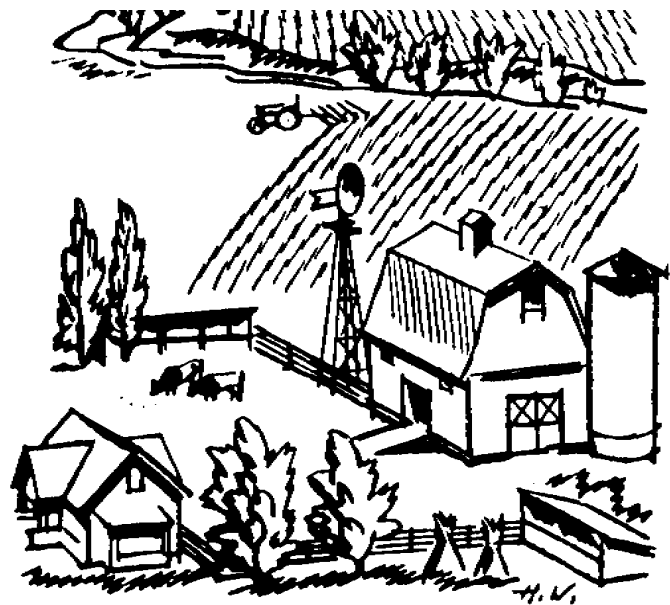


Innovative Financial Mechanisms for Promoting Conservation



Martina Cameron
Mark Muller
November 2001

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Mark Muller

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Institute for Agriculture and Trade Policy
2105 First Avenue South
Minneapolis, Minnesota 55404 USA

tel: 612-870-0453
fax: 612-870-4846
email: iatp@iatp.org
url: www.iatp.org

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Executive Summary

Landowners, farmers and organizations interested in conservation are continually faced with the difficulty of funding their efforts. Historically, state and federal governments have been a principal source for these resources. Government will continue to have a key role in conservation efforts, but private initiatives are playing an increasingly important part in protecting our natural resources. From members of Ducks Unlimited funding efforts to provide waterfowl habitat to water utilities providing technical assistance on nutrient management to farmers, individuals, organizations and businesses are finding that conservation makes sense.

In this document, we briefly describe several initiatives that use innovative financial mechanisms to promote conservation. Some of these programs are novel financial mechanisms that can provide new money to support conservation practices. Other programs restructure funding mechanisms to provide incentives for good practices. All of these programs work toward reshaping local economies so that economic, environmental and social needs are better met.

This document is a resource for farmers, landowners, watershed organizations, conservation groups, and other locally based groups that looking for initiatives that leverage resources and increase awareness. The examples are intended to spark interest and provide links for more information. It is an evolving document that will be edited as new ideas emerge. This document will be kept up to date on IATP's web site at <http://www.iatp.org/enviroag>

If you have ideas or suggestions, please send them to:

Mark Muller

Institute for Agriculture and Trade Policy

2105 First Avenue South

Minneapolis, Minnesota 55404

(612) 870-3420; fax (612) 870-4846

mmuller@iatp.org

Introduction

Americans have an appreciation for the value of agricultural and forested lands that goes well beyond just the food and fiber produced. Well managed land can produce a host of other environmental and social goods, including clean air, clean water, wildlife habitat, carbon sequestration, healthy rural economies, scenic landscapes, and the preservation of culture. Most of these ancillary benefits have not been quantified and are frequently lost as agriculture and forestry become further industrialized.

Despite the fact that these benefits are not well defined, Americans consistently place a higher value on agricultural and forested lands than what the market provides. A study commissioned by American Farmland Trust found that American voters strongly approve of government payments to farmers, particularly when they come with a requirement for conservation practices.

- 78% of voters approve of payments to correct low market prices
- 88% of voters approve of payments in the case of drought or flood damage
- 75% think support for the American farmers should require one or more conservation practices.
- 81% want their food to come from within the United States.
- 70% of voters have bought something directly from a farmer in the past year.
- 53% would like to spend more federal dollars to keep farmland from being developed.¹

We see an enormous opportunity provided by the public's willingness to pay for these "green benefits" and landowners' ability to provide those benefits. Federal government programs have at times served as a vehicle for facilitating these exchanges, but have frequently been ineffective or rewarded inappropriate practices. The feasibility of local initiatives directed by private business, nonprofit organizations, and local municipalities needs to be further explored.

Land use practices that provide multiple environmental and social benefits are often called "working landscapes". A working landscape is one in which agriculture, forestry, and other natural resource-based activities are conducted in harmony with the environment, taking into account the value of the ecological and economic integrity of watersheds for current and future stakeholders in the Great Lakes Basin. We hope that providing a showcase for these innovative programs will encourage more local initiatives.

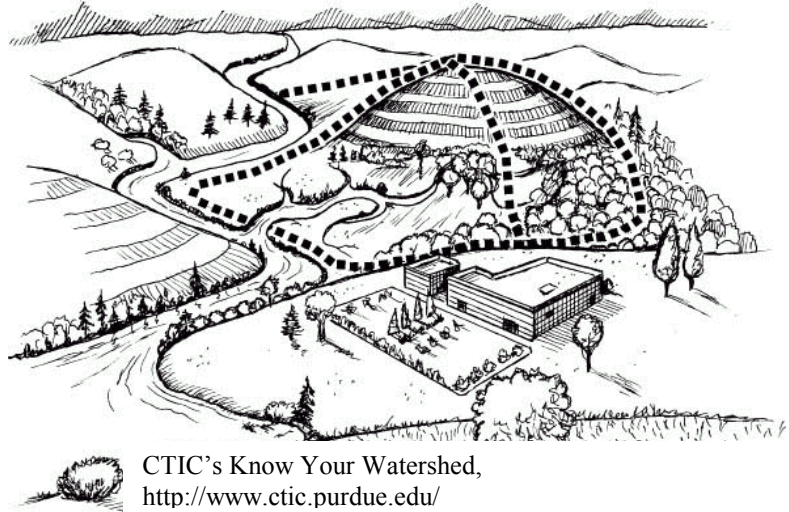
¹ Memo from the Tarrance Group to American Farmland Trust, July 11, 2001.

Part I - Financing Mechanisms that Obtain New Money for Conservation

Cooperation with downstream Water Utilities

One of the principal beneficiaries of good land management practices are downstream water utilities, as water contaminants directly add to their cost of providing drinking water. Historically, water utility managers have adhered to the “polluter pays” principle, where farmers and other landowners should pay for source water contamination.

However, a growing number of managers are coming to the conclusion that, although a valid principle, making farmers pay is not politically feasible. Further, agricultural and forested land are increasingly recognized as providing multiple environmental and social benefits, and these lands should therefore be considered a preferred landscape.



CTIC's Know Your Watershed,
<http://www.ctic.purdue.edu/>

Spotlight: New York City and the Catskills

The New York City (NYC) water supply system is the largest surface storage and supply complex in the world, yielding 1.2 billion gallons of water daily. Within this watershed is the Catskill Mountain region of New York, an area primarily agricultural and forested but facing development pressure. The U.S. Environmental Protection Agency's (USEPA) 1986 Safe Drinking Water Act required filtration for all U.S. water systems, including NYC's. The potential cost for the implementation of a filtration system for NYC's water supply was enormous, approximately \$6 billion for the construction and an annual operation and maintenance cost of \$300 million. Fortunately, the USEPA granted NYC the opportunity to seek alternatives to the filtration system through watershed protection.

NYC's Department of Environmental Protection (NYCDEP) proposed a series of watershed regulations in 1990. In an effort to limit pathogens and nutrients entering the watershed, severe restrictions were placed on agricultural runoff. These restrictions would have devastated livestock agriculture in the watershed and probably resulted in the closure of several farms. The watershed, already confronted with increased urbanization, would then have development pressure exasperated.

Increased urban development would inevitably necessitate the construction of a filtration system.

The Catskill farmers saw their way of life threatened by New York City's overbearing regulations. NYCDEP saw no alternative but to regulate farm activity in the watershed. The political stalemate resulted in confrontation, but both parties eventually realized that open dialogue offered the only possibility of resolution. From these dialogues, some key principles for an agreement were affirmed. The parties acknowledged that agriculture is a preferable land use in the Catskills watershed, and maintaining well-managed agriculture is the best method of watershed protection. Second, the farmers recognized that agricultural pollution was a problem that needed to be addressed. Finally, NYC offered to welcome and address any constructive responses from the farming community.



From these guiding principles emerged the New York City Watershed Whole Farm Program. All aspects of the program were to be implemented by the farmer-led Watershed Agricultural Council. The first phase of the program included developing, testing, and demonstrating the whole farm plan approach on at least ten farms. A whole farm plan can be viewed as an extended farm business plan that includes management and structural steps to reduce pathogen, nutrient, sediment, and pesticide runoff. The second phase involved recruiting volunteer farmer participants into the program. NYC agreed to provide cost-share assistance for the implementation of agricultural best management practices in the watershed. Each farmer individually chose whether to participate. The Watershed Agricultural Council was responsible for delivering an overall rate of 85% participation within five years of implementation.

Voluntary participation in the program appears to be one of the key elements to the program's success. The Catskill farmers have had a distrust of NYC that dates back several generations. NYCDEP-imposed watershed regulations would have been denounced and resisted by the farmers. With the Whole Farm Program, farmers were an integral part of the decision-making process, and decided themselves upon participation.

The Watershed Agricultural Council recently announced that it has achieved its 85% participation goal ahead of schedule. The implementation of best management practices on the farms is also ahead of schedule. The program has resulted in a strengthened agricultural presence in the Catskills, improved management practices by the farmers, and improved water quality. The program will likely remove the necessity of installing a costly filtration system for NYC's water supply. Most importantly, the program addresses the source of pollution rather than treating the resulting impacts, and results in environmentally and economically sustainable communities in the Catskills.

Learn More:

The Watershed Agricultural Council
<http://www.nycwatershed.org>

The New York City Watershed
<http://www.state.ny.us/watershed/water.html>

Carbon Credits



Many activities burn fossil fuels and produce carbon dioxide, the most prevalent greenhouse gas. Fortunately, many natural processes, like the growth of trees, take carbon dioxide out of the atmosphere and store it as carbon. As interest increases in reducing greenhouse gasses in our atmosphere, companies, government agencies, and some international bodies are exploring the feasibility of purchasing carbon credits from landowners that perform carbon sequestering practices. A carbon market would provide a market-based method for reducing greenhouse gas concentrations, while also providing incentives for conservation practices that provide multiple environmental benefits.

Spotlight: Flathead Reservation, Montana

Native American tribes in Montana have come up with an innovative way to fund a reforestation project. By exchanging greenhouse gas (GHG) emission reductions for cash, the Confederated Salish and Kootenai tribes will jump-start the reforestation of 250 acres of the Montana Flathead Reservation damaged by forest fires in 1994.

Sustainable Forestry Management, a London-based firm, offered the tribes an investment of \$50,000 to reforest 250 acres and maintain the land for 100 years. Sustainable Forestry Management will collect the “carbon credits” on the reforested land for 80 years. Conservative estimates indicate that the reforestation project will produce the equivalent to almost 48,000 tons of carbon dioxide. The credits will serve to offset industrial carbon emissions. Under the 1997 Kyoto Protocol, industrialized countries are to reduce greenhouse gas emissions to levels below 1990 levels. This “cap” on emissions would provide a powerful financial incentive for carbon emitters to purchase carbon credits.

Robson, David. 2001. Native Americans sell carbon credits from forestry project.
Environmental Finance May 2001

Kidston, Martin. 2001 Tribe strikes carbon for trees deal. *Helena Independent Record* March 2001

<http://www.helenair.com/rednews/2001/03/30/build/headline/1a3.html>

Learn More:

Environmental Financial Products

<http://www.envifi.com/>

Natural Resources Defense Council

<http://www.nrdc.org/globalWarming/depth.asp>

Montana Carbon Offset Coalition

<http://www.carbonoffset.org/>

U.S. Department of Energy

http://www.fe.doe.gov/coal_power/sequestration/index.shtml

Sustainable Banking

Although banking is often associated with formal and rigid approaches, opportunities exist for adapting banks to social concerns. Local banks frequently publicize the benefits of keeping financial capital within local communities. More recently, some banks in Europe have begun to tout their environmental portfolio. Conservation organizations have an opportunity to tap into the economic power of local financing institutions.



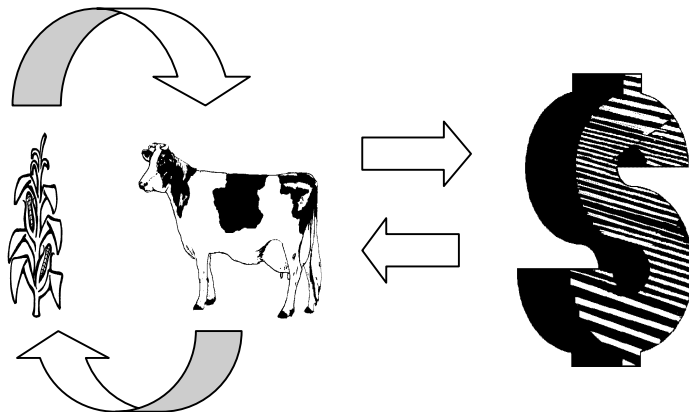
Spotlight: ASN Banks, the Netherlands

Activists are increasingly coming to the conclusion that the reforms they are seeking cannot be achieved without sufficient influence in the world of finance. Bank account holders generally have little knowledge about where money is invested or what guidelines are used for assessing investment opportunities. If criteria could be applied to a bank's investment portfolio, this could provide tremendous opportunities for promoting environmental and social goods. It is with that understanding that trade unions and other organized labor found ASN Banks in 1960. They realized that by pooling together a significant portion of the cash flow of laborers in one institution, they could more easily promote social change. The founders had a strong belief in community banking, and that local communities should benefit from the presence of the bank.

The bank seeks to invest its capital in companies that have active and comprehensive environmental policies, humanitarian working conditions, and do not do business in nuclear arms, nuclear energy, or genetic modification. Ethical researchers evaluate these criteria and regularly visit the selected companies. ASN Banks has successfully incorporated these principles while offering customers market average interest rates, which means that people can contribute to a more sustainable society without having to pay a premium. A popular feature of the bank is a green mortgage. This allows private home-owners a substantial discount on interest rates for the purchase of houses built with sustainable principles.

Nutrient Trading

Despite some of the successes of the Clean Water Act in reducing industrial pollution, there has been limited success addressing agricultural runoff and other nonpoint source pollution sources. About 3,400 waterways in the United States are impaired by nutrients, which are particularly difficult to regulate.



Nutrient trading may provide an opportunity to get greater participation in nutrient reductions. The Environmental Protection Agency is in the process of placing caps on contaminant emissions for watersheds throughout the country. Watersheds can choose how they will meet those caps. Some organizations are exploring the feasibility of a system of tradable emission permits, particularly for nutrients. In these scenarios, point source polluters who need to reduce nutrient emissions have the option of reducing their own reductions, purchasing credits from another point source, or purchasing credits from a landowner who agrees to implement good nutrient management practices. Although no nutrient trading programs are currently active, many believe that this market-based solution is the most cost-effective method of achieving nutrient reduction goals.

Spotlight: Michigan's Kalamazoo River watershed

Lake Allegan, an impoundment on the Kalamazoo River, has had algae problems due to phosphorus loadings upstream. To alleviate this and other related problems, the Kalamazoo River Water Quality Trading Demonstration Project was formed. It is a community-driven incentive-based approach to improving water quality. Trading allows point sources to use nonpoint source phosphorus reductions to meet water quality-based permit limits. Trading reduces phosphorus loads because a point source must purchase two pound of reductions from a nonpoint source for a one

pound credit. Trading is expected to occur when a cap on phosphorus emissions is placed on Lake Allegan.

The project serves as a demonstration site for the feasibility of nutrient trading. The process has identified and worked through several barriers to implementation. Unexpected resistance from agricultural and municipal interests required more time for public outreach and alleviating concerns. Estimating baseline phosphorus emissions from agricultural and other nonpoint source emitters required cooperation and assistance from several local, state and federal agencies and organizations. One of the most important practical lessons from this project is the need for trust and partnerships to make a successful community-based, market strategy for water quality.

Learn More:

Nutrient Net

<http://www.nutrientnet.org>

Michigan's Department of Environmental Quality Water Quality Trading Site

<http://www.deq.state.mi.us/swg/trading/temp5x.htm>

Kieser, Mark. Phosphorus Credit Trading in the Kalamazoo River Basin: Forging Nontraditional Partnerships. Water Environment Research Foundation, 2000.

<http://www.wef.org/applications/publications/Detail.cfm?PubID=566>

Part II – Private Initiatives that Provide Incentives for Conservation

Conservation Easements



A conservation easement is a voluntary legal agreement between a landowner and an easement holder that permanently limits uses of the land. This is often done to protect scenic or wildlife resources, buffer urban sprawl, or to maintain the agricultural character of a region. Each easement is tailored to fit the owner's personal management objectives and goals for the property. Conservation easements are one of the fastest-growing land protection tools in the United States today. Conservation easements are popular because of their many benefits to landowners as well as to the public:

- Landowners retain title to their property and continue to live on it, sell it, or pass it on to heirs, knowing that it will always be protected.
- Easements may eliminate or greatly reduce estate taxes, preventing the forced sale of properties. Easements can also provide landowners with substantial federal income tax reductions.
- Easements are flexible, adapted to the particular needs of the landowner and the resources of the property.
- Easements can reduce the potential for disagreement among family members when lands are passed on to the next generation.
- Easements offer permanent protection, applying to all future landowners.²

Public support for protecting open space is growing. In communities across the nation this election year, voters more often than not agreed to shoulder the responsibility for protecting open space by approving tax increases. In 2000, voters approved 208 state and local measures to raise land acquisition funds. An incredible 84% of the measures proposed to voters were approved, raising \$7.4 billion for open space and parkland acquisition.

Conservation easements can be purchased with voter-approved tax dollars, but that's not the only way it can happen. More often than not, land is protected through collaborations between the public and private sectors. 1,213 nonprofit land trusts exist in the United States today, ranging from large national groups like Ducks

² Tall Timbers Research Station, <http://www.talltimbers.org/>

Unlimited and the Trust for Public Land to local initiatives like the Grand Traverse Regional Land Conservancy.

Spotlight: Engle Family Farm at Ebey's Landing

Nestled near the Puget Sound with gorgeous views of the Olympic Mountains, the Engle Family Farm at Ebey's Landing, Ore., is today a vista of breathtaking views and still called home and farmed by the descendents of William Engle, who staked his claim there in 1852.



The view from the homestead might not exist today if not for conservation easements: The family nearly lost possession of the farm, and the land was in danger of being subdivided and developed. The Engle family was forced to file for bankruptcy in 1998 because of the flagging dairy industry. With creditors waiting in the wings, subdividing and developing the property could easily have been just part of the asset liquidation process.

The Trust for Public Land, a nonprofit organization that works to conserve land, had previously approached the Engles about protecting the land, and the Engles decided that working with TPL looked like the best way to pay off creditors while preserving the beauty and integrity of the property. TPL purchased some of the land outright using \$2.4 million of privately raised funds, for that was the only way to pay off all of the loans. In addition, TPL was able to purchase conservation easements for significant, and very scenic, portions of the property.

TPL didn't work alone to acquire the land. Part of the funding came from appropriation from the federal Land and Water Conservation Fund, while the National Park Service holds the easements. The Engles actually continue to own and farm much of the land as always. Protecting the lifestyle of the family was a top concern of those involved with the agreement.

Tall Timbers Research Station, <http://www.talltimbers.org/>

Stapleton, Richard. 2001. Conservation Financing Comes of Age. *Land & People* Spring 2001

View entire Ebey's Landing article at The Trust for Public Land web site:
http://www.tpl.org/tier3_cd.cfm?content_item_id=2681&folder_id=210

Learn More:

Land Trust Alliance
www.lta.org

The Trust for Public Land

www.tpl.org

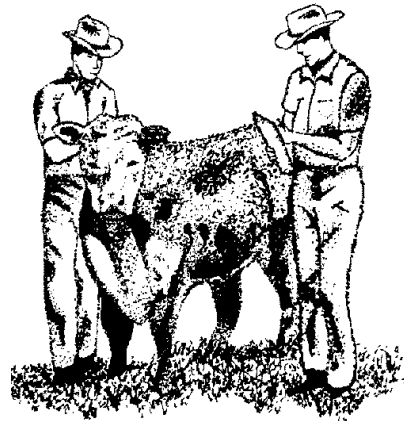
American Farmland Trust

www.farmland.org

“Purchase of Development Rights: Conserving Lands, Preserving Western Livelihoods” is available at www.westgov.org/wga/publicat/pdr.pdf

Technical Assistance

Sometimes the barriers to implementation of good management practices are not financial, but simply a lack of knowledge and skills. Local government affiliated personnel from the Natural Resources Conservation Service, Soil and Water Conservation Districts, and University Extension serve as an excellent resource on many topics. Nonprofit organizations can also provide expertise on certain specific topics. Local organizations can sometimes foster significant land use changes by providing technical assistance to landowners.



Spotlight: Raccoon River Watershed Project

The Raccoon River watershed covers parts of 17 counties in central Iowa. All water in the Raccoon River watershed flows to the city of Des Moines, and serves as Des Moines' primary source of drinking water. The watershed is dominated by production agriculture, and nitrate contamination is a significant concern.

The watershed is coordinating the development and implementation of a technology transfer program called N-Check, which is unique to the Raccoon River basin. Participating producers are encouraged to collect soil and stalk samples from areas in their fields that demonstrate differences in N management or in-field physical characteristics. The producers receive feedback on their own nitrogen management, as well as receiving aggregate data on farm management practices across the watershed. The exchange of data provides farmers with a better opportunity to make sound economic and environmental decisions.

Learn More:

Raccoon River Watershed Project

<http://www.rwtp.org>

Spotlight: Cannon River Watershed Partnership

Based on recommendations of landowners and a technical advisory committee, the Cannon River Watershed Partnership designed a program called the Cooperative Assistance Program. This assistance program fills a void in government programs and provides cost-sharing and technical assistance for small to medium sized landowners (5-20 acres) interested in wildlife enhancement or nature conservation. Ultimately, the goal is to improve the water quality of the Cannon River watershed by promoting such conservation activities as vegetation buffer strips, rotational grazing, and forest stewardship plans. This program is designed to be more flexible than government programs by, for example, allowing for limited grazing of buffer strips. From 1995-99, about 1000 acres of forest and prairie and 100 acres of wetlands were put in place. The Partnership is seeking funds to continue the cost-sharing programs and to initiate a citizen's monitoring program for river water quality.

Learn More:

Cannon River Watershed
Partnership
<http://nco.northfield.mn.us/crwp/>



**Cannon River
Watershed Partnership**
We All Live Upstream From Someone

Risk Management/Green Insurance

Land-based businesses, particularly agriculture, face several risks, including weather, disease, and pests. Fertilizers and other chemicals reduce some of these risks for the farmer. However, these chemicals can result in water quality impacts and other environmental damage. Several management practices have been developed that help thwart some of these problems, but farmers have little assurance that these practices can work as well as the application of chemicals. Some insurance companies are now offering crop insurance to farmers who choose to apply fewer chemicals to their crops. Green insurance and other risk management practices could reduce the reliance on environmentally harmful chemicals.

Spotlight: Milo, Iowa

In spite of great strides in conservation, Midwestern farmers often over-apply fertilizer and chemical inputs to insure that they maximize yields. Most years, however, those additional inputs are not necessary and the overuse of fertilizer and pesticides results in environmental pollution. Yet because farmers risk reduced yields if chemicals are not applied, they often over-apply for financial security.

Just as insurance policies can reduce the risk of driving a car or owning a home, agricultural organizations are developing financial insurance policies to reduce chemical use. A group of Iowa farmers are participating in a nitrogen insurance pilot program. Farmers apply nitrogen at agronomic rates except for one strip that receives

extra nitrogen. Farmers are compensated for any loss in profitability due to the reduced nitrogen application. Several variables are accounted for in the program, including previous manure applications. With insurance guaranteeing the farmer will not lose income from reduced nitrogen application, he or she will be much more likely to incorporate best management practices into production practices.

Learn More:

Agren, Inc.
<http://www.agren-inc.com>

Agricultural Conservation Innovation Center
<http://www.agconserv.com/>

Marketing Assistance for Ecotourism

"...If I had not have bought this land, the loggers would have cut down the rainforest. Second, if I had not built the hotel, I probably would not have resisted the pressure to sell the wood to the sawmills."
(Vinzenz A. Schmack, owner of La Laguna Del Lagarto Lodge in Costa Rica, in "La Laguna Del Lagarto Lodge" A Success Story

<http://www.ecotourism.org/consuccfr.html>)



Ecotourism has tremendous potential to promote conservation. Tourism can provide sufficient per capita income to local communities and provide an incentive for the protection of biodiversity and natural resources. However, little of that potential is ever realized. Many of the profits generated from tourism go to large airline and hotel companies, not to local businesses and workers. Resorts and hotels often over-consume natural resources like water and power, often raising utility prices for local communities.

A comprehensive marketing and management plan is needed to ensure that the local residents have a stake in the state of the landscape. To address this challenge, communities across the country and throughout the world are coming up with innovative ways to support green businesses such as agritourism and sustainable farming in the local community.

Spotlight: Pennsylvania Farm Vacation Association/Weatherbury Farm

The Pennsylvania Farm Vacation Association Inc. is just one innovative program supporting private citizens in their green business ventures. Beyond the capital it takes to start up a small business, the most useful tool to green business owners is support through marketing assistance.

The Pennsylvania Farm Vacation Association (PFVA) supports the state's number one and number two industries: tourism and agriculture. For a small yearly fee, the organization provides marketing assistance and media relations to 26 member farm families. Networking opportunities are also available to members at yearly meetings. PFVA serves as a touchstone for families separated by distance but connected by their goals for a good environment and a desire to be self-sufficient.

Dick and Marcy Tudor own Weatherbury Farm and participate in PFVA. With a series of renovations and PFVA's marketing assistance, the Tudors have successfully transformed their farm homestead into a popular bed and breakfast and a new livelihood.

Learn More

Pennsylvania Farm Vacation Association
<http://www.pafarmstay.com>

Spotlight: Country Heritage Adventures

Country Heritage Adventures is a pilot agri-tourism project started by the University of Minnesota Extension Service with local partners in the rural communities around Rochester, Minnesota. Participating landowners include grass-based dairy and cattle ranches and corn, soybean farms, orchards and vegetable producers that in some cases also offer wildlife viewing opportunities. Wildlife recreation opportunities include bottle feeding deer, trout fishing, and visits to emu and llama farms. Tourists will have the opportunity to learn about the benefits of rotational grazing.

Learn More

Country Heritage Adventures
<http://www.mnfarmtours.com>

Spotlight: Hohenloher Höfe, Germany

Many farmers in Europe realize that a key marketing tool is regional identity. People take pride in places they can identify with, particularly a hometown, favorite vacation place, or a place with family roots. The Hohenloher Höfe cooperative in the state of Baden Wurtemberg has 50 farmer members and 30 other participating farmers that capitalize on their regional identity. The label under which the group produces and markets features the traditional half-timbered farmhouse typical to the Hohenloher plateau. The goal of the cooperative is to meet consumer demands for a new kind of agriculture, getting a better price in return. The label has programs for linseed, wheat, rye, dinkel and potatoes.

While the group is not organic, they set strict production conditions. All grain must be grown without pesticides, and no additives are allowed in storage and milling. Fields are “marked” with a strip of flowering crops and/or wild herbs, which also protect the fields from chemical drift from their neighbors and create a habitat for beneficial organisms.

The cooperative owns four retail outlets, including a large shop in Stuttgart. The group has been very successful obtaining market share, as customers appreciate the freshness of locally produced products and the competitive prices.

Learn More

[Marketing Sustainable Agriculture: Case Studies and Analysis from Europe.](#)

Available for purchase from the Institute for Agriculture and Trade Policy, (612) 870-0453, <http://www.iatp.org>

Generating Revenue through Financial Transactions



Municipalities can generate conservation revenue through tax policies. But the private sector can also generate revenue for conservation by changing how people shop. Credit cards are available that, with each transaction, donate money to conservation groups, social justice organizations, universities, and other nonprofits. A long distance phone company was established with the explicit intent of providing funds for progressive causes. And increasingly, web site shopping portals are being developed that capture part of the revenue stream for charities.

Spotlight – myCNY.com

Chris Barry spent two years working with autistic children in his native Syracuse, NY and the experience changed him profoundly. He knew that he wanted to find some way of supporting organizations that work with children with special challenges. Having some web design experience, Chris developed a web site shopping portal called myCNY.com (My Central New York). The site connects to over 125 national online merchants who agree to provide a rebate to mycny.com for every purchase that comes from mycny.com's site. The shopper pays nothing for using the portal service. myCNY.com donates 95% of the rebate money to six children's charities in Central New York, with only 5% dedicated to operating expenses.

Learn More:

<http://www.myCNY.com>

<http://www.workingassets.com>

Certification Programs

Certification programs provide consumers with information about environmentally friendly products. For instance, some food products carry a "certified organic" label to let customers know that the vegetable was grown under strict production provisions. Such a system can be used for developing market share and premiums for sustainable production methods.



Spotlight: Salmon-Safe

The Pacific Rivers Council has developed a program in which an independent third party certifies growers as being salmon-safe if they "...include such practices as planting trees on streambanks, incorporating cover crops to control erosion, and applying sophisticated natural methods to control weeds and pests." Such practices, similar to best management practices promoted by some government agencies, are viewed as significantly improving the water quality and habitat of salmon. Farmers targeted include small farms, vineyards and sustainable rice producers with lands bordering key rivers. A Salmon-Safe logo is placed on the agricultural products that are certified.

Labeling schemes such as this one have the advantage of highlighting a high-profile species that consumers at the marketplace can identify with and want to protect. So far, a total of forty growers and 10,000 acres have been certified. Growers do not necessarily gain a premium on their products, but the label has led to increase market share growth and market access for them.

Learn More:

Pacific Rivers Council

<http://www.pacrivers.org/salmonsafe>

Spotlight: Earthcraft Homes



Building energy and water efficient homes is not only good for the environment, but it can also make good financial sense to potential homebuyers. For that reason, both builders and potential homeowners are buying into the Earthcraft home certification system begun in Atlanta, Georgia. Since the program's beginning in late 1999, more than 100 homes have been certified, and hundreds more are on the list.

Using criteria gathered by the National Association of Homebuilders from prototypes around the country, Earthcraft developed a flexible point system in which builders mix and match features such as recycled materials and energy-efficient appliances. Complying with the Earthcraft program adds 1 to 1.5 percent on to the cost of a house, but buyers appear willing to pay the premium.

Learn More:

Environmental Construction & Design

<http://www.edcmag.com/>

Sustainable Business

www.sustainablebusiness.com

Greater Atlanta Home Builders Association

<http://www.atlantahomebuilders.com/earthcraft/>

Natural Resources Defense Council: Green Building

<http://www.nrdc.org/cities/building/default.asp>

Spotlight: Fair Trade Coffee

Behind oil, coffee is the world's most traded commodity. Many nations depend on coffee exports for their main source of foreign exchange and 20 to 25 million people rely on coffee for income. Yet with all of the money in the coffee business, a large number of the coffee growers live in extreme poverty. Part of the reason for the

disconnect is the large number of intermediaries that take a cut of the profits between the farmer and the coffee drinker. A 1997 study found that five times more coffee was traded on paper than grown worldwide.

Fairly traded coffee is giving growers an alternative to this poorly structured system. These small farmers join together to form a cooperative. The cooperative is owned and directed by the farmers and provides training, processing facilities and marketing that add value to the coffee. Fair trade means purchasing coffee direct from the cooperative at a guaranteed minimum price, ensuring the farmers earn a livable wage. The coffee receives a fair trade label from an independent certification organization. The label provides assurance to the consumer that the coffee meets the criteria for fair trade coffee. The label also frequently allows the coffee to increase market share or sell at a premium.

Learn More:

<http://www.peacecoffee.com>

<http://www.transfairusa.org>

<http://www.fairtradefederation.com/>



Forest Bank

Forest fragmentation is an increasing concern in the United States. As development encroaches and divides land, many of the habitat benefits provided by forests are lost. Managing the land for recreation or wildlife becomes increasingly difficult with multiple owners and different objectives. Furthermore, logging companies are increasingly looking to private landowners for trees. About 49% of all timber harvested in the US comes from private, non-industrial land, but only 5% of non-industrial forestland owners have a management plan for their woods. Private landowners play a vital role in protecting forestland and generating the goods and services that forests provide.



Although most landowners would like to see their forests preserved, the need for cash often motivates these owners to market their timber to logging companies. Too often these lands are subsequently overharvested. The Nature Conservancy's Forest Bank strikes a balance between protecting the long-term welfare of the forest and addressing the short-term economic needs of the landowner.

The Forest Bank is a market-based tool for protecting working forests. Landowners permanently deposit the timber rights for forested land in the Forest Bank, much like someone can deposit money into a bank CD. The Forest Bank maintains the right to grow, manage, and harvest trees. Like a CD, the landowner receives guaranteed minimum annual dividends (4 to 4.5%) based on the timber's value, and has the option to withdraw the cash value of the timber. The landowner retains ownership of the land and can use the land for hunting, hiking, or any other purpose that does not reduce the value of the timber.

The Forest Bank, initiated by the Nature Conservancy, guarantees that the forest will be managed sustainably. They are also pursuing an independent, third party audit of their forest operations. The Forest Bank provides a method of obtaining large participation in sustainable forestry practices without the cost of purchasing all of the land.

The Forest Bank recently issued an Initial Public Offering Prospectus for Clinch Valley landowners in Virginia and Tennessee. Other banks are expected to be developed in southern Indiana and potentially other locations.

Learn More:

World Resources Institute Incentives Conference

<http://www.wri.org/incentives/gilges.html>

Environmental Protection Agency

<http://www.epa.gov/glnpo/ecopage/forestbank/fbankrpt.pdf>

The Nature Conservancy's Forest Bank site

<http://nature.org/forestbank/index.html>

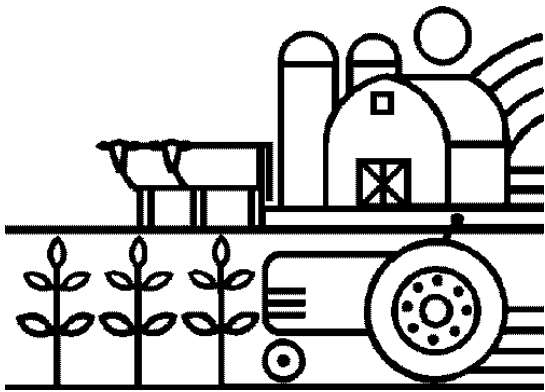
Forest Stewardship Council

<http://www.fscus.org/html/>

Part III – Government Programs that Promote Conservation

Zoning

Spotlight: Cuyahoga Valley National Park Countryside Initiative



Americans assume that people don't live or farm in parks, that agriculture can't be environmentally friendly, and that small farms can't be profitable. However, other countries have demonstrated that parks and agriculture are compatible. In Great Britain, over 10% of the English landscape is located within the boundaries of a national park. Over 90% of that land is privately owned, and most of it in farms.

The Countryside Initiative will rehabilitate and revitalize 30 to 35 picturesque old farms that operated in Ohio's Cuyahoga Valley in the mid-19th and mid-20th Century. Potential farmers are invited to submit proposals for how they will utilize the land in a sustainable manner. The farms are less than 61 acres and are ideal for fruit and vegetable production, grazing, and integrated crop/livestock operations. The farms will pursue modern sustainable farming practices. The farms can be leased for up to 50 years. The Initiative makes small farms with excellent production and market potential very accessible and affordable and explicitly encourages personal financial profit.

Learn More:

Cuyahoga Valley National Park Countryside Initiative
<http://www.nps.gov/cuva/technical/countryside/index.htm>

Spotlight: Cedarburg, WI

"We were able to show that by reducing the lot size and clustering the homes in harmony with the landscape, we could protect the habitats and wetlands. When they saw that, they embraced it."

(Kathy Pehowski, Cedarburg, Wisc., resident *Milwaukee Journal Sentinel*)

When Kathy Pehowski first started talking to developers and city officials about breaking up a 79-acre farm into home lots, the future looked bleak for the sandhill cranes and their longtime nesting site on the property. The town's minimum lot size of 1.5 acres would have forced Pehowski to sell plots that would zigzag across delicate wetlands.

Pehowski and the Town of Cedarburg came up with an alternative plan, a plan that Pehowski believes will appeal to potential homebuyers and preserve sandhill crane habitat. Cedarburg's new zoning changes break the traditional development mold of cookie cutter lots spread out across the landscape. Instead, new homes will be clustered together, with extra lots set aside as open space.

Developers are now given an economic incentive to comply with the zoning changes by earning bonus lots. Under the University of Wisconsin Extension model for this program, developers could increase the number of developable lots by up to 20% by meeting certain criteria. Pehowski believes community green space will be appealing to potential homebuyers, as will the walking trails and gazebo that she is installing.

Benson, Dan. 2001. Motivating developers to maintain countryside. *Milwaukee Journal Sentinel* March 2001

Learn More:

Natural Resources Defense Council: Smart Growth/Sprawl
<http://www.nrdc.org/cities/smartGrowth/default.asp>

The Center for Watershed Protection
www.cwp.org

Zoning Ordinance from Calvert County, MD: An example of a mandatory open space ordinance, in the Rural District.
http://www.cwp.org/Model%20Ordinances/open_space_zoning_ordinance.htm

Land Preservation District Model Zoning from Montgomery County, PA: This ordinance would also require the preservation of open space certain districts.
http://www.cwp.org/Model%20Ordinances/open_space_land_preservation_ord.htm

Open Space Ordinance from Hamburg Township, MI : This ordinance incorporates commercial land uses (e.g., mixed use) for projects of a certain size, and provides an example of the application procedure for one community.
http://www.cwp.org/Model%20Ordinances/open_space_zoning_hamburg.htm

Spotlight: New Jersey Pinelands Commission

In the middle of one of the most populous regions in the country lies over a million acres of forests, farms, and small towns, known as the New Jersey Pinelands. Isolated from major roads in southeast New Jersey, the region remained sparsely populated until the 1970s. At that point the large metropolitan areas of New York and Philadelphia started to infringe on the wilderness. In 1978 Congress created the Pinelands National Reserve, where governments on multiple levels agreed to some basic conservation guidelines. In 1979 the New Jersey Governor established the Pinelands Commission with the responsibility of balancing protection with new development.

The Commission found it necessary to limit residential development in environmentally sensitive parts of the Pinelands, restricting landowner development opportunities. They decided to do this with Pinelands Development Credits, which allocate development credits to landowners in the Preservation Area District, Agricultural Production Areas, and Special Agricultural Production Areas. The credits can be purchased by developers owning land in the Regional Growth Areas and used to increase the densities at which they can build. Landowners are required to enter into a deed restriction that would bind future owners to the same uses. This encourages more concentrated development where it can be accommodated. To date, over 12,000 acres have been permanently deed restricted under the program.

Sales of credits take place on the open market. A Pinelands Development Credit Bank was created in 1985 that can buy and sell credits, guarantee loans using credits for collateral, and maintain a registry of owners and purchasers. Municipalities allow for the use of credits in their land use regulations.

[Learn More:](#)

New Jersey Pinelands Commission
<http://www.state.nj.us/pinelands/cmp.htm>

Taxes

Tax policy can be a powerful tool for conservation. Taxes can provide a disincentive for practices that are harmful to conservation or the public. They can also provide a revenue stream for promoting good practices. The State of Iowa successfully implemented an agricultural fertilizer tax. Although too small to effectively impact fertilizer use, the tax provides the main source of revenue for Iowa State University's Leopold Center for Sustainable Agriculture. Other governments are more aggressive; Norway, for example, taxes nitrogen, phosphorous and potassium at 15%.



Several other innovative tax policies have been implemented that protect landscapes. Vermont uses a Land Gains Tax to protect rural land from short-term speculation.

Very high taxes are placed on land held for a short time and sold for a large profit. Some advocates for curbing sprawl have advocated for only taxing land and not structures, thereby creating a greater incentive to conserve land. (<http://www.newrules.org>)

Spotlight: Tourism Tax

Scenic landscapes are frequently a large draw for tourism. As tourism in these regions frequently depends on natural and agricultural landscapes, taxes levied on the tourist industry, both locally and nationally, could be partially recycled to support land conservation. Individual communities can choose to protect their scenic landscapes through a variety of means: restoration projects, land conservation, promoting sustainable agriculture, and more.

Tourism is now the world's largest and fastest-growing industry; it provides 10 percent of the world's income and employs almost one-tenth of the world's workforce (The International Ecotourism Society). If pristine landscapes can benefit so many, then money generated from taxes on the tourist industry should be recycled to support land conservation. Not only would this investment provide assurance that future generations will be able to enjoy these amenities, but it could also be managed to support local businesses and sustainable growth.

The exotic rainforests and amazing barrier reefs of Belize attract a great number of foreign visitors each year (about 140,000), bringing enough money into the economy to warrant investing some of that money in the preservation of the landscape. Through the innovative Protected Areas Conservation Trust (PACT), Belize levies a conservation fee, which is essentially a tax, on foreign tourists, amounting to about \$3.75 per person. The funds are managed by a unique board of directors comprised of equal numbers of governmental and non-governmental members. PACT has been operating since 1996. The program funds educational programs, protected area management planning, policy studies, and research.

Spergel, Barry. 1996. Belize's Protected Areas Conservation Trust: A Case Study. *Conservation Finance* June 1996
<http://www.ecotourism.org/consuccfr.html>

Learn More:

The International Ecotourism Society
<http://www.ecotourism.org>

Environmental Performance Bonds

Environmental performance bonds provide companies with a direct financial incentive to practice environmental conservation. A liability tool, environmental performance bonds have been used in Canada, Australia, and the U.S. to fund the remediation of mining sites. Ideally, these bonds encourage environmental practices without adversely affecting the financial well being of mining operations.

Environmental performance bonds work like a deposit refund system. Firms are required to post financial bonds, or pay a certain amount of money, prior to the beginning of their operations. If the company doesn't meet the agreed environmental conditions, the bond can be cashed to pay for any necessary cleanup. For example, a lumber company that degrades a forest would forfeit their bond, which would then be used in forest restoration efforts. Similarly, businesses can be required to pay environmental accident bonds. An oil company would forfeit its bond in the event of an oil spill, and the bond would be used in clean-up efforts.

These bonds provide a much greater opportunity for the public to recover the cost of environmental mitigation. Currently, polluters often have to be sued in order to pay for environmental damage, resulting in a significant expense of time and money. Bonds shift the burden of proof to the polluters. The US Department of Interior's Office of Surface Mining Reclamation and Enforcement (OSM) uses environmental performance bonds. In 1996, Pittston Coal Company reclaimed 13 Virginia sites where their environmental performance bonds were forfeited by OSM.

Learn More:

Government of British Columbia Ministry of Energy & Mines
<http://www.em.gov.bc.ca/Mining/MinePer/performancebonds.htm>

Economic Instruments for Pollution Control and Natural Resources Management in OECD Countries: A Survey
<http://biodiversityeconomics.org/pdf/topics-318-00.pdf>

US Interior Department's Office of Surface Mining Reclamation and Enforcement
<http://www.osmre.gov>

About the Institute for Agriculture and Trade Policy

The Institute for Agriculture and Trade Policy (IATP) was established in 1986 as an independent non-profit and tax-exempt research, education and advocacy organization. The Institute for Agriculture and Trade Policy promotes resilient family farms, rural communities and ecosystems around the world through research and education, science and technology, and advocacy.

Institute for Agriculture and Trade Policy
2105 First Avenue South
Minneapolis, MN 55404

Tel: 612-870-0453
Fax: 612-870-4846
e-mail: iatp@iatp.org
url: <http://www.iatp.org>

Comments or questions on this document can be directed to Mark Muller at (612) 870-3420, mmuller@iatp.org

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