

New England's Community Forests: Comparing a Regional Model to ICCAs

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Abstract

This paper examines the ways in which some forms of community forests in the northeastern United States could be considered Indigenous Peoples' and Community Conserved Territories and Areas (ICCAs), based on the work conducted by the Community Forest Collaborative, a partnership of four non-governmental organisations (NGOs) in the US. The Collaborative defined a Community Forest Model for northern New England, conducted research on the economic, social, community, and conservation values of the Community Forest Model and developed case studies on five community forest projects. Five key attributes of ICCAs were selected and used to compare with characteristics of the Collaborative's Community Forest Model. The results conclude that the Community Forest Model is very consistent and compatible with the characteristics of ICCAs, defined by Kothari (2006), and further, that there would be benefits both to community forests in New England as well as to other ICCAs to include the Community Forest Model as an example of an ICCA.

Keywords: Indigenous Peoples' and Community Conserved Territories and Areas, ICCAs, community forests, New England, community forest model

INTRODUCTION

Indigenous Peoples' and Community Conserved Territories and Areas

Indigenous Peoples' and Community Conserved Territories and Areas (ICCAs) are gaining recognition as a conservation strategy. This recognition acknowledges that indigenous peoples and/or local communities may have a close association with a specific set of natural resources (e.g., a forest, watershed or lake) that they protect for significant ecological and/or

cultural values. This relationship is reflected in a voluntary system of conservation developed by local people (either indigenous peoples or local communities). Examples of ICCAs include cases where the conservation system is based on traditional, sometimes ancient, indigenous practices, as well as new initiatives (IUCN/CEESP 2010). A thorough description of the rise and scope of ICCAs worldwide can be found in Kothari (2011).

ICCAs are described by their emphasis on the following characteristics (IUCN/CEESP 2010; Kothari 2011). The first is governance, or who makes the rules. In an ICCA, the indigenous people or the local communities are responsible for deciding how the ecosystem will be used and are also responsible for implementing and enforcing those decisions. While other entities like governments or non-governmental organisations may be defined as partners in the governance process, local decisions drive the process.

A second characteristic that distinguishes ICCAs is the role of participation. While participation is a fundamental principle of all community-based conservation, in some

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strategies like community forests, the definition of what constitutes participation varies widely (see discussion below) (McDonough and Wheeler 1998). Fundamental to ICCAs is that participation is defined as empowerment of indigenous people and local communities rather than involvement, consultation or collaboration (International Association of Public Participation 2007). Participation is also widespread and deep, meaning that all have a real opportunity to participate in varied aspects of management.

A third defining characteristic is equity related to decision-making. ICCAs strive to engage all participants in fair and transparent decision-making. The fourth characteristic addresses equity in the sharing and distribution of benefits. The costs and benefits associated with the defined natural and cultural resources are fairly distributed among all participants. All participants have equal rights and share responsibilities.

Finally, ICCAs seek to achieve effective conservation. While management objectives might vary and include livelihoods or spiritual practices, the ultimate outcomes include conservation of biodiversity, ecological integrity, and associated cultural values.

This article will compare the characteristics of ICCAs just described with community forests in the northeastern United States and will describe lessons learned from New England's community forests. Important lessons will include the conditions under which such community-based efforts are successful in achieving both community benefits and landscape conservation goals. Additionally, particular focus will be given to the nature and importance of inclusive governance, shared benefits, external support, and community contribution to conservation effectiveness.

BACKGROUND

Community-based forestry

The concept of community-based forestry was first introduced in international development in the late 1970s (IUCN/CEESP 2010). Development scientists and practitioners began to realise that industrialised forestry was not meeting the needs of rural populations regarding necessities from the forest, in particular fuel wood, but also including building materials, food, and medicines. Development attention from organisations like the UN's Food and Agriculture Organization (FAO 1978) and the World Bank began to focus on these issues and their relationship to forest sustainability. Community-based forestry was originally defined as: provision of fuel and other goods essential to meeting basic needs at the rural household and community level, provision of food and environmental stability necessary for continued food production, and the generation of income and employment in rural communities. Early definitions had a strong economic or livelihood focus (FAO 1978).

Community-based forestry projects, worldwide, are very diverse and include a wide spectrum of 'community forests' that can include community woodlots for fuel wood, food or

cash; community tree nurseries; and community management of existing forest land (e.g., management responsibilities allocated to a community by a government). An additional rationale for the establishment of community forests was the protection of native forests by reducing pressures from local communities' needs such as fuel wood. The FAO currently defines community forests as "focusing on local communities as key stakeholders in managing common property resources" (FAO 2010: 210).

Community-based forestry in the United States

Community-based forestry in the US occurs on public, private or industrial forestlands while using partnerships between communities and forest landowners to accomplish stewardship and economic development goals (National Community Forestry Service Center 2000; Danks 2008). A common form of community forests represents land owned by provincial/national government with certain rights devolved to local communities. In the US, tribal lands, Spanish land grants, and New England town forests represent historic models of community forests (McCullough 1995; Belsky 2008). Additionally, there are other community forests in the US that offer different models (Baker and Kusel 2003), including forests owned by local community-based non-profits; and forests in collective private ownership such as Wisconsin Family Forests (Communities Committee 2008) and Little Hogback Community Forest (Lyman 2008; Brighton 2009). It should be noted that ownership alone does not define a community forest. What these varied forms of community forests have in common, and what makes them different from other private or government-owned forests, is the role that local residents play in their stewardship. Local residents are involved in determining the goals and purposes of these forests, developing a governance structure, selecting individuals or organisations responsible for managing these forests, and receiving the social and economic benefits (Danks and Fortmann 2004; Rural Voices for Conservation Coalition 2007; Communities Committee 2008).

Community forests in New England

The forests of northern New England have provided the natural resource base upon which the economy and culture of its human communities have grown and prospered. The forests have defined the relationship between communities and the physical landscape within which people have settled. Productive forestland has provided raw material for fuel, shelter, and for a vital forest products industry that has supported employment for people and has driven the economy of the region. The forests have offered places for recreation and have defined community life and many cultural traditions.

One of the distinctive forms of community forests in the US is the New England 'town forest' which evolved from a long tradition of town-owned forestland in the region. Between 1630 and 1900, public land was designated in the

charters of newly established towns. This public land was “allocated to support community institutions such as church and school” (McCullough 1995: 47). During the late 1800s, Americans began to realise that their forest resources were not inexhaustible. Bernard Fernhow, who headed the Federal Department of Agriculture Division Forestry, was educated in Europe and had seen European community forests. He believed that communal forests had great potential in the United States. When the Forest Service under Gifford Pinchot did not immediately follow through with assistance to create these forests, states and private forest associations took the lead. Town forests were established in New York, Pennsylvania, and multiple Midwestern states, but they really took root in New England where enabling legislation was being passed as early as 1915 in Vermont, New Hampshire, and Massachusetts, authorising towns to establish town forests (McCullough 1995). The benefits of town forests were envisioned by many to include “a chance to alter the course of deforestation, reclaim idle lands, increase property values and related tax rates, reduce timber shortages, eliminate reliance on imported lumber, encourage local wood-using industries, provide employment, protect water supplies, and... simultaneously [generate] town revenue” (McCullough 1995: 132). Development of town forests allowed towns, villages, and school districts to purchase land for timber production. Perhaps the most important contribution of the town forest movement was to encourage communities to set aside land for public use (Baker and Kusel 2003) that also came to include recreational, education, and ecological benefits.

In the 1980s, northern New England began to experience powerful crosscurrents from the forces of globalisation and a massive transfer of ownership of forestland that continue to reverberate through many communities today.

Globalisation of the forest products industry resulted in increasingly distant ownership of the forestland and mills and reduced employment derived from the forests and forest products. Beginning in the early 1990s, the combination of a strong US Dollar, the reduction in federal timber harvests from federal lands, and the lowering of trade barriers triggered a suite of reactions including the increase in foreign lumber used in the US, and the reduction in local production capacity. By 2005, 35% of softwood lumber came from other countries. The transfer of production facilities to lower cost regions in the world such as Asia, Africa, and South America, as well as the long-term downsizing of production in US forest-related manufacturing as margins shrank, led to reduced shifts and the closure of many mills and other wood processing facilities (Levesque *et al.* 2008). This, in turn, effectively disconnected the traditionally close and synergistic relationship that previously existed between the forest products industry and many communities in New England.

The region has experienced a massive transfer of ownership in forestland that began in the late 1980s and continues to this day. Between 1994 and 1999, 1.1 million ha of forestland that had been held and managed by industrial timber landowners were sold into different ownerships. About 1.2 million ha

went to large private non-industrial landowners such as timber investment management organisations (TIMOs), real estate investment trusts (REITs), and other forms of limited partnerships. By 2004, the amount of forestland in private industrial ownership had been reduced by 60% (Levesque *et al.* 2008). This sea change in ownership, particularly of industrial forestland, was accompanied by management pressures that resulted in increasingly intensive harvesting and sparked an impressive series of conservation initiatives by state and national conservation organisations, land trusts, and private agencies. However, even as land conservation increased sharply, forestland that has been conserved and in public ownership represents only 7% of the total (Levesque *et al.* 2008), and virtually all of the region’s forestland ownership remains in the hands of large absentee landowners, including timber investors and national or global non-profits. While the communities gain some environmental benefits from improved stewardship, much of the economic value flows out of the region and out of local communities.

Currently, community forest projects in New England build on historic traditions while incorporating additional safeguards and principles (Community Forest Collaborative 2007). These include ensuring permanent protection of conservation values, access to the benefits and values of forestland by the community, support for other community priorities, and community participation in management and stewardship decisions. Such projects reflect a model that responds to many of the issues facing the region’s communities and forestland. Fragmentation of productive forestland, reconciliation of competing uses of forestland, public demonstration of good forestry practices, and self-determination of rural communities are among the most salient of these issues. Recent projects resulting in the acquisition of land for community forests in northern New England suggest that by increasing local equity in forestland, community ownership of forestland offers the potential to achieve conservation goals while advancing economic and social objectives, particularly in the low-income rural communities of northern New England (Bisson and Lyman 2003; Community Forest Collaborative 2007).

The Community Forest Model

In the late 1990s, communities in New England began to see themselves as potential buyers for large tracts of forestland that were coming on the market. To support communities considering forest acquisition and management, four national and regional non-governmental organisations (the Trust For Public Land, the Northern Forest Center, Sustainable Forest Futures, and the Quebec-Labrador Foundation) formed a partnership in 2005 called the Community Forest Collaborative. The Collaborative described a Community Forest Model that was based on the historic practice in New England of town forests and communal lands and incorporated concepts from international models for sustainable development and community-based natural

resource management (Child and Lyman 2005; Charnley and Poe 2007). The components of the Community Forest Model include ownership and management of land on behalf of a community, engagement of community participation in and responsibility for management decisions, and secure access to the values and benefits of a forest by a community. The Model is designed to be flexible to accommodate a range of options for ownership models and governing structures that best meet the needs of any given community at a given time, while emphasising the principle of local access, control, and benefits. Specific attributes of the Community Forest Model were drawn from experiences with new community forest projects as well as an interest in promoting a more complex suite of attributes for existing town forests. The attributes were selected to emphasise the importance of ownership at the community level, expanded community participation in managing the forest, increased awareness of the benefits of owning forestland and the connection of those benefits to support other community needs, and the need for the community to commit to permanent protection of the ecological values of the forest. These attributes are listed in Table 1. This list also provides criteria the Collaborative uses to identify which forestry initiatives or town-owned forestlands function as community forests.

Given the increasing prominence of the ICCA concept as a tool in the conservation toolbox, the question arises whether community forests implemented within the United States, and particularly the Community Forest Model implemented in northern New England, have the potential also to be designated as ICCAs and if so, what would be the value of that designation to those community forests. Following on Ostrom's (2001) warning that there is no one form of governance that is appropriate for all natural resource management challenges (i.e., there is no panacea), it is prudent to examine the conditions under which the Community Forest Model as implemented in New England reflects the attributes of ICCAs.

METHODS

Specific projects were identified as potential case studies by Collaborative partners, many of whom were involved in working with communities to acquire new community forests. Currently, 120 towns in Vermont own some 32,258 ha, 188 towns in New Hampshire own 41,532 ha, and 170 towns in

Maine own approximately 60,484 ha (Figure 1). While many of these are considered 'town forests', few meet the criteria for the Community Forest Model or ICCAs because they do not demonstrate the level of community participation and benefits suggested by the attributes of community forests or characteristics of ICCAs listed above. Lack of community engagement is often the result of residents not knowing the town owns a forest, which can occur when a forest parcel is given to the town or the town takes it as a result of an individual owner defaulting on taxes. More often than not, there is no broad recognition within the community of the multiple values forestland can offer and the land therefore is not viewed as a community asset.

The partners reviewed existing town forests to identify any that reflected most or all of the attributes of the Community Forest Model and thus functioned as community forests. Five case study sites were selected that helped to describe a range of ownership options, community objectives in acquiring and managing forestland, and benefits and values to the community.

Data for the case studies were gathered from 2004 to 2007. This process included approximately 10 site visits, over 25 interviews with community members and individuals from organisations that provided support and assistance to community forest projects, four workshops, review of records from the organisations and communities, review of written material produced by the communities and organisations (e.g., grant proposals, newsletters, and publications), and press reports about the projects. Economic benefits were documented in records from the communities and organisations, as well as in an unpublished research report conducted by the Mount Washington Valley Economic Council (Bisson and Lyman 2003) on the economic and social benefits to communities of owning and managing forestland in a twelve-town region in New Hampshire and Maine.

The conservation benefits were identified in part through analysis of GIS maps that identified ecologically significant productive forestland (Two Countries/One Forest 2003), existing conservation lands, existing town ownership, and large land sales (Figure 1) as well as specific project maps for individual community forest projects (Figures 2, 3, 4, and 5). These maps provided good visual evidence of the role of community forests in linking existing conservation lands and in buffering sensitive ecological sites. Interviews and document review helped to identify the conservation priorities behind specific projects.

The five community forest projects (Figure 1) ultimately chosen for case studies are described briefly below. Three of the projects (Randolph, Errol, and West Fairlee) represented community forest projects in which participants in the Collaborative played a significant role in their creation. The Paul T. Doherty Memorial Forest was selected because it represents the historic 'town forest' approach with many of the components of a community forest (local ownership, community benefits, participation, managements) and offers an example of municipal ownership for community benefits, as well as

Table 1

Key attributes of the Community Forest Model developed by Community Forest Collaborative

- | |
|---|
| <ul style="list-style-type: none">• The community has secure access and rights to the forest resource at the community level• The community participates in management decisions• The community receives value and benefits from the land that can support and reinforce community priorities and economic development objectives• The community ensures permanent protection of the conservation values of the forestland |
|---|

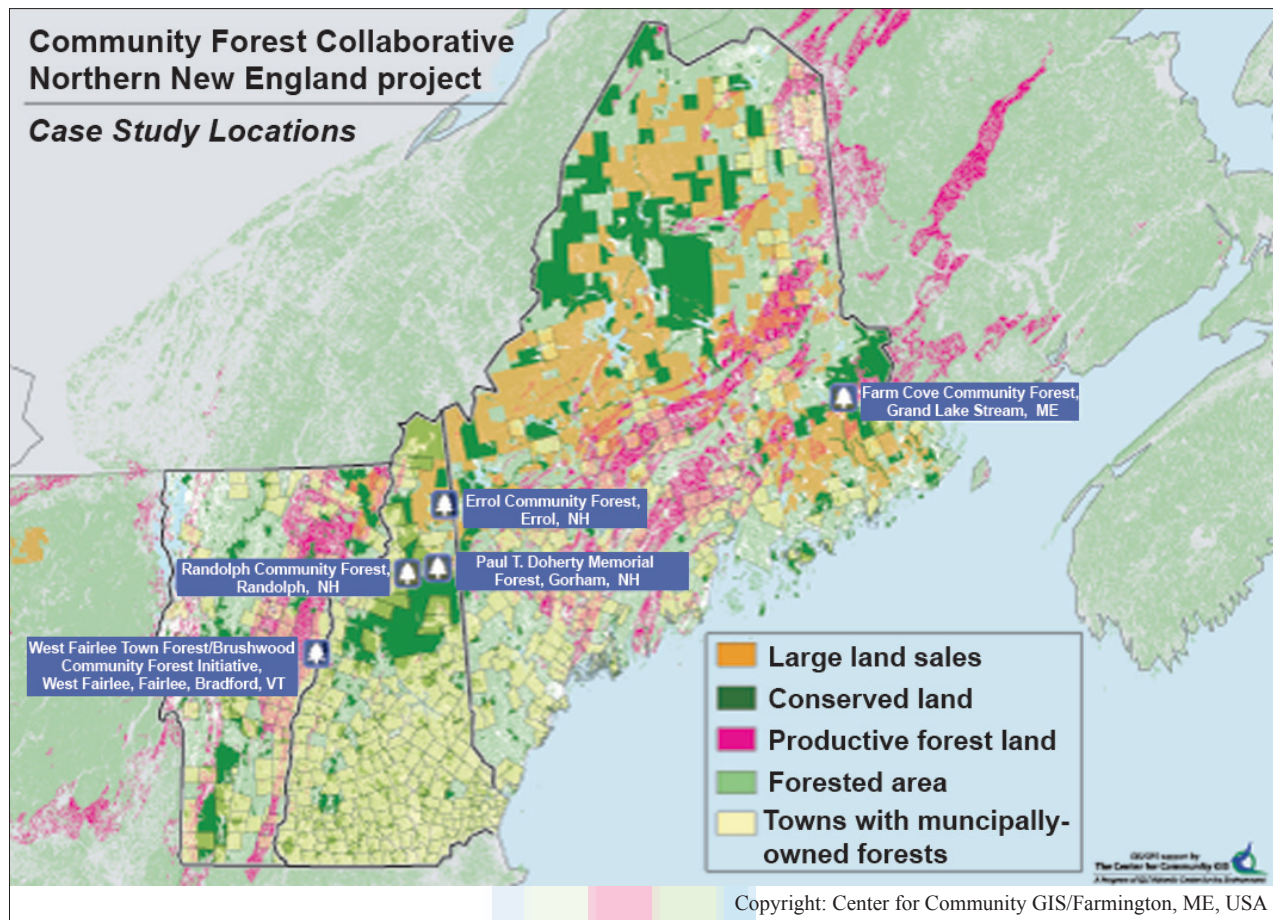


Figure 1
Northern New England: forestland and municipal ownership with case study locations

issues related to participation and management. The Farm Cove Community Forest was selected because it represents a different ownership structure—a local community-based non-profit land trust. Other criteria in selecting the case studies included examples of differences in governance structures, community motivation for projects, methods for engaging the community, community benefits, stewardship and management approaches, and mechanisms for securing permanent conservation.

Paul T. Doherty Memorial Forest, Gorham, New Hampshire: population of 3,000

The Paul Doherty Town Forest is a 1,976 ha tract of land that includes the watershed of Gorham’s town water supplies. The land was acquired in 1936 with the principal intent of protecting the town’s water supply. Over the last 30 years, however, the town has expanded its management goals to include timber harvesting as well as to provide an outdoor classroom to the town’s public schools. The town has also considered adding an additional 806 ha parcel to the town forest. The Paul T. Doherty Memorial Forest demonstrates the value of community forests in protecting ecological services, supporting other community priorities, building social capital, and expanding civic capacity.

Farm Cove Community Forest, Grand Lake Stream, Maine: population of 150

The Farm Cove Community Forest is a 10,877 ha tract of land that is one of the components of a comprehensive land conservation effort in one of the most rural and impoverished regions of northern Maine—Washington County. In 2002, the Downeast Lakes Land Trust, in partnership with the New England Forestry Foundation, initiated an effort to secure permanent protection of 137,903 ha of forestland that were important components in a mosaic of 241,935 ha of conserved lands in New Brunswick and 80,645 ha of state, federal, and Native American lands in Maine. Conserving this land resulted in the protection of a large landscape consisting of over 404,685 ha of un-fragmented habitat that crossed the international boundary between the United States and Canada. As part of this effort, 10,887 ha that have become the Farm Cove Community Forest were purchased from a private timberland management company by the Downeast Lakes Land Trust between 2004 and 2005. The example of the Farm Cove Community Forest illuminates issues related to community readiness and capacity to own and manage forestland. It demonstrates the value of a community forest in the larger landscape conservation initiative; the role of a local land trust as an intermediary institution for the community; and

the role of a community forest as a component in community and economic development planning.

13-Mile Woods/Errol Community Forest, Errol, New Hampshire: population of 298

The Errol Community Forest is a 2,125 ha parcel of land in northern New Hampshire that was purchased by the 13-Mile Woods Association in December 2005. According to the Trust for Public Land, it is a critical link in a corridor of federal and state conservation lands that includes the Umbagog National Wildlife Refuge and the White Mountain National Forest. The tract was initially considered for purchase by the United States Department of the Interior/Fish and Wildlife Service and the Trust for Public Land as an addition to the Umbagog National Wildlife Refuge. Residents of the Town of Errol, however, having observed the success of a project in the comparably sized town of Randolph, New Hampshire, to acquire a 4,113 ha tract for a community forest, decided to take steps to acquire the land for their town. The 13-Mile Woods/Errol Community Forest demonstrates issues related to community capacity and readiness to own and manage a significant resource; benefits to the town of owning and managing a substantial tract of productive forest land; partnerships and resources available to assist communities interested in owning and managing forest land; and financing packages and new financing tools to support acquisition of forestland.

Brushwood Community Forest Initiative, West Fairlee, Fairlee, and Bradford Vermont: combined population of 4,366

The project area lies within 11,398 ha of un-fragmented forestland in an area along the Connecticut River corridor that is known for its biological diversity and important bird habitat. The Initiative consists of the following. The Town of West Fairlee is working with the Trust for Public Land to purchase 10 parcels of privately owned land, totalling about 403 ha, to assemble into one town-owned block of land. By early 2009, several parcels had been purchased and became the West Fairlee Town Forest. The location of the West Fairlee Town Forest is in a larger region of highly productive forestland, and will link an existing municipal forest (565 ha) in the Town of Fairlee with lands held by the Town of Bradford's Water Commission (266 ha) and offer the final link in a 61 km recreational trail. The Brushwood Community Forest Initiative offers an example of the potential role of community forests to address one of the major issues related to the conservation of productive forestland—the fragmentation of large blocks of land into smaller parcels. It also will demonstrate a cooperative management model between towns and inter-town cooperation in managing forestland.

Randolph Community Forest, Randolph, New Hampshire: population of 350

In 2001, the Town of Randolph purchased 4,100 ha to create

the Randolph Community Forest. The Randolph Community Forest links two sections of the White Mountain National Forest and ensures that the residents of the Town of Randolph can preserve the forested landscape, and support the timber and recreational-based economy and culture of their town. The Randolph Community Forest demonstrates the value of community forests as a conservation strategy to link existing conserved lands, as a local growth management and planning strategy. It also demonstrates the role of community forests in improving governance and encouraging reinvestment in stewardship and monitoring of a community asset.

RESULTS AND DISCUSSION

The Community Forest Model was selected as a basis for this paper because while it was developed outside of the context of ICCAs while sharing some of the same attributes. Information and data gathered during the development of the case studies provides material for comparison of the Community Forest Model with ICCAs, offers an opportunity to analyse whether the Community Forest Model is a legitimate regional expression of an ICCA, and suggests where ICCAs can learn from the Community Forest Model.

The results are organised around five attributes of ICCAs:

- Community governance
- Inclusive participation
- Equity in decision-making
- Sharing and distribution of benefits
- Conservation effectiveness

Community governance

While some of the region's town forests were established in the towns' original charters from colonial times, all three northern New England states ultimately enacted laws conferring the right to local communities to acquire, own, and manage forestland and to establish town forest committees to oversee the management of town-owned land (McCullough 1995). This framework was used in the creation of the Paul T. Doherty Memorial Forest and the West Fairlee and Fairlee Town Forests. In most cases, the town forest committee is accountable to the town's board of selectmen and any costs or revenues fall under the budgeting responsibility of the board of selectmen and must be approved at town meetings.

In many towns, though, there is persistent concern about and scepticism of the capacity of town governments to protect valuable assets—if times get tough, the board of selectmen may look to the forest to generate revenue and may harvest it for cash to balance the annual budget, or sell the land. The case of Randolph provides an example of a deliberate effort to further refine governing issues for a town forest and to address the scepticism over town ownership of forestland. Many saw the management of the 4,100 ha forest “as a long-term planning issue, as a land-use issue, and as an issue of protecting the character of the town as set forth in the master plan” (Community Forest Collaborative 2007: 19). Further, they determined, prior

to the purchase of the land, that a community forest would have to be insulated from the short-term nature of town politics and the annual needs of town budgets. As a result, they decided to petition the state legislature to “vest the ultimate authority for management with the planning board” (Community Forest Collaborative 2007: 19–20). The planning board is an elected body that has longer-term responsibilities for managing growth and development in the town (Willcox 2004). Their petition succeeded and, as a result, the Randolph Community Forest Committee is accountable to the town’s planning board, not the board of selectmen, and any revenues from the Randolph Community Forest go into a specialised community forest fund rather than the town’s general operating fund. The town planning board must approve expenditures from that fund.

In the case of the Farm Cove Community Forest, the local government in the town of Grand Lake Stream, Maine, had no capacity to acquire, own or manage forestland and was not involved to any measurable degree in the acquisition of the Farm Cove property. This was due primarily to two factors: the governing body did not have the confidence that it could take on such a responsibility and, perhaps more importantly, there were significant divisions and open hostilities within the town about the disposition of the land. As a result, members of the community formed a non-profit land trust to provide both the organisational capacity and ownership structure for the land. Town residents and representatives of the town government currently sit on the board of the land trust and are involved in the operating committees that oversee the management and stewardship of the Farm Cove property.

Acquisition of the 13-Mile Woods/Errol Community Forest was made possible, in part, with funding from a federal tax credit programme that required the funds to go to a non-profit rather than directly to a municipality. In order to comply, a new community-based non-profit was created, the 13-Mile Woods Association, which is currently the entity that owns the land on behalf of the town, and oversees forest management and finances for the forest. The governing body, the 13-Mile Woods Association, is governed by a board of directors that includes members of the town’s board of selectmen specifically to ensure direct linkages with the town’s governing bodies. Residents of the Town of Errol fill the other positions on the board.

These cases illustrate that a community forest may have diverse governance structures that ensure a community’s central role in decision-making, even when the forest parcel is not owned outright by a local municipality. An underlying precept of the Community Forest Model is to allow flexibility to address the variety of needs, characteristics, and personalities of different communities and the observed diversity in governing structures supports such variability. The limited number of cases combined with their relative newness prevents one from drawing conclusions as to the relative efficacy of one governance structure over another. However, while the governing structures vary, some valuable practices emerge from these cases which include: prioritising long-term planning horizons necessary for forest management, separating the budgets for management and stewardship of the

forest from the annual cycle of town budgets, and integrating broad public participation and linkages (if not a municipal body) with municipal officials.

Inclusive participation

In community forest projects, community participation and engagement usually begins in the early organising and acquisition phases of the project and continues throughout the long-term processes of management and stewardship. While in most cases, participation in the early phases is voluntary and informal, as the process proceeds towards acquisition and the creation of governing structures, the requirements become more formal.

Early organising phase

Community forests, more often than not, are organised around land that is a recognised asset to the town. Errol’s 13-Mile Woods and the Brushwood Forest in Vermont are examples of community forest projects where people organised themselves around a recognised place name and shared values. Protecting landscapes and places that hold special meaning to a community often provides the catalyst for community participation in and support for a project. In the earliest stages of the 13-Mile Woods/Errol Community Forest project, Fran Coffin, then a member of the board of selectmen, spent a good deal of time talking informally to residents of Errol, seeking their reaction to the idea, and offering information on the costs and benefits to the community. In Randolph, members of the planning board held public meetings about the concept of town ownership and invited people from other towns with town forests to present their experience.

The role that community forests can play in growing capacity and expanding participation is particularly evident in the case of the Farm Cove Community Forest. Initially, the local government in Grand Lake Stream had no capacity to acquire, own or manage forestland and was not involved to any measurable degree. As a result, a local land trust was created and has provided the organisational capacity the town lacks. During the course of the project, people became increasingly engaged and interested in the project. As one person commented after the acquisition of the Farm Cove Community Forest: “Before, there was a whole lot of scepticism around the idea. We can’t do this...What will they do?...Now that it has been done, [there is] a complete change...complete support...pride [in] ownership in land” (Community Forest Collaborative 2007: 47). In fact, in 2008, the town became fully engaged as a partner in another project that will create a new 8,871 ha community forest. The town identified community needs and priorities for affordable housing, future growth, and economic development that were integrated into the forest project planning as well as committing USD 40,000 of town monies to the project.

Land acquisitions and management planning

The acquisition process offers opportunities for both informal

and more structured mechanisms for participation. In most cases, significant effort is required to engage residents early on in the project through public informational hearings and planned events to introduce people to the land and the opportunities it offers to the community. More formally, however, the town must hold public hearings if there is a commitment of town funds. Finally, a vote at the annual town meeting is required on a proposed project if the town is to accept the land under the state Town Forest Statutes and/or commit town funds.

In the Brushwood project, the creation of the West Fairlee Town Forest was conceived during the master planning process. That process requires public meetings to identify and address priorities for the use of land within a town and the town votes to approve the final plan. There was considerable interest, in West Fairlee, in conserving land and protecting open space. As a result, there was a move to create a conservation commission that required a vote at the town meeting as well as election by the town of its members. As this process was unfolding, the chair of the board of selectmen started an informal process of introducing the idea of a community forest and then began to work with the conservation commission to host public events (meetings, hikes, and informational sessions) to expand public awareness about and interest in a potential project. The idea became a reality when this community leader and her husband offered their land and worked with other public landowners to purchase ten parcels that would become the West Fairlee Town Forest. Public informational sessions, events on the land, and public hearings about a project offer important opportunities to build public support. In most cases when the town is asked for a vote on a project at the town meeting, the project often receives the full support of the town.

When a management plan and an easement (a legal document that restricts the use of a bundle of rights related to development, or other activities that may impact the conservation values of the piece of land) are required as part of the funding and acquisition process, there are often specific events that can help engage public participation in identifying and setting priorities for the future management of the property. The Town of Randolph held many public meetings about priorities for management. At these meetings, people emphasised recreational hiking trails and preserving active forest management on the land as management priorities. Field trips offer opportunities to solicit input and provide information on potential timber management areas, identification of recreational needs or opportunities, and activities related to wildlife habitat. In the case of the Paul T. Doherty Memorial Forest, the land was purchased in the 1930s to protect the watershed of the town's water supplies. The town's water and sewer board had the sole responsibility for overseeing the land surrounding the water supply ponds. When the town voted to designate the land as a town forest, it created a town forest committee and undertook a formal management planning process. During that process, the town forest committee was expanded to include members of the board of selectmen as well as foresters. Throughout the management planning process,

that included public hearings and input, there was considerable interest in expanding possible activities on the land to include forestry operations, as well as using the land for educational and recreational purposes. While the top management priority continues to be protection of the town's water supply, there is now active forest management, an outdoor classroom for the local schools, and limited access for low-impact recreation. The management plans cover a ten-year period. The process of reviewing, updating, and revising a forest plan is often accompanied by informational meetings and public hearings to discuss necessary changes.

Stewardship and monitoring

There are numerous ways in which community members can participate in forest stewardship after acquisition. With many community forests, there is an annual outing to the forest that provides an opportunity for people in the town to learn about management activities and contribute to the design and construction of recreational hiking, cross-country ski, snowmobile, all-terrain-vehicle (ATV) or bicycle trails. For example, Randolph has an annual Randolph Community Forest Day that includes field visits to learn about recent harvesting activities, the history and culture of the area, or impacts on/improvements to wildlife habitats. Each year, the Gorham Town Forest Committee and its forester host Forestry Field Days for the town's schools that offer an opportunity to learn about the forest, and also to expand awareness of the value and importance of the forests in the town's forest-based economy. Local schools use the land as outdoor classrooms and look to local students and residents to help with monitoring activities. In addition, local clubs are often engaged in trail construction and maintenance. In Randolph, the Randolph Mountain Club is subcontracted to maintain existing trail networks in the community forest. A local snowmobile club has been involved in constructing a trail on the 13-Mile Woods/Errol Community Forest. Other activities such as monitoring, removing invasive species, bird watching, and cutting firewood provide opportunities for community members to engage in stewardship activities.

Equity in decision-making

In the case of New England's community forests, the requirements of the state town forest statutes and the rules for publicly funded programmes, as well as the practice to secure votes of approval at annual town meetings help ensure that every community member has an equal opportunity to participate in decisions affecting the acquisition and management of the forest. The projects that achieve the greatest participation in decision-making, however, do not rely only on the formal or legal mandates. They utilise early organising and outreach, public hearings, educational programmes, and other purposeful efforts to engage a wide spectrum of community members in defining community priorities for management of their forest.

There are, however, always instances where people do not want to (or cannot) participate in the meetings and

activities related to community forests. What distinguishes community forest projects from traditional government or private conservation projects is the extensive outreach and opportunity for community involvement that often engages a diverse representation of the community.

Sharing and distribution of benefits

Community forests provide a range of benefits that include: protection of ecological services such as water supply and quality, timber revenues, opportunities for education and recreation, conservation of open space, and creation or protection of local jobs. While not perfect, the mechanisms for ensuring that these benefits are shared and/or equitably distributed are embedded in the structure of town governance (town meetings), and/or the organising principles of local non-profits that own and manage the land on behalf of the community. How a community prioritises the production and distribution of forest benefits is expressed differently from community to community. Below are listed a number of benefits of community forests with some specific examples from the case studies.

Shared values

As people across the region have observed the impacts of industrial forestland sales and changes in the forest products industry, they have become more fearful of change. New England communities have long been defined by a culture of local control and self-determination. Perhaps the greatest benefit that community forests offer is to secure the rights to an important resource at the local level so that the shared values of a community can be determined and expressed, and that decisions about how the land will be managed can be made within the community. As one individual commented: "It was going to change one way or another...this way we got to choose" (Community Forest Collaborative 2007: 47). Many towns, recognising that change is inevitable, have taken the initiative to ensure that the character, culture, and traditions of their communities will not be compromised. The stated goals of the Randolph Community Forest include, for example, both "to preserve the current rural state", (Willcox 2004: 59) and to preserve the capacity to support forest-based jobs and outdoor recreation. West Fairlee's Master Plan incorporated a specific recommendation to establish a town forest. The Stewardship Plan for the 13-Mile Woods/Errol Community Forest states: "The citizens of Errol recognized the changing patterns of ownership and the new interest in recreational land development and sought to protect the traditional uses of this important piece of the town" (Community Forest Collaborative 2007: 61).

Access

In most cases, community forest projects are viewed as expanding or securing public access to land that may have been previously in private ownership with limited or no access to the community, or where there is a concern in the community that access to the forest would be limited by future private

owners. Access and other rights to community forests are often specified in "working forest" or "conservation" easements or in management plans. Local ownership (or ownership by a local entity on behalf of the community) ensures that rights and access are maintained at the local level. Finally, some rights on community forests are often specifically conferred through permits. Many municipalities offer permits to residents to cut firewood from town-owned forestland. The Downeast Lakes Land Trust, for example, issues permits to local crafters to harvest greens or particular wood used in baskets and canoes.

Timber revenues

Community forests often provide some revenue stream from timber operations. Where and how these revenues are used is often determined at the outset of a community forest project by the governing body (e.g., board of directors, board of selectmen, town forest committee). In Gorham, over a 16-year period (1991–2006), the town received USD 1.2 million in revenues from timber-harvesting operations. It is projected that on a sustained basis, the land will provide USD 50,000 in annual income to the town. This revenue has been used to cover forest management costs, restore the town's historic town hall, purchase emergency vehicles, and develop a handicap recreational trail. Over the first two years of harvesting in the Randolph Community Forest, the town received total revenues of USD 89,736, and expended USD 70,162 in costs associated with managing the land. The USD 19,574 in net revenues received in the first two years of its operation was reinvested in the community forest for forest management, ecological inventorying, and monitoring. The timber value of the 13-Mile Woods/Errol Community Forest is in excess of USD 6 million. Its projected net revenues from timber harvesting operations is USD 225,000 over the next seven years and will be used to pay the town's share of the purchase price of the property. Once the acquisition costs are paid, the town will then own the land and there will be an opportunity for public participation in decision-making about how future revenues are allocated.

Forest products

Local crafters in Grand Lake Stream continue to have access to the Farm Cove Community Forest for both timber and non-timber forest products. Some community forests provide access for firewood. The Downeast Lake Land Trust, for example, provides permits to Grand Lake Stream residents to cut cordwood. Mushrooms, fiddleheads, ramps, and berries are also commonly collected from community forests.

Protection of ecological services

Watershed protection has been a common reason for establishing town forests, especially in the early to mid-1900s. For example, in 1936, in the depths of this country's first depression, a group of visionary residents in the Town of Gorham, New Hampshire, purchased land within the watershed of the town's water supply in the face of growing concern that over-harvesting in or the potential sale of the land would impact their drinking water supply.

Education

Many community forests serve as demonstration sites for public education about sustainable forestry practices, wildlife habitat management, and recreation planning. Some community forests are directly linked into the local school system. They support curriculum goals and provide outdoor classrooms.

Local jobs

Towns typically hire local consulting foresters, loggers, and truckers to conduct forest management planning, and timber harvesting activities. Where feasible, timber products are shipped to local mills. In addition, recreational trail work has provided local jobs and supported local recreation-based economic activity in Randolph and Grand Lake Stream. Management activities in the forest provide jobs for a three-person professional forestry team, and trail work is contracted out to the Randolph Mountain Club and the Waumbec Snowmobile Club (Willcox 2004). In the case of the 13-Mile Woods/Errol Community Forest, up to seven logging jobs for 40–44 weeks each year, in addition to a consulting forester, were projected to support forestry operations in the first five years of the project. In the long run, the more significant impact of the community forest may be its role in enhancing the development of Errol as a destination for recreational tourism (Community Forest Collaborative 2007). The 13-Mile Woods/Errol Community Forest and Farm Cove Community Forest have been planned as part of an effort to redevelop a forest-based economy that, in part, will offer a destination for recreational and ecological tourism. New enterprises such as outfitters, guides, sporting goods stores, and bed and breakfasts provide jobs that depend on the community forest.

Social welfare

In some cases, there are benefits that can be directly linked to the well-being of community residents. Revenues, for example, from timber harvests in one town forest in New Hampshire (Ossipee) are used, in part, to provide fuel assistance to low-income families. Some revenues from timber harvests on the Paul T. Doherty Memorial Forest in Gorham were used to construct a handicap recreational trail in town.

Open space and recreational access for residents

Community forests protect the visual and aesthetic qualities of the local landscape as well as preserve the rural character desired by many of New England's communities. Community forest projects often receive broad support from community members because they will open or preserve access for recreation such as hiking, biking, snowmobiling, hunting, cross-country skiing, and snowshoeing.

Conservation effectiveness

Community forests also play a significant role at the local level as community conserved areas, as a component of the large-landscape scale conservation initiatives, or as a piece in the mosaic of conserved lands that preserve productive forestland

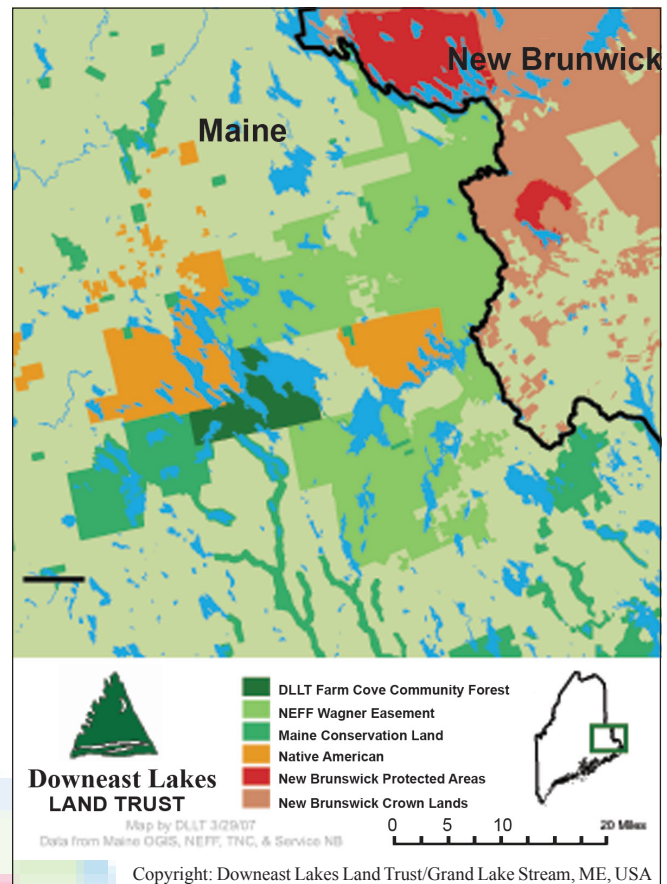


Figure 2
Downeast Lakes Land Trust/Farm Cove Community Forest

base in support of regional forest-based economies.

Many community forests have easements placed on the property to ensure the effective protection of conservation values. Stewardship and management plans often required by a funding agency follow principles of sustainable forest management for issues related to water quality, wildlife habitat, and biodiversity. Examples of the types of conservation benefits provided by community forests are described below.

Buffer to existing conservation lands

The Farm Cove Community Forest buffers an existing 1,400 ha ecological reserve and a 1,500 ha late-successional forest management area. As shown in Figure 2, the 13-Mile Woods/Errol Community Forest is adjacent to a state park and the Umbagog National Wildlife Refuge, while the Randolph Community Forest abuts the White Mountain National Forest.

Link between existing conservation lands

The Randolph Community Forest connects the two sections of the White Mountain National Forest in what has been identified by the state and federal wildlife agencies as a significant wildlife corridor (Figure 3). The Brushwood Community Forest will connect Bradford municipal watershed lands, the new West Fairlee Town Forest, and the Fairlee Town Forest. The Farm Cove Community Forest links parcels of land with conservation easements and tribal lands.

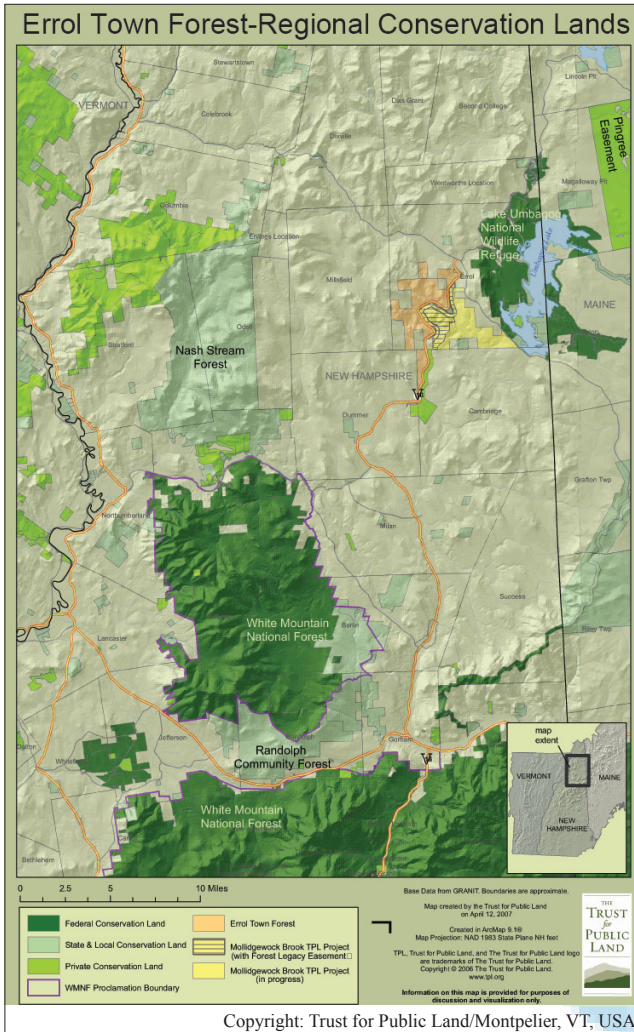


Figure 3
13-Mile Woods/Errol Community Forest

Component in the mosaic for the conservation of large landscapes

The Farm Cove Community Forest (Figure 4) is a significant component in a one million acre conserved international landscape of contiguous forestland in eastern Maine (US) and western New Brunswick (CA). The 13-Mile Woods/Errol Community Forest is an important link in a chain of private, state, federal, and non-profit protected lands that stretches from the Lake Umbagog National Wildlife Refuge to the White Mountain National Forest.

Coordinate management of productive forestland

The Brushwood Community Forest Initiative (Figure 5) offers another strategy for protecting the productive forestland base in a region by coordinating management among landowners. In this case, three towns will coordinate the management of their holdings within a larger landscape of un-fragmented forest. Another example is the Downeast Lakes Land Trust's effort to coordinate the management of the Farm Cove Community Forest with adjacent tribal lands for the benefit of wildlife.

Promote stewardship and monitoring

Most community forests are managed under the guidance of a professional forester. Stewardship activities at a minimum include the development of a management plan. Many community forest projects, however, engage community interest by encouraging community participation in stewardship activities such as natural resource inventories and trail building and maintenance. Some community forests are used to demonstrate 'best management' procedures for a variety of forest management activities. In some cases, grants or revenues from forest management activities are used to support wildlife habitat improvement programmes and long-term monitoring projects.

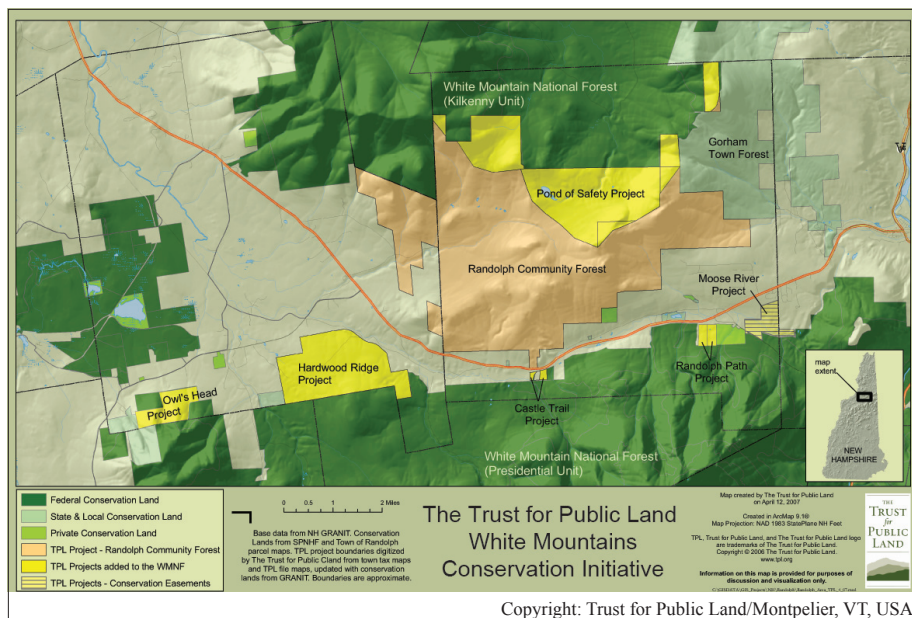


Figure 4
Randolph Community Forest

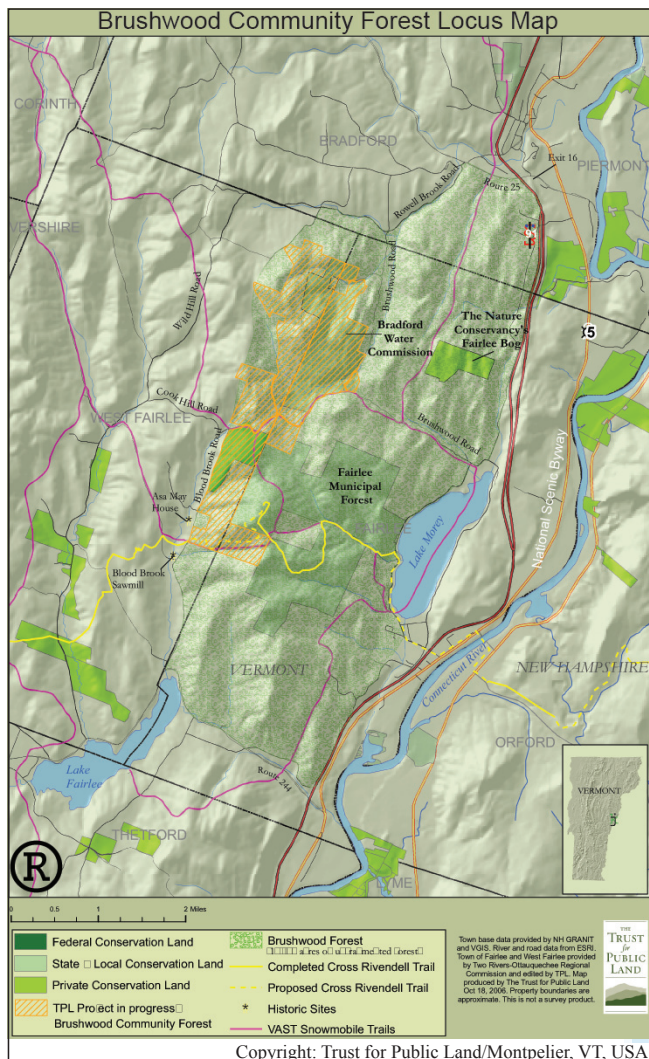


Figure 5
Brushwood Community Forest

DISCUSSION

Comparing New England's community forests and ICCAs

The examination of these cases within the context of the main attributes of ICCAs yields a number of insights into the conditions under which community forests can achieve their conservation and community goals.

The local governance structures of community forests are consistent with ICCAs. In particular, state statutes that specifically authorise municipalities to own and manage forestland, to create forest committees to oversee management, and to allow for special town funds to support management of the forest offer explicit mechanisms for local governance structures that are consistent with ICCAs. Two particular shortcomings, however, exist where there is scepticism, often translated into lack of trust in local government, both in terms of their capacity to own and manage a natural asset and in their ability to make good decisions. This is primarily related to the fact that municipal leaders are accountable in the short-term

and responsible for annual budget cycles that may set up a conflict with longer-term issues related to forest management. However, this scepticism or lack of trust may also be a result of a lack of shared values within a community.

Despite the enabling legal environment, there is still concern among some community members about the capacity and appropriateness of town-ownership of forestland. The innovative governance structures demonstrated in the case studies show that one can achieve genuine community leadership in decision-making even when the land is owned by a private non-profit such as a land trust.

The Community Forest Model as implemented in New England takes advantage of civic engagement in the region, both in the existence of formal processes for participation (town meetings, public hearings) as well as in the more informal culture and practices of involvement by town residents in the public affairs of their town. The degree of engagement, however, varies from town to town and questions and challenges will continue to surface around how to expand participation and ensure full engagement.

In the examples of community forests provided in this article, mechanisms are in place to ensure equity in decision-making. Forums for the public to be heard include the town meeting and formal public hearings on draft management plans and ensure that everyone who wants to be heard or involved can be. It would be an interesting exercise to conduct a survey to determine if everyone feels involved, has an opportunity to participate in decisions, and whether the decisions actually reflect the consensus of a community.

Issues related to sharing and distributing benefits and responsibilities may be more difficult to measure for two reasons. First, while the Community Forest Model suggests that benefits and responsibilities are shared fairly, they may not necessarily be equally distributed. For example, important benefits such as access rights, visual amenities, ecosystem services, and trails built with timber revenue can be enjoyed by all community members and often support the well-being of the whole community, but they are not specifically allocated to individuals within the community. Second, in some communities, there are often only a handful of people who take responsibility and consequently make many of the decisions for a community project, even though the benefits are accrued by the whole town. The question is whether, over time, the community as a whole feels that the community forest is a valuable asset and takes responsibility for its stewardship from generation to generation and recognises the shared benefits.

A New England community forest may be small in scale compared to a typical ICCA, but can still have an effective role in achieving conservation at the landscape level. Perhaps the greatest strength is that community forests tend to promote long-term, intergenerational ownership, providing a stabilising counterweight to the frequent turnover and fragmentation of land, which is occurring with private forestland in the region. In addition, the requirement of permanent protection of conservation values (through easements or other mechanisms) suggests a long-term commitment on the part of the community

to conservation. Finally, many of the reasons and incentives behind community forest projects reflect a shared purpose in the community for conservation. This can only enhance the ability to conserve the multiple values of a forested ecosystem over time.

On the downside are three potential countervailing forces: the short-term budget needs of communities, the potential lack of awareness and understanding about or cultural appreciation for ecological values, and the fact that there may not be an inclination to invest scarce financial resources in monitoring and/or ecological restoration. Finally, many community forests are on smaller parcels of land and therefore may not significantly effect the conservation of ecological systems across a large landscape. However, they all sit within larger landscapes and ecological systems, and there is a growing interest in and emerging opportunities for collaborative management across ownerships, between state and federal agencies, private landowners, and community forests.

Lessons from the New England Community Forest Model for ICCAs elsewhere

The experience of people working to create and steward New England's community forests offers lessons for ICCAs in other regions.

The enabling legislation in all three northern New England states that authorises towns to create and manage forestland offers examples of different frameworks for the governance of town owned and managed forestland. The range of governing structures exhibited by New England community forests offers a set of experiences that suggests the value of having flexibility and a range of options for governance so that communities can design a structure of governance that best meets their needs and addresses the specific characteristics of, and dynamics within, a given community.

There are a number of different practices related to the use of revenues from forest management that offer valuable insight on the need to ensure that decisions affecting those revenues are made based on an inclusive and participatory process, are insulated from the challenges of meeting a town's annual budget, and result in supporting both the stewardship of the forest as well as other community priorities.

Conservation easements have become an important instrument ensuring permanent protection of the conservation values of the forest in a number of ways. First, the community must work through the process of understanding the conservation values of the land and then must decide how to manage the land to protect those values. The third party that holds the easement is responsible for monitoring whether a community is managing the property in accordance with the terms of the easement which offers the community additional support and assistance in permanent protection.

Community forests, increasingly, are being viewed as an important component in landscape scale conservation as they serve as important buffers to existing conservation land and/or provide critical links between existing conserved areas,

and because they offer additional community and economic development benefits, they often serve to expand the sources of funding for land conservation.

Potential value of connecting community forests with ICCA networks

While there is little to no awareness across New England about ICCAs, it is worth exploring of what, if any value, it would be to communities, practitioners, and policy makers in the region to develop relationships within the international sector working on ICCAs. There are many ways in which linkages between the community forest movement and ICCAs could add value to both.

For community forests, there may be symbolic value that comes with being associated with part of a larger movement. Community members may find it attractive to engage with an international effort that provides diverse models and experience that can inform and inspire the efforts in an individual community. There is a potential for access, particularly by underserved communities, to a broader body of knowledge and practice. Exchanges and peer learning with colleagues abroad can have tremendous value, both to the ICCAs and community forests. The sharing of successful models with peers has already been an important catalyst for creating new community forest projects, both locally and regionally. As the Collaborative has found, much of the effort in building the capacity of rural communities to own and manage forestland as a community asset is the challenge of confidence. When communities ask, "can we do it?" and "how do we do it?", the best answers often come from people in places where it has been done, through the exchange of information and experiences.

CONCLUSIONS

The practices underway with the five community forests represented in this case suggest that while time will tell, there is already a close affinity between the Community Forest Model as implemented in northern New England and ICCAs. Community forests go a long way in achieving the goals of ICCAs for local governance, participation, equity in decision-making, equity in the sharing of benefits and responsibilities, and conservation effectiveness. Additionally, this paper has pointed out that community forests in the United States can provide important lessons for ICCAs elsewhere.

There will need to be continued vigilance as well as ongoing support and assistance to continually advance efforts to broaden participation and ensure it from one generation to the next, and to ensure that the community perceives that there is equitable sharing of benefits and responsibilities.

Finally, with this initial effort to draw a connection between a handful of community forests that reflect one model, it will be important to look at other approaches to community forests in the United States to determine their relevance and compatibility with ICCAs and then to create effective

strategies for linkages. Some of those strategies might include integrating more examples of community forest projects in the United States into articles and international publications related to ICCAs; promoting and supporting exchanges between community forest practitioners and practitioners from other ICCAs; and creating opportunities to involve people from community forests in programmes and/or formal structures related to ICCAs. The benefits from these strategies would flow in both directions and strengthen the community forest movement and the international movement to advance ICCAs.

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