
Introduction

About the Protocol

The Decision Protocol is a question-based process that helps decision groups and teams manage and document their reasoning. It is not a substitute for the National Environmental Policy Act (NEPA) applied by Federal agencies, although it can provide better documentation, decision rationales, collection and use of information, and interaction of deciding officers and team members in a NEPA analysis. And it's more than just "good NEPA"—the Protocol has applications for any complex decisionmaking process. It has been used by **Interdisciplinary (ID) Teams** doing environmental analyses for many resource projects, as well as for organization restructuring, budgeting, and strategic planning.

History of the Protocol

The Protocol was conceived in 1994 when an ad hoc group of Washington Office staff involved in ecosystem management, natural resources, NEPA, fiscal matters, and appeals and litigation began to explore ways to improve decisions. They drafted a series of questions, drawn from structured approaches to group problem-solving based on Decision Science-methods of making choices for desired change grounded in **decision analysis**, psychology, economics, and other fields.

The questions were refined during several pilot tests on decisionmaking processes on National Forests across the country. Management of range, insects, fire recovery, travel, forest health, and organization restructuring were some of the projects. Each pilot experience was used to improve the questions and the facilitation tools. The Protocol has been used in Idaho, Washington, Oregon Colorado, California, Utah, Tennessee, Indiana, Arizona, Texas, New Mexico, and Alaska and is now being disseminated nationwide.

Protocol Version 2.0

This document represents the first official published version of the Protocol. It was refined from version 1.0, a pieced-together set of questions and instructions developed and used in early tests. Version 2.0 is designed to be used by decisionmaking teams with the assistance of an experienced facilitator. Because this version has been considerably streamlined and reorganized, we include a brief description of the differences between versions 2.0 and 1.0 in Appendix B (p. 85).

The thinking process-not the document or report that records it-is the main focus of this protocol. It aims to improve the **decision** process, and higher quality documents result from higher **decision quality** processes, just as good grades in school come most readily from understanding the subject, not learning by rote.

The Protocol approaches decisionmaking as a full cycle **problem-solving** task including process design, situation description, problem identification and representation (**problem framing**), solution design, and implementation of alternatives. The Protocol is composed of sets of challenging questions that strive for clarity, consistency, completeness, and efficiency of

effort. Making the Protocol work demands candor and adherence to the process.

The Protocol is based on the belief that a high-quality decision has the following attributes:

- Accurately describes the problem and the **criteria** for solving it
- Uses available information effectively
- Collects new information wisely
- Generates and chooses from a wide **range of alternative actions** relevant to the problem
- Distinguishes among facts, myths, values, and unknowns
- Describes **consequences** associated with alternative solutions to the problem
- Leads to choices that are consistent with personal, organizational, stakeholder, or other important values.

The Protocol differentiates between decision process, content, and outcomes. **Decision process** means procedures and steps in decisionmaking. **Decision content**—the subject and products of the decision process—include the problem itself and its proposed solution. High-quality decisions are those with process and content favorable for a positive outcome. **Decision outcome** is the new situation that results after the solution is implemented. Even high-quality decisions can have bad outcomes because of uncertainties beyond the control of the decisionmaker. Understanding the differences among these three elements of decisionmaking allows teams to do the following:

- Identify successful decisions and what parts of their process and content should be used again
- Minimize** mistakes (bad decision processes with bad outcomes) by distinguishing between bad luck and flaws in decision process
- Recognize good luck and avoid pretending that it was caused by good management choices
 - Recognize bad luck and avoid blaming the process or decisionmakers for factors beyond their control.

The Protocol Compared to Other Decision Systems

There are many types of systematic frameworks to guide decision processes. These can range from very linear and structured analysis methods to very **intuitive** approaches guided by perception and **subjective judgment**. The Protocol is designed to encourage a decision team to customize their own decision process for the needs of the situation, the team, and the **stakeholders**. This may result in a more structured approach for strategic, long-term decisions but allows a quicker, more intuitive approach for decisions that are more routine and clearly structured.

Some parts of the Decision Protocol may take more time than traditional approaches. Some questions will be difficult to answer. However, the process as a whole should take less time than traditional approaches and use time more effectively. It will require less reanalysis and provide fewer inconsistencies and ambiguities. Hopefully, fewer stakeholders will become disenchanted and challenge the decision.

Stakeholders can participate in any and all cycles of this Protocol. Their roles may change in different cycles. The Protocol does not replace any tools or processes of collaborative decisionmaking, dispute resolution, or public involvement.

The Decision Protocol Outlined

The Decision Protocol (figure 1) is composed of five decisionmaking cycles. The process starts with a situation. The team's perspectives on the situation are clarified in the **PROCESS, PROBLEM, and DESIGN Cycles**. From these perspectives, the team designs alternative solutions and evaluates their relative effects in the **CONSEQUENCES Cycle**. The final selection of an alternative is explained and the implementation of that alternative is planned in the **ACTION Cycle**. The tasks undertaken in each cycle and the expected product from each cycle are outlined below.

I. PROCESS

Tasks: Determines what the decision is, who will be making the decision, how it will be supported, and what may constrain the process. The cycle results in the design of a decision process that the team agrees to follow.

Product: Agreement among **decision team** members (including the line officer) to follow a particular set of rules and roles.

II. PROBLEM

Tasks: Sets the context, organizes available information: describes the situation in biological, social, economic, and other terms; identifies critical structural and functional **components** and **attributes** and possible influences from large and smaller scales; and identifies historical and current management. States the reasons for actions already proposed and the

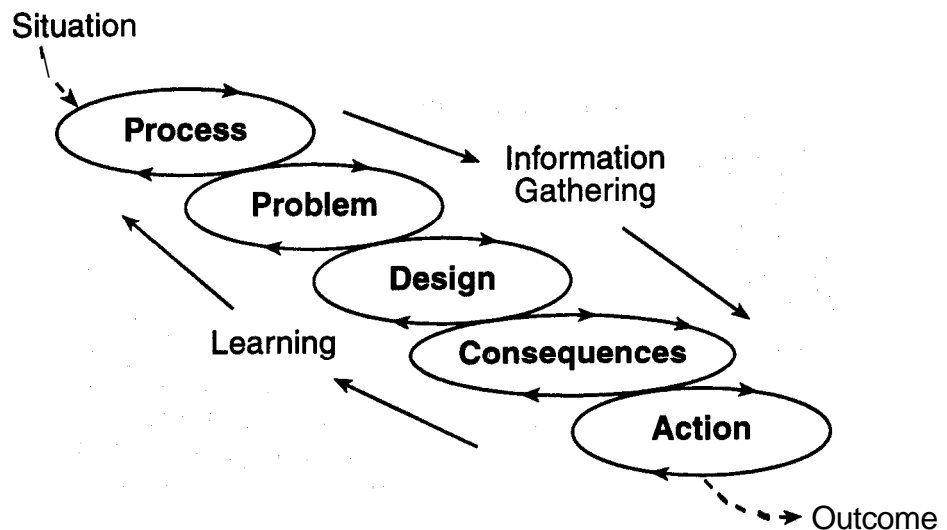


Figure 1. Five cycles of the Decision Protocol, version 2.0.

perspectives of different stakeholders about the changes being sought. Evaluates the strength of information and expert judgment available to help **define** the problem, and describes important gaps in knowledge and the costs of closing these gaps.

Products: Narrative description, including maps, tables, or other graphics that illustrate the set of objectives for solving the problem: and a description of the information base, major elements of **uncertainty**, and information to be collected.

III. DESIGN

Tasks: Proposes activities that will accomplish the objectives. Describes cause-and-effect relationships among activities and predicted changes in attributes, Combines these activities into a **design** proposed for action and identifies alternative actions, including no-action and status quo and **refinements** in response to expected consequences. Develops monitoring needs to evaluate performance and to guide adaptive response. Describes the stakeholders to be consulted.

Product: Description of the refined proposals.

IV. CONSEQUENCES

Tasks: Identifies **measures** for predicting changes (effects) in the important attributes of the situation. Sets acceptable consequences (minimum allowable and desirable limits) on **these attributes**. Evaluates sources of information to assist in these predictions. Quantifies the expected consequences of the **proposed actions** and their alternatives. Estimates the consequences of interactions among the activities of the proposals and with those of other projects. Describes key uncertainties and how they might affect the consequences. Selects key consequences and guides the team to propose refinements in design to address them.

Product: A display of the refined alternatives and their expected consequences.

V. ACTION

Tasks: Compares alternative proposals for meeting objectives and avoiding adverse effects, including cost, feasibility, and other criteria. Describes a logical and defensible **decision rationale** for selecting the best proposal. Describes how different assumptions might influence the choice. Chooses or hybridizes a "preferred" design and explains why it was selected. Develops a schedule of responsibilities for implementing the decision. Sets plans to **monitor implementation** and outcomes and evaluate changes in the situation that will guide future adaptation and problem-solving.

Products: Comparison of the alternatives, description of the rationale, and an **implementation plan**.

How to Use the Decision Protocol

Use the **Initial Assessment Questions** to chart a path through each cycle. These questions direct you to appropriate **Core Questions** in the cycle or in previous or uncompleted cycles. This saves time by avoiding plodding through every Core Question. At the end of each cycle are **Audit Questions** that test the cycle's output for clarity, comprehensiveness, logical consistency, responsiveness to stakeholder values, and legal defensibility. Use the audit questions to note any areas that need improvement. In all but the first cycle (the PROCESS Cycle), the Initial Assessment and the Audit Questions are the same.

Cycles consist of Core Questions to prompt thought, analysis, dialogue, and choice. Each cycle has questions that encourage divergent (broad gathering of ideas and information) and convergent (analytical) thinking. Core Questions also evaluate information and uncertainty and prompt teams to use their experiences in other projects. The **information value questions** evaluate how much and what kinds of information and analysis are required to improve the quality of the decision. **Learning questions** prompt the decision team to evaluate and apply the organization's experiences and to document the team members' thinking so that future teams can learn from them.

Record the results of the discussion for each Core Question in the appropriate **Summary Table** that follows the question or cluster of questions. These tables will document the team's thinking and agreements and will be useful in keeping track, avoiding duplication, and explaining the status of the decision. The Summary Tables disclose the unfolding decision process and are inputs themselves for questions in the DESIGN and ACTION Cycles. The information in these tables can be fashioned into reports such as environmental assessments and decision notices that explain the analysis and the decisions made.

Sometimes a single question will provide the entire contents for one Summary Table. Other times, a series of related questions will be used to build a single table. Figure 2 displays the question discussion and table-building process.

Most teams will use an electronic version of Decision Protocol 2.0 that automatically expands rows in tables as information is added. If the hard-copy version in this publication is used as the recording instrument, teams may want to make copies of some tables where additional rows are needed.

Ways to Use the Decision Protocol

You can apply the Decision Protocol in several ways.

- Take the team straight through the Core Questions in order. This assures completeness, full documentation, and keeping things in order, but it can get tedious and may spend too much time on some issues and aspects.

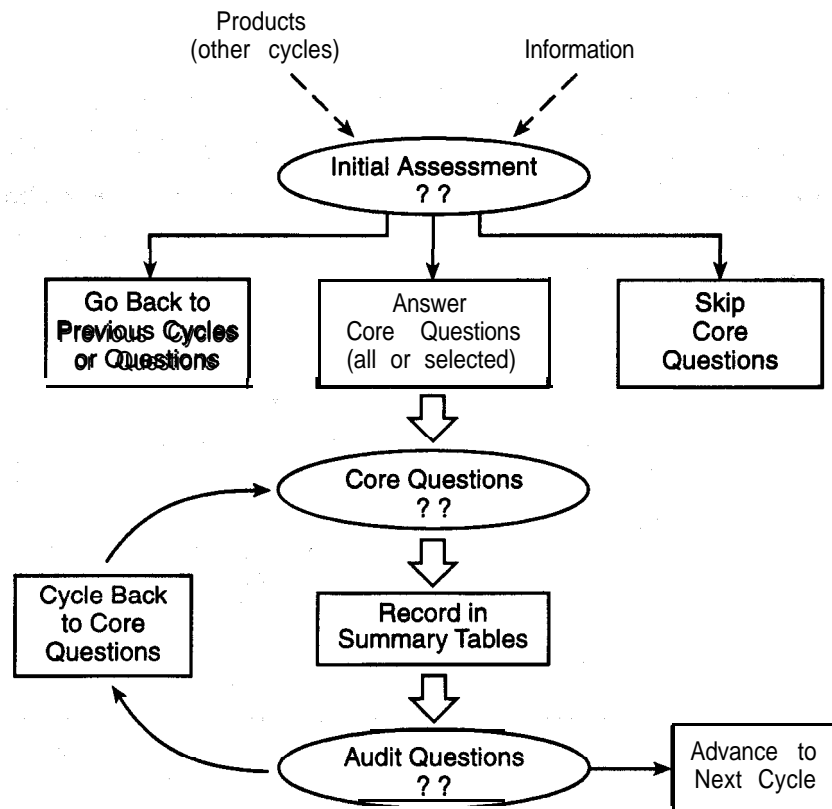


Figure 2. The general structure of the Decision Protocol cycles.

- Use the Initial Assessment Questions to decide what Core Questions to concentrate on. The Initial Assessment Questions are meant to be opportunities to evaluate or grade the current status of the decision process in order to help your team judge which aspects of the decision need the most work.
- Review the Core Questions and intuitively select those that seem to best capture where you think the decision process needs help. From observation of the decision process, you may decide that certain cycles are being shorted or gridlocked.
- Move quickly through the Core Questions for each cycle, pushing the team to come up with preliminary answers, then go back through the Initial Assessment Questions and information-related Core Questions to see what reconnaissance and information collection needs to take place.
- Allow members of the team to work through some of the Core Questions on their own, recording their answers and doing their homework. The team would then assemble to review and reconcile differences in these answers and synthesize. This can also involve members of stakeholder groups.

- Go **straight** through the DESIGN and CONSEQUENCES Cycles for one action, cycling back to **refine** the action until it meets all the desired and acceptable limits. Concentrate on selecting options for activities that comprise the design rather than selecting among complex alternatives.

Signposts on the Decision Journey

For specific aids in leading or facilitating the team through the cycles, refer to the Team Leader **Tips and Tools** located in Appendix A, the **Glossary**, and Appendixes C and D, which contain **For Further Reading** and **References** to guide further application. These aids are referenced in the text by signposts such as the following:



Tip: A guide for facilitators and team leaders with some tips for helping the team through some of the Core Questions. A tip may contain some of the background about the design and intent of the Core Question. Reading the tip may allow the facilitator to modify the Core Question without losing the purpose of the question. The appearance of the “stop sign” means that a tip for that specific Core Question appears in Appendix A, Team Leader Tips And Tools (p. 87).



Tool: A short profile of a decision aid or facilitative tool that could help the team through difficult or tricky thinking tasks. In some cases, tools are offered as step-by-step processes for ways of attacking the particular Core Question. The appearance of the “hammer” means that a tool for that specific Core Question appears in Appendix A, Team Leader Tips And Tools (p. 87).

New terms or terms with specific meanings in the Decision Protocol are boldfaced in the text where they first appear. The Glossary (p. 119) contains definitions of the terms. Definitions were adapted from usage in decision science, environmental management, policy science, and many other fields.

Appendix C, For Further Reading (on page 105), contains a list of reference books keyed to Decision Protocol Cycles and specific Core Questions. Appendix D, References (on page 111), contains a list of reference materials in bibliographic form. This is not meant to be an exhaustive review but only a selected list of important and influential works that could be mined for process ideas and understanding.