

People, Partnerships, and Communities

The purpose of the *People, Partnership, and Communities* series is to assist The Conservation Partnership to build capacity by transferring information about social science related topics

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Economics Service Networks: Making Economics Easier to Use

Have you ever thought about how much it would cost to install a particular conservation practice? Or, whether profits will go up or down for a new nutrient management operation promoted by the conservation district? Have you ever sat at a table with watershed partners trying to answer questions about the benefits of a particular watershed project? If you are in the natural resources conservation business, the answer to these questions is likely, “yes, all the time.” Questions about benefits and costs are never scarce; the answers are what prove elusive.

In this PPC, information is given on current economic services delivery, economic services delivered using the Internet, tools available for improving economics service delivery today, important service delivery “isms,” and how you can improve the delivery of Internet services.

How are economics services delivered now?

Finding answers to economics questions — that is, delivering economics services — usually works something like the following:

Step 1. A question arises.

A customer asks a question about the profitability, costliness, benefits, or returns of a conservation action or project.



Example: A farmer in Minnesota might ask, “Can you give me information on the difference in profitability between conventional, no-till, and minimum-till corn-soybean rotations?”

Step 2. Can we answer it?

A conservation planner or engineer looks at the scope of the question and decides whether or not they can answer it.

Step 3. Yes, let's go with what we have.

If the planner or engineer can answer the question, they look for tools and data that might help them deliver the answer, i.e. provide the economics service. The planner or engineer's primary work, delivering conservation assistance, keeps them busy enough. Spending a lot of time answering economics questions is not possible. They may

have a rough cost list and spreadsheets that can be used to provide a basic answer.

Step 4. Time to call in an expert

If the planner or engineer cannot answer the question, they will look for an expert, such as an economist, to give them assistance. The “experts” are usually in short supply. They will often be working on other projects that cannot be interrupted for the time required to give an answer. Eventually, the expert will provide assistance. Experts may have additional tools and spreadsheets available to them that can help answer the question. Oftentimes, they will build a new tool from scratch or collect primary data in order to provide a good answer.

Example: To answer the tillage question, an expert, such as an economist, might develop crop budgets for several operators using the different tillage operations.

Step 5. Deliver the Service.

An answer is given to the customer. At this meeting, the customer is free to ask additional questions and run “what if?” scenarios. Oftentimes, they will just get a report. (The customer’s feedback may not be recorded or used to improve future responses).

Example: If tillage profitability data is available, some type of crop budget comparison report will be given to the farmer. Usually it is a hard copy and often it is from a different state.

Step 6. Store the answer (knowledge).

The answers to the questions (and any new spreadsheets built or data collected) are filed away and can be used to help a small number of additional customers. In some cases, a link to the answer will be placed on a Web site, but finding that particular Web site can be a hassle.



Example: The expert might store the tillage data for future reference, but the conservation planner might be left with crop budget reports that prove difficult to update.

Step 7. Start all over again.

A customer 100 miles away asks the same question and the service delivery cycle begins again.

How can future economics services be delivered using the Internet?*

Would delivery of the answer to an economics question and of other conservation services be more efficient using the Internet? Service delivery using the Internet might occur as follows:

Step 1. A question arises.

A customer asks a question about the profitability, costliness, benefits, or returns of one or more conservation actions or projects. If comfortable using the Internet, the customer accesses their local Web site to find an answer. That local Web site is tied into a network of other sites where answers to this type of question are stored. If one site does not have the answer, another site may. If the customer finds an answer, service delivery is complete.

Example: To find an answer about tillage profitability, the Minnesota farmer might go to a local Minnesota Web site run by Cooperative Extension. That site is tied into a network of economics sites, using common data standards. If the answer cannot be found on the local site, the farmer enters key words to search the rest of the network. The farmer may find that a nearby conservation district has recently investigated this question and stored their answers on the network.

Step 2. Who can give the best answer?

If the customer cannot find the answer in the network, they can ask either their local conservation planner or someone else tied into the Internet network. If the customer receives an answer from someone else in the network, service delivery is completed. Otherwise, the local conservation planner or engineer examines the scope of the question and decides whether or not they can answer it.

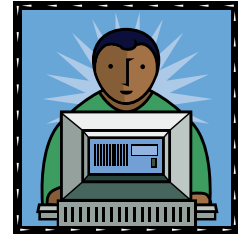
Step 3. Yes, let's go with what we have.

The planner or engineer frequently uses the economics Internet network. They will search the network to find an answer; they may know more about searching the network than the customer or have additional contacts in the network. If an answer is found on a network site or provided by someone else in the network, the planner or engineer will use it as a first-cut, basic answer. The answer may have come from the Netherlands, Africa, or the Great Plains. The planner or engineer may then use some of the Internet tools found in the network to fine-tune and customize the answer for their particular customer. Or, they may ask the customer to do the customizing themselves, in return, giving them the answer to store in the network.

*ProCosts is an Internet Economic Service being developed by the Social Sciences Institute. This service will tie an economic network together with different economics data, using professional economic standards.

Step 4. Time to call in an Internet guide.

If the planner, engineer, or customer cannot answer the question, they will turn to an Internet guide to give them assistance. Internet guides specialize in improving how the network delivers its services. The guide may have additional tools and data available to help them find an answer. If not, the guide may build a new tool or data set for the network. Once built, the tool and data get added to the network for all to use.



Example: In the case of the tillage question, the Internet guide might ask some local Minnesota growers to download an online budgeting tool. The growers compare and adjust the tillage operations to match local climatic and field conditions. Once the crop budgets have been completed online, the growers upload them back to the network. The Internet guide reviews and analyzes the data and adds the results of the review into the network.

Step 5. Deliver the service.

An answer is given to the customer. Oftentimes, the answer is no more than a starting electronic framework. The framework allows the customer to use the resources of the network to build their own answer. The network encourages the customer to share the answer with other members of the network.

Example: To answer the tillage question, the customer can download the tillage data completed by other growers, download lists of substitute materials that can be used to replace some of the inputs used by those growers (i.e. tractors), change the tillage practices online, examine how these changes impact profitability, and possibly, make a decision.

Step 6. Store the answer (knowledge).

The answers to the questions are stored on a voluntary basis in the network. Once effectively stored, the information can be looked at in several different ways. Sometimes it will be aggregated to help answer National policy questions. Oftentimes, it will be disassembled and provide a missing link to some other question or service delivery site.

Example: The tillage information completed by the Minnesota growers can be inserted into a high-end, high quality, national database (i.e. ProCosts). Once stored in the database, the data can be upgraded a number of different ways and can be aggregated to look at tillage questions involving states, regions, or nations.

Step 7. Start over.

A customer 100 miles away asks the same question, goes into the network, and finds an answer to their question. Service delivery is complete.



Example: A North Dakota farmer asks the same question about a difference in tillage profitability. That farmer goes into a network similar to the ProCosts network under development, finds some starting information, and answers his or her conservation questions independently.

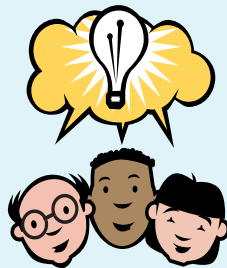
What tools are available for improving economics service delivery, today?

The service delivery approach promoted here is, of course, biased. Internet networks have been presented as more efficient in the delivery of basic economics services than traditional service delivery methods. In fact, that is probably right. But, where are these efficient networks? For the most part, being built or talked about.

Traditional service delivery mechanisms will be around for some time to come. It is important to continue tweaking and improving them. But the Internet networks that help answer common questions, are coming. The Profits and Costs (ProCosts version 1.1) information products, released May 2001, are being upgraded to deliver these types of online economics services.

What to keep in mind - service delivery “isms”

Useful Internet networks are coming. But most networks are still grappling with issues like the following:



People trust people not machines

Computers do some things quite well—but they are poor communicators. They stumble on simple questions that children could answer easily. They lack warmth and charisma. People prefer getting answers from people they trust.

The existing institutions exist

And they aren't going away or changing overnight. They have been set up to deliver services in traditional ways that ensure future service delivery in exactly the same way.

Internet services require investment

Useful Internet services will not simply appear, someone has to build them. Any construction project requires investment: people, time, and resources.

Information technology, and Internet networks, may not be understood

The “dot-coms” went out of business searching for Internet business models that generated profits. At this stage the experts aren't sure about the best way to deliver better services using modern information technologies.

Internet network builders and guides may not be available

How many job titles have you seen advertised recently for an Internet “network builder” or even a “guide.” Effective network service delivery goes beyond just being a web master for one site.

Incentives for delivering new services may not be in place

Why should people start building networks? It requires new skills and effort. Where is the payoff to the worker?

The full repercussions of improved information networks may not be fully understood

Is sharing economics data always advantageous? Could such data be used nefariously? What if one computer replaces five people? Is efficiency always best?

What can I do to help improve the delivery of Internet services?



Planners, engineers, and state technical staffs can volunteer to help pilot and develop some of the Internet initiatives that NRCS and its conservation partners have under development, or will be developing, over the next several years. Projects include economics services such as the ProCosts information products, conservation services planned for the Internet-based Field Office Technical Guide such as SmartTech/EFOTG and the Customer Service Toolkit, grazing land improvement services such as WebGLA, and the Forage Suitability Group database.

Local and state conservation planning groups can help by applying for grants to integrate, customize, or extend these basic Internet services. Many of these groups already have Web sites, but do not have the technical resources to independently build full-scale Internet services. For example, \$25,000 is probably sufficient in most states right now to build a sound conservation profit and cost database using the ProCosts version 1.1 products. Considering the importance businesses place on high-quality economics data, this small investment can have large, long-term payouts in your county, state, or region.

Everyone interested in delivering more efficient services can try seeking answers to the "Service Delivery Isms" and talk with other people grappling with the same questions. Read a book about the Internet. Take a college introductory course on information technology. The developers building these Internet services need your feedback.

Conclusion

How much does it cost to install a conservation practice? Ask your computer, one day it will give you a good answer.

How can I get more information?

Further information about the ProCosts economics network under development, can be found under the "Economics" topic at the following site:

<http://www.ssi.nrcs.usda.gov/>

Further economics information, delivered using more traditional means, can be found at the following sites, maintained by David Buland of the Natural Resources Inventory and Analysis Institute:

NRCS Cost Data:

<http://www.waterhome.brc.tamus.edu/NRCSdata/costs>

Cooperative Extension Farm Budgets

<http://waterhome.brc.tamus.edu/care/budgets>

Additional information about participating in an economics network, or building one of your own, can be obtained by contacting:

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