

Conservation Effects Assessment Project

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BACKGROUND

The Farm Security and Rural Investment Act of 2002—referred to as the 2002 Farm Bill—substantially increased funding levels of conservation programs—up nearly 80 percent above the level set for conservation under the 1996 Farm Bill. While it is widely recognized that these conservation programs will protect millions of acres, the environmental benefits have not previously been quantified for reporting at the national scale. Moreover, while an extensive body of literature exists on the effects of conservation practices at the field level, there are few research studies designed to measure the larger effects.

The Natural Resources Conservation Service (NRCS) and the Agricultural Research Service (ARS) are working together on the Conservation Effects Assessment Project (CEAP) to quantify the environmental benefits of conservation practices at the national and watershed-scales as a measure for how the money being spent is meeting the goals.

CEAP is an on-going mix of data collection, model development, model application, and research. One of the goals is to develop the appropriate databases and applications over the course of the project. It is anticipated that some of the new indicators and performance measures will be included in the 2006 and 2007 annual reports, and that the 2008 annual report will include more accurate estimates for the chosen performance measures.

COMPONENTS

National assessment

- Provides estimates of conservation benefits at the national level for each year enabling conservation efforts to be tracked over time.
- Using NRI data points, ARS, NRCS and Texas AgriLife Research (Temple, TX) are providing model estimates using APEX and SWAT, with the initial focus being on water quality, water conservation and soil quality.
- Benefits for wildlife habitat, air quality and reductions in pesticide losses from farm fields, grazing lands, and wetlands will also be estimated.

Watershed assessment

- Provides for more detailed, landscape-specific assessments of all benefits in selected watersheds. Watersheds will provide validation data as well as uncertainty and sensitivity of national/regional models
- Develop a set of regional watershed assessment models that can be used to address benefits of conservation practices and other environmental issues in the major agricultural regions of the nation and for use in future watershed and national assessments.
- Develop water quality, water conservation, and soil quality databases that can be used to evaluate effects of conservation practices, and to compile air quality and wildlife habitat data for future assessment.
- Develop indicators or performance measures for documenting water quality, soil quality, air quality, and aquatic and terrestrial habitat benefits associated with conservation practices.

PARTNERS

- USDA-NRCS
- National Agricultural Statistics Service
- USDA-CSREES
- Texas AgriLife Research - BREC
- USDA-ARS, Temple



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