

# ECOSYSTEM WORKFORCE

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# WORKING PAPERS

## **Healthy Communities and Healthy Ecosystems: The Community Development Potential of Ecosystem Restoration Work**

**EWP Working Paper Number 3, Fall 2001**

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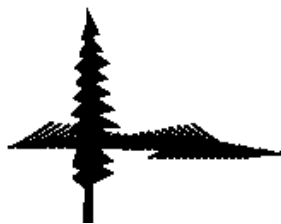
**The Ecosystem Workforce Program  
Institute for a Sustainable Environment, University of Oregon**

*A collaborative project of the Institute for a Sustainable Environment, University of Oregon  
Funded by the Ford Foundation, USDA Forest Service Rural Community Assistance,  
National Fire Plan Community Assistance, and the State of Oregon  
Economic and Community Development Department*

The *Ecosystem Workforce Program Working Papers* series offers in-depth reports on applied research, analysis and findings about a variety of areas associated with the effort to build quality jobs in ecosystem management. The target audience includes policy and administrative leaders, academics, leaders in community forestry, community-based organization leaders, and local community officials.

The decline of the timber economy has had devastating socio-economic effects on the communities and people of the rural Pacific Northwest. However it has also opened up an opportunity to restore the health of the region's ecosystems while rebuilding local communities. The shift toward "collaborative stewardship" between federal land management agencies and local communities has led to a new appreciation of the possibility of resource management strategies that include good jobs and strong local social institutions as important objectives that link healthy environments with healthy communities. The Ecosystem Workforce Program conducted a three year demonstration project to test the possibilities of collaborative stewardship for community development. This paper is an interim report focusing on the monitoring and evaluation of community impacts of the project. I begin by summarizing the background situation and introducing the demonstration project. I then describe the theoretical rationale for collaborative stewardship as community development. Finally, I present aspects of the monitoring and evaluation methodology.

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## **ECOSYSTEM WORKFORCE PROGRAM**

**BUILDING A SUSTAINABLE, HIGH-SKILL/HIGH-WAGE ECOSYSTEM MANAGEMENT INDUSTRY**

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## INTRODUCTION

The decline of the timber economy has had devastating socio-economic effects on the communities and people of the rural Pacific Northwest. However it has also opened up an opportunity to restore the health of the region's ecosystems while rebuilding local communities. The shift toward "collaborative stewardship" between federal land management agencies and local communities has emerged from the environmental, economic, and political crises over the management of federal timberlands that dominated the early 1990s. Similar cooperative, community-level approaches are emerging with respect to resource management on private lands, such as the Oregon Plan for Salmon and Watersheds (the "salmon recovery plan") and the watershed councils that have been instituted by the states of Oregon and Washington. The rise of these sorts of approaches has led to a new appreciation of the possibility of resource management strategies that include good jobs and strong local social institutions as important objectives that link healthy environments with healthy communities.

The Ecosystem Workforce Program (EWP) at the University of Oregon is conducting a three year demonstration project to test the possibilities of collaborative stewardship for community development<sup>1</sup>. Key to this is a monitoring and evaluation component that tries to assess the community impact of collaborative stewardship – to try to measure community changes. Such assessments are very difficult to do. The effects of community change efforts generally take a long time to manifest themselves, and it is difficult to show that whatever changes have occurred are the product of the change effort.

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<sup>1</sup> The demonstration project was conducted by the Ecosystem Workforce Program of the University of Oregon's Institute for a Sustainable Environment, with funding from the U.S. Forest Service and Oregon Department of Economic and Community Development. The assessment was funded by a grant from the Ford Foundation Asset Building and Community Development Program.

We are in the second year of the project. This paper is an interim report focusing on our attempt to monitor community impacts. I begin by summarizing the background situation and introducing the demonstration project. I then describe the theoretical rationale for collaborative stewardship as community development. Finally, I present aspects of the project methodology, based on the experience thus far.

## **BACKGROUND**

The forests and forest communities of the Pacific Northwest are in a period of transition. They have been buffeted for the past fifteen to twenty years by changes in markets and technology, by changes in environmental values, and changes in public policy related to the management of both private and government lands. A two-pronged shift has emerged out of these changes. On the ground it entails a shift from the former resource management paradigm that emphasized production for markets toward a new “ecosystem management” approach that attempts to link ecological, economic, and social objectives. Administratively, it entails a shift from a bureaucratic approach that separates objectives and responsibilities among various divisions of the federal land management agencies toward a management approach that combines responsibilities so that multiple objectives can be considered simultaneously.

These shifts are embodied in the Northwest Forest Plan and Northwest Economic Adjustment Initiative. A central purpose of these initiatives is to assist, timber-dependent rural communities with the ecological and economic transitions that are underway, to find ways to achieve the goal of healthy and sustainable ecosystems as well as the economic and social goals of healthy communities.

A key component of the Northwest Forest Plan and Northwest Economic Adjustment Initiative was the Jobs in the Woods program (JITW), a source of funding aimed at utilizing the

experiences, skills, and availability of dislocated timber workers living in forest communities to carry out watershed restoration projects. The intent is that income from harvest work would supplement or replace income lost from reduced timber harvests, benefiting workers, their families, and communities.

There was a risk, an opportunity, and a challenge with JITW. Most contracted forest work – thinning, tree planting, and like – has been carried out under least-cost, sort duration contracts. It assumes an unstable, low-skill, low-wage labor force. It requires highly detailed work specifications and intensive monitoring by land managers to assure that the work has been done properly. Despite this, extensive rework has often been necessary.

The **risk** of JITW was that a continuation of old contracting practices would turn highly skilled, well-paid loggers and mill workers into low-skill, poorly paid day laborers or force them to abandon the woods, leaving the work to the most desperate, marginalized workers. In either case local communities would be further impoverished.

The **opportunity** of JITW was to create a new profession, the “ecosystem management worker” or “applied ecologist.” Ecosystem restoration work could be reorganized, giving the workers responsibility for assessment and monitoring tasks as well as the basic labor involved. These higher-skilled workers would expect higher wages, of course. But the savings from reduced administrative costs and rework would more than make up for the increased labor costs. Additionally, there would be positive impacts on the environment in the form of higher quality ecosystem restoration work and on local communities because of the increased incomes.

The **challenge** was to lay the groundwork for this new profession. This has begun. Starting in early 1994, EWP has worked through JITW and other programs to create a stable, high-skill, family wage ecosystem management profession in western Oregon, as well as an

industry to support it. Numerous partners, from federal, state, and regional agencies and local NPOs have worked to define and implement the “quality jobs agenda.”

Much has been accomplished on what might be called the supply side of this agenda – developing a skilled, motivated, and trained workforce. A training curriculum has been created, along with the capacity to deliver it. Competency standards have been developed and there is an embryonic apprenticeship program. A new federal Occupational Code has been established for Ecosystem Management Workers in the Dictionary of Occupational Titles. A full-time placement specialist is available to link workers with public and private contract work. And a statewide job clearinghouse is in development.

In support of all this, there is encouraging preliminary data regarding the benefits of the high-skill, high-wage or quality jobs approach. EWP’s recent evaluative study, *The High-Skill Approach to Ecosystem Management* (Brodsky and Hallock 1998), begins to document the benefits.

The next phase in developing the profession of “ecosystem management worker” or “applied ecologist” has been to attend to the demand side of the agenda – assuring that job demand is structured to support the quality jobs approach. There has been a good deal of administrative support. The U.S. Forest Service, Bureau of Land Management, state agencies, and various private partners have signed an agreement to adopt quality jobs in all federal management contracting. A memorandum of understanding has been entered into between ten federal agencies and the state of Oregon, committing to a landscape-based, community based approach to watershed restoration that links environmental, social, and economic objectives. And the decision criteria for grants from the Oregon Watershed Enhancement Board (the “mother agency” for Oregon’s watershed councils) includes a quality jobs requirement.

To translate this administrative support into on-the-ground change, EWP has focused its efforts on working with federal land management staff, watershed councils and related CBOs, and private land owners to design ecosystem restoration contracts and other work procurement approaches to take advantage of the quality jobs strategy.

To summarize, the supply side of the quality jobs approach aims to create the new profession of “ecosystem management worker” or “applied ecologist.” The demand side aims to change the nature of work design and labor procurement in ecosystem restoration, to stimulate a demand for this new profession. This is being accomplished through liaison and technical assistance to:

- Encourage work design and procurement strategies that require “applied ecologists” to carry out the contracts;
- Encourage the creation of community-based contracting firms to take up the contracts and employ the “applied ecologists;” and
- Create networks among land managers and their partners, both at the local level and across the region, to promote cooperation and collaboration in implementing the high-skill, high-wage approach to ecosystem management.

## **ECOSYSTEM MANAGEMENT AS COMMUNITY DEVELOPMENT**

Behind these immediate goals is the broader aim of community benefit. The relationships and skills developed in partnership-building activities are assumed to carry over into other aspects of community problem solving. Stable family wage jobs with community-based employers benefit the local community both economically and socially. Taken as a whole,

then, the ultimate purpose of the quality jobs strategy is to increase community self-determination.

There is a good deal of theoretical support for these connections. *America's Choice: High Skills or Low Wages* (1990), the influential report of the Commission on the Skills of the American Workforce, set the terms of the debate a decade ago. It concluded that the traditional organization of work – intensively monitored low-skill workers following highly detailed work specifications – is outmoded. The future prosperity of the U.S. and its communities depends on creating teams of high performance workers who have responsibility for organizing their own work and for the quality of their output. The quality jobs strategy flows directly from these ideas.

There can be no doubt of the need for rural economic development. In Oregon, for example, the per capita earnings of non-metropolitan residents is 78 percent of that of their metropolitan neighbors. And in terms of earnings per job, non-metropolitan workers make 77 percent of that of metropolitan workers. The poverty rate is 32.7 percent greater and the unemployment rate is 62 percent greater in non-metropolitan areas than in metropolitan Oregon.

Jobs are only part of the problem. Good-paying jobs are essential to the local economy as well as to households. But in addition, it is important to recycle the earnings through the local economy by reducing capital leakage and increasing community control of firms doing business locally (see, e.g., Blakely, 2e 1994 or Galloway and Hudson 1994). By working with resource managers to hire local contractors who will create family wage jobs for applied ecologists, the quality jobs strategy aims directly at all of these points.

In addition to these well understood economic benefits, theory suggests that the quality jobs strategy should benefit communities socially. There is a substantial literature that links



economic distress to such social pathologies as crime, drug and alcohol abuse, and domestic violence. (For a summary of such studies conducted on forest communities by faculty and students in my home department, see Weeks 1990). However, this is a complex relationship. Prosperity and economic stability do not necessarily lead to reduced levels of social pathologies. Most notably, an analysis of national data by the Fordham University Institute for Innovation in Social Policy found that social health in the U.S. has declined since the mid-1970s, despite a generally rising GDP (cited in Oregon Progress Board 1997).

Hibbard (1989) explored the relationship between economic and social factors in forest communities experiencing economic distress. He found that younger, better educated people with children at home were likely to be planning a move away from their community, leaving behind a population that is older, less well educated and has fewer children. By removing the more dynamic segment of the population – the people who create and maintain formal and informal social networks and other forms of civic engagement – this migration pattern disrupts a community's capacity to address and solve problems.

Robert Putnam and others working in the social capital tradition have theorized that strong social networks and civic engagement lead to both economic prosperity and reduced social pathologies (Putnam 1993, 1995; see also especially Coleman 1990). Cornelia and Jan Flora have developed the related concept of entrepreneurial social infrastructure, community-level social relationships and structures that shape a locality's ability to address issues and solve problems collectively (Flora, Sharp, and Flora 1997).

Pulling these theoretical relationships together, strong social capital or entrepreneurial social infrastructure lead to **both** economic prosperity **and** lower levels of social pathology. Social capital/entrepreneurial social infrastructure can be strengthened by building

networks and partnerships within and between communities. The end result is enhanced community self-determination.

**Figure 1** illustrates these relationships within the EWP demonstration project. The EWP is attempting to build relationships and social networks directly, by promoting cooperation and collaboration in work design and procurement and the formation of community-based contracting firms. In so doing, it is also modeling behaviors and connections that can carry over into other community problem-solving arenas.

Ultimately, this process should lead to a “sustainable” community (see **Figure 2**).

## **MONITORING THE COMMUNITY IMPACT OF COLLABORATIVE STEWARDSHIP**

Since this is a demonstration project, a fair test requires that the quality jobs approach be implemented as effectively as possible. To that end the first part of the monitoring is a **formative evaluation** by an external evaluator, to help keep the project on track and make necessary mid-course corrections. The second part of the study is a **summative evaluation** examining the demonstration project on its own terms: changes in work design and procurement strategies, increased number of contracting firms employing applied ecologists, increased number of applied ecologists at work, and so on. The third part, the heart of the study, is **policy research**. It focuses on whether development of this industry has produced the positive changes in community trust and problem solving capabilities hypothesized by the literature. **Figure 3** illustrates these monitoring activities within the EWP demonstration project.

We are using a quasi-experimental approach for the summative evaluation and policy research. We have selected four “experimental” and two “control” (or comparison) communities. In all six communities we are collecting data on contractors and their workers as well as community-wide social and economic data. We conducted mailed household surveys in

each community at the beginning of the project, and will repeat it at the end. We are also collecting annual socio-economic data from each community on a set of specific indicators. And we are making extensive use of participant observation and ongoing open-ended interviews.

As noted, the policy research is the centerpiece of the study, seeking to learn whether, by building networks and partnerships, the demonstration project has made a difference in community trust and problem-solving capabilities. We drew on the growing measurement literature in this area for our instrumentation, beginning with the Aspen Institute's *Measuring Community Capacity Building* (1996), the Pew Research Center's *Trust and Citizen Engagement in Metropolitan Philadelphia* (1997), and the Oregon Progress Board's *Oregon Shines II* (1997).

The policy research relies on three sources of data. **Household surveys** conducted at the beginning and end of the project seek to measure changes in: the level of civic engagement; the knowledge and understanding people have of community issues; the amount of trust residents place in one another and their local government; the skills residents possess; and their attitudes about the future.

**Existing data** are being used to assess trends in population, per capita income, unemployment, and poverty. Changes are being noted in the experimental and control communities. In addition, the data for these communities are being compared to changes in rural Oregon as a whole.

**Ethnographic studies** are focusing on community capacity. Our aim is to identify local governmental and non-governmental programs and services as well as informal networks that increase community capacity. These include such things as worker re-training programs, nutrition education programs, child care organizations, after-school reading programs, downtown

redevelopment programs, and the like. We are interested in the number of such activities, the level of participation, and their perceived effectiveness.

## **DISCUSSION**

Interest in monitoring the socio-economic consequences of ecosystem management is growing rapidly. We have learned some lessons from the preliminary sages of our project that may be relevant to others who are attempting this work. First, the projects may be so small relative to other things that are happening in the local economy that detecting changes may be difficult. Moreover, showing that the changes were caused by the projects is often a problem. Comparison studies can help address this by weighing any changes in the “target” community against some “outside” metric. But even then, of course, you cannot be sure that any differences noted are the result of the ecosystem management project. Other factors could well be involved.

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