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**People and Forests: Communities, Institutions, and Governance,
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and The Business of Sustainable Forestry: Case Studies, a Project
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STORIES OF SUSTAINABILITY

**PEOPLE AND FORESTS: COMMUNITIES, INSTITUTIONS,
AND GOVERNANCE**

EDITED BY CLARK C. GIBSON, MARGARET A. MCKEAN,
& ELINOR OSTROM

Cambridge, Mass.: The MIT Press, 2000

Pp. 274, \$21.00

AND

THE BUSINESS OF SUSTAINABLE FORESTRY: CASE STUDIES

A PROJECT OF THE SUSTAINABLE FORESTRY WORKING GROUP

The John D. and Catherine T. MacArthur Foundation, Chicago
Washington, D.C.: Island Press, 1998

Pp. 353, \$35.00

(Copies of individual case studies or a bound set of all of the case studies included in this book are available for purchase from Island Press.)

Sustainable forestry is forestry that is ecologically sound, economically viable, and socially desirable. For some people, using these three concepts to define sustainable forestry only broadens the possible interpretations of the phrase, rather than supplying any kind of detail that helps readers get their minds around the concept. These two volumes help give shape to the term "sustainable forestry" by telling stories that show the variables affecting forest conditions.

The Yurucaré

The Yurucaré people, composed of approximately 400 families, live along the Rio Chapare in Bolivia. With a new law enacted in Bolivia in 1990, indigenous groups such as the Yurucaré are now recognized and given legal authority over their traditional territories. The Yurucaré traditionally used the riparian forest for hunting. The three settlements compared in this study are each located in different "life zones," all of which are classified as lowland tropical moist forests. The most common trees in all three forests are palms and fruiting hardwoods.

The Yurucaré organize themselves by clans consisting of extended families made up of 10 to 20 nuclear families. Clans are then broken down

into smaller units called *corregimientos*. Within each *corregimientos* there are *kuklete* (family forest gardens) that are cared for and monitored like private property. The *kuklete* are not fixed, and families often move within the *corregimientos* and territory. This means that each family has a stake in sustaining the whole watershed. However, in 1991 forest associations were formed within each *corregimientos* to organize timber harvesting in order to make sure the benefits were distributed equitably. Forest associations privatized mahogany and Spanish cedar in community forest areas to reduce conflicts. The Bolivian Department of Forestry encouraged this privatization by setting quotas on timber extraction and pushing the Yuracaré to meet these quotas.

Given the new market incentives, it is not surprising that fewer trees and smaller trees were found in the forests that surround communities that are close to market. Misiones, the community with greatest population and market pressures, showed the greatest decline in basal area and abundance of individual tree species. Commercial timber species are more exploited than traditional timber species. Timber marketing is changing the forest structure along the Chapare River.

The most abundant tree species found in the forests were fruiting species that support birds and mammals and are traditional foods of the Yuracaré. The Yuracaré have a long history of managing their forest areas to improve the populations of game animals. A common phrase heard by the authors as they spoke with community members was, "All Yuracaré must care for the forest." The reason for this stewardship ethic was, "so the animals will come." Fruit trees are protected, transplanted, and recruited in order to attract game. This system has sustained people, wildlife, and a diverse forest for 400 years. However, embracing commercial timber harvesting threatens this system. The Yuracaré have not yet recognized the possible negative consequences of forest degradation.

The Yuracaré have clearly defined boundaries and monitor their forest resources. Rules are created and enforced by the community as a whole. Fruit trees are planted and nurtured. However, this tradition of conservation of fruit trees has not extended to timber management. The Yuracaré currently show little inclination to conserve or restore timber species, in large part because commercial timber species are not linked to their traditional practices.

Collins Pine

The Collins Pine Company, headquartered in Portland, Oregon, produces a variety of lumber products for industrial and construction markets. In recent years the company has switched from commodity markets to higher-margin markets, such as furniture, specialty shelving, and flooring.

The Collins family has owned the company for the past 142 years. The founders' grandson, Truman Collins, adopted sustained yield forest management on company lands near Chester, California, in 1940. The management approach of Collins Pine at that point emphasized selective cutting, a practice that creates stands of uneven-aged trees similar to stands found in some natural forests. Collins Pine now uses both uneven-aged and even-aged approaches to mimic natural processes that create diverse tree stands and promote natural regeneration of trees. A disturbance that creates an uneven-aged stand is the death of a large canopy tree. Trees are then recruited into this opening. An example of a natural disturbance that creates an even-aged stand is a stand-replacing fire that promotes a new stand of aspen.

Collins Pine is interested in educating anyone interested in their uneven- and even-aged management and is willing to take the time to offer a field trip to anyone who is interested. A visitor walking through a forest actively managed by Collins Pine may notice that the company's forest appears healthier and more structurally diverse than the adjacent forest. Some old trees are left standing out of reverence for their age and stature. Standing and downed dead wood are found in the forest. Harvests are light and occur every 12 to 20 years. Roads are well maintained. Logging techniques minimize damage to soil and water quality. The silvicultural techniques used in a given stand vary based on tree species, age, and other characteristics.

The management goals of Collins Pine are to maintain and enhance forest diversity, improve forest health, and increase the production of high-quality timber. Broader goals of maintaining healthy watersheds and habitats for wildlife are also considered. The most important objective, however, is the maintaining of management options for future generations. The company believes that the long-term stability of their wood supply, which exists because of their conservative forest management practices, compensates for any sacrifice in short-term profit. Therefore, the harvest level of the company is determined by forest growth. Managers refer to company timber as "principal" and the growth as "interest." This means that managers can draw from the interest when they plan a harvest, but the principal needs to remain stable. Harvest rates at Collins are lower than the industry average, but the overall quality of the wood is higher.

Collins Pine strives to be both ecologically and socially responsible. The company fosters research and educational programs. For example, a high school in Lakeview, Oregon, has set up plots and monitored them to see how well various silvicultural techniques regenerate trees. Collins is also committed to providing a stable employment. Employees are eager to speak about their relationship with the company and the respect they have for the Collins Company.

Collins Pine, in 1992, became one of the first companies in the world to have an independent organization (Scientific Certification Systems) certify that some of its timberlands are well managed. Certification enables wood that comes from certified timberlands to carry a logo consumers see. Collins promotes certification as a tool for building public trust in commercial forestry.

Practicing sustainable forest management can increase production costs and diminish profits in a number of ways. One way is that adhering to long-term harvest plans may not allow the company to take advantage of fluctuations in market demand or price. An added cost is that the need for comprehensive information about the forest is labor intensive but is necessary for good planning. Despite the added economic challenge of sustainably managing their forests, Collins operates efficiently and competitively when compared with similar operations.

Common themes

The story of Collins Pine from the *Business of Sustainability* and the story of the Yuracaré from *People and Forests* carry common themes on why and how people sustainably use forests.

Ownership

In recent years, the Yuracaré have privatized portions of their lands. This privatization enables equitable exploitation, but does not protect their resources. Perhaps if the Yuracaré realize the negative impacts of unrestricted timber harvesting, they will create rules that control the harvest levels as they have done with fruit trees.

In the case of Collins Pine, privatization enables the company to establish its own standards to regulate timber extraction. The company can operate with a philosophy rooted in sustainability because it is family owned, rather than publicly owned and traded. In addition, a reliance on private lands for their timber supply has enabled them to stay in business, since public lands are producing smaller and smaller amounts of wood.

Market Pressures

Markets are penetrating the Chapare River region in Bolivia, shifting Yuracaré preferences in food and labor. The Yuracaré have responded to the lucrative market for mahogany and cedar. As the local economy shifts to become market-based, people are beginning to buy their food, rather than rely on traditional foods. These changes may undermine the fabric of the community. Market forces are powerful determinants of the

feasibility of sustainable forest management in the United States and, increasingly so, in developing countries.

Collins Pine has not found a strong market for certified wood or products. They have been relatively unsuccessful in marketing their wood products as certified. One factor contributing to the weak market is that consumers are more inclined to talk "green" than to act "green." There are numerous other barriers, such as the difficulty in meeting specific market demands. For example, a company might request the highest-grade lumber in a specific species and thickness. The volume requested often exceeds the availability. In spite of the added costs of certification and sustainable management, Collins Pine has managed to stay in business and compete with other companies who have different management approaches.

Ethic of Stewardship

A strong stewardship ethic is evident among the Yuracaré. This ethic has centered around conserving fruit trees, a traditionally important food. The Collins Pine family also has a history of strong interest in sustainable forest management. Their vision of sustainability extends beyond ecological considerations to include social issues. In both these examples, it has been the values of individuals to conserve their resources that have enabled the community or business to persist over time.

Despite the fact that the Yuracaré are an indigenous community in Bolivia and Collins Pine is a family-owned business in the United States, there are common lessons that emerge from these two stories. Well-defined patterns of ownership, open markets for sustainably grown timber, and a strong sense of personal ethics can all promote sustainability. Both books explore the myriad of factors that promote and discourage sustainable forest management.

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