

Section V
Conservation Effects for Decisionmaking
Introduction

Conservation Effects for Decisionmaking (CED) refers to a process by which a planner can assist a landowner in selecting the appropriate level and type of conservation to be applied on a farm. CED is a logical method of arranging the effects of conservation application so that a decision-maker (usually the landowner or farmer) can readily and easily evaluate a proposed change in operations.

Any evaluation must start out with an existing condition. Referred to as the "benchmark", the existing condition provides the basis for comparison. All potential changes in operations are compared to the benchmark condition. Consequently, it is important to describe the benchmark condition as completely as possible.

Describing the benchmark condition involves gathering information on crop production and farm management techniques ("actions") and their effects on the SWAPA resources (soil, water, air, plants and animals). Field offices are probably familiar with most of these resources, but consideration of air and animal resources may not be so familiar. For help with these resources, you may look to area and state agronomists, resource conservationists and economists. It is important that all the resources be addressed while using CED to assist landowners.

Once the "actions" and effects of the benchmark condition have been adequately described, they are presented to the decisionmaker, who determines the "impacts" of these effects on the farm. What the decisionmaker is doing is reinterpreting the effects that you have delineated and judging whether they are "good" or "bad". This may seem redundant, but in reality, it is not.

For example, suppose you determine that one of the effects of changing to a no-till method of crop production is to reduce the labor necessary to produce corn silage. To you, this may seem to be unambiguously good. To a farmer trying to keep someone employed on the farm, this might not seem like a positive outcome. Since determining if anything is good or bad depends on a value system, and since value systems are highly individualistic, it is necessary for the decisionmaker to make these determinations. You may provide the information necessary to assist the decisionmaker, but you cannot decide for him or her that a particular conservation practice should be adopted. Only they can make that decision.

Once you have described the benchmark condition, changes to that condition can be quickly analyzed. The same methodology needs to be followed, though. You need to describe the actions

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and effects of a proposed change, comparing the effects of the proposed change to the benchmark condition. The decisionmaker then determines the impacts of the effects on the operation. The CED framework, therefore, allows you to present information in an organized manner and allows the decisionmaker to select conservation measures based on the information provided.

CED also incorporates a hierarchy of analysis. The methodology described above can proceed on whatever level of detail is appropriate to the situation. Often, decisionmakers are comfortable with a fairly general level of analysis. By this, we mean that you can give some rudimentary information about a particular conservation practice, such as notill, and the farmer will be able to make a decision. This kind of information might take the form of a basic discussion of the pros and cons of notill along with some evaluation of the experiences other farmers in the area have had with the system. Sometimes, however, this is not enough.

In these situations, a higher level of analysis must be undertaken. The format for presentation of the results of the analysis is the same as before (actions, effects, impacts), but you will need to do a bit more work to make the general effects of notill more specific to the

individual farm. This might entail determining the fields that are suitable to notill, whether there might be any leaching into ground water, some mention of the cost of increased herbicide, etc. Note that this is more detailed information than the general discussion above.

CED is a tool to be used at the discretion of the field staff. The tenets of the philosophy should be used whenever discussing adoption of conservation measures with landowners. However, it is not necessary to develop a full-blown hierarchy of analysis for each farmer. Instead, you might wish to establish case studies detailing the experiences of a farmer adopting a particular conservation measure or measures and use these to provide other farmers with the information they need.

Case studies are a detailed investigation into the experiences of a particular farmer. They are developed on a county basis, choosing farmers who can be considered "typical". They might be developed also along a resource basis. For example, you might develop a case study for the adoption of notill on clumpy, high-clay soils and another case study on its adoption on sandy or gravelly soils. Case studies, then, are a way to use the CED methodology to provide requisite information without having to perform a CED analysis on each farm.

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In the section that follows, four case studies have been developed. The narratives detail the experiences that each farmer had. The crop budgets associated with these farmers are found in Section 1. The CED worksheets have

been provided and follow the narratives. Procedural references giving a summary of the use of case studies can be found in Section V-C. As one can see, a great deal of information can be transmitted with these case studies.