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Mountain Forests and Employment in Savoy, France

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The capacity of forests to provide sustainable employment opportunities is becoming the focus of greater interest worldwide. In mountain areas, forest resources are a considerable source of livelihood and of multiple economic activities based on a variety of goods and services. A case study from

Savoy, France, is presented and discussed here. The results of the study suggest that forest-related activities in mountain regions enhance environmental and socioeconomic benefits, including high-quality goods and services, as well as sustainable employment opportunities.



FIGURE 1 Wood harvesting in Savoy—the first step in the wood production chain. (Photo by Pier Carlo Zingari)

Forests and employment worldwide

There is increasing interest in the potential of forests to provide sustainable employment opportunities. At the international level, it is estimated that 45 million people are employed in forestry and related sectors. Although forest resources contribute greatly to livelihoods and to many economic activities through a great diversity of goods and services, research and

information on forest-related employment are limited at both the local and the national levels.

The case of Savoy, France

In order to raise awareness of the links between mountain forests and employment, the European Observatory of Mountain Forests (EOMF) conducted a study in a French mountain region with two main

Full-time jobs worldwide

Currently, it is estimated that the equivalent of 45 million full-time jobs exist worldwide in forestry, related industries, and the informal sector. Of these (Poschen, 1997),

- N 2% are in forestry in industrialized countries,
- N 6% are in forestry in developing countries,
- N 10% are in industrialized countries' wood industries,
- N 7% are in developing countries' wood industries,
- N 9% are in the pulp and paper industry,
- N 30% are in fuelwood production, and
- N 36% are in the forest-based informal sector in developing countries.

goals: to evaluate the quality and quantity of employment linked to mountain forest resources and to identify new opportunities for employment. The methodology consisted of three steps: a review of existing information, documentation, and data; dissemination of questionnaires to individuals and organizations representing forest interests; and finally, interviews involving individuals both as providers and as seekers of information.

The main results are concerned with two broad areas: the wood production chain (Figure 1), from management to manufacturing, and nonwood products, including evaluation of services such as activities in protective forests and tourism.

Our inquiries about employment in the forest-related sector inspired two types of response. One was resignation: "There's a kind of desertification taking place with our young people leaving agriculture and forestry because the work is too hard, too isolated, and not really profitable," said the mayor of a small mountain village where various forms of soft tourism are developing (Figure 2). The other view is just the opposite: "We have at least as much employment provided in forest-related activities as in wood manufacturing." The core problem seems to be social change and economic decline due to what the delegate of the Savoy forest-wood

interprofessional association told us:

"Earning sustainable revenue from wood is harder and harder when all costs continue to increase and wood prices are dependent on the world market."

The problem is to find reliable data or to make a reliable assessment of what is actually taking place. For instance, a beekeeper told us that "producing honey without a forest in this region would mean producing without quality. And quality is important; it is quality that allows us to export honey from here to places as far away as Scotland." We asked about the water resources that are well known here both as commercial mineral waters and as thermal sources. The forest service stressed that "an increasing area of forestland is managed according to specific guidelines for water quality with benefits that go to those offering products (mineral water) and services (thermal water)."

A mixed forest economy

Savoy is an Alpine department of France where history, culture, and natural resources, including forests, have shaped a valuable and diverse framework for livelihood opportunities. Almost all of Savoy is mountainous, with an average elevation of 1600 m. Forests cover 28.5% (180,000 ha) of its area, higher than the French national average of 25.6%. Forest cover is increasing in Savoy at twice the national average. Coniferous species—Norway spruce (*Picea abies*), silver fir (*Abies alba*),

FIGURE 2 Agriculture in Savoy still involves much hard labor. (Photo by Pier Carlo Zingari, 1990)



TABLE 1 Employment linked to mountain forest resources in the Région Rhône-Alpes. 300 m³ of timber create 1 full-time job for 1 year.

| Sector | Number of jobs |
|--|----------------|
| Forest management | 8 |
| Forest use and transport | |
| Felling | 3 |
| Preliminary processing | 1 |
| Transport | 0.5 |
| Processing of wood products | |
| Sawing and processing for the market | 18 |
| Paper and chipboard processing | 3 |
| Total for 10,000 m³ wood | 33.5 |

and Scots pine (*Pinus silvestris*)—dominate, covering 60% of the forest area. Municipalities own 45% of the forests, particularly those composed of conifers. Private forests are usually of broad-leaved trees and are scattered and small, with an average area of 1.8 ha. The state also owns some forests following the acquisition of lands subject to erosion during the second half of the 19th century.

Savoy's forests play multiple roles, often interconnected and linked to a variety of goods and services. They are the basis of a mixed forest economy that provides revenues and diverse employment opportunities. In the past decade, difficulties associated with employment in the forest sector have been increasing, particularly in the area of wood production. This led to the need to assess the current situation and to explore sustainability in terms of employment linked to mountain forest resources (Table 1).

Although the availability of wood has increased over the past 5 years (1 million m³ of annual growth; 300,000 m³ felled), employment (5000 full-time equivalent jobs) has not shown the same trend. However, various opportunities can be recognized that require increased interaction between actors in the forestry sector, including private and municipal owners, professionals, wood manufacturers, and small- and medium-scale enterprises. In the short term, half of the enterprises are ready to increase their staff; in the medium term, almost one third will do so. The two main concerns are inadequate social and economic recognition for wood workers in logging activities and lack of promotion of the qualities of local wood.

Nonwood products and services

With regard to nonwood products and services, such as activities in protective forests and tourism, our evaluation was less conclusive than for wood production because of a lack of common criteria and indicators. However, a consistent set of increasing activities was identified. These are based mainly on the extensive use of forests. Game hunting is becoming more important in economic terms, and though fishing is closely connected to the quality of water to which forests contribute,

FIGURE 4 Clearing forests to build ski runs conflicts with the need to maintain the protective functions of forests. (Photo by Pier Carlo Zingari, 1988)



employment potential is limited (Figure 3). Interest in mushrooms, wild berries, and herbs is increasing in economic terms and is also providing employment, although institutional efforts are needed to provide better assessments and to administer the flow of goods while respecting local interests. Beekeeping is important, with 2200 small producers, and benefits from the increasing demand for quality products coming from mountain environments. Ski activities are difficult to assess in terms of forest work, which is necessary to provide safe and viable resorts (Figure 4). Our evaluation of employment potential only considered cross-country skiing, which involves forest areas to a considerable extent. Finally, 240 people are employed in the fuelwood sector.

Forests and employment: Some conclusions

- Mountain forests, even at the local level, are direct or indirect sources of highly diversified activities. They provide local employment opportunities that significantly mitigate the impacts of depopulation and the permanent migration of younger generations.
- Savoy's mountain forest resources have never been the object of specific studies concerning employment; a single assessment made in 1995 has been widely used by all groups and is a reference for further work.
- All mountain forest actors are aware of and involved in strengthening a policy of sustainable management, including sustainable opportunities for employment.
- Mountain forest actors recognize the need for information and training in



FIGURE 3 Hiking, fishing, game hunting, and collecting mushrooms and berries are all popular activities in the mountain forests of Savoy. (Photo by Pier Carlo Zingari, 1988)

- order to benefit from the better marketing of wood and nonwood products.
- Wood production in Savoy's mountain forests is significant, growing, and deeply rooted in local communities. Silviculture is considered an activity with multiple benefits, including security against natural risks. It is also a source of recreation and rural employment opportunities.
 - Wood production and manufacturing are particularly expensive in areas with permanent natural constraints (e.g., climate, short growing season, limited accessibility, steep slopes, transportation).
 - Nonwood goods and services, although inherently difficult to evaluate, are as important as wood production in terms of employment, but they are dispersed among various sectors.
 - Greater social and economic recognition of wood workers is necessary as well as improved interaction of groups contributing to the wood chain—from production and management to final use.
 - There is a serious lack of criteria and indicators for employment. Simple sets of indicators could be identified as a starting point for further assessments of trends in employment linked to mountain forests.

These findings clearly indicate the important linkages between forest resources and employment. Yet precise, comparable, and consistent information is missing at the sectoral level. Mountain forests obviously offer diversified opportunities in activities that are consistent with sustainable livelihoods. But greater efforts



are needed to provide facts and figures on the variety of actors, products, and services involved. Perspectives on employment linked to mountain forest resources are changing in Savoy and more generally in Europe. Accordingly, greater recognition and awareness are needed of the socioeconomic conditions of forest workers. There is no doubt that forest-related activities in mountains enhance environmental and socioeconomic benefits, including high-quality goods and services and new employment opportunities (Figure 5). Above all, downstream flows of benefits should be taken into account when considering revenues and employment policies for mountain areas.

FIGURE 5 Management of forests to balance wood harvesting with tourism is an environmental necessity as well as a source of employment. (Photo by Pier Carlo Zingari, 1990)

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Julianne Soudan is a graduate in mountain resource management from the University of Chambéry, France, and is currently coordinator of a local project on habitat conservation and management. In seeking employment upon completion of her studies, she identified gaps in information about forest employment and subsequently created the position she now occupies as coordinator of a field project on mountain environments.

Pier Carlo Zingari holds a PhD in forest economics and planning and is director of the European Observatory of Mountain Forests (EOMF). He is a former FAO field officer and research project coordinator in Latin America. His main work is concerned with establishing links between fieldwork, research results, and the need for sustainable livelihoods and development of forest-dependent communities in Europe.

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FURTHER READING

Poschen P. 1997. *Forest and employment—much more than meets the eye.* XI World Forestry Congress, Antalya, Turkey.

See also the following web sites: International Federation of Building and Wood Workers (IFBWW) at <http://www.ifbww.org>; International Labour Office (ILO) at <http://www.ilo.org>; Mountain Forum at <http://www.mtnforum.org>.