

## **Structured Decision Making: Selected Bibliography**

### **General References**

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[Good general textbook loaded with examples. Comes with student version of popular decision analysis software.](#)
- Edwards, W., R.F. Miles, Jr., D. von Winterfeldt, eds. 2007. Advances in decision analysis: from foundations to applications. Cambridge University Press, UK.
- Goodwin, P. and G. Wright. 2004. Decision Analysis for Management Judgment. 3<sup>rd</sup> Ed. Wiley and Sons, NY. 477pp.  
[Very accessible introductory book covers all the decision analysis topics. This edition includes especially strong chapters on human judgment.](#)
- Hammond, J.S., R.L. Keeney, and H. Raiffa. 1999. Smart Choices: a practical guide to making better life decisions. Broadway Books, NY. 242pp.  
[If you only read one reference, pick this one. Short, easy reading, with the key principles of structured decision analysis; PrOACT approach to structuring.](#)
- Keeney, R.L. 1992. Value-Focused Thinking: a path to creative decisionmaking. Harvard University Press, Cambridge, MA. 416pp.  
[The original and still the best description of why carefully defining values and objectives is critical to improving decision making—and how to do it. Many of these ideas are now part of texts like those above, but this book is more thorough and very good reading.](#)
- Kleindorfer, P.R., H.C. Kunreuther, and P.J.H. Shoemaker. 1993. Decision Sciences: an integrated approach. Cambridge University Press, UK. 470pp.  
[A more dense and theoretical text book than the others listed here, but also the only one we've found that covers all the topics we lump under 'structured decision making.' Coverage of management science \(optimization\) and expert systems is limited, but the book's strength is putting a very full range of ideas and approaches into perspective.](#)
- Lichtenstein, S. and Slovic, P. 2006. Construction of Preference. Cambridge University Press, 808pp.
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[Great summary of the basic ideas about structuring decisions in an ESA context.](#)
- Skinner, D.C. 1999. Introduction to decision analysis: a practitioner's guide to improving decision quality. Second edition. Probabilistic Publishing, Gainesville, Florida, USA.

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Primary text on behavioral aspects of decision analysis; how human cognition, expertise, and biases influence decision making.

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Describes how to use intervals ('fuzzy numbers') in place of point estimates when species information is uncertain, to assure that decisions take full account of uncertainties.

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<http://www.consecol.org/vol2/iss1/art2>

Presents tactics for using Bayesian methods, so uncertainty can be better treated in decision making. Good discussion of human cognition of uncertainty and probability.

Burgman, M.A. 2005. Risks and Decisions for Conservation and Environmental Mangement. Cambridge University Press, UK. 288pp.

Comprehensive text on risk analysis and structured decision analysis for environmental management. Covers risk analysis history and perspectives; human decision making context; uncertainty; risk analysis in various realms; and technical methods.

Burgman, M. A., S. Ferson and H. R. Akçakaya. 1993. Risk Assessment in Conservation Biology. Chapman Hall, New York. 314 pp.

Thorough description of risk assessment simulation modeling for conservation biology contexts (e.g., population viability analysis). See Morris and Doak for more current treatment.

Dreschler, M., K. Frank, I. Hanski, R.B. O'Hara, and C. Wissel. 2003. Ranking metapopulation extinction risk: from patterns in data to conservation management decisions. Ecological Applications 13(4):990-998.

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[...combining risk analysis with participatory-deliberative processes.](#)

Peterson, G.D., G.S. Cumming, and S.R. Carpenter. 2003. Scenario planning: a tool for conservation in an uncertain world. *Conservation Biology* 17(2):358-366.

[Offers the framework of using scenarios to explore and improve understanding of uncertainties; and how to incorporate into decision making processes.](#)

#### **Decision Analysis With Decision Trees**

Behn, R.D. and J.W. Vaupel. 1982. *Quick Analysis for Busy Decision Makers*. Basic Books, Inc. New York, NY. 415pp.

[An entire book on decision trees and decision analysis.](#)

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#### **Expert Opinion and Group Facilitation**

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