the AAC that results. The ACE has been the major instrument for encouraging voluntary private investment in silviculture on Crown land according to Lukert and Haley, although not a successful instrument [?]. Zhang and Pearse report, similarly that the form of tenure influences the reforestation rate, with more secure and comprehensive tenure being associated with more complete reforestation [?]. The general principle is the assignment of rights and the associated harvest constraint may shape tomorrow’s forest.

The problem of regulating partial rights introduces additional rigidities. Changing the sustainability targets for wildlife requires changing regulations for wood harvest because the licensee does not have economic incentives for performance with respect to wildlife (15).

Furthermore, it is argued, the effort to stabilize the harvest of a single class of forest product may gradually destabilize the ecological system, as Hollings[?, ?] showed (16).

Because jobs are a goal of policy, the regulatory regime imposes additional conditions on the harvesters. The Sustainable Forest Act includes a “use it or lose it” provision that may force production when market conditions would suggest stopping production [3] (17). This is particularly so for much of Canada’s economically marginal forests.

Another class of problems that arise as a result of the conflict between the interests of private harvesters and those of the public appears as distortions in the industrial structure. Processing and appurtenancy requirements are intended to ensure that at least some processing of logs occurs in the harvest region. Timber processing requirements ensure licensees process the timber they harvest under the license (or an equivalent volume) at facilities they own (18). Appurtenancy requirements require licensees to construct, modify or maintain a timber processing facility (19). Forestry firms are thus forced to become vertically integrated (20). Former Chief forester of the Province of Ontario, Ken Arms [?], has suggested that much of the problem with Ontario’s forest sector has its root in the

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3In practice these requirements are often waived, as is the requirement that companies pay the stumpage fees they owe when mills close. Ad-hoc flexibility may be a virtue, but its exercise is an indicator that the regulatory system is poorly adjusted and perhaps fragile.
tight link between forest tenure and the ownership of mills. A similar point has been made by Haley and Nelson [?] and Lukert[?].

One of the points of friction in the softwood lumber dispute with the USA is that the administratively set price of wood to Ontario suppliers is thought to be lower than the market would justify, and that there is an implicit subsidy in the administered charges that the province sets. As a result Canadian producers have faced a series of countervailing tariffs (21). In response, several provinces (BC, Quebec, New Brunswick) have instituted auction markets for part of the wood supply as a mechanism for setting the administered price. It is not yet clear that these concessions will eliminate the perception that the Canadian forest companies are effectively subsidized.

2.1 Disincentives for social and economic development

A fundamental policy question is whether the incentives provided by the current tenure system reliably lead to maximizing the long-run contribution of the forest, including through joint products and un-priced services based on the appropriate future climate conditions and price structures. Can the existing tenure system be relied on to generate genuine economic and social development?

The natural path of development in a resource rich area is to accumulate the proceeds of resource extraction as the basis of development of more advanced industry. This is not a contentious statement - it is the consensus theory of development. In Canada, since Harold Innis it has been expressed in the so-called Staples Thesis. It was the rationale for the creation of the Alberta Heritage fund, and the far more successful Norwegian sovereign fund built up with oil revenue.

Papageorgiou and Turnbull [?] point out that the specific form of property rights in a region affect the pace and pattern of its economic development. In agriculture, for example, crops such as sugar and cotton, where production is based on large scale land holdings, have created some of the world’s most inequitable societies. Coffee, rice and wheat, based on owner-operators, are progressive crops, providing opportunities for extensive economic growth [?]. Crops which require large scale production support plantation-style agriculture and generally do not lead to rapid economic development while crops which can be produced economically on a relatively small scale encourage small-holdings and tend to create entrepreneurial societies.

Other things being equal, a tenure system that involves more people in decision making is a better system. Responsibility is fundamental to the development of human capacity.
Involving people is costly, however. It requires taking time, sharing information, and, ultimately developing expertise and decision-making skills. For a forestry company there may be advantages to public participation, but in most cases, public participation is a cost (22). Modern management is designed to economize on intelligence and attention (23) precisely because they are among the most valuable and costly resources a company can have. For the community these costs are both investment in correct decisions and investments in human development similar to educational expenditures.

The existing tenure system, descended as it is directly from the colonial relations of the 17th century, works strongly against human development in the communities of Northern Ontario (24). One of the most consistent complaints is that it makes it difficult for local producers to gain access to local wood supply (25) even when it is not used by the SFL holder. The result is that small businesses base on the forest resources are inhibited (26) and the process of developing new skills and new products required for economic and social development is blocked. (27) Restricting access to the wood supply inhibits entrepreneurship and innovation (28) and prevents economic diversification (29). By inhibiting the development of human capital it impoverishes the entire nation (30). By preventing economic diversification the tenure system produces communities that are too small to provide amenities (31), too limited to retain young people (32) or to attract professionals (33), and narrowly based to survive changing economic conditions (34).

The fact that the current tenure system fails to develop human and social capital is is its most profoundly harmful feature.

3 Conclusions

The current system is broken: it has lost the confidence of both the producers and the people of Northern Ontario. The three main failures of the existing tenures system, notably failure to produce sustainable economic development in northern Ontario; failure to develop the capacities of the people of Northern Ontario; and failure to attract investment in either the forest itself or in the production of value-added products.

Ontario needs a system that will

1. produce more wealth than we do now
2. produce more jobs
3. produce most value-added
4. produce more research
5. produce more carbon sequestration
6. support most people
7. result in more secondary and tertiary economic development
8. create more attractive and livable communities
9. result in more human capital
10. result in more forest diversity

Left alone, the normal political process will tend toward tinkering with the existing system. Tinkering will not solve many of the serious problems described above, however,

References


