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Valuing Forest Externalities

Creating markets for ecosystem services

Arto Naskali
Research scientist,
Finnish Forest Research Institute (METLA), Rovaniemi Research Unit
P.O.Box 16, 96301 Rovaniemi Finland
arto.naskali@metla.fi

During the past two decades, scientific and political interest in ecosystem functions and services has increased dramatically. This is partly due to improving scientific understanding of the role of well-functioning ecosystems in human life support and well-being. Also, economists are increasingly recognizing that ecosystem services, and especially regulation services, protect economic activity and thus are of economic value. The so called “ecosystem approach” stresses that there cannot be a supply of renewable resources without functioning ecosystems to produce them. A visible consequence of this systemic thinking has been that in many countries new policy instruments for safeguarding ecosystem functions have been developed and implemented. Instruments used have been termed “(direct) payments for ecosystem (or environmental) services (PES)”, “markets for ecosystem services”, “market-based instruments (MBI)”, “market creation for ecosystem services”, “nature conservation agreements”, “natural and recreational values trading”, etc. These instruments have one common feature - they make use of market mechanisms to obtain socially desirable goals. Markets for ecosystem services have recognized to be a good way of rewarding and encouraging landowners to protect ecosystem functions and to produce ecosystem services. Markets for forest ecosystem services are thought to improve the economic performance of sustainable forest management (SFM).

Ecosystem services are supplied at various spatial (and temporal) scales. The production of these services concentrates on dynamic cross-boundary processes and this is why practising command-and-control policy to produce them is very difficult. In this paper, the main attention focuses on the point that some kind of co-operation between landowners is clearly needed. Many environmental resources are common-pool resources. The basic question to be answered is how different resource regimes might influence the stakeholders’ will and capacity to cooperate in solving common-pool resource problems. Common-pool resources have two defining physical characteristics: rival consumption and the difficulty of exclusion. Interdependence causes conflicts and a pressure to resolve them by establishing and modifying institutions. Innovative institutions are necessary for the market for ecosystem services to function. Market mechanisms require and promote co-operation. New formal and informal institutions besides the effective legal framework for organizing collective action are needed.