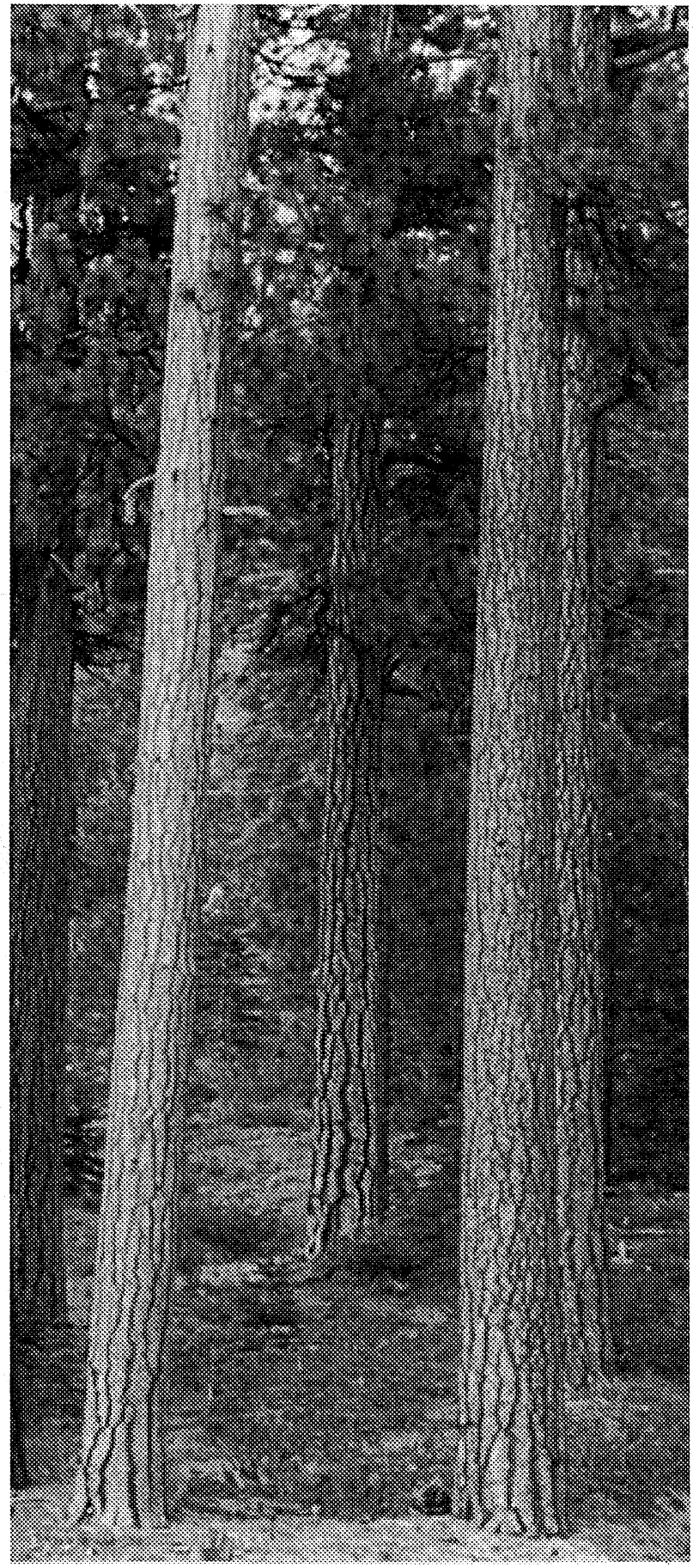

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ENVIRONMENTAL LAW & POLICY

When there's a Way, there's a Will

Report 2:

Models of Community-Based Natural Resource Management

by **Brian Egan, Lisa Ambus**

and Brian Evans, David Boyd, Stella Spak, Stephen Tyler, Michael M'Gonigle, Heather Mahony

Vodden, Kelly. 1999. *CED in Alert Bay: Organizations and Initiatives.* Unpublished Paper.

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REPORT 1: DEVELOPING SUSTAINABILITY THROUGH THE COMMUNITY ECOSYSTEM TRUST ("THE TRUST REPORT")

REPORT 3: REVIEW OF PROVINCIAL AND FEDERAL LEGISLATION RELATED TO COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT IN BRITISH COLUMBIA ("THE LEGAL REPORT")

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1. Background

This report is the second volume of a three-volume study on community-based natural resource management in British Columbia. The central objective of the study was to propose a new model for the management of renewable natural resources in this province, a model that integrates ecological sustainability with community-based governance of local resources. The model we propose—the Community Ecosystem Trust—is described in the first volume (Report 1) of this study.[1] The third volume (Report 3) of this study reviews existing legislation in British Columbia related to community-based renewable natural resource management.[2]

A key part of this study involved research and documentation of models of community-based management of renewable natural resources from British Columbia and other jurisdictions. In this report, we present the results of this research. As the following text shows, countries around the world are moving quickly to introduce policies and legislation to support greater community control over the management of forests, fisheries and other resources. The range of models and approaches described here is broad, and is by no means exhaustive. In choosing models for inclusion, we have focused on those that have been well documented (and often held up as successful examples) as well as those that are of particular interest to this study.

The models are presented by geographic region, describing experiences with community-based management of natural resources from Asia, Africa, Europe and the Americas. There is a separate chapter on models from British Columbia, and this chapter comprises the bulk of this report. Within each region, we describe experiences at a variety of levels – in some cases we have focused on national programs (e.g., Nepal, Tanzania), in other cases we look at sectoral initiatives (e.g., community forestry, community fisheries) and by specific local projects.

All of the models described here hold lessons for the development of a new legislative approach and framework to support the transition of community-based management of renewable natural resources in British Columbia. Indeed, the model we have proposed for British Columbia is, in large part, derived from experiences across the globe. The lessons drawn from these experiences are not summarized here, but have been integrated into Report 1 (The Community Ecosystem Trust Report), either directly into the text or in the form of text boxes.

The small text boxes found in the margin of this report highlight lessons found in the models. These boxes are cross-referenced with the small boxes in Report 1 (the Community Ecosystem Trust Report), so that the reader can move quickly back-and-forth between the two reports.

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2. Introduction

The management of the natural resource base for collective benefit is a very old human occupation. It is widely accepted that civilization arose from the concentration of power required to administer, control and coordinate irrigation systems that enabled major increases and surpluses in agricultural production. For about 5000 years, then, there has been a dynamic interplay between the interests of the senior government (in the name of the God-king, monarch, or State) and the local people who depend for their livelihoods on these natural resources.

Throughout history, and in different localities, the balance of power and control over land, forests, water and fish has swung back and forth between the local people and the central authority, depending on the strength and legitimacy of political institutions and the extent of their reach. But within the last century, the rise of the modern nation-state, the power of technology and of the global economy have led to the extension of central technocratic and managerial control of natural resources virtually throughout the globe. Agricultural land has in most places remained under the control of the tiller, typically under private ownership of some form. But forests, waters and fish are more difficult to privatize and have fallen under the purview of the State.

Under State control of natural resources, it was believed, highly trained, scientific and economic managers would apply their expertise and analytical skills to rationalize the management of the natural resource base and bring widespread benefits to the population. Superior knowledge of ecological principles would enable them to implement measures to reverse environmental degradation. Higher value commercial and export-oriented resource concessions would increase local incomes and improve living conditions for the rural poor, while providing revenue to support national development. Also, advanced production and harvesting technologies would greatly increase the productivity and effective exploitation of the natural resource base. This rosy picture was widely accepted by decision-makers as the model for improving natural resource management everywhere.

The application of this model has indeed led to an unprecedented scale of resource exploitation, feeding expanding global consumption and contributing to the accumulation of wealth by many individuals, corporations and governments. There is no doubt that this has brought huge benefits. But with surprising consistency in many different countries, the model has not worked out well for either the resource base or for poor local people. Across the globe, examples of resource depletion and collapse abound and, as a consequence, resource-dependent communities find themselves in crisis. This has led to a widespread interest in community-based approaches to natural resource management.

In the past few decades, hundreds of local and national initiatives have been undertaken in Asia, Africa, and the Americas to (re-) strengthen the base of local control over productive natural resources on which local people depend for their livelihoods. These initiatives have been enormously diverse, ranging from very large-scale sectoral programs supported by national governments and multilateral agencies, to completely indigenous initiatives spearheaded by energetic and opportunistic local leaders. Because of widespread interest among formal international donors, non-government organizations, grassroots advocates and national governments, many of these initiatives are well documented.

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While international development and poverty alleviation organizations have been working with local partners on community-based natural resource management (CBNRM) in the South, a parallel advocacy movement has seen increased agitation from rural, natural-resource-based communities in the developed countries of the North. These communities have expressed frustration with their lack of control over large-scale exploitation of key local resources. They have indicated dissatisfaction with the exclusive focus on commercial criteria for decision-making over long-term resource use. They have expressed outrage that impacts on their communities and livelihoods are treated as merely residual effects of strategic decisions made in remote corporate boardrooms or government offices. They express the view that with their own experience and local knowledge, they could do a better job of managing their natural resource ecosystems to ensure their sustainability and productivity. And they have indicated a desire for local economic diversification based on multiple uses of the resource base, including value-added secondary industries.

Nevertheless, there remains resistance to, and skepticism of community-based management by those who conclude that if given the chance, communities would fall subject to Hardin's (1968) theory of the 'tragedy of the commons'. Such a presumption - that centralized control, or privatization of resources is necessary to avoid tragedies of the commons - fails to recognize the direct relationship between communities and the resource base, and the inherent interest that local people have in a long term, and sustainable management regime.

The striking thing is that, while the material, social, political and environmental conditions in the industrialized countries of the North, compared with the poor, predominantly rural developing countries of the South, seem so different, the rationale for rural community-based natural resource management is very similar. This report therefore reviews the experience of community-based natural resource management in many different countries, rich and poor, examining its origins, rationale, and a handful of well-analyzed cases, to assess what lessons this experience may hold for British Columbia.

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3. Models from Asia

In ecological terms, Asia is one of the richest regions in the world with extensive forest and wetland ecosystems, rich freshwater and marine fisheries, diverse wildlife populations, and productive soils. The region is also rich in human culture, with thousands of different cultural and linguistic groupings. As well, it includes some of the most densely populated areas on earth. There is a long history of careful human use of natural resources in Asia; throughout the region tribal groups have developed complex and varied management systems, such as agroforestry and long-rotation swidden agriculture.

Although colonialism and the advent of State-control over natural resources have undermined these traditional systems, many remain in place. As Poffenberger (1999a) has noted in his study of community-based management of forests in Asia, "each country possesses hundreds of agroforestry systems, mixed tree gardens, and natural forest product gathering and hunting strategies." It is beyond the scope of this report to fully explore these models. Rather, here we will focus on two countries, Nepal and India, that have made significant progress at the national level towards community management.

3.1 Nepal: Community Forestry User Groups

Nepal is presently regarded as having one of the most progressive programs for community forestry in the world (Britt 1998). Nepal's national forest law mandates that 61 percent (3.5 million hectares) of the nation's forest area be allocated to community-based forestry. Recent figures indicate that 651,764 hectares of forest have been handed over to 8,957 forest user groups, benefiting over one million households (Poffenberger 2000).[3] The primary focus of community forest management in Nepal is meeting the subsistence needs of local people – rural communities in Nepal rely on community forests for a wide range of products and services, such as non-timber forest products, fodder, fuelwood, and housing construction materials (Britt 2000).

Nepal began exploring community forest management policies over 20 years ago in response to projections of rapid rates of deforestation. The first phase of devolution began with the 1976 National Forestry Plan that enabled village-level government institutions (called *panchayats*) to receive limited areas (125 hectares) of natural forest for local protection and management (Kanel 1998). The 1976 Plan was a radical departure from the previous legislation governing forests (e.g., the 1957 Private Forest Nationalization Act, the 1961 Forest Act, and the 1967 Forest Preservation Act) that centralized the management of forests and created a perverse incentive structure leading to the degradation of forests.

Attempts in the early 1980s to implement community forest pilot projects were unsuccessful until it was acknowledged that communities must have decision-making authority in the management of forests. By 1987, 10 years after the pilot projects were initiated, only 36, 376 ha of forests had been handed over, despite an overall target of 1.8 million ha and intensive inputs from the United Nations agencies (e.g., FAO), the World Bank, and other major donors (Britt 1998). Government legislation was later amended to facilitate greater community involvement, culminating in the

[3] Unofficial estimates are higher.

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1990 Master Plan, the 1993 Forest Act, and the 1995 Forest Regulations, which greatly strengthened the legal and institutional arrangements.

The 1990 Master Plan specifies the role of forest users as managers, and government employees of the Department of Forests as facilitators, in the process of 'handing-over' forest land to forest user groups. The procedure for handing over a forest to a community consists of the following (Shrestha 2000):

Lesson: Government facilitates devolution.

- Formation of a user group following an identification process
- Demarcation of forest as a community forest;
- Preparation and approval of an operational plan; and
- Handing over the forest to the user group and implementation of the operational plan.

The 'community' to whom forest management authority is devolved is not defined by the *panchayat* (as the community forest pilot projects had done). Instead, Forest User Groups (FUGs) are the key community organizations involved in managing these forest areas. The boundaries of the forests and the *panchayat* are often very different. The community forest management pilot projects revealed that most of the forest areas handed over to *panchayats* were mismanaged as local elites claimed all of the benefits of the forest, marginalizing the true forest users (Shrestha and Shrestha 1998). Consensus on who should constitute the FUG is one of the most critical factors in developing a successful community forest. If there is no agreement on membership of the group, little basis exists for developing management systems. The members of the FUG are individuals who have traditionally used the forest resource, are interested and willing to continue doing so, and have the capacity to manage the forest. Each FUG is supposed to create an executive committee of 10 to 15 elected members to handle the routine management of the forest (Poffenberger 2000).

Lesson: Defining membership to community is a critical first step.

The process for establishing the FUG is formalized through the creation of a distinct Constitution (Charter), registered in the District Forest Office. A forest operation plan is also prepared by the community organization, and the District Forest Officer has the authority to hand over forests to community groups without waiting for the approval of the regional director (Poffenberger 2000). Should the FUG fail to uphold the provisions of their operation plan or their constitution, or should they go against the prevailing rules and regulations, the District Forest Officer maintains the power to revoke the forest – with the proviso that the forest should be again handed over to the users once the problem is rectified.

Lesson: Communities create a distinct Charter.

Lesson: Decision-making authority exists locally.

Lesson: Local Officials have the role of trustees.

The status of a FUG is recognized by the government as a legal entity. They are "organized, autonomous and corporate institutions with perpetual succession."[4] Ownership of the forest land remains with the State but FUGs are provided with rights to protect and manage the forest and sell forest products without any tax liability. FUGs can acquire, use, sell and transfer movable or immovable properties, and FUGs are entitled to enforce rules of their constitution and operational plan, within the allowance of the Kingdom's laws (Poffenberger 2000). The FUG is also given the responsibility to fund

Lesson: Community groups are recognized legal institutions.

[4] His Majesty's Government, Community Forestry Directives 2052 (1995).

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its own activities (including forest protection and forest development) although they are entitled to receive grants from governments and outside sources.

Lesson: Networking can help build capacity and self-sufficiency in communities.

A federation of FUGs exists at the national level to support their activities and to act as a national voice for FUGs. Established in 1995, The Federation of Community Forest User Groups, Nepal (FECOFUN – or *Samudaik Ban Upabhokta Mahasangh*) is a non-profit, non-governmental organization which compliments government initiatives at the ground level by helping to foster self-reliance among user groups by providing extension services locally and actively involving FUGs in decision-making processes. FECOFUN is also developing the capacity to play a role in advocacy – lobbying the Nepalese Government to establish and maintain the users' rights that are provided in the prevailing laws.

Although the implementation of a nationwide program for community forestry in Nepal has not been without its problems, it is an important model for the devolution of management responsibility over natural resources to community authorities. Some of the key lessons to be learned from the Nepal community forestry scheme include:

- Community-based management needs to be initiated by government legislation, with room to amend and adapt policies to facilitate greater community involvement;
- Information sharing between user groups, and between government agencies and communities is necessary to facilitate the transition to community-based management;
- Community resource management must include a broad range resource uses and values; and
- Networks of community organizations, independent from government, can play a crucial role in organizing and empowering communities; disseminating information; coordinating training and income-generating activities, and creating an advocacy group to protect users' rights.

3.2 India: Joint Forest Management

The system of centralized forest management, inherited during the period of British colonial rule has been documented as one of the main contributing factors to the degradation of forests and forest dependent communities in India (Krishnaswamy 1995). The colonial regime emphasized commercial timber exploitation for external markets, managing forests for state revenue while neglecting and restricting villagers' traditional rights of access to forest resources. Following independence, and faced with increasing rates of deforestation, the Government of India has emphasized forest conservation since the 1980s. However, the primary activity of India's conservation strategy in the 1980s was a massive tree planting campaign using exotic species for industrial interests. The 1988 National Forest Policy modified this, at least in rhetoric, stating that the "principal aim of [India's] forest policy must be to ensure environmental stability and maintenance of ecological balance…which are vital for sustenance of all lifeforms, human, plant or animal. The derivation of economic benefit must be subordinated to this principal aim" (GOI, 1998 cited in Krishnaswamy 1995).

India's new system of Joint Forest Management (JFM) has its roots in innovative experiments in joint management at the local level in West Bengal starting in the early 1970s (Joshi 1999). In 1989 the state of West Bengal formalized JFM as its approach to forest management. This approach was soon adopted at the national level; on June 1, 1990 the Ministry of Environment and Forests issued a circular requesting that all states in India adopt a system of Joint Forest

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Management. It is currently estimated that 10.24 million hectares of forest lands are being managed under the JFM program by 36,075 committees in 22 different states across the country (Poffenberger 2000).

Briefly, Joint Forest Management is an evolving policy-based program that sets out to establish management 'partnerships' between local forest-dependent communities and the state for sustainable management (Sarin 1996). JFM develops formal partnerships between villagers and the Forest Department through the formation of Forest Protection Committees (FPCs) for the protection and management of state forests, where the local communities and the government share both responsibilities and proceeds (Kant and Cooke 1998). Throughout India, the central idea for JFM is that in exchange for their cooperation and assistance, villagers are given free access to non-timber forest products (NTFPs) and are entitled to a share of the profits from the sale of regenerated trees when finally harvested (Joshi 1999; Hill 2000). The amount of timber profits to be returned to local communities by the Forest Department varies by state: from 25% in Jammu and Kashmir, to 80% in Gujarat.

Lesson: Communities earn a share of resource rents.

The shift to JFM has converted what were de facto 'open-access' state-owned resources into common property-like regimes, in that it involves a well defined group (the Forest Protection Committee) with a clear set of rights and responsibilities to a well defined forest area. For the government, a clear benefit of the JFM approach is the protection of forest lands from poaching or illegal cutting. A key role of the Forest Protection Committees is to guard these forest areas from those wishing to exploit them. The incentive to protect the forests is a guarantee of a share in the resources that are produced.

Joint Forest Management represents a positive move forward in the sense that it formalizes recognition of communities as significant partners in the management of forests. However, while it does decentralize administrative arrangements, it is widely criticized for not devolving enough real power to local communities. Rules and duties are prescribed in the government resolutions, leaving little flexibility for site-specific adaptations (Hobley and Shah 1996), and institutionally, the Forest Department has retained full control over the entire process and the forest land. The village institutions have no legal status, having been formed under an executive order of the government that could be withdrawn at any time, and have no autonomy over its functioning (Krishnaswamy 1995). Furthermore, the externally-imposed initiative has ignored structural and institutional barriers that restrict access of the rural poor to forest resources.

Lesson: Need for balance of decision-making control between community and central government.

Nevertheless, the process of devolving public forest management to communities is occurring in iterative stages, with state agencies and communities negotiating agreements that meet local and agency needs. Thus far, JFM represents a significant policy shift in the following ways (from Joshi 1999):

- from production for commercial markets or government revenue, to production to fulfil the needs of forest communities;
- from an exclusive focus on timber to include non timber forest products which are important to the livelihoods of forest communities;
- from managing monoculture plantations to forests with a diversity of tree species and age classes, for a sustained supply of timber and other products to meet community needs; and
- from custodial management through policing to participatory management.

Alden Wily, Liz, Amina Akida, Othmar Haule, Heriberth Haulle, Silas Hozza, Calisty Kavishe, Shabani Luono, Phaeras Mamkwe, Edward Massawe, Shidumu Mawe, Damson Ringo, Makiya Makiya, Maleak Minja and Anatoly Rwiza. 2000. "Community Management of Forests in Tanzania: A Status Report at the Beginning of the 21st Century." *Forest Trees and People Newsletter* No. 42, June 2000: 36-45.

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Within the JFM model, the community is defined at the level of the *panchayat*, and is organized at the local level in a Forest Protection Committee. Membership in this committee is open to residents of the village and is not restricted to either landowners or rights holders. In practice, however, only rights holders have been participating in the institution, and the primary users of the forest, namely women, have been excluded from the Forest Protection Committee. Throughout India women participate in the protection of forests and are the major extractors of biomass (in the form of NTFPs) – therefore, their exclusion from participation in Forest Protection Committees means that their needs and aspirations are not given due prominence or priority.

Lesson: Membership in the community organization must be equitable.

Lesson: Self-regulation occurs through local systems of monitoring and enforcement.

One of the responsibilities of the Forest Protection Committee is mobilizing members to patrol forests and inform officials of illegal felling or timber extraction. They also have the power to exclude other groups from using their forests (Joshi 1999). The enforcement of rules requires that the power to enforce be vested in some authority recognized as legitimate by all parties; or that some voting procedures among the affected parties are available to lead to decisions in concrete instances. For example, in the forests in the middle Himalayas, villagers employ a watchman who is paid from fines collected from violators. Evidence from both India and Nepal indicates that users who violate operational rules are likely to receive graduated sanctions (depending on the seriousness and context of the offence) from other users, from officials, or from both.

Lesson: Policies and legislation evolve over time.

The government of India has recently issued new guidelines to address some of the concerns raised by communities and other critics of the JFM program. In order to strengthen the JFM program, the following recommendations have been made (Poffenberger 2000):

- Rights to Good Forests – communities can co-manage dense productive forests and have a 20% share in timber production;
- Recognition of Self-initiated Groups – village-based protection groups that do not conform to JFM guidelines will be recognized and can derive benefits from the JFM support programs;
- Legal Identity – Forest Protection Committees can register under the Societies Registration Act to gain legal identity;
- Conflict Resolution Mechanisms – State governments will form working groups comprised of different stakeholders at the state and divisional levels to help resolve conflicts related to JFM;
- Women's Involvement – to encourage women's participation in JFM, at least 50% of the Forest Protection Committee and 33 percent of the Executive committee should be women;
- Investments in Forestry – A joint contribution of 25 percent of timber revenues between the Forest Protection Committees and Forest Department should be reinvested in the forest for development and conservation;
- Integrated Planning – A new JFM working circle should be created to facilitate the integration of different community forest management initiatives such as the village-based micro-management plans and Forest Department working plans; and
- JFM Monitoring and Evaluation – At intervals of 3 years, and 5 years at the state and divisional level, JFM progress should be monitored and evaluated.

Lesson: Introducing Working Group facilitation.

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While the experience with Joint Forest Management has been mixed, this co-management model offers a number of valuable lessons for community resource management arrangements in other jurisdictions. These include:

- External agencies, and government legislation should *enable* local initiatives in community resource management rather than being the *implementers* of development.
- Top-down strategies don't work because they only serve to decentralize administration, and devolve true management authority in a superficial way.
- The development of linkages between sectoral and political decentralization is an important part of ensuring sustained institutional change from bottom to top.
- A flexible approach based on different community needs is necessary to provide the opportunity for central government and local community to negotiate over the terms of the devolution agreement.
- Enforcement through government institutions is usually more costly than enforcement at the community level, because local people are dependent on the resources and therefore have incentive to monitor them effectively.

- recognition of the Xax'lip decision-making process;
- receipt of Xax'lip positions on proposed dispositions;
- structures and processes to seek consensus between the parties; and
- a dispute settlement mechanism.

The MOU under the joint stewardship agreement provides for the joint undertaking of an integrated resource management plan for the territory and for some employment on Ministry of Forests projects. The Xaxli'p First Nation has purchased forested land within its traditional territory and is practicing ecologically responsible forest use on these lands.

In the agreement between the Xax'lip First Nation and the Province of British Columbia, there are several unique features that show the flexibility of co-management agreements. This agreement explicitly affirms the importance of traditional indigenous knowledge. It also sets out education initiatives and includes a budget within the agreement. There is a provision that allows for consensus process between the Xax'lip First Nation and provincial government. There is a joint dispute resolution mechanism based on recognition of Xax'lip First Nation's decision-making processes.

9.6.6 West Chilcotin Community Resource Association

A coalition of community, Aboriginal and industry groups established in 1988 to reform forest management based on ecological principles. In 1994, the Anaheim Round Table which is made up of 30 stakeholders, reached consensus on a community-based resource management plan which sustains environmental, social and economic values. *The Anahim Round Table Resources Management Plan: A Consensus Document* was the result. Integral to the success of the process was the supportive participation of government agencies. Government representatives were field people who knew the area and the issues. In a letter of support the Ulkatcho Indian Band expressed that they felt that their traditional land values are recognized by the ART Management Plan. The Association is currently attempting to harmonize this plan with the larger, more industrial Cariboo-Chilcotin land use plan.

4. Models from Africa

Although best known for its rich wildlife heritage, the African continent is home to an incredible variety of ecosystems – tropical rainforests in central and west Africa, vast savannas and grasslands throughout east and southern Africa, complex desert systems in the north and southwest, and some of the planet's most important wetlands scattered across the sub-Saharan portion of the continent. As in the Asian case, traditional forms of resource management in Africa were disrupted by the process of European colonization. European exploitation of the continent's rich natural resource base was facilitated by centralization of decision-making within the bureaucracy of colonial regimes.

The collapse of colonial administrations and the rise of independent governments did not automatically lead to transformation of centralized forms of natural resource management. Many of the newly independent African nations adopted the colonial model of central regulation and management. Tanzania is one nation that did not adopt this model, but rather early on in the process of independence sought to devolve management authority to local authorities through the 'Village' system. More recently, a number of African countries have begun examining ways to shift more control over natural resources to local authorities, and a number of new laws have been passed to facilitate this. A recent FAO (2000) report noted that at least eleven different countries have at least one significant community-based resource management initiative underway; and about half this number have draft or complete new laws responsive to the need for community management. In terms of forestry, it noted that upwards of 1 million hectares of natural forest in sub-Saharan Africa could be under direct or indirect community management within the next few years. In this chapter we review some of the more promising approaches to community-based management of natural resources in Africa.

4.1 Tanzania: Village Lands[5]

On the African continent, Tanzania is a leader in devolving management control over natural resources to local authorities. Progress in this area stems from the process of "Villagization" begun in the 1970s by the post-Independence socialist government. Through this process of resettlement, the 'Village' in Tanzania was deliberately constructed as a level of local organization with the purpose of entrenching the local community as the institutional foundation of modern development. This created legal corporate organizations, the 'Village' as a level of local government, at the grassroots level. Some 25 million people in Tanzania (out of a total population of 30 million) live within one of the 9,000 registered Villages (Alden Wily 1998). As of 2000, over 1,500 different systems of local management have been initiated in Tanzania (Alden Wily *et al.* 2000).

Lesson: Local Institutions provide a legal framework for devolution

Lesson: Diverse systems and approaches work for diverse communities

Lesson: Control is vested in an elected Village-level Management Authority

Villages were first regulated in law through the 1975 Villages and

[5] Dr. Liz Alden Wily is the leading expert on legal and policy aspects of community-based natural resource management in Tanzania, and this chapter is based largely on her work.

It is premature to draw conclusions on the lessons to be learned from the Muskwa-Kechika model given that the *M-K Management Area Act* was only enacted in 1998, and the Advisory Board has only been in operation for two years. However, the approach illustrates mechanisms to enhance local community involvement in land and resource management, elements of which may be of interest in the design of arrangements to devolve control over natural resource management to communities.

The key element is the M-K Act, which establishes a legislated requirement for all statutory decision makers to comply with a community-developed land and resource management plan. Furthermore, the Act requires additional strategic planning to be done by key agencies (Forests, Energy and Mines, and MELP) prior to the issuance of permits or licences. The Act is a higher level of resource stewardship and statutory accountability than is required under current government policy and regulation in most other areas of the province.

Lesson: Priority is given to local decisions over other regulations.

The MK Act does not, however, devolve management authority or responsibility to the Advisory Board; all statutory authority over Crown resources remains with the provincial government and its agencies. The Advisory Board has a monitoring function primarily – including the mandate to report directly to the Premier and the public – as well as a strategic planning role in advising Crown agencies on strategic planning priorities within the M-K area.

Similar in some respects to the Central Region Board in Clayoquot Sound, the MK Advisory Board derives its authority from its engagement with government agencies in strategic planning and oversight of these activities, not through direct control over issuance, modification, or revocation of tenures, permits or licences. In the case of the M-K Advisory Board, its authority derives largely from its ability to report publicly and to the Premier on the performance of Crown agencies in meeting strategic objectives for the plan area. In the case of the Clayoquot Sound Central Region Board, its authority is enhanced by mechanisms that escalate requirements for consultation with more senior levels of provincial government and First Nations of Clayoquot Sound, in the event that agencies undertake activities that are contrary to the position of the CRB.

Lesson: Advisory board has limited decision-making power.

9.6.5 Xaxli'p First Nation: Joint Stewardship Agreement

The Xaxli'p First Nation's traditional territory is located near Lillooet. The Xaxli'p have completed an ecosystem-based landscape plan, for their traditional territory. The ecosystem-based landscape plan integrated with their Traditional Use Study is the foundation for any development plans within their traditional territory.

The Xaxli'p First Nation signed a joint stewardship agreement and Memorandum of Understanding (MOU) with the government of British Columbia in 1992. The agreement covers any disposition of land, water or resources within the Xaxli'p First Nation's traditional territory. The agreement provides for:

Lesson: Ecosystem principles and cultural values create a foundation for community management.

- increased involvement for the Xaxli'p in land and resource disposition;
- integration of Xaxli'p traditional knowledge in decision-making;
- notification, information and consultation on any proposed land or resource use;

Ujamaa Villages Act, and further supported by the 1982 Local Government Act. An advantage of this village system for community-based natural resource management is that each village has a legal and institutional base (Alden Wily 2000). Furthermore, each village has a defined perimeter boundary, defined at the time of registration (Alden Wily 1998). A Village Council is elected within each village and the community becomes the controlling authority over management decisions concerning water sources, grazing land, and forests. The 1995 National Land Policy has taken this level of village authority a step further by granting the Village Council as the 'Land Manager', or Trustee, of the Communal Village Lands. The role of the Village Council has expanded over a period of 25 years, however, they remain accountable to the higher level District Council.[6]

Lesson: The Village Council plays the role of "Trustee" or "Land Manager".

Tanzania's new land law, the 1999 Village Land Act, recognizes common property as a legal form of ownership, and actually encourages common property tenure (Alden Wily 2000). The implications of this tenure development for communities is significant especially in terms of managing natural resources such as grazing land and forests. To examine this model in more detail, let us look at the specific case of community-based forest management.

Lesson: Common Property is a legal form of ownership.

4.1.1 Community-Based Forest Management

Community-based forest management in Tanzania is emerging through interaction between on-the-ground practice and new policies. The main actor in community-based forest management is the village, defined by its location in relation to the resource. Within the village lands, Village Forest Reserves have been created, covering over 19 million hectares. Beyond the village boundaries a number of Public Land Forests and National Forest Reserves (legally held under the guardianship of the District Council and the state Forest Department respectively) are also being transferred to communities for management.

The new National Forest Policy (1998) reflects these developments in its declared objective to promote Village Forest Reserves and inter-jurisdictional collaborative management regimes (Alden Wily 2000a). Alden Wily (1998) notes that, "it is mainly because a Village is a legal person in Tanzania, that national forestry management has felt comfortable designating Villages as their main partner in the management of National Reserves." For example, in 1994 eight villages officially took over the management of the neighbouring Duru-Haitemba National Forest Reserve. Faced with a deteriorating forest, the state Forest Department agreed to reverse the reservation process and began working with the local communities to manage the forest themselves (Alden Wily *et al.* 2000). Working in cooperation, the eight bordering communities agreed upon discreet management areas. These new 'Village Forest Reserves' are governed by local by-laws and the communities have successfully monitored and enforced these rules with visible improvement in the forest.

Lesson: Accountability of the community institution creates 'trust'.

[6] Section 142 of No. 7 of 1982 (URT) cited in Alden Wily 1998. The Village Council has the attributes of a legal person. It has both the right and duty to 'govern' its constituency, in accordance with powers and responsibilities awarded it in law.

Lesson: Facilitated local management and capacity building are funded by a provincially-funded Trust.

Ten specific purposes to which expenditures from the Trust Fund may be made, are identified in s.12(2) of the Act, and include: to conserve and enhance biological diversity, fish, fish habitat, wildlife, wildlife habitat, and wilderness values; to conduct research into wilderness management, fish and wildlife biology and ecology, with emphasis on large predator/prey systems; to conduct research into integrated management of wilderness, wildlife, fish, recreation, and resource development; to support inventories and mapping of wildlife, recreation, range and culture; to support planning initiatives regarding wildlife, recreation, parks, access and resource development; to involve and train persons from local communities in resource related career opportunities; and, to promote knowledge and awareness of the trust fund, the M-K Area and its wilderness values; and, to support enforcement training and activities that serve to ensure compliance with the *Act*. The budget for the Muskwa-Kechika Trust Fund was approximately $2.4 million in 1999-2000.

The Muskwa Kechika Advisory Board

Lesson: The advisory board has broad representation.

The Muskwa-Kechika Advisory Board consists of up to 17 members representing First Nations, environmental organizations, business, labour, and Fort Nelson and Fort St John LRMP participants. Members and the Chair are appointed by the Premier. Kaska-Dena representatives are appointed in accordance with the September 24, 1997 Letter of Understanding between the Kaska Dena Council and the Province of British Columbia. The Letter of Understanding establishes an agreement between the Kaska Dena Council and the Province of British Columbia regarding the Muskwa-Kechika Management Area and provides for direct involvement of the First Nations in the implementation and monitoring of the plan. The M-K Advisory Board is responsible for:

- conducting semi-annual reviews of the issuance of tenures and approval of operational activities to examine the achievement of management plan objectives through local strategic planning and operational activities. Local strategic planning is defined as an oil and gas pre-tenure plan, a recreation management plan, a park management plan, and a wildlife plan;
- reporting, at least annually, to the public and the Premier on the results of the Board's semi-annual reviews and other issues related to the management of the M-K Area;
- providing advice to the Inter-Agency Management Committee on corporate priorities for and coordination of local strategic land use planing in the M-K Area;
- facilitating provincial, national and international exposure of the values and management of the M-K Area;
- recommending and implementing measures to raise money for a Muskwa-Kechika Fund;
- reviewing proposals and funding requests for, but not limited to, research projects; and make recommendations for expenditures from the Muskwa-Kechika Fund;
- supporting the initiation of local strategic plans for the Muskwa-Kechika Management Area, to achieve the management plan objectives;
- ensuring adequate public consultation in the preparation and approval of local strategic plans, amendments to the Muskwa-Kechika Management Plan, any other significant policy issue for the Muskwa-Kechika Management Area, or as requested by the Inter-Agency Management Committee; and
- providing recommendations to the Environment and Land Use Committee ministers on any proposed amendments to the Management Plan.

A new draft forest law with the potential to provide a clear and equitable framework for involving community participation has as one of its main objectives to, "delegate authority to the lowest possible level of local management."[7] The Bill specifies that communities may manage and even own forests themselves, not merely work in cooperation with government (in a co-management scheme of sorts) to protect the forest in exchange for access rights as they do in India and Nepal.

Three types of community-based forest management are set out in the new law:

- Village Land Forest Reserves (VLFR) – forest land owned by the entire village community;
- Community Forest Reserves (CFR) – forests owned and managed by a sub-group of the village community; and
- Village Forest Management Areas (VFMA) – areas of government reserves placed under community management, not ownership.

Lesson: Authority is delegated to the most local level of government.

Lesson: The roles of community and government change.

Villages have been designated the "Manager of the Forest" with the government forester acting as technical advisor, liaison between central and local government, as a watchdog on progress, and as a mediator in dispute resolution among village forest managers (Alden Wily *et al.* 2000).

Lesson: There is diversity in management arrangements.

The Tanzania case presents a fundamental shift of management control and decision-making power to the community ("Village") level. A complex framework of laws and policies, developed over many decades, has facilitated the development of this model.

4.2 Namibia: Community Conservancies

Namibia's independence from South Africa in the early 1990s created the 'opportunity space' for the mutually supportive development of community-based natural resource management in practice and policy. New policies and laws in Namibia, such as the 1998 National Land Policy and the 2000 Communal Land Reform Act, enable meaningful participation of community-based groups in natural resource management by recognizing the legal rights of common property regimes. The Land Policy includes a clause allowing for "legally constituted bodies and institutions to exercise joint *ownership* rights (and) duly constituted co-operatives" (Government of the Republic of Namibia (GRN) 1999, cited in Jones 2000, emphasis added), with the state acting as a trustee on behalf of the citizens (Alden Wily 2000, 2000a). This newly emerging system is not simply a matter of tenure or land reform, but is a much larger process of socio-political democratization (Alden Wily 2000b, 2000c).

Lesson: The transition towards community-based management reflects a larger process of democratization.

In the case of wildlife management and tourism, the Namibian approach is currently based on the formation of conservancy organizations (Jones 2000). Parliament passed legislation in 1996 approving the proposed policy for communal area conservancies,

Lesson: Communities create a Conservancy Constitution.

[7] Draft Bill for the Forest Act, January 2000. Cited in Alden-Wily *et al.* 2000.

Muskwa-Kechika Management Area Act

Objectives for the management of the M-K Area were developed as part of the Fort Nelson and Fort St. John Land and Resource Management Plans (LRMPs). Recognizing the unique and globally significant wilderness and wildlife values of the region, participants in the two LRMPs recommended a formal designation for the M-K Area, which was established by the Province of British Columbia through enactment of the *Muskwa-Kechika Management Area Act* in 1998.

The purpose of the Act is to provide the M-K Area with its own Act and to establish a statutory trust to support wildlife, wilderness resources and integrated management in the M-K Area. The Act has six core elements, as follows:

- it establishes that a minister or other agent of government must not exercise a power under any enactment except in accordance with the Muskwa-Kechika Management Area Act [s.2 (1)]41;
- it requires that all planning and management of Crown land and natural resources in the M-K Area must conducted in accordance with the Muskwa-Kechika Management Plan [s. 4(1)]. (The Muskwa Kechika Management Plan is a product of the Fort Nelson and Fort St. John LRMPs. It identifies general management direction[42] for the whole plan area, as well as area-specific objectives and strategies for zones within the M-K Area, such as special management zones, enhanced resource development zones, and protected areas);
- it requires that a local strategic plan or landscape unit objective is a prerequisite to the issuance, approval, permitting or authorization by a minister, or other agent of government, of an operational instrument affecting or respecting an activity in an areas. In this respect, the Act [s.8 (1)] describes that:
    - a landscape unit objective is a prerequisite to a forest development plan under the *Forest Practices Code of British Columbia Act;*
    - an oil and gas pre-tenure plan is a prerequisite to an operational instrument affecting or respecting oil or gas resource management; and
    - a recreation management plan is a prerequisite to an operational instrument affecting or respecting commercial recreation management.
- it establishes that additional approvals of Ministry of Environment, Lands and Parks are required prior to the approval or issuing of specific operational instruments under the Forest Practices Code of British Columbia Act (i.e., forest development plan, special use permit and range use permit);
- it establishes the Muskwa-Kechika Advisory Board, to advise on natural resource management in the M-K Area (s.9) and to recommend suitable projects and proposals consistent with the Muskwa-Kechika Trust Fund (s.15); and

Lesson: Role of local advisory board.

- it creates the Muskwa-Kechika Trust Fund, for the purpose of supporting wildlife and wilderness resources of the management area, through research and integrated management of natural resource development; and, to maintain in perpetuity the diversity and abundance of wildlife species and the ecosystems on which they depend throughout the M-K Area (s.12).

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[41] This does not apply to an order made under the *Environment and Land Use Act.*

[42] General management direction statements identify how land and resources are to be managed on Crown land. The objectives and strategies outlined in General Management Direction statements apply to all agencies, resources and activities and are the fundamental building blocks of a land use plan.

and by mid 1998 four areas had been gazetted, and 37 more were being prepared for registration (Schutz 1999). The enabling legislation for the conservancy system requires an official Conservancy Constitution with consideration given to issues such as:

- the objectives of the conservancy;
- procedures for electing and removing members of the conservancy committee;
- the rights and obligations of members of the conservancy;
- voting procedures; and
- dispute resolution mechanisms (GRN 1996 in Jones 2000).[8]

Lesson: Communities are self-defining.

The legislation does not define what constitutes a 'community', but leaves the task to communal area residents to define the community, its boundaries, and its representatives themselves. Consequently, the process of self-definition has resulted in lengthy and contentious negotiating periods between neighbouring communities and delayed the formation of a conservancy (Jones 2000). However, this extended process of negotiation has also served to enable communities to find the appropriate social and ecological scale at which community organization is effective.

A new Forest Bill currently in draft form also includes provisions to allow communities to take on the role of forest managers (Alden Wily 2000a; Jones 2000). However, community-based management plans must still be approved by the appropriate government Department (Alden Wily 2000a). The draft Forest Bill has built upon lessons learned from the 1996 Conservation Policy and specifies that committees concerning wildlife conservation and community forestry (as one category of protected forest) should be integrated into a single community body.

There are two recent initiatives in northern Namibia that take the approach of sharing jurisdiction in community-based forest management, but as Dr. Liz Alden Wily notes, the lack of well-organized and legally recognized institutions at the grassroots level has made the process of devolution slow (Alden Wily 2000b).

[8] Government of the Republic of Namibia 1996 Nature Conservation Amendment Act (5).

The log market represents an example of market-based instruments to achieving sustainable forestry in a number of ways. For example, it breaks the dominance of corporate tenure holders over the wood supply, and therefore enables more accurate wood pricing (M'Gonigle and Parfitt 1994). Also, smaller processors and value-added manufacturers who do not have their own tenure holdings have access to wood.

Lesson: Using market-based instruments to develop sustainability.

The key to the Lumby log market's success lies in sorting the logs by species and grade before bids are called. In this way, the highest prices are ensured for what is sold. Small mill operators are able and often willing to pay higher prices for wood because the end product would fetch often double the price (M'Gonigle 1998). People visit the yard from all over the province and the interest in establishing more sort yards in other parts of the province is growing.

With such a variety of demands for wood including species, sizes, and quality - the sort yard has over 60 piles or sorts that customers can choose from (Milne 1999). The sort yard also accommodates the needs of guitar makers, saddle makers, log-home builders, shingle and shake makers, often selling sections of logs. In its social and educational value, the market also succeeds in helping a 'mindset change', where people can begin to see a log as something different other than just pulp, veneer for plywood or 2 by 4s (Donovan 1998). For example, once a high-school student bought two eight-foot log sections for a school project, and had them milled to his specifications at a small sawmill (Donvan 1998). In this way, the log yard also facilitates a sense of community. Donovan notes in an interview with Jim Smith, how in the office trailer, the coffee-pot is always on, and there is a steady stream of visitors. Some log buyers travel over 300 miles to visit. In an interview with Donovan, Milne remarks, "It's like the Field of Dreams. You build it and they will come".

Lesson: Community support for local business innovation is key.

Tom Milne, manager of the yard concludes, "The Log Sort Yard has provided steady employment since its beginning and shown significant profit, exemplifying that ecologically sound, partial cutting and an open log yard can work together to be profitable, practical, and provide significantly more jobs per volume of wood cut."

9.6.4 The Muskwa-Kechika Advisory Board

The Muskwa-Kechika Management Area (the "M-K Area") encompasses an area of approximately 4.5 million hectares of Crown land in northeast BC. It is one of the few remaining large, intact and almost road-free areas south of the 60th parallel and supports healthy and internationally significant populations of several large mammals including moose, elk, mule deer, whitetail deer, caribou, plains bison, grizzly bear and wolves.[40] There are numerous First Nations groups in the area, including the Fort Nelson First Nation, Prophet River First Nation, Kaska Dena First Nation, Lower Post First Nation and the Halfway River Band.

[40] British Columbia Government, Land Use Coordination Office, web site: www.luco.gov.bc.ca/slupinbc/frtnelson/app7main

5. Models from Latin America

Latin America is a vast region, stretching from Mexico in the north, encompassing the Caribbean and the isthmus of Central America, and all of South America to the southern tip of Chile. The diverse topography and climatic regimes that characterize this region have shaped a rich assemblage of ecological systems, including the Amazon River basin (the world's richest source of biodiversity), extensive dryland systems (dry forests, grasslands, desert), and productive coastal resources (mangrove forests, estuaries, barrier reefs, and nearshore fisheries).

As in other regions, the degree of community control over natural resource management is highly varied. In many countries, control remains firmly centralized in national or state-level agencies. In others, a relatively high level of control lies with local authorities. In this chapter, we examine models for community-based management in three countries – Mexico, Guatemala, and Bolivia – each with different social and political contexts.

5.1 Mexico: 'Ejidos' as a Form of Community-Based Management

Community-based management of natural resources has been a key arena of struggle and conflict in Mexico throughout the 20th Century. Many peasant communities (indigenous and non-indigenous) lost access to land and resources during the 19th Century due to the implementation of Liberal policies and the centralization of land ownership. The desire of peasants to regain access to these lands and resources was a major part of the Mexican Revolution (1910-17). Redistribution of land was a central plank of the Revolutionary government and the *ejido*, the model for the Mexican land reform system, was codified in the Mexican Constitution of 1917. Over the past 80 years, land reform has remained a major political issue. To date, about 100 million hectares, over half of Mexico's land area, has been redistributed to nearly 3 million rural people, represented in over 29,000 communities (Quintana *et al* 1998). The extent of community control of renewable natural resources in Mexico is demonstrated by the fact that more than 70 percent of all forest land in Mexico is held by *ejidos* or indigenous communities (Bruce 1999).

Lesson: Common property regimes are the cornerstone of community resource management.

Lesson: State holds title to the land, while communities manage the land.

The *ejido* is a land tenure system where villagers hold usufruct rights to a territory and lands are held in common. This is the most common form of communal land ownership in Mexico, accounting for the vast majority of the 29,000 communal land holdings in the country. The process of establishing an *ejido* was described in Mexican law: a group of peasants living in a particular area could apply to the government for a grant of land (or *ejido*) for use by the members. Title to the land remained with the state but *ejido* members received indefinite usufructuary title. Within the *ejido*, some of the land (e.g., agricultural plots) could be allocated to individual members for their sole use, but without the right to sell, lease or mortgage the land. Other areas within the *ejido* were to be managed collectively, such as areas of extensive forest.

Lesson: Communities build capacity through experience and experimentation.

A new law passed in 1991 made significant changes in the *ejido* system. Most controversial was the provision to allow *ejido* members to treat their individual allotments as private property, allowing these parcels to

Lesson: Value of resources is captured through local log markets.

In an innovative experiment, the Vernon district of the Ministry of Forests created an open-market log sort yard as part of their Small Business Program (Donovan 1998). The idea for the Lumby log market was proposed by Jim Smith, Small Business Forester for the Vernon district, and a core team of people including Tom Milne, a timber technician. The essence of their proposal was to sell logs rather than standing timber - a considerable departure from the usual practice of turning over volume quotas at a set price (Donovan 1998). The mandate of the Lumby log market is to: 1) oversee experiments in small-scale jobs; 2) be involved in logging and blow-down salvage; and 3) run a log-haul and dump operation that allows competitive bidding to determine the value of the wood sold through the yard.

The original location of the log yard was a leased 30-acre industrial site near Lumby in the Okanagan Valley. In 1996, the yard moved to its present location in Coldstream, B.C. A similar experiment was initiated in Duncan on Vancouver Island.

Usually in BC and across Canada, companies pay a stumpage fee to the government, then log and sell or process the wood themselves. In the case of the Lumby Log Market, the Ministry has overseen its own logging operations, which have employed the principles of ecoforestry. Alternative harvesting techniques are more expensive and labour intensive, however, at a log sort yard wood receives a better price. All wood is hand scaled rather than weight scaled, usually resulting in 20% higher volume for the logger (Milne 1999).

The sort yard sells about 55,000 cubic metres each year (approximately 1.1 million board feet) or five per cent of the annual volume harvested in the Vernon district (Donovan 1998). Thirty to forty per cent of the wood is sold to value-added buyers, while sixty to seventy per cent is sold to larger operations as saw logs, for pulp, chips and lumber (McCann 1995). In spite of the costs, the sort yard receives almost three times higher per cubic metre than under the standard stumpage system, and returns one and a half times the cost of its operation to the Ministry through the increased revenues from the sale of logs (Baltgailis 1996, Donovan 1998). The revenue is pooled into the Ministry's accounts and consequently, the log sort yard doesn't have access to the revenue it generates (Donovan 1998). This initiative has been extremely lucrative, and could be of tremendous benefit for a community-based management system.

A Ministry study concluded that the Lumby experiment was successful in meetings its objectives which included;

- the application of alternative logging systems;
- an increase of more than double the level of stumpage paid to the Crown;
- the creation of new jobs; and
- an increase in wood available to secondary manufacturers (M'Gonigle 1998).

Other experiments with small business bidding in the United States are occurring with similar positive outcomes.

Lesson: Eco-certification is an indication of the project's sustainability.

The Lumby Log Market has been supported by members of the environmental community, including Greenpeace and the Silva Forest Foundation. Wood from the market was the first to be independently accredited as being 'sustainably produced' under the Forest Stewardship Council's (FSC) standards.

be bought and sold like other land. The new law also gave *ejido* members full ownership of the lands within the *ejido* area (including commonly held lands), rather than just usufructuary rights. In addition, the new law affected the way the *ejido* lands were governed. Prior to 1991, *ejidos* were governed by a group assembly, a Board, and an enforcement advisory group - all made up of members of the original *ejido* families. The new law allows local residents who are not members of the original *ejido* families to participate in the decision-making. It also recognizes women as *ejido* participants and owners. The new law promotes development by allowing *ejidos* to become corporations, partnerships, unions or associations, to lease out the land, and use the land as security to gain access to capital.

Lesson: The roles of government and community adapt to current needs.

Until recently, the *ejidos* mostly served as a secure source of land for agricultural production. Despite the vast areas of forest on *ejido* lands, communal management of these forests only began in the 1980s. Prior to this, most forests on *ejido* lands were given over by the central government (under the 1947 forestry law) to logging companies who cut and milled the timber with minimal benefits to local communities. During the late 1970s and early 1980s, *ejido* groups from around the country pressed for control over forests on their *ejido* lands. In the early 1980s, a group of *ejidos* in the southern state of Quintana Roo won the right to manage their own forests. The *ejido* members faced a steep learning curve in forest management, but gained assistance from a variety of sources, including national and international agencies. A team of forestry technicians was appointed by the state government to work closely with the *ejido* owners, to help them develop skills in forest management and marketing of forest products, while respecting traditional community decision-making structures and processes. Despite numerous formidable challenges, *ejido* control of forest management in this state quickly proved successful in controlling destructive logging and providing significant benefits to local communities.

Lesson: Government facilitates devolution by providing their expertise.

At an early stage, the *ejidos* in Quintana Roo realized that an autonomous institutional structure would be needed to provide a single voice for dealing with the government and the market, and to provide legal and technical assistance. This realization led to the formation of the *Sociedad de Productores Forestales Ejidales de Quintana Roo* (Arnold 1999). This organization (the "Society") acts as an umbrella group for 10+ ejido groups in Quintana Roo and allows each *ejido* to operate independently from the state. The Society took over technical assistance, but management decisions are still made by each *ejido* independently. Salaries of the Society forestry staff are paid by the state; the *ejidos* and other donors have helped with technical and financial assistance. State and national government have been involved on occasion to deal with political and other problems. By 1995, about 50 *ejidos* were involved in community forest management in Quintana Roo, covering some 500,000 hectares (Arnold 1999).

Lesson: Through networking communities learn from each other.

The early success of the Quintana Roo model encouraged similar movements in other areas of Mexico, most notably in the Oaxaca region, where peasants also pushed for local control of forests. In response to widespread public pressure, a new forest law was brought in the mid 1980s which transferred decision-making power over forest harvesting to the *ejidos*, subject to approval for forest management plan drawn up by a forester. After 1986, *ejidos* across Mexico began managing the forests within their common land. As a result of this, today Mexico probably has the largest community forestry sector anywhere in the developing world. By the mid-1990s, the organized peasant sector (including *ejidos*) was estimated to account for 40 percent of

In essence, the Cortes Initiative involves the Crown and a private landowner exchanging equal-valued land in order to advance certain public policy objectives. The proposal is guided by the principle of "no net loss" to any party directly involved, and by the objectives of fairness and balance to all parties indirectly involved or potentially impacted by the proposal. The Klahoose First Nation has consulted with the Sliammon First Nation of Powell River, resulting in Sliammon support for the Cortes Initiative.

The Cortes Initiative sets a potentially powerful precedent. The people of Cortes, both native and non-native, have crafted a sustainable solution that untangles the Gordian knot of Aboriginal rights, tenure reform and ecological forest management. It stands as a powerful symbol of a First Nation and its non-aboriginal neighbours building a pre-treaty relationship that can serve as a model of co-operation for both pre- and post-treaty British Columbia. It provides an example of ecosystem-based forest use on Crown land, suitable for independent ecological certification. The Cortes Initiative also offers an opportunity for increased overall employment and revenue benefits relative to the status quo forest management situation.

This kind of proactive solution would allow communities to avoid the divisive battles fought over forestry in places like Clayoquot, Saltspring and many other parts of British Columbia. To date, the provincial government has refused to take the necessary steps to make the Cortes Initiative a reality.

A close examination of the Cortes Initiative holds a number of important lessons for attempts to develop and implement community-based natural resource management in British Columbia. These include the following:

- the provincial government must be a willing partner in furthering win-win solutions, particularly where there is local consensus about moving in a particular direction;
- creative solutions can be found even among former antagonists when the parties take the time to sit down and negotiate in good faith;
- opportunities exist outside the treaty process to build relationships between aboriginal and non-aboriginal elements of communities – these opportunities should be fostered;
- existing laws and policies lack the flexibility and adaptiveness to respond to positive initiatives that require innovation;
- compensation for existing tenure holders will continue to be a major challenge; and
- First Nations can play a leadership role in spurring the transition to community-based natural resource management.

Lesson: Importance of provincial support for local initiatives.

Lesson: Need for flexibility to accommodate innovation at local level.

Lesson: Importance of First nations leadership.

9.6.3 The Lumby Log Market

An investigation in 1991 by the Forest Resource Commission (FRC) concluded that there was a need to obtain more value from wood than what the province of British Columbia was receiving from the stumpage system (Forest Resources Commission 1991).

national commercial timber production and to process about 15 percent of the national production, mostly in small sawmills (Bray 1995).

5.2 Guatemala: Communal Forest Management in Totonicapán

Lying just south of Mexico, Guatemala is the largest country in Central America and is home to some of the region's richest ecosystems, including lowland subtropical forests in the northern lowlands and increasingly rare and endangered high elevation conifer forests in the western highlands. The political and economic history is closely tied to the conflict over control of lands and resources. Through colonization most of the best agricultural lands were taken from Maya communities (original inhabitants of the region) and concentrated in the hands of colonial interests. The Maya were displaced onto marginal lands – higher elevations, steep slopes, and rocky soils.

Continual conflict between Maya communities and colonial officials – particularly over issues of land and indentured labour (the Maya were forced to work on colonial farms) – led to the formation of strong community structures, inward-focused and in a defensive posture towards external (national) authorities. Conflict continued in the post-Independence period, with Maya communities bearing the brunt of state violence, right up to the mid-1990s when a Peace deal was finally negotiated between the federal government and rebel forces. Control over land remains a key issue, and all serious attempts to implement a comprehensive and substantive land reform process have failed.

In the face of strong opposition from the central government, Maya communities have struggled to exert control over their local resources. While the degree of success has been limited, there are success stories. Perhaps the most often cited case is that of the community of Totonicapán, in Guatemala's western highlands. The western highlands, a mountainous area extending across the south western corner of the country, is often called the Maya Heartland, a reference to the dense concentration of indigenous communities that have occupied this area for millennia.

This mountainous region was once densely cloaked in coniferous forest. Today, the area is a dense patchwork of small farms, some perched on impossibly steep slopes, and the original forest is almost completely gone. Totonicapán, a 1061 km^2 region in the heart of the highlands, is an exception. Despite the fact that this region has one of the highest population densities in rural Guatemala (250 people per km^2), there are still 25,000 hectares of forest here, all under community control. This community forest is now of national significance, as it harbours important plant and animal species, including the endangered 'Pinabete' (*Abies guatemalensis*).

Lesson: Traditional ecological knowledge is a key component of sustainable management

In the past 50 years, only 10 percent of Totonicapán's community forest land has been deforested. In contrast, in surroundings areas that not under community forest management, 50 percent of the forest has been cleared. Why has Totonicapán succeeded in protecting their forest? The answer lies in the ancient communal form of forest protection and management developed by the dozens of Maya Quiché communities within the Totonicapán region.[9] Residents have long recognized the importance of forests to their way of

[9] Historians date the communal ownership of the Totonicapán forest back to at least 1600, during Guatemala's colonial period.

A series of events in 1998 and 1999 provided the impetus for the negotiations leading to the ground-breaking Cortes Initiative. These catalysts included Klahoose frustration with the treaty process, community frustration about environmentally destructive logging and the lack of local jobs or benefits from logging. MacMillan Bloedel (now Weyerhaeuser) further angered Cortes residents in 1998 by selling two parcels of land to an individual notorious for his poor logging practices. Both parcels were quickly clearcut.

Recognizing that the treaty process was not bearing fruit, the Klahoose chose to cultivate discussions at the local level. Months of hard work and many meetings resulted in a formal Memorandum of Understanding between the Klahoose First Nation and the Cortes Ecoforestry Society in July 1999. The formal partnership between the Society (CES) and the Klahoose First Nation set forth two goals: obtaining a Community Forest Agreement, and the acquiring local forest lands owned by Weyerhaeuser.

Lesson: Importance of native and non-native communities working together.

Both the Klahoose and the Ecoforestry Society began discussions with Weyerhaeuser. In the late spring of 2000, a period of focused negotiations by the three parties culminated in a proposal to the provincial government that addressed both land ownership and tenure arrangements.

The Cortes Initiative is strikingly simple. Weyerhaeuser will trade 1800 hectares of private land that it owns in fee simple on Cortes Island for Crown land of equivalent value in the Powell River area that is already slated for industrial logging. The conversion of Crown land to fee simple land is a straight exchange for equivalent value fee simple lands currently owned by Weyerhaeuser. No party will be compensated for doing, or refraining from doing, anything with respect to cutting rights on Crown land.

The land on Cortes surrendered by Weyerhaeuser and all Crown forest land on the island, (7,500 hectares), will be managed jointly by the Klahoose First Nation and the Cortes Ecoforestry Society under the terms of a community forest licence. The Klahoose will manage its existing woodlot as part of the community forest. The parties' intention is to manage the land for all values, not merely timber. Everybody would win. The Cortes Island community, including the Klahoose First Nation, would benefit economically by creating opportunities for local employment in forestry and value-added enterprises. There would be intangible social advantages generated by the newfound atmosphere of cooperation and trust.

Lesson: Building community and seeking innovative solutions to local resource conflicts.

Co-management of the community forest would provide an excellent opportunity for the Klahoose to build capacity in forest, business and administrative areas in advance of concluding their treaty. The Klahoose would also gain local allies in their quest for justice through the treaty process.

Cortes Island would make significant advances environmentally through more responsible, locally sensitive forest management. The community forest would be managed according to ecological principles so it can qualify for certification from the Forest Stewardship Council and reap the ensuing marketing advantages. The deal makes good business sense for Weyerhaeuser, enabling them to consolidate their operations in the Stillwater Division operating area near Powell River and leave a community by mutual agreement.

life. The communal forests provide firewood, timber for construction (only for internal use, timber is not sold outside of the community), and a variety of non-timber products such mushrooms and medicinal plants.

Of greatest importance, however, is the vital role the forest plays in the region's water supply. Totonicapán is located in the highest reaches of the Sierra Madre Mountains, a region that receives less than 900 millimetres of rain each year and where water sources are very limited, especially in the dry season. The forests play a critical role in capturing and holding water, a fact long recognized by local residents. As a result, above all else, management of the forest is oriented to protection of drinking water. Indeed, in the Maya vision of the world it is not possible to separate forests (or people) from water or earth. All are inseparable parts of a whole.

Responsibility for the protection and management of Totonicapán's community forest lies with ULEW CHE' JA', an association made up of the drinking water committees from over 60 communities in the region. (ULEW CHE' JA' is a Quiché word meaning "land, forest, water.") The ULEW CHE' JA' Association not only regulates the use of drinking water for all these communities but also plays a broad role in ensuring the protection and improvement of all natural resources that come from the community forest (IUCN 1999).

Lesson: A network of communities coordinates activities to encourage sustainable management.

An important part of ULEW CHE' JA's work is to coordinate community participation in a wide range of projects related to the sustainable use and care of the forest, including reforestation, environmental education, inventory of resources, and preventing the advance of the agricultural frontier. Equally important has been the work of the ULEW CHE' JA' Association in promoting harmony and cooperation among the different communities in Totonicapán.

While the Totonicapán case serves as a model of community forestry, it is under threat from a number of forces. On more than one occasion, members from within the community have tried to exploit the communal forest for their own gain. For example, in the early 1990s corrupt officials within the community awarded tree-cutting licenses to private forest companies. This raised alarm among members of the community, who organized protests and forced the officials to resign. Indeed, this process led to the formation of ULEW CHE' JA', a more inclusive and democratic body, as the group responsible for stewardship of the communal forest (IUCN 1999).

A more serious threat comes from outside the community. Being the last intact stand of forest in the region, the community is under constant pressure from certain elements in the central government and from forest companies in the area. As in many developing nations, illegal logging is a major concern in Guatemala, and is often tied to corruption within state institutions. Illegal tree felling is a serious concern for residents of Totonicapán, and in response they have organized a highly effective "community forest protection" system. As a result, threats to the community forest are met with a broad community response.

Lesson: Local systems of protection and enforcement are successful.

5.3 Bolivia: Indigenous Communities and Local Forest Management

Bolivia is a nation with three main geographical regions: the "Altiplano" is the high, mountain and plateau region of the Andes (an area of high plains with little forest cover), the "Yungas" is a

ecosystem-based process that determines where certain forestry activities may or may not take place.

By getting outside of the conventional models for forest tenure, the Gitxsan Model opens up opportunities for cooperation between Gitxsan and non-Gitxsan members of the community "to develop transformative models for community forestry" (ibid).

9.6.2 The Cortes Initiative: A Model for Community Cooperation

On Cortes Island, near Campbell River, a small First Nation, the local community and a multinational timber company have negotiated a forestry agreement that appears to be win-win-win on environmental, social and economic grounds. The agreement represents a step towards resolving Aboriginal land claims, redistributing forest tenure from large corporations to local communities, and improving forest management. The three parties to the agreement, known as the Cortes Initiative, are the Klahoose First Nation, the Cortes Ecoforestry Society and Weyerhaeuser (formerly MacMillan Bloedel).

The Klahoose First Nation has occupied Cortes Island and the area around Toba Inlet for thousands of years. The Klahoose have a strong track record of environmental stewardship, having played a leading role in B.C.'s decision to pass a law banning bulk water exports (the *Water Protection Act*). As well, the Klahoose have advocated ecosystem-based forest planning and use in their traditional territory for many years. The Klahoose practice ecosystem-based forestry on their reserve lands and on a woodlot licenced to them by the Ministry of Forests. The Klahoose are in the fourth stage of the six-step B.C. Treaty Process, although talks aimed at reaching an Agreement-in-Principle are currently stalled. Efforts to reach an interim measures agreement (IMA) on forestry issues broke down when the provincial government unilaterally withdrew from the negotiations.

The Cortes Ecoforestry Society is a local group whose membership includes a majority of the adult resident population of Cortes. The purposes of the Society, which is registered as a non-profit society under B.C.'s Societies Act, are:

- to work in partnership with the Klahoose First Nation;
- to gain community stewardship of the working forest lands on Cortes;
- to create perpetual ecological and economic benefits for the entire community; and
- to serve as a model for sustainable ecoforestry.

Both Klahoose and the Cortes Ecoforestry Society are working with the Silva Forest Foundation and renowned eco-forester Herb Hammond to develop an ecosystem-based plan for the island.

Weyerhaeuser has a long, controversy-filled history on Cortes, including blockades by the local community (Klahoose and non-native residents). The company owns approximately 1800 hectares of private forest land on the Island. Logging in the past on Cortes was done in a destructive way that damaged the forests and violated the environmental ethic of the local people. The majority of the work was done by off-island contractors, providing minimal local employment. The trees were taken off-island for processing. In other words, Cortes Islanders, native and non-native alike, paid the environmental costs of logging without receiving a fair share of the economic benefits.

sub-tropical zone, with extensive forest cover and few inhabitants, and the "Oriente" region is comprised by Bolivia's share of the Amazon Basin, an area rich in tropical rainforest. Within these three regions are found a great diversity of ecological systems and human cultures.

Forestry plays a central and expanding role in Bolivia's economy. Wood production grew by almost a third from the late 1970's to the late 1980's, and timber exports have surpassed all other agricultural exports. The export of forest products is growing rapidly, with nearly ninety percent of the total timber trade consisting of products from only three tree species. Mahogany alone counts for sixty-three percent of the total timber trade (Guzman 1998).

These booms in timber exports have been met with numerous challenges, however. These include high costs of production, a lack of investment, inadequate internal transport, poor regulation and dwindling forest cover. The rate of decline in Bolivia's forests of as much as 200,000 hectares a year is recognized as the nation's most urgent environmental concern. There is concern that the most valuable species, Mahogany, may only last another five to seven years at current rates of extraction (Guzman 1998).

Forests in Bolivia are the property of the state. Timber interests have lobbied for the privatization of forested land, but the state maintains a system of forty-year concessions for timber harvesting, which are renewable every five years based on successful forestry audits. Like many Latin American nations, Bolivia underwent agrarian reforms in the late 1960's and 1970's. In the Andes region, this meant a redistribution of land. In the Amazonian East, it resulted in the clearing of tropical rainforest areas for agriculture and cattle ranching, and a further consolidation of large agricultural and ranching holdings which completely disregarded indigenous patterns of occupation and land use (Lehm and Kudrenecky 1995).

Since the introduction of a new Forestry Law in 1996, Bolivia has been experiencing a major shift in forest management and is becoming a model for community forestry management in Latin America. Various aspects of the Forestry Law have positively impacted community forestry models, including mode of payment, certification models, and granting of exclusive rights of use to communities. Taxes for harvesting are now based on the area of concession, not the volume of wood extracted. This acts as an incentive for smaller concessions, and for the use of a greater number of timber species within a forest (Quevado 1998).

Lesson: Innovative policies and legislation (including tax measures) support community-based initiatives.

The 1996 Forestry Law recognizes that communities may be better stewards of the land than large, private concessionaires. It gives communities preferential rights to utilize forested areas on agrarian properties that they possess. The Forestry Law grants to indigenous groups land parcels of up to 100,000 hectares which allows for major sections of forest to be managed under a sustainable, community-based model. The legislation concerning these grants, "Las Tierras Comunitarias de Origen", favors communal management and gives exclusive rights to forest use. Further, this policy permits community groups to pay a right of use that is twenty times less that those assigned to industrial concessionaires. The Forestry Law has major symbolic importance for Bolivians, who see the management of their forests, particularly tropical rainforests, as one of their nation's greatest hopes for the future (Quevado 1998).

Lesson: National legislation gives preference to communities as stewards of the land.

9.6.1 The Gitxsan Land Model

The Gitxsan live in northwestern British Columbia, with their traditional territory (approximately 30,000 km^2) lying in the central and upper reaches of the Skeena, Nass and Babine river valleys. As with most other First Nations in the province, there was never a formal treaty signed between the Gitxsan and senior levels of government (provincially or federally) and the Gitxsan have struggled to regain control of their lands and resources. Over the past few decades, the Gitxsan traditional territory has been the focus on intensive logging resource extraction activities (the territory falls mainly within the Kispiox Timber Supply Area).

In response, the Gitxsan have requested changes to proposed logging plans and, in some cases, blocked logging roads to prevent logging altogether. They have also used the courts to seek recognition of their title to the lands and resources. Their most notable success came with the 1997 Supreme Court of Canada ruling, commonly known as the Delgamuukw decision. This decision provides a clear definition of Aboriginal title (most notably that it includes a right to exclusive use and occupation of the land); describes a test of proof of Aboriginal title; what governments must do if they want to infringe on Aboriginal title; and points the direction for negotiations between Aboriginal peoples and governments in Canada.

The Gitxsan have developed an alternative model of resource use and management for their traditional territory, one predicated on long-term sustainability. A fundamental part of this model is the development of an ecosystem-based plan to guide any logging or other activity on their territory. The Gitxsan have spent years conducting inventories and mapping biological resources (soils, timber, wildlife, fisheries, etc.), as well as patterns of cultural use of resources and land occupancy. While ecosystem-based plans have been developed for many communities in British Columbia (many by ecoforester Herb Hammond of the Silva Forest Foundation), the Gitxsan model is unique in several respects – especially in the incorporation of traditional ecological knowledge into the plan and the innovative use of mapping to document current and past use of the land by distinct 'wilps' or houses within the Gitxsan nation.

Lesson: Ecosystem-based planning is an intensive process.

The Gitxsan have put forward their model as an alternative to the "Land Selection Model" upon which the current BC treaty negotiations are taking place. Rather than giving up the majority of their land base and having their Aboriginal title extinguished through the signing of a treaty to gain full control over a small part of their traditional territory, the Gitxsan Model is essentially a co-management model. It is an "ecosystem-based approach to management of the whole of the Gitxsan's traditional territory, to be implemented through co-management between the Gitxsan and the federal and provincial governments" (Burda *et al.* 1999).

The Gitxsan Model represents an alternative to centralized industrial and bureaucratic control over natural resources. As Burda et al. (1999) note, it also provides an alternative to the existing forest tenure system, which limits opportunities for the integration of ecological and cultural values:

Lesson: A community-based approach works in harmony with the treaty process.

The Gitxsan model does not attempt to adopt or design a form of community tenure within the existing industrial tenure system; instead, the Model proposes a new and comprehensive community-based planning and management approach for the entire landscape. It establishes an

5.3.1 The Lomerío Project

There are a number of promising community forestry projects in Bolivia, the most well known being the Lomerío project. This project is named after the canton of Lomerío in Bolivia's eastern lowland (in the Department of Santa Cruz, in the Oriente region), a 300,000 hectare area characterized by sub-humid, semi-deciduous forest as well as savannahs, marshes, and cleared areas. By 1998, approximately 135,000 hectares of forest remain, the remainder having been cleared by burning and commercial logging by private companies.

The Lomerío is home to approximately 5,300 members of the Chiquitano tribe (in 25 distinct communities), one of the largest remaining indigenous groups in the lowland region (Markopolous 1998). The Chiquitano live mainly on subsistence agriculture, practicing slash and burn agriculture, but also use the forest for a variety of other purposes (e.g., fishing, hunting, gathering food and medicinal plants). Like other indigenous groups in Bolivia, the Chiquitano struggled to gain legal recognition of their right to use and manage the lands and forests in their traditional territory. In 1982, the communities of Lomerío established the *Centro Intercomunal Campesina del Oriente de Lomerío* (CICOL) that linked the different Chiquitano communities together to press for control of their lands and resources and to promote sustainable forms of resource management that would benefit local people. CICOL is managed by an elected executive board, responsible to a General Assembly formed by delegates from each community within the Lomerío region.

Lesson: Creating a network supports the efforts of individual communities.

In 1983, CICOL began to develop an action plan for the protection and sustainable management of the forests in Lomerío. The main objective was to gain a forest concession to the remaining forest lands in the region, so as to consolidate Chiquitano rights and put a halt to logging operations by private companies. With assistance from a small Bolivian NGO called *Apoyo Para el Campesino Indigena del Oriente* (Support Project for Indigenous Peasants in Eastern Bolivia or APCOB), CICOL prepared and submitted the plan to the national forest authority. The key elements of the plan were:

Lesson: NGO support for community-based activities.

- application for a 130,000 forest concession on behalf of the 25 Lomerío communities;
- design and implementation of a sustainable management system for the Lomerío forest;
- processing and marketing of timber through a communal sawmill;
- training of local residents in technical aspects of forest management and project administration; and
- collective use and distribution of the economic benefits produced by forest management (Markopolous 1998).

Although they were not awarded the forest concession, the communities did develop a sustainable forest management plan that was implemented on 52,000 hectares of productive forest on legally-titled land, with assistance from foreign agencies. The communities were also successful in developing their own communal sawmill and expelling private logging companies from the region. As Markopolous (1998) noted, this latter achievement was particularly significant as it "demonstrated that indigenous control over natural resources could be effective."

The Islands Trust model offers a number of useful lessons for the establishment of community or regional control over the management of natural resources, including the following points:

> **Lesson:** Levels and boundaries between jurisdictions need to be clear

- the Islands Trust appears to be a useful model for conservation-oriented local government but has been hampered by a lack of jurisdiction over natural resource management;
- the Islands Trust includes checks and balances to ensure that both local and provincial objectives are addressed (e.g. local bylaws require executive committee approval, official community plans require ministerial approval);
- there is a lack of clarity about the scope of the Island Trust's mandate and this has resulted in costly and acrimonious legal battles;
- the BC Supreme Court decision striking down the Denman forestry bylaw illustrates the limits on the Islands Trust mandate and the need for further legislative devolution of power;
- ongoing local development with negative environmental consequences suggests that "preserve and protect" mandate is too vague, and that ecological integrity is not given adequate legal protection; and
- Given these, the Islands Trust model illustrates the need for clear, legally enforceable constraints to protect the environment, or people's perceived self interest in short-term economic gains will outweigh the interests of long-term sustainability. The model also illustrates the need for a venue for citizens to challenge decisions that harm ecological integrity, perhaps through some form of independent scientific panel.

9.5.6 Forests in Trust

In 1997 the Eco-Research Chair in Environmental Law and Policy at the University of Victoria released a report entitled *Forests in Trust: Reforming British Columbia's Forest Tenure System for Ecosystem and Community Health* (Burda *et al.* 1997). This report proposed the reform of the forest tenure system to allow the creation of local "forests trusts", where community-based and ecologically-sustainable forestry could be carried out. A key aspect of the report was the proposal for a new piece of legislation – the *Community Forest Trust Act* – that would embody the principles of community forestry and ecosystem-based forestry, and legislate the creation of forest trusts. The report proposed a gradual process of phasing in the trusts, at the initiative of self-selecting communities. The *Forests in Trust* report served as a starting point for the present proposal to establish *Community Ecosystem Trusts* under a newly proposed *Community Ecosystem Trust Facilitation Act*, as described in Report 1: Community Ecosystem Trust Report.

9.6 Others Models in British Columbia

This section describes a number of other models for community-based natural resource management in British Columbia which do not fit into the categories above.

A major obstacle faced by the proponents of the Lomerío project was the lack of support provided by the Bolivian government. Despite this, the project has had success in a number of areas, including:

Lesson: Lack of government support is a major obstacle.

- implementation of the forest management plan on legally-titled lands;
- establishment of agroforestry plantations;
- creation of a forest nursery capable of producing 30,000 seedlings per year;
- provision of benefits to local residents (e.g., income for forest workers and communities); and
- training of local residents in forest management, nursery techniques, timber processing, and project management.

As an indication of its success, in 1996 the Lomerío forest was certified by the Forest Stewardship Council, after an evaluation conducted by the Rainforest Alliance's Smart Wood certification program. The Lomerío project was the first forest management operation in Bolivia to receive certification and one of the earliest certifications in all of Latin America.

Lesson: FSC certification is an indication of success.

Of critical importance to the success of the Lomerío project has been the ongoing involvement of the Support Project for Indigenous Peasants in Eastern Bolivia (APCOB), which has provided on-going technical assistance. A key part of APCOB's work has focused on promoting indigenous models of sustainable forest management. The organization has also facilitated the development of similar projects in the forest claimed by the 34 Chiquitanos in the Nuflo de Chavez province (the Concepcion project) and in the lower basin of the Parapeti river (located to the southeast of the Cordillera province) where 16 indigenous communities are asserting control over 69,713 hectares of forest land (the Izozog project).

Lesson: Indigenous models offer valuable insights into sustainable management.

The operations of the Islands Trust are primarily funded through tax levies on properties within the Trust Area, provincial grants, and development application fees. Trust Council is responsible for the management of all finances of the Islands Trust except the Trust Fund.

Many residents and property owners are directly involved through membership on committees and commissions. Persons interested in attending regular meetings of local trust committees and Trust council may contact their local trustee or the Islands Trust. Information on ongoing activities can be obtained from notice boards on some islands, island newspapers and newsletters, trustees, staff and the Islands Trust Quarterly Bulletin which is sent regularly to individuals on request.

The *Islands Trust Act* also authorizes establishment of an Islands Trust Fund Board to administer a Trust Fund. This Trust Fund Board is able to receive land and money to carry out its mandate by preserving for future generations some of the special features of the Trust Area. The Board of Trustees for the Islands Trust Fund is comprised of three trustees elected by Trust Council and up to three people appointed by the Minister of Municipal Affairs. The Trust Fund Board accepts donations and acquires and manages land, partial interests in land, and funds in order to preserve places of special beauty and natural value within the Trust Area. Every five years, the Trust Fund Board prepares and submits to the Minister of Municipal Affairs, a Trust Fund Plan that establishes policies regarding property of the Fund. Donations to the Trust Fund can help preserve and protect special features in the Trust Area. Tax advantages are possible for such gifts.

The Islands Trust: Natural Resource Management

Despite the seemingly broad "preserve and protect" mandate of the Islands Trust, its jurisdiction over natural resource management is actually limited. The Supreme Court of British Columbia recently struck down Denman Island's forestry bylaw, ruling that forestry regulation was an area of provincial jurisdiction that had not been delegated to the Islands Trust. The case is now headed for the British Columbia Court of Appeal. The creation of the Denman forestry bylaw was spurred by local dissatisfaction with logging practices on private land. There is also significant controversy on Saltspring Island about private land logging.

Lesson: The Trust lacks sufficient authority to achieve its mandate.

Galiano Island, in contrast, has a forestry bylaw that is primarily aimed at environmental protection. It limits logging on private land but has not been subject to a legal challenge. There is considerable uncertainty about the extent to which the Islands Trust can regulate natural resource activities in pursuit of its "preserve and protect" mandate.

Recent changes to the *Local Government Act* resulting from enactment of the *Fish Protection Act* give all local governments, including the Islands Trust, enhanced powers to protect fish habitat. In order to protect fish habitat, the Islands Trust could place specific restrictions on logging, grazing, pesticide use, or other activities. These restrictions would have to be limited to the purpose of protecting fish and fish habitat. As well, the development pressure on the southern Gulf Islands is inexorably eroding their environmental integrity. Land continues to be sub-divided, housing developments continue to be approved, fresh water problems are mounting and population and visitor numbers are growing. This is a source of growing frustration for some residents of the Trust area.

6. Models from Europe

The long history of human settlement and intensive use of natural resources, as well as heavy urbanization and industrialization over the past century, has resulted in serious degradation of Europe's natural resource base. For example, although the total amount of forest cover in Europe has grown slightly over the past few decades, there is very little natural forest cover left. The World Wildlife Fund estimates that less than 2 percent of Europe's forests remain in their original state; the remainder being heavily impacted by human use or fast-growing tree plantations with little natural diversity.[10] Forest loss and degradation is particularly severe in southern and eastern Europe. There are equally strong concerns about other renewable resources, including depletion of regional fisheries, and pollution of rivers, lakes and coastal waters.

Progress towards community control of renewable resources in Europe is mixed. There are models that illustrate the success of decentralized forms of resource management, such as the Swiss approach to the common management of mountain forests and pastures and the Spanish "huerta" system of management of irrigation water, which has persisted for hundreds of years.

6.1 Norway: The Lofoten Fishery[11]

Norway's Lofoten fishery is the largest commercial cod fishery in the world, in terms of the number of participants and the size of harvests (Jentoft and Kristoffersen 1989). "There have never been quota regulations in the fishery. Nor has there ever been a special licensing system" (Leal 1996). During the latter half of the nineteenth century, self-regulatory initiatives in the fishery emerged as a response to problems of over-crowding and gear conflicts. In 1897, the Norwegian government enacted the "Lofoten Law," which gave the local fishers responsibility for regulating the fishery (Leal 1996).

Lesson: Institutional support for local initiatives is crucial.

The present system of fisheries management in Lofoten consists of fifteen control districts, each with separate, well-defined territories. Each district has the responsibility for developing and implementing regulations, enforcing these regulations, and resolving disputes among fishers. Inspectors are elected from each gear group, and a public control force includes control officers and inspection vessels. The process of regulation and dispute resolution is carried out by each district's regulatory committee, made up of representatives from each gear group. The regulatory duties of the committee include dividing the district's territory into separate fishing grounds and reserving each for a particular gear type (Leal 1996). The size of each ground is also determined by the committee. To participate in the fishery, every fisher must register with one of the control districts and follow the rules of the district waters fished for that season (Leal 1996).

Lesson: Systems of monitoring and enforcement are locally based.

[10] See the World Wildlife Fund's "European Forests Hot Spots" web site (http://www.panda.org/forests4life/hotspots/).

[11] From Leal 1996

strengthened in 1989 in response to dramatically increasing growth rates of the urban areas, reaffirming the government's commitment to protection of the unique amenities and environment of the area. The amendments broadened the functions and responsibilities of the Islands Trust in planning.

The Islands Trust is comprised of 16 distinct corporate entities including the Trust Council, 13 Local Trust Committees and the Trust Fund Board. In addition, an Executive Committee is responsible for carrying out the regular business of the Islands Trust. The 26-member Trust Council (two local trustees for each Local Trust Area are elected for a three year term) establishes general policies for carrying out the object of the Trust and is responsible for the financial management of the Trust, with the exception of the Trust Fund (described below).

In addition, the Trust Council is required to adopt and implement a Trust Policy Statement applicable to the whole Trust Area. The Policy Statement outlines the general policies of the Trust Council which are designed to support the "preserve and protect" mandate of the Trust. It constitutes a framework for land use planning undertaken by local trust committees. The Policy Statement guides the more specific plans and policies developed at the local level, and ensures these plans contribute to the implementation of the broader policies for the overall Trust Area. All local trust committee bylaws and all official community plans and amendments must comply with the Policy Statement. The Policy Statement may also establish different policies for different parts of the Trust Area and must be approved by the Minister of Municipal Affairs.

Lesson: There is a hierarchy that flows from an overarching Trust Charter to Local Charters to local management plans.

The Executive Committee is comprised of the Chairperson of the Islands Trust and three Vice-Chairpersons, elected for three-year terms by Council from amongst its members. It carries out the daily business of the Islands Trust and reviews all the bylaws of the local trust committees to ensure compliance with the Trust object and policy statement. If the Executive Committee refuses to approve a bylaw, a local trust committee can request that the bylaw be submitted to the full Trust Council for approval.

The Executive Committee also acts as a local trust committee for that part of the Trust Area not included within any other local trust area. The Trust Council's four standing committees (Local Planning Committee, Policy Planning Committee, Financial Planning Committee and Trust Policy Committee) provide policy advice to Trust Council.

There is a local trust committee for each island or group of islands designated as a local trust area by regulation under the *Islands Trust Act*. Each local trust committee has three members--two locally elected trustees, and one Executive Committee member who serves as Chairperson. A local trust committee is responsible for land use planning and regulation for its area of jurisdiction. As such, its responsibilities include preparation and adoption of Official Community Plans, rural land use bylaws, zoning and subdivision bylaws, regulation of soil removal and deposit, and authorization of permits under Part 26 of the *Local Government Act*.

Lesson: From the local Charter, a management plan is created.

Each of the 13 Local Trust Committees may establish a variety of advisory groups made up of volunteers from the community such as Advisory Planning Commissions, Advisory Transportation Committees, and Advisory Design Panels. Boards of Variance are established to decide minor appeals to specific bylaw regulations.

The Lofoten experience suggests that the principles of community-run fishing can be practiced on a surprisingly large scale when the institutional support structure is there.

6.2 Scotland: The Laggan Forest Trust

Laggan, a small community in Scotland's southern highland region, is home to the Laggan Forest Trust, a unique initiative to address local community needs for employment and other economic benefits from the use and management of local forests. Roy Tylden-Wright was involved in starting this initiative and has served as both Chair of the Laggan Forest Trust and Chief Executive of the Laggan Forest Trust Forestry Company. According to Tylden-Wright, the process was started by a local activist who got fed up seeing his forest worker son driving a hundred miles to get to work every day when the community was surrounded by public forest managed by Forest Enterprise, the state forest agency. The idea was to find work for local workers in the local forest.

Lesson: Community management creates local employment opportunities.

The idea caught on and the local Community Association formed a sub-committee to pursue what the called the Laggan Forest Initiative. Through negotiations with Forest Enterprise, the community reached an agreement on a scheme that would provide employment for local workers in the surrounding forest (this agreement is called the Forest Partnership, a partnership between the state agency and the Laggan Forest Trust). Essentially, the Forest Enterprise agreed to hire local workers (through the Trust) for forestry work in the Trust area (a 3,000 acre area near the community). The Laggan Forest Trust was set up as a company with charitable status. In reality, the Laggan Forest Trust is only a Trust in name and not in the precise legal definition of a trust (as the term is used in the United Kingdom). The reason for this is that the liability of a company can be limited to the share capital (a small amount in the case of the Laggan Forest Trust), while a body set up as Trust has no limit on the liability of the trustees in the case of fraud or negligence. This provides reassurance to the volunteer Trustees who put their time at the disposal of the project. For practical purposes, the Trust operates like any other charity, with the ability to raise and administer funds and to own assets for the benefit of the community.

With the mandate of the Trust limited to charitable concerns, it is unable to engage in commercial operations. A second organization was required for commercial forestry operations, and this led to creation of the Laggan Forest Trust Forestry Company, which is a wholly owned subsidiary of the Trust engaged in the day to day management of the Forest. Essentially, the company administers the contracts which are made available to local contractors and entrepreneurs. The Trust is responsible for ensuring that the Forestry Company operates in accordance with the charitable objectives of the Trust (i.e., to deliver commercial benefit to the community).

Lesson: Membership in the Trust organization is voluntary and based on a local electoral list.

The Trust is governed by Trustees (up to 12 in number), who are charged with representing the interests of the Trust membership (the equivalent of the shareholders). The Members are taken from all the residents within the local electoral district. Everyone on the local electoral role is eligible to become a member, but they must sign up to be a member. The members have the right to elect Trustees and hold them to account. The Trust is therefore a locally representative body.

- apply the highest standards of energy efficiency;
- reduce the release of waste to prevent damage to the environment;
- seek social as well as business returns;
- harvest no more than what is replenished naturally;
- favour native species over introduced "exotic" species; and
- manage natural resources to restore and maintain biological diversity.

Through this program, Ecotrust and Shorebank will target the following types of businesses:

- Ecologically sound shellfish and finfish harvesters;
- Organic and near-organic growers;
- Certified timber harvesters and value-added manufacturers;
- Cultural and ecotourism operators;
- Local social equity enterprises (e.g. First Nation and women-owned enterprises); and
- Small businesses that are keen to improve their conservation performance

In the fisheries sector, Ecotrust and Shorebank Enterprise have been involved with the Regional Aquatic Management Society (RAMS), an organization created in 1997 by native and non-native partners to establish regional management of aquatic resources in Nuu-chah-nulth Territory, which encompasses most of Clayoquot Sound. In an effort to diversify fishing opportunities by developing new and underutilized species, RAMS helped launch the Tanner Crab Joint Venture (described earlier). In the forestry sector, Ecotrust Canada and Shorebank Enterprise are involved with Iisaak Forest Resources Ltd. (also described earlier).

9.5.5 The Islands Trust

The beauty, tranquillity and unique natural environment of the southern Gulf Islands are nationally recognized. In 1974 the provincial government enacted the *Islands Trust Act* to protect these values. The *Act* states, in section 3, that the object of the Islands Trust is to:

> *"...preserve and protect the trust area and its unique amenities and environment for the benefit of the residents of the trust area and of British Columbia generally, in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia."*

On April 1, 1990, the Act was amended to establish the Trust as an autonomous local government with land use planning and regulatory authority.

The Trust Area includes the islands and waters between the Mainland of British Columbia and Southern Vancouver Island with the exception of lands and waters within adjacent municipal boundaries and boundaries of Indian Reserves. The Trust Area is composed of 13 major islands and more than 450 smaller islands.

Protection from the pressures arising from the area's proximity to major urban centres in BC and Puget Sound was the goal of the *Islands Trust Act*. The *Act* established the Islands Trust as a unique land use planning agency, acting for both the residents of the Trust Area and the province generally, and having a special conservation-oriented mandate. The *Islands Trust Act* was further

It should be noted however, that only half the Trustees are elected by the members. In setting up the Trust it was decided that, since there already was a locally elected council (the Laggan Community Association), there were dangers in setting up a second major representative body. To avoid this, it was decided to make the Trust responsive to the local government (the Community Association) by having the other half of the Trustees appointed by the Community Association. This was seen as important in that the Trustees are responsible for delivering benefits to the whole community not just to those who have signed up as members, so this system ensures full community accountability. One practical benefit of this dual system is that, while the members can only nominate and elect from their own ranks, restricting eligibility to local residents, the Community Association may appoint others (who may be non-residents) with a view to drawing on skills and experience which may not be contained within the village (particularly managerial, legal and financial).

Lesson: The local decision-making body comprised of mixture of elected and appointed members.

Lesson: The local government institution also serves as Trustee.

The Laggan Forest Trust is a partnership between the local community and the state forest agency (Forest Enterprise). The state retains all decision-making power in the land use planning process and keeps all timber revenues, but agrees to deliver the forestry work on the land in question in accordance with the principles of the Trust (essentially, work goes to local contractors and workers). The Trust has achieved some notable results, including directing a significant amount of work to local workers (the Forest Partnership is now one of the community's largest employers), with consequent economic benefits for the community as a whole. Part of the success to date has come through the receipt of grants from government and foundations. Since the Trust (or rather the Trust Forestry Company) operates in a highly competitive market, like any other commercial forestry company, financing for the administration and operation of the Trust is a real problem.

Clearly, this model is limited in nature, focusing exclusively on generating economic benefits for the local community. At this, it has had some success. However, decision-making power still rests with the state forestry agency. Also, there are questions as to the sustainability of the model. Roy Tylden-Wright notes that the Trustees are all volunteers and yet must assume heavy responsibilities and workloads to ensure that the Trust operates properly, a situation ripe for burnout of key people. Tylden-Wright points to the need for a paid executive, yet this does not seem possible in the Trust's current situation. He also sees a need for much stronger community support for the Trust. Given this, he laments that the Trust is effectively impotent:

Lesson: Economic benefits to the community accrue in the form of employment.

Lesson: To be sustainable, community organizations must have broad local and state support.

"In terms of the Laggan Partnership, the most junior wearer of the green fleece of Forest Enterprise (FE), has more real power than the Chairman of the Forest Trust. In effect therefore Forest Enterprise is the real executive of the Community Forest [...]The relationship between the two organisations is that of parent to child, or possibly of trustee/guardian to child. It is one of support coupled with control: it undoubtedly prevents the child from damaging itself too much, but possibly restricts its full potential. It may lead to declining levels of voluntary input since the scope for

Local First Nations and communities generated many ideas on a common vision for our Clayoquot Sound UNESCO Biosphere region – ideas focussed on the UNESCO World Biosphere Reserves 'twin pillars' of both conservation and sustainable development.[39]

With the contribution of $12 million from the federal government, the CBT is a charitable entity responsible for both the management of the Trust's endowment fund and the development of guidelines for program funding from the income earned from the fund. The UNESCO Biosphere designation area totals 350,000 hectares, of which 110,000 are parks and Ecological Reserves. This designation brings with it the opportunity for initiatives that would seek to balance protection of the environment with support of local communities, received support from First Nations, local communities, federal and provincial governments and organizations.

Unlike the Columbia Basin Trust, the Clayoquot Biosphere Trust does not get revenues from resource use rents. Rather its funds come from donations and the returns on capital investments. It uses these funds to support and invigorate local communities and to promote ecological sustainability. The trustees essentially have the goal of managing trust funds, and developing guidelines for programs, and are not actually responsible for managing the resources in the biosphere reserve.

9.5.4 The Ecotrust Community Investment Mechanism

Ecotrust Canada, in conjunction with Shorebank Enterprise Pacific and several other partners, has created Shorebank Enterprise Group to offer an array of financial and business services to conservation-oriented coastal entrepreneurs. Ecotrust Canada and Shorebank Enterprise Pacific have developed a $4-million revolving green enterprise loan fund for conservation-based businesses on Vancouver Island. The provincial government contributed $1.1-million to the loan fund through the Ministry of Community Development, Cooperatives and Volunteers in April 2000. The provincial government's investment will enable the expansion of existing Ecotrust operations in Clayoquot Sound to other communities on the Island. A total of $6 million will be loaned to 50 small businesses launching or expanding conservation-based green enterprises over four years.

Lesson: Innovative financing mechanisms support communities.

For example, Ecotrust/Shorebank Enterprise Group offers non-bank, higher risk business loans to Clayoquot entrepreneurs who incorporate conservation practices into their operations, and want to reach new premium "green" markets. Ecotrust/Shorebank Enterprise Group has been successfully combining conservation and business risk analysis and portfolio management to value-added wood, marine food, tourism and waste management businesses for four years.

Ecotrust's goals are to spur economic diversification and facilitate the new conservation economy that lives off the interest instead of eroding natural capital. Some of the principles that Ecotrust/Shorebank Enterprise Group intends to pass on to entrepreneurs include:

Lesson: Management is merged with production.

- process and add value to raw materials before exporting them;
- use new technologies to increase productivity rather than just using more resources;

[39] http://www.clayoquotbiosphere.org/

creation is always mitigated by what is acceptable to the senior partner." (Tylden-Wright 2000)

Despite this unbalanced partnership, Tylden-Wright sees much potential. Critical to reaching this potential is more community support, stable core funding for the Trust, and greater management authority.

6.3 Switzerland: Systems of Common Property and Management

In the small village of Törbel, Switzerland, peasants have planted and cultivated their land to yield fruits, vegetables and grains for centuries. As early as 1224, residents of Törbel documented the types of land tenure, and in 1507 boundaries of communally owned lands were firmly established for alpine grazing meadows, forests, irrigation systems, paths and roads (Ostrom 1990). Citizens were extended communal rights and access to the common property, but under specific regulations stating for example, "no citizen could send more cows to the alp than he could feed during the winter" (Netting 1976; cited in Ostrom 1990). Violation of the village regulations incurred substantial fines for those who exceeded their quota of grazing rights. A local official, the *Gewalthaber*, administered and handed out fines, keeping one half of the fines as payment for his work.

Lesson: Imaginative and culturally appropriate forms of self-regulation have proven sustainable over generations.

The "wintering" rule is used by many other villages in Switzerland as a way of allocating appropriate rights to the commons due to its relative simplicity in monitoring and enforcement. Furthermore in terms of distribution of communal benefits, the number of cows that each family sends to the alp for grazing, determines the amount of cheese the family will receive at the annual distribution. Fees contributions related to the use of the meadows are also set in proportion to the number of cattle sent by each owner (Ostrom 1990).

The village association that manages the alp includes all local citizens who own cattle. The association votes on village statutes and meets annually to discuss general rules and policies, and to elect officials (Ostrom 1990). These officials coordinate the management of the common property, and are charged with the duty of hiring staff, levying fines on violators, and organizing annual maintenance work on the pastures, roads and alpine huts. In the forest lots, officials mark trees that will provide timber and firewood to groups of households who are authorized to harvest the marked trees. The eligible households then form work groups and equally divide the labour of cutting, hauling and piling the logs. A lottery is then used to assign particular stacks to the eligible households.

Lesson: A system of resource management is community-based

Private rights to land including meadows, gardens, and grainfields are owned by individuals, and shared between siblings or other relatives in complex "condominium-type" agreements that stems from the inheritance system in Törbel (Ostrom 1990). Both private holdings and access to the commons inherited is divided equally between surviving siblings. Netting (1976) posits that the communal tenure arrangement like in Törbel promotes general access to, and optimum production from the shared resources, while also instilling a system of

Lesson: Common property regimes are diverse.

Lesson: Communities have a mix of private and communal lands, for different uses.

these appointed by the Province, 2 from each of the 5 regional districts in the basin area, and 2 from the local tribal council. The CBT has staff to carry out day-to-day activities of the corporation. The Columbia Basin Trust provides useful guidance for the investment of resource rents with which successful communities can fund community development programs.

9.5.2 The Gwaii Trust

The Gwaii Trust Society and Gwaii Trust Investment Fund are the result of the designation of Gwaii Haanas National Park Reserve in 1988. The Gwaii Trust Investment Fund is a permanent model for a locally controlled, interest-generating fund for the purpose of advancing economic diversification and sustainable development on Haida Gwaii/Queen Charlotte Islands. The Fund was established to enhance understanding between the communities and cultures of Haida Gwaii/Queen Charlotte Islands through the process of joint community economic planning and development.[38]

The Gwaii Trust Society may only spend the interest and dividend income from the trust, not the capital, which was $38 million in 1998. As of August 1997, the Trust was $40,712,000. Expenditures on a range of community development programs are in the order of $3 million annually. The Gwaii Trust Society is a registered non-profit society. The Board of Directors consists of eight members. Four of the Directors are appointed by the Council of the Haida Nation, in a manner as determined by the Haida Nation. The remaining four Directors are elected by the electoral communities under the *Local Government Act*. They are:

Lesson: The community management authority accommodates both First Nations and locally elected government.

- the electors of the Village of Massett;
- the electors of the Village of Port Clements;
- the electors of Area "D" of the Skeena Queen Charlotte Regional District; and,
- the electors of Area "E" of the Skeena Queen Charlotte Regional District.

9.5.3 The Clayoquot Biosphere Trust

The Clayoquot Biosphere Trust is a non-profit charitable organization, which promotes research, education, and training in support of the Clayoquot Sound UNESCO Biosphere Reserve. Its raison d'être is to promote and demonstrate the balance between conservation and sustainable development. The web site for the Clayoquot Biosphere Trust elaborates on this:

> *UNESCO World Biosphere Reserves have a role to play locally and globally. Biosphere Reserves provide opportunities for local people to work together to show that is it possible to use an area's resources in a sustainable manner [...] What we do with our Clayoquot Sound UNESCO Biosphere Reserve region and our Clayoquot Biosphere Trust, however, can also create models that other communities around the world can learn from [...]*

[38] www.gwaiitrust.com/history

conservation measures.

While the story of Törbel is not typical of all alpine villages in Switzerland, there are some general consistencies. For example, many farmers use their privately held property for agriculture, but use common property to access summer meadows, forests, and stony 'wastelands'. Four-fifths of these areas are owned and governed by local villages, corporations, or cooperatives. Thus the residents who own communal land spend time governing themselves. In addition to defining members of the 'user group', all local regulations specify authority rules in order to limit the levels of appropriation. The proportion of access rights may be determined by: 1) the number of animals that can be fed over the winter; 2) the amount of meadowland owned by a farmer; 3) the amount of hay produced by a farmer; 4) the value of land owned in the valley; or 5) the number of shares owned in a cooperative (Ostrom 1990)

The procedures used for cutting trees in Törbel illustrates how many of the locally constituted rules keep the costs of monitoring and other transactions relatively low and reduce the potential for conflict. The procedure of communal management also enables a regular and careful assessment of the forest's condition. Furthermore, days of work are often combined with festivities to reduce some of the costs associated with communal management, as well as providing an opportunity to forge strong community 'spirit'.

Lesson: Costs associated with resource management are kept low through community participation.

6.4 Italy: Magnifica Comunità di Fiemme

Community forestry has a long history and deeply rooted tradition in Italy. In the Val di Fiemme, a catchment area of the River Adige that crosses the Alps, the *Magnifica Commuità di Fiemme* (MCF) is an example of effective common property management.

The MCF is known under Italian civil law as a unique *sui generis* institution. It has no affiliation today with the local governments and there is actually a rule that the town mayor may not be a member of the MCF assembly (Duinker and Pulkki 1998). Such a communal institution was common in central Europe in the Middle Ages, and possibly long before the Roman Conquest. Through the first millennium, the MCF managed to retain its institutional independence due to its geographic isolation (Merlo 1995). In the year 1111, the autonomy of the inhabitants of the Val di Fiemme was officially acknowledged by the Bishop-Prince of Trento (Morandini 1996). In 1314, the inhabitants of Val di Fiemme were given direct common ownership and use rights of their lands, forests and pastures. Beginning in the nineteenth century, the MCF had to repeatedly re-confirm its status through periods of Bavarian and Austrian rule that imposed a central administrative system and abolished locally constituted statutes.

Lesson: The authority of local government is separated from that of local resource managers.

The valley villages were reorganized as separate municipalities under the new rules and several attempts were made to divide up the common heritage (Morandini 1996). Nevertheless the unity and heritage of the MCF received formal recognition from the Italian High Court in 1951, as well as the Special Law for Mountain Regions (1952). Statutes renewed in 1993 declare, "...the community of the vicini of Fiemme, called Magnifica Commuità di Fiemme, is the universality of the vicini to whom, in accordance with the original rights, the collective patrimony belongs,

9.5 Trust Models in British Columbia

The concept of a "trust" is often used to give communities or local groups more control over some aspect of natural resource management. In British Columbia, there are a number of trust models of interest, including the Columbia Basin Trust, the Gwaii Trust, the Clayoquot Biosphere Trust, the Ecotrust Community Investment Mechanism, and the Islands Trust. These models are examined here, particularly for their relevance to the management or governance of natural resources by local communities. In most cases, the trusts relate simply to the allocation of revenues generated by resource use to communities or regions affected by some past management decision, and do not describe a land designation.

9.5.1 The Columbia Basin Trust

In 1964, the Columbia River Treaty was signed between Canada and the United States. Under the Treaty, four dams were built for the generation of hydroelectric power. The reservoirs created by the dams caused the displacement of 2300 people along the Arrow Lakes, and in the Koocanusa, Duncan, and Kinbasket regions. As a result of public pressure in the 1990s from residents in the Columbia basin area, the BC Government enacted the Columbia Basin Trust Act in 1995 as a means of redressing the injustice done to people affected by the treaty, and who did not receive adequate consultation opportunities prior to the flooding of their communities. The Columbia Basin Trust (CBT) aims to return some downstream benefits to the region most affected by dam construction.

The Mission of the CBT is to support "efforts by the people of the Basin to create a legacy of social, economic and environmental well-being and to achieve greater self-sufficiency for present and future generations." The CBT manages a spending program, in which they provide support to projects and businesses within their funding priority areas. (In the environmental area, the Trust provides funds for a wide range of activities, including fisheries renewal, ecological restoration, community stewardship, and environmental education). The Trust allocates approximately $3.75 million per year to projects. Investment and spending priorities are guided by a management plan that is developed in consultation with community members. The Trust allocates resources to environmental, social, and economic development programs within the basin region. According to the CBT web site:

Lesson: Revenues from resource use are reinvested for community and ecosystem health.

> *Over the next 10 years the Trust will receive a total of $295 million dollars as the regional allocation of downstream benefits from the Columbia River Treaty. $250 million is earmarked for power project investments. An additional $45 million of the regional allocation can be invested in any viable business opportunities, preferably inside the basin. Income earned from investing this capital funds the Trust's spending programs.*[37]

The CBT is structured as a corporation with one share, held by the Province. The Province disburses benefits from the trust agreement to the CBT corporation. The CBT itself is managed by a Board of Directors made up of 18 Directors (all residents of the region): 6 of

Lesson: Mixed representation (province, local governments, First Nations) on local decision-making body.

[37] Columbia Basin Trust Website: http://www.cbt.org/

mainly consisting of silvopastoral land, on which the vicini exercise their rights according to consolidated customs..." (Morandini 1996).

The ownership and use rights of the MCF are bestowed only on the residents of the eleven communities in the Val di Femme. One can become a member of the MCF, a *vicini*, if one is born in the valley to a family of *vicini*, and if one remains a resident. Or, if one immigrates into the valley, one is eligible for membership after 20 years. When a person moves away from the valley, their membership to the MCF is relinquished. Traditionally, outsiders were not allowed to become a *vicini* and join the CFM, not even through marriage (Morandini 1996). Today, there are almost 19,000 *vicini* (permanent residents).

Lesson: Membership is strictly residence-based.

The organization is structured much like a private corporation (Duinker and Puilkker 1998). Each member community has a common assembly of members and three representatives are voted into the MCF common assembly. The executive body is comprised of the single representative of each community, the *regolano,* who received the highest number of votes. In turn, the executive body elects a president, the *scario,* and appoints members of the corporate boards to provide monitoring and auditing functions for the MCF.

Lesson: The local management authority operates like an executive board in a corporation.

Up until 1700, the financial returns from communal forestry, mainly from the sales of timber, were used to support the organization of the village community. Profits earned would frequently be spent to support the poor, and to provide community infrastructure such as roads, hospitals, schools and libraries (Merlo 1995; Morandini 1996). All members of the *vicini* are eligible to receive an equal portion of the profits earned from the MCF, and while these amounts were once substantial, they have become a nominal part of each vicini's income.

Lesson: Revenues are shared among members, and support community programs.

Use rights in the MCF include wood harvesting, access to grazing pastures, hay harvesting, hunting and fishing. The MCF area is 19,600 ha, and 11,400 ha are covered by a forest dominated by Norway spruce (*Picea abies* [L.] Karst). The forest is managed by a team of two professional foresters and ten technicians. Ecologically speaking, the MCF is not an example of natural forest management and is managed primarily for the production of timber. The current harvest levels are about 35,000 m^3 annually of industrial roundwood (Duinker and Pulkki 1998). Wood is milled in a locally run state-of-the-art sawmill, and manufactured into window frames, furniture, toys, musical instruments, crates and pallets. In 1997, the MCF was authorized to affix the FSC certification label to its wood products (Duinker and Pulkki 1998).

Duinker and Pulkki (1998) draw numerous comparisons between the MCF in Italy and Canadian initiatives in community forestry. Of particular importance is how the MCF would be of marginal economic viability if it did not have a state-of-the-art sawmill making specialty-high value added products. In contrast, none of the Canadian community forests have a wood processing facility and are thus financially dependent on government support.

Lesson: The economic sustainability lies in the local manufacture of FSC-certified value-added products.

Iisaak will harvest timber at much lower levels than a conventional forest operation but will also maintain ecosystem structures and ecological processes that are of value to society that would normally be lost or degraded. As part of its business plan, therefore, Iisaak is pursuing public-private sector partnerships (PPP) to capitalize on the ecological services provided by it's natural capital investment in forest ecosystem structure and function (i.e., climate change mitigation, biodiversity conservation, and ecological integrity.) Potential "green" investors in these forest services include private environmental foundations, socially responsible corporations, the federal and provincial governments, and community-based foundations.

Essentially, Iisaak is re-configuring and bundling existing rights held by various public and private entities so that new and tangible value is derived from the resulting environmental benefits and ecological services. The packaging of these values through the financial mechanism of the PPP allows Iisaak to raise capital to support the transition to a conservation-based forestry.

Lesson: Ecosystem-based community projects are sustainable investments.

MOUs with ENGOs and Forest Workers

In June 1999, a Memorandum of Understanding (MOU) was signed between Iisaak Forest Resources Limited and five environmental non-governmental organizations (Greenpeace Canada, Greenpeace International, Natural resources Defense Council, Sierra Club of BC, and Western Canada Wilderness Committee). The ENGOs committed to support Iisaak's operations, actively engage in promoting markets for products produced by Iisaak, and develop ongoing mechanisms for sustaining cooperation. In September 1999, a Memorandum of Understanding was signed by Iisaak and displaced forest workers of the Clayoquot Sound South Community which led to the establishment of an employment protocol wherein Iisaak agreed to provide opportunities to qualified local contractors and individuals as much as possible.

It is probably too early to assess the overall successes and challenges of the Iisaak model, however the approach is innovative, and has many of the elements that should lead to success, including:

- an area-based tenure (Tree Farm Licence 57), which provides more scope for long-term investment and ecologically-based management, compared with a volume-based tenure (Although amendments to the Forest Act are required to create a conservation-based tenure as noted above);
- a tenure that operates within the clearly defined mandate and guidance for ecological forestry provided by the recommendations of the Clayoquot Sound Scientific Panel;
- a joint venture arrangement between First Nations and a forest company, with the balance of control (51 percent) vested with First Nations;
- a focus on value, quality and a diversity of products and services, rather than on timber production;
- inclusion of mechanisms for conservation-based investment (a "Green Investment Strategy") to supplement cash flow and contribute to the overall financial viability of the enterprise; and
- a commitment (through MOUs) to address the needs and concerns of key stakeholder groups - ENGOS, forest workers, and local communities.

Lesson: Communities will operate following a set of overarching principles.

Lesson: Importance of alternative financing mechanisms.

7. Models from the United States

A critical point in the history of resource use and management in the United States was the arrival of European settlers. Weakened and decimated by European diseases, those indigenous peoples who were not killed in Indian wars were eventually pushed aside by the newcomers onto small reservations. The European settlers who flooded across the land viewed the continent's rich natural resources such as forests, fisheries, and wildlife as limitless and plundered them without regulation. The more vulnerable resources (the passenger pigeon, the Plains Bison) disappeared early. However, in the latter half of the 19th Century, it was concern about deforestation that led to the development of a movement for conservation and 'wise use' of the continent's remaining natural resources. One result was the creation in the early 20th Century, of federal agencies (such as the U.S. Forest Service) to manage natural resources and to set aside areas of public lands for conservation and sustainable use.

The early part of the 20th Century also saw the rise of scientific management of natural resources, based on a model of central regulation and the development of the resource industry. Throughout much of the first half of the century the industry was dominated by small and local firms. During the second half of the century, however, resource use and management became increasingly industrialized on a large scale. Privatization of lands was much more prevalent in the United States than many other countries (for example, Canada), such that today large areas of forest and other resource lands are in private hands. More recently, interest in community-based forms of natural resource management has increased greatly in the United States. In this chapter we review a few of the many models in United States.

7.1 Menominee Tribal Enterprises: A Model for Indigenous Forest Management

The Menominee Indians of northeastern Wisconsin have been actively involved in progressive forest management of 88,320 ha of communal forest lands for over one hundred and fifty years. Over 94 percent of the tribal land is covered by a rich mixed hardwood forest, and despite its appearance of old-growth, it is one of the most intensively managed forests in the mid-western United States. They have harvested approximately 12 million m^3 of sawtimber during this time, and yet the amount of sawtimber growing stock on their land is greater today that it was a century and a half ago (Burgess 1996).

While the Menominee have owned their reservation since a treaty agreement in 1854, the United States government has retained varying degrees of management authority over those resources. The Menominee Indian Tribe is now a self-governing nation with its own constitution and by-laws, approved by the Tribal Council, its members and the Secretary of the Interior. In 1975 the Menominee Indian Tribe of Wisconsin entered into a Trust and Management Agreement with the Secretary of the Interior. The agreement gives the Menominee the right to manage its forests (overseen by the federal Forestry Department), according to a management plan based upon a sustained yield basis (Huff and Pecore 1995). An on-reservation Bureau of Indian Affairs Trust Officer makes the approval and implementation of tribal activities more informal and expedient (Curran and M'Gonigle 1999).

- support native biodiversity (rather than reduce native biodiversity); and
- acknowledge "environment" as a benefit (rather than a cost).

Iisaak also actively promotes local control of resource management, increasing the local revenue base, and enhancing local employment opportunities. Economic diversification initiatives include promoting economic participation of First Nations in the forest sector, supplying logs to the local value added sector to create business opportunities, and providing opportunities to gain expertise and build capacity in ecosystem-based forestry for forestry workers, logging contractors, and small scale specialized equipment manufacturers.

On August 22, 2000, Iisaak began harvesting in Clayoquot Sound. Approximately 10,000 cubic metres were harvested, using the variable retention silvicultural system proposed by the Clayoquot Sound Scientific Panel. Iisaak's approach resulted in an average retention level of 75% of the original forest stand. Iisaak has implemented a monitoring program to ensure that the integrity of ecosystem processes and ecosystem attributes are maintained and to improve understanding of the mechanisms that create change in forest ecosystems.

Iisaak was selected by the BC Ministry of Forests to develop a detailed proposals for a Results-based Forest Practices Code Pilot Project.[36] The purpose of the pilot projects is to improve the regulatory framework of forest practices by testing alternative approaches to forest management that meet - or exceed - current levels of resource protection, while maintaining environmental protection, reducing costs for government and industry, and ensuring effective relationships with First Nations and public stakeholders. (See Section 9.1.2 for an overview of the BC Community Forest Pilot Project). Iisaak's project proposal would:

Lesson: Community-based management often surpasses existing standards of sustainability.

- replace the allowable annual cut with an area based management parameter that is consistent with the Clayoquot Sound Scientific Panel recommendations;
- remove the current cut control provisions to allow for area-based management over the business cycle;
- base annual rent on the area harvested (or available for harvest) not a predetermined AAC; and
- develop a "one-plan" approval process for operations within Tree Farm Licence 57.

Iisaak believes that a key to its long-term success will be to have an alternative, market-based stumpage appraisal for TFL 57 which responds to i) area-based yield and market pricing; and ii) the operating costs of conservation-based forestry. By matching the harvest to market, Iisaak would be able to capture more resource rents from its commercial timber operation, thus offsetting somewhat the impact of lower harvest levels. Also, the current stumpage appraisal system does not fully recognize the higher costs of conservation-based forestry, which penalizes conservation-based forest enterprises and favors lowest cost operators. Addressing both of these issues would require amendments to the *Forest Act* by the provincial government.

Lesson: Incorporating full costs of conservation-based management into resource rents.

[36] For more information on the Results-based Forest Practices Code Pilot Project, see www.for.government.bc/hfp/rbpilot

The Menominee credit their successful practices of sustainable forest management to the advice of their tribal chiefs who, in the mid-19th century, told them that if the tribe was to survive on the small reservation they must manage the resources with care (Poffenberger 1998). Under current tribal law, Menominee tribal members are entitled to hunt deer and bear, fish, trap, collect firewood and posts, as well as gather food, medicinal plants and botanical products for their personal use. Commercial activities are reserved for the tribe as a collective group. While the Tribal Council has formulated resource codes to guide community use of the forests, the Menominee are bound by long-standing conservative traditions.

Lesson: Utilizing traditional ecological knowledge is key.

Lesson: Cultural values guide methods of self-regulation

The Menominee also operate a modern commercial timber harvesting operation through Menominee Tribal Enterprises (MTE), wholly owned by the tribe. The management objective of the MTE is to, "maximize the quantity and quality of saw-timber grown under sustained yield management principles while maintaining the diversity of native species" (Menominee Tribal Enterprises). Sustained yield is broadly interpreted by the Menominee to not only include forest products and social benefits, but also wildlife, site productivity, and other ecosystem functions. MTE approaches forest management with eco-forestry principles which has allowed its products to be certified under the FSC label (Curran and M'Gonigle 1999).

Lesson: FSC Certification indicates sustainable forest practices are employed.

The forest is central to the Menominee economy, employing 400 people, 10 per cent of the on-reservation population in forest management and milling (Curran and M'Gonigle 1999). Despite earning a profit of $1.7 million in 1993-1994, MTE's long-term financial viability is questionable considering that the Bureau of Indian Affairs provides $2.2 million annually for management activities. While community participation appears to be formalized, accessible only through the MTE Board or tribal legislature, the Menominee attribute their success to community support of the cutting methods and the control of overuse by other members (Curran and M'Gonigle 1999). The Menominee experience teaches other forest dependent communities that management of forest resources based on community institutions can provide a sustaining basis for local economy and maintain traditional values (Poffenberger 1998).

Lesson: Community support is critical.

7.2 The Forest Trust and National Network of Forestry Practitioners

Founded in 1984, the Forest Trust is a New Mexico-based organization dedicated to protecting the integrity of forest ecosystems and improving the lives of people in rural communities. Underlying their initiatives is the belief that the well being of rural forest-dependent communities and forest preservation are interlinked.[12] The Trust currently protects 8,350 acres of private forest and range lands through conservation easements, land acquisition, and the application of environmentally sound management. The Trust also administers 26,000 acres in New Mexico and Colorado, ensuring that the ranch lands are cared for properly while continuing to produce income for their owners. In addition, the Forest Trust staff provides technical assistance and expertise in sustainable forest management to individual landholders, government entities, and other land trusts interested in conserving private forest lands.

[12] Description of the Forest Trust based on the Forest Trust Annual Report (1999) and information available on the organization's web site (http://www.theforesttrust.org).

9.4.4 Iisaak Forest Resources Limited

Schedule II of the Clayoquot Sound IMEA committed MacMillan Bloedel (now Weyerhaeuser) and the First Nations of Clayoquot Sound to begin negotiations with the object of forming a joint venture based on a shared commitment to improved forest stewardship. In 1997, Ma Mook Development Corporation was established to represent the collective economic interests of the five Nuu-Chah-Nulth Central Region First Nations. In 1998, Ma-Mook Development Corporation and MacMillan Bloedel signed a shareholders agreement detailing their partnership in a new company named Iisaak (pronounced E-sock) Forest Resources Limited.[34] Through the joint venture agreement, the Central Region Nuu-Chah-nulth First Nations own 51 percent of Iisaak through Ma-Mook Development Corporation, and Weyerhaeuser owns the remaining 49 percent.

Lesson: Innovative new businesses (e.g., joint ventures) help develop community sustainability.

Iisaak means "respect" in the Nuu-Chah-nulth language, and the guiding principle for Iisaak's operations is *Hishuk-ish ts'awalk*, the Nuu-Chah-nulth understanding of the importance of respecting the limits of what is extracted and the interconnectedness of all things. Iisaak provides the foundation for a new approach to conservation and sustainable forest management in Clayoquot Sound. Specifically, Iisaak's approach is to:

Lesson: Business grounded in local ethos of sustainabilitv.

- develop and deliver new, innovative ways of managing the resources of Clayoquot Sound which respect cultural, spiritual, recreational, economic and scenic values;
- collaborate with local communities and conservation interests to maximize the value of products delivered through the application of forest practices that respect ecological and cultural values.
- deliver value-based select products that are customized to meet the interests of local and international buyers;
- achieve Forest Stewardship Council (FSC) certification through an independent, third party accredited certifying body;
- establish a successful forest services company that will demonstrate innovative approaches to ecologically based forest management;
- visit and learn from examples of sustainable forest management of indigenous forests from around the world; and
- manage adaptively.

Lesson: Ecosystem-based practices and FSC certification meets market demands.

Iisaak's ecological and economic goals, and their contrast with conventional forest management goals, are:[35]

- build asset value and total returns (rather than maximize profit),
- restore forest complexity (rather than simplify forests and products);
- manage for multiple products (rather than just timber);
- emphasize quality of production (rather than quantity);
- sustain long-term forest yields (rather than reduce standing timber inventory);

Lesson: Business goals reflect the basis for developing ecological and economic sustainability

[34] See www.iisaak.com for additional information.
[35] See www.iisaak.com/approach

The Forest Trust also has a Community Forestry Program. Ryan Temple, Coordinator of the Community Forest Program, describes this aspect of their work as follows:

In response to the varied needs of forest-dependent rural communities, the Forest Trust established a community forestry program grounded in the villages of northern New Mexico. The Trust's rural development strategy includes business creation, support to the independent logging sector, and training in forestry for unemployed youth. Rural economic development in forest dependent communities is a difficult undertaking in today's social, environmental, and economic climates. The twin challenges are to create economic opportunities that are environmentally and culturally acceptable, and to develop the business infrastructure and human resources necessary to capture these opportunities. The communities of northern New Mexico have a tradition of dependence on the forests within which they are located. Locally based forest enterprises have the potential to maintain traditional livelihoods while protecting the forest resources that support those livelihoods. The Forest Trust has been a partner in the implementation of businesses that create opportunities for communities without compromising ecosystem integrity. The Trust also manages its own businesses that support independent forest workers and demonstrate the potential of forest stewardship. The Forest Trust also supports the independent logging sector in northern New Mexico by helping local loggers to secure national forest timber sales appropriate to their business capacity.

Lesson: Sustainable economic development is fostered locally.

The Forest Trust has also been active in sponsoring and coordinating citizen's organizations such as the National Network of Forest Practitioners (NNFP).[13] Formed in 1991 with the help of the Forest Trust, the NNFP's mandate is to support and strengthen forestry practitioner groups. The organization has provided a common voice for engaging the Federal Government in the review and drafting of policies affecting the viability of rural, forest-based communities. The NNFP is a collaborative effort between public resource management agencies, private businesses and NGO, and members include regional and local networks working to promote ecosystem-based community forestry in their areas.

Lesson: Citizen participation is encouraged through local initiatives.

The NNFP has over 450 members in 48 U.S. states and in British Columbia. Members are typically involved in a wide range of activities in forest-dependent communities including watershed protection and restoration, ecotourism, job training, non-timber forest products, and value-added wood manufacturing. A key function of the organization is to link members together and serve as an agent for change in rural communities.

7.3 The Alaska Community Development Program

The residents of the remote Western Alaska communities, bordering the Bering Sea rely on a variety of employment and subsistence hunting and fishing opportunities to make a living (Ginter 1995). However, overshadowed by highly capitalized trawling and factory vessels, the salmon, herring, halibut and pollock fisheries provide a relatively low income to local fishermen.

The Western Alaska Community Development Quota (CDQ) Program was conceived by the North Pacific Fishery Management Council in 1992 in response to the inequitable distribution

[13] For a more detailed description of the National Network of Forest Practitioners, see: http://www.nnfp.org/

that the historical problems (centralized decision-making, biases toward certain interest groups) that have plagued Fisheries and Oceans Canada may continue to impede efforts to move towards sustainability.

At this time, negotiations on the Terms of Reference for the Board are ongoing. In the meantime, the Regional Aquatic Management Society is carrying out some of the functions that it is anticipated that the Board will eventually assume. By carrying out these functions, RAMS is building consensus and establishing its legitimacy. It is essential that the community demonstrate that it has the capacity to provide effective management. For example, in an effort to diversify fishing opportunities by developing new and underutilized species, RAMS helped launch the Tanner Crab Joint Venture last winter, in which fishers, processors, and community organizations collaborated with government agencies to survey the BC Coast and determine the feasibility of a Tanner Crab trap fishery.

Lesson: Experimentation and pilots builds community capacity.

The Tanner Crab fishery would be the first along the coast developed according to ecological, socio-economic, and cultural principles. A loan to one of the RAMS partners by Ecotrust Canada and Shorebank Enterprise enabled the survey to be conducted in conjunction with a limited exploratory commercial harvest to foster the development of processing and marketing. Ultimately, the fishery could be responsible for 50-125 new and seasonally extended jobs on the coast. The market objective of the joint venture (and the focus of Ecotrust/Shorebank involvement) has been to develop locally produced value-added and special products for local resale by retailers and restaurants. If successful, this would keep Tanner crab out of the traditional commodity marketplace that has in the past fostered the overharvest of other coastal fisheries.

Lesson: Local financing mechanisms are needed to support community projects.

The work to establish RAMS and to implement concrete projects in line with its mandate holds a number of important lessons for community-based resource management in British Columbia, including:

- The importance of appropriate jurisdictional boundaries – in this case, watershed boundaries coincided with First Nations' traditional territories and there was apparently no conflict with other communities;
- The value of concrete pilot programs to help to build trust and establish legitimacy;
- The degree of decision-making power attained – there are concerns about the extent to which the Regional Aquatic Management Board will operate in an advisory as opposed to decision-making capacity (Fisheries and Oceans Canada prefers the former approach while RAMS prefers the latter);
- The slow pace of government - government agencies move very slowly to facilitate this kind of community involvement, and innovation is more likely to flourish at the local level where there is less bureaucratic inertia; and
- Room for innovation – it appears to be easier to make inroads in new or peripheral areas as opposed to core areas (e.g. Tanner Crab fishery versus Pacific salmon fishery).

Lesson: Importance of setting appropriate jurisdictional boundaries.

Lesson: Balance of decision-making power between community and central governments

Lesson: Need to provide "space" for innovation at local level.

between the intensive industrial fishing operations and the local harvesting practices of the coastal communities. With the increasing efficiency of industrial fishers, the race for fish has resulted in predictable declines or collapses in stocks. The concept of the CDQ allocation of pollock was developed to provide a diversified and stabilizing source of income to certain Bering Sea coastal communities (Ginter 1995).

The overall goal of the CDQ Program is to provide the means for starting or supporting commercial seafood activities in Western Alaska that will result in ongoing, regionally-based commercial seafood or related business (Ginter 1995). In 1995, the regulations implementing the CDQ program established reserves of the annual total allowable catch (TAC) to be allocated and managed by community organizations with an approved community development plan (Ginter 1995). The allocations range from 10 percent for pollock to 7.5 percent for most other species. Besides pollock, the program includes halibut, sablefish, Atka mackerel, Pacific cod, and crab.[14] Several provisions for the CDQ program were included in 1996 by the Congressional rewrite and re-authorization of the Magnuson-Stevens Fishery Conservation and Management Act, the governing authority for all fishery management activities that occur in federal waters within the United States 200 nautical mile limit, or Exclusive Economic Zone (EEZ).

Lesson: Participation in the co-management program is determined by need.

Lesson: A network of communities was organized to manage the administrative burden of co-management.

Administered by the state of Alaska and the National Marine Fisheries Service (NMFS) a series of CDQ program criteria were designed for eligibility, application procedures, and monitoring procedures. Community organizations were defined by their location (within 50 miles) from the Bering Sea Coast of Alaska, thus targeting isolated native villages that relied upon the fishery. Proposals are invited once every two years, and once graduating from a series of thorough reviews and public hearings and consultations, the Secretary to the State makes the final judgment of whether a community has fulfilled the mandatory criteria and eligibility.

There are 65 eligible communities that have organized themselves into 6 community alliances or CDQ Groups. The CDQ Groups are the managing organizations for the CDQ allocation application process and for the development and implementation of the Community Development Plan (CDP). The CDP details how the allocation will be harvested and used. Each group has incorporated under Alaska law as a nonprofit corporation. They have formed partnerships with other businesses and corporations who participate in the Bering Sea fishery. The royalties received from these partnerships are the source of funds for the fishery related community development projects outlined in the group's CDP (CDQ Program).

Lesson: Joint ventures earn communities royalties.

Even though the community is involved as a beneficiary of the CDQ program, the program was introduced and is still managed as a top-down strategy. For example, all fishing through the CDQ program must comply with applicable state and federal regulations – although CDQ fishing may occur after the open access quota has been caught and the fishery is closed (Ginter 1995). Monitoring the performance of a CDP is the joint responsibility of the CDQ Group, the State of Alaska and the federal government. The state requires quarterly reports, conducts several annual meetings with each CDQ Group, requires annual audits, and retains the right to conduct a review of any organization's accounts at any time (Ginter 1995).

[14] For more information see: http://www.cdqdb.org/index.htm

- Prepare and respond to policies that impact aquatic resources in the Nuu-chah-nulth/West Coast Vancouver Island region;
- Partner with other organizations undertaking aquatic management responsibilities or activities in the region to achieve RAMS' vision, purposes and goals;
- Facilitate the development of committees, cooperatives, corporations or other organizations to undertake certain management functions in conjunction with RAMS; and
- Communicate to communities, industry, the federal and provincial governments, and the general public about the work of RAMS and provide a public information function consistent with RAMS' purposes.

Goals

- Conserving and protecting aquatic ecosystems in the region;
- Restoring aquatic resources and habitat that have been adversely effected by human activity and natural events;
- Respecting and protecting aboriginal uses of the aquatic resources;
- Providing viable sustainable fisheries for residents of the region, in accordance with the federal government's obligation to implement the adjacency principle and meet domestic and international obligations;
- Realizing the long-term social, cultural and economic benefits from the comprehensive management and harvesting of aquatic resources;
- Promoting sustainable economic development and diversification for communities in the region;
- Respecting the knowledge of Nuu-chah-nulth First Nations, local governments, communities, fishermen, and individuals through active participation in managing regional aquatic ecosystems;
- Exploring local management options to improve management of aquatic resources;
- Developing partnerships between First Nations, commercial and recreational industries, government resource managers and personnel, aquaculture industry, recreational users, and all others concerned with the management of aquatic ecosystems in the region; and
- Meeting domestic and international responsibilities regarding fisheries management in the region.

In February 1998, the governments of Canada, British Columbia and the Nuu-chah-nulth First Nation agreed to establish a pilot, area-based aquatic management board for the West Coast of Vancouver Island. The Board is intended to provide community-based ecosystem management. The federal and provincial governments will retain ultimate authority and responsibility. The Board will participate in decision-making on a spectrum ranging from information-sharing, to consultation, to shared decision-making, to the assignment of specific decision-making responsibilities. It is envisioned that the Board will be composed of eight representatives from government (two federal, two provincial, two regional, two First Nation) and eight non-government representatives with a range of skills and experience plus commitment to the Board's principles.

It is understood that the federal Department of Fisheries and Oceans Canada will maintain its role as the ultimate statutory authority. This will theoretically ensure that national (and even international) interests are balanced with local community interests. On the other hand, it means

7.4 The Kuskowim River Management Working Group in Alaska[15]

In the mid-1980s the Alaska Department of Fish and Game threatened to close down the Kuskokwim river salmon fishery. Since the early 1970s commercial harvests of chinook, coho, and chum salmon have steadily increased while the spawning escapement data showed declines in returns. Government thus feared that the fishing effort had become too great to sustain the fishery. As a response to this threat of closure, 21 communities along a 200-mile stretch of the Kuskokwim river in southwestern Alaska pooled their efforts. These communities collected data and estimated the strength of the in-season salmon run in order to keep their fishery open.

Lesson: Information sharing and data collection set a baseline for management.

The communities along the Kuskokwim include indigenous Yup'ik and non-Yup'ik individuals and families. Subsistence fishing is very important to the economy of all residents with the average commercial income per fishermen only $8,483 annually.

While the communities' initial response to the threat of closure was angry lobbying through institutions such as the citizen's Board of Fisheries to keep the fishery open, all parties eventually realized that the scarcity of available data on the fishery was the real problem. Thus the confrontational meetings eventually evolved into practical discussions of how to solve the management problem. Within two years the communities had formed an ad hoc working group with representatives from each sector, which became known as the Kuskokwim River Salmon Management Working Group.

This Working Group meets with government pre season to discuss the management needs for the fishery and two or three times a week in season to make in season management decisions. The Alaska Department of Fish and Game attends Working Group meetings as an observer, supplier of data, interpreter of state agency policy, and advisor on how the state is likely to respond to Working Group actions or decisions. The Alaska Department of Fish and Game also retains the right to overrule decisions of the Working Group if they feel a more conservative approach is necessary. The Working Group therefore has no formal or legal power but is simply advisory.

Within its first two years, the main accomplishments of the Working Group included a strategy of twelve coordinated test fisheries to supplement Alaska Department of Fish and Game (ADF&G) data. Local involvement in the test fishery meant that their knowledge of areas in which fish congregated could improve estimates of fish abundance. Apart from generating more accurate data, the participation of community members in the data collection encouraged more enthusiasm and support for the Working Group. Soon the Working Group's agenda regularly included a "Traditional Knowledge Report" during which elders and other village fishermen shared their insights into the status of the salmon run.

Lesson: An informal Working Group facilitates discussion and problem solving.

Various agencies devoted free services and time towards the establishment of the Working Group. Among them were the Associations of Village Council Presidents (Yup'ik), a Yup'ik NGO, the US Fish and Wildlife Service and the Alaska Department of Fish and Game. The Working Group's agreement on times and areas for

Lesson: Local participation creates an avenue for sharing traditional and cultural knowledge.

[15] The information presented in this section is based on Pinkerton and Weinstein (1995).

The Council is composed of the Hereditary Chiefs of the First Nations and Ministers of British Columbia. The CRB is the principal mechanism through which the recommendations of the Clayoquot Sound Scientific Panel are implemented and monitored. If the Province amends the Scientific Panel Recommendations or alters its commitment to implement them, the parties shall request a meeting of the Central Region Resource Council to resolve any differences.

Strategic Planning Functions

In addition to its management oversight responsibilities, the CRB has the mandate to engage in strategic planning initiatives, including maintaining commercial forestry opportunities for the Toquaht First Nation and promoting resource stewardship and economic development for the Hesquiaht First Nation by implementing the "Management for a Living Hesquiaht Harbour" Plan. Under the Interim Measures Agreement, the Province funds economic development initiatives according to an annual budget and workplan prepared by the Central Region Working Group (a First Nations working group) and approved by the Province. An amount of $8.0 million was added to an Economic Development Fund over four years to support economic development initiatives.

9.4.3 Regional Aquatic Management Society

Lesson: There is broad representation of members in the managing authority.

The Regional Aquatic Management Society (RAMS) is an example of a citizen-initiated attempt to shift some of the federal and provincial governments' management responsibilities to a community level, relying in part on the new federal *Oceans Act*. Formed in May 1997, RAMS represents a broad range of local partners including First Nations, fishermen, regional and municipal governments, environmentalists, community development agencies and many others seeking greater community control over renewable resource management.

The following mission statement, vision, principles and goals are taken from the Regional Aquatic Management Society web site:

Mission Statement

Lesson: Linking ecosystem and community health.

RAMS is founded on the principles of *Hishtukish ts'awalk* (Everything is one) and *Iisaak* (Respect). In acknowledgement of these principles, RAMS recognizes that healthy ecosystems and healthy communities are interdependent.

Vision

The ecosystems, communities and individuals in this region achieve their inherent health and wealth for generations to come.

Principles

- Assist negotiations to empower a regional management board that will exercise responsible joint management of aquatic ecosystems in the Nuu-chah-nulth/West Coast Vancouver Island region;

the salmon fishery developed more confidence in itself and its new tools. Therefore, over the next few years it was able to experiment with more flexible pulse openings to allow adequate passage of fish as well as to maximize harvests of biologically available surpluses.

In 1988 the Board of Fisheries endorsed the declaration entitled, "Joint Statement on the Management of the Kuskokwim River Salmon Fishery", devolving limited decision-making authority to the Working Group and giving it recognized status as a working management institution. The management functions performed by the Working Group include: Stock assessment, harvest planning, resource allocation and policy making. According to Weinstein and Pinkerton (1995) important community characteristics leading to the success of the Working Group were (among others) a high level of dependence on the resource for subsistence use, and a strong identification of resource users with the area. Forging these potentials into a workable institution, the Working Group is accountable to the resource, its members and its principles of sustainability. It is effective in obtaining information on the status of the resource, shares it widely and produces clear and appropriate rules. It is further representative of all sectors concerned with the resource and is adaptive to the specific and changing conditions of the resource.

Lesson: The role of the Working Group has evolved in response to needs.

Thus, while the legal accountability over the resource remains with government, the political and social accountability is vested in the regional Working Group.

7.5 Cost Recovery Salmon Enhancement Associations in Alaska[16]

The regional salmon enhancement associations in Alaska were established in the mid-1970s when Alaska was at the bottom of a 30-year decline in salmon abundance with a catch of only 30 million. Out of the period of extreme stress in the late 1960s and early 1970s several initiatives emerged in the state legislature to address the problems in the fisheries.

The first of these initiatives was the establishment of licence limitations by region in order to control the number of fishermen in any regional fishery. It was not necessary to be a resident of the region in order to own a salmon licence, however, one did have to be an owner-operator in order to receive a licence and one could not own more than one licence.

A second initiative called the Fisheries Rehabilitation Enhancement and Development (FRED) was created in 1971 in the new division of Alaska's Department of Fish and Game. FRED built and operated 19 hatcheries with the help of funding made available through oil revenues. The third initiative consisted of state legislation in the mid-1970s enabling the creation of regional enhancement associations of commercial fishermen. The associations could borrow money from the state to conduct salmon enhancement projects and sell the surplus to cover the operating costs. The associations also worked in partnership with the state, making long-range regional enhancement plans and evaluating proposed projects. Due to the system of licence distribution, membership in the associations includes both residents and non-residents.

Over the past 20 years five of these regional associations have become successful - contributing significantly to the economic well-being of fishermen by increasing the supply of fish in their

[16] The information presented in this section is based on Pinkerton and Weinstein (1995).

Responsibilities and Referral Mechanism

Under section 17(a) of the IMEA, the CRB has specific responsibilities to review, at the discretion of either the First Nations or the Province:

- Forest Development Plans as defined in the Forest Practices Code of British Columbia Act;
- strategic plans as defined in the Forest Practices Code of British Columbia Act;
- Clayoquot Sound Scientific Panel subregional and watershed plans;
- plans related to the alienation, conservation and protection of land, water or marine resources;
- plans related to mariculture and aquaculture, including shellfish and finfish aquaculture;
- plans related to tourism and commercial recreation; plans related to Park Management, including Management Direction Statements and Master Plans;
- plans related to wildlife management; applications for permits submitted pursuant to the Mines Act; and
- plans related to the designation of Marine Protected Areas.

In the absence of the above plans, the CRB may review any site level application submitted to a ministry with resource management or land use planning responsibilities related to resource development in Clayoquot Sound [Section 17(b)]. The CRB may also:

- monitor activities undertaken by the Clayoquot Sound Planning Process to ensure that these activities are consistent with the objectives of the Interim Measures Extension Agreement;
- initiate work with respect to specific issues of concern;
- monitor to ensure that the fiduciary obligation of the Crown with respect to Aboriginal rights has been met;
- conduct hearings of public concerns on resource management or land use planning and make recommendations for their resolution;
- carry out planning tasks as agreed to and directed by the parties; and
- carry out other projects as agreed and directed by the parties.

Referrals and Decision-making

Within 30 days of receipt by the CRB of any referral pursuant to section 17 (a) or (b), the CRB shall accept, propose modifications, or recommend rejection of a referral. The findings and recommendations of the Board shall be directed back to the originating ministry, agency, or panel within the 30 day period. Decisions of the Board are by double majority vote, requiring a majority vote of Board and of the First Nations representatives for any decision to pass the Board. The Board may exercise decision-making by consensus upon agreement between the parties.

Lesson: Board decisions are democratic and require First Nations' approval to pass.

Referral of Decisions to Cabinet and the Central Region Resource Council

If the findings of the Board in relation to the plan or application are not implemented to the satisfaction of the Board within 30 days after the originating ministry, agency or panel receives the findings and decisions of the Board, the Board shall report the findings and decisions to the First Nations and the Province, and either party may refer the matter to Cabinet. Where Cabinet does not accept the Board's decision on a matter, one of the parties may refer the matter to the Central Region Resource Council where a solution will be sought.

Lesson: Balance of decision-making power between Province and local communities.

region. In addition to their enhancement activities the associations have also assumed a role in regional coordinated use planning, in harvest planning, in stock assessment and in resource allocation. As a result, fishermen are far more involved in fisheries management. By 1993 many state hatchery projects had been taken over by the regional associations, and the FRED division of ADF&G had been terminated. Thus the regional associations had come into their own.

Lesson: Strategies must be adapted to the local environment

The structuring of enhancement on a regional basis had several advantages. First, each of the regional enhancement associations has adopted a different strategy for enhancing salmon, based on the particularities of the region. The majority on the regional association boards are commercial fishermen who are elected to the regional association boards by their gear groups and have an equal number of seats. The elected fishermen representatives then appoint several other kinds of representatives from the region to serve on the board: a Native Corporation representative, a subsistence representative, a sport representative, a community representative and a local processor and (in one association) a local crew- member. These representatives help to ground the associations regionally since they live in the area and benefit from sustainable economic activity and thus help to make the associations accountable. The diversity of membership to the associations has made them representative of the community, and therefore an interesting case study.

7.6 Prince William Sound Aquaculture Corporation

Cordova, the main community in Prince William Sound, is economically dependent on fishing. Residents of this community formed the first association in Alaska, the Prince William Sound Aquaculture Corporation (PWSAC). The majority of PWSAC licence holders and board members are local residents. While non-local licence holders attend the thrice-yearly board meetings where general policy is set, local residents are more active on the committees that do most of the association's work. The PWSAC is thus comprised of elected area commercial fishermen and appointed sport, aboriginal, and subsistence fishermen as well as concerned citizens of the region.

Lesson: Communities can successfully initiate self-supporting conservation projects.

In order to protect the salmon resource upon which their community depends, PWSAC developed a large-scale hatchery. For their enhancement projects to be self-supporting, 30% of the enhanced fish returning to the area are harvested for broodstock and cost recovery when they reach the hatchery site. These 30 percent are sold by the PWSAC as an association, not by individual fishermen. The other 70 percent of the enhanced fish are taken by the individual fishermen in their regular fisheries. Thus while the association is run on a non-profit basis it produces significant direct benefits to individual fishermen. The cost recovery of the PWSAC though the sale of a percentage of the enhanced fish also paid for the allocation and integrated harvest planning of wild and enhanced salmon stocks.

The management functions performed by PWSAC include: enhancement, co-ordination of uses, stock assessment, allocation and harvest planning. Concluding their discussion of the PWSAC, Pinkerton and Weinstein (1995) point out that it is accountable (to local people and government), effective, representative (all concerned parties are represented) and adaptive to new conditions.

The specific objectives of the IMEA with respect to resource management include to:

- restore and enhance the levels of fish and wildlife in streams and forest areas;
- assess implementation of the sustainable ecosystem-based management in Clayoquot Sound;
- continue to work towards viable, sustainable resource industries, to include forestry, fisheries, tourism, mariculture, and aquaculture;
- promote economic initiatives that will enhance community benefits;
- ensure the maintenance of visual attractiveness and ecological integrity is given a high priority in any proposed resource development plans;
- respect and protect Aboriginal uses of resources in Clayoquot Sound;
- continue working towards reconciliation between First Nations, government and other users; and,
- encourage respect for Aboriginal heritage, including the protection of burial sites and physical artifacts of previous generations of First Nations, as well as other historic sites.

The specific objectives of the IMEA with respect to economic development are to:

- promote sustainability, economic development and diversification for communities within the area, including infrastructure;
- work towards increased employment levels within Aboriginal communities;
- support an increase in local ownership within resource industries; and
- explore alternative fiscal financing arrangements.

Structure of the Board

The CRB has ten members and a secretariat. Five members are appointed by the Province of British Columbia, and five members by the First Nations (the Hawith of the Tla-o-qui-aht First Nation, the Ahousat First Nation, the Hesquiaht First Nation, the Toquaht First Nation and the Ucluelet First Nation). The CRB has two co-chairs, one appointed by the Government of British Columbia and one by the First Nations. In practice, the government representatives are citizens drawn from local communities.

Lesson: The management board has broad representation – with equal representation from local First Nations.

The CRB develops an annual operational plan and the parties meet to review and approve the operational plan to ensure that it meets their respective objectives, and to monitor implementation of previous year's plans. The CRB is responsible for providing advice to the Province and the First Nations on the planning processes and outcomes of all plans and strategic initiatives affecting resource management and land use in Clayoquot Sound. The CRB also participates in the development of a regional economic development strategy as directed by the Province and the First Nations. When the board is reviewing a plan or strategy, it will seek public input and consult with local communities as recommended by the two parties. The CRB has a budget covered by the Province for costs such as travel and remuneration of board members; the costs of public hearings and meetings; public information and other activities; the costs of staff and operation and maintenance of the secretariat; and research and review.

7.7 Maine's Lobster Fishery

Maine's Lobster Fishery is among the most intensively fished stocks in the world. The Maine Legislature, in order to conserve the lobster fishery, enacted laws that served to limit the level of fishing effort, thereby conserving the resource and insuring the long-term viability of the industry (Bigos *et al.* 1999). Traditionally however, this marine resource has been effectively managed by an informal process of local governance through 'harbour gangs' who establish and enforce local rules in their local territory (Taylor 1998; Acheson 2000). However, with increased technological innovation, increased fishing pressure forced the Department of Marine Resource and the industry to recognize the need for a formal management regime that would institutionalize and preserve the community-based nature of the lobster fishery (Taylor 1998).

Lesson: The State can provide legislative support to local management systems.

In 1995 the Zone Management Law was passed, which transfers limited management responsibility from the Department of Marine Resources to local community organizations (Taylor 1998). The legislative decision authorized the division of the coast into seven zones, to be managed by regional Lobster Policy Management Councils.[17] In 1996, interim zone councils determined the boundaries of the zones, generally placing them along traditionally recognized boundaries (Acheson 2000). Up to thirteen locally elected fishers serving on the council for a three year term have the power to make recommendations, which are then voted on by members of the licensing holders in the zone.[18] If passed by the members of the community, the Commissioner of Marine Resources maintains the authority and responsibility to make these regulations enforceable by wardens (Taylor 1998, Acheson 2000). The Councils were given authority to vote only on three management issues: 1) limits of number of traps per licence and time for compliance, 2) number of traps on a trawl, and 3) time/days for fishing.

To date, this cooperative management system has been effective in maintaining the level of catch and value of the fishery (Taylor 1998). In all seven zones, the communities have approved trap limits below state maximum. The Zone Councils are looking for additional authority, particularly with regard to limiting entry into the fishery. One proposal has been to create a mandatory two-year apprenticeship program, followed by admission to a waiting list to receive a commercial lobster licence.

Lesson: If given decision-making power, communities often enact higher management standards than the state.

Experience with the zone council co-management process has shown (Taylor 1998):

- that attendance and participation at monthly council meetings has established a high level of communication, and the small scale of the zone councils allows for a faster response to issues;
- that reassessment periods should be built into the management process so issues that arise in terms of the governance system can be resolved;
- mechanisms to resolve disputes between different interest groups are necessary (i.e., an arbitration or appeals process);
- there is a need to integrate scientific information into the decision-making process; and

[17] (Subchapter 2, Section 6447)
[18] Note that the 'community' is defined by the user group – licence holders of the age to vote (18 years).

- The Make-Up of the Panel – The Panel was convened as a body with a breadth of scientific and traditional ecological knowledge with a mandate to advance ecological stewardship, not as a multi-stakeholder body with a mandate to negotiating competing resource use interests;
- Sufficient Resources – The Panel was given sufficient resources to deliver on its mandate;
- Public Support – The Panel was created in response to public concerns, and sustained public conflict and attention – provincially, nationally and internationally – created the conditions necessary for the political will to develop which would allow for a truly innovative solution to be sought and endorsed by government; and
- Supportive Legislation and Policies – Implementation of the Panel's recommendations was greatly enhanced by their being given legal force through the Forest Practices Code of British Columbia Act and through the Clayoquot Sound Interim Measures Extension Agreement.

Lesson: The Panel has a normative orientation

Lesson: The Panel had adequate power and funding support to carry out its mandate.

9.4.2 Clayoquot Sound Central Region Board

The Clayoquot Sound Central Region Board (CRB) is a management body with strategic planning and management oversight responsibilities for land and resource use in Clayoquot Sound, as outlined in the Clayoquot Sound Interim Measures Extension Agreement (IMEA).[33] The IMEA acknowledges that the Ha'wiih (Hereditary Chiefs) of the First Nations of Clayoquot Sound have the responsibility to conserve and protect their traditional territories and waters for generations to come. Consequently, joint management of the Nuu-Chah-Nulth traditional territory's land and resources was granted to the five Central Region First Nations until completion of treaty negotiations.

Lesson: Land is jointly managed.

The CRB consists of representatives from two parties: the Province of British Columbia and the First Nations of Clayoquot Sound. Their participation in the agreement is pursuant to the principles set out in the Report of the B.C. Claims Task Force (June 1991) and the Government to Government Protocol (August 20, 1993) between the Province of British Columbia and the First Nations Summit. The IMEA outlines the objectives of the parties with respect to land and resource use in Clayoquot Sound. The general objectives of the IMA are to:

- to consider options for treaty settlement for the First Nations and the expansion of the land and resource base for the First Nations;
- to develop a dialogue within and between the communities, and to develop better ways to determine the best use of resources and the economic, social and cultural advantages of each;
- to promote conservation of resources in Clayoquot Sound, including the recommendations of the Clayoquot Sound Scientific Panel; and
- to promote the full participation of Central Region First Nations in regional development.

Lesson: Broad mandate to involve First Nations and promote community involvement

[33] Her Majesty the Queen in right of the Province of British Columbia and the Hawith of the Tla-o-qui-aht First Nation, the Ahousat First Nation, the Hesquiaht First Nation, the Toquaht First Nation and the Ucluelet First Nation. March 2000. Clayoquot Sound Interim Measures Extension Agreement: A Bridge to Treaty.

- local councils need more authority in the decision-making process.

7.8 Oregon Shines: Strategic Planning and Performance Benchmarks

In the mid 1980s, the state of Oregon was in the midst of a severe recession with widespread job loss in the predominantly timber-dependent state economy due to declining timber harvest levels, log exports, and productivity improvements. Over a 10-year period, 13,000 forestry jobs had been permanently lost and an equal number were expected to be lost over the coming decade. Facing an economic crisis, the state government embarked on a strategic planning exercise to develop a focused vision and action plan to turn the state economy around. Called *Oregon Shines*, this strategic planning effort has resulted in a remarkable diversification and reinvigoration of Oregon's economy.[19] This program offers an innovative model for bringing about and measuring significant economic and social change.

Oregon Shines was launched in June 1988 with the formation of committees composed of business, labour, education and government leaders. They were asked to review the competitiveness of Oregon as a place to do business and to identify actions related to both the overall climate of the state and those directly tied to the specific industry that would improve Oregon's competitiveness. One group was formed to represent a cross-section of the state's major or rapidly growing industries. The second group was formed to examine policy issues that affect economic performance across all industries. *Oregon Shines* identified three key strategic initiatives for the state of Oregon (Goldschmidt 1989):

- *A Superior Workforce*. Invest in Oregonians to build a workforce that is measurably the most competent in America by the year 2000, and equal to any in the world by the year 2010;
- *An Attractive Quality of Life.* Maintain Oregon's natural environment and uncongested quality of life to attract the people and firms that will drive an advanced economy; and
- *An International Frame of Mind.* Create an international orientation in Oregon's business and cultural life that distinguishes Oregonians as unusually adept in global commerce.

In support of these initiatives, the Oregon government concentrated in three key areas:

1. Forming institutional partnerships to accelerate the transfer of ideas and improve working relationships among sectors;
2. Investing in public facilities and services that directly affect business operations and costs (e.g. roads, ports, utilities) and in services which enhance quality of life (e.g. schools, police and fire protection and parks); and
3. Containing the costs of business (e.g. reducing taxes, insurance, and energy rates).

The strategic approach adopted by Oregon leaders was to build on their natural strengths: a proximity to the Pacific Rim, natural resources, and especially, a skilled workforce and high quality of life. As the Governor noted, "Oregon's widely recognized high quality of life ...is a factor that to an increasing extent distinguishes Oregon from [our competitors]. This advantage will grow more important to firms dependent on skilled and choosy workers as those areas become more congested" (Goldschmidt

Lesson: Economic diversification is central to healthy communities.

[19] Information on *Oregon Shines*, including copies of the strategic planning documents are available at the Oregon Progress Board website at http://www.econ.state.or.us/opb/orsh.html

based planning, silvicultural systems, harvesting systems, transportation systems, monitoring, and scenic, recreational and tourism resources (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1995). The Panel's work represented a fundamentally different approach to forest management in BC as it articulated a vision and management system in which the primary objective was to sustain the productivity and natural diversity of the region, rather than produce timber. The Panel's recommendations have guided resource management in Clayoquot Sound since they were fully accepted by the Government of British Columbia on July 6, 1995.

The Panel's recommendations, and their acceptance by the province, represented a breakthrough in the decades long conflict in Clayoquot Sound, and represented a promising new model of ecosystem-based management on the coast of British Columbia. Key recommendations included (from British Columbia Ministry of Forests nd):

Lesson: Ecosystem-based management is scientifically supported.

- Conventional clearcut logging is not permitted in Clayoquot Sound. Adoption of a Variable Retention Silvicultural System means no large areas will be clearcut;
- New cutting permits must meet the Panel's recommendations on maximum block size;
- Road areas are limited to five percent of any watershed's harvestable area and will be planned to minimize impacts on water flows and soil stability;
- Harvesting levels will be based on watershed planning, rather than on a pre-determined annual allowable cut;
- No logging is permitted in undeveloped watersheds until the necessary studies are done and the Panel's recommendations are fully implemented;
- In already-developed watersheds, watershed assessments must be carried out to direct future harvesting and to identify watersheds requiring restoration;
- Monitoring and testing of the implementation of the Panel's recommendations are to be set up; and
- Legal force will be given to the special requirements for Clayoquot Sound forest practices through the Forest Practices Code of British Columbia Act.

Lesson: The Panel set out clear principles to guide management

The success of the Panel stemmed from a number of key factors, including:

- Meaningful First Nations Involvement – The Nuu-Chah-Nulth First Nations co-chaired the Panel, provided leadership, and contributed their knowledge and perspective on land and resource stewardship as an overarching framework for the Panel's work;[32]
- A Clear Mandate with High-Level Political Support – The Panel had a clear and ambitious mandate from the Premier to design forest standards that would "make forest practices in Clayoquot not only the best in the province, but the best in the world" (Harcourt 1993);

[32] The history of First Nations' resource use in Clayoquot Sound is framed by two important concepts: *Hishuk ish ts'awalk* and *ha̲hu̲ulhi. Hishuk ish ts'awalk,* or "everything is one," embodies the Nuu-Chah-Nulth sacredness and respect for all life forms and their approach to resource stewardship. *Ha̲hu̲ulhi*, the Nuu-Chah-Nulth system of heriditary ownership and control of traditional territories, represents a long history of resource use and management in Clayoquot Sound, and provides a basis for Nuu-Chah-Nulth participation in co-managing the area and its resources. See: The Scientific Panel for Sustainable Forest Practices in Clayoquot Sound. March 1995. *Report 3: First Nations' Perspectives Relating to Forest Practices Standards in Clayoquot Sound.*

1989).

In addition to moving forward from its strengths, Oregon also systematically undertook actions that would overcome its economic weaknesses; specifically, high business costs (.e.g. for energy and employee insurance); and, under-investment in public infrastructure, particularly higher-education which is the foundation of a skilled workforce.[20] Notably, Oregon chose *not* to subsidize a few key industries as part of this initiative, recognizing that economic expansion and diversification is dispersed among many smaller enterprises rather than a few "flagship" industries (nine out of ten Oregon businesses have less than 20 workers):

Reporting on Progress: the Oregon Benchmarks

The State of Oregon has established a results-oriented approach to the *Oregon Shines* strategic plan. The Oregon Legislative Assembly established a Progress Board in 1989 with a mandate to report to the legislature every two years on progress towards achieving the goals set out in *Oregon Shines.*[21] The Progress Board focuses Oregon's institutions on outcomes that support the overall goals of *Oregon Shines*:

- Quality jobs for all Oregonians;
- Safe, caring and engaged communities; and
- Healthy sustainable surroundings.

The Progress Board tracks these outcomes through 92 measures of success called the Oregon Benchmarks (Oregon Progress Board 1999). The Benchmarks are divided into seven categories: Economy, Education, Civic Engagement, Social Support, Public Safety, Community Development and Environment. Performance targets for each benchmark were established in consultation with citizens, policy makers, and experts. An overall letter grade – like a school report card – is assigned for each benchmark category. Twenty-two "priority" benchmarks are considered deserving of special attention.

Lesson: "Benchmarks" are used as indicators of change.

The Progress Board acts as a "catalyst for change." It gathers and distributes data on the Benchmarks and encourages state and local government agencies, businesses, and non-profit and citizen groups to use the Benchmarks in their planning and reporting. Every other year since 1991, the Progress Board has issued an Oregon Benchmark report, tracking Oregon's success in achieving the Benchmarks.

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[20] Oregon's tax levels were considered to be relatively competitive in relation to other states so this was not a key issue addressed in *Oregon Shines.*

[21] The Oregon Progress Board was established as a permanent advisory board through Senate Bill 285 (see www.econ.state.or.us/opb/sb285.htm). The Act states that the mandate of the Progress Board is to a) encourage the discussion and understanding of critical global and national economic trends that will affect the Oregon economy in the coming decades; b) formulate and submit to Oregonians a strategy that describes and explains a vision for Oregon's economic progress over the next 20 to 30 years; and, c) submit to the Legislative Assembly, for its adoption, goals for Oregon's progress, including measurable indicators of the achievement of these goals.

as a coalition of Mayors and Chiefs in council to address North Island fisheries issues) KTFC is often frustrated by what they see as Fisheries and Oceans Canada's paternalistic attitude towards them.

KTFC has contributed to the development of fisheries co-management in BC through its activities. The organization received funding under the federal co-management pilot program "Planning for the Home Waters" and has coordinated province wide workshops on improving co-management and fisheries enhancement projects. It also played an important role in the establishment of the above mentioned North Island Fisheries Centre. In 1998 KTFC initiated a series of holistic management conferences attended by a diverse group ranging from elders and youth to academics, government employees, and non-native North Island communities. Emphasis was placed on local governance, restoration, individual and community healing, stewardship, tradition and managing whole ecosystems following the rule of the 'seventh generation'.

As the above section describes, a number of interesting community-based fisheries initiatives are underway in British Columbia. Many of the organizations display an impressive array of activities. Of the models described above, the Kwakiutl Territorial Fisheries Commission seems to be a particularly successful and innovative organization. (The Regional Aquatic Management Society or RAMS is another promising model for community-based fisheries. It is described in the section below.) In general, these organizations represent a move toward community-based management but still occupy a place at the lower end of the co-management spectrum because true decentralization and devolution has not yet occurred.

Lesson: Lack of real decision-making power limits ability of communities to implement change and foster innovation.

9.4 Models from Clayoquot Sound

Clayoquot Sound is a biologically rich coastal forest region of approximately 260,000 hectares on the west coast of Vancouver Island. Clayoquot Sound has been the focus of intense conflict over land and resource management for decades, and the site of one of the largest mass arrests in Canadian history. In the summer of 1993, over 800 people were arrested for violating a court order not to interfere with timber harvesting in the Sound. In recent years, Clayoquot Sound has been the focus of several initiatives to promote community-based ecosystem management. Several of these initiatives – the Clayoquot Sound Scientific Panel, The Central Region Board, the Regional Aquatic Management Society, and Iisaak Forest Resources – are described here.

9.4.1 Scientific Panel for Sustainable Forest Practices in Clayoquot Sound

The Scientific Panel for Sustainable Forest Practices in Clayoquot Sound (the "Panel") was established to scientifically review forest practices in Clayoquot Sound and recommend changes to existing standards to ensure that these practices are sustainable. The Panel included experts in forest and wildlife ecology, forestry, fisheries, hydrology, soils, tourism and recreation, and worker safety. The Panel was co-chaired by a wildlife ecologist and a representative of the Nuu-Chah-Nulth First Nations.

The Panel developed a set of General and Guiding Principles of sustainable ecosystem management and over 120 recommendations to address a range of issues, such as watershed-

8. Models from Canada

The history of natural resource use and management is similar to that of the United States in many ways, including a long period of indigenous management that was largely displaced as the lands and resources came under colonial and then Crown control. As in the United States, the history is characterized by increasing exploitation of the resource base, centralization of resource regulation (in federal or provincial governments), and a greater role for large corporations. Forests are a good example of this pattern. Government agencies leased out vast tracts of public forest lands to private forest companies. Over time, control of public forest lands became increasingly concentrated in the hands of a small number of large corporations, many of which held forest concessions and timber processing operations in many parts of the globe. Over time, harvest levels have increased and the dependence of centralized agencies on revenues also increased.

In this section we examine some models for community-based natural resource management in Canada (excluding British Columbia, which is treated in a separate chapter). It is clearly beyond the scope of this project to provide a comprehensive and detailed description of all initiatives in Canada. This chapter focuses on major initiatives or models of particular interest to this study, with a focus on community forestry and co-management.

8.1 Background: Community Forestry in Canada

Canada is unique among forest nations in that 94 percent of its forests are publicly owned, with 71 percent under provincial jurisdiction and 23 percent under federal jurisdiction. Only 6 percent of Canada's forests are on private land, dispersed among an estimated 425,000 private landowners, mostly small woodlot owners. Under the Canadian Constitution, the provinces and territories have legislative authority over most of Canada's forest resources. Consequently, most forest tenures are between forest companies and provincial governments. They provide access to Crown timber for varying periods, typically ranging from 5 to 25 years. Of Canada's 417.6 million hectares of forest, nearly half, or 235 million hectares, is considered commercial forests; that is, capable of producing merchantable timber in a reasonable period of time. Approximately 50 percent, or 119 million hectares of this area is managed primarily for timber production through Crown forest tenures (Canadian Forest Service 1999)

Crown forest tenures in Canada are generally of two different types: area-based or volume-based. Area-based tenures are agreements to harvest timber from a defined area of forest land. Examples are the Forest Management Agreement (FMA) in Alberta and Saskatchewan, Tree Farm Licence (TFL) in British Columbia, Forest Management Licence Agreement (FMLA) in Manitoba, Sustainable Forest Licence (SFL) in Ontario, and Crown Timber Licence (CTL) in New Brunswick.

Volume-based tenures specify a volume of timber that the licencee may harvest over a specified period of time, the majority of Crown forest tenures in Canada are volume-based tenures. Examples include the Forest Licence (FL), Timber Sale Licence (TSL) and Pulpwood Agreement (PA) in British Columbia, the Coniferous Timber Quota (CTQ) in Alberta, and the Timber Supply and Forest Management Agreement (TSFMA) in Quebec.

- returning watersheds to their natural state of productivity and harvesting strong stocks (Vodden 1999).

The Kwakwaka'wakw First Nations intend to expand these efforts until the productivity of the marine and freshwater systems of their territories are restored and to manage these systems in perpetuity for the benefit of all. The KTFC mission statement clearly recognizes stewardship responsibilities and obligations as well as rights to harvest natural resources. All of these are grounded in the Kwakwaka' wakw concept of "*Aweena- K'ola*" or oneness with the land and sea (Vodden 1999).

Provided that Aboriginal title, rights and responsibilities are recognized and the principles of conservation are respected KTFC is also devoted to resource management and development based on the principles of sharing and co-existence. KTFC thus seeks to build bridges between First Nations, First Nations and non-First Nations communities, government and industry. KTFC has stated a willingness to work with non-Aboriginal governments as long as this work is based on mutual respect between equals (KTFC 1998). KTFC further believes that building positive relationships with their non-Aboriginal neighbours and resource user groups resident within their territory is important (KTFC 1998).

Lesson: Cooperation between natives and non-natives can occur at a local basis.

KTFC employs Aboriginal Fisheries Guardians for their monitoring and enforcement program. While the guardians work under the KTFC in cooperation with Fisheries and Oceans Canada, the Guardian's authority is received from Fisheries and Oceans Canada and they have reporting duties to both bodies, which has created difficulties when their priorities conflict. KTFC and the Guardians thus lack the level of authority they desire within the Guardian program (Vodden 1999).

Lesson: Without authority, local systems of monitoring and enforcement cannot operate.

KTFC controls a communal licence for roe-on- kelp, two seine and fifteen gillnet salmon licences (KTFC 1997). In 1999 new licences for shrimp and halibut were also allocated to KTFC. With regard to research and assessment, KTFC states that: "The Kwakiutl people recognize the value of utilizing modern methods and science in combination with traditional knowledge and techniques" (KTFC 1997).

KTFC further signed a Memorandum of Understanding (MOU) with the BC Ministries of Environment, Lands and Parks and Agriculture, Fisheries and Food in 1993 which established a consultation and review process for the disposition of Crown land and the management of aquaculture and aquatic resources in the Kwakwaka'wakw territories (Galgalis 1996). As a result of this MOU, a Galgalis cultural heritage resource inventory project was created that established a "traditional knowledge" database to identify potential conflicts between First Nations Values and development proposals. While the project was successful (even though it had initial problems in defining how and what kind of culturally sensitive information should be shared with outsiders) it was shut down in 1997 due to lack of funding. In 1996 KTFC also launched an Integrated Resource Management training program through North Island College focusing on clam and oyster culture.

Lesson: Sharing information and integrating traditional ecological knowledge is key.

KTFC regularly responds to federal and provincial reviews, policy papers and other form of consultation and collaborates with all levels of non-First Nations governments to address fisheries issues within their members' territories. While many useful coalitions have been founded (such

The main purpose of Crown forest tenures has been to facilitate the logging of Canada's extensive areas of primary forest. Forest companies log approximately 1 million hectares of forest annually under these tenures, produce approximately 200 million cubic metres of wood, and generate $39 billion in exports, making Canada the world's largest exporter of wood and paper products (Canadian Forest Service 1999).

Canada's forest tenures were not designed to provide opportunities for local community control of forests. Most Crown forest tenures were initially granted to large forest corporations in exchange for commitments from these companies to invest in a forest industry infrastructure. As a result of the existing tenure structure, and economic forces operating in the forest industry, the trend in recent decades has been towards increased concentration of forest tenures among a few, large forest companies, largely to the exclusion of community-based forestry and other smaller-scale forest tenures. As a result, there are relatively few examples of community forests in Canada, despite Canada's extensive forests and long history of forest management.

Growing public awareness and concern over the ecological impacts of conventional forest management has led to a resurgence of interest in alternative forest management regimes to address the sustainability of a wide range of forest values. From an economic perspective, mill closures and job loss have taken their toll on local communities and forest workers, resulting in growing support for greater local control over forest management as a means to ensure local economic survival among forest dependent communities. The remainder of this chapter examines a number of community forestry initiatives in Canada (examples from British Columbia are described separately).

8.1.1 Model Forests: Waswanipi Cree and Bas-Saint-Laurent

In 1992, the Canadian government launched an initiative called the Model Forest Program that was designed to help find new and innovative ways to manage forests in a sustainable manner. The Model Forest Program in Canada now consists of 11 model forests in 8 provinces, including two in British Columbia. The Canadian Model Forest Program represents an experiment in enhanced public participation in forest management planning, rather than community forestry in the true sense where authority over forest lands is vested in a local community. No jurisdictional authority was transferred to local communities under this Program, reflecting the fact that the federal government has limited authority to do so.

In effect, the Model Forest Program provides an opportunity for industrial forest tenure holders to involve the public in a structured consultation process to identify goals and objectives for each Model Forest. The approach chosen with the Model Forest Program has been to establish a multi-stakeholder participation process to address management of a large area, that may include one or more forest licencees and, in some cases, protected areas (Poffenberger 1998). While this approach is limited, there has been some progress. Here we examine two model forests – the Waswanipi Cree Model Forest and the Bas-Saint-Laurent Model Forest – that demonstrate innovative approaches for community participation.

The Waswanipi Cree Model Forest

The Waswanipi Cree's rights to lands and resources are affected by the James Bay and Northern Quebec Agreement, the first modern treaty in Canada. While the Waswanipi have enforceable

avenue to present their plans. The Board is co-chaired by representatives of the Namgis First Nation and Canadian Forest Products (CANFOR). Board meetings are attended by a diverse group, including the IWA, B.C. Ministries of Forestry and Environment, Fisheries and Oceans Canada, and local volunteer salmon enhancement groups.

Initial projects of the Board focused on developing a local hatchery. The Nimpkish Valley Watershed Restoration Project later became the Board's first forestry-related project. The project is a partnership between the local forest tenure holder, CANFOR, the Namgis First Nation, IWA Local 2171 and Forest Renewal B.C. The project employed fifteen workers, seven of which were crew members from CANFOR, seven from the Namgis Nation, and one field supervisor. Workers received classroom training and hands-on experience in helicopter safety and watershed restoration.

Apart from the ecological benefits of the project it brought native fisherman and non-native loggers together and led to their development of a better understanding of each other. While funding for the Watershed Restoration Project was reduced in 1998, fry inventories have shown the project to have positive results from a fisheries perspective (some traps yielded 65 coho fry in areas that previously had none). It also created jobs, increased local capacity, and forged partnerships. While the restoration of the Nimpkish watershed is far from complete, the project has proven to have strong environmental and social benefits (Vodden 1999).

Kwakiutl Territorial Fisheries Commission[31]

The Kwakiutl Territorial Fisheries Commission (KTFC) is a non-profit society that represents eight First Nations of the Kwak'wala speaking peoples. As a political organization formed in 1987 to advance Aboriginal interests in fisheries and marine resources, KTFC has become an important local fisheries management body.

Fisheries and Oceans Canada entered into annual fisheries agreements with the KTFC and until 1999 provided the organization with $900,000 annually. The funding was used for fisheries management including negotiation and implementation of cooperative management pilot projects, development of communal fisheries, making recommendations on harvesting strategies, conducting community meetings, enforcement of the Aboriginal fishery, enhancement, research and stock assessment.

KTFC regional offices are located in Alert Bay, Port Hardy and Campbell River. The areas managed by the KTFC ranged from Bute to Smith Inlet on the Mainland, Comox to Cape Scott on eastern Vancouver Island, and Nootka and Quatsino Sound on Vancouver Island's western shores. Recently KTFC membership has been modified. Five southern members have formed their own A-tlegay Fisheries Society, and the Quatsino and Kwakiutl First Nations now operate independently. Thus today only eight of the original 15 members remain (Alfred 1999).

The objectives of the KTFC focus on:

- developing a level of mutual understanding and cooperation between government agencies and member First Nations;
- restoring First Nations title, rights and responsibilities with respect to the management of aquatic resources within their territories;

[31] Information is derived largely from research by Vodden (1999).

interest in the lands where forestry operations are underway, the treaty's limitations have left the provincial government with dominant power in the management and use of forest resources (Elias 2000). Established in 1997, the Waswanipi Cree Model Forest comprises 209,6000 ha of the Waswanipi's traditional territory in the James Bay region of Quebec. It is an interesting model to examine because of the strong First Nations involvement and weight given to aboriginal systems of knowledge and valuation in information-based decision-making (Elias 2000).

Approximately 1000 members of the Waswanipi First Nation maintain a subsistence lifestyle, depending on the forest environment for hunting, fishing and trapping purposes. The land is divided into a system of traplines that loosely correspond to watersheds. Each trapline has a designated manager, or Tallyman, responsible for the territory. The model forest is designed to ensure that these traplines continue to be the basis of land management throughout the area.

The overall goal of this model forest is "to maintain and enhance the quality of the area, which is known as *Eeyou Istchee* (native land), to benefit Aboriginal and other users and to assure the economic, social and cultural development of the Waswanipi First Nation." All activities within the model forest area must recognize and reflect the rights of the Cree with respect to sharing of the resources. The flow of information in the decision-making process follows traditional lines of authority in the Waswanipi community. The entire community constitutes the general assembly, however, decisions by the assembly are implemented by the Band Council. Projects may be suspended or terminated at the discretion of the Waswanipi First Nation if the conduct of the research is deemed to be unacceptable (Elias 2000).

Lesson: Traditional and/or cultural knowledge and practices are integrated into the management process.

Lesson: Clear guidelines should be established which recognize and respect the rights and cultures of First Nations.

Representatives of the Waswanipi Cree sit on various committees responsible for managing the model forest, including the Board of Directors. Any person wishing to conduct research in the Model Forest must first obtain a Scientific Research Authorization from the appropriate subcommittee, and adhere to a set of rules intended to enforce respect for the Waswanipi Cree. These rules cover issues such as disclosure, consent, respect, community participation, confidentiality, community ownership, and methods of reporting.

Lesson: First Nations must be involved in the entire management process.

The Waswanipi Model Forest's charter describes consultation guidelines that are intended to capture information about traditional uses of land and resources, and to assess an activity in terms of impacts on those activities. The authority rests with the Tallyman, as s/he maintains the closest connection to the land and the families in the area.

For over twenty five years, the Waswanipi Band has built up a database of cultural heritage information, that Elias (2000) notes is unmatched anywhere else in Canada. Furthermore, with the considerable experience with dealing with commercial operations and the in-house capacity of the Waswanipi, the band can use both industry and government information in their own plans, and merge records of traditional knowledge into a database that covers more variables than either industry or government. As a result, the Waswanipi Band has substantial resources in terms of data and information, resource income, technologies and skills.

The Inner Coast Natural Resource Centre (ICNRC) is now a regional organization that includes over 25 partner organizations and communities, native and non-native, local and external. ICNRC is co-chaired by the Namgis First Nation and the Alert Bay Marine Research Society and includes representation of all local partners on its Board of Directors. Its mission is to:

> *provide a forum for North Island communities that recognizes, enhances and sustains social, cultural, economic and environmental values by sharing the wisdom of the elders and the historical perspectives of the residents with the research and academic communities in order to promote, encourage and support responsible and accountable decisions in partnership with First Nations and other governments, communities, local organizations, business and industry.*[28]

Lesson: Information sharing between different knowledge systems.

The main challenges currently faced by the Centre are finding core funding, maintaining communications and active relationships with its existing partners, building new partnerships and improving the Centre's regional capacities.

North Island Fisheries Centre[29]

The North Island Fisheries Centre (NIFC) was born in 1998 and consists of twelve members, including six First Nations and six government representatives. The Centre is funded by Fisheries Renewal BC, Western Economic Diversification (in partnership with Community Futures Development Corporation of Mt. Waddington), Department of Fisheries and Ocean, and a variety of transition programs. An advisory committee representative of all sub-sectors of the fishery advised the Community Futures staff and Board of Directors on how to assist the region's residents.

The North Island Fisheries Centre is now a community driven organization. Its mission is to assist individuals and fishing communities who have been adversely affected by economic changes, through rebuilding a productive, self-sufficient, and renewable fishery resource, and through supporting diversification within fishing communities. The Centre's activities include assessment of habitat problem areas and restoration priorities, project planning for fish production, and fishery resource management by assisting in the formation of regional aquatic management boards. The Centre currently focuses most of its attention on its role as a funding delivery agent. It has established offices in Port Hardy, Alert Bay and Sointula. The Centre has also played a role in facilitating discussions on regional/community-based fisheries management in the North Island region. As part of this it co-sponsored the above-mentioned workshop on community partnering in 1998.

Lesson: Supporting economic diversification within resource community.

Nimpkish Resource Management Board[30]

The Nimpkish Resource Management Board was formed in 1996 by the Namgis First Nation to give corporations, governments, and others that wanted to conduct business in the Valley, an

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[28] *ICNRC web site http://www.northisland.org/icnrc_info.htm).*

[29] This section is largely based on the research of Kelly Vodden (1999), based at the Simon Fraser University in British Columbia Canada.

[30] See Vodden (1999).

Bas-Saint-Laurent Model Forest

The Bas-Saint-Laurent Model Forest, covering over 113,000 hectares of mixed forest in the Lower St. Lawrence region of eastern Quebec, was incorporated into the Canadian Model Forest Network in 1993[22]. The entire Bas-Saint-Laurent Model Forest is situated on private land, with three distinct management units: two seigneuries owned by Abitibi-Consolidated Ltd. and the third unit being comprised of the territory of the Groupement Forestier de L'Est du Lac Témiscouata (formed by six local municipalities). Heavily dependent on forestry, by the late 1980s this rural region was facing a number of challenges, including economic decline and out-migration to cities (especially of young people). The model forest was created to promote sustainable rural development and, more specifically, to demonstrate innovative approaches to sustainable forest management (Savard 1999).

While its general objectives are similar to other model forests across Canada, the Bas-Saint-Laurent Model Forest offers an innovative approach to forest management called the "forest tenant farm." This idea was developed in response to the deteriorating social and economic conditions in the region. In simple terms, this concept involves leasing forest land (forest tenant farms) to individuals (tenant farmers) who agree to manage the land in a sustainable fashion. Within the Bas-Saint-Laurent Model Forest there are currently 26 forest tenant farms, each about 1000 hectares in size, and all situated on land owned by Abitibi-Consolidated (Hupé 1999).

Tenant farmers agree to comply with the multi-resource management plan developed for the model forest and are required to develop an annual as well as a 5-year management plan for their farm. These plans must be approved by the model forest prior to any work being carried out. The forest tenant is responsible for managing the resources on their farm, including timber management, harvesting, and marketing of forest products. The tenant farmers have formed a cooperative to manage other resources, such as wildlife habitat, hunting, fishing and recreation. The tenant farmers' income comes through sales of timber, from fees received for recreational activities (many tenant farms provide for hunting, holiday, fishing, and other recreational activities), and subsidies received under an assistance program for the development of private woodlots (Hupé 1999).

The tenant farmers pay rental fees to the landowner in the form of royalties for each cubic metre of wood sold. This stumpage is based on the commercial value of the wood and is comparable to that charged to commercial logging firms operating on public forest land. These royalties are paid to the model forest that uses these funds to pay property taxes, cover forest protection costs, and provide a return to the landowner. Since this is a novel experiment in forest management, Abitibi-Consolidated has agreed to reinvest a portion of the royalties in the model forest. Specifically, these funds go to investment in infrastructure (e.g., roads) and into a fund to compensate tenant farmers for improvements made to the land (e.g., forest improvements, structures built) (Hupé 1999).

Lesson: Revenues can be re-invested into the land.

A review of the forest tenant farms, conducted in 1999 (five years after they were created), showed that the model was working well. Although the returns to the landowner are not very high, the benefits to the tenant farmer appear good. In the words of one tenant farmer:

Lesson: Tenant farmers have the role of both Trustee and Beneficiary.

[22] Bas-Saint-Laurent Model Forest Web site: www.foret.fmodbsl.qc.ca

- Joint stock assessment;
- Joint harvest planning;
- Harvest monitoring;
- Compliance;
- Resource use co-ordination;
- Policy-making, defining nature of problem, setting objectives; and
- Enhancement and restoration.

Lesson: There is a need for an independent facilitative body.

The activities of the Skeena Watershed Committee created a balance between federal and provincial government and fishermen. The three fishing sectors and federal and provincial governments involved were equally represented on the Committee. The process identified the need for information sharing and data collection to accurately monitor harvest levels and judge their contribution to sustainability. In spite of its promising experiences in 1995 the Skeena Watershed Committee collapsed in 1997 due to irreconcilable disagreements between the commercial fishers and the other parties (Vodden 2001).

Lesson: Balance between central governments and local resource users.

9.3.2 Community-based Fisheries on Northern Vancouver Island

The Northern Vancouver Island region is highly dependent on the fishing economy and, over the past decade, there have been a variety of initiatives to expand local participation in fisheries management. This section describes the major initiatives in community-based fisheries resource management initiatives on northern Vancouver Island.

The Inner Coast Natural Resource Centre[27]

In 1995 a group of Alert Bay residents decided to launch an initiative to develop a locally driven research and education centre to ensure that locally derived knowledge and information remained in the region. A number of local and external organizations offered their support to the initiative and funding was received from the Regional District of Mount Waddington and the Vancouver Foundation.

The Centre officially opened in June of 1997, launching projects such as the Linking Science with Traditional Knowledge Workshop, a Shorekeeper's Training Manual, Prioritized Stream Rehabilitation Project Listings, and the "More than Fish to Fry" Value-added Seafood Products Conference. The Center has also initiated research on fisheries resource. In October of 1998 the Centre facilitated a meeting that brought together eleven organizations including First Nations, local and regional governments, and fishing industry organizations to discuss proposed partnering provisions for the Fisheries Act. This meeting led to a second workshop that explored models of regional fisheries management for the North Island.

Lesson: Management boards include natives and non-natives.

[27] Information in this section based on: Vodden (1999).

> *I consider my forest farm to be much more than just a project or an experiment; it's a way of life, and a successful one at that. It's not perfect, but it's extremely motivating and constantly changing [...] After 5 years of operation, I can safely say that it is possible to earn a good living from a 1000-ha forest tenant farm. In my opinion, the model can be adapted and applied outside the model forest's boundaries.* (Simard 1999)

As well, the company has expressed satisfaction with the arrangement. Part of the satisfaction comes from knowing that the land is being well managed (indeed improved by intensive management) and that they need to pay very little attention to the individual farms (the model forest itself is responsible for many aspects of monitoring and evaluation) (Belleau 1999). For the tenant farmer, the arrangement provides not only a source of income but also a sense of satisfaction.

8.2 Community Forestry in Quebec

Of all Canadian provinces, Quebec has the richest history of community forestry. In 1911, the Quebec government established a unique tenure type with the objective of fostering rural community well being and addressing settlers needs for lumber and firewood (Duinker *et al* 1994). Although the provincial forest service was supposed to have management oversight, these cantonal forest reserves became largely locally managed. By the 1970s, there were 166 cantonal reserves covering some 800,000 hectares in Quebec. Unfortunately, open access undermined community management of these forests, and the system was dismantled when its enabling legislation was repealed.

In the 1930s, residents of the Gaspé region fought to gain access to local forests as a means to offset the economic dislocation of the Depression. This early community pressure led to the emergence of the cooperative forest movement in Quebec and several cooperatives flourished, including Girardville, Upper Laurentides, Ferland-Boileau and Petit-Paris. The deterioration of rural life has led to the development of a number of other models for community forest management, some of which are described below.

8.2.1 Groupement Forestier de l'Est-du-Lac Temiscouata and Societe D'Exploitation des Resources de la Vallee

Lesson: Successful models of local economic development are founded by community, for the community.

The Groupement forestier de L'est-du-Lac Temiscouata and the Societe d'exploitation des resources de la Vallee (SERV) were incorporated in the early 1970s to involve local residents in the economic development of forest resources in two rural Quebec regions. These organizations emphasized coordinating the rational development of private woodlots and involving local residents in decision-making. Although incorporated, both of these ventures operate more like cooperatives, with shares purchased by woodlot owners, employees, and other people in the community. During the early years, these groups focused their efforts on developing woodlots owned by members. Subsequently, they expanded their activities to include timber processing and the management of public forests. In 1994, SERV had 1,200 shareholders. Its activities are worth about $8 million annually, of which over 70 percent comes from forest

co-management arrangements in BC, but will rather focus on specific co-management examples in order to learn from their experiences.

The first formal fisheries co-management arrangements made in BC were associated with the Aboriginal Fisheries Strategy (AFS). During the first year of the program (1992/93) 80 agreements were made with aboriginal groups regarding co-operative management projects and pilot projects for commercial salmon sales (McDaniels *et al.* 1994; Hutton and Pitcher, 1997) the most prominent being the now defunct Skeena Watershed Committee.

9.3.1 The Skeena Watershed Committee[26]

The Skeena Watershed Committee was formed as a result of decade long allocation conflicts on the Skeena River. One conflict existed between commercial fishermen at the mouth of the river (near Prince Rupert) and sport fishermen upriver. Another conflict existed between the commercial fishermen at the mouth of the river and Gitxsan and Wet'suwet'en First Nations who asserted the right to conduct a commercial harvest on surplus escapement upriver. In 1992 the Skeena Watershed Committee was created to address these conflicts within a larger framework of improving stock assessment, stock enhancement, habitat protection, enforcement and watershed restoration.

Three successive years of poor steelhead returns to the Skeena River were the immediate problem that precipitated the formation of the Skeena Watershed Committee in early 1992. The sports fishermen feared that this was an indication that a number of steelhead stocks were on the verge of collapse. The run timing of this trout species (preferred by sports fishermen) overlaps with the run timing of the sockeye stocks important to commercial fishers. As a result, steelhead were being taken in commercial gillnet and seine fisheries at the mouth of the Skeena.

Since there was little "hard data" available on the status of 13 important steelhead stocks the commercial sector tended to view the sportsmen's concerns to be about allocation rather then conservation. Upriver, the Gitxsan First Nation and coastal commercial fishers argued over how much each sector caught. Essentially each party was "at war" with at least one of the other parties.

The sport, commercial and Aboriginal sectors first agreed to come together when government was forced to acknowledge the existence of a problem. In the first two years, the meetings of the Skeena Watershed Committee broke the barriers of communication but failed to set up a viable consensus process to produce acceptable conservation measures. However, it was not until the government allocated funding for research and hired an independent non-governmental mediator that the process began to move. Thus when FISHERIES AND OCEANS CANADA hired a professional facilitator who was elected as chair of the process and thereafter convened and ran the meetings, they created the necessary independence the Skeena Watershed Committee had needed.

Lesson: Central government has a facilitative function.

As an independent organization, the Skeena Watershed Committee performed the following informal management functions:

[26] Information in this section derived from: Pinkerton and Weinstein (1995).

management. Currently, the Groupement forestier de L'est-du-Lac Temiscouata has around 400 shareholders and generates approximately $4 million a year.

8.2.2 Obedjiwan Forest

The Obedjiwan Forest covers 927 hectares of land, of which 802 hectares are productive and accessible forest. Traditional activities are still widely practiced by band members, including hunting, fishing, crafts, and various cultural activities. Under the auspices of the Atikamekw Nation Council, three First Nation communities set up a joint forestry service in charge of forest management activities in 1985. The forestry service reports to the Obedjiwan band council for forestry operations affecting the community. The first management plan, created in 1986, had two objectives: (1) to restore disturbed sites by carrying out residual tree removal and reforestation; and (2) to use silvicultural activities to acquire expertise in forestry.

In 1993, a new plan was drawn up which emphasized values other than timber production, particularly tourism and recreation, and the production of firewood for local consumption and crafts. Clearcutting was phased out and harvesting was reduced. Greater efforts were undertaken to ensure that the forest plan reflected the community's needs and aspirations, and to keep community members informed of forest management activities. A particular emphasis was placed on integrating forestry operations with a labour-force training program. Given the small size of the community forest, the main economic benefit has been creation of a skilled workforce that can work off the reserve.

Lesson: Resources are managed for multiple values.

8.2.3 The Matane Regional County Municipal Tree Farm Project

In 1993, an extensive public consultation process was undertaken in the Matane Regional County Municipality (RCM) to develop and implement a project that would create roughly 20 tree farms, ranging in size from 400 to 800 hectares. These tree farms were to be located on 'intramunicipal lots', small forested areas within 10 km of the eight communities that make up the RCM. The purpose of the project was to address economic revitalization with the RCM, the idea being that each of these woodlots should be able to generate enough revenue to provide primary income for a household. Operating revenues were to come initially from timber harvesting, with non-timber resources generating additional revenues over time. The project feasibility study recommended that the RCM should coordinate the project during a 15-year pilot phase, and establish a community organization to oversee the implementation of the project. Long-term leases would be granted to tree farmers to minimize the initial investment required and to discourage speculation. Training and technical support would be provided to the tree farmers by an advisory group.

8.2.4 The Intramunicipal Lots in the Abitibi-Temiscaming Region

Currently, a legislative agreement enables municipalities to gain rights to local forest land as a means of enhancing regional economic development. The most significant agreement, with the Abitibi-Temiscaming Development Council, empowers 80 municipalities to manage and control

Governments should ensure that forest industries and other resource corporations respect local communities and act in an environmentally responsible manner.

Governments must develop and maintain critical support services for community forestry in partnership with communities.

9.3 Co-Management and Community-Based Fisheries in British Columbia

Fisheries co-management can be defined as the sharing of responsibility and authority between the government and the community of local fishers to manage a fishery (Pomeroy and Berkes 1997). Such co-management arrangements cover a wide range of partnership arrangements and degrees of power-sharing and integration of local and centralized management systems. Thus, as in co-management arrangements covering other resources, there is a hierarchy of arrangements beginning with those in which fishers are merely consulted by government before new regulations are introduced, to those in which fishers design, implement and enforce laws and regulations with advice and assistance from the government (Pomeroy and Berkes 1997).

While the terms co-management, cooperative management and community-based management are often applied to similar situations or even used interchangeably, they can be seen to describe three different stages of the involvement of communities in resource management. If we use these terms as indicators of the specific stage or level of community involvement in resource management, cooperative management accords the least amount of actual resource management powers to the communities, simply informing communities of policies and asking for cooperation. Co-management suggests that all parties involved share decision-making powers and community-based management implies that the majority of the management responsibilities and control lies in the hands of the community (Pinkerton 1989). This terminological differentiation is useful but needs to be used with caution since specific arrangements at times use terms such as co-management to describe their organization when in actual fact they are only at the level of cooperative management (e.g., see the description of the BQCMB, included in this report).

Twentieth century resource management was dominated by the top down approach, training managers to see resource users simply as competitive exploiters in the "tragedy of the commons" rationale. These old assumptions are now slowly beginning to give way to the realization that local resource users with long term entitlement would have the most at stake and thus the greatest interest in the sustainability of their resource. Furthermore, local users are often the first to notice changes in the resource that should be addressed through new policies and legislation. Thus there is a movement toward community involvement in local resources management. The current problems faced by BC's fisheries in particular have been seen to warrant local involvement in fisheries management.

As a result, BC now has a range of resource management arrangements that involve local communities. It is difficult to give a precise overview of all current arrangements one could see as falling under "fisheries co-management" in the broadest sense of the term, since the diverse situations out of which they arose and within which they are framed seem to change at such a rapid pace that reports on their existence are often outdated within a short time period (Weinstein pers. com. 2001). This report will thus not attempt to give an exhaustive overview of fisheries

300,000 hectares of Crown land. This is the province's largest experiment in decentralization and is designed to bring more forest land under sustained yield management and to create local jobs and economic activity. Environmental stewardship does not appear to be an explicit priority under this program.

As is evident from the above, Quebec has a rich history of community forestry compared with other jurisdictions in Canada. Despite this, current community forestry initiatives lack sufficient joint planning among stakeholders, and specific sectoral interests tend to prevail. Moreover, practically all of the Crown land in Quebec is granted to the fibre processing industry.

8.3 Community Forestry in Ontario

Compared to Quebec, Ontario has had less experience with community forestry. In this section we review Ontario's experience with community forestry pilot projects and the operation of Westwind Forest Stewardship, one of the province's only progressive and somewhat successful approaches to community forestry.

8.3.1 Ontario Community Forest Pilot Projects

In 1991, the Ontario Ministry of Natural Resources (OMNR), and four partner communities, developed and established four community forest pilot projects. The four pilot projects were Geralton, Elk Lake, '6/70' (now defunct), and Wikwemikong. All of the pilot projects were provided funds to undertake forest planning, administration, partnership development and training. Additional funds were obtained from industry and community sources to undertake specific projects. The pilot phase concluded in 1996; with a change in government the pilot projects were not extended.

The town of Geralton, in partnership with Kimberley Clark Ltd., and the OMNR incorporated the Geralton Community Forest Corporation (GCFC) as a non-profit company. GCFC has bid successfully on silvicultural contracts, and has established a silvicultural training center and demonstration forest. Without tenure, however, the community lacks the ability to manage its own forest and must work with both government and industry. The pilot project differs greatly from its original proposal, which called for community control with an ecological orientation. The 1989 feasibility study called for a community forest to produce a wide array of outputs, extending far beyond the production of raw timber for export, including:

- the enhancement of recreation, tourism and wildlife habitat;
- the establishment of a facility for environmental education, field work and research, including a demonstration forest; and
- the promotion of economic diversification to avoid reliance on a single commodity.

Moreover, it called for local control and locally retained benefits, and to match provincial goals only when appropriate (Dunster 1989).

A rather different pilot project developed in Elk Lake, a region encompassing 44 townships and 37,600 ha of operable forest land. A history of resource management disputes led to the establishment of a Partnership Committee consisting of multiple stakeholders, who are all

Priority should be given to meeting local needs, with particular attention to subsistence requirements.

Financial recognition should be given to local communities who manage their forest in ways that create and maintain important environmental services, such as critical watersheds.

Benefits from forests and forest use should be reinvested in local communities and their ecosystems.

To the extent possible, maximum economic values should be added to forest products at or near the locations where the products are extracted.

Indigenous and Community-Based Property Rights

Secure property rights provide forest dependent communities with economic and legal incentives for sustainable and socially just forest ecosystem management.

The rights of indigenous peoples to self-determination must be recognized and respected, including rights and responsibilities to control, use, and manage lands, territories and forest ecosystems located within ancestral domains.

Legal recognition of community-based rights provides the best and most secure guarantee of local control over forest ecosystems.

The collection, development and maintenance of information are important avenues to define and understand traditional territories, lands and water, original community lands, and uses and values, and must be community-based and controlled.

The promotion of understanding and cooperation between communities is key to fostering protocols of mutual trust, respect and equality that must characterize relations between communities, government, and all other parties and institutions involved in forest management.

Roles of Government

Government policies must change to support evolving societal values that emphasize the ecological, cultural and economic functions and services of forests and give priority to meeting the needs of the poor and the marginalized.

Governments should share and devolve forest management rights and responsibilities to communities and user groups.

Governments have an obligation to advance principles of community-based forest management locally, nationally and internationally.

All levels of government have an obligation to recognize and advance the rights of indigenous and traditional peoples, local communities and other user groups in a participatory, transparent, and accountable manner to:

achieve decentralized management based on environmental, social, and economic values by shifting from a centralized commodity-oriented management focus to decentralized multiple-objective management; and,

reform institutions by removing structural, legal and economic impediments to ecosystem based community forest management.

In partnership with forest communities, governments should exercise a limited oversight role to foster social equity and environmental responsibility.

coordinated within a public consultation process. Representation on the committee includes business, education, environment, industry, labour, recreation and tourism. Thus far the project has resulted in several workshops, a worker-training program, and other education initiatives. This pilot project falls short of providing the community with its own landbase to manage.

The Wikwemikong pilot project is a First Nations community forest, managing 42,000 ha of forest land on the Wikwemikong unceded reserve. The Wikwemikong Lands and Resources Committee has developed terms of reference and a mission statement with approval from the Chief and Council. Their mission is to foster and advance the interests of the First Nations through promotion, generation of diversified natural resource harvest, use, regeneration and marketing in order to bring greater opportunity for wealth and improvement of the quality of life for all. To date, little activity has taken place on the reserve, however, forest plans are being developed.

Lesson: Without power to enact change, community commitment to innovative projects can dwindle.

8.3.2 Westwind Forest Stewardship Limited, Parry Sound

Westwind Forest Stewardship Ltd., Ontario's only non-profit, community-based forest management company recently received Ontario's first Sustainable Forest Licence (SFL) to manage 540,000 ha of Crown forest in the Parry Sound and Muskoka region. Westwind's mission is to conduct ecologically sustainable forest management on the diverse and intensively used forest of Parry Sound District. It serves forest businesses and all other users of the forest while maintaining the highest standards for business practice and public accountability (Eco-Research Chair 1999). Westwind is seeking forest eco-certification and has received non-profit funding to initiate this process.

The community-based non-profit company involves a partnership between the forest industry and the communities of the region, with emphasis on cooperation with all forest users. The governance structure for Westwind is intended to foster cooperation and effective partnership. The non-profit corporation will be governed by a board with seven directors, of which three will be forest industry representatives and four will come from the community at large. This arrangement is somewhat unusual in that:

Lesson: Management responsibility is transferred to the community.

> *The majority of interests on the company's Board of Directors will not be filled by those who have a direct financial stake in forestry. The majority of the 'Board' members will not be directly and personally impacted by the costs of running the company* (Dengo *et al.* nd).

A pre-existing local citizens' committee will also play a role in holding the company to account. The conditions of the SFL include a transfer of responsibility from the Ontario Ministry of Natural Resources to Westwind. Funding for forest renewal will be generated by a trust fund financed through stumpage payments made by local logging companies. During its start-up phase, Westwind has received financial assistance from private foundations.

Lesson: Financing mechanisms operate through a Trust fund.

integrity and management of an area of forest, and have the right to benefit from their investments of time, labour and capital.

Communities are heterogeneous in their relationships to forest ecosystems and in their socio-economic and political status and this often contributes to inequities in forest resource uses.

Women and men often use, perceive and define forest resources in different ways and special efforts are sometimes required to ensure that the needs and concerns of all groups, especially those directly dependent on forest resources, are reflected in decision-making.

Communities must have secure tenure rights or guaranteed access and control of forest resources for present and future generations.

Communities must have a central role in the decision-making processes, which govern the control, use and management of forest resources.

Ecosystem-Based Principles

The sustainability of all life depends on ecosystem integrity, that is, its composition, structure and processes.

The well-being of both local communities and wider societies relies on the integrity of forest ecosystems.

Forest management must be precautionary (that is, it must avoid potentially harmful or degrading effects to an ecosystem even in the absence of scientific certainty of such harm) and integrate a range of social, cultural and economic values while maintaining ecological integrity.

The beneficiaries of forest products and services share responsibility for maintaining and/or restoring the ecological integrity of forests.

Systems of Knowledge

Sound ecosystem management should recognize the legitimate contribution of many systems of knowledge (i.e. aboriginal, traditional, local, technological, and scientific).

Indigenous and local knowledge are developed and maintained as part of the social system of communities, and are transferred and communicated through time between generations.

It is important that all communities have sufficient access to a variety of systems of knowledge to support their forest management decisions.

The failure of industrial-forestry science to bring about practices that protect forest ecosystems and communities highlights the need to respect and integrate indigenous and local systems of knowledge.

An appropriate system of integrated knowledge will continue to adapt and evolve with research and changing situations on the ground, and hence will lead to and support management practices that are similarly adaptive and consistent.

Economic Principles

Healthy, diversified societies and economies can exist and will continue to exist only where they are supported by healthy, diversified ecosystems.

Alternative community-based models of economic development that embody a full range of values (social, cultural, and ecological) should replace existing commitments to centralized and consumptive economic activity.

8.4 Co-Management in Canada

In Canada, the term "co-management" generally refers to a formal agreement between a Canadian government (federal and/or provincial) and a recognized indigenous group or nation describing their respective rights, powers and obligations regarding the management and allocation of resources in a specific territory. In theory, the interest group need not be indigenous, as co-management is essentially a form of power-sharing, where authority is devolved to the organization, although the extent of power sharing that occurs varies greatly from agreement to agreement.[23]

Lesson: Co-management model is a form of power sharing – extent of power sharing varies greatly on a case to case basis.

Lesson: Co-management can be effective in increasing First Nations participation in resource management.

There are a wide range of co-management agreements and models in Canada. Co-management is broadly supported as an appropriate approach to shared control of resource management between government and First Nations. Co-management was recommended by the Royal Commission on Aboriginal Peoples, is supported by governments at the federal, provincial and territorial level, and is accepted by many First Nation communities. Although co-management has problematic aspects, some examples show it to be effective in increasing First Nations' participation in management of forests, fish, wildlife, water and other natural resources in their traditional territories.

In Canada, co-management agreements are generally divided into "land claims based" or "crisis based" agreements (RCAP 1996). This classification refers to the "events" that lead to the creation of a co-management agreement. Since 1975 Canada has entered into eleven modern day treaties with First Nations/Inuit groups, including the Nisga'a Final Agreement, referred to as *land claim agreements*.[24] Federal and provincial governments hold the position that conservation-oriented renewable resource regulations established in the provinces and territories prior to the signing of a land claim agreements are not extinguished through such agreements (Berkes, cited in Pinkerton 1989). Thus, once a land claim agreement is initiated, wildlife and resource management within the claim area is subject to a "double administration" which consequently leads to the co-management of the natural resources in the claims area.

A real or perceived resource crisis is another factor leading to the creation of co-management agreements. This form of co-management is established as a result of conflicting views and understandings between provincial/territorial renewable resource agencies and First Nations regarding a specific resource. It is essentially a tool to avert and prevent conflicts over specific resources and often focuses on one particular resource or species. The Beverly and Qamanirjuaq Caribou Management agreement was the first crisis based resource co-management agreement to be established (1982) in Canada.

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[23] This introductory information derived from work by Abbott posted on the webs site of First Peoples Worldwide (http://www.firstpeoples.org/canada/summary_of_land_rights/comgnt.htm).

[24] Other land claims agreements include: James Bay and Northern Quebec Agreement (1975); Northeastern Quebec Agreement with the Napaski Indian Band (1978); Inuvialuit Final Agreement with the Inuit of the western Arctic (1984); Gwich'in Comprehensive Land Claim Agreement with the Gwich'in of the Mackenzie River Delta, NWT (1992); Nunavut Land Claim Agreement with the Inuit of the eastern and central Arctic (1993); Sahtu Dene and Metis Agreement with the Great Bear Lake region of the NWT (1993); Vuntut Gwich'in Agreement, Yukon (1994); Nacho Nyak Dun Agreement, Yukon (1994); Champagne and Aishihik Agreement, Yukon (1994); and Teslin Tlingit Agreement, Yukon (1994).

Statement provides a foundation for ecologically sustainable community forestry. A key aspect of the statement is a commitment, on the part of Network members, to enhance local ecosystem health and integrity, and to foster social justice.

The Network is a membership-based organization, made up of individuals or organizations who have formally endorsed the Saanich Statement of Principles on Forests and Communities. The Network has an Advisory Board of ten members who represent a variety of disciplines and backgrounds, from different regions of the world.

The Saanich Statement of Principles on Forests and Communities

We are eighty-two citizens of the world who come from eighteen countries in Asia, the Pacific and the Americas and have diverse backgrounds and perspectives;

We know that the health and well-being of forest ecosystems and human communities are interdependent;

We are deeply concerned that the degradation of forest ecosystems and the social fabric of human communities dependent on them are occurring at an alarming and increasing rate;

We have seen first hand that those who benefit from inequitable structures of power and consume a disproportionate and unsustainable share of forest resources accelerate this trend;

We are aware that forests are an essential and beneficial component of the global ecosystem and that in many areas the stewardship of local people has made this possible;

We know from our experiences that centralized control has benefited industrial forestry sectors and undermined possibilities for local community-based management;

We likewise know that most decisions concerning forest resources have been made by individuals and institutions which do not have to cope with the immediate and often long-lasting effects of those decisions;

We have proof that many local communities and indigenous groups have the knowledge and ability to live sustainably within their forests' ecosystems;

We understand that some communities have been overwhelmed by external knowledge and economic systems and degrade their forests and other natural resources under pressures of inequity and limited opportunities.

Therefore, in light of the foregoing, we have gathered together on the Saanich Peninsula in British Columbia, Canada to forge a collaborative vision of community-based forestry which is socially, ecologically and economically sound. In pursuit of this vision we have developed the principles stated below.

We understand that, given the interrelationship between ecosystem and community health, a prerequisite to increased community responsibility for forest management is that community's commitment both to maintain or enhance local ecosystem health and integrity, and to foster conditions of social justice. The following principles are put forward in the context of this overarching commitment.

Community-Based Principles

Community-based forestry occurs when a group of people – particularly those directly dependent and living in geographical proximity to a forest – possess primary responsibility for the health,

Due to the diverse situations out of which such agreements arise it is difficult to define the exact nature of crisis based co-management agreements. They range from relatively powerless advisory boards to cooperation agreements of a "Nation to Nation" quality in which neither side can make decisions regarding the resource without the full consent of the other side (e.g., Gwaii Haanas Agreement). Between these two ends of the spectrum, a vast array of co-management agreements exists. In the following section three co-management agreements in Canada will be described.

8.4.1 The Beverly and Qamanirjuaq Caribou Management Board (BQCMB)

In 1982, the Beverly and Qamanirjuaq Caribou Management Board (BQCMB) was established as a result of the perceived "caribou crisis." Perceived declines in the Beverly and Qamanirjuaq caribou herd populations led to the threat of imposing severe hunting quotas on the Dene, Metis and Inuit. The Dene and Inuit peoples, who depend on caribou for a large proportion of their food supply, threatened to disregard the imposed regulations since they believed them to be based on incorrect and incomplete biological data.

Lesson: Involving First Nations and other local people in assessing status of a resource is important.

Due to the vast area used by the caribou herds whose range extends throughout northern Manitoba, Saskatchewan and the North West Territories, it was obvious that the caribou could not be 'managed' without the participation of the Dene and Inuit. As a result, the BQCMB was created. The agreement leading to the establishment of the BQCMB does not transfer any jurisdiction or management powers to the Board and it is therefore purely advisory in nature. In fact, the agreement exists between the Government of Canada, the government of Manitoba, the government of Saskatchewan, and the Commissioner of the Northwest Territories. Thus the Dene, Metis and Inuit who sit on the BQCMB as representatives are not actually party to the agreement. The agreement simply recognizes that a special relationship exists between the traditional users and the caribou.

Lesson: Co-management schemes may involve local peoples only superficially unless they are involved in the entire management process

Until recently the Board was comprised of thirteen members, eight of whom represented caribou user communities and five represented the provincial and territorial resource ministries, the Department of Indian Affairs and Northern Development (DIAND), and Environment Canada. However, representation by DIAND and Environment Canada was phased out over the last few years. In their place representation from the new Nunavut territory in the form of a regional government biologist has been added to the BQCMB (Caribou News in Brief 1999).

The Board's mandate is to coordinate the management of the caribou herds by facilitating the communication between caribou users and government agencies in order to establish a shared responsibility for the development of management plans (Monaghan 1984). The objectives of the Board include:

- coordinating the management of the Beverly and Kaminuriak herds in the interest of traditional users and their descendants;
- establishing a process of shared responsibility for the development of management programs; and

- Wholistic management plans for the various zones comprising the regions administered by the CFBs;
- Allocation of forest-use rights to private individuals and organizations pursuant to the management plans;
- Collection of revenues from allocated forest uses; and
- Field design, layout, supervision, and evaluation of various forest activities under the wholistic management plan.

These six primary tasks would be designed, supervised, reviewed, and revised by a permanent staff in the employ of and under the direction of the CFB. In turn, this staff would hire (with the final approval of the Board) contractors and consultants to carry out specific duties and tasks within the philosophy set forth by the CFB and to standards specified by the Board.

The authority of local forest use boards should extend to all forest land, private or public, within the forest region administered by the CFB. We are past the era where a frontier ethic, which supports private owners being able to do whatever they like on their own land, is socially and ecologically acceptable.

New legislation is required to provide for the phasing out of the current tenure system and the phasing in of community control of forests, both public and private, through a system of CFBs. A philosophy of forest use, to guide community control of forests, must be clearly enshrined in the legislation, as well as the process and general standards for achieving this new philosophy of forest use.

Lesson: Legislation and policies must support current needs and values.

While model legislation may be proposed from the central government, proposals should be directed to local communities to share in the decision-making involved in finalizing the legislation.

International Network of Forests and Communities and the Saanich Statement of Principles on Forests and Communities

The International Network of Forests and Communities (the Network) is an international network supporting ecologically sustainable community forestry. The Network was founded in October of 1998, following the International Workshop on Ecosystem-Based Community Forestry, held in Saanich (near Victoria) Canada and hosted by the Eco-Research Chair of the University of Victoria. At the workshop, more than 80 participants from around the world gathered together to share their perspectives and experiences in ecologically-sustainable community forestry

The Network's mandate is to promote the long-term health of forests and forest-dependent communities worldwide through networking and capacity-building; policy development and advocacy; and community support and education. The key to meeting this mandate lies in a collaborative vision of ecosystem-based community forestry – forestry that is socially, ecologically, and economically sound.

The Network is guided by the "Saanich Statement of Principles on Forests and Forest Communities" which sets out the conditions we feel are central to the survival and flourishing of both forests and communities. Produced at the founding workshop in October 1998, the Saanich

- establishing communications among traditional users, between traditional users and the government representatives in order to ensure coordinated caribou conservation and caribou habitat protection for the Beverly and Kaminuriak herds.

In the BQCMB's long term management plan it is stated that the BQCMB will attempt to rely heavily on the traditional knowledge of it user constituents. To date, however, the BQCMB has not actively involved the represented Indigenous communities in its resource management process or included much of their traditional ecological knowledge (TEK) (Spak 2001). Observations of the process over a two-year period have revealed that the activities of the Board have been directed by the interests and concerns of government members, and their decisions have been based predominately on western science (Spak 2001). Differences in culture and language also create challenges. For example, the BQCMB operates in English only, thus excluding Elders from the Dene and Inuit communities who are the main holders of TEK.

Lesson: Including local knowledge in a meaningful way respects local culture

Lesson: Co-management should accommodate communities.

Due to the vast territory covered by the BQCMB, communities may not have direct representation at the BQCMB, and communication between the Board and the communities is very poor (Spak 1997/98). Furthermore, participation with the BQCMB is not a full time job for community representatives who merely take time off work in order to attend BQCMB meetings. As a result, they neither have the time nor access to be up to date on government policies and regulations affecting their resource. The BQCMB's government representatives on the other hand, due to the nature of their professions, work with such policies and regulations on a daily basis. This places community BQCMB representatives at a great disadvantage.

8.4.2 The Gwich'in Renewable Resource Board (GRRB)

The Gwich'in Renewable Resource Board (GRRB) was formed as a result of the Gwich'in Comprehensive Land Claim Agreement. The agreement signed in 1992, covers the Gwich'in Settlement Area (GSA) that is located south of the Inuvialuit Settlement Region in the NWT.

The Board has been in operation since 1994 and consists of six regular members, three of whom are appointed by the Gwich'in Tribal Council, two by the Government of Canada, and one by the Government of the NWT. There are also six alternate members from the same appointing bodies. The Board members appoint a chairperson from the GSA. The Board has a support staff of 12 employees (which includes fisheries and wildlife biologists) and works together with community Renewable Resource Councils (RRCs) which act as liaisons between the communities and the Board.

Lesson: A range of members comprise the co-management board.

The Board has the power to establish policies and propose regulations. It does, however, have to forward its decisions to the minister (GNWT), accompanied by a draft of the proposed regulations. If the minister decides to modify the proposed regulations he has to send his changes back to the Board. The Board, in turn, will make its final decision on the recommended regulations and return them to the minister. Only at

Lesson: A process exists to support community-based policies and regulations.

wholistic, field-based inventory of natural, social and economic factors conducted under the direction of the CFB. This inventory and zoning would form the foundation for the CFB to develop specific management plans for forest uses within each zone.

Lesson: Communities interpret and apply provincial standards to local conditions.

Management plans for each zone or forest use would contain detailed specifications for the type of activities which are appropriate, and the standards which appropriate activities must meet. General standards for ecologically-responsible forest use contained in CFB plans would be set out in provincial legislation to ensure consistency throughout BC. This umbrella legislation should be developed through a participatory process between central government and CFBs to ensure that standards and specifications are built from the ground up, rather than imposed from top down.

Lesson: Resource revenues should be shared between central governments and community.

Within the context of the general standards enshrined in provincial legislation, CFBs would have latitude to specify more detailed standards. CFBs would then proceed to allocate forest uses to various individuals and groups either through grants to non-profit forest users such as public recreation societies or forest ecology associations, or through competitive bid proposals. CFBs would set a minimum bid acceptable for this forest use thereby ensuring that all expenses of the Board in inventorying forests, planning, and administration of a particular forest use were covered. Additional monies would be available to the communities for on-going forest management and other socio-economic needs. CFBs would also ensure that sales of various forest users (particularly timber) would provide protected niches for individuals and small businesses.

Negotiations between CFBs and central government would be necessary to develop legislation as to how revenues from local forest uses would be shared between the provincial government and the community. The power of the CFBs may be extended to work with other local agencies such as school boards and regional districts to allocate revenues directly to these institutions rather than cycling forest-use monies through a central government and back again.

The Boards could be established by combining the processes of election and appointment. Balanced representation would mean that the first principle of the composition of any CFB should be that all forest user groups are represented in an equitable way on the Board. Legislation should set out obvious categories of forest users to be represented on the Board, with local boards having the power to add to this representation. In addition to forest user groups, a number of people (perhaps three of four) would be elected from the community-at-large to complete the CFB.

Lesson: Members of local decision-making body appointed and elected.

The question of boundaries next arises, as well as the ideal number of Boards. The answer should be based upon the need for logical watershed units and workable size as a first priority. The basic functions of the CFBs would be:

- Complete field-based forest inventories of all natural, social and economic factors;
- Zoned forest use based upon comprehensive inventories and community participation;

this point can the minister, if he still disagrees, override the Board's decision (Gwich'in Comprehensive Land Claim Agreement 1992).

What makes the GRRB unique among co-management boards is its heavy reliance on the knowledge of the Gwich'in. In the past four years the GRRB has spent over $958,000 on Gwich'in Environmental Knowledge Projects. It further ensures that all research and management projects it funds have the support of the community RRCs and involve community members in the fieldwork (Charlie and Clarkson 1999).

The language used during GRRB meetings is generally kept free of 'biologese' and 'bureaucratese'. Also, when specific geographic areas are discussed most Board members used the Gwich'in terms and place names so that elders who are present have a better understanding of the areas being referred to (Spak 1997/98). In this regard it is important to note that almost all the people in the Gwich'in settlement area speak English including the Elders. Thus the GRRB can operate primarily in English.

Lesson: Respect for local (aboriginal) rights, cultures, and knowledge.

8.4.3 The Barriere Lake Trilateral Agreement

The Barriere Lake Trilateral Agreement was signed on August 22, 1991 by the Algonquins of Barrier Lake (ABL), the government of Quebec and the government of Canada. The Agreement covers a 10,000 sq. km territory in the area of La Verendrye Park within Quebec. The Agreement was pursued by the Algonquins, a small aboriginal community living a largely subsistence way of life, who saw their livelihood and culture threatened by aggressive resource exploitation in the form of logging, recreational hunting and hydroelectric development. The political context included lack of recognition of treaty and aboriginal rights, centralized decision-making in land and resource planning, and a strong emphasis on extractive resource utilization.

The Barriere Lake Trilateral Agreement did not immediately establish co-management institutions, policies or procedures. Rather, the Agreement was designed to lay the groundwork for the cooperative development of an integrated resource management plan (IRMP) for a region covering 1 million hectares, representing the major portion of the traditional use area of the ABL. The ABL shunned the treaty or land claims process because these involve extinguishment of title and rights (Elias 2000). Instead, the Algonquins' primary rationale for pursuing the agreement was not to assert Aboriginal rights but to create integrated resource management that would take the needs of their subsistence economy into account. (Notzke 1993; Mitchikanibikok Inik 1997). Thus, as a report made by the Mitchikanibikok Inik[25] to the United Nations Environment Program in regard to the Convention on Biological Diversity in 1997, states:

> *One of the main objectives of the Agreement is to reconcile the forestry operations of the various companies operating in the area with the environmental concerns and traditional ways of life of the Algonquins of Barrier Lake, whose home it is.*

[25] Mitchikanibikok Inik is translated as "people of the stone fence or stone fish weir", and refers to the Algonquins of Barrier Lake (ABL)

responsibilities" (ibid). Resident serving on this committee had to be residents of the Valley for at least three years.

This committee was to hire a resource manager, who would oversee a team to carry out planning and management of the area. Funding for management activities would come from stumpage collected from the management unit. The report recommended that "all stumpage from the Slocan P.S.Y.U. be reinvested into the Slocan P.S.Y.U. for at least five years. This time period should be used for the implementation stage of integrated resource management. The money will be allocated to the local resource committee to pay the resource manager and to fund all Provincial agencies concerned" (ibid).

Lesson: Communities seek long term and ecosystem-based management plans.

Each of these communities have undertaken extensive work to understand and map their local forests and develop long range forest plans that would, first and foremost, protect the long-term ecological function of the forest, with resource extraction conducted at a less intensive scale. (Many of the communities have drawn on the expertise of the Silva Forest Foundation, which has pioneered work on ecosystem-based and community-based forestry in British Columbia.) Not surprisingly, this ecological approach to forest planning results in a much lower proposed harvest rate than would be the case in conventional forestry, as much as 80 percent less. To compensate for the harvest reduction, and to boost the socio-economic capacity of the community, the plans usually include a community economic strategy, based on diversification, value-added, and the retention of forest benefits within the region.

Most of these community-developed ecosystem plans are in direct conflict with existing timber-oriented logging plans and tenure commitments, and have not received endorsement or support from industry or government. Interestingly, the planning approaches proposed by many of these ecosystem-based community forestry proposals – some of which were first proposed decades ago – are consistent with the most current scientific thinking in forest ecosystem management. The Scientific Panel for Sustainable Forest Practices in Clayoquot Sound, the Forest Ecosystem Management Assessment Team (FEMAT), and other leading scientists, ecologists, and foresters propose many of the same core elements and approaches to ecosystem-based planning as are found in these BC community forestry proposals.

Community Forest Boards

Ecoforester, Herb Hammond promotes the concept of Community Forest Boards (CFB) as a way to achieve community control of BC's forests for *all* forest uses within an ecosystem. The following is Hammond's description of a CFB's structure and function (excerpted directly from Hammond 1992).

Lesson: Role of local authority in planning and management.

Lesson: Standards for sustainability should be set at the provincial level, but built from the ground up.

> Under the direction of provincial legislation, CFBs would carry out all planning (including field design and layout) and management for the region controlled by the Board. The Board would be responsible for preparing a land-use plan that zones the forest to achieve balanced forest use. Zones would be created for cultural protection, ecologically sensitive areas, fish and wildlife, trapping, wilderness, tourism and public recreation, and timber. Zoning of forests and subsequent management would be based upon a

As an integral part of the Agreement the ABL proposed a model of "sustainable development" patterned after concepts introduced in 1987 by the Bruntland Report (such as that economic growth must be based on policies that sustain and expand the environmental resource base) (Notzke 1993). The report of the Mitchikanibikok Inik (1997) identifies the Trilateral Agreement as a "trail-blazer" because it:

Lesson: Aboriginal rights should be clarified and must not be compromised.

- puts the doctrine of "sustainable development" into practice;
- establishes a real partnership between government and an indigenous community;
- blends the traditional ways and wisdom of life of the indigenous people with modern development processes, whilst protecting both these traditional ways of life and the environment;
- provides for a common working environment, a working partnership, through which an indigenous community and Canadians at large can interact in mutual respect with each other;
- establishes an important scientific and technical experiment, providing for the protection of environmentally and culturally sensitive zones during the forestry operations, as well as measures to harmonize these operations with the traditional ways of the Algonquins. It will be completed by an Integrated Resource Management Plan (IRMP), the findings from which will serve to amend forestry operational methods, as well as relevant legislation and regulations, to make them compatible with the notion of sustainable development; and
- creates an important educational and operational model not only for the rest of Canada, but also for the world at large.

The implementation of the Agreement is provided in three phases. The first phase consists of the analysis, evaluation, and completion of existing data on renewable natural resources within the territory. It focuses on how resources are utilized, how they might be developed, and the impacts of these activities. At the beginning of the process, Quebec lacked the information necessary to implement the signed Agreement (Elias 2000). In the following three years, the Trilateral Secretariat collected research and commissioned new studies in a wide variety of fields including ungulate biology, human demographics, regional economic structures, forest biology, riparian ecology, social customs and traditions, genealogy and traditional ecological knowledge. ABL technicians have created software to link their numerous databases of information. This agreement with the Algonquins is probably the most complex initiative in Canada intended to give aboriginal people a real role in managing lands and resources (Elias 2000).

Lesson: Information and data collection creates a foundation for sound ecosystem management.

The second phase consists of the preparation of a draft Integrated Resource Management Plan (IMRP) for the renewable resources of the region in order to enable their sustainable development. Phase three provides for the formulation of recommendations to carry out of the draft plan prepared by Quebec and the ABL during phase two. These recommendations aim to modify management and exploitation methods, make administrative and contractual adjustments, and undertake amendments to regulations or laws. The Agreement also provides for provisional measures to apply to the territory in the interim period prior to the completion of the IRMP (Mitchikanibikok Inik 1997).

A Trilateral Agreement Office was set up as soon as the Agreement was signed and a joint Task Force was established to carry out the tasks related to the provisional measures. The Agreement

Omineca Community Forest Ltd.

The Omineca Community Forest Ltd represents residents of the communities of Germansen Landing and Manson Creek, located approximately 400 kilometers northwest of Prince George (Silva Forest Foundation 1998). The objective of the community forestry enterprise was to protect critical habitat in the Omineca Valley and to create local forest-based employment opportunities. The community originally intended to gain local control of the land base and spent time lobbying the government for a community forest. They have been unsuccessful to date, and are currently proposing a potential community forestry pilot project. Their proposal involves a strategic management plan that will result in ecologically sustainable forest harvesting practices and long-term employment for local residents. Long term strategies include working collaboratively with major licencees and value-added manufacturers.

Malcolm Island

The residents of Malcolm Island, off the north end of Vancouver Island, developed a proposed 'Community Forest Agreement,' under which, the community would hold rights to the timber, and would possess the authority to establish management regulations and policies, including determination of the AAC and cut control. The community proposes that the Agreement last for 100 years to allow for long-term forest management and local security. To address local social and economic needs, and to compensate for a reduced timber volume, the community proposes that the timber be processed locally, and that a log market be established to encourage maximum value-added processing. The proposal attempts to devolve decision-making power to a local authority, which would determine the rate and location of logging following a public consultation process. It recommends replacing stumpage payments to the Crown with an annual rent to alleviate financial dependence on timber production. It also suggests a tax on sales of all forest products to generate alternative revenue sources. The community recognizes that the proposal is not feasible within the current tenure structure, thus they are proposing reforms to the tenure system for the establishment of a new tenure arrangement based on the implementation of ecosystem-based principles.

Slocan Valley Community Forest Management Project

Residents of the Slocan Valley, in the West Kootenays, have been working for over 25 years to reform industrial forest practices in the area and, ultimately, to gain greater community control over the management of local forests and ecosystems. A landmark in this long struggle was the Slocan Valley Community Forest Management Project which began in 1974. The final report of this project made some far-reaching recommendations related to management of the valley's forests.

One of the assumptions made by authors of the report was that "sustained yield [which they defined as sustained yield of all forest resources, not just timber] can only be guaranteed if the local community is involved in resource planning. This assumption is based on the realization that forest management requires government *expertise*, industrial *capital*, and community *permanence*" (Slocan Valley Community Forest Management Project 1973). In addition to calling for a reduction of the AAC, the report recommended "a resource committee, comprised of six local resource management agencies and six local residents, be formed and charged with all resource management within the Slocan P.S.Y.U [the management unit], including budgetary

stipulates that the special representatives representing the three parties (ABL, Quebec, Government of Canada) are empowered with the fullest authority. Initially there did nevertheless exist an important difference between Quebec and the ABL with regard to the interpretation of this "full authority". The Agreement nearly failed when the Quebec government insisted that the Agreement be implemented within the rigid confines of existing laws and regulations. This insistence created a crisis from the beginning, as the Quebec government was then not able to comply with the terms of the Agreement or implement measures that would provide for effective protection of the territory's resources. After futile mediation efforts, Quebec unilaterally suspended the Agreement in February 1993. As a result of this the trilateral process seemed to be on the brink of collapsing. A combination of factors, including effective public relations by the ABL, high level political communication, and intensified contacts between the Algonquin and industry, led to a breakthrough. A special interim management regime was established for the Agreement territory, creating a setting in which the Barriere Lake Trilateral Agreement could be successfully implemented.

8.5 Quebec's System of Zones d'Exploitation Contrôlée

During the mid-1960s there was increasing demand in Quebec's urban centres for access to recreation areas for sport fishing and hunting. Lands that had been leased to private clubs by the Quebec government in the 1880s were revoked and many of these areas were turned into government-run wildlife reserves for public use (Leal 1996). However, with the greater number of reserves established, management expenses also rose beyond the province's capacity.

In 1978 the government began creating *Zones d'Exploitation Contrôlée* (ZECs) for hunting and fishing. In a ZEC, a local community, in the form of a nonprofit corporation, assumes management responsibility (Leal 1996). The corporation contracts with the government to develop recreation through user fees, to assist in monitoring fish and wildlife populations, and to set and enforce seasonal harvest regulations in conjunction with government guidelines (Leal 1996). The government provides subsidies for the start-up costs of a ZEC and though the goal of self-financing has not yet been achieved, the financial resources available for resource management, surveillance and enforcement have been substantially increased, mainly from the ZECs' own sources (i.e., user fees) (Pearse and Wilson 1996). By October 1994, eighty-two ZECs had been established throughout Quebec.

Lesson: Resource user fees are implemented locally, to provide revenue for management.

An elected managing board of directors gives users a voice in managing recreational use and controlling wildlife resources (Leal 1996). Many ZEC boards include both local business interests and tribal interests. For example, the corporation that manages the Riviere-Jacques-Cartier, an Atlantic salmon sportfishery located about a hundred miles northeast of Quebec City, has a board that is equally divided among representatives of recreational users and representatives of municipalities within the river basin (Ministre de l'Environnement et de la Faune 1994 cited in Leal 1996). Nevertheless, the issue of aboriginal rights remains highly contested and the First Nations peoples are still being harassed for exercising their aboriginal rights in these zones (Matchewan 1992).

Lesson: Locally elected management board with broad representation.

Fees are charged for ZEC membership and road use, and fees often vary with exclusivity of use. On the Ste-Marguerite salmon ZEC, for example, a ZEC member pays a daily salmon fishing fee

for many of the communities: much of the labour in crafting the proposals was volunteer time, and this took a heavy toll on many community members. Several communities expressed frustration at the long and difficult process of signing an agreement with the Ministry of Forests to finally establish (legally) the community forest. Other challenges related to capacity (e.g., developing a business plan), the lack of data to support their work, lack of funding, and concerns about stumpage rates.

A number of factors were key to the success of the community forest pilots, including:

- strong community support for the project
- significant First Nations involvement and support; and
- the presence of dedicated and capable volunteers and competent community leaders.

Lesson: Government must demonstrate long-term commitment to the process.

Lesson: Community support is the key to success.

9.2.3 Other Community Forestry Initiatives

Over the past few decades, there has been a variety of other community forestry initiatives in British Columbia, some of which have failed to secure a land base and collapse, and others which are continuing to move forward. Many of these initiatives have involved non-conventional approaches to forest use and management, such as ecosystem-based management, and innovative ideas for decision-making and governance. A few of these initiatives are described below.

Bella Coola Valley Community-based Tenure

In 1996, the Central Coast Economic Development Commission developed a proposal called the Bella Coola Valley Community-based Tenure. The main goals of the proposal include promoting economic stability for the residents of the Bella Coola Valley, preserving options for the present and future generations, and recognizing the link between the forest ecosystem and community health. Partnerships with First Nations are proposed, together with increased local wood processing and worker training (Silva Forest Foundation 1998).

Oona River Community Forest Proposal

In 1993, one of the first communities to complete a feasibility study was Oona River, from the mouth of the Skeena River (Oona River Community Association and Central Coast Consulting 1993). Suffering from both collapsing forest and fish stocks, the community proposed six, long-term (99 year), area-based community tenures based on watershed boundaries. The proposal recommends managing for values other than timber and the development of non-timber services and products through zonation and licencing. The proposal calls for a rejection of a pre-determined harvest level, and the development of more ecologically appropriate alternatives to the AAC. While the proposal was favorably received, the government refused to implement it as it interferes with existing tenure arrangements (Mitchell-Banks 1998).

Lesson: Existing laws do not allow communities to achieve higher standards of sustainability.

of $32 on sections where the number of fishing rods are unlimited, but $59 where the number of rods is limited (Leal 1996). Nonmembers enjoy the same access privileges but at slightly higher user fees.

The main criticism of ZECs is that they under-value recreational activities, encouraging overuse of resources and budget shortfalls. In 1995, all ZECs were required to rely on their own income for support and according to Leal (1996), this requirement to be self-supporting should provide an incentive for ZECs to price their recreational goods more realistically.

Lesson: Local use of economic instruments can lead to self-sufficiency.

8.6 Port Lameron Harbour, Nova Scotia: Local Traditions

For generations, fishing has been the major economic activity supporting the small coastal village communities that dot the eastern shore of Canada. The fishers in these villages, particularly in Nova Scotia and Newfoundland, have developed their own set of rules governing the use of nearby fisheries.

Almost all the 99 fishers using Port Lameron Harbour are descendants of the fishers who settled in the area during the late 18th century (Ostrom 1990). By virtue of their long-standing relationship with the area, these fishers claim that they use their fishing grounds based on tenure, and they see themselves as having exclusive rights. In Port Lameron Harbour, the fishery territory is divided into several subzones, based on pragmatic grounds - which micro-environments are best suited for which technologies in particular seasons of the year. For example, herring and mackerel gill nets are set in a particular area beyond the harbour in such a way that avoids restricting travel if placed too far inshore, and net damage by currents if place too far offshore. Similar areas are set aside for lobstering, cod and halibut that use technologies that are potentially conflicting.

Local regulations control who can enter the fishery and how fishing grounds are divided according to the use of different technologies. The burden of enforcement is borne by the local fishers, as external authorities cannot be called to enforce their local rules of access. The system of enforcement though informal is largely effective and low cost.

Lesson: Local systems of regulation can be informal but effective.

For example, a Port Lameron Harbour fisherman, after setting his longline gear, watched a fisherman from a neighbouring harbour set his gear close to and, on occasion, across his line. Subsequently, the Port Lameron Harbour fisherman contacted the "transgressor" on the citizen band radio to complain about this behaviour. Other Port Lameron Harbour fishermen who were "listenin' in" on the exchange demonstrated support for their compatriot by adding approving remarks once the original conversation had ended. The weight of this support, coupled with the implied threat of action, i.e. "cutten' off" the offender's gear, compelled the erring fisherman to offer his apologies (A. Davis 1984, cited in Ostrom 1990).

This system is 'fragile' because it is not recognized by the Department of Fisheries and Oceans. Current Canadian policy gives "little credence to the ability of local customary regulations to adequately police the fishery" (Matthews 1988 in Ostrom 1990). Furthermore,

Lesson: "One size fits all" policies endanger locally developed management systems.

mapped in an ongoing traditional use study. Huu-ay-aht members hope to use ecotourism to demonstrate their ties to their traditional land base, and to educate the public about the importance of selective harvesting and biodiversity.

In partnership with the community of Bamfield, the Huu-ay-aht prepared a comprehensive proposal, including the above initiatives, for a community forest under the pilot project. They were awarded an area of 418 ha., an area too small to allow for landscape level planning or for comprehensive community development. The community forest does, however, provide necessary fiber for a value-added doors and window frame plant they intend to construct, but it will not lift the current structure of tenure rights and industrial zonation superimposed onto their traditional territory.

Lesson: Land and resource base should be of appropriate size to meet community needs.

Harrop-Proctor Watershed Protection Society

The Harrop-Proctor Watershed Protection Society (HPWPS) was awarded a community forestry pilot in July of 1999. The pilot covers 10,600 ha of Crown forest land on the south shore of the West Arm of Kootenay Lake. The pilot will be operated by a cooperative, the Harrop-Proctor Community Cooperative, which the group feels is the best structure to facilitate community participation. The group has developed an ecosystem-based management plan for the pilot, plans to expand a local sawmill and establish a value-added manufacturing facility, and gain certification for the wood it produces (from the Forest Stewardship Council). The pilot also hopes to diversify into tourism and the management and marketing of non-timber forest products.

Although it is not possible to analyze the detailed operations or design of each pilot, it is important to note that the pilots do represent a range of different approaches to community forest management. All have significant First Nations involvement: two of the pilots are held directly by First Nations while several others are partnerships between native and non-native organizations. Several of the pilots are held by municipalities, often through community-based corporations, and one is held by a non-profit organization. Some of the pilots are proposing management approaches similar to conventional forestry while others are proposing ecosystem-based approaches to management.

Lesson: Community forest tenures are held by a variety of community organizations.

Most of the pilots exhibit some degree of democratic decision-making. For example, the Village of McBride has created a community-based corporation to govern the management of the pilot forest area. Overall direction for the community forest will come from a board of directors elected by the community (with one director appointed by the Corporation of the Village of McBride). The Likely community forest pilot is an alliance between the community of Likely and the Soda Creek Indian Band. The pilot will be managed by a new entity, Likely Community Forest Ltd., which will be governed by a board of directors with equal representation from each community.

Lesson: There are diverse participatory models.

The Community Forest Pilot Project is still very new and it is difficult to assess its success at this stage. There is little doubt that the pilots offer some interesting opportunities for experimentation and learning at the community level. However, the pilots face some serious challenges. The process of developing a proposal to apply for the pilot was onerous

Lesson: In the early stages of community management, external support is needed.

Canadian policy has been to develop one standard set of regulations for the entire coast, which deteriorates locally evolved systems. As Ostrom notes, it is doubtful that any national agency can ever have the extensive time-and-place information need to tailor a set of rules to the particulars of local situations.

This situation is not unique, and similar examples abound on the east coast of Canada. The case of Port Lameron Harbour is exemplary of the success of informal regulations and institutions to manage and sustain fisheries. Sadly, Port Lameron also exemplifies how a centralized structure of management can undermine locally developed systems. Furthermore, the massive declines in fish stocks are another indication of where centralized management regimes have failed to achieve sustainable resource management.

The Islands Community Stability Initiative

A long-standing community effort for tenure reform and local control has come from the Island Community Stability Initiative (ICSI) on Haida Gwaii/Queen Charlotte Islands. ICSI is a board with representatives from all six Haida communities and most non-native communities. In 1996, ICSI developed a community manifesto, called the ICSI Consensus Document, which set out the long-term needs for a community forest, including economic restructuring and tenure reform. A memorandum of understanding was reached between ICSI and the provincial government to design a large area-based tenure, which was predicated on ecosystem-based principles, and included the reapportioning of tenure from the TSA, the SBFEP and MacMillan Bloedel to a community forest (Islands Community Stability Initiative 1996). The area-based tenure was never honoured, and instead the government offered ICSI a volume-based forest licence.

Lesson: Area-based tenures may be most suitable for community forestry.

The announcement of the pilot project inspired ICSI to re-group and head back to the drawing board. They abandoned the forest licence option to develop a proposal for a community forest pilot. A feasibility study for the pilot, completed in 1998, called for:

- an area-based tenure;
- community determination of the AAC within a broader community-driven planning process;
- flexible cut control based on lower volumes of timber;
- a revenue structure which reflects the higher planning and operating costs of alternative, ecologically sensitive harvesting techniques;
- the establishment of a competitive log market on Haida Gwaii to foster a viable, local value-added forest sector; and,
- comprehensive management authority over the entire land base and its resources, not just timber (Robin Clark Inc. 1998).

Lesson: Need for flexibility in setting harvest levels.

Lesson: Need to recognize higher cost of ecological-sensitive management.

The proposal was completed and submitted to the Ministry of Forests and, in July of 1999, the Ministry announced that a pilot was to be awarded to the ICSI group.

Bamfield / Huu-ay-aht

The Huu-ay-aht First Nations territory is located on western Vancouver Island. Their traditional lands fall within corporate TFL 44. More than 60 percent of their traditional lands have been clearcut and salmon stocks have been severely damaged. The Vancouver Island zonation plan will open 95 percent of their territory to industrial development.

The Huu-ay-aht people have been alienated from the planning process, but the band continues to be dedicated to a holistic vision for its forests and people. In 1997, the band hired forestry and fishery managers, and employed 19 people to work in the forests and rivers. They have developed a plan for economic and ecological sustainability, through ecoforestry, value-added manufacturing, ecotourism, restoration, salmon enhancement. While most of their vision cannot be realized within the current tenure system, in the short-term they have succeeded in securing provincial funding for stream restoration, salmon enhancement and the development of a salmon hatchery. Ancient trails, sacred sites, and culturally significant areas such as fishing grounds and berry harvesting areas have been

Lesson: Community focus is on restoration and broad forest values.

9. Models from British Columbia

In British Columbia, as in the rest of Canada, centralized management of renewable natural resources has been the norm for the past half century. The province's rich salmon fisheries, for example, have been under the jurisdiction of the federal government, and managed by the Department of Fisheries and Oceans (now Fisheries and Oceans Canada). Most renewable resources – including forests, wildlife, and water – have been the responsibility of the Province, and a complex bureaucracy and set of laws and policies have been created to manage these (see Report 3: The Legal Report).

Dissatisfaction with the management of these resources, expressed from a variety of perspectives (e.g., residents of resource communities, First Nations, conservationists, workers) has led to the development of a number of initiatives to give communities greater control over local resources. In this chapter we describe these initiatives, focusing on those that are of most interest to this study. While the main focus here is on community forestry and community-based fisheries, we also examine models related to local governance (decision-making, planning) of renewable natural resources – for example, models that have been developed in Clayoquot Sound – as well as a number of specific trust arrangements that have been created (or proposed) in this province.

In recent years there has been considerable discussion within some provincial government agencies about options for the devolution of decision-making from central government to communities. In particular, the Ministry of Community Development, Cooperatives and Volunteers has actively examined options in this area. The Ministry of Forests has also spent some time looking at options for devolution. Cortex Consultants Ltd. produced a report documenting the key issues related to devolution, as discussed during meetings in early 2000 (Cortex Consultants Ltd. 2000). These discussions identified a number of key points and issues, such as the need:

- to consider geographic and community contexts, and how these shape community needs;
- to be clear about the objectives of devolution, for government and communities, and assess alternative ways to address these;
- for a flexible approach to devolution, to accommodate differences in community objectives, conditions and capacities;
- to establish guiding principles to ensure equity and accountability in devolution models;
- for ways to protect larger regional and provincial interests;
- to assess readiness of government to devolve authority, and for communities to undertake more of these functions;
- to ensure accountability at the local level, when decision-making power is devolved;
- to recognize that devolution is a long process, and must be implemented in a gradual fashion; and
- to implement a range of devolution models, and monitor these to allow for adaptive management.

Interestingly, most of these considerations are addressed by the Community Ecosystem Trust model proposed in the main report.

Timber harvesting conducted in the Municipal forest is primarily done through patch cutting (0.5 to 12 ha. in size). Green-tree retention, shelterwood and commercial thinning are also pursued. Timber harvesting uses small yarding towers and horses. Juvenile spacing, fertilization, pruning, site preparation and planting have been carried out within the silvicultural program. The maximum AAC is 23,000 m^3 with actual logging rates ranging from 11,000 to 18,000 m^3 per year in response to fluctuating log prices. The forest reserve became profitable in 1992 and has since been able to establish a small reserve fund to buffer against fluctuations in market conditions. The Municipal Forest is not required to pay provincial stumpage charges, since the forest is on private land (Allan and Frank 1994).

9.2.2 BC's Community Forest Pilot Project

Lesson: Pilot new approaches to community-based management.

In 1997, the BC government committed to design a community forest tenure and to pilot community forests. An advisory committee was organized to identify possible models for community forest tenures and establish selection criteria for at least three pilot projects. The community forest pilot project advisory committee acknowledged that most of the ten tenures under the Forest Act were designed primarily for timber production and that the dominant volume-based forest licence tenure in the province was less desirable to communities who wish to be involved in managing for a range of forest values, goods and services (Community Forests Advisory Committee 1997).

The advisory committee recommended a new forest tenure model for community forests that would have three key attributes: it would be area-based, long-term, and convey stewardship rights and responsibilities beyond timber management. On July 30, 1998, the legislation to implement and test community forest agreements was passed as part of Bill 34, the Forest Statutes Amendment Act. Over 80 communities expressed interest in the pilots, and 27 communities and First Nations from across BC submitted detailed proposals outlining how they would manage local forests under the Community Forest Pilot Project. In 1999, the following seven proposals were approved and selected for implementation:

- Bamfield/Huu-ayaht Community Forest Society (418 ha.);
- District of Fort St. James (33,500 ha.);
- Village of Burns Lake (19,800 ha.);
- Esketemc First Nations (15,000 ha.) near Alkali Lake;
- North Island Woodlot Corporation (northern Vancouver Island) (715 ha);
- Islands Community Stability Initiative (Haida Gwaii/Queen Charlotte Islands) (23,900 ha.); and
- Harrop-Proctor Watershed Protection Society (Kootenays) (10,600 ha.).

In October 2000, the government announced the establishment of an additional three pilots – Nuxalk First Nation (46,209 ha.), Village of McBride (32,000 ha.), and Likely Community Forest Ltd. – and the intention to award 18 more in the future. The term of the pilots is five years after which the communities may be eligible for a long-term agreement of 15 to 99 years. Additional pilots are likely to be announced in the near future. A few of the pilots are profiled below.

9.1 Policy and Legislative Framework for Community Development

The British Columbia Ministry of Community Development, Cooperatives and Volunteers was created in 1999 with a mandate to support efforts to build and maintain healthy, innovative, and self-reliant communities in British Columbia. A key aspect of the Ministry's work has been to provide a legislative mandate for community development. This would ensure that recognition of the importance of community development to the social, economic, and environmental sustainability of the province would be clearly set out in law. In June 2000, the Ministry released a discussion paper – *Toward Revitalized, Resilient and Sustainable Communities Across British Columbia* – on the development of a policy and legislative framework for regional and community development (BC Ministry of Community Development, Cooperatives and Volunteers 2000).

The discussion paper outlined the challenges facing communities in British Columbia, described needs that have been identified by communities, and proposed a policy and legislative framework to help meet those needs. The paper identified the following major challenges facing communities in the province:

- dependence on resource industries – with a decline in employment and community prosperity as these industries undergo restructuring;
- lack of control over jobs and wealth – since major employers are often large corporations with their focus on international markets;
- lack of control over land and other resources – most of the province's Crown land (and the resources on these lands) are already allocated and not available to communities;
- limited access to capital – many communities are unable to gain access to the capital they need to invest in new enterprises and diversify their economies; and
- need for new skills to create (and take advantage of) opportunities in the new economy.

Given these challenges, communities identified the need to gain better access to Crown resources, to have a greater say in the management of these resources, and for the provincial and federal government support for a wide range of community development activities (e.g., capacity building, market research, access to investment capital, etc.). The Ministry discussion paper suggested that "the best way to provide British Columbia communities with what they need is to provide a legislative and policy framework that both demonstrates the ministry's commitment to community development and local control over resources, and closes the gaps left by the current system of ad hoc working arrangements and single-focus funding" (p. 9). The paper noted that the framework would, for the first time, establish the importance of community development in provincial law.

The objectives of the proposed policy and legislation framework are to:

- support communities undergoing social and economic change;
- create clear and consistent mechanisms for the government to enter into partnerships with such communities;
- move decision-making authority closer to local people;
- increase local responsibility for managing natural resources;
- provide opportunities and tools for economic, environmental and social planning at the local level;
- complement and enhance current federal community development initiatives; and

community forestry. FLs offer very limited management rights to licencees and require licencees to harvest a prescribed amount of wood per year, known as the Allowable Annual Cut (AAC). Instead of being an upper limit, licencees must harvest the AAC or face penalties. For the KCFS, this presents a considerable dilemma because the AAC that has been set for the community forest is too high to be sustainable in the long term. The terrain is steep and the local water supply comes from watersheds within the community forest.

Despite their major limitations, some communities are making the most of FLs to address community needs. A management plan is currently being developed for the Creston FL that will include measures to address environmental and social concerns, for example through low impact logging techniques. The community proposes to operate a community log sort yard that will increase opportunities for local value-added manufacturing (Silva Forest Foundation 1998). Both Kaslo and Creston intend to lobby for reforms to their tenure to make them area-based, longer term, and more flexible to allow for innovative forest practices.

Community-held Woodlot Licences

Woodlot licences (WLs) are small, area-based tenures, usually issued to residents to manage a specific area of Crown forest land in conjunction with their adjacent private woodlands. The Crown portion of a WL may not exceed 600 ha for interior WLs and 400 ha for coastal WLs. As with TFLs, licencees must file a management plan with the Ministry of Forests and harvest at a pre-determined AAC. The 1991 Forest Resources Commission concluded that the administrative requirements of [woodlots] are essentially no different from the requirements for large area-based Tree Farm Licences, and represent an excessive burden, given the nature of their operations (Forest Resources Commission 1991). Approximately 25 communities hold woodlot licences. Municipalities interested in applying for a WL must form a separate community forest corporation and may be required to deed some municipal lands to the corporation to qualify for application.

Community Forests on Private Land

The Municipality of North Cowichan, on Vancouver Island, owns a forest reserve land base of 4,800 ha, acquired for non-payment of taxes during the 1930s and early 1940s. The municipality incorporated the lands as a forest reserve under a by-law passed by the Council in June 1946. In 1960, a timber inventory was conducted and a forest management plan prepared. Under the plan, a system of woodlot agreements was initiated in 1964. Ten woodlots were formed and wood was harvested by local operators following a diameter-limit approach (i.e., cutting all trees above a minimum diameter).

By the early 1980s, concerns were raised that the diameter limit cutting was degrading the forests. A report by the Forest Advisory Committee, comprised of experienced local foresters, elected councilors, and municipal staff living within the Municipality, recommended that a self-sustaining Forest Department be established. They also recommended the implementation of programs that addressed three main values: namely, timber harvested, silviculture, and recreation/education in order to achieve long term increases in both revenue and non-timber benefits from the forest.

Lesson: Local management accounts for various values and uses of the forest

- strengthen the ability of BC government ministries to work together to respond to community needs.

To achieve these objectives, the discussion paper proposed a number of measures (which would be included in the framework), including the following:

- Community Adjustment Agreements – would allow for the creation of a partnership between the government and a natural resource-dependent community facing severe economic and social disruption due to industry restructuring (e.g., mill closure) in order to respond to community needs;
- Community Development Agreements – would allow for the creation of a partnership between the government and any community to respond to long-term negative conditions and promote opportunities for increased social, economic and environmental well-being;
- Community Development Corporations – the framework would support the formation and recognition of these corporations as vehicles to support community development (e.g., to receive and disburse government funds, manage natural resource tenures, to encourage capital investment in community-based enterprises, etc.); and
- Community Investment Instruments – the framework would support the creation of new investment instruments for communities, such as "community bond funds" and "community development contribution funds."

9.2 Community Forestry in British Columbia

British Columbia (BC) is Canada's major forest products producing province. BC's forest tenure system is dominated by a small number of large integrated companies with long-term, relatively secure forest tenures. The three dominant forms of tenure, established under the 1979 Forest Act, are area-base Tree Farm Licences (TFLs), or volume-based Forest Licences (FLs) and Timber Sale Licences (TSL) – these three tenures account for approximately 94 percent of the allowable annual cut (AAC) in BC. By far, most of the AAC in BC is held by large forest companies – Marchak *et al* (1999) noted that, in 1998, 17 companies controlled nearly 70 percent of the AAC. Small scale and community forestry in BC is minuscule by comparison. For example, woodlots (small-scale tenures ranging from about 400 to 600 hectares) account for about one percent of the allowable annual cut (AAC) in the province. Community Forest Agreements, a new tenure created in 1998, account for less than 1 percent of the provincial cut (Clogg 1999b).

In 1945, 1956, and 1976, Royal Commissions of Inquiry recommended structural reforms to forest tenures to promote greater community control and management of BC's forests. These recommendations went largely unheeded with the exception of the creation of the District of Mission Municipal Forest (following the 1956 commission) and the creation of the Woodlot Licence (WL) and licences for smaller operators through the Small Business Forest Enterprise Program (following the 1996 commission). These licences have provided some additional opportunities for local citizens to be involved in forest management.

The 1992 Forest Resource Commission addressed the growing concern over corporate concentration in the BC forest industry and called for more diverse and locally controlled tenures. The commission concluded that if enhanced stewardship for multiple values is a primary goal of tenure allocation, the tenure must be area-based and that tenures related to woodlots, community forests, and Native Indian Bands are by their nature best suited to an area-based tenure. The sweeping changes to tenure proposed by the Forest Resources Commission were never enacted.

foresters report directly to the municipal council, and council is accountable to citizens of the municipality. If citizens are concerned about management of the community forest, they take their concerns to the municipal council. Beckley (1998) notes "In principle, this results in more democratic representation of community residents' concerns [...] In actuality, few local people know about the Municipal Forest or take an active interest in its management."

Community-held Forest Licences

Forest licences (FLs) convey the right to harvest an annual volume of timber (hence the term, volume-based licence) from within a timber supply area administered by the Ministry of Forests. The licence normally is for a 15 year term although non-replaceable licences may be for a shorter term. This is the most common type of forest tenure in BC and accounts for approximately 55 percent of logging in the province.

Lesson: Conventional forest tenures may not be well suited for community forestry.

In many respects, forest licences are the least suitable tenure type for communities, given their narrow focus on timber harvesting and short duration. Other than logging and re-planting the stand, forest licencees have no responsibilities for long term stewardship. Nonetheless, non-replaceable forest licences have been the most prevalent tenure type offered to communities in BC, and as a result, represent the most common tenure type through which communities have gained access to forest. Nine BC communities are in the process of applying for volume-based forest licences and ten communities currently have forest licences (Community Forestry Advisory Committee 1997):

- Alexis Creek Band (60,000 m3 AAC; non-replaceable 5 year term, issued 1996);
- Creston (15,000 m3 AAC; non-replaceable 15-year term; issued 1996);
- Gold River/Tahsis/Zeballos (40,000 m3 AAC; non-replaceable 5-year term; issued 1997);
- Kaslo (10,000 m3 AAC; non-replaceable 15-year term; issued 1996);
- Lake Cowichan (18,000 m3 AAC; non-replaceable 15-year term; issued 1996);
- Mowachaht Muchalaht First Nations (20,000 m3 AAC; non-replaceable; issued 1996);
- Nemalah First Nations (50,000 m3 AAC; non-replaceable; issued 1996);
- Princeton (20,000 m3 AAC; non-replaceable; issued 1996);
- Takla Lake Band (80,000 m3 AAC; non-replaceable 8-year term); and
- Ulkatcho Band (140,000 m3; non-replaceable, 5-year term; issued 1994).

The Kaslo FL, granted in 1997, is held by the Kaslo and District Community Forest Society (KCFS). The licence allows the KCFS to harvest 10,000 m^3 of wood every year from the forest surrounding the community. The KCFS's objective is to practice ecologically-responsible forest stewardship and to contribute to the economic viability of the community. The KCFS has found much of its time taken up with operational planning and a wide variety of other activities, such as inventorying, logging, assessments, monitoring, public education, and building recreational facilities (e.g., ski and hiking trails). In her study of the Kaslo Community Forest, Jennifer Gunter has described some of the drawbacks of the FL as a form of tenure for community forestry:

Lesson: Need for flexibility in laws and policies to support innovation and sustainability.

> *... the biggest obstacle to the success of the KCFS is the type of tenure it holds. The Forest Licence (FL) is a common, industrial tenure in British Columbia. It is inappropriate, however, for*

More recently, the BC Forest Policy Review made a number of recommendations to increase community involvement in forest management. The report called on government to "undertake tenure reform to support greater diversification through new cooperative Forest Stewardship Agreements and strategic alliances" (Wouters 2000). These Forest Stewardship Agreements and strategic alliances would involve a shift from volume-based to area-based licences and provide an opportunity for existing tenure holders to work in partnership with communities and First Nations. These would both be tied to a number of other changes to forest policy and legislation, including the creation of a competitive log market and the establishment of a clear compensation policy for tenure holders. A clear recommendation of the review was the provision of "increased opportunities for new community-based forest tenures" (Wouters 2000).

The following section describes the existing community forests in BC, including a description of the provincial community forest pilot projects. Until very recently, most community forests in BC came into existence either through private land acquisition or were established using conventional forms of tenure (e.g., TFLs, FLs, WLs). The creation of the new community forest tenure has resulted in a flurry of new community forests in the past few years.

9.2.1 Community Forestry Under Conventional Tenures

Prior to 1998, most community forests in BC were established under conventional forest tenures, either TFLs, FLs or WLs. In this section, we discuss the nature of each of these tenures and the implications it has on the community forests. We also briefly discuss a model of community forestry on land owned by the Municipality of North Cowichan.

Community-held Tree Farm Licences

Tree Farm Licences convey the exclusive right to manage forests and harvest an allowable annual cut from the area under licence. This form of tenure carries substantial management responsibilities including the maintenance of resource inventories, operational planning, road building, and reforestation. Of the existing tenures under the BC Forest Act, TFLs are perhaps the best suited to a community forest since they are area-based tenures and confer the broadest range of management rights. However, the holder of a crown tenure, be it community or corporation, has little opportunity to make decisions about the types of products it wishes to manage for, the forest practices it wishes to apply, or the rate at which it wishes to cut timber (Burda and M'Gonigle 1996). There are three community-held TFLs in BC: Mission TFL 26; Tanizul Timber Limited TFL 42; and Revelstoke TFL 56.

The Mission Municipal Forest is a community forestry project initiated by the Mission Municipal government. The project uses conventional forestry practices. The Mission TFL 26 comprises 10,400 hectares of forest land, made up of 1,200 hectares of municipal land and 9,200 hectares of Crown land. The original Mission Municipal Forest Reserve was established in 1948 to include municipally owned lands. Subsequent lobbying of the provincial government by the District of Mission led to the creation of Tree Farm Licence 26 in 1958 and the addition of the Crown land portion to the Municipal Forest. Interestingly, the District of Mission was the only municipality that successfully pursued the window of opportunity to establish a community TFL in the late 1950s.

With the City of Revelstoke as its sole shareholder, the Revelstoke Community Forest Corporation (RCFC) was established in 1993 as a private corporation to purchase and manage an area of Crown forest land now known as TFL 56. TFL 56 is now the largest community forest in BC, at 119,505 hectares. Between 1987 and 1990, the City of Revelstoke and community groups advocated for greater community say in how the local forests were managed. Because of the strong opposition from locals, the government rejected the proposal to transfer cutting rights to companies located outside of Revelstoke. This was the first time the government had denied a proposed transfer of cutting rights between companies because the economic and social needs of the local community would not be met (Revelstoke Community Forest Corporation 2000).

The Municipality of Mission's TFL represents the oldest community forest in BC, and the City of Revelstoke's TFL constitutes the largest community forest in BC. The most notable difference between a community-held and corporate-held TFL is that the community enjoys and retains more of the benefits generated from timber production – including revenue, local jobs, and the timber itself. Ecologically, little difference exists. Both TFLs are managed on the basis of sustained yield, with conventional clearcutting as the predominant practice, with the resulting conversion of old-growth forest to second growth plantations. Some have questioned the sustainability of these forms of community forest: two of the three community-held TFLs in the province – Tanizul Timber Limited (TFL 42) and Revelstoke (TFL 56) – are logging well above the long-term sustainable harvest level (called the Long Term Harvest Level, or LTHL), by 63 percent and 56 percent, respectively. On the District of Mission TFL the rate of logging is below the LTHL by approximately 6 percent (Marchak *et al.* 1999).

However, it should be noted that both Revelstoke and Mission are experimenting with alternative silvicultural systems and increasing their efforts to manage for biodiversity and other environmental considerations. For example, 20 percent of Revelstoke's logging is done with alternative harvesting systems, employing three times more people than conventional logging. Mission's forest has multiple uses, including recreation, logging, forest education and water and wildlife maintenance (Silva Forest Foundation 1998).

Lesson: Alternative management techniques are labour not capital intensive.

The community-held TFLs provide for many of the socio-economic objectives of a community forest. Revelstoke, for example, retains over 80 percent of the sawlogs from its licence to be processed in the community, although pulp logs still leave the community. Revelstoke also operates a log yard that sells timber to the highest bidder, thereby maximizing revenue and value, and providing access to logs for small manufacturing companies. Both communities ensure that employment is created for local people, and strong community involvement means better coordination to ensure employment is sustained by spreading out logging throughout the year. Mission is run through the municipality and the Revelstoke Community Forest Corporation through a Board of Directors consisting of city councilors, city management staff and community members.

Lesson: Resources sold on the open market are accessible to small producers

Lesson: Local processing creates employment opportunities.

While these communities maintain a certain degree of local control, the structure for planning and approval of TFLs remains in the power of the Ministry of Forests. Also, the level of community involvement in these forms of community forest can be quite limited. The Mission community forest, for example, is managed by professional foresters with no separate board or committee to guide management. The

Lesson: Community involvement under conventional forest tenures can be quite limited.