

**FORD FOUNDATION COMMUNITY-BASED FORESTRY DEMONSTRATION
PROGRAM RESEARCH COMPONENT**



**FINAL REPORT
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Executive Summary

This study is based on the premise that community-based forestry (CBF) has emerged in the U.S. to **bridge gaps** in forest stewardship and communities' capacity to create and take advantage of opportunities tied to forest stewardship. These gaps have in large part been caused by macro-level political and economic forces, but also by trends in local forest conditions and local community economic and social conditions. The research seeks to understand how CBF groups – Implementing Partners (IPs) – involved in the Ford Foundation's Community-Based Forestry Demonstration Program bridge these gaps and to examine the impacts of these gap bridging efforts. The research was organized into distinct themes: an institutional analysis of IPs, specifically focusing on organizational structure, styles, and strategies; an examination of IPs' impacts on community members, especially community members' access to resources and increased decision-space, capacity-building, and economic impacts; and an analysis of the role and contributions of ecological stewardship, knowledge, and monitoring in IPs.

The study has two types of central findings: how IPs have made an impact and what impacts IPs have made. The “how” findings focus on process – the structures, styles, and strategies IPs have developed to effectively promote change in the forests and communities in which they work. While each IP has strategies specifically tailored to its situation, we found six cross-cutting themes: the presence of **entrepreneurial leadership and operating styles** to initiating new projects and expanding existing efforts; a strong emphasis on action-based **social learning**; the central importance and focus on **collaboration and networking** to get things done; a **pragmatic approach** to solve problems; the need to **operate across geographic and institutional scales** to address barriers, garner resources, and advocate for policy changes; and the long-term goal of **building resilient forests, communities, and economies**.

The study's results show that **the impact of IPs efforts on people's lives is small in scale but significant to those individuals, families, and communities**. IPs are involved in **building human capital** through education, training, demonstration projects, workshops, and social learning. This building process has given people a sense that there are still quality options for working on the land and making decent wage, especially compared to before the IPs took hold. Data generated by the IPs show that, although the total number of individuals benefiting from their actions tend to be modest, these actions make a big difference in small, isolated rural communities to reverse years of declining opportunities.

At a community level, IPs are involved in **building social capital** – a term used to describe the social networks of trust and reciprocity which individuals, families, and organizations can draw on to create and take advantage of opportunities. The increased levels of trust can make a difference between having a community that is a safe, welcoming place in which there is a sense of hope and a community in which people feel threatened for holding different beliefs about forest land management, and in which there is a prevailing sense of hopelessness. IPs create **“zones of agreement”** as a way to overcome years of conflict between organized interest groups, communities, and government agencies, especially on public forest lands. IPs also help bring together individuals who never realized they had common connections to work

towards common goals. In many cases, rural communities, forest workers and harvesters, and limited-resource landowners are able to **make their voices heard** because of IPs. Without the IPs, these voices would likely remain unheard, or at least drowned out by commodity interests, national organized interests, and government agencies.

The IPs have created and enhanced existing paths for limited numbers of individuals and **value-added enterprises to access economic opportunities**, either through contracting services or entering local or regional markets. IPs do this by underwriting some of the costs, providing technical and business training, and opening doors through their networks and collaborations to expertise, partners, and other resources. The impact of putting people back to work or helping a small enterprise get off the ground can be powerful in communities that have not seen much opportunity in recent years.

Paralleling these efforts to build individual- and community-level capacities are strategies to enhance forest stewardship from which individuals, families, and communities can derive benefits. All IPs emphasize **on-the-ground action and experimentation** in order to connect and re-connect people to their forests. Most IPs provide hands-on training, workshops, and demonstration projects. IPs working in public lands-dominated areas make the most impact in assessment and planning aspects of forest management, and through monitoring.

Landscape assessments and multi-party monitoring likely would not occur if it were not for the efforts of IPs. For on-the-ground ecological impact, most IPs generally implemented **small-scale projects of limited spatial extent and short time periods**. They are often intended for educational and demonstration purposes, as much as they are to achieve an ecological end. Several IPs have the strategy of **building up from small-scale projects to large-scale assessments**, with the idea that large-scale assessments will eventually lead to numerous prioritized projects. Having several years worth of projects that have been agreed upon through a collaborative landscape assessment is key to communities having a long-term stewardship presence. In turn, these projects can lead to diverse jobs, income sources, certain access and supply for value-added enterprises, and an overall sense of self-worth for community members.

For many communities, especially public lands communities, **there are few to no alternatives that build the capacity of local people to be land stewards**. The only option for many public lands communities is to do nothing and wait for external actors and events to determine what the future holds. **IPs take risks other organizations might not or cannot take**. Compared to existing institutional arrangements in forestry and rural community development, the IPs are among the few organizations that are actually integrating ecological, economic, and social goals within a framework for action.

CBF groups are showing progress while alternative approaches are lacking. As a result, there is a growing interest in how to “scale up” CBF. CBF in the U.S. already has the foundations for scaling up. **One approach to scaling up is to accumulate over time a large number of small-scale impacts**. This consists of sustaining existing CBF groups, such as the IPs involved in the Ford program as well as numerous existing CBF groups, and encouraging the development of new initiatives. **A second approach to scaling up is to create coordinated regional CBF initiatives**. In the Pacific Northwest, Sustainable Northwest acts as a regional

umbrella and coordinating organization for local CBF groups. The southwestern U.S. is ripe for such an organization with New Mexico's Collaborative Forest Restoration Program and the many community-based forestry initiatives encouraged by the Four Corners Sustainable Forestry Partnership. The Northeast, Appalachia, Southeast, and Lake States may also hold potential given the existence of CBF groups already there.

While opportunities exist, **CBF continues to be constrained by funding**. Aside from the Ford Foundation, there are few charitable foundations that have the capacity or willingness to support large multi-year investments into CBF. Financial support from government for CBF is confined to a few programs like New Mexico's CFRP and the Four Corners effort. Nonetheless, true to their entrepreneurial style, CBF groups continue to forge ahead regardless of available resources.

“We’re not transforming systems because we think it’s a good thing to do; we’re doing it because it needs to happen.”

A. Introduction

Since *Our Common Future* (World Commission on Environment and Development 1987) popularized the concept of sustainability, there has been widespread interest putting sustainability principles to practice. At a community level, sustainability efforts focus on “...economic security, community vitality, ecological integrity, equity, and a commitment to the welfare of future generations. It is fundamentally about change, and strengthening communities’ abilities to plan for the future and take advantage of opportunities, rather than falling victim to larger forces and trends” (Maughan 1996).

Community-based forestry (CBF) is a catch-all phrase for a complex, dynamic movement that builds the capacity of community members to create and take advantage of opportunities to be stewards of, and capture benefits from, forest ecosystems. Forests benefit from CBF because community members are assumed to be more directly invested in sustaining their local forests and, therefore, are less likely to carry out inappropriate practices than centralized government bureaucracies or corporations, both of which are accountable to stakeholders that are generally far removed from these forests and communities (Child and Lyman 2005). In this way, CBF is very much about strengthening community members’ abilities to develop pathways of opportunities for themselves in their surrounding forests, rather than letting larger political and economic forces dictate their lives and forests from afar. This “placed-ness” and geographic proximity to the people and forests they work with is a central organizing principle for CBF. It is about seeing and being involved in things that are real, not in the abstract.

CBF in the U.S. involves a diverse range of activists and practitioners working in a variety of organizational settings. Following about 15 years after the expansion of CBF in developing countries, a growing literature on CBF in the U.S. has begun to emerge in the last 5 years (Aspen Institute 2005; Baker and Kusel 2003; Gray, Enzer, and Kusel 2001; Kusel and Adler 2003). However, systematic, empirical research has not kept pace with the growth of CBF and the subsequent increased attention by policy-makers, non-governmental organizations involved in forestry and community development, and community practitioners seeking to foster their own CBF efforts. Empirical research can inform dialogue about effective organizational structures and strategies, provide evidence of benefits and impacts, and raise critical questions about strategic directions. Empirical findings can carry added weight if the research involves a constructive partnership between academic researchers and CBF practitioners as co-producers of knowledge.

As part of its Community-Based Forestry Demonstration Program (CBFDP), the Ford Foundation provided financial support to Colorado State University to coordinate an interdisciplinary research team to work collaboratively with practitioners from the demonstration program’s grantees, or Implementing Partners. This report presents findings from this joint endeavor which was organized around five broad questions:

- What organizational structures, styles, and strategies have been particularly effective in helping CBF groups bridge gaps in forest management and communities' capacities? What does it mean to institutionalize CBF?
- What are the roles of ecological knowledge, monitoring, and stewardship in community-based forestry?
- Does CBF help community members' capacity to create and take advantage of new opportunities? If so, how?
- Does CBF change people's access to resources, roles in decision-making, and the benefits they receive from forest use? If so, how? How do these changes shape *who* benefits?
- How does CBF affect the well-being of the communities with which they work, especially the full social costs and benefits of CBF efforts?

The goal of the research is to inform ongoing inquiry on CBF in order to contribute to understanding, policy, and practice. This report can be read as a complement and supplement to *Growth Rings: Communities and Trees*, a report published by the Aspen Institute on the CBFDP, and uses its basic premise as a starting point: forests are natural assets that can build sustainable communities which, in turn, provide sustained stewardship of forest assets (Aspen Institute 2005).

B. Community-based forestry in the U.S.: Context, opportunities, and challenges

Context

The relationship between forests and communities in the U.S. has a rich history. As Baker and Kusel (2003) point out, there have been diverse community-led forest management institutions across regions of the country over time, from town forests in New England to communal forests in New Mexico. However, for much of the 20th century, and especially during the post-World War II economic boom, the dominant model of forestry was management aimed at maximizing the biophysical productivity of forest land in order to guarantee a sustained yield of goods and services in perpetuity, especially timber commodities (Cortner and Moote 1994).¹ To achieve this, government institutions and private industry collaborated to provide the scientific and technical expertise to maximize sustained yields and convert these yields into commodities for consumers (Behan 2001; Clary 1986). A key social justification was to ensure society a steady supply of inexpensive wood products. The relationship between forests and communities was framed largely in terms of stable commodity prices as a matter of national economic security. A side benefit was that land values, employment rates, per capita income, and tax revenues of towns and counties benefited from maximized timber production.

However, forestry has been undergoing profound transformation since the 1980s. In regions dominated by federal lands, well-publicized environmental conflicts have effectively shut down economic activity relating to forest commodity production. With government agencies and powerful, organized interest groups battling these conflicts through the legislative process and the courts, rural communities often have had no voice in decisions that directly affect their livelihoods and well-being.

The globalization of the forest products economy also has a role in transforming forestry, and the relationship between forests and communities. As Figure 1 shows, an increasing proportion of U.S. timber products come from overseas. Forest commodities such as lumber, veneer, pulp, and paper are traded on a global market dominated by large, multi-national corporations (World Forest Institute 2004). Enormous pressures exist to keep costs low and profit margins high. As a result, traditionally forest-dependent rural communities in the U.S. have experienced divestment from forest industries, such as closed mills, sold off forest lands, and operations consolidated overseas.

These compound effects have left many forest-dependent communities adjacent to federal lands cut off from access to forest resources that they had relied on to sustain their families, schools, job opportunities, roads, and other community assets. Being cut off from the very assets that are the foundations of their communities has created among community members a sense of loss of opportunities and hope for themselves and their children (Kusel and Adler 2003).

¹ The focus of the research effort was on forest ecosystems and communities in rural settings, and did not include urban CBF efforts. Urban community forestry does have a rich history and involves diverse public and private sector organizations in creating sustainable urban forests and communities.

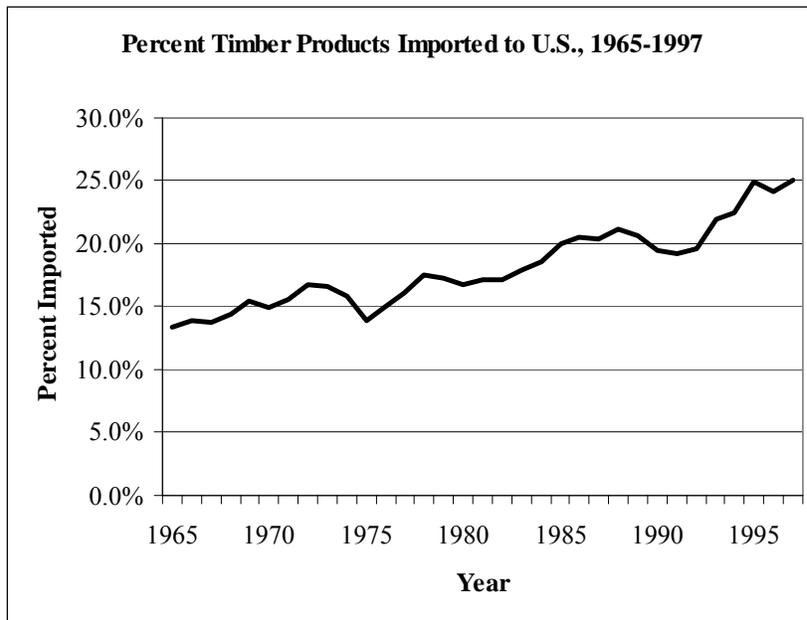


Figure 1 Percentage of timber products in the U.S. that are imported, 1965-1997 (Howard 1999)

Across public and private lands communities, the implications of globalization and the restructuring of the forest economy are manifold. One is that long-time mill operations either close or are bought out by larger, multi-national corporations that displace local businesses and workers, and often import their own workforce as has happened in Alabama (Joshi, Bliss, and Bailey 2000). Another implication is that as forest industries disinvest from local areas, private forest lands lose their economic value. As the forests lose value, they risk being converted into non-forest land ownership and uses, such as residential or commercial development or commodity agricultural production (World Forest Institute 2003). This is happening in many historically timber-dependent rural areas in the Western U.S. which have experienced demographic changes. More and more newcomers to these areas are seeking amenity values rather than natural resource jobs, and are purchasing and subdividing land for their residential development values rather than their biophysical productive values (Hansen et al. 2002).

This trend of declining forest land value and subsequent conversion to non-forest uses is prevalent in the Eastern U.S., where private forest landowners, especially small, limited-resource landowners, are increasingly faced with the challenge of retaining their land holdings in the face of tax burdens, fragmentation among heirs, and competing land uses, such as residential development (Best and Wayburn 2001). These landowners are also, for the most part, aging, leading to concerns over estate transfers. With limited opportunities to derive income from their forest holdings, limited-resource landowners face the distressing prospect of losing their land, much of which has been held for several generations.

The recent political and economic transformations also have widespread implications for the sustainability of forest ecosystems. While the amount of forest land and forest cover in the U.S. has remained stable for several decades, the quality of forests has deteriorated according

to several assessments (The Heinz Center 2002; UNEP 1999). The main issues are forest fragmentation, loss of native species, invasions of non-native species, low quality forest stands due to previous high-grading and other forest practices, and unhealthy forest conditions due to decades of heavy livestock grazing, intensive timber harvesting, and fire suppression.

Taken together, the fate of many forests and communities is increasingly dictated by distant political and economic forces, oftentimes leaving community members and landowners with limited to no access to benefits their local forests can produce. **As a result, there are now gaps in how forests are being managed and community members' capacities to make decisions about, access, and capture benefits from forests.** The lack of voice in forest management decisions especially affects forest workers and harvesters, many of whom are not rooted in a geographic place but migrate to where work opportunities exist. These forest workers and harvesters are often comprised of immigrant populations from Southeast Asia and Latin America – historically disenfranchised groups both economically and politically. Their common connection is to forest work which provides a sense of camaraderie, identity, and self-worth. As both government agencies and forest industry seek to cut costs and remain competitive, forest workers and harvesters are especially vulnerable to mistreatment and exploitation.²

Opportunities

The transformations in forestry in the past 15-20 years have resulted in disruptions to local economies and displacements of rural community residents and limited-resource landowners from their local forests. With the decline of the timber program on federal lands and the disinvestment of the forest industry from many regions, there is also a lack of an overarching model like maximum sustained yield provided post-World War II through the 1980's. There is an historic opportunity to develop new approaches that explicitly offer pathways to forest and community sustainability. CBF provides a viable alternative; in many regions, it may be the only approach that can bridge the gaps in forest management and communities' capacity to create and take advantage of opportunities. Key opportunities include:

- ***Complementing, strengthening, and replacing roles of government forestry agencies due to declines in agency capacity.*** In both public land and private land communities, community groups have chances to assert their role as forest managers with the decline of government agency capacity. For example, the budget of the USDA Forest Service (USFS), when adjusted for increases in the wildfire management budget since 2000, have remained fairly flat since 1991, with an average annual growth rate of 0.7% over the 15 year period (see Figure 2). This amounts to annual budget cuts in real (inflation-adjusted) terms. Aside from wildfire suppression and management, budgets for program areas such as wildlife habitat, recreation, watershed, and forest health management have remained the same over time despite growing needs. Budget shortfalls have translated to staffing shortages as agencies like the USFS are experiencing large numbers of retirements but cannot fill positions (Mason

² This mistreatment was highlighted in a special series on forest workers in the *Sacramento Bee* newspaper November 13-15, 2005 entitled "The Pineros: Men of the pines" written by Tom Knudson and photos by Hector Amezcua.

2005). State agencies are also experiencing declines in budgets and staffing.³ The decline of government agency capacity means that non-wildfire suppression forest needs are not being met, opening the door for CBF groups to play a role in building local capacity to meet these needs. However, declining agency capacity poses challenges as to where funding and continuing forestry expertise will come from.

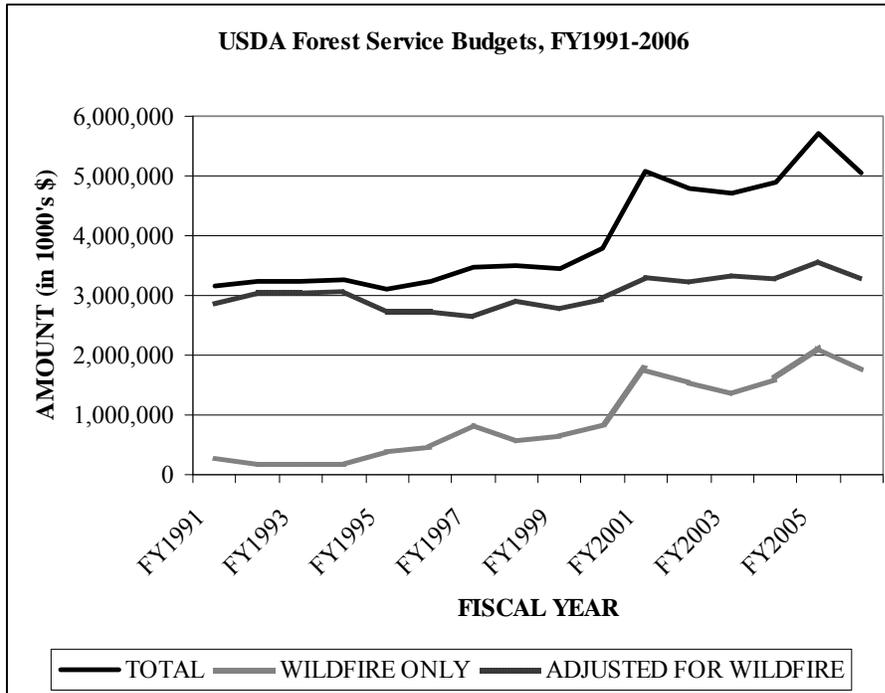


Figure 2. USDA Forest Service Total Budget, Wildfire Suppression Budget, and Total Budget Adjusted for Wildfire Budgets, FY1991-2006 (USDA Forest Service, Office of Programs and Legislation)

- Opportunities to build local workforce capacity** The decline in government capacity and investment has left a gap in workforce capacity to meet current and future stewardship needs. Local forest-dependent communities and forest landowners are the only repositories of a skilled workforce. This not only includes loggers, but forest workers and harvesters who have intimate knowledge of the forest systems in which they work.
- Shifting focus towards ecological restoration.** In the Western U.S., several forest types are outside their historic range of variability in terms of ecological processes and function due to past management. In recent years, wildfires have been abnormally severe due in part to nearly 100 years of active forest fire suppression – a practice that is now acknowledged to jeopardize long-term forest health. While the need for restoration work is apparent, the declining capacity of government agencies and the divestment of forest industries have removed much of the necessary skills and capacity to carry out this work. However, the

³ Based on data compiled by the National Association of State Foresters for 1998, 2002, and 2004. Accessible online at <http://www.stateforesters.org/SFstats.html>

potential for a restoration workforce and associated opportunities for forest-based livelihoods remains.

- ***Growing interest and opportunities in non-timber forest products.*** Non-timber forest products (NTFPs) provide opportunities for ecologically sustainable and economically viable use of forest assets to benefit diverse individuals and groups. NTFPs such as wild mushrooms, floral greens, and medicinal plants can provide diversified income streams on a sustained annual basis. Compared to timber harvests which may occur only once every 10 years (or longer), annual NTFP harvests can mean the difference between a landowner paying property taxes and foreclosing. NTFPs are also vital livelihood sources for forest workers and harvesters in the Pacific West.

- ***Maximizing value and branding of locally produced forest products from sustainable forests.*** Despite the relative lack and predictability of certified forest products markets, there are numerous niche market opportunities for wood products derived from CBF projects. Architects and builders interested in “green” construction are increasingly looking to wood that comes from sustainably managed and harvested forests, as are other consumers of wood products. Together with a new appreciation for local, fair-labor production, this has the potential to be a viable economic opportunity for communities and limited-resource landowners which, in turn, would generate re-investment back into the forests and communities.

- ***Opportunities to strengthen community ties to each other and the forest.*** In many forest communities, government policies, agency procedures, political organizations, and forest products industries and markets have kept community members apart from one another and from the forest. There have been few incentives for community members to collaborate; on the contrary, community members had every incentive to oppose one another given the available policy, procedural, and legal tools to challenge proposed projects and decisions. The dominant model of timber-focused forest management advanced by government and industry has limited opportunities for forest workers and landowners to harvest other non-timber benefits from forests. With the decline in government and industry presence in forests and forest communities, community members themselves can create and take advantage of their own forest management models and opportunities.

- ***CBF as a bipartisan “bridging” solution.*** Restoring forest ecosystems, sustaining diverse community economies, and facilitating fair, equitable decision-making and distribution of benefits are not “Red State” or “Blue State” values. In western Colorado, for example, the Public Lands Partnership counts in its membership a conservative Republican county commissioner and a Green Party county commissioner. Oregon Senator Ron Wyden (D) frequently joins Senator Gordon Smith (R) in sponsoring listening sessions for CBF issues and forestry legislation crafted in part by CBF groups. The Collaborative Forest Restoration Program initially sponsored by New Mexico Senator Jeff Bingaman (D) in 2000 may be expanded to Arizona thanks to Arizona Representative Rick Renzi (R).

Challenges

Despite the opportunities for CBF as an alternative approach to achieving sustainable forests and communities, there are a number of obstacles:

• ***Geographic, political, economic, and cultural isolation of communities.*** Rural communities generally lag behind urban communities in terms of economic opportunities and political influence (Duncan 1999; Tickamyer and Duncan 1990). Distance to markets often put rural forest-based communities at a competitive disadvantage for natural resource products. The low population means that there is not a large enough political constituency to warrant the attention of policy-makers. African-American landowners and Hispanic and Southeast Asian forest workers and harvesters are further isolated from economic and political institutions due to past and present legacies of racial discrimination and due to language and cultural barriers. Community leaders and entrepreneurs in small, rural communities are typically overextended – the same ten or twenty community leaders are involved in civic affairs, from serving on the school board to participating in a landowner cooperative. Many CBF efforts are created by a charismatic, visionary leader and have very small operating staffs; some operate on volunteer labor only. Such efforts may be one charismatic leader away from folding.

• ***Lack of legitimacy among established institutions.*** CBF efforts have been characterized as being “boutique,” operating at fairly small geographic scales and with largely symbolic effect. Established forestry institutions like the US Forest Service, state forestry agencies, and even universities place a higher value on scientific and technical expertise over the knowledge and experiences of local people. Even as CBF groups gain sophistication and network with these institutions, rural communities and limited-resource landowners still have difficulty accessing the knowledge and financial resources that would enable them to access and derive benefits from forest assets.

• ***Unstable policy and agency operating environment.*** The policy arena can change every 2 to 4 years due to elections. These changes can produce policy shifts, such as the back-and-forth over Bill Clinton’s roadless area rule. Even annual budgetary appropriations to federal and state agencies can be unpredictable, leading to projects that are started but not often finished due to lack of funding and personnel. On top of this, agency personnel, particularly in the US Forest Service, rotate every 2 to 5 years. Established relationships and understandings are lost and CBF groups have to try to re-establish relationships and understandings all over again with new personnel.

• ***Suspicion about rural people’s commitment to environmental stewardship.*** Rural people and communities are often viewed, especially by national environmental organizations, as exploiters of land and resources for short-term economic gain rather than innovators of ideas and practices of ecologically-sound forest stewardship. The so-called “Sagebrush Rebellion” in the early-1980’s and the Wise Use Movement of the mid-1990’s in the Western U.S. contributed to this perception (Echeverria 1995), although the underlying message of the Wise Use Movement was that the current federal policy and agency system for managing public lands was not working for many people and communities. National environmental groups are especially resistant to CBF efforts on federal lands, contending that it unfairly and illegally favors local influence over national constituencies (Coggins 1999; McCloskey 1999).

- ***Societal culture that values individual property rights vs. common good.*** CBF is based on the premise of collective social action to achieve a common good that can not be achieved through the market or by individuals acting alone. There is a pervasive social conservatism, especially in rural areas, that is antithetical to this collectivist premise (Mann 2006). Organizing small private landowners to collaborate for habitat management or develop a marketing cooperative can face resistance until individuals see how such actions benefit them directly.

- ***The fast pace of demographic changes in rural communities.*** There are increasing pressures for land development resulting from in-migration of people from urban areas into rural communities seeking recreational and leisure amenities only found in undeveloped landscapes (Johnson 2006). Because these “amenity migrants” are generally wealthy, forest land becomes worth more as residential subdivisions than as undeveloped land. As forest land converts to such developments and as land prices increase, no-trespassing signs go up, and long-time residents can no longer afford housing or property taxes. This unequal distribution of wealth further distances communities, workers, and landowners from the land. In addition, the ecological impacts of fragmented landscapes are habitat and species loss and increased fire risk.

- ***The slow pace of measurable ecological impact of CBF projects.*** The ecological impacts of CBF projects may not be seen or measurable for many years. CBF may not be able to prove its large-scale ecological value to those who might demand such proof, such as federal agencies and environmental organizations.

- ***Lack of sustained investment in rural landscapes and communities.*** Public and private sector investments into rural landscapes and communities lag far behind urban areas. According to one report, between 1994 and 2001, the federal government spent two to five times as much on urban than rural community development on a per capita basis, equating to a \$14.1 billion annual rural community capacity disadvantage (National Rural Network 2006). The USFS budget from 1991 to 2006 has remained stagnant and conservation provisions of the Farm Bill have been chronically under-funded (Cain and Lovejoy 2004). The Economic Action Program, one of the key federal investments to instigate the CBF movement in the U.S., experienced a steady decline in Congressional appropriations (except for a brief three-year period from 2001-2003 to administer Community Assistance funds under the National Fire Plan) and was finally eliminated in 2006 (see Figure 3). As rural economies have transitioned from agriculture and natural resource production to services and amenities, rural communities have not been successful in capturing the economic production of these new sectors (Whitener 2006).

- ***Stable, predictable programmatic funding is lacking.*** CBF groups require long-term investments to sustain efforts towards social change. With the exception of the Ford Foundation, private financial sources have been scarce. The federal government has funded two CBF-related programs, the Four Corners Sustainable Forestry Partnership 1998-2003 and the Collaborative Forest Restoration Program 2000-2005, but federal financial assistance for

CBF has been minimal. Local governments support CBF efforts but only in isolated circumstances.

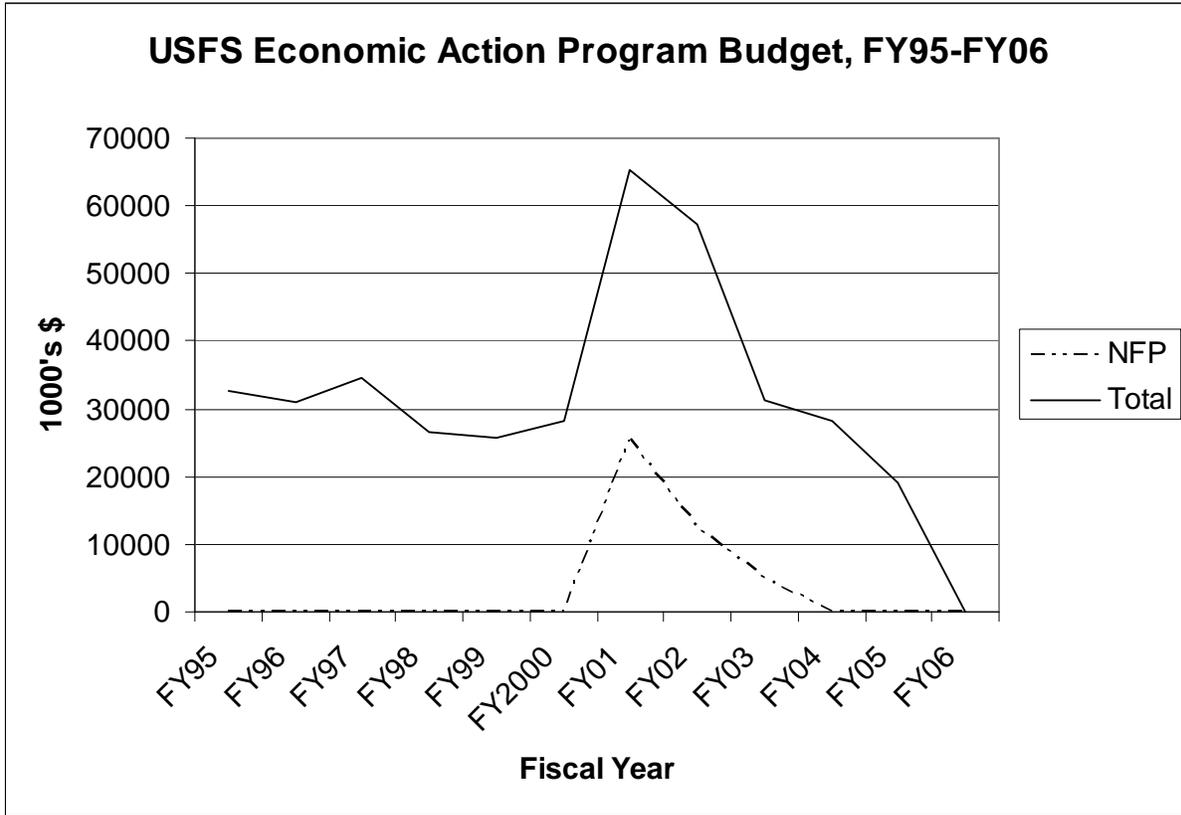


Figure 3. USDA Forest Service Economic Action Program Budget, FY1995-FY2006, including Community Assistance funds from the National Fire Plan (NFP) (USDA Forest Service, Cooperative Forestry Program)

C. Project history and setting: The Ford Community-Based Forestry Demonstration Program

From 2000 to 2005, the Ford Foundation invested in 13 CBF groups throughout the U.S. to demonstrate how CBF methods, using collaboration and partnerships, served as alternative approaches to forest management, community development, and conflict management. The 13 Implementing Partners (IPs) are:

- Alliance for Forest Workers and Harvesters based in Willow Creek, California but working with members throughout California, Oregon, and Washington
- DC Greenworks in Washington, D.C.
- Federation of Southern Cooperatives/Landowners Assistance Fund in Epes, Alabama
- Healthy Forests, Healthy Communities, a program of Sustainable Northwest in Portland, Oregon but working with a network of small value-added producers in Northern California, Oregon, and Washington
- Jobs and Biodiversity Coalition in Silver City, New Mexico
- Makah Tribal Forestry in Neah Bay, Washington
- North Quabbin Woods, a program of the New England Forestry Foundation based in Orange, Massachusetts
- Penn Center in St. Helena Island, South Carolina
- Public Lands Partnership in Western Colorado
- Rural Action in Trimble, Ohio
- Vermont Family Forests Partnership, a joint venture between Vermont Family Forests, the National Wildlife Federation, and the Vermont Sustainable Jobs Fund
- Wallowa Resources in Enterprise, Oregon
- Watershed Research and Training Center in Hayfork, California

The Demonstration Program was based on the hypotheses that CBF could:

- Improve livelihoods and revive rural communities and economies
- Restore and maintain healthy ecosystems
- Reduce polarization and conflict over forest management and establish new grounds for debate

The Managing Partner, the Aspen Institute, provided continual technical assistance, organizational consulting, and critical feedback to the IPs throughout the 5-year program. Throughout the program, the Aspen Institute made sure that the IPs met frequently to network, share experiences, learn from one another, and receive training on a variety of topics pertaining to their practice.

The emphasis on learning extended to including a research component. A research team from the Institute for Policy Research and Evaluation at the Pennsylvania State University was contracted to develop and conduct a research program, but ended its involvement in 2002. The research component was reconstituted in 2004 at Colorado State University to embody a more participatory research approach that involved the IPs as partners in defining and

interpreting the research. See Appendix A for a list of the research team and the Extended Research Advisory Team.

The Demonstration Program ended in September 2005 with a conference in Washington, D.C. that drew an audience composed of federal agency representatives, congressional staff, and a variety of non-governmental organizations. All told, the Ford Foundation invested approximately \$15 million in the Demonstration Program, with funds not only going to the IPs, but also to the Managing Partner and the research partners.

D. Research themes and methods

“While the time frame, scale, and selection of projects were not well suited to answering outcomes-oriented research questions that were originally posed [by the Implementing Partners], they were quite appropriate for answering process-oriented questions and case study analyses” (*Growth Rings*, pp. 180-181).

The starting point for this research is that CBF groups are bridging gaps in forest management and communities’ capacities to create and take advantage of opportunities. These gaps have been caused in large part by distant political and economic forces. This gap-bridging function can be depicted in graphical form as an organizing framework for understanding the roles and functions of CBF groups (Figure 4). The gaps in forest management and communities’ capacities are due to macro-economic and -political forces, forest ecosystem conditions, and the condition of local community assets and capacities. CBF groups implement a diversity of processes and strategies to bridge those gaps. The intended outcomes are policies and markets that enable community members to access and capture benefits from forests, forest ecosystems to provide goods and services to local communities and society at large, and individuals and families to enjoy a stable livelihood working in the forests.

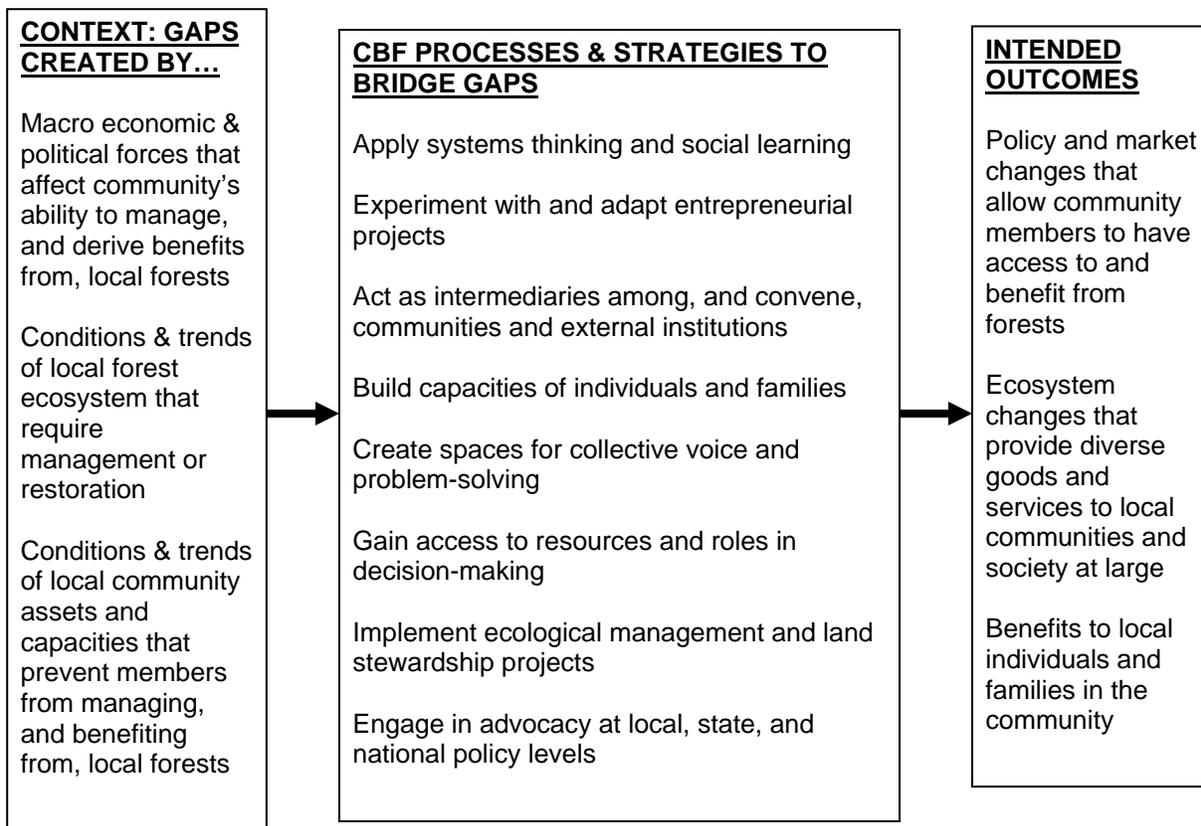


Figure 4. An organizing framework for understanding the roles and functions of community-based forestry groups in the Community-Based Forestry Demonstration Program

The research agenda was shaped through an iterative dialogue between the IPs and the research team. An initial list of potential research themes was put forth by the IPs in April 2003. The research team synthesized this list according to their own expertise and experiences, and exchanged ideas with IPs on two occasions in 2004 to hone in on the research agenda. This research component primarily focuses on the middle box in Figure 1, the “processes and strategies CBF groups use to bridge gaps” between forests and communities.

The research was organized around the following general questions:

- What organizational structures, styles, and strategies have been particularly effective in helping CBF groups bridge gaps in forest management and communities’ capacities? What does it mean to institutionalize CBF? (Broussard, Cheng, Daniels, and Danks)
- What are the roles of ecological knowledge, monitoring, and stewardship in community-based forestry? (Ballard, Fernandez-Gimenez, and Sturtevant)
- Does CBF help community members’ capacity to create and take advantage of new opportunities? If so, how? (Sturtevant)
- Does CBF change people’s access to resources, roles in decision-making, and the benefits they receive from forest use? If so, how? How do these changes shape *who* benefits? (McDermott)
- How does CBF affect the well-being of the communities with which they work, especially the full social costs and benefits of CBF efforts? (Seidl)

With only a 2 year research window (Fall 2004-Summer 2006), it was not possible for the research team to work with all IPs to track and document all processes, strategies, and outcomes. Instead, Implementing Partners self-selected to participate as partners in the research. Eight IPs expressed interest and worked in partnership with the following researchers:

- Alliance for Forest Workers and Harvesters (AFWH) – research visits by Sturtevant
- Federation of Southern Cooperatives (FSC)– research visits by Broussard, Fernandez-Gimenez, McDermott, and Sturtevant
- Healthy Forests Healthy Communities – research visits by Danks
- Jobs and Biodiversity Coalition (JBC) – research visits or contacts by Ballard, Fernandez-Gimenez, and McDermott
- Public Lands Partnership (PLP) – research visits by Cheng, Fernandez-Gimenez, and Seidl
- Wallowa Resources – research visits by Ballard, Cheng, Danks, Fernandez-Gimenez, Seidl, & Sturtevant

- Watershed Research and Training Center (Watershed Center) – research visits by Ballard, Danks, Fernandez-Gimenez, & Sturtevant
- Vermont Family Forests Partnership (VFFP) – research visits by Danks, Fernandez-Gimenez, & Sturtevant

In addition, in-person and phone interviews were conducted with staff of Rural Action by Shorna Broussard. Research methods used by the team included:

- Content analysis and synthesis of documents from the Ford Community-Based Forestry Demonstration Program, including the site assessments, progress reports, and materials available from the IPs
- Review of the literature on community-based resource management theory and practice
- Interviews with individuals directly involved with the IPs as well as with individuals who directly and indirectly affect or are affected by the group
- Participation in IP meetings and events
- Workshops or focus groups, depending on needs and interests of IPs
- Key informant interviews to assess where and how joint knowledge is being developed
- Field tours to treated forest stands
- Statistical analysis of financial data
- Dialogue regarding results; iterative feedback on joint project findings

Throughout its involvement, the research team was committed to the spirit of participatory research, in which research participants help to shape the research agenda and participate in all phases of the research process to the extent that they are interested and able. Research participants share ownership in the results, which can be applied to benefit and improve their status and efforts. The research team had two opportunities to share tentative research findings and generate shared interpretations and new questions with the IPs collectively. The first was in September 2005 at the final workshop of the demonstration program. The second opportunity was in May 2006, when the research team convened a “ground-truthing” workshop with 14 individuals from selected Implementing Partners and the Aspen Institute. At the 3-day workshop, everyone in attendance was a researcher, jointly examining findings, uncovering new interpretations, and critiquing. For many of the practitioners, it was the first time they had been invited to a workshop and treated like a co-researcher, not a research subject. Similarly, this was the first time for many of the researchers to work with practitioners as co-researchers. The workshop provided a springboard for the final round of analyses that are presented in this report.

The research team also interacted with the Extended Research Advisory Team composed of individuals working across the U.S. in diverse organizations and on different facets of CBF. In September 2005, the research team presented preliminary findings to the ERAT and the Implementing Partners in the wrap-up conference for the Demonstration Program. The research team received invaluable feedback that confirmed the team’s research approach and its preliminary findings, and raised new questions to explore.

E. Analysis of themes

By taking an interdisciplinary approach to examining the processes, strategies, and outcomes of IPs to bridge gaps, the research team was able to apply different analytical “lenses” to the diverse, complex activities in which IPs engage. Presented here is a brief synthesis of findings and implications for each of the research questions. More in-depth discussion can be found in the appendices.

Institutional analysis of community-based forestry: Organizational structure, operational styles, and strategies

Background

Since the first appearance of CBF efforts around the U.S. in the early 1990’s, CBF groups have gained experience, adapted strategies, and built an institutional presence in the landscapes and communities in which they work. This, in turn, has fostered a growing interest in the role of CBF in bridging gaps in forest stewardship and communities’ capacities, especially in light of the declining capacity of government agencies to meet these needs and the increasing cost-competitiveness of the forestry sector due to globalization. This research project seeks to examine the institutionalization of CBF in order to gain a better understanding of who CBF groups are and what they do and don’t do to bridge gaps. Gaining such an understanding can shed light on how and where CBF can “scale up” and have broader impact. By scaling up, we mean the process by which individuals and groups interested in CBF can learn from one another in order to determine which organizational structures, styles, and strategies can contribute more sustainable CBF practices in their own contexts (Carter and Currie-Alder 2006). The IPs provide excellent sources of experiences from which other efforts can learn.

This institutional analysis of CBF stems from the question: “What does it mean to institutionalize community-based forestry?” By institutionalization, we mean giving permanence to certain modes of behavior in a particular context. To answer this broad question, we proposed three related sub-questions:

- What accounts for the diverse organizational structure, operational styles, and strategies across CBF groups?
- What organizational structure, operational styles, and strategies have been most effective under what conditions?
- What are the tensions facing the institutionalization of CBF efforts?

Methods and Partners

The IPs participating in this institutional analysis included: the Federation of Southern Cooperatives, the Public Lands Partnership, Rural Action, Sustainable Northwest’s Healthy Forests Healthy Communities program, Vermont Family Forests Partnership, Wallowa

Resources, and the Watershed Research and Training Center. We also drew on secondary information from all 13 IPs participating in the Ford CBFDP. From 2004 to 2006, data and information was collected from a variety of sources:

- Annual reports and other documentation submitted to the Ford Foundation 2000-2004 by all 13 IPs.
- “Lessons Learned” synthesis of all 13 IPs compiled by the Aspen Institute in 2004
- Site assessments of all 13 IPs developed 2004-2005 by the Aspen Institute
- Financial information about leveraged funds from all 13 IPs
- *Growth Rings* publication by the Aspen Institute
- Semi-structured interviews of key informants – organizational staff or primary participants, board members (when applicable), and partners working with the 7 IPs partnering in this research theme. Interviews were recorded and transcribed.
- Synthesis of literature on community-based natural resource management as well as other sectors of community-based social change to uncover common patterns of organizational structure, operational styles, and strategies found across different contexts.

Findings and Interpretation

“At the crude level, it’s always about the natural resource-based economy. But at a more personal level, it’s about maintaining family ties, traditions, working relationships with this landscape. And, therefore, from an organizational values standpoint, we believe that part of [this organization’s] future is still very much tied to the natural resource-based sector. But, it’s got to be more diversified, it’s got to be more innovative.” IP staff member.

“We’re basically just trying to figure out a way that people who live here can make a living and put the resources to work. And not lose sight of the fact that we want to have resources twenty, fifty, years down the road for the children who want to live here.” IP board member.

Presented below is synthesis of key findings from our collective research efforts; it captures the key take-home lessons we feel can help scale up CBF in the U.S. More detailed analyses of key informant interviews and secondary information are found in Appendix A. We cover four topics: explaining differences in organizational structure; identifying key operational styles; describing general categories of strategies; and examining tensions in institutionalizing CBF.

Organizational Structure

Below is a typology of CBF organizations from *Growth Rings* (p. 145) that captures the diversity of organizational structures found among the 13 IPs.

Organizational structure	Examples
Incorporated community-based non-profit	• DC Greenworks

organization	<ul style="list-style-type: none"> • Wallowa Resources • Watershed Research & Training Center
Program within a larger non-profit organization with non-CBF-specific mission	<ul style="list-style-type: none"> • Federation for Southern Cooperatives/Landowner Assistance Fund • Healthy Forests Healthy Communities/Sustainable Northwest • Makah Tribal Forestry • North Quabbin Woods/New England Forestry Foundation • Penn Center • Rural Action
Partnership among existing non-profit, non-governmental organizations	<ul style="list-style-type: none"> • Vermont Family Forests Partnership • Jobs & Biodiversity Coalition
Unincorporated organization	<ul style="list-style-type: none"> • Alliance of Forest Workers and Harvesters • Public Lands Partnership

Each IP’s organizational structure is a function of the strategies it chooses to achieve desired changes. In turn, these strategies are directly in response to the context-specific needs in the community and the forests. However, a common thread across the IPs that partnered in the research is a concern over the loss of opportunities for young people, resulting in “youth flight” and the subsequent loss of family histories and traditions tied to the land. Three other major factors appear to influence the choice a CBF group’s organizational structure. The first is the presence (or absence) of existing organizations or institutional arrangements that focus on improving the specific community and forest conditions. This ranges from no organizations in a community or region to meet specific needs (AFWH, DCG, HFHC/SNW, Makah, WRTC, Wallowa Resources), to a broad regional organization but no community-based forestry focus (FSC/LAF, NQW/NEFF, Penn Center, Rural Action), to a tapestry of groups and organizations, but no one group that covers all the bases (JBC, PLP, VFFP).

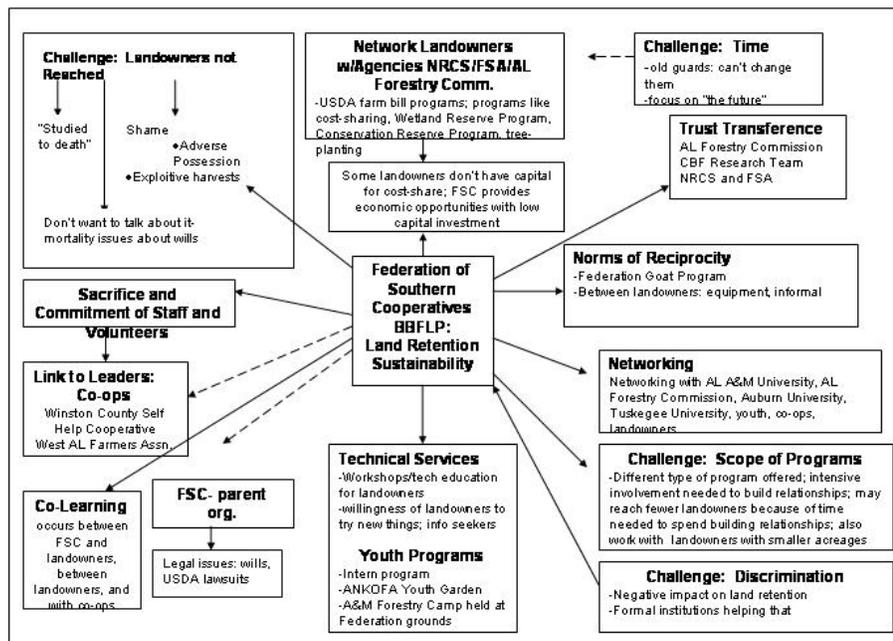
The second is the key participants’ (board members, executive director, staff, partners) core values and beliefs regarding the appropriate styles and approaches. In general, IP staff, board members, and partners are proponents of building capacity of their target groups to take control of their own circumstances and take advantage of pathways to opportunities, rather than outright telling them what to do through prescriptive programs. As a result, IPs are typically “flat” organizationally – authority and responsibility is broadly delegated across staff or partners, and the organizational structure is informal. This structure reflects the importance of participatory decision-making within the organization and the need to be engaged in a wide variety projects and activities, each requiring different knowledge sets. The third is the scope and scale the organization is intending to reach. Some IPs focus on a specific area, like Wallowa Resources’ focus on Wallowa County. Other IPs target a specific population, like low-resource African-American forest landowners in the South or forest workers and harvesters in the Pacific West.

These organizational structure factors are generally consistent with the broad research literature on the function and performance of community non-profit, non-governmental organizations. However, our analysis did not demonstrate a strong relationship between organizational structure and impact. In other words, incorporated community-based organizations were not any more or less effective than any of the other IP's organizational structures in affecting the contextual factors that cause the gaps in forest stewardship and community capacity.

Operational Style

The operational style across the IPs is informed by the need to work on many projects and at many levels, from training small operators on non-timber forest product management to influencing state and national policies to improve forest access for local people and workers to conducting regional marketing and branding studies. IP leadership and many staff operate, to varying degrees, as system thinkers and actors, intermediary organizations, and social entrepreneurs. This combination of operational styles is perhaps what makes CBF unique – it is so far afield from what traditional forest-based community development has meant in the past, which was primarily about jobs, wages, and revenue. Its novelty stems from oftentimes dire circumstances. As one IP board member stated, “We stopped managing the forest the old way but a new way didn’t exist. There was nothing in place. We didn’t even have a philosophy to offer. And then there was a lot of fear. People could see that their livelihoods or way of life was gone and no direction of what was coming next.”

In order to meet their organizational goals and objectives, all IPs either strategically or accidentally arrived at the need to think and act systemically. That is to say, there is no one simple cause-and-effect model for how and why forests and communities are in bad shape. There is a confluence of forces and factors operating at different levels that require attention. To be effective, IPs work to affect change in many aspects of the system rather than focus on one or two perceived causes. Below is a “system map” of the Federation of Southern Cooperatives which demonstrates the multi-faceted nature of the organization’s work in CBF.



IPs can also be characterized as playing an intermediary role among a wide diversity of individuals, groups, and organizations. In community development, intermediaries mobilize a community's internal assets and gain access to outside resources to enhance the community's own capacity to improve living conditions. Depending on the context-specific need, IPs have intermediated between the local community and external organizations in three general areas of need:

- Resources – Pooling and leveraging financial and technical resources that can help initiate a project or move a project to the next level.
- Capacity – Tapping into expertise and knowledge systems in agencies, universities, or other non-governmental organizations that provide community members the tools and skills to find work, become more effective stewards, and reap benefits from their work.
- Communication – Facilitating dialogue and information exchange among individuals, groups, and organizations that would otherwise not talk to one another, or infrequently communicate.

According to data collected by the Aspen Institute indicate that the 13 IPs leveraged approximately \$12.5 million over the 5 years of the CBDFP, with \$1.7 million going to salaries, \$6.0 million going to “soft infrastructure” (i.e., marketing, staff training, community training, and office expenses), and \$4.8 million going to implementation functions, such as contractors, equipment, and production materials.

Lastly, many IPs behave very much like social entrepreneurs. By definition, social entrepreneurs contribute to the welfare or well-being of a human community by taking financial risks traditional institutions would not take (i.e., banks) and initiating innovative commercially-viable, for-profit ventures that generate economic opportunities and/or allocate a portion of revenues that serve social purposes. FSC's goat meat demonstration project is an example of a CBF group taking risks and coming up with novel ways for low-resource landowners to diversify their income sources. In a different vein, Wallowa Resources developed a limited liability for-profit subsidiary to raise capital for a post-and-pole plant to utilize small-diameter timber from forest management treatments. The entrepreneurial style of IPs in general is further explored in the “Cross-Cutting Themes” section.

PLP provides an instructive example of integrating operating styles. PLP supplements the planning and implementation work of agencies through conflict management, monitoring social, economic, and ecological impacts of projects, and pooling resources in ways that gets work done on the ground more quickly and that contributes financial benefits to local contractors and business.

Strategies

Key informant interviews and secondary information confirm that, consistent with the systems-based, entrepreneurial style of IPs, three tiers of strategies are used to achieve IPs

goals. The first tier involves education, outreach, networking, and partnership-building. This is consistent with the broader field of community-based social action, such as educational reform, public health, and housing. These strategies work in tandem to achieve two outcomes. One outcome is the enhancement of “horizontal linkages” so that people in the community can learn from one another and about issues that affect all of them. The second outcome is the forging of “vertical linkages” that make people, expertise, and organizational resources outside the community work for the community.

The second tier of strategies is intended to build trust and credibility among the individuals and organizations IPs work with, either in providing assistance or collaborating on projects. These strategies include developing sustained funding or investment mechanisms to make CBF economically viable, conducting or partnering in research, incubating spin-off groups and projects, convening forums for open community dialogue, and managing and implementing projects. These strategies ensure that IPs are not only collaborative and transparent in their dialogue, but are also committed to action backed by research.

The third tier of strategies are capacity-building activities targeted to specific contexts and individuals or groups, such as job training, business incubation and facilitation, workshops, and demo projects. These strategies are intended to be hands-on and allow beneficiaries to adopt and own new approaches themselves. IPs also facilitate dialogue to address needed policy changes either at the local or national levels in order to meet specific needs.

How effective are these strategies? Looking across the IPs, the strategies are mostly directed at addressing conditions and trends in local forests and local community capacity. Community members and landowners are receiving trainings and technical assistance, as well as participating in demonstration projects and peer-learning networks that they did not have access to prior to the IPs taking action. While IPs are implementing strategies to affect macro-economic and –political forces, the effect is limited and variable. Community-friendly policies affecting public lands CBF efforts have been enacted in recent years. However, many federal government policies, procedures, and processes remain barriers. Cultural barriers such as racism and class discrimination by government agencies persist for limited-resource landowners and forest workers and harvesters. Market impact has also been limited. IPs with explicit for-profit enterprises make slow progress and face many setbacks, such as HFHC, FSC, VFFP, and Wallowa Resources. There is still hope and promise that market niches exist for value-added products and services, but tapping into them and sustaining those enterprises remains a challenge.

Challenges

Institutionalizing CBF has faced challenges relating to national and state forest policies, government agency functioning, economic forces, community change, and the organizations themselves. In the interest of space, we will focus on this last set of challenges – the organizations themselves.

Several IPs began as temporary stop-gap measures to halt declining community social conditions due to massive transformations in forest policies and management approaches.

However, after existing for over decade and being a part of many changes, many IPs are taking on a permanence as exhibited by their organizational structures, styles, and strategies. Even with the varying degrees of institutionalization, all IPs are organizations with small staffs – sometimes one person – or rely on volunteers to meet many pressing issues. IPs constantly struggle to address many important issues with limited resources.

As with any organization, there are tensions inherent to organizational change with the IPs, such as evolving in a way that is consistent with the organization's mission but is effectively addressing changing needs. As IPs have expanded their functions, it is often necessary to shift gears or delegate to staff, if there are any, to respond quickly to opportunities. Key informants have noted this tension. On the one hand, being opportunistic allows the organization to be effective and demonstrate success to skeptics. On the other hand, quick responses can come at the expense of maintaining participatory, inclusive dialogue among diverse individuals and groups to craft more strategic directions. Furthermore, the tendency and temptation to be opportunistic has caused key informants in many IPs to observe an occasional lack of focus and internal program direction. Pro-active strategic planning, a clear mission, and an attentive board of directors can keep the organization on track. Nevertheless, there is a tendency to address unmet needs, especially if the IP is the only organization of its kind.

The institutionalization of CBF efforts has also raised important issues about how to stay faithful to core organizational mission in an effort to “go to scale.” Several of the IPs have been operating for 10-15 years. They are clearly no longer pilot programs confined to a limited scope of work. They have created many spin-off groups and projects, and some have even created for-profit enterprises. However, as each of these spin-offs take on lives of their own, there can be tensions between the mission and direction taken by the parent organization and the spin-offs. The working relationship between these entities can become unclear and may lead to strained relationships. How a non-profit organization or partnership deals with the business end of timber supply issues and marketing has been especially challenging with the risk of making promises to landowners, operators, businesses, and customers the organization can't keep.

Lastly, community organizations, even those with paid staff and a board of directors, struggle with sustaining a community's interest. According to one key informant, “People need to know they're part of something that is groundbreaking and new, but it's not necessarily really clear where it's going to go. It takes time and energy to keep them engaged. Otherwise, they'll slide away. It's easy to blow out that little flame.” In isolated communities, there are only so many active participants and volunteers to go around. Meeting burn-out is a common affliction. Institutionalizing CBF has raised concerns over the long-term sustainability of such intensive community efforts.

Implications

Our institutional analysis of the IPs provides evidence that CBF is gaining a permanent presence, but that this presence is variable and quite tenuous across IPs, especially those IPs with a staff of one or two individuals and with limited capacity to work at a systems level. Despite taking collaborative, partnership-building approaches and implementing well-designed strategies, many IPs, even ones that seemingly have experienced success thus far, struggle to maintain effective organizational structures, styles, and strategies in the face of constant changes. In turn, their impacts are primarily at the local ecosystem and community scale, rather than at the macro-economic and –policy scales. Many of these challenges are due to policy and economic forces that are resistant (but not impenetrable) to bottom-up efforts; others are due to factors inherent to small community-based organizations working to achieve a common good in the absence of any other alternatives.

The IPs in particular, and CBF groups in general, operate outside conventional institutional “boxes” to bridge gaps. They can be characterized as serving combined intermediary-convening-enabling (ICE) roles. IPs’ organizational structures, styles, and strategies bear some resemblance to community-based organizations in education, health care, and housing, but the ecological dimension makes them unique in the community development world. There is nothing close to the IPs in forestry and natural resource management; there are no alternatives to CBF and the ICE roles they take for many isolated communities where forests are the community’s primary assets. In short, the institutionalization of CBF as reflected in the IPs exposes a latent demand for organizations making connections that no one else is making – that forestry work is a form of social action that can improve people’s lives, and that a community’s capacity for skilled land stewardship is an ecological and social asset.

How does CBF generate benefits? Expanding community decision-spaces, resource access and equity

Introduction

Community-based forestry aims to make a difference in peoples’ lives. Through CBF, local people seek to improve the health of their communities and of the forests that surround them by bridging gaps in forest stewardship and communities’ opportunities. In order to do that, they must first find a way to expand their *decision-space*, that is, opportunities to develop a collective voice and make it heard in decisions about how forests are managed, about the future of their communities, and about the links between them. They must also gain sustained access to the resources they need to achieve their environmental goals and to benefit from the forest. Where most of the forest is under public or industrial forest ownership, they must gain access to the forest itself. In public and private lands alike, access to a wider array of resources is crucial, including such assets as capital, information, jobs, training, technical assistance, and market links. Benefits from CBF will primarily flow to those within the community who have gained access to resources and new roles in decision-making. However, even those benefits that accrue principally to a limited set of individuals and families exert multiplier effects on the local economy, and, crucially, can enable households to stay in de-populating rural areas. Other benefits redound to the wider (although not

necessarily entire) community: such as social networks, organizational capacity, ecosystem services, and an atmosphere of conflict giving way to one of collaboration and hope.

The purpose of this investigation is to examine how CBF can bridge gaps in community members' access to resource and voice in decision-making, and what this means for the distribution of the benefits it generates.

An alternative framework for CBF

While this investigation⁴ began by asking “*who* benefits from CBF?,” it soon became clear it was necessary to examine first, “*how* does CBF generate benefits?” in order to explain the distribution of these benefits among individuals, families and communities. Another way of stating this is “how does CBF bring about social change⁵?”

The framework developed in response, and applied briefly below to several cases, contrasts in significant ways with a prominent model of CBF that stresses the balance among its social, ecological and economic components. Widely cited in the literature on community development, it has been termed the “triple bottom line,” or “three-legged stool.” It has been persuasively articulated in the analysis of lessons learned from the Community-Based Forestry Demonstration Program (CBDFP) presented in *Growth Rings: Communities and Trees* (Aspen Institute, 2005: 3):

Community-based forestry derives its fundamental strength and versatility via a three-pronged working framework that honors the mutual interdependence of forest and human communities. Within that framework, each component strategy of community-based forestry – social, ecological and economic – is considered to be equally important.

With the proviso that the balance among the three “legs” be construed as dynamic and adaptive, the “three-legged stool” is the model of the CBF *ideal* as advanced in *Growth Rings*, and indeed in the original call for proposals put out by the Ford Foundation. Embracing this model would suggest the yardstick against which the thirteen project pilot sites should be measured — to what degree did they simultaneously advance these three, integrated goals?

⁴This research is based on documents detailing the experience of the 13 sites participating in the Ford Foundation's Community-based Forestry Demonstration Program (CBFDP), the wider literature, a rich conversation among participants and other researchers in workshop settings, and intensive, ethnographic field research at two of those sites (the Jobs and Biodiversity Coalition, NM and the Federation of Southern Cooperatives, AL). The theory and two case studies are presented in more detail in Appendix C.

⁵ Here ‘benefits’ include anything that is perceived by some of those affected as an improvement in their own lives, or in the condition of anything that they value (e.g., their community, the forest). Not everyone affected will perceive a given ‘social change’ (a broader term) as a benefit – there will be some who have compromised, and others may be worse off. However, no benefits (our focus in this section) can be generated without social change occurring.

In fact, an examination of the record of IPs finds that a number of the initiatives do not match up well to the “three-legged stool.” In that sense, they stretch the boundaries of what is defined by the Ford program as constituting community-based forestry. Yet, a view through the lens of the alternative framework validates much in the performance of these cases, brings into focus different strengths, and suggests a more expansive notion of the definition of CBF.

Rather than characterizing the *outcomes* of CBF (social, ecological or economic), the alternative framework examines the *causes*, or mechanisms through which it acts, asserting that CBF initiatives will bring about social change (and potentially generate benefits), when they shift:

- 1) who has a role in making what decisions about forest management and community development (expanding decision-spaces),
- 2) who gets access to what resources (e.g., forest, capital, knowledge), and, as a consequence,
- 3) who benefits.

While the interpretation of the “access” element of this framework is straightforward, the notion of “decision-space” requires further discussion. “Decision-space” is defined as a concept with two major aspects: power and process. The first refers to the scope or range of decisions that individuals and local organizations participate in making, as well as the range of possible options they have the opportunity to advance. A number of the IPs have found ways to move past deadlock over environmental conflicts and governmental inaction by entering into collaborative processes with federal land-management agencies and others – first proving the success of this approach at the local level, and then successfully advocating for its wider adoption and, in some instances, institutionalization at the policy level. As a result, the voices of CBF groups and rural community members (including those not associated with, or even opposed to, them) are increasingly shaping resource management decisions on public lands and public policy affecting private lands. Moreover, these voices are not just advocating positions, they are “weaving our own information” -- local knowledge about resources as well as innovative solutions, into the decision-making process. Thus, CBF is not just pragmatically solving local problems, but finding that effecting institutional and structural change is necessary to get anything done.

This first aspect of decision-space is thus about finding *power*, and finding new ways to share power. Where this requires system change, CBF groups have been part of bringing that transformation about. In the words of one IP leader,

The people most affected are often the least involved in terms of control and input. Step one is figuring out, or being educated as to what affects your life, and step two is how to gain control of this.... In this movement we’ve seen a huge shift in ten years -- from no voice, no consideration, to public action and voice.

However, particularly where CBF constituents are highly marginalized (e.g., African-American landowners, forest workers and harvesters), the emphasis has been not so much on gaining influence in formal arenas, at the proverbial “table,” but in creating their own venues

first to find their voices, and then to develop a collective voice or vision on particular issues. One CBFDP group leader explained from her experience,

When you start from the position of being marginalized or disenfranchised, and this is built into your organization ethic, you start finding other ways, away from the power and control decision-making model, for accessible participation ... What a lot of groups have done is to find other venues appropriate to what is desired from system. If you look at the participation aspect, groups begin affecting decision-making without even being there. Something else is going on.

This is the second aspect of “decision-spaces,” one that was dubbed by IPs as the *process* of “creating space.” This was deemed by one IP leader to be central to the definition of CBF, which is: “the process of creating spaces for inclusive listening and dialogue creating holistic strategies to address community issues.”

Another participant clarified that before a project could make any attempt to tackle forest management decisions *per se*, “Basically the first thing we did ... we organized. While we were organizing, we kept in mind that we wanted to create a space where people have a voice. What comes first is organizing, it’s giving everyone a voice and then you bring them together...You establish the process where everyone can speak up and share ideas.”

The third element of the framework concerns which social groups within the community, differentiated by class, race, ethnicity, gender, age, and other important social markers, have participated in and benefited from CBF. The proposition to be tested holds that *who* has gained access to resources and decision-making influence will *reflect the distribution of power, cultural values and preferences, and racial and ethnic dynamics in the community*. This suggests the further question: are benefits limited to those people? Or do indirect benefits, via economic multiplier effects, ecosystem services, land and population retention, conflict reduction and the like, significantly improve the lot of non-participants? These questions can only be answered empirically in each instance. However, an initial hypothesis would suggest that *those who have a role in making decisions and obtain access to the resources to implement them are more likely to benefit* than those who remain on the sidelines.

An alternative model – Building the CBF House

This framework for understanding community-based forestry holds that its essential foundation lies in the elements of social transformation -- expanded access to resources and decision-spaces for communities. This stands in contrast to the simultaneous and balanced integration of social, economic, and ecological objectives symbolized in the “stool” model. Some feel strongly that the integration of the three objectives is appropriate as an *ideal*, and indeed that it is an essential part of a genuine CBF vision. Regardless of whether this vision is a requisite feature, the alternative framework provides for the possibility that, as a matter of *strategy*, rather than building all three legs of the “stool” simultaneously, a CBF initiative may choose to tackle social, economic, and ecological objectives in sequence over time. One way of depicting the latter approach is as a *house*, in which expanded resource access and

decision-space provides the necessary foundation. Progress on the most valued and/or feasible of the three objectives is then laid down as the ground floor, upon which the achievement of the second objective forms the second floor, with the third objective added last. The rate of progress from one 'floor' to the next is not predictable (and there is often some back-and-forth); reaching the top floor may take longer than, for example, the Ford Foundation's five-year project cycle.

The Social: Equity, Capacity, Resilience, Empowerment

House or stool, floor or leg, the "social" component of community forestry is the most difficult to define. In discussions of the "triple bottom line" in the broader field of community development, it is referred to as the "equity" element. Adopting equity as the standard demands that we ask of community-based forestry, not just "has it made the community better off?," but rather, "has it made the worst-off in the community better off? have the most marginalized participated?" This is a tall order for any social program. No wonder then, that one of the IP leaders expressed the opinion about the CBDFP that "the equity leg was the shortest."

Progress towards this objective begins to seem more feasible and, arguably, community forestry may be found better suited to the task, when the notion of social equity is broadened to that of community capacity, or broader yet, to community resilience. A community's capacity (comprised of its physical resources, individual skills, and collective ability to work together) is an indispensable building block of community-based forestry. It is necessary to pull CBF off, and inevitably must be built up before reaching that point. Applying enhanced community capacity to CBF activities and objectives generates social and economic benefits that have the potential of reducing inequity. Enhanced community capacity helps build more resilient communities, i.e., communities that are better equipped to adapt to shocks and respond to opportunities. As one workshop participant put it, "sustainability... requires sharing resources... peace requires social equity."

Equity – capacity - resilience -- each term serves to illustrate different, yet important and interrelated, aspects of CBF. This section of the report will focus on equity, for several reasons. First, it is clearly part and parcel of addressing the question "who benefits?" Indeed, if, as in the project publication *Growth Rings*, community capacity is designated as the third element of CBF, that begs the question "who within the community has gained that capacity?"

Second, research results provide some support for the hypothesis that, *in order to reduce inequity, community-based organizations must make equity an explicit target*. When equity is subsumed under capacity, marginalized groups are often left out - for example when entrepreneurial opportunity or training is offered to whomever comes forward, with no targeted outreach, extra support, or culturally appropriate adaptation to enable inclusion of disadvantaged populations. A workshop participant made the point forcefully,

Once you get the ecology and economy floors built, you don't naturally progress to the third floor [equity]... yah, it may take longer than the project, but if it's not in the blueprint, not part of the vision, you'll never get there.

What, then, is meant by equity? Can it be achieved by the passive redistribution of benefit towards an “equal” state? Or, does it necessitate *empowerment*, such that the beneficiaries determine what needs will be met and how? This brings us back full circle to decision-spaces and access to resources. In applying this framework, this aspect of equity is considered first, as a foundational issue that precedes the discussion of distributional outcomes.

Applying the framework and model

One workshop participant proposed thinking of the three elements of CBF – ecology, economy, equity -- as *axes* along which progress can be visualized. This makes it easy to understand community-based forestry organizations as occupying a *spectrum* of possible positions mapped in three-dimensions. (Appendix D lays out a “tool”, or process that CBF groups can use that applies the alternative framework to self-analysis and monitoring). Indeed, the thirteen IPs occupy a wide range of positions mapped in this conceptual space.

The two major cases, Jobs and Biodiversity Coalition and the Federation of Southern Cooperative (see Appendix C) are examples of community forestry initiatives that better approximate a ‘house’ under construction than a balanced ‘stool.’ However, both are established on a foundation of gaining enhanced access to resources; the JBC also helped forge a new, collaborative mode of decision-making on public lands. Both have generated a wide range of benefits for their communities and surrounding forests.

For the Federation, emerging in Alabama out of the civil rights movement, advancing social equity is its reason for being. “Creating space” for small-scale, limited resource black farmers to come together and to discover possibilities, while equalizing their access to resources (government services, information, training, marketing), were required steps to make agroforestry-based income diversification and economic development (the ‘second floor’) possible. Economic success, or the prospect of it, may over time build the access to capital as well as the mutual trust, interest and capacity necessary to accomplish sustainable forestry and achieve positive ecological outcomes.

Overcoming a high level of polarization over environmental conflict was necessary for the Jobs and Biodiversity Coalition of southwestern New Mexico to achieve its goal of “low impact forest restoration that yields wood that is used to optimize job creation and economic development.” The coalition’s unstructured, in-group mode of operation and focused priorities enabled it to win the victories necessary to build the crucial foundation and begin on the ‘first floor.’ However, those same features did not suit it to engaging a wider community, Hispanics in particular, nor towards building capacity and working towards equity. Moreover, since equity was not built into the original blueprint of the house, and since barriers of race/ethnicity and culture stand in the way, it is not yet clear how much of the ‘third floor’ will ever be built. This should not, however, cause us to overlook the community-wide benefits realized from the JBC’s major achievements in moving the situation from conflict to collaboration, from a situation in which all access to resources was blocked, to one in which community enterprises are restoring the forest and using the outputs to generate the potential for increased economic activity and employment.

Some groups, such as the Public Lands Partnership and Vermont Family Forests, did not begin with equity as a target, yet later (under pressure from the funder) found unexpected ways to advance in that direction. Other groups, such as Watershed Research and Training Center and Wallowa Resources, are good exemplars of the ‘three-legged stool,’ in that their strategies for benefiting the local community involved integrating capacity-building, economic development, and ecological restoration from day one.

It could be argued that maintaining a commitment to inclusive community, if not holding equity as a goal, is essential to community-based forestry. This commitment is often critical to bridging gaps in the access and decision-spaces of marginalized community members – individuals and families who have historically not participated in or benefited from decisions affecting their local forests. From another perspective, one might ask, ‘how much heavy lifting do we expect CBF to do?’ Must each organization tackle social reform (against major odds), as well as economic development and ecological restoration? Or, is it enough to take a pragmatic approach, to “start from where we are,” build on community strengths and member passions, and seize upon opportunities as they emerge? Is the CBF movement a big tent, encompassing a diversity of groups? Or, does the concurrent integration of social, economic and ecological aims constitute a threshold across which groups must pass to enter?

The community economics of community forestry: A partial analysis of Wallowa Resources, Wallowa County, Oregon

Community Based Forestry (CBF) implies commitment to the long term ecological, economic and social well being of forest dependent communities. CBF, or community scale sustainable forestry, constitutes a departure from industrial forestry due to this commitment to the preservation of the ecological integrity of the forest ecosystem in perpetuity and to the maintenance or improvement in the quality of life in the host or gateway community in addition to seeking profits from forest products sales.

CBF present a substantial analytical challenge. Community forestry organizations (CFOs) may assume a great variety of potential roles in a community. These roles may have direct, indirect and/or induced economic impacts on a community. We employ commonly used regional economic development techniques to highlight the local economic impact of CFO programs by tracing the recent activities of Wallowa Resources, a CFO located in NE Oregon, through its local economy. This approach is at variance with the more common application of the same regional economic tools, as it turns the analysis upside down. Typically, regional economic approaches take a snap shot of an entire economy and then attempt to discern the impact of an individual industry or sector on the entire economy, or from the top down. Here, we begin with CBF programs and derive the impact on the economy from the programs upward. This is only possible due to close collaboration with the CFO as to the inputs, outputs, intended and unintended outcomes of their programs. A more detailed discussion and analysis of the community economics of CBF can be found in Appendix E.

The Economy of Wallowa County, Oregon

Wallowa County occupies two million acres in the northeastern corner of Oregon. The Wallowa Whitman National forest covers nearly ½ of the land within the county. The county currently has a human population of about 7,100 residents, 5,100 over the age of 25 yrs. The county population is growing slowly (0.4% per year), more slowly than the state of Oregon or of the United States more generally. Some 87% of the county population has finished high school and 20% holds a college degree, similar to many other rural counties of the United States. The nearest commercial airport and regional population center is about 1.5-2hrs away. As a result of both its isolated location and the dominance of public lands, the county is culturally and economically highly resource dependent, particularly in forest resources.

The employment and income profile of Wallowa County reflects this natural resource dependence. According to U.S. Bureau of Economic Analysis data (US Bureau of Labor, 2006), as generated by the Economic Profile System (EPS, 2003), the education and health sector is the largest local employer (21%; 593 jobs), followed by agriculture, forestry, fishing, hunting and mining (18%; 512 jobs).

Employment (and, therefore, income) seasonality is a characteristic of natural resource based industries and a challenge for communities with relatively undiversified local economic bases. Wallowa County suffers from both high variation and high average unemployment, resulting in lower average household incomes, relative to the state of Oregon and the nation as a whole. Some 20% of Wallowa's adult population reported earnings below the poverty line in 1999 (EPSc, 2003). Average household income in Wallowa County has increased from \$17,817 in 1970 to \$23,219 in 2003 (in 2003 dollars). Average household income in Oregon and the United States was \$28,734 and \$31,472, respectively (EPS, 2003).

An input-output model of an economy facilitates understanding of the linkages and interdependencies among local economic sectors. A look at the entire Wallowa County economy will help us to later understand the role of Wallowa Resources within the county economy. IMPLAN, a popular input-output based software tool for economic analysis, is used for this part of our analysis.

IMPLAN uses 509 industrial sectors which are based on the North American Industry Classification System (NAICS). These industries can then be aggregated using varying levels of either the NAICS categories or their predecessors, the Standard Industrial Classification (SIC) codes. County level data aggregations and two-digit NAICS codes have been used for this analysis, due to the significant potential for disclosure problems in a relatively undiversified rural economy, as well as for the likely principal level of interest in the activities of Wallowa Resources. For each industry, IMPLAN calculates the total output, employment, total value added and other economic impacts. This allows for a general overview of the economic environment of a region.

Table 1 provides an overview of the Wallowa County economy as generated using IMPLAN. For Wallowa County, total direct industry output, or out of county sales, is about \$300

million, based upon the most recent data available (2002). Agriculture, Forestry, Fishing and Hunting is identified as the most important economic sector in the county, generating some \$73.27 million in industry output (about 25% of the total economy), 962 jobs and more than \$9 million in employee wages and salaries. Government, construction and manufacturing are also important sources of local employment and income, each comprising approximately 14% of the Wallowa County economy in 2002.

IMPLAN also calculates multipliers, or the distribution of economic impact through an economy due to a dollar of sales outside of the economy or the introduction of a dollar of new money to the economy in the form of output, income and employment. Direct economic effects have to do with economic activity directly associated with the production and sales of goods and services. So, the machinery, labor, and fuel required to cut down trees and to make them into pulp, poles, or boards are economic activities directly associated with the production of wood products. Direct economic impacts are multiplied through the economy by means of indirect and induced effects. Indirect effects are local economic activities stimulated by the production of the direct economic activities. So, locally purchased accounting, legal, and transportation services, associated with the sales of wood products are indirect effects of wood production. Induced effects are the economic purchases unassociated with the good produced, but that are generated due to individuals' association with the production process. So, sawyers are paid for their work. They use their salaries to purchase homes and automobiles, to go to the grocery store, and to local restaurants. If the sawyers spend their money locally, there is an induced economic effect of their spending. Money spent on nonlocal goods and services is called leakage.

Type I multipliers are the indirect effects of production processes on local income and employment. Type II multipliers are the indirect plus the induced multipliers. Multipliers increase with the complexity of the goods or services produced (value added), the size and complexity of the locality, and the amount of local purchases in the production process (leakage). As a result, rural economies based upon extraction of raw natural resources tend to demonstrate relatively low multipliers. Including a Type II multiplier of 1.41, the indirect and induced effects of \$299 million in economic output is approximately \$123 million and the size of the Wallowa County economy is an estimated \$422 million.

Table 1. IMPLAN Total Output Summary for Wallowa County, Oregon, 2002

Industry	Industry Output*	Employment	Employee Compensation*	Proprietor Income*	Other Property Income*	Indirect Business Tax*	Total Value Added*
Ag, Forestry, Fish & Hunting	73.271	962	9.105	2.814	16.889	1.759	30.568
Utilities	5.169	13	0.992	0.172	1.963	0.560	3.687
Construction	42.087	342	14.885	3.300	1.638	0.236	20.058
Manufacturing	43.305	255	7.033	4.002	4.059	0.757	15.851
Wholesale Trade	1.632	12	0.585	0.057	0.262	0.277	1.181
Transportation & Warehousing	7.800	97	2.619	0.522	0.353	0.237	3.731
Retail trade	23.904	385	7.289	3.517	3.502	3.658	17.967

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Information	3.956	33	0.771	0.049	0.340	0.094	1.255
Finance & insurance	10.802	82	2.813	0.107	3.973	0.129	7.022
Real estate & rental	3.731	60	0.368	0.250	1.511	0.386	2.515
Professional-scientific & tech services	4.365	85	1.421	1.241	0.455	0.086	3.203
Administrative & waste services	1.722	23	0.467	0.050	0.218	0.049	0.783
Educational services	0.557	14	0.200	0.046	0.049	0.011	0.306
Health & social services	7.615	171	3.277	1.503	0.780	0.074	5.634
Arts-entertainment & recreation	4.379	57	0.525	0.914	0.315	0.209	1.964
Accommodation & food services	8.083	245	2.198	0.352	0.804	0.438	3.791
Other services	11.665	410	4.655	1.630	0.196	0.104	6.585
Government & non NAICs	45.189	491	21.741	0.000	15.372	1.919	39.031
Totals	299.232	3740	80.944	20.528	52.676	10.984	165.132

* millions of dollars.

Our focus here is on estimating the effect of a community based forestry organization on a local economy. Since many CBF activities are likely to directly or indirectly affect the forestry industry, we provide a focused view of the forestry and logging and its associated service sector within the broader agriculture, forestry, fishing and hunting industrial sector (Table 2). In 2002, the Forestry and Logging sectors employed 269 residents and generated a total of \$24.57 million. Proprietors earned \$2.436 million from this sector and industry value added, or profits that can be reinvested locally or externally, totaled some \$8.4 million.

Tables 3 and 4 show the total output and employment impacts after adjusting for multiplier effects. Based upon a local multiplier of 1.88 in the forestry and logging sector and 1.51 in the agriculture and forestry services sector, the total output impact is \$24.571 million. After adjusting for the additional employment generated by the sector the total employment impact was an estimated 535 jobs.

Table 2. Total Output Summary for Forestry and Logging Sectors in Wallowa County, Oregon (IMPLAN), 2002

Industry	Industry Output*	Employment	Employee Compensation*	Proprietor Income*	Other Property Income*	Indirect Business Tax*	Total Value Added*
Forestry & Logging	19.689	83	2.343	2.078	3.725	0.26	8.407
Agriculture and Forestry Services	4.882	186	3.821	0.358	-0.919	0.055	3.31

*millions of dollars

Table 3. Output Multipliers and Total Output Impacts for Wallowa County (IMPLAN)

	Direct Effects	Indirect Effects	Induced Effects	Total	Type II Multiplier	Total Output (\$ millions)
Forestry & Logging	1	0.697	0.184	1.882	1.882	37.049
Ag & Forestry Services	1	0.158	0.348	1.506	1.506	7.351

Table 4. Employment Multipliers and Total Employment Impacts for Wallowa County (IMPLAN)

	Direct Effects	Indirect Effects	Induced Effects	Total	Type II Multiplier	Total Employment
Forestry & Logging	4.211	8.374	3.105	15.690	3.726	309
Ag & Forestry Services	38.101	2.269	5.857	46.227	1.213	226

Wallowa Resources

Wallowa Resources was created as is a non-profit organization in 1996. WR operates primarily as a facilitator of forest-based economic development in Wallowa County, Oregon. Contract and grant funding for the organization have come from both governmental and private agencies. The United States Forest Service, as well as several other government agencies, have contracted WR to provide a variety of services. Private donations made up about 15% of the budget of the organization. W.R. has undertaken a number of projects intended to rejuvenate or restore the ecology of Wallowa County, create employment opportunities for local entrepreneurs and laborers, as well as increase environmental awareness within the community. Wallowa Resources believes that through community forestry, the social, ecological and economic goals of the organization for the community can be realized.

Wallowa Resources has taken on a variety of activities within the county. The activities can be broadly categorized as educational, natural resource management focused field activities, forest product business ventures, program facilitation and organizational administration. WR offers adult education programs to community members and short courses to visiting students from regional universities and other educational programs to local primary and secondary students. These programs include fire training and organic farming for adults and an outdoor learning school and science education for children. The organization is also involved in field work where members of the community can take part in restoration projects or value-added business ventures. While it is difficult to fully capture the economic impact of these programs, input/output modeling can quantify some of the economic effects of the programs within the community.

By using input/output modeling, the direct, indirect and induced impacts of expenditures can be quantified. Wallowa Resources brings in financial resources from a variety of sources and spends them locally across its portfolio of projects. These 40 various activities have been grouped according to approximate function or focus and assigned a North American Industry Classification System (NAICS) code or codes. This code is then used to determine which sector to input the yearly expenditures. For example, the various field and restoration projects

Wallowa manages have been assigned a NAICS code of 92. This sector is described as the administration of conservation programs. From this, the total expenditures can then be input into the model and traced through the economy.

While NAICS codes can be specified to various levels of subsectors, IMPLAN only recognizes sectors to the three-digit level. As a result, the activities have been broadly classified. After using this classification, the aggregated expenditures can then be input into the IMPLAN model. Table 5 illustrates the total impacts of all the expenditures. The top twenty impact sectors are reported here. In total, Wallowa Resources injected \$1,321,910 into the county economy on projects and business operations in 2005. When indirect and induced effects (totaling \$512,659) are accounted for, the total estimated output impact becomes \$1,834,569, or about ½ of one percent of the total county economy. For every dollar that Wallowa Resources brought into the county economy, an estimated additional 28 cents of economic activity was generated in Wallowa County. In 2005, Wallowa Resources had the largest total local economic effect through its administration and management of these substantial external funds. As might be expected, it also had a sizeable effect on the forestry, logging, wood products and associated services and educational services sectors. This same analysis can be performed for employment. WR created or otherwise accounted for about 29 jobs in Wallowa County in 2005, focused in the same sectors as its primary economic impacts.

Table 5. Output Impact of Wallowa Resources Expenditures

Sector Number	Industry Sector	Direct	Indirect	Induced	Total
452	561 Admin support svcs	586,087	10,669	933	597,689
495	92 Government & non NAICS	413,114	14,257	64,486	491,857
112	321 Wood Products	184,506	29,557	405	214,467
18	115 Ag & Forestry Svcs	62,828	7,034	258	70,120
461	611 Educational svcs	67,404	244	1,787	69,436
14	113 Forestry & Logging	7,971	58,264	118	66,353
437	541 Profess.- scientific & tech svc	0	25,016	5,027	30,043
481	722 Food svcs & drinking places	0	6,524	17,351	23,875
430	521 Monetary authorities	0	10,089	11,189	21,278
30	221 Utilities	0	8,265	8,225	16,491
482	811 Repair & maintenance	0	7,343	8,220	15,563
401	441 Motor veh & parts dealers	0	3,875	11,258	15,133
431	531 Real estate	0	9,393	5,413	14,806
394	484 Truck transportation	0	10,319	4,129	14,448
464	621 Ambulatory health care	0	71	14,335	14,406
420	515 Broadcasting	0	8,151	5,629	13,780
1	111 Crop Farming	0	10,344	2,970	13,314
33	230 Construction	0	10,428	1,753	12,180
405	445 food & beverage stores	0	2,841	9,019	11,861
491	813 Religious- grantmaking- & similar	0	3,235	5,968	9,203
Total		1,321,910	280,026	232,633	1,834,569

If each of the groups of activities are broken out, further insights into the relative economic impact of different sorts of CBO programs can be illustrated. In 2005, Wallowa Resources

spent \$586,087 on program administration, which had total impact of \$794,270. These expenditures supported a total of 15.3 jobs within the county in 2005. Each dollar of contract and grant funds brought in by WR and used for program administration activities generates an estimated 36 cents in additional economic activity in the local economy, principally through the purchase of professional and technical services.

Field expenditures are primarily money spent on restoration and stewardship programs. This category is considered to be government and non-NAICS. In general, the government oversees the administration of conservation programs, but because Wallowa Resources acts similar to the government when overseeing these projects (does not derive profit) this is a fitting description. Wallowa Resources spent \$413,114 in 2005 on these projects. This expenditure had a total impact of \$516,729 within the local economy. Field projects directly generated 4.5 jobs and had a total employment impact of supporting 6.2 jobs. However, the estimated spillover or multiplier effects of these activities are considered relatively modest. Each additional dollar spent in this sector generates approximately 25 cents in additional local economic activity, mostly through the local spending of salaries and wages associated with the field expenditures.

Wood product expenditures include the value added goods produced by Community Smallwood Solutions. The category of wood product manufacturing includes lumber, plywood, veneer, and prefabricated wood for structures. Wallowa Resources spent \$184,506 which had an additional impact of \$138,528, or about 75 cents of additional economic activity for each dollar spent in 2005. The need to purchase equipment and machinery in addition to labor and the potential for adding value to raw wood products locally are what drive the multiplier for this sector higher than for administrative expenditures or field production. Wood product manufacturing had a total economic impact of \$323,034 in Wallowa County, directly created 1.1 jobs in the sector and indirectly created 0.2 jobs in the Wood Products, Forestry and Logging, and Agriculture and Forestry Services sectors, as well as 0.1 jobs in the Truck Transportation sector.

Wallowa Resources focuses strongly on educational programs for local community members. Because our model specification is limited to the three-digit sectors, the many educational programs have been aggregated into a single sector. The expenditures for educational programs had a total output impact of \$90,936, including an estimated output multiplier of 1.35, and a total employment impact of 2.1 jobs. This does not take into account the value of the skills learned or emotional impact such as confidence or leadership. Therefore the impact of the educational programs administered by Wallowa Resources is greatly underestimated.

While the Agriculture and Forestry Services sector generally focuses more on services for agricultural production, forest fuel reduction and forest stand monitoring activities are also included in this category. In 2005, Wallowa Resources spent \$62,828 which had a total output impact of \$94,602, or an output multiplier of 1.35. As expected, crop farming and livestock farming had the greatest indirect economic impacts. These programs directly generated 2.4 jobs, largely complementing or supplementing activities within the traditional purview of the USFS.

Finally, logging programs accounts for only one of WR's programmatic activities; timber pole cutting. The programs of Wallowa Resources focus more heavily on restoration and stewardship than harvesting timber. As a result, only a small expenditure occurred in this category in 2005. While the actual expenditure in the Logging and Forestry category was small (\$7,971), it had a total output impact of \$14,999, almost twice the amount actually spent (an estimated 1.88 output multiplier). The employment impacts were not as great, as only 0.1 jobs were generated or supported by these programs.

Concluding remarks

Although Input/output modeling provides a quantitative analysis of the economic impacts of programs, it does not completely capture the value of an organization. Wallowa Resources helps to manage forest land that may otherwise be unproductive economically, create greater fire risk, or, potentially, be converted industrial or residential uses. Protection, managed use and restoration of this forest land may have a greater value to local residents than that reflected by the input/output model. The impacts of this organization are not limited to the number of jobs created or the total output impact. Wallowa Resources provides job training, environmental education, and community interaction, among other invaluable benefits. These cannot be captured in the model, but are valuable nonetheless.

The intended outcomes of Community Based Forestry may be largely agreed upon by communities who choose to pursue this alternative for economic development. However, the chosen means to the commonly envisaged end vary substantially. Analytically, CBF is not simply an alternative means of producing the same forest products produced by industrial forestry. Rather, it is a distinctly different collection of ways to manage forest lands. These distinct approaches to land management imply different values and objectives of the managers. We hope that this approach will help communities facing similar choices to make better informed decisions appropriate to their needs and aspirations.

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Creating community capacity and opportunity

Background

Communities provide “mediating institutions” and concrete “social moorings” which connect individuals to more abstract and distant institutions such as the federal government and corporations (Lee and Field 2005) and to concrete resources such as forests. The local ranger district and mill serve as examples of social moorings, as do pilot stewardship projects and training programs. These can serve to either prevent gaps in forest management and community capacity from happening, or to bridge those gaps. Community organizations such as the Watershed Research and Training Center (WRTC) and Alliance of Forest Workers and Harvesters (AFWH), work at the human scale and address a range of individual needs; they provide leadership, embody practical knowledge and encourage mutuality. They not only perform primary functions like workforce training and technical assistance, they serve as community resources for individuals to solve their own problems and identify pathways to opportunities.

Case studies were conducted in order to better understand the process by which these two Implementing Partners (IPs) created community capacity, forged economic opportunities and engaged members in their organizational strategies. These organizations fall at opposite ends of the continuum of IPs in many ways. One is a place-based organization and the other a membership organization; one seeks to preserve identity and family legacy, the other builds common identity among its culturally diverse members. Yet both groups work with a community of workers marginalized by political-economic forces and both espouse the links between social justice, economic rights and environmental health.

Methodology

This research is based on interviews with individuals recommended by directors of the sites, participation at meetings and analysis of documents and reports. The goal is not to evaluate whether organizations are effective at meeting their stated goals, but rather to gather qualitative data about peoples’ perceptions of social benefits – how their lives have improved. This is not a description of community based forestry as it is modeled in the literature, but as it is constructed by participants in these two unique organizations.

Data to document the changes in peoples’ lives are difficult to find and summarize – units of analysis, measures and time lags create challenges. How does one operationalize hope and sense of worth? The literature is replete with studies measuring quality of life and community well-being, but good indicators are rare and may not truly represent social reality. Secondary data, alone, can not capture either the context or impact of these organizations. Members of the Alliance live throughout the region and move often; some are undocumented and do not appear in official statistics. Some census data for Hayfork, as a “designated place” and census tract, are available, but mostly at the county level where Weaverville, the county seat and largest place, masks smaller places. Secondary data does help “triangulate,” however, providing another sources of information, as did other reports and reference material. A more in-depth case study analysis can be found in Appendix F of this report.

The Watershed Center and Alliance

WRTC, through research, education, training, and economic development, reasserts local land stewardship ethics and reforges the relationship between the community and surrounding public forests. Its work centers on the tenet that the community's long standing relationship with forest management practices and consequences anchors its commitment to sustainable practices in the future.

AFWH provides a unified voice for a culturally diverse and geographically dispersed forest workforce, believing that exploitation of workers and exploitation of land are inextricably linked. Whereas community empowers WRTC, empowerment of its membership drives AFWH. By sharing traditions, information and skills, stories of oppression and achievement, AFWH members find commonality, gain an understanding of shared conditions and mobilize to address structural barriers.

WRTC's pragmatic goal, according to its director, is to build the capacity for community members to care for their families and one another, and to recreate community and trust. Its central path to this goal is training and research for forest ecosystem restoration which will create new woods work, new forest products and new businesses, as well as restore the forest. The Center has become a community center and serves as a "docking station" for other community and regional organizations, universities and agencies – they are a key point of contact for community residents and external organizations. WRTC effects policy change at multiple levels of government to gain access to forest ecosystems.

AFWH goals and strategies are similar, in part, to WRTC. Training and research reinforce their stewardship ethic and provide job opportunities, better pay and recognition. The AFWH does not have a single community base, but supports multiple community-based organizing projects: mushroom monitoring in Crescent, weed pulling in Illinois Valley, traditional plant gathering in Hoopa. Rather than a docking station, the AFWH can be considered a space station orbiting through the region, gathering membership issues and facilitating site-specific problem solving. AFWH sponsors annual meetings to gather membership from throughout the region, coordinates local meetings to address specific issues such as mushroom harvesting and forest workforce training, and holds multiple board meetings to knit the various projects and places together. Networks are critical for amplifying the voices of workers and harvesters, for creating common ground among different interests, and for addressing national policy. These voices are even heard in Washington, D.C. when AFWH members engage in policy advocacy opportunities, especially with regard to national forest workforce contracting.

In Hayfork, community identity is rooted in multiple generations of forest work and attachment to place. It has been battered by forces outside the region which halted mill and woods work and created a sense of despair and resignation. WRTC efforts to grow a community-based forest industry and workforce are unlike economic development in the traditional sense of bringing in outside businesses and unlike chamber of commerce growth in the sense of growing current business wealth. Instead WRTC builds community assets (e.g., summer camps and college programs providing a future for kids, cleanup programs creating a

sense of pride and community spirit, a business incubator offering business counseling and resources), and community attributes (e.g., leadership, entrepreneurship, hope, pride) to enable community members to take more control over their lives and improve the lives of others.

Most AFWH members belong to communities of place and have a legacy of family or tribal connection to forest landscapes. Although preferring to work near home, they move throughout the region for different work opportunities and seasonal harvests. With the move from industrial forestry to ecosystem management, woods work has shifted from logging and tree planting to thinning and brush cutting, riparian restoration and technical survey work. Wages for labor have gone down and the proportion of immigrant workers has gone up – changing the balance of local, traveling and migrant workers. This has created tension and competition among workers; for instance, mobile workers fear that new programs such as pilot stewardship contracts might favor local communities. And conflicts emerge among nontimber forest product harvesters, including turf battles, racism, and tribal concern over the depletion and commercialization of their cultural resources. AFWH addresses these issues through creating leaders and forest “ambassadors,” such as mushroom monitors, who serve as interpreters and address conflict over harvest methods.

Findings: Rebuilding Community Capacity

Community capacity has been defined as the “elements of peoples’ day-to-day relationships, conditioned and constrained by economic and political practices, that are important determinants of the quality of their lives, if not also of communities’ healthy functioning” (Labonte and Laverack 2001 p. 112). The concept community capacity represents a range of elements and relationships; it is both a means to achieving the goals of the IPs, as well as an outcome, itself. As organizations, WRTC and AFWH provide leadership, resources, programs and advocacy which allow membership – as individuals, as tribes and ethnicities, as occupational groups, as social change groups, and as community groups– to create social capital and social cohesion. WRTC and AFWH also address social forces which limit the ability of their members to control and improve their lives.

Community capacity should not be equated with program capacity or success, but it facilitates the program’s ability to bridge gaps in forest stewardship and community member’s knowledge, skills, and resources to create and take advantage of opportunities. Concerns related to community capacity are directly relevant to the success of the IP organizations. Nine domains of community capacity defined to understand organizational influences upon community (Labonte and Laverack 2001) are employed here. They are not intended as an evaluation template or summary of “best practices” of creating community capacity, but instead as another way of understand the connection between these organizations and their communities, and the ways in which IPs bridge gaps.

The nine domains are 1) improves stakeholder participation; 2) develops local leadership; 3) builds empowering organizational structures; 4) increases problem assessment capacities; 5) improves resource mobilization 6) strengthens links to other organizations and people; 7)

enhances stakeholder ability to ‘ask why’; 8) increases stakeholder control over program management; and 9) creates an equitable relationship with outside agents.

Participation increases individuals’ sense of efficacy and may lead to collective action which can improve quality of life and working conditions. WRTC provided specific opportunities for participation through employment, camps and community-wide initiatives. AFWH provided inclusive participation to a wide range of forest workers, providing a sense of empowerment and collective voice. Some activities, such as community-based organizing projects (CBOPs) and trainings were more focused, as were opportunities through networks with other organizations.

Leadership – vision, entrepreneurship, patience, persuasion and pragmatism – and mentoring of new leadership is central to WRTC. WRTC has a core of strong leaders; AFWH has a range of leadership types, some more powerful in their command of knowledge and skills about forests and social change, others inviting trust and respect through interpersonal and intercultural skills and facilitation. Because leaders of AFWH are wary of power wielding they see in other organizations, they work to foster leadership in multicultural harvester and forest worker communities rather than seek the power leadership positions might afford them.

Organizational structures differ for the two groups. With its “docking station” structure, WRTC links existing organizations with others within the community, or in the region, and creates new ones in order to address issues and share resources. WRTC supports other organizations through fund raising, facilitation and networks. Some community-based AFWH organizational structures are enduring, such as the Medford and Crescent Lake projects; others are more fluid and grassroots-initiated, such as those supported by CBOPs. Without a single community base, AFWH depends on partnerships and networks for much of its organizational structure, contributing membership and support to other organizations, such as Lomakatsi and National Network of Forest Practitioners.

Problem assessment and analysis – identification of problems, solutions to problems and potential actions – are important for forest communities to understand socio-economic transformations and ecological conditions. Socioeconomic monitoring reminds WRTC of its mission and challenges, and is a litmus test of its success. Socioeconomic data identifying workforce issues and potential actions have been collected by AFWH outreach workers and analyzed by the director of the Workforce Program at the University of Oregon. Ecological data provide assessments of ecosystem conditions as well as effectiveness of forest management innovations and best practices offered by both organizations.

It is not only important for communities to identify their issues and social problems, but also to “**ask why?**” or assess the social, political, economic forces and power arrangements which connect the issues. WRTC provides opportunities for individuals – from school children to woods workers – to assess their options and connections to forests; it enables organizations such as the Post Mountain Fire Council to develop stewardship and fire protection strategies. By definition and practice, WRTC is a learning organization. Similarly, AFWH draws together its diverse membership through identifying common socio-economic and political

forces which connect them. It brings together, educates and empowers individuals interested in social change.

Isolated forest communities need organizations to help **mobilize resources**; external resources can be catalytic for individuals within the community. “It was raining money and we had no buckets.” WRTC was created in part to serve as a vehicle for receiving government funds for communities hit by changes in federal forest policy. Outside funding invests in local people and leverages local knowledge, labor and entrepreneurship. Some programs focus on the community’s most recognized asset – its youth. In its worker rights advocacy AFWH mobilizes resources ordinarily unavailable to marginalized people, provides them a voice and increased sense of efficacy and access to social networks. Because AFWH is focused on meeting membership needs, rather than building organizational strength, it has more challenges mobilizing resources. Its unique organizational scope and mission falls outside of most outside funding programs.

Linkages with other people and organizations, through partnerships, coalitions and networks, assist communities in mobilizing resources and addressing issues. Through linkages, geographically isolated forest communities gain strength and visibility. Early on, WRTC recognized it needed to link with those who could help effect change – both within and outside the region. AFWH is well linked to a number of worker and multicultural networks; it also creates links among people through its membership meetings, its CBOPs and training programs, and mushroom monitoring projects.

For community-based programs, **outside agents** provide an important link between communities and external resources, such as funding and policy makers. They are especially important for launching new programs and helping organizations create momentum and recognition. Federal policy and land management agencies are important players for forest communities connected to federal lands, enabling or crippling community well-being. WRTC, well aware of the importance of outside agents, works to include groups such as land management agencies as part of the community and brings together outside interest groups to find common ground. Outside agents are more difficult to incorporate into the AFWH community, in part because it is culturally diverse and not place-based. Disparities in power and “cultural literacy” between outside agents and AFWH membership can create misunderstandings and mistrust.

Effective **program management** depends on clearly defined roles, responsibilities and management. In a sense, this domain links back to the first one, participation, as it entails devolution of power in order that community members can responsibly participate. WRTC endeavors to create community projects which empower individuals and the community to create benefit to themselves and one another. Giving ownership to a community dominated by outside interests and with few autonomous institutions is a challenge; a strong board and a few community leaders, such as the school superintendent, provide community support. AFWH has finally found organizational management which is trusted and compatible with board and membership expectations. In the non-profit organization world, directors’ energy goes into relations with other organizations, funders, and sometimes their critics; AFWH would prefer to spend its energy on membership issues.

Implications

These different domains help describe the role IPs might play in enhancing community capacity as a stated part of their mission of connecting individuals to forest assets, or as a parallel process with their efforts to respond to local community or membership base. The different social contexts, organizational dynamics and cultural dimensions of these two groups are evident in the different domains of community capacity building. As a membership organization, AFWH is especially strong in participation and linkages; as a community-based organization, WRTC is able to leverage outside resources and agents. Both emphasize problem assessment and they differ in their program structure and management. Including more IPs in this analysis will further our understanding how community-based forestry organizations benefit individuals and their families by building community.

Ecological stewardship, knowledge, and monitoring

Background

Across the United States, important forest ecological processes (such as fire) and structural elements (such as age distribution and species composition) are far from their historic range of natural variation, signaling a loss of ecological resilience and health. In other areas, development and land conversion threaten the integrity of native forests at a landscape scale. In many regions, outdated or irresponsible commercial timber harvesting practices and eroding capacity of federal land management agencies imperil water quality, soil stability, and biodiversity. These ecological changes expose the gaps in sustainable forest management and have had significant effects on the well-being and economic stability of the human communities who live and/or work in these landscapes. As CBF groups seek to reconfigure the relationship between human communities and the land in order to restore and sustain ecological health, community well-being, and economic vitality, ecological monitoring plays an important role in both creating common stewardship goals and assessing progress towards them.

The process of monitoring is as important as its outcome, and CBFs create a number of different spaces for this process. They move forest resource management from a top-down regulatory model to community-based stewardship that engages citizens and experts in dialogue and learning about the complex and uncertain relationships within ecosystems. CBF organizations create opportunities for civic science in order to increase community capacity for social learning, foster local responsiveness and accountability, and bring together resource users, environmentalists and resource managers in constructive dialogue. Civic science and civic environmentalism work best with a diversity of participants, and particularly when underrepresented and historically disempowered groups are sought out and included. This diversity of values and perspectives provides flexibility and openness to new information and events. Equity increases access and empowers those most vulnerable to the impacts of resource management decisions.

As yet, little is known about the specific ecological objectives of CBF organizations in the USA, the strategies CBF groups use to pursue these objectives, the outcomes they have achieved, and the interactions among the ecological objectives and strategies of CBF organizations and their social and economic goals and strategies.

Several questions guided our initial field research. We sought to understand:

- The ecological goals and objectives of IPs involved in the Ford CBFDP and whether they reflected a different or unique understanding of community-forest relationships.
- The strategies used by IPs to pursue their ecological objectives and how they differ from conventional resource management.
- The processes by which IPs measure their impacts and learn from their actions on the land and the factors that advance or impede monitoring and adaptive management.

These questions led to several themes related to the nature of ecological monitoring and stewardship in the IPs. In this summary we will build on the concept of “civic science” to report on two of these themes: 1) the role of collaborative, multiparty, and community-based monitoring, and 2) the roles of and interaction between local ecological knowledge (LEK) and conventional science in the IPs. Appendices F-H provide more detailed, in-depth analyses of the role of ecological stewardship in CBF (Appendix G), collaborative ecological monitoring (Appendix H), and the integration of local ecological knowledge (Appendix I).

Our first theme examined the roles of collaborative and community-based ecological monitoring in the IPs. This focus is justified for two reasons. First, ecological monitoring is a key way to collaboratively document and learn from the environmental outcomes of community forestry. Second, if community forestry organizations widely use and promote collaborative and community-based monitoring, this emphasis qualitatively distinguishes community forestry from conventional forestry. Further, new programs such as New Mexico’s Collaborative Forest Restoration Program (CFRP) and the Pilot Stewardship Program (Kusel et al. 2000) require multiparty assessments of ecological conditions before and after restoration activities are implemented, making it important to understand the benefits and drawbacks of these approaches as they relate to the goals of community forestry. Although programs such as CFRP require multiparty monitoring and several handbooks provide guidelines on how to develop a multiparty monitoring project (Pilz, Jones, and Ballard 2005; Savage 2003), few published studies have examined the process and outcomes of collaborative monitoring.

In our second theme, we explored the roles of and interaction between the uses of local ecological knowledge and conventional science in the management and monitoring activities of seven IPs. Land management decisions are often based on incomplete knowledge due both to a lack of scientific research, monitoring and assessment, and the failure to draw on local ecological knowledge (LEK). Despite the widespread interest in including local resource users, there are few studies that attempt to tease apart questions about how to integrate this local knowledge with conventional or “Western” scientific knowledge. The emerging concepts such as civic science, community science and interdependent science have only begun to be tested and examined.

Methods and partners

We used participant observation in several monitoring projects, interviews with project participants, and document reviews of 7 IPs to examine these groups' ecological stewardship objectives, strategies and accomplishments; the use and integration of local knowledge and conventional science in the ecological stewardship and monitoring activities of these groups; and the processes and outcomes of collaboration and participation in monitoring.

The IPs who chose to participate in this aspect of the research are: the Alliance of Forest Harvesters and Workers (AFHW), the Federation of Southern Cooperatives (FSC), Jobs and Biodiversity Coalition (JBC), the Public Lands Partnership (PLP), the Watershed Research and Training Center (WRTC), Wallowa Resources (WR), and Vermont Family Forests (VFF).

Findings

We found that: 1) groups used a diversity of strategies to accomplish their stewardship objectives and IPs' investments in outreach and collaboration were essential to building trust and relationships and changing attitudes, which in turn were necessary foundations for actions on the land; 2) the unique social and ecological context of each group influenced its stewardship objectives and strategies, such that some groups emphasized education and collaboration more and others focused on science-based assessments, on-the-ground projects, and monitoring; and 3) all studied IPs undertook some type of ecological assessment or monitoring, and groups overall recognized a variety of benefits from their monitoring efforts, including improved social relationships as well as ecological information.

In our study of community-based and collaborative monitoring, we found that community members participated in ecological assessment and monitoring at different points in the monitoring or assessment process, depending on the objectives of the project and of community involvement. When IPs used monitoring as a strategy to manage conflict or build trust, monitoring projects emphasized multiparty and community involvement in the objective-setting, design and interpretation phases, or throughout all phases of monitoring. When the primary goal of the project was to provide job training and employment opportunities, participation of individual community members in data collection was most important. When learning and reconnecting people with the land were important goals, broad community involvement in data collection was important. With respect to the outcomes of collaborative and community-based monitoring, we found that collaborative monitoring can lead to shared ecological understanding among diverse participants, build trust internally and credibility externally, and foster social learning and community-building. IPs experienced challenges in recruiting and sustaining community participation in monitoring, funding and maintaining an organizational commitment to long-term monitoring, building needed technical capacity for monitoring, and communicating monitoring results to the broader community. However, several IPs demonstrated strong commitments to social learning and adaptive management, and applied learning from monitoring to subsequent projects.

We found that all the IPs incorporated LEK into some aspect of their management or monitoring activities, and that all groups also used conventional science to design or conduct ecological assessments, monitoring or research to inform their management. Four strategies used by IPs were the most consistently successful in integrating local knowledge and conventional science: 1) field tours, 2) establishing focused monitoring task forces or sub-committees, 3) training local people in scientific methods, and 4) hiring scientists with interdisciplinary training. Specifically, all the groups used field tours to bring multiple stakeholders out to locations of stewardship activity to collectively observe and discuss the landscape and management activities.

All of the groups used field tours to bring scientists, managers and local people out to a field site to collectively observe and discuss the landscape and management activities. PLP, WRTC and WR created a designated monitoring task force or sub-committee for particular projects made up of a variety of community members, environmental organization representatives, public lands agencies and in some cases tribal representatives. Five of the seven groups studied trained local people in formal field data collection skills and ways to gather scientific information. WRTC, JBC, WR and PLP hired scientists with interdisciplinary training to coordinate assessment or monitoring projects. Whereas scientists had conducted research in many of the communities in the past and disregarded local knowledge, scientists with interdisciplinary training hired by IPs integrated local knowledge as part of their projects.

Interpretation and implications

Our research suggests that it is important for CBF groups, as well as their critics and proponents, to recognize the interdependent nature of CBF stewardship strategies, and to appreciate, in particular, the value and necessity of early investments in community-building activities that clear a path for collective action on the ground.

Our results also suggest that involving diverse and sometimes adversarial interests at key points in the ecological monitoring or assessment process, particularly objective-setting, design and interpretation, can help resolve conflicts, increase trust, and advance social learning. These are critical steps to bridge the gaps in forest stewardship that exist in many of the ecosystems IPs work in. Community involvement in monitoring also strengthens the link between social and ecological systems by improving the information base for management and increasing collective awareness of the interdependence of human and natural forest communities. The intentional approach to learning promoted by several of the IPs studied should in theory enhance the resilience of local social-ecological systems by helping communities to better appreciate the complexity of linked social and ecological systems, and to anticipate and adapt to changing conditions. Taken together, the multiple and intertwined dimensions of intentional learning that some IPs advance—adaptive management to learn about ecosystems, social and collaborative learning about socio-cultural systems, and critical self-reflection to advance organizational and community learning and development—can be understood as a renegotiation of the meaning of the people-land connection. Through their stewardship activities, and especially through their collaborative and community-based monitoring, the CBF organizations we studied engaged ordinary citizens and diverse interests

in examining complexity and reclaiming collective responsibility for the welfare of their communities and landscapes.

Our findings further indicate that community-based forestry organizations use both science and local knowledge in the monitoring process, with the effect of redistributing power through the use of different knowledge sources. Still, tribes and some other marginalized groups have not been significantly involved in monitoring and management decisions, and their knowledge has not yet been consistently incorporated. CBF groups' capacity to use science effectively is enhanced by partnerships with scientists that help build the internal science capacity of the organization and the scientific literacy of the community. Field tours and other joint hands-on-the-land activities, while not considered formal monitoring, are effective ways to encourage interaction among holders of different kinds of knowledge (scientists, locals and managers), and foster integration of LEK and conventional science.

F. Cross-Cutting Themes

Cutting across the research areas and IPs processes and strategies were common themes. Regardless if IPs are working in public and private land ownership regions or if they are working on restoration projects or NTFPs, IPs operated under a broad set of common principles and operating styles to bridge gaps in forest stewardship and community capacity. Similarly, across the institutional, ecological, social, and economic research areas there were common emergent findings and implications.

Entrepreneurial leadership and operational style

The IPs operate in highly challenging environments – remote rural communities, limited-resource landowners, rapid demographic and economic changes, and politically charged issues – with very limited organizational and financial resources. Cecilia Danks, one of the research team members, often refers to CBF groups as “hardy perennials” similar to plants that persist in environments with low water, limited nutrients, and harsh climates. The fact that they persist says something about their ability to weather lean times and rapid changes. In the face of harsh conditions, IPs persist by embracing entrepreneurial leadership and operational styles.

Studies of community non-profit organizations frequently discuss the entrepreneurial style of the leadership, staff, and, when applicable, board members of groups like the IPs – groups that work with and in communities to build capacities of community members so that they can create and take advantage of opportunities. Several features make such individuals and groups entrepreneurial. First and foremost, they **create social value** and contribute to the common good in ways that government programs and private for-profit sector do not or can not. Examples of social value created by IPs are reduced social conflict between the community members and between the community and external organizations, increased acceptance and contribution of local ecological knowledge, increased access for community members to technical and information resources, increased access and presence in markets, healthy ecosystems, and enhanced sense of community. IP leaders are especially involved in developing broad visions and encouraging flexible, adaptive approaches.

IPs create social value by applying **innovative, risk-taking approaches** – approaches that government, for-profit, or even other non-profit organizations cannot or will not take. IPs are among the first to implement demonstration projects, such as FSC’s silvopasturing projects to produce goat meat or PLP’s multi-party monitoring of the Burn Canyon salvage sale. In most of these projects, the IP leaders are pushing the envelope, willing to try new things and move beyond business-as-usual. IPs also absorb the financial and political risk of trying new approaches, such as Wallowa Resources creation of the for-profit corporation to re-open a post-and-pole mill or JBC’s pooling of financial resources to create a wood-crafting facility co-located with the Gila WoodNet mill.

Hand-in-hand with the innovative, risk-taking approaches is the importance of learning. All IPs partnering in this research embody elements of **learning organizations**. They are in a

constant process of refining their understanding of the system in which they are working, and experimenting with and learning from different approaches to “tweak” the system so that community members can create and take advantage of opportunities. In this way, IPs are **problem-solving organizations** rather than organizations seeking to advance particular agendas or policy positions. They focus on identifying and overcoming the barriers that prevent community members from creating and taking advantage of opportunities, as well as barriers to sustainable forest stewardship. Since IPs are not tightly bound to specific agendas or positions, they can **adapt their strategies and activities to match available resources**. For example, if National Fire Plan dollars are available for treating fuels around communities at risk for wildfire, IPs such as the Watershed Center and Wallowa Resources were able to quickly shift their activities to capture these resources – while at the same time providing work and materials for local contractors

Our research finds that the entrepreneurial approach taken by IPs has led to the creation of new opportunities, enhanced skills, and increased access to resources and enlarged decision spaces for individuals, families, and communities. The entrepreneurial leadership and operational style has also allowed IPs to be innovative and adaptive despite facing scarce resources. Future assistance should focus on helping CBF organizations to become learning organizations that can be nimble while addressing immediate and long-term problems. Future research can be directed at working in partnership with CBF organizations to develop easy-to-use but reliable methods for measuring both short-term and long-term social, economic, and ecological impacts of their work so that they can make adjustments and adapt strategies.

Social Learning

Social learning is an interactive, experiential process by which individuals continuously learn about and from others for the expressed purpose of emulating others’ behaviors to achieve common goals. Social learning is **action-centered** rather than theory-centered – the point is to learn about and adapt how things are *actually* done in context rather than how things *ought* to be done in concept. The IPs are very much action-centered and constantly learn about and adapt organizational structures, styles, and strategies to fit their particular context. In turn, IPs create demonstration projects, educational and training events, and technical assistance programs where the target audience – community members, landowners, agency staff, other non-governmental organizations – learn from one another from actual practices. Examples include landowner associations formed by FSC and Penn Center, the Roots of Appalachia Growers Association facilitated by Rural Action, and the business incubator created by the Watershed Center.

IPs not only practice social learning within their programs and projects, they are engaged in **peer-learning networks** with one another. An integral part of the Ford CBFDP was bi-annual gatherings for IPs to share their efforts, successes, and challenges on-site. IPs would make presentations of their work and brainstorm with other IPs to figure out how to overcome barriers and improve practices. The host IP would showcase projects and provide field trip opportunities to look at projects and meet the people the IPs work with and serve. Beyond the CBFDP, IPs are part of other learning networks. For example, AFHW, HFHC, Wallowa

Resources, and the Watershed Center are members of the Rural Voices for Conservation Coalition, a policy network organized by Sustainable Northwest to share practices and develop collective action to change policy. Rural Action has organized and participates in the Appalachian Forest Resource Center, which one of four such regional centers organized by the National Community Forestry Center and the National Network of Forest Practitioners (NNFP). NNFP is a national peer-learning organization in its own right, with all IPs playing active roles as board members and participants at annual meetings. Core to NNFP are social learning opportunities to continue to adapt and advance CBF practices around the U.S.

Our findings suggest that the intentional social learning approaches taken by IPs have increased their confidence and competence. Future assistance should be targeted to sustaining and enhancing learning networks among CBF organizations at regional and national levels. This is key to scaling up the CBF movement. Researchers can be important, integral participants in learning networks by partnering with CBF organizations to design research questions, gather data, and analyze and interpret data to address pressing issues facing CBF.

Collaboration and Networking

By emphasizing the creation of social value through problem-solving instead advancing specific agendas, IPs have created spaces for collaboration among diverse groups and organizations to address pressing forest stewardship and community well-being issues. This can be seen in IPs such as JBC and VFFP which bring together land managers/land owners, business interests, and environmentalists to meet interlinked ecological, economic, and social objectives through innovative, risk-taking projects. One of the results of collaboration is a **higher level of trust** among individuals and organizations that have historically been antagonistic and often openly hostile. PLP exemplifies this by creating a “table of trust” over the past 15 years among federal agencies, local governments, resource users, environmentalists, and community residents.

Being fairly small organizations with limited human, financial, and organizational resources, IPs **leverage and combine resources** from many other groups and organizations by building, and tapping into, networks. IPs collaborate with government agencies at all levels to develop landscape assessments, educational and training programs, and demonstration projects – all for the purpose of providing community members opportunities to access and capture benefits from forests. Most IPs partnering in the research have developed partnerships with universities from which the IPs **draw expertise and assistance**. For instance, there are productive partnerships between AFWH and University of Oregon’s Ecosystem Workforce Center, FSC and Alabama A&M, Penn Center and Clemson University, PLP and Colorado State University, Rural Action and Ohio State University, Wallowa Resources and Oregon State University, and the Watershed Center and Humboldt State University. Universities benefit by demonstrating their contribution to the betterment of forest landscapes and communities.

The IPs embody a new type of organization found in many other sectors such as social services, health care, education, and housing. In these sectors, community-based

organizations bridge gaps in community capacity by breaking down boundaries, such as the expert-lay knowledge divide, the distinction between federal and local government functions, and the line between non-profit and for-profit organizations to meet social needs. These new types of organizations are often described as performing **boundary-spanning activities**. Under this framework, gaps in community capacity are due in part to boundaries separating the many organizational resources that could be brought to bear on community problems. Capacity is increased by breaking down those boundaries and pooling resources.

This research suggests that IPs are at the forefront of creating more participatory decision-making spaces and contributing to networks that pool diverse knowledge, skills, and resources for both public and private forest land management. Future assistance is needed to clarify expectations of what collaboration can achieve and build collaborative capacity among community members, CBF organizations, other non-governmental organizations, and government agencies. Future research can contribute to an understanding of the costs and benefits of collaboration relative to other approaches, such as litigation or doing nothing.

Pragmatic approach

Taken together, the entrepreneurial style, emphasis on social learning, and centrality of collaborative partnerships reflect a pragmatic philosophy on the part of the IPs. Pragmatism rests on the premise that the merits of any course of action are determined by its ability to **improve a specific social or ecological condition**, not because it is in line with a generally accepted theory or belief. In a different situation, the same course of action is not necessarily taken as given; the action is only considered “good” if it actually improves the situation. As one IP leader stated that her organization “will try and do a lot of different things – sometimes far out things – to get families back in the woods. We’re not attached to a certain model or theory. If the big thing is restoration, we’ll be about restoration. If it’s about NTFPs, we’ll do NTFPs. We’re just interested in what works.” The pragmatic approach taken by the IPs reflects a broader change in environmental politics in which more and more stakeholders **rely less on hard-and-fast ideologies and positions** in favor of **experimentation, learning, and collaboration**. This can be seen in various contexts, from watershed councils to coordinated resource management projects around rangelands to wildlife habitat partnerships to CBF.

Because IPs are most concerned with trying things that actually work rather than advancing a specific agenda or position, they are open to collaboration with a variety of groups. IPs also emphasize collaboration because it is unlikely that the IPs can improve people’s lives and forest conditions by working alone. Consistent with pragmatism, IPs demonstrate that they take an intentional social learning approach to nearly everything they do. The IPs are constantly reflective and seek new approaches to improve people’s lives through forest management.

One of the tensions found in this research project is between the pragmatic, incremental, reflective approach IPs take and the need to make progress on changing more deep-rooted, systemic barriers that contribute to gaps in forest stewardship and community capacity. The actions taken by IPs have **limited effectiveness when it comes to changing policy or**

market forces. Policy change often requires a group to take on hardened policy positions and trade collaboration for competition in order to succeed in the gladiator-like coliseum arena that is national interest group politics. Similarly, IPs will need to pay attention to costs and branding value-added products from for-profit enterprises to compete in the market place. While collaboration can get things done to meet certain needs, competition is also required to sustain IP efforts.

Our research shows that IPs are filling an institutional gap in forest stewardship and community development in specific places and communities that have been left behind by larger political and economic forces. Future financial and technical assistance from government and non-governmental organizations is needed to sustain these small-scale efforts and encourage the expansion of CBF organizational development in new places. Future research is needed to systematically build the case file for the numerous CBF efforts so that cross-case analyses can yield more generalizable results. Such results can, in turn, help the CBF movement continue to make its case for continued support.

Operating Across Scales

While most of the IPs energies are spent at the local landscape and community scale, IPs do reach out and “up” to state and national scales to **draw in resources** to communities, affect **state and national policy changes**, and create **a presence in regional markets** (in the case of Rural Action’s Roots of Appalachia Growers Association, the markets for ginseng are global). IPs work across scales by **networking and creating partnerships** with diverse groups and organizations. In some instances, IP leaders hold positions of influence, like having a seat on state forest policy boards in Alabama and Oregon. Networks like the Rural Voices for Conservation Coalition and National Network for Forest Practitioners are gateways to national policy arenas. This situation does create a tension: IPs need to forge linkages with and access power at high policy levels, but also need to remain accountable and committed to their place-based, grassroots origins.

Making progress in market presence poses a different set of challenges. Local value-added forest products enterprises and their supporters might consider that competing globally does not necessarily imply competing in the global market. Rather, it may mean strengthening their presence in regional and local markets, and convincing local consumers to “buy local.” Experimentation with branding and developing and accessing niche markets remains a key path IPs are working on.

IPs ecological work is mostly at small geographic scales. IPs face criticism that their actions on the land amount to tiny islands in a vast sea of forest. In addition, while the immediate impacts of thinning and restoration projects on stand density and soil compaction (among other variables) can be monitored and documented, the long-term implications of these projects for ecological processes such as succession and natural fire regimes may not be known for many decades. Federal land management agencies in particular are under pressure to treat large areas of forest on short time-scales. To achieve these large-scale targets, they have tended to use institutional innovations such as stewardship contracting to contract with

large, non-local businesses rather than small, local CBF organizations or the community-based enterprises they support. However, **IPs are committed to long-term action and change on the landscape scale** and are generally undeterred by criticisms that they have not demonstrated large impacts in a short period of time. There is a sense that “we are not going away” and that IPs are committed to the people and the places over long time periods, allowing small-scale projects to accumulate annually. In this sense, “scaling up” CBF means increasing the number of CBF efforts working at small scales, rather than growing existing CBF groups to work at larger geographic scales.

Measuring social and economic impacts of CBF at the appropriate scale also presents significant challenges. Most of the IPs partnering in the research did not systematically measure and record social and economic impacts of their projects. Without this finer-scale data, the **IPs impacts are not always detectable at the census block or regional scale**. The IPs’ impacts are most visible at the individual or family level. Like IPs’ ecological impacts at the forest stand or stream reach level, social and economic changes may accumulate over decades, requiring long-term monitoring approaches. Social impacts over the short term may be most effectively documented using a qualitative and narrative approach, while long-term changes call for quantitative data as well. In addition, IPs will need to strengthen their organizational capacities to work simultaneously at local, regional and national scales. This will require careful attention to organizational development and leadership within the organizations, so that strong horizontal ties are maintained and strengthened within the community while vertical linkages are forged.

Our research suggests that IPs in particular and CBF in general work towards the long-term accumulation of small-scale successes on the ground. Future assistance and research should focus on developing and maintaining an integrated monitoring system to track ecological, economic, and social impacts so that CBF organizations and the CBF movement can demonstrate the cumulative effect of their actions.

Resilience

Resilience is the ability of a system to respond to change without losing its essential structural and functional characteristics. A resilient system is not a static and unchanging one; rather it is a system capable of creative reorganization and regeneration following a major shock or disturbance. Maintaining or building resilient social-ecological systems was a key goal (implicit or explicit) of all the studied IPs. In our research, resilience was an emergent theme that cut across all of the sub-themes of this project, and led us to identify ways in which IPs sought to improve the resilience of their ecological landscapes, human communities, and community-based organizations, in part by emphasizing the interdependence of these systems. In some cases, we were also able to document direct or indirect evidence of enhanced resilience of ecosystems, communities or organizations.

In addition to observing **resilience-building strategies such as collaboration, networking and social learning**, we also identified **examples of outcomes that are more direct indicators of enhanced resilience, such as changes in forest structure and stand density**

as a result of thinning projects (which are presumed to make forests more resilient to fire), provision of alternative economic opportunities for local people, and policy changes at the state and federal levels.

We also noted a number of challenges that IPs experienced. At the organizational level, leadership continually emerges as a critical element of success in building and sustaining IPs. This research highlights a **complex and dynamic leadership** style in IPs, and the importance of appropriate **capacity-building, intergenerational leadership development, balanced horizontal organizational structures, and transition strategies**. IPs' abilities to enhance ecological resilience are challenged by limited capacities to monitor and manage across large landscapes, due to technical and financial limitations, and, often, institutional barriers on public lands.

Our findings suggest that the investments IPs make in collaboration and networking, monitoring, and social learning are critical to achieving their long-term goals of ecological, socio-economic and organizational resilience. Future assistance should be targeted to address limitations in CBF organizational capacities in these areas, and policies should be directed to remove institutional barriers. Future research should develop and measure long-term and large-scale indicators of resilience, and seek to establish more direct causal links between CBF actions and social-ecological resilience.

Understanding CBF requires a pragmatic research approach

It is neither possible nor desirable to promote a single CBF model or template because of the range of variation in the IPs. The diversity of IPs' goals and approaches emerges from the varied contexts and changing settings in which they work. Each IP is at a different stage in organizational development, making cross-case comparisons difficult. The "3-legged stool" of ecological sustainability, economic viability, and social equity may be a convenient general conceptual model, but in reality each IP pursues activities to address immediate context-specific issues. In doing so, IPs emphasize certain goals (legs of the stool) more or less at different times. It is, however, appropriate to question that if a group does not explicitly state any one of the legs as a goal whether attaining all three will ever be achieved. If any one of the three is not a goal and there is not a plan for measuring progress towards that goal, it is less likely to get done.

Because IPs are adaptive and nimble, they have different goals and objectives that move the goal posts for researchers. As such, research assumptions are constantly changing. Researchers who bring in static conceptual models of what CBF groups do will find themselves needing to constantly adapt both theory and methods. One key research challenge is that the IPs typically have impacts that do not show up on conventional metrics due to the intentionally small social and ecological scale at which IPs work. Traditional socio-economic impact analyses use data sources for employment and income at census block or county levels. The impacts of IPs on enhancing people's livelihoods are typically not at the resolution of census block or county level data. This research project found that IPs' social impacts are in improving quality of life at the individual and family levels, enhancing social

learning, building social capital, facilitating collaborative networks, filling institutional gaps, and mitigating conflicts. None of these impacts show up as measurable, quantifiable data in traditional socio-economic analyses.

In a participatory research effort, researchers and practitioners alike must be in a constant dialogue about the boundaries and focus of the research project. The “3-legged stool” model serves as a good reference point, or ideal, but may not be suitable for what IPs are working on in any particular time period. Holding IPs to these criteria is likely to miss important features of what any one particular group has accomplished. Hence, defining the appropriate outcomes to be measured and interpreting findings requires a constant dialogue between researchers and practitioners.

Because IPs’ impacts may not show up in secondary data sources or may not be amenable to quantitative measurement, researchers and practitioners have to be pragmatic, experimenting with and adapting methods for identifying appropriate impact criteria and indicators, and measuring these indicators.

G. Scaling up: Implications for practice and the CBF movement

Readers must keep in mind that the findings, interpretations, and implications presented in this report are primarily based on broad analyses of all 13 IPs and in-depth analyses of only 7 IPs. It is not possible to make sweeping generalizations and inferences across the population of CBF groups. The 13 IPs cannot be assumed to be representative of CBF groups and were not selected using a rigorous sampling design. The decision to conduct research with 7 out of 13 IPs was also not based on a rigorous sampling design but on opportunities and interest. However, within each IP case study, methods and analyses were consistent with qualitative, case study approaches, drawing on well-established qualitative research traditions (Creswell 2003; Denzin and Lincoln 1998; Glaser and Strauss 1967; Maxwell 1996; Strauss and Corbin 1990).

One of the hallmarks of scientific research is the development of generalizable findings and models based on replicable methods. This falls apart with the IPs in particular and possibly CBF groups in general. The IPs vary widely in their organizational structure, styles, and strategies because they emerge from and are adapted to specific ecological, economic, and social contexts. This diversity is important to understand in order to resist the temptation to develop models and templates that attempt to lump CBF groups and efforts under one umbrella. This research demonstrates that one-size fits all models and templates are inappropriate given the dynamic settings in which CBF groups operate.

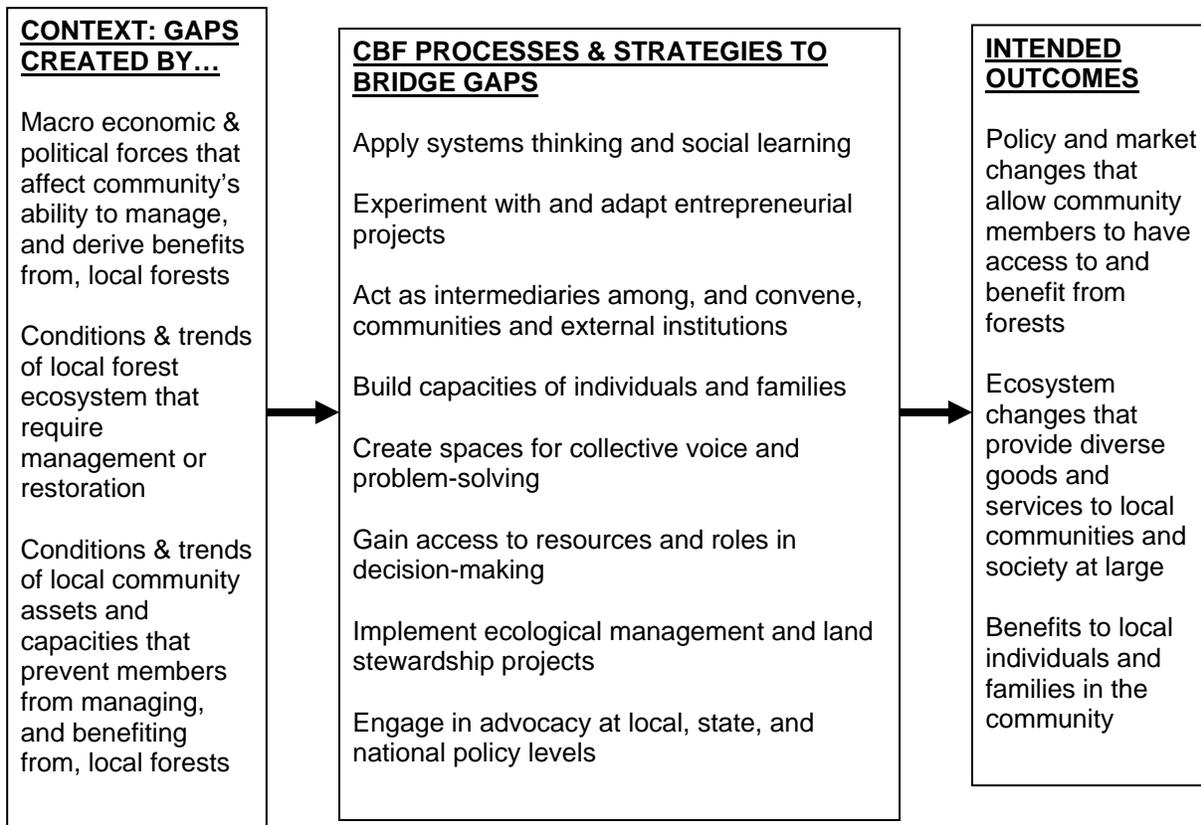


Figure 4. An organizing framework for understanding the roles and functions of community-based forestry groups in the Community-Based Forestry Demonstration Program

Nonetheless, the case and cross-case analyses of the IPs offer insights for on-the-ground practice and the CBF movement as a whole. The IPs have made significant strides in bridging gaps, especially current conditions and trends of both local forests and community assets and capacities. Gaps brought about by macro-economic and –political forces still persist despite IPs’ efforts, such as national forest policy gridlock, an ambivalent attitude of many forestry institutions towards CBF, and a highly competitive market that puts independent contractors and small enterprises on the financial margin of profitability, and has lead to financial disinvestment from forest stewardship, rural communities, and people whose livelihoods depend on the forest. To bridge these gaps, the IPs are, or attempt to be, many things to different people and organizations by taking on the I-C-E roles – intermediaries, convening, and enabling. They are at once contract administrators, employment agencies, youth mentors, conflict mediators, business incubators, workforce trainers, limited liability corporations, and policy advocates, especially for individuals and families who typically have no voice.

On the outcomes side, IPs’ impacts have generally been at small scales – individuals, small businesses and contractors, and limited acreages. **However, relative to what many of these individuals, businesses, contractors, and forest stands would have been facing in the future if the IPs were not in existence, the IPs are making significant gains.** Through many IPs’ efforts, there are national policy-makers who have embraced CBF and have created policies to advance CBF. While IPs will likely continue to work on bridging gaps affecting

their local forests and communities, there needs to be coordinated efforts to “scale up” CBF in order to sustain the progress that has been made. In reality, this scaling up is more likely to occur in the form of more small-scale CBF groups working in specific landscapes and communities, rather than larger CBF organizations. Because of the small-scale approach of CBF, progress for IPs has come slowly and every success is tentative.

CBF role in improving people’s lives

Traditional measures of community well-being, such as jobs and income, only provide a small slice of the impacts IPs have on the communities in which they work and serve. The impacts of even the more established IPs which have been in existence for 10-15 years may not be detectable in census block data. This is because most IPs focus on individual, household, and small, local community scales. In some places, IPs are starting from scratch, building the capacity of people who have no legacy of land stewardship. In others, IPs are rebuilding and retooling community members’ capacity after industries and government agencies have disinvested from forest management and the community. In yet others, IPs are offering community members a more sustainable alternative to forest and land stewardship than is being currently practiced, and must compete with an existing set of institutions (government agencies, private consulting foresters, industry, land developers) that may be openly antagonistic to IP efforts.

At an individual level, IPs are involved in building human capital through education, training, demonstration projects, workshops, and social learning. This building process may not generate immediate jobs, but it has given people a sense that there are still quality options for working on the land and making decent wage, especially compared to before the IPs took hold. In some cases, like in Wallowa County where some families have retooled to become contractors to combat the spread of invasive weeds, it has made the difference between losing yet another family from the community and having that family stay and be a part of the community. Data generated by the IPs show that, although the total number of individuals benefiting from their actions tend to be modest, these actions make a big difference in small, isolated rural communities to reverse years of declining opportunities.

At a community level, IPs are involved in building social capital – a term used to describe the social networks of trust and reciprocity which individuals, families, and organizations can draw on to create and take advantage of opportunities. Again, this may not show up as immediate job and income growth, but the increased levels of trust can make a difference between having a community that is a safe, welcoming place in which there is a sense of hope and a community in which people feel threatened for holding different beliefs about forest land management, and in which there is a prevailing sense of hopelessness. IPs create “zones of agreement” as a way to overcome years of conflict between organized interest groups, communities, and government agencies, especially on public forest lands. IPs also help bring together individuals who never realized they had common connections to work towards common goals. Some of the IPs, especially AFWH, FSC, Penn Center, and Rural Action have been especially effective at overcoming the reluctance of limited-resource groups to get involved in anything collective for fear of being taken advantage of. They have also pushed

back against individuals and institutions that systematically discriminate. In this way, IPs not only enable individuals to create and take advantage of opportunities, but constantly educating, pushing, and holding accountable established institutions to do more for the individuals and communities they work with.

At a community level, IPs have also helped create norms for collaboration and social learning instead of conflict and positional rhetoric. In its 15 years of existence, PLP has developed such a powerful norm of collaboration that federal agencies and organized interests in the area are often (but not always) compelled to bring ideas and proposals to PLP for discussion before they do anything else. For once, community members feel like they have a legitimate voice in what happens to the landscapes surrounding their community. It is a sense of control over their future. However, this norm is tenuous and is constantly threatened by positional rhetoric and interest group competition. In many cases, rural communities, forest workers and harvesters, and limited-resource landowners are able to make their voices heard because of IPs. Without the IPs, these voices would likely remain unheard, or at least drowned out by commodity interests, national organized interests, and government agencies.

The main implication is that the impacts CBF groups have on improving people's lives do not always appear in terms of jobs and income in secondary data sources. The impacts are more diffuse and are not measured with simple, quantitative indicators. Many of these impacts, such as increased trust and reduced conflict, as well as a sense of hope, may be as important to a community's well-being as household jobs and income. It is in the best interest of CBF groups to design and implement indicators and measures for their impacts to respond to questions or criticisms about their effectiveness.

CBF role in creating diverse, sustainable economic opportunities

The IPs have created and enhanced existing paths for limited numbers of individuals and value-added enterprises to access economic opportunities, either through contracting services or entering local or regional markets. IPs do this by underwriting some of the costs, providing technical and business training, and opening doors through their networks and collaborations to expertise, partners, and other resources. The impact of putting people back to work or helping a small enterprise get off the ground can be powerful in communities that have not seen much opportunity in recent years. A tentative observation, however, is that the IPs have expended substantial personal, social, and financial capital for a relatively small number of individuals and enterprises to benefit economically. This may be part of the "start-up" or "transition" costs necessary for creating new opportunities or moving from one mode of operation to another. The geographic isolation of many communities in which IPs work are cost-disadvantaged, which also contributes to the high costs relative to the economic benefits.

For CBF enterprises, having a distinct brand may be important in order to distinguish their efforts from corporate or non-local brands. One drawback is that there is no equivalent in forest products and services to the highly successful "organic" or "buy local" brands in agriculture. As many parallels there are between CBF and community-supported agriculture, there are marked differences in the goods and services purveyed by each. Certification,

“green”, and local branding of forest goods and services do not have widespread consumer appeal and have yet to create a stable market niche for CBF enterprises. However, groups like HFHC and VFFP do maintain productive dialogue and have cultivated interest among architects and builders who are very much interested in such brands. Institutional purchasers such as state and local governments and education institutions present market niches, but are often subject to competitive purchasing regulations. NTFPs have their own market system in which many IPs are involved.

It is also important to note that markets do not always involve the formalized trade of money. Cash-only transactions, bartering, and trade are viable forms of market exchange, especially involving certain goods and services, in rural areas, and among limited-resource groups. Tracking economic activity in this informal economy requires an entity to record such transactions over time, which may not be feasible for CBF groups already stretched thin.

IPs that are making economic inroads have someone dedicated either part-time or exclusively to deal with this piece of the CBF puzzle. For CBF groups operating with only one or two staff, this is a challenge. Nonetheless, keeping a full accounting tracking system of total costs and benefits can provide CBF groups, funders, and partners an understanding of where scarce organizational resources should be allocated to make an economic impact, and what areas should be let go.

CBF role in forest land stewardship

Paralleling these efforts to build individual- and community-level capacities are strategies to enhance forest stewardship from which individuals, families, and communities can derive benefits. All IPs emphasize on-the-ground action and experimentation in order to connect and re-connect people to their forests. For some IPs, this “hands on the land” focus is a core to their identity. Most IPs provide hands-on training, workshops, and demonstration projects. IPs working in public lands-dominated areas make the most impact in assessment and planning aspects of forest management, and through monitoring. Through assessment and planning processes, IPs have succeeded in taking science and making it their own through monitoring to gain some influence with agencies and environmental groups.

Landscape assessments and multi-party monitoring likely would not occur if it were not for the efforts of IPs. By creating new pathways for integrating local knowledge in new and profound ways, IPs have created “standing” for local communities and landowners with government forestry and natural resource agencies. In turn, increased standing has increased access to forest resources. The initiation of landscape assessments and multi-party monitoring has also given IPs a degree of legitimacy among environmental advocates, even advocates who have been deeply skeptical of any forest management activities that might involve commercial timber harvesting.

For on-the-ground ecological impact, most IPs generally implement small-scale projects of limited spatial extent and short time periods. They are often intended for educational and demonstration purposes, as much as they are to achieve an ecological end. But starting small

is still starting something and by starting small, IPs may stay below the radar screen and are able to experiment with different methods. Small-scale projects may nonetheless be visible to the broader public who may learn from these projects and grow more comfortable with the idea of CBF over time.

Several IPs have the strategy of building up from small-scale projects to large-scale assessments, with the idea that large-scale assessments will eventually lead to numerous prioritized projects. Having several years worth of projects that have been agreed upon through a collaborative landscape assessment is key to communities having a long-term stewardship presence. In turn, these projects can lead to diverse jobs, income sources, certain access and supply for value-added enterprises, and an overall sense of self-worth for community members.

What are the alternatives?

Understanding the impacts of IPs in absolute terms is not a particularly meaningful exercise because their impacts to date have been quite modest – number of acres treated, number of jobs created, etc. It is more illuminating to understand what IPs have done and continue to do relative to the alternatives available to the individuals and communities in which IPs work.

For many communities, especially public lands communities, there are few to no alternatives that build the capacity of local people to be land stewards. Most industries have pulled out and the capacity of public lands agencies for sustainable land management have plummeted (except for wildfire suppression and oil and gas exploration) due to budget and staffing cuts, as well as policy and legal gridlock. The only option for many public lands communities is to do nothing and wait for external actors and events to determine what the future holds. While IPs can not single-handedly stem the tide of out-migration of youth and families, decrease the rate of unemployment, and manage the thousands of acres in need of treatment, they do take risks other organizations might not or cannot by taking the first steps to seize control from external forces and events.

In other communities, IPs are facilitating the creation of new approaches in communities that have little to begin with, such as limited-resource landowners and forest workers and harvesters. In many regions, the status quo is leading many limited-resource landowners to sell and fragment forest lands as they are increasingly unable to pay taxes on their land or are compelled to sell of their lands due to escalating land values. For workers and harvesters, the status quo means poor working conditions, mistreatment by contractors, low wages, time away from their families, and lack of benefits. IPs offer alternatives to the status quo. However, alternatives pose unknown risks and uncertain benefits. IPs work is slow and requires working one person at a time until a critical mass is reached. The status quo also benefits and is protected by existing interests, such as land developers, government officials, consultants, and industries. Racial, ethnic, and class discrimination is a powerful undercurrent in the contest between the status quo and alternative approaches like CBF. IPs in these communities not only work to create new opportunities for limited-resource groups,

but work against social forces that have kept these groups from creating and taking advantage of opportunities in forest land stewardship.

Compared to existing institutional arrangements in forestry and rural community development, the IPs are among the few organizations that are actually integrating ecological, economic, and social goals within a framework for action. Traditional forestry organizations, such as trade associations, professional associations, or private consultants rarely work to ensure equitable voice in decision-making and distribution of forest-based benefits for community members, especially limited-resource or historically marginalized populations. Community development organizations may not link ecological restoration, NTFPs, and other forest assets to building community capacity. Forests are often marketed by local economic development organizations as amenities to potential businesses interested in relocating.

In many ways, the IPs are the forestry equivalents of the urban community development movement from the 1960s where community-based organizations were created by social activists to achieve common goods – poverty alleviation, reducing crime in inner cities, providing people with affordable housing, and the like. IPs in particular and CBF in general exist to achieve certain common goods – a sense of hope, self-worth, and self-sufficiency for individuals, families, and communities and a sustainable, symbiotic relationship between people and forests. To achieve the integrated goals of CBF, the IPs have evolved to blend the skills of forestry consultants, community development specialists, business trainers, researchers and educators, facilitators and mediators, and interest group advocates.

Many policy-makers, agency decision-makers, and interest groups do not know what to do with the IPs because they do not fall neatly into any one group category they are accustomed to seeing. American political institutions provide for common goods through the competition among interest groups – a sort of political science version of Adam Smith’s “invisible hand” where the exchange and negotiation among competing special interests in the political marketplace will lead to a common good. Rather than assume that common good is the outcome of interest group competition, IPs assume that the common good is discovered and achieved through equal voice and collaboration as members of a shared community.

Because the IPs are such novel institutional forms, there is no vocabulary for what CBF is. In our synthesis of research on community-based organizations operating in diverse sectors, we found that IPs do not fit any of them neatly and completely. As government agencies’ capacity to address ecological and community social needs continue to decline due to budget and staff cuts, and also due to the multitude of policy and legal mandates, CBF groups like the IPs may be one of the institutional forms that meet these needs into the next century. And, as the forest economy moves to low-cost production due to global competition, CBF groups may be one of the few institutional forms that provide alternative investment opportunities for forests and communities.

Scaling up CBF: Pathways to broader impact

Compared to doing nothing/status quo, IPs have created new directions that go against prevailing tides. However, since the IPs impacts have been this far relatively small over a fairly short period of time, it is not possible to predict where things will lead. One of the concerns among IPs is that they will remain the only efforts of their kind and that they will become “boutique” – isolated yet fascinating novelties with limited scope and impact. The prevailing tides will sweep away all aftercomers, leaving the IPs to barely hang on to their tenuous footholds. It is important for research to ask more critical questions relating to the long-term prospects of CBF. From a programmatic investment standpoint, the research results do raise questions about the sustainability of CBF efforts in the face of dynamic changes in national policy and global markets.

CBF has arrived in an historic time. CBF groups are showing progress while alternative approaches are lacking. As a result, there is a growing interest in how to “scale up” CBF. Scaling up generally refers to the process by which localized innovations are expanded to make large-scale impacts. But what exactly does this look like? Does scaling up mean creating regional- and national-scale versions of community-based organizational structures, styles, and strategies, or does it mean encouraging the growth and development of a large number of small-scale groups adapted to particular contexts?

Drawing on international experiences in community-based natural resource management, scaling up is defined as a **systematic social learning process** for understanding the circumstances under which an innovation worked in one context, and the needs and limits of the context to which that innovation is being expanded (Carter and Currie-Alder 2006). Research in international CBNRM suggests that successful scaling up happens when community-based organizations work at the most local level but establish linkages across levels of organization (see Figure 4). The levels of organization are categorized into local (individual, family, community), regional (county, multi-county, state, multi-state), and macro (national and international) (Table XX) (Adger, Brown, and Tompkins 2006; Carter and Currie-Alder 2006; Ford Foundation 2005). It is encouraging that several IPs are already making linkages across these levels of organization, although IPs are generally more effective at local and regional levels than at the macro level.

Table 1. Roles in scaling-up community-based natural resource management for organizations between different levels

Organizations	Potential roles and responsibilities
<i>Local level</i>	
Civic associations	Facilitate dialogue
Local government	Implement rules and regulations
Small local businesses	Monitor ecological processes and quality
Resource user/landowner associations	Facilitate planning Provide technical support
<i>Regional level</i>	
Private sector	Provide training
Research institutions & universities	Disseminate information
NGOs	Consult with other NGOs

Regional government institutions	Community policy and regulatory compliance Coordinate land-use planning
<i>National and international level</i>	
National government agencies	Develop legislation and policy
Legislature	Share and apply lessons across regions
Government associations (i.e., municipal, county, and state associations)	Revise educational curricula
Citizens groups and lobbies	Design research policy that supports adoption of participatory approaches
Private sector associations	
International NGOs	

Source: Adapted from Carter and Currie-Alder 2006

At the local level, CBNRM groups use educational and assistance processes to provide large numbers of individuals information and tools that influences personal behavior. The focus is on capacity-building by giving individuals fundamental management, economic analysis, business practices, and strategic planning tools. A common practice is peer-learning, where individuals attend workshops to observe and learn from neighbors who have adopted new practices. This practice is more about scaling out – horizontally among community members – than it is about scaling up organizational levels. The IPs and practitioners in community development and cooperative extension are well-versed in peer-learning processes. The long-term goal of educational, technical assistance, and peer-learning processes is to build “communities of practice” where individuals are linked into diverse learning networks to develop, adopt, and rapidly spread new ideas. This involves a political dimension: previously disenfranchised individuals work together to secure representation and voice in decisions that affect their daily lives. CBF groups just starting out would benefit immensely from being immediately linked into local level learning networks.

At the regional scale, community-based organizations function as participants in coalition-building. CBNRM groups are linked to local, regional, and national non-profit and for-profit non-governmental organizations to build awareness, provide training, and leverage resources. Linkages with universities and research institutions help bring in new technologies and techniques to the community; these linkages can also build the credibility and legitimacy of community-based organizations. They also communicate with government agencies to address regulatory and compliance issues, and often coordinate land use planning. The long-term goal of regional scale linkages is to create a permanent space for CBNRM to legitimately operate, both politically and economically. Such linkages move local innovations from the fringe to the mainstream. For CBF, this could lead to more widespread understanding and acceptance of CBF approaches and encourage the growth of local-level CBF groups and efforts.

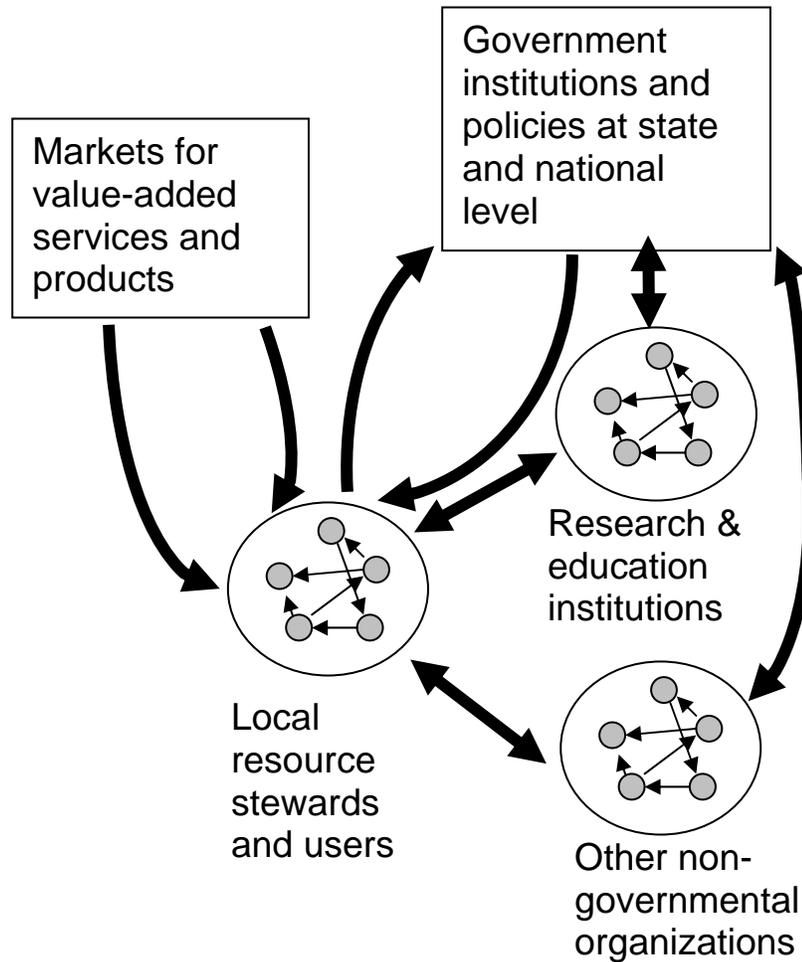


Figure 5. Cross-scale linkages in community-based natural resource management (adapted from Figure 3, Adger, Brown, and Tompkins 2006)

At the macro scale, CBNRM groups work with legislatures to develop public policies (i.e., land use, price-supports, interest rates, decentralization authorities, and budget allocations), share and apply lessons across regions with coalitions for CBNRM groups, and design research policy that supports the adoption of participatory approaches (Carter and Currie-Alder 2006). To achieve these ambitious goals, linkages are made between regional coalitions/alliances of community-based organizations, national government agencies, government associations (i.e., associations of municipalities, provinces, states, etc.), donors, and national non-governmental organizations, alliances, and coalitions. Macro-scale linkages not only influence policy but are intended to influence market forces by increasing incentives for alternative commercial enterprises. The long-term goal is to develop a sustainable and just political economy around community-based approaches that provide local community members representation and voice in decisions, and align incentives so that resource management generates financial returns to community households, the land and resources, and society at large.

For CBF to scale up in the U.S., CBF groups need to focus on strengthening regional and macro-scale linkages while maintaining strengths in local-level linkages. The linkages that do

exist with the IPs are often based on personal contacts and the charisma of individual CBF leaders. While these are vital, they are constantly at risk if and when individuals move on to new endeavors. Further, macro-scale linkages are subject to changes resulting from elections. Policy and institutional agendas can shift with new officials who have very different priorities. One of our observations is that IPs have yet to make linkages across sectors that have burgeoning community-based innovations, such as sustainable agriculture, rural community development, and sustainable communities movements. While the contexts are different, the fundamental goals and many strategies are generally similar.

CBF in the U.S. already has the foundations for scaling up. The question is whether CBF leaders have the energy and CBF groups have the capacity to maintain linkages at all levels. In the Pacific Northwest, Sustainable Northwest acts as a regional umbrella and coordinating organization for local CBF groups. FSC, as its name implies, also serves as a coordinating organization for local cooperatives and landowner associations in many areas of the Southeast. However, FSC lacks the policy focus that SNW has. Although FSC support and advocates for African-American landowners, the constant articulation of African-American landowner issues at the national level is not as strong as it could be. One area of opportunity is to further cultivate regional coordinating organizations in the SNW mode in other parts of the U.S. The southwestern U.S. is ripe for such an organization with New Mexico's Collaborative Forest Restoration Program and the many community-based forestry initiatives encouraged by the Four Corners Sustainable Forestry Partnership. The Northeast, Appalachia, and Lake States may also hold potential given the existence of CBF groups already there.

While opportunities exist, CBF continues to be constrained by funding. Aside from the Ford Foundation, there are few charitable foundations that have the capacity or willingness to support large multi-year investments into CBF. Financial support from government for CBF is confined to a few programs like New Mexico's CFRP and the Four Corners effort. CBF has yet to have a market presence and investors are leery of contributing funds to enterprises where the supply of raw materials is so uncertain and unstable. Nonetheless, true to their entrepreneurial style, CBF groups continue to forge ahead regardless of available resources. Our research has provided the opportunity to interact with truly remarkable people with deep commitments to the individuals and families in their communities, their communities' way of life, and the health of their forests and land. They are also committed to social learning and recognize that their future lies with forging networks and linkages. Individual by individual, place by place, year by year, CBF groups continue to bridge the gaps in forest stewardship and communities' capacities. The visibility and importance of CBF can only increase as investment in and capacity of government agencies decline, but the demands for sustainable forests and communities increase.

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I. Appendices (separate document)

- A. Research and Extended Research Advisory Teams
- B. Institutional Analysis of Community-Based Forestry Summary Data
- C. Access and Decision-Space
- D. Self-Assessment and Monitoring Tool
- E. The Community Economics of Community Forestry: A Conceptual Framework and Partial Illustrative Analysis
- F. Recreating Communities, Opportunities, and Benefits: Case studies of the Alliance of Forest Workers & Harvesters and the Watershed Research & Training Center
- G. Ecological Stewardship in Community-Based Forestry in the USA: Lessons from the Ford Foundation Community-Based Forestry Demonstration Program
- H. Collaborative and Community-Based Monitoring in Community Forestry: Lessons from Five Community Forestry Organizations in the Western USA
- I. Integrating Ecological Knowledge in Community-Based Forestry: Lessons from Seven Organizations in the USA