

## **Applications and Potential of Ecosystem Services Valuation within USDA – Advancing the Science**

USDA's Economic Research Service, US Forest Service, and National Institute of Food and Agriculture have long had a need for rigorous, scientifically appropriate estimates of the value of ecosystem services (or ecosystem service values – ESVs) to measure the impacts of USDA policies and programs and to guide decision making. The challenge is that, despite the weight of several decades of rich literature and applications, the application of the existing literature in a USDA context has been limited due to both data and methodological constraints. It is timely to explore, and invest in, new methods and approaches to address the shortcomings of existing ESV literature for use in a USDA context.

To address these issues USDA's Economic Research Service, Forest Service, and National Institute of Food and Agriculture are hosting a workshop in Washington, DC on April 23 and 24, 2019. The goal of the workshop is to explore new methods and data that could enhance USDA's ability to estimate the value of ecosystem services provided by its programs and policies. *To be clear, our focus is on nonmarket benefits that are often difficult to value, and possibly even to characterize in measurable units.*

The two-day workshop will be organized into three sessions beginning with a discussion of existing ESVs applicable to USDA, followed by a series of sessions to explore new data and methods for estimating the value of ecosystem services. The final session will overview strengths of the presented research and feature a discussion of 'where do we go from here?'

Topics of interest include:

### *Existing ESV research and its application to USDA*

What methods and data are used across studies? What ecosystem services are valued using existing research? How do the valuation methods used in existing studies compare to other methods, such as intuition/experience, biological/physical models, and public opinion? What are the relative strengths and limitations of existing research for application to USDA programs and policies?

### *Gaps in Existing ESV Analyses*

What are best practices for measuring ESVs associated USDA programs and policies and how should USDA evaluate existing studies for application to its programs and policies? Where are the biggest data and methodological gaps in measuring the value of ecosystem services and their application to USDA programs and policies? For example, is there a lack of biophysical models? Or inconsistent definitions of ecosystem services? How do we address and estimate the value of complex ecosystems? How well can the current literature be applied to national analyses of USDA programs and policies? When, where, and how is benefits transfer appropriate for estimating the value of ecosystem services provided by USDA programs and policies?

*The bulk of the workshop will include sessions looking forward, such as to how to improve the data, methods, and application of studies to estimate the value of ecosystem services. The research should have relevance for USDA programs and policies. For examples of topics of interest, please see the agenda document on the workshop web site.*