Mapping Ecosystem Markets in the United States

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Forest Trends works to conserve forests and other ecosystems through the creation and wide adoption of a broad range of environmental finance, markets and other payment and incentive mechanisms.

Our Ecosystem Marketplace initiative is the leading global source of information on environmental finance, markets, and payments for ecosystem services.
ABOUT ECOSYSTEM MARKETS

Society depends on healthy ecosystems for clean water, clean air, food, timber, and many other ecosystem services.

But these necessities are typically undervalued or not valued in our economic system.

Market-based mechanisms that attach economic value to ecosystem services can generate financing for sustainable management and long-term conservation of nature.

Source: Forest Trends' Ecosystem Marketplace.
Markets range from transactions in which individual beneficiaries of ecosystem services contract directly with providers of those services to sophisticated formal markets for buying and selling ecosystem services.

The best-developed ecosystem markets in the US are for wetland/stream conservation, watershed services, imperiled species/habitats conservation, and forest carbon.
Within these broad asset types, we find a diverse array of market-based mechanisms.

**MECHANISMS INCLUDED IN THE GEODATABASE**

**WETLANDS AND STREAMS**
- Compensatory mitigation markets for wetland and stream habitat

**WATERSHED SERVICES**
- Water quality trading markets
- Water rights acquisitions/leasing for environmental flows
- Groundwater mitigation markets
- Water funds and direct payments
- Public subsidies for watershed protection

**IMPERILED SPECIES AND HABITATS**
- Compensatory mitigation markets for endangered species habitat
- Voluntary markets for candidate species habitat

**FOREST AND LAND-USE CARBON**
- Compliance carbon offset markets
- Voluntary carbon offset markets
The ecosystem markets map data initiatives are tracked at two levels: the market and project level, with point and polygon data available for each.

Data about individual initiatives is also available to explore on EnviroAtlas or for download, including status, drivers, developer, conservation interventions, co-benefits, standards used, and more.

Finally, for the first time we’re offering enabling conditions data in spatial form, mapping policy, regulations, and guidance supporting ecosystem markets.

Example: Project attribute data included in EnviroAtlas

Source: EnviroAtlas
WHERE ARE ECOSYSTEM MARKETS? HOW FAST ARE THEY GROWING?

Market activity has grown rapidly in recent decades in the United States, from just a handful of initiatives to more than 2,400 today.

Growth in ecosystem markets initiatives in the United States, 1985-2015

Source: Forest Trends’ Ecosystem Marketplace.
WHERE ARE NEW INITIATIVES EMERGING?

New growth tends to cluster in areas where demand and regulatory support is strongest.

In 2015, California, Minnesota, the Mid-Atlantic states, Georgia, and Florida all had a high number of projects in development.
The largest number of projects are located on privately owned land. These projects are mainly commercial wetland and stream mitigation banks.

However, hundreds of initiatives also channel funding to publicly owned lands or coordinate management across multiple land ownership types.
HOW DO MARKETS WORK?

The way markets are designed also varies.

For example, watershed markets can use as the unit of exchange a standardized credit (**Trading and Offsets**), a water right (**Instream buybacks**), or a unit more flexibly defined according to project context (**Payments for Watershed Services**), as shown in this map.
HOW CAN POLICY HELP SUPPORT MARKET GROWTH?

Enabling policy for ecosystem markets in the United States, such as state-level policy on water quality trading and offsets, may help facilitate the growth of markets.

State-level policy supports for water quality trading can include regulatory drivers that accept water quality credits as a compliance option, enabling policies specifically enabling or establishing water quality trading mechanisms, or non-binding regulatory guidance.
HOW MUCH MONEY IS BEING DELIVERED FOR CONSERVATION?

Market activity is not evenly distributed across the country.

Forest carbon project development occurs where policy drivers exist (such as California’s cap-and-trade program), where there is a high level of high-carbon forest coverage or where there are enterprising project developers.

Cumulative historical value of forest carbon markets transactions by state, 2008-2014

Source: Forest Trends’ Ecosystem Marketplace.