

## Developing the Ecosystem Management Workforce

Building sustainable communities in natural resource dependent areas requires finding ways to protect natural ecosystems, while at the same time promoting local economic development. In 1993, this challenge became an urgent one for the timber-dependent communities of the Pacific Northwest. Throughout this region, changes in public land management policy, under the federal government's Northwest Forest Plan, resulted in a sharp decline in timber production and a shift in priorities to restoring watershed for spotted owl and salmon habitat. As the logging and sawmill industries in the region declined, local communities struggled to cope with the corresponding loss of jobs. As a remedy for this predicament, the Northwest Economic Adjustment Initiative that accompanied the Plan, assigned federal funds to the Jobs in the Woods program—an initiative to provide training and family-wage jobs in watershed restoration for displaced workers.

Nearly eight years later, the communities of the Northwest are still working to transition their local economies from an extractive to a stewardship base. In response to the need for training in ecosystem management, a number of community-based programs have sprung up throughout rural Washington, Oregon, and California, offering coursework and on-the-job training, as well as job placement. Students of ecosystem management are trained in a wide range of skills including, stream restoration, surveying, ecological analyses, thinning, reforestation, and geographic information systems applications (GIS). They also receive business training to prepare them for bidding on government contracts. The breadth of training enables workers to continually find

work despite seasonal changes and shifting land management priorities. For land management agencies, contracting high-skilled ecosystem workers means that they can order complex restoration procedures on critical habitat and have it done by a single crew with minimal supervision. Ultimately, these programs help workers build stronger relationships with the land and with land management agencies.

For many workers who complete their ecosystem management training, however, the opportunities for employment are unsteady. The traditional design and procurement approach to service contracts on federal lands favors the lowest bid, often disadvantageous to local, high-skilled labor. Short-term contracts for single activities encourage contractors to hire low-skilled workers and invest little in on-the-job training. New procurement methods, such as best value and task order contracting, offer some hope for creating meaningful ecosystem employment. The future of the ecosystem workforce will depend on the development of contracts that bundle together multiple tasks, fund on-the-job training, and favor local contractors over distant ones.

Meanwhile, the developing ecosystem workforce faces challenges of equitability and inclusiveness. In Oregon's Willamette Valley, logging clearcuts have traditionally been reforested by mobile teams of workers, the majority of whom are Latino immigrants, who spend the summer planting season traveling from contract to contract. Besides tree planting, this mobile workforce is responsible for a variety of forest maintenance activities including thinning, slash burning, erosion control, and trail construction. With the rise of ecosystem management training,

former timber workers in the region are also learning to perform forest restoration work. This is cause for concern among the members of the mobile workforce who are worried about being excluded from the training and high skilled jobs, not to mention the service contract work that they have traditionally performed. The Willamette Valley Reforestation Demonstration Project, which offers a Spanish language ecosystem management training program, and the multicultural Alliance of Forest Workers and Harvesters are two resources that are helping this mobile workforce gain access to higher-skilled ecosystem employment. With an increasingly louder voice, this community of interests is continually alerting others of their rights and abilities.

Interest in building an inclusive, highly trained ecosystem workforce is not confined to the Northwest. Communities, government, and land managers are looking for opportunities to create family-wage jobs while restoring ecosystems in other parts of the country as well. Even urban ecosystems may offer a source of employment for skilled managers and technicians. As training and job placement programs are tried elsewhere, the experience gained from Jobs in the Woods will provide valuable input.

*To facilitate learning and action, the Pinchot Institute, with support of The Ford Foundation, will be sponsoring a series of workshops beginning in the fall that address the prospects and challenges of expanding employment in ecosystem management. For more information, please contact Peter Kostishack at (202) 797-6582, or at [peterk@pinchot.org](mailto:peterk@pinchot.org).*

