

# **Ecosystem Services and Markets: Summary of comments from practitioner groups**

## **Meeting Context**

Following the January 2007 workshop *Ecosystem Services: Market Incentives for Land Stewardship*, many attendees expressed interest in further identifying and understanding the major issues for ecosystem services and their markets. The PNW Research Station in cooperation with the Western Forestry and Conservation Association set up several client meetings with a variety of forest practitioners interested in this topic. We provided questions for four different user groups including 1) Family Forest Land Owners, 2) Forest Industry, 3) Conservation Groups, and 4) Public Agencies. The following is a summary of some of the major comments provided by these different groups.

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## ***Family Forest Land Owners***

### **What are ecosystem services (E.S.) and why are you interested in this topic?**

- Family forest owners defined ecosystem services as “naturally occurring functions that provide benefits to society and ecological systems.” These benefits obtained from ecosystems include provisioning services such as food and fiber from forests.
- A major reason for interest in ecosystem services is for increased recognition of good land stewardship by forest landowners. This may include revenue from these services but new revenue streams were not the primary motivator. Family forest owners also were interested in providing monetary benefits for the next generation of landowners.

### **What are the barriers and incentives to participation in E.S. markets?**

- Some of the major barriers include difficulty with regulatory hurdles and uncertainty with the market. Several landowners mentioned that the market is currently too young and undeveloped. Other comments included fairer compensation and the impression that forest owners are currently held to a higher standard than other lands such as agriculture. There was a concern that there is a disincentive for past good land practices and that greater opportunities exist for restoration of poorly managed land than well managed land.
- Incentives include services that provide for greater recognition for good land stewardship, leasing of services instead of a one time payment and better coordination of regulatory agencies to make regulations more efficient. A major theme was to simplify the market and make it easier to understand in order to be involved with transactions.

### **What do you see as the major E.S. markets in the next 5 years?**

- The major markets for ecosystem services in next few years include water quality and quantity, wetland mitigation, species conservation banking, and carbon.

### **What should be the role of regulators and public land agencies in E.S. marketplace?**

- Regulators should serve as advisors and not as policy makers. There is also a major need for consistency among regulatory agencies.
- The Forest Service could provide an ecosystem anchor for services but should not be involved with market transactions. Another suggestion was that the USFS could trade ecosystem service payments for efforts such as restoration projects.

**What are the major research issues to be addressed by the PNW Research Station?**

- Research needs include tracking carbon inputs and outputs, building models to calibrate ecosystem service markets, replicating larger scale projects such as paired watersheds to evaluate ecosystem services, and determine which actions on the ground create which types of ecological services.
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***Forest Industry***

**What are ecosystem services (E.S.) and why are you interested in this topic?**

- Ecosystem services is a “fuzzy” concept and there is a need to clearly define the term. These ecosystem services include commodities such as wood and fiber.
- Major interest in ecosystem services is for an additional source of revenue.

**What are the barriers and incentives to participation in E.S. markets?**

- Major barriers include lack of regulatory framework, no market integration, no legal framework which all lead to demand constraints.
- “Well structured regulations” are critical to success.
- Incentives include regular, periodic income vs. a one-time payment for services, federal regulations that create demand such as an emissions cap for carbon, and third party certifiers for ecosystem service credits.

**What do you see as the major E.S. markets in the next 5 years?**

- Carbon markets.

**What should be the role of regulators and public land agencies in E.S. marketplace?**

- Well structured regulations are the key to developing markets.
- Regulators need wide spread agreement on the ground rules and common protocols.
- The Forest Service should not enter into market transactions and entry would flood the market with low prices for services. The USFS could serve as a prototype on how to conduct ecosystem measurements and to value services.

**What are the major research issues to be addressed by the PNW Research Station?**

- Key research needs include ways to measure ecosystem services and research on impacts of conversion of forest land to developments and other uses.
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## ***Conservation Groups***

### **What are ecosystem services (E.S.) and why are you interested in this topic?**

- Ecosystem services are the ecological and recreational benefits from ecosystems that affect the quality of human life. These services are often perceived as provided by nature for free. Ecosystem services do NOT include commodities such as wood and fiber as these products already have a market.
- Interested in ecosystem services as an incentive to keeping working lands in competition with other land uses and also provide a revenue stream for maintaining fish and wildlife habitat. These services are a logical tool to protect biodiversity. Ecosystem services have the potential to transform forestry and farming by outperforming the typical industry model. These services can also provide tangible environmental benefits and can move forest lands toward sustainability.

### **What are the barriers and incentives to participation in E.S. markets?**

- Barriers include an uneven regulatory system, the markets are difficult to measure, and incentive programs are under funded according to need.
- There are no markets without regulations, regulations are the key.
- Regulatory agencies are too narrowly focused and do not consider ecosystems in an integrated fashion.
- Incentives include markets that are simple to access, with risks better defined.
- Other incentives include providing performance standards for regulators, incentives to encourage early adaptors and a rapid permitting system to increase efficiency of regulations.

### **What do you see as the major E.S. markets in the next 5 years?**

- The major markets for ecosystem services include carbon, water quality trading, habitat restoration and flood storage credits.

### **What should be the role of regulators and public land agencies in E.S. marketplace?**

- The role of regulators should be to design an integrated trading system so that every agency does not serve as an individual broker.
- The Forest Service could serve as a reserve or insurance for private projects if they should fail. The USFS should not get involved in transactions as private lands will be undercut and this would be a hindrance to getting markets established. Another suggestion was to use ecosystem service valuation to create an overall budget for the USFS.

### **What are the major research issues to be addressed by the PNW Research Station?**

- Key research needs include valuation of different ecosystem services, determine the social and economic benefits of ecosystem services, research on production functions and model the impacts of different regulatory approaches.

## ***Public Agencies***

### **What are ecosystem services (E.S.) and why are you interested in this topic?**

- Ecosystem services are the goods and services that contribute directly to human well being. E.S. includes provisioning services such as food, wood and fiber.
- Interested in ecosystem services as a way to combine ecosystem functions with revenue. Also as a way to engage the public to develop values for the ecosystem.
- Ecosystem services are an important tool to stem the tide of land conversion.

### **What are the barriers and incentives to participation in E.S. markets?**

- Barriers include uncertainty in markets, need for regulations at national level, and the marketplace needs to be efficient in providing ways for people to move in and out of markets.
- Uncertain markets for carbon until the Federal government sets a national carbon policy.
- Incentives include having multiple agencies working together on a geographic area or district.

### **What do you see as the major E.S. markets in the next 5 years?**

- Major markets include carbon, water quality and quantity, recreation credits.

### **What should be the role of regulators and public land agencies in E.S. marketplace?**

- Regulators should work together on a regional structure across a broad area.
- Public agencies CAN be involved with market transactions in ecosystem services.

### **What are the major research issues to be addressed by the PNW Research Station?**

- Research needs include an index of ecosystem factors and developing a set of metrics on production functions.
- Need to identify opportunities and barriers for ecosystem services, and the costs and benefits for these services.
- Need to have research information disseminated in a variety of ways including briefing sheets, and scientific and technical reports.

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