

# Strength in diversity: Market opportunities and benefits from small forest tenures

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## Abstract

Holders of small forest tenures are largely “market loggers,” selling undifferentiated raw logs into fluctuating local and regional markets at low margins. However, these tenure holders have potential advantages in responding to the changes currently under way in British Columbia’s forest industry. Their community networks and local forest knowledge can be helpful in identifying specialty products and niche markets, but they need to collaborate with new partners to share value-added investments and to tap into specialized market opportunities which build on their strengths. Innovative responses may find support from a range of government funding programs (existing or new) and private capital sources. Opportunities may arise from value-chain management, or from collaboration on shared-facility investments. Holders of Community Forest Agreements and private woodlot owners also have rights to botanical products or non-timber forest products. Commercial markets for these and related products are growing, but changes to the current system should be undertaken cautiously so as not to jeopardize the benefits and expertise of knowledgeable local users, or the rights of First Nations. Payment for environmental services is an emerging concept that may provide future commercial benefits to holders of small forest tenures. To take advantage of the widest range of these diverse opportunities will probably require adjustments to provincial forest management policies as well as small tenure operations.

**KEYWORDS:** *community forestry, environmental services, forest products, forest product markets, non-timber forest products, value-added.*

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## Introduction

British Columbia's forest industry faces a number of major challenges, including increasing competition in global commodity markets, diminishing wood supply from the forests, increasing commercial tourism and recreational uses, and ongoing citizen demands for social and ecological sustainability. The province's coastal forest industry is in decline as a result of the shift from high-value, old-growth timber to second-rotation timber along with limited investments to upgrade mill infrastructure. Interior regions of the province are booming from temporary increases in harvest volumes—a consequence of the mountain pine beetle infestation that will generate a drastic “falldown” in timber harvests in the coming decade (B.C. Competition Council 2006). After many decades of legal action, First Nations' communities are finally seeing some resolution of their claims to traditional areas of natural resource use. With strengthened resource rights and finances, First Nations' organizations can play a stronger management and economic role in the forest sector. These and other factors suggest that the industry must rapidly evolve and adapt to new and changing conditions, the impacts of which are felt most acutely in British Columbia's forest-dependent communities.

Any viable strategy for the province's forest sector will include the development of a range of higher-value goods and markets for forest products (Kozak and Maness 2005). An even stronger imperative to diversify forest products and market opportunities exists for the growing number of small forest tenures managed by individuals, communities, and First Nations, which typically do not have the same economies of scale as large industrial forest tenure holders. Could the holders of small tenures become leaders in an emerging diversified, value-added forest sector in British Columbia?

This extension note is one in a series of five that deals with different aspects of small tenures in British Columbia. It identifies potential opportunities in three areas for holders of small forest tenures to grow their businesses:

1. Value-added wood products
2. Non-timber forest products
3. Environmental services

These are newly emerging areas of business and market research in British Columbia. Our discussion highlights that, in many cases, there are more questions than answers. The issue of tourism and recreational

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uses is not addressed in detail, although many holders of small tenures already take advantage of tourism development and frequently identify recreational values as important. We focus instead on the non-conventional commercial opportunities from forest products.

## Value-added Wood Products

Most holders of small forest tenures in British Columbia are market loggers (Cathro 2004). Woodlot licensees and Community Forest Agreement (CFA) holders primarily sell logs to large mills that manufacture a range of commodity products. To increase profits from raw log sales, holders of small tenures must reduce their operating costs. Many of these costs are unavoidable, such as labour for harvesting activities, planning and development, stumpage, and road maintenance. Log prices fluctuate depending on the quality of the product, geographic region of the province, commodity markets, and transportation costs. When log prices are low, the balancing of costs and revenues is a challenge. It is therefore worth considering Kozak and Maness' (2005) strategy of developing a range of higher-value goods and markets for forest products.

What advantages and disadvantages do holders of small tenures face in developing higher-value products and services? One advantage is the potential for flexibility. Holders of small tenures may be well positioned to develop strategic linkages with manufacturers who serve niche markets for various marketable timber, non-timber forest products (NTFPs), and environmental services. In addition, faster strategic decision making is possible in responding both to changing local environmental conditions and markets. Conflicts over forest use may also be avoided if tenure holders have good communications and relationships in the community. Because every operation will have unique biophysical, organizational, and community attributes (size, ecosystems, community priorities, traditional knowledge, financial capacity, etc.), it is difficult to make generalizations about the advantages that will accrue to particular tenure holders.

Holders of small forest tenures may also face disadvantages in attempting to develop higher-value products and services. The Allowable Annual Cut (AAC) provisions of tenures form the basis of timber harvest obligations. After these are negotiated, scope is limited for adjusting timber harvest in favour of other values (e.g., recreation, NTFPs). Individually, woodlot owners and CFA holders may not possess the necessary economies of scale to research, develop, and manufacture new products or gain market access for them. Even if holders of small tenures can supply specialized raw materials (e.g., select high-value logs), they will still need market niches that match their ability to provide limited volumes at different times of the year. Furthermore, these tenure holders typically have limited business experience and capacity, although these are expected to increase with time, training, extension, and financial support.

Proponents of small tenures anticipate that woodlot licensees and CFA holders could do more with less by diversifying the products generated from the forest land base (M’Gonigle and Parfitt 1994). To many, the expansion of a value-added forest industry in British Columbia is perceived as a “conservation-based strategy for attaining the tenuous balance between economic well-being, environmental sustainability, and community health and vitality” (Kozak 2007:12). Variations on this theme have been proposed for over 25 years, and the concept is widely accepted as a “sensible and rational” way to transform the wood sector (Kozak and Maness 2005). Although the province

has hundreds of small- and medium-sized, value-added producers, a few large companies manufacturing a small portfolio of commodity products in enormous quantity dominate the wood products sector. The United States market illustrates the potential for a value-added industry; for example, their \$200 billion market for “appearance wood products,” such as furniture, flooring, and cabinetry, dwarfs British Columbia’s \$10 billion market in softwood lumber (Kozak 2007).

Nevertheless, opportunities to sell wood destined for commodity markets will remain an important revenue stream for holders of small tenures, although this may not generate the highest unit return. Few alternative markets exist for low-quality wood, which makes up a large part of every licensee’s AAC. Log prices are typically influenced by factors beyond the control of most tenure holders (Cathro 2004). For example, the mountain pine beetle infestation throughout the province’s Interior has flooded the market with beetle-killed wood, reducing the price of pine logs. Similarly, the softwood lumber dispute with the United States and the strong Canadian dollar, as well as increases in transportation prices, all affect holders of small tenures and reduce their profit margins. The marketing strategy that small tenure operators adopt to sell logs depends on local demand by mills or industrial forest licence holders nearby, and on the capacity to identify and cultivate alternative market options.

The term “value-added” commonly refers to primary production and transformation, as well as secondary transformation (Figure 1). Another definition sees the

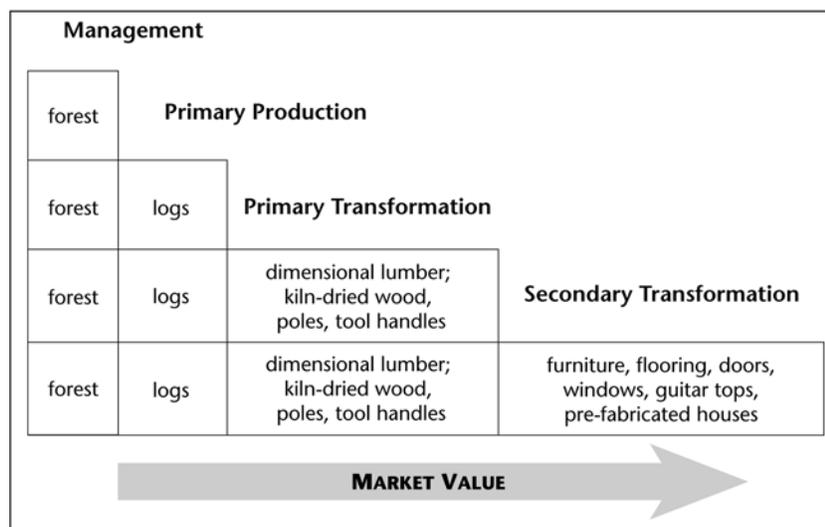


FIGURE 1. The addition of value to wood products.

value-added process as a “conversion of solid wood to a more highly manufactured product than boards or dimensional lumber,” to maximize the margin of net value from tree to finished wood product (Schultz and Gorley 2006). Small tenure operators currently have limited capacity to add value to harvested logs; only a few woodlot licensees and CFA holders (e.g., Burns Lake and the Cheslatta First Nation) operate their own timber-processing facilities. We assume here that holders of small forest tenures already have marketing links to local sawmills, and therefore the rest of this extension note is devoted to alternative strategies for value-added products and new markets.

### Value-chain Management

“Value-chain management” refers to the maintenance of linkages in timber production: upstream to forest management practices and downstream to end products. It necessitates a “strategic collaboration of organizations along various links in the chain,” including wood producers, manufacturers, users, and consumers (Kozak and Maness 2005:5).

To guarantee a successful venture, it is not necessary (or even desirable) for individual woodlot licensees and CFA holders to “do it all” themselves, from harvesting to manufacturing, marketing, and sales. An analysis of the position of small tenure holders in the value chain may help identify areas for collaboration and synergy (e.g., by increasing production efficiencies, improving quality and reliability of supply, or investing in marketing strategies; Scherr *et al.* 2002).



FIGURE 2. Log house components are manufactured on site at the Creston Valley log sort yard.

A simple example of value-chain management is a log sort yard (e.g., see the description of the one operated by the Creston Valley Forest Corporation in Sunderman [2003]). By allowing a finer differentiation of logs and the selection of materials by small manufacturers, the sort yard provides an important opportunity to add value and create linkages along the value chain (see Figure 2). Another example would be a community-operated wood kiln, used to dry high-quality wood to the specifications of custom purchasers. In many cases, small value-added manufacturers in British Columbia have difficulty sourcing wood products of the quality they need, despite the forest industry’s huge production.

### Associations and Co-operative Ventures

Although individual woodlot licensees and CFA holders may have limited financial resources or market influence, they can strengthen returns through collaboration with their associations or with local commercial partners. Associations can help different individuals and organizations to collaborate on new businesses, to find new markets, or to gain advantage in negotiating price and supply terms with buyers. Scherr *et al.* suggested that: “groups of producers can work together to overcome value chain ‘gaps,’ for example, by setting up reliable transport services, recruiting regional traders, establishing log sorting yards or agreeing to quality standards” (2002:8). Similarly, Kozak and Hartridge (2000) described how co-operative forest ventures could set up shared-use facilities for value-added wood production. In small-volume operations, shared-use facilities offer a useful strategy for investment in value-added processing.

The Federation of British Columbia Woodlot Associations (FBCWA; <http://www.woodlot.bc.ca>) and the B.C. Community Forest Association (BCCFA; <http://www.bccfa.ca>) are voluntary organizations that may eventually play a role in product marketing (e.g., through market research, certification, branding). Much of these associations’ time and effort is currently expended on working with the provincial government to resolve a range of resource management policy issues relevant to small tenures (e.g., stumpage rates, tenure security, regulations for NTFPs). In other countries with active small-tenure forestry, governments provide associations with support for forestry extension or marketing services (see Tyler *et al.* 2007). Resolving policy issues and helping organize effective support for this industry sector would be helpful government measures.

## Certification, Creative Marketing, and Design

Even with relatively low wood volumes, holders of small tenures have numerous ways in which to link with both primary and secondary manufacturers. For example, small producers can reliably provide certified wood, and wood of specific species, moisture content, quality, grade, and dimension to specialty manufacturers on demand, especially if they collaborate through marketing associations or shared facilities. Over the long term, holders of small tenures can also manage the forest base to produce high-quality specialty wood.

Although certification is a relatively new concept, the global demand for certified forest products clearly exceeds supply, and will likely do so for the foreseeable future. Much of this demand comes from a dozen buyers' groups of companies pledging to buy only certified wood products by a certain date. Since 1997, the global flow of certified wood has increased from 1% to almost 7% of the total wood market, and continues to grow rapidly.

To obtain sustainable wood certification, a company must meet a set of forest management criteria intended to ensure the ecological integrity of the forest. Of the several different certification standards that exist for forest products, the following are most commonly obtained in British Columbia:

- **International Standards Organization (ISO)** certification requires managers to address the environmental impact of their products, services, and business practices through the establishment of environmental management systems, but requirements are not specific to the forest industry. This certification requires no product labelling systems or chain-of-custody tracking as products change hands. Social issues, such as public or First Nations consultation, are not included.
- **Forest Stewardship Council (FSC)** certification requires performance-based, on-the-ground audits by accredited, independent third parties, provides for chain-of-custody tracking, and is internationally recognized as applying specifically to the forest industry. Its more comprehensive set of forest management criteria is based on independent assessment of the environmental, business, labour, and social practices of the forest enterprise.
- **Canadian Standards Association (CSA)** guidelines, based on the Canadian Council of Forest Ministers' Criteria and Indicators of Sustainable Forest Management, represent a third sustainable wood

certification standard. This is an industry-developed framework for local certification by forest companies themselves, with independent auditing. It obliges forest companies to work with multi-stakeholder advisory committees to address environmental and public participation issues (Canadian Standards Association 2002; Collier *et al.* 2002).

The demand for wood certification comes from consumers who increasingly desire wood products from sustainably managed forests. Indeed, with the organization of boycotts and promotional publicity by international environmental NGOs over the past decade, some consumers willingly pay a premium for certified wood. In the construction industry, many prestigious building projects and government agencies have adopted environmental standards requiring certified wood sources to meet public expectations for environmental sustainability (e.g., LEED – Leadership in Energy and Environmental Design; Forest Stewardship Council – Canada 2007). Large lumber wholesalers in Canada and the United States (e.g., Home Depot) are also switching their lumber sourcing to deal only in FSC-certified wood. Although it is difficult to establish the price premiums (if any) that might accrue to certified wood suppliers in British Columbia, an important advantage is that sellers of certified wood have greater access to premium markets.

Certification, however, is an expensive process, particularly for small-scale forest producers (Butterfield *et al.* 2005). To alleviate the administrative and financial burden for small producers, Ecotrust Canada recently became eligible to facilitate group FSC certification. This initiative makes FSC certification accessible to small-scale forest operations in British Columbia by using the Small Operations standard, which centralizes the core administrative functions of FSC certification for a number of operators. Instead of a single woodlot licensee or CFA holder bearing the full cost, several small operators can gain certification under a single certificate (see Ecotrust Canada [no date]).

Strengthening Canadian product design skills would also encourage the development of new forest products. One only has to look at the success of Sweden's IKEA to understand the link between design, marketing, and wood resources. In British Columbia, local design potential was recognized in the 1940s and 1950s; however, as transportation costs declined, the cost advantages of local manufacturing disappeared and Canada became entrenched in its role as a supplier of commodity products. Cohen *et al.* (2005) identified a

high potential for growth in pre-fabricated buildings, and several designers and value-added manufacturers based in British Columbia are attempting to develop this market (e.g., see <http://www.maldesign.com> and <http://www.britco.com/html/factory.html>).

### Access to Capital

To develop business and other commercial opportunities, holders of small tenures (or their partners) must attract capital. Historically, numerous government programs and initiatives have supported value-added operations in British Columbia. For example, the Forest Renewal British Columbia (FRBC) Value Added Strategy was designed to co-ordinate and assist the value-added sector in realizing its growth and job creation potential. This strategy focussed on strengthening infrastructure, marketing, training, technology, and business development. Since the demise of FRBC in 2002, several efforts have been made to explore alternative products and business models.

More recently, the provincial government created the Forest Investment Account (FIA) to encourage land-based investments by tenure holders, including Woodlot Licences and CFAs. The FIA Small Tenures Program provided financial support for activities such as trail building and silviculture operations. Funding has also been made available to develop inventories and related studies of non-timber forest products. Although these funds are not directly oriented to value-added manufacturing investments, they can be used to leverage greater forest value or accessibility in connection with other small tenure practices.

Woodlot licensees have some access to financial assistance through the FBCWA Woodlot Product Development Council. The provincial government collects a small levy (\$0.25/m<sup>3</sup>) from all woodlot licensees, which is redirected to the Council for the development of training, technical support, and micro-enterprises.

Individuals and organizations holding a small tenure may also be eligible for numerous economic development programs and initiatives specifically designed for forest-dependent communities (e.g., Community Futures [<http://www.communityfutures.ca>] and Western Economic Diversification [<http://www.wd.gc.ca>]). In addition, a growing number of private venture capital sources with an explicit commitment to community and ecological sustainability may provide investment opportunities for expanding commercial ventures in future (e.g., Renewal Partners [<http://www.renewalpartners.com>]).

### Non-timber Forest Products and Services

Non-timber forest products, also known as botanical forest products, can be defined as botanical and mycological forest products other than timber, pulpwood, shakes, firewood, or other wood products. Examples include wild mushrooms, floral greenery, craft products, and herbs. The category of NTFPs may also include tourism services, especially if directly linked to the use of forest landscapes or related products (e.g., a natural history and photography tour of local forest wetlands could be seen as one form of NTFP, but a waterslide theme park would not be). Some definitions of NTFPs also include forest wildlife when these have potential commercial value.

In 1997, the total value of NTFPs harvested in British Columbia was an estimated \$280 million (Wills and Lipsey 1999). More recently, the commercial value (measured as payments to harvesters) of mushrooms and floral greens was an estimated \$40 million and \$29 million, respectively, every year over the past 10 years (Cocksedge *et al.* 2006). If forest-based tourism is included, the commercial value of NTFPs and services is much greater. One of the challenges facing the NTFP sector is that no reliable value estimates are available for the more than 200 species harvested in British Columbia.

The 2006–2007 edition of *Buy BCwild* (Centre for Non-Timber Resources 2007) lists more than 170 businesses selling NTFPs and services, ranging from alpine huckleberry to yarrow soap (and this is not an exhaustive list of enterprises in British Columbia). Aboriginal and non-aboriginal individuals and families also gather NTFPs for non-commercial household use, for traditional and cultural practices, and for recreation. Non-timber forest products are important as food and cover for wildlife, as firebreaks, in riparian management systems, and for the general maintenance of forest biodiversity and ecosystem services. Many NTFPs have also been traditionally important in the culture and livelihoods of First Nations, and may form an integral part of their customary land use and territorial claims. As these claims are resolved, First Nations may potentially play a leading role in the NTFP sector.

Although relatively little research has been undertaken on NTFPs until recently, a number of reports are now available on compatible management of NTFPs with timber, NTFP policy, and NTFP values; research is also available on traditional uses of NTFPs by First Nations (B.C. Ministry of Agriculture and

Lands 2007; B.C. Ministry of Forests and Range 2006; Centre for Non-timber Forest Products 2007).

Compared with timber sales, production of non-timber forest products and services is currently a minor source of revenue for woodlot owners and CFA holders in British Columbia. In a survey conducted in 2003, the FBCWA found that 15% of respondents produced “agroforestry products” (e.g., mushrooms, salal, berry, craft products, silvo-pasture, alley cropping, and tree seeds); 23% of respondents generated tourism and amenity services (e.g., tours, bed and breakfast operations, and trails for mountain biking, cross country skiing, and horseback riding; Federation of British Columbia Woodlot Associations 2003).

As noted in the Community Forest Program Review, the Harrop-Proctor Community Forest has made significant progress towards the commercial harvest of NTFPs:

*Many Community Forest Agreement tenure holders are interested in botanicals, but timber planning requirements, a lack of botanical inventory, a lack of market information, and a local history of open access can make the development of a management plan difficult . . . The Harrop-Proctor Community Forest Pilot Agreement . . . was the first forest agreement in British Columbia to award the authority to manage commercial harvest of non-timber forest products. The harvest of botanicals is discussed in Harrop-Proctor’s management plan and includes the formation of Sunshine Bay Botanicals, a registered company within the Harrop-Proctor Community Cooperative, which manages the harvest and sale of botanical forest products from the community forest land base. (Myers Norris Penny and Enfor Consultants, 2006:31)*

Holders of small forest tenures can generate revenue from non-timber products and services in four ways.

1. Charging a fee to others who wish to harvest products.
2. Harvesting and marketing NTFPs as bulk commodities.
3. Adding value to products.
4. Selling services and experiences.

### **Charging Fees for Access and Use**

Tenure holders who have desirable forest-based goods and services, and who are able to legally restrict access to them (i.e., private woodlot owners or CFA holders), can charge fees to others to harvest products or use services

provided by the tenure holder (e.g., trails or other amenities). In the Pacific Northwest of the United States, both private and government landowners commonly charge fees for non-timber product harvesting (Tedder *et al.* 2002). In British Columbia, some companies with private forest land (e.g., TimberWest) and the Nisga’a First Nation charge harvesters fees to access products, such as salal and mushrooms (Nisga’a Lisims Government 2007). However, even if charging fees is legally permissible, it may not be economically viable to do so.

For example, the likelihood that harvesters would be willing to pay for access depends largely on the amount of “free” access already possible in nearby areas. If the prospective harvesting site is close to a major population centre where forest lands are limited, or if it produces scarce or high-quality botanical products or amenities, the ability to charge fees is much greater than if the site is located amidst publicly accessible forest with similar attributes.

In most cases, any fee income will be modest. Potential income will depend on the commercial value of the products and whether the CFA holder also offers services that ease access, or provide protection or security of supply or trading. For example, exclusive access to private roads into high-value sites, or a secure storage area in a local log storage yard, may be appealing features for commercial harvesters. Nevertheless, introducing fees or permits for the harvest of resources that were historically freely accessible to all will require careful awareness-building at the community level and advance discussion with users.

### **Selling Non-timber Forest Products**

The major commercial NTFPs in British Columbia are wild mushrooms (i.e., primarily pine mushrooms, chanterelles, morels, and boletes) and floral greens (i.e., primarily salal on the Coast, but also boxwood ferns, twigs, Christmas greens). Buyers for these products typically set up buying sheds and purchase products from independent harvesters by the piece. Salal prices have been fairly stable over the years, but mushroom prices fluctuate dramatically depending on global supply and demand.

Selling to buyers is the simplest and least risky way to earn money from NTFPs, but can be very labour-intensive and subject to competition in areas that are heavily used. If access to forest tenure lands cannot be controlled, salal or mushroom can be easily “poached.”

In areas with buyers nearby, selling raw product is an easy way to become familiar with the NTFP sector and with market demands for product quality.

### **Adding Value to Non-timber Forest Products**

Value can be added to raw products in two ways:

1. changing the form of the product by grading, drying, canning, or freezing; or
2. selling further down the marketing chain to a retail outlet rather than to a wholesaler.

Adding value often leads to greater profits, but also creates greater risks, including the need for increased investments in processing equipment, training, operating capital, and market research. Further down the marketing chain, prices are higher, but more time is also required to find and sell products to a larger number of retail enterprises, rather than to a single buying shed or processing plant.

Because NTFPs are so diverse, considerable thought is required about the specific markets for each type of product. The markets for food products, such as jams, jellies and syrups, are different than those for floral products or craft items. Processed goods, such as jams, jellies, Christmas wreaths, or “twig” furniture, involve market research for handcrafted and specialty items in related industry sectors. On the other hand, some outlets (e.g., farmers’ markets or craft fairs) may offer opportunities to sell a wide range of products. Many small-scale NTFP processors get their start at these types of events. Building on current product lines can also be a useful strategy; for example, producers of Christmas trees might consider expansion to include cut boughs, Christmas wreaths, or garlands.

Useful information for producing and marketing value-added products is available from many sources that deal with general industry categories, such as food processing and landscaping. See, for example, B.C. Ministry of Agriculture and Lands (2007); B.C. Ministry of Forests and Range (2006); and Royal Roads University Centre for Non-timber Resources (2007).

### **Marketing Services and Experiences**

Holders of small forest tenures can learn to package recreational services with botanical products from farmers and the growing agri-tourism industry. As noted previously, a significant percentage of private woodlots (and likely CFAs) already provide amenities for local communities and visitors. Woodlot owners and CFA holders located near population centres are in a

good position to capitalize on this market through such activities as: mushroom- and berry-picking outings and festivals; visits to a birch or maple forest for “sugaring off”; excursions involving “cut-your-own” Christmas trees with hot cider and perhaps a wagon ride. Classes and instruction in making wreaths and rustic furniture, floral design with wild plants, or gourmet cooking with wild and local foods are also popular.

Many of the skills and interests necessary to successfully market non-timber goods and services may be quite different from those commonly associated with the production and marketing of timber and timber products. Partnerships—possibly with individuals and groups that are not in the forestry community—can be beneficial. Finding entrepreneurs who are interested in design and marketing may allow tenure holders to focus on production, and to also create a new business opportunity that benefits both parties. Finally, NTFPs offer opportunities for family-operated ventures because these rarely require the use of heavy or dangerous equipment, and therefore provide earning potential for children as well as adults.

### **Environmental Services**

In the longer term, holders of small forest tenures may benefit commercially from the emerging practice of “payment for environmental services.” The principle here is that resource users may implement activities that benefit them, but impose costs on others. For example, logging operations may disrupt watersheds, affecting water quality or supply in towns downstream, or may disrupt wildlife habitat and reduce the attractiveness of an area for recreational hunting. In theory, other users may be willing to pay the forest tenure holder to manage the forest in a way that enhances other uses (e.g., watershed protection, wildlife habitat, recreation). One area of increasing interest is carbon sequestration, in which the forest tenure holder would be paid to plant trees that absorb CO<sub>2</sub> from the atmosphere, thereby reducing the pressure on global climate. In cases such as these, the benefits to a forest tenure holder focussed solely on timber or other commercial products may increase (even if timber sales were lower) if they can charge for providing a high-value, desired environmental service (e.g., water quality, recreational opportunities, or carbon sequestration) in parallel with their timber harvest.

Although economists have, for many years, proposed payments for environmental services, several practical difficulties are associated with implementing this

principle. For instance, governments need to create frameworks or procedures so that different players may agree on rules for undertaking transactions. Pilot projects of this type are under way in various countries around the world, mostly focussing on watershed management (Pagiola and Platais 2002; World Bank 2006). Experience to date suggests that the important considerations in setting up such arrangements include the following.

- **Defining and measuring the environmental service or benefit provided:** This ensures that buyers know what they are getting, providers know what standards they have to meet, and everybody can agree on whether the service is in fact provided or not. How much of the service is generated by the provider? How much is it worth? Agreement on these quantitative values is fundamental.
- **Charging the users of the service:** Users should be easily identified, and it should be possible to verify whether they use the service. Payments should be simple and easy to make (e.g., tied to other familiar payment systems such as fees or taxes).
- **Paying service providers:** Providers of the service need to be similarly identifiable, and must be able to link efforts to protect environmental services in some fashion to amounts paid. The system works best if payments are made regularly (e.g., annually).
- **Creating an institutional framework:** This enables the definition and verification of the value of services, the form of payments, the nature of performance contracts, and the processes that demonstrate services have been received and paid for (see sidebar below).

### Payment for Wetlands Conservation

In Canada, a framework operating for many years in agricultural areas involves payment to farmers and farm communities to preserve wetlands for migratory birds, especially in regions where wetlands are scarce. In this case, farmers might otherwise prefer to drain and cultivate small wetlands areas, but instead find it more valuable to protect them in exchange for payments from organizations such as Ducks Unlimited, and other associated recreational or scenic benefits.

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Although systems to facilitate payment for these kinds of environmental services may not yet be a reality, the local community already obtains many non-monetary benefits from forests, such as viewscales, protection of water quality, and many kinds of recreational activities. In managing their forest lands, holders of small forest tenures can take advantage of their community connections to derive valuable non-monetary benefits to the extent permitted by their licence terms (see Tyler *et al.* 2007).

### Summary

British Columbia has a well-earned reputation as one of the world's leading producers of wood products, made possible by the quality and quantity of timber available and the skills and investments of the forest industry. However, the changing nature of the province's forest industry suggests that, inevitably, its future will be different than its past. As the industry changes, holders of small forest tenures may have advantages, but they need to be alert to emerging opportunities and new commercial partnerships that build on their particular strengths and resource base. Innovative responses may find support from a range of existing or new government funding programs.

Potential commercial opportunities may come from value-chain management, in which linkages are built between forest resources, new products, processors, manufacturers, and consumers in innovative ways. Some of these may involve creative use of branding, certification, or design with commercial partners. Others may involve collaborative efforts led by small tenure associations.

Private woodlot owners and CFA holders also have rights to botanical products or NTFPs. Commercial markets for NTFPs and related products are growing in the province, but some harvesters may already have

expectations of access to the resource. Changes to the current system must be undertaken cautiously so that existing benefits and the expertise of knowledgeable local users are not jeopardized. Where First Nations have a long-standing involvement in the cultural and domestic use of NTFPs, there is potential for them to play a leading role in this sector because of their traditional knowledge and use of the resource.

Payment for environmental services is an emerging concept that may provide future commercial benefits to holders of small forest tenures. The potential is greatest when the service is readily quantified, of high value to identifiable users, and when the institutions that govern payments are simple and transparent.

Holders of small forest tenures have the local knowledge and community linkages to develop innovative market networks and respond to many of these diverse and sometimes small-scale opportunities over time. Some of these approaches, such as more refined sorting and grading of logs or shared investment in value-added processing can be undertaken without any policy changes. Other potential opportunities, such as managing for NTFP harvest or to optimize recreational quality, may require revised forest management guidelines or greater tenure flexibility from provincial agencies so that small tenure holders may diversify and capture the full range of forest benefits.

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## Test Your Knowledge . . .

*Strength in diversity: Market opportunities and benefits from small forest tenures*

How well can you recall some of the main messages in the preceding Extension Note?

Test your knowledge by answering the following questions. Answers are at the bottom of the page.

1. The authors discuss emerging market ideas that have potential to generate additional commercial benefits for small forest tenure holders. What are they?
  - A) Payment for environmental services
  - B) Non timber forest products
  - C) Value-chain management
  - D) All of the above
2. Which of the following is an example of value-chain management?
  - A) Reduced provincial stumpage rates
  - B) A log sort yard, such as the one operated by the Creston Valley Forest Corporation
  - C) British Columbia Community Forest Association
  - D) Increasing harvest of commercially valuable timber
  - E) Finding specialty markets for forest products
3. What are the two main commercially valuable non-timber forest products in British Columbia?

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**ANSWERS**

1. D 2. B 3. Wild mushrooms and floral greens