

FOR SERVICES RENDERED: THE CURRENT STATUS AND FUTURE POTENTIAL OF MARKETS FOR THE ECOSYSTEM SERVICES OF FORESTS

Status of Forest Ecosystem Markets

The past decade has seen widespread emergence of markets and other payment schemes for forest ecosystem services – such as watershed protection, biodiversity protection and carbon sequestration – around the world.

The strong and growing interest in developing these markets is driven by frustrations with traditional government regulatory approaches, growing recognition of the limits of protected area approaches to conservation, societal demands for ecologically sound products, and the forest-based industry's need to find additional revenue sources to remain competitive. Those concerned with conservation and development hope that such markets can contribute to forest protection and restoration and become a sustainable source of new income for the forest-dependent poor who own and administer an increasingly large share of the world's forests.

The many different types of market and payment schemes can be organized into four categories: (1) public payment schemes to private forest owners to maintain or enhance ecosystem services; (2) open trading under a regulatory cap or floor; (3) self-organized private deals; and (4) eco-labeling of forest or farm products, an indirect form of payment for ecosystem services. There are numerous examples of each type of market in both developing and developed countries.

Key Findings: Market Characteristics

1.) The total value of direct ecosystem service payments in tropical countries is presently modest, but has grown dramatically over the past decade and is significant, particularly to low-income producers. Tropical

ecosystem services are not yet commodities; rather they behave as niche markets for products of special value to a narrow range of buyers. Very roughly estimated, the annual value of direct payments for forest ecosystem markets in tropical

countries is in the order of hundreds of millions of USD. Indirect payments, via eco-labeled products such as certified lumber is much larger, generating approximately several billion dollars per year.

2.) Markets for forest ecosystem services are expected to grow, in both developed and developing countries, over the next 20 years. The potential for increased demand, and increased payment, for watershed services is immense. Water demand, for example, is projected to double, if not triple, over the next 50 years and much of this growth will be in developing countries.

3.) Governments play a critical role, as the principal direct buyers of many ecosystem services, and catalysts for many private sector direct payment schemes. Since many ecosystem services are public goods, government intervention is usually required to make a market. This may entail directly paying for a service, establishing property rights, or establishing regulations that set caps and govern trading schemes.



4.) *Ecosystem service payments will in most cases cover only a modest—but potentially catalytic-- share of the costs of good forest management.* Prices of ecosystem services are generally not sufficient to justify forest conservation in areas where there are moderate to high opportunity costs for the land. However, evidence suggests that these payments can have a disproportionate catalytic effect on forest establishment and management.

Strategic Issues

Policy and market makers concerned with tropical forests are beginning to assess their strategic competitive position *vis á vis* the option of markets for ecosystem services. They are keen to understand if and when they should seek to compete in global markets, and what kinds of market approaches make sense in their own domestic contexts. Some key issues include:

1.) *Property rights and national legal frameworks are necessary for ecosystem service markets to develop yet these are poorly developed in most producer countries.* Recognizing property rights and reforming legal frameworks are often politically contentious and costly, yet fundamental to establishing payment schemes of any type. Unfortunately forest areas in developing countries are currently characterized by overlapping and conflicting claims to land and historic tensions over the rights of indigenous and other local communities.

2.) *These markets are not likely to contribute substantially to poverty alleviation unless proactive efforts are made to recognize rights and shape markets to provide equal access to low-income producers of tropical forest ecosystem services.* As in the development of any new market, rules governing the market tend to be set by the more powerful sectors of society who have the capital and capacity to invest in designing the rules.

3.) *New market institutions are needed to reduce transaction costs and financial risks.* A major challenge of ecosystem service market development is to ensure that critical institutions are established to reduce transaction costs, and to provide intermediation between buyers, sellers, investors, certifiers and other key groups in the value chain.

4.) *Knowledge Gaps. Information about ecosystem service markets is scarce and the capacity to assess and develop markets is limited.* Progress is hampered by lack of understanding and political support from key stakeholders. Few national, state or local government entities have access to the information needed to shape policy on market design. Most market expertise is available only from the private sector, generally companies and consultants who are motivated by the opportunity to promote business deals. To realize the potentials of ecosystem service markets in tropical countries, leading organizations promoting forest stewardship will need to fill these knowledge gaps.

Ecosystem service markets could potentially offer a powerful new set of incentives for tropical forest conservation and restoration, and new income opportunities for forest producers. However it remains unclear which producers, consumers and types of forest resources will be the real beneficiaries of market development. It is also unclear under what conditions the creation of ecosystem service markets will be the most effective policy instrument for achieving forest policy goals. Most markets are still incipient and their further development will require concerted government action. The decisions being taken over the next few years will shape market effectiveness, efficiency and equity for decades to come.