SUSTAINABLE FOREST MANAGEMENT NETWORK
RÉSEAU DE GESTION DURABLE DES FORÊTS
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SFM Network
Research Note Series
No. 34

Tenure and the management of non-timber forest products in British Columbia

Highlights

- The commercial and non-commercial use of non-timber forest products is an important component of forest-based activities.
- Unmanaged commercial use of NTFPs has the potential to lead to over-harvesting of the resource.
- Tenure arrangements controlling access and harvest rights to NTFPs can encourage investment in sustainable management, but can also increase management costs and stifle entrepreneurship.
- An alternative approach is proposed, with timber harvesting detached from forest management into separate tenures on the same land base to encourage management and a sustainable commercial harvest of NTFPs.

The management of non-timber forest products (NTFPs) on Crown land is a policy question decision makers in Canada have yet to resolve. One approach is to provide existing timber tenure holders with the property rights to NTFPs. But would combining the rights to these values under a single tenure result in the integration of NTFPs into forest management? This note examines this issue by comparing and contrasting four forms of timber related property rights in British Columbia (B.C.):

(1) Open access on public land;

(2) Community Forest Agreement tenures on public land;

(3) A small community-based private forest landowner, and

(4) A large industrial forest landowner.

What are non-timber forest products?

The term 'non-timber forest products' describes a diverse collection of forest species used for purposes other than timber, pulpwood, or other wood products. The use of NTFPs is not new; for centuries First Nations have gathered and used many species from the forest for medicinal, food, clothing and ceremonial purposes.

The growth and abundance of NTFPs varies widely across the country. In B.C., there are over 200 non-timber species harvested by a variety of people for commercial and non-commercial purposes, including edible wild mushrooms, floral, Christmas and craft products, medicinal products, and forest based services including fungi tours and eco-tourism. The commercial value of NTFPs in Canada is

estimated at $750 million, and in British Columbia the commercial NTFP sector generates revenues in the $280 million range, with salal and edible wild mushrooms worth an estimated $75-100 million.

NTFPs: A case study of a common pool resource

Many forest species and other resources, for example fisheries and groundwater, are referred to as "common pool resources". Common pool resources have two defining characteristics: the high cost of restricting access (e.g. fences and monitoring); and a limited supply where one individual's harvest reduces the volume available to others. NTFPs are classic common pool resources. Without some formally or informally established coordination, users of common pool resources tend to over-exploit and under-invest in the resource, potentially leading to its degradation.

Property rights theory suggests that the existence of well-defined property rights is critical for the efficient use of land, and that property rights will evolve as resource values rise. Property rights are generally described as either private property, common property, state property, or no property where open access persists and no rights and duties are specified or enforced. As property rights become more defined and comprehensive, reflecting a greater privateness of rights, one would expect to see a greater emphasis placed on multiple values (especially commercial values), for example, recreation and NTFPs within forests.

NTFP management in public, community and private forests

Four case studies are used to examine the influence of comprehensiveness and exclusiveness of property rights as indicated by (1) managing and maintaining the NTFP resource and (2) managing user access. The information presented in Table 1 suggests a rather clear distinction between private and Crown landowners. The private forest landowner will restrict access if possible, but shows no interest in directly investing in the provision or maintenance of the NTFP resource. Conversely, the public landowner shows little interest in restricting access to NTFPs, but invests somewhat in the provision and maintenance of the resource. Neither shows much interest in monitoring NTFP use levels.

1. Open Access to Provincial (Crown) Forest Land

On the B.C. landbase where most NTFPs are harvested, there is no coordination of activity and a regime of open access persists. The B.C. government shows no interest in managing access, and there is little coordination among user groups. It does invest marginally in the more valuable pine mushrooms, in an effort to maintain suitable habitat. However, there is little data collection or investment in market development, unlike other resource sectors of similar value. Other NTFPs having significant values, such as salal and conifer boughs, are not considered under forest management regulations. There is evidence, however, that harvesters will invest in the resource in these open access situations if they feel confident that no one will find "their" patch.

2. Community Forest Agreements

In B.C., Community Forest Agreements (CFAs) are the only Crown tenure to include NTFPs within legislation, making it a more comprehensive tenure. CFA holders tend to focus on a more prescriptive approach where greater management requirements, such as inventories and estimates of sustainable flows, may be stifling opportunity. While a laudable intent, this focus misses a central element of the large and vibrant NTFP industry: entrepreneurship. A prescriptive approach to commercial NTFP development and the high value placed on all forest species within the management framework of a CFA has significant costs. In B.C., the provincial legislation creating this form of tenure also undervalues both NTFPs and the tenure itself by failing to provide exclusive rights to manage and control access to NTFPs.

3. Private landowners

The private examples in this study are located on Southern Vancouver Island where salal and boughs are harvested. Neither the large private forest landowners nor the small private community landowner engage in the harvest or provision of salal, other than by providing access. There is no investment, coordinated planning of timber and salal harvesting, nor is there any attempt to gather information to understand the actual volumes and values harvested. The disengagement of these landowners may indicate a lack of interest in maximizing the total forest value associated with its lands; conversely, simply providing 'secure' access to those who value the resource may be a cost-effective method to earn modest revenue and meet the public interest. In either case, these private land examples reveal little effort by the owner to capture the economic value or to integrate NTFPs into management for multiple forest values.

	Landowner or rights holder			
	1. Open access/ state	2. Community Forests Agmts.	3. Small private	4. Large private
Species of Interest	Wild edible mushrooms, boughs, salal dominate.	Variety of species of interst	Salal dominates access; others include boughs.	Salal mainly, some boughs, others limited.
Level of congestion	Significant congestion in some areas for some resources, little congenstion in other areas.	Generally low levels of congestion. May vary depending on location and product.	Forest area examined may experience congestion, but not monitored. Values thought too low for concern.	Some private lands show significant congestion.
Effort and ability to control access	No access control. Costly to introduce, monitor and enforce.	CFAs only public tenure to include NTFPs. Limited ability to restrict access. No documented efforts.	Requires NTFP harvesters to purchase a permit from the landowner. Unaware of significant trespass. Difficult to control or monitor actual activity.	Moved from permitting harvesters to allocating NTFP rights to one NTFP company. Where possible gates used to control access; alternate entry points limited.
Level of NTFP resource or market investment	Marginal investment in some species in some areas. No investment to assist sector to develop markets.	Minimal, seen as a barrier to identifying opportunities and developing NTFP inventories and opportunities.	No investment in resource or market development.	Landowner does not invest in resource or market development.
Incorporation of NTFPs or single NTFP within forest management planning	Pine mushrooms only species included in some higher level planning, setting of AAC, land use related log-arounds.	Timber emphasis and lack of information limits ability to include NTFPs. Multiple use based on community values.	NTFPs are not part of forest management and operational planning	NTFPs are not part of forest management and operational planning.
Level of research into NTFP characteristics and resource management	Research mirrors level of investment. Most significant level by state focus on pine mushroom.	Research desired but access to funding limited; affects NTFP promotion	No NTFP research undertaken, but open to outside researchers.	No NTFP research undertaken but generally open to collaboration. User interest in research varies widely.
Collection of NTFP resource user fees and maximazation of profit	No fees or other payments collected.	Legislation allows non-exclusive permitting and fees but few if any have used authority.	Permit fees collected; relationship to resource rents unclear. No analysis done by landowner.	Fees collected from NTFP tenure holder; relationship to resource rents unclear. No known analysis.

Table 1: Case study results from four types of land ownership and tenure.

However, the private land examples do provide some indication that NTFP companies, when provided more exclusive rights by the landowner, will invest in the resource by using appropriate harvesting and tending techniques. Both TimberWest and Western Forest Products responded to increasing pressure on their land by providing exclusive access to their private timberlands on southern Vancouver Island, subsequently reducing (but not eliminating) trespass, vandalism, over-exploitation and destruction of commercial quality salal. However, salal remains incidental to and not part of planning for timber extraction. These cases support the theory that more exclusive access promotes more efficient use, but any gains are limited by the lack of coordinated planning. In addition, the scale of opportunity (i.e., the amount of private land that can be effectively controlled and the area needed for a viable salal venture) is minor, compared to the current level of activity and development potential. Private forest land in most other areas is confounded by adjacency and access issues where intentional or inadvertent trespass easily occurs.

Tenure and commercial NTFP markets

As the case studies show, the amount, quality and marketable flow of NTFPs within small tenures may limit the ability of the rights holder to pursue ventures on a scale necessary for a commercial enterprise. Integrating NTFPs into forest management requires a variety of resource and market information, in addition to instituting mechanisms to control access and protect any return on investment. The Community Forest Agreements were developed, designed and located based on timber and the proximity to the community, thus the location and size of the tenure may be inappropriate for developing a viable NTFP venture.

The scope of the tenure (i.e., the comprehensiveness of rights to timber and non-timber values) may hinder the development of NTFP markets, particularly if the landowner or tenure holder considers the accommodation of NTFPs as a cost of timber management or undervalues the resource. This suggests that combining multiple commercial resources into a single public or private tenure (at least in their current forms) and creating more comprehensive rights may stifle development of the lesser-valued resource.

An alternative tenure approach

Separating timber and non-timber tenures may prove more effective at encouraging 'forest management' versus 'timber management with constraints.' This type of approach could involve overlapping tenures operating on the same landbase. Alternatively, timber tenures could be restricted to the removal of timber, while a silviculture tenure could manage the forest from planting to the next rotation. The silviculture tenure holder would have the rights to harvest and sell non-timber resources while tending the new timber stand.

First Nations would have a significant role in this approach, fostering appropriate development, becoming monitors of the forest, and providing

Management considerations

- Existing forms of tenure may not provide sufficient incentives to foster both sustainable management and investment in NTFPs.
- To better include NTFPs in tenure policy, sustainable forest management regulations could consider an alternative approach, for example, one that separates forest management from the timber harvesting sector to allow for the appropriate use of other values.
- First Nations have an important role to play in this alternative approach, mindful of the existence and significant development efforts of the present NTFP sector.

new opportunities for First Nations and non-First Nations. The value of NTFPs to First Nations is perhaps the most extensive and should come foremost in any discussion of how and who should manage NTFPs.

Important in any discussion of the management of NTFPs is the question of whether management is indeed necessary. The diverse characteristics of NTFPs suggest that any management approach must vary to the needs of the sector, species and location. For example, personal or subsistence use poses minimal over-harvesting threat to NTFPs. Concerns of over-exploitation usually only relate to resources entering commodity markets, where substantial volumes are harvested; for example, edible wild mushrooms, conifer boughs, and salal. While some NTFPs may benefit from formal or informal management, others should remain appropriately unmanaged.

Further reading

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This Research Note summarizes a larger report completed as part of the SFMN research project, "The challenge of institutional redesign: tenure, competitiveness and sustainability".

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Coordinating Editor: R. D'Eon
Graphics & Layout: K. Kopra
Header photo courtesy of: Wendy Cocksedge, Centre for Non-Timber Resources, Royal Roads University

ISSN 1715-0981