



Week 8:

Final presentations + closing thoughts

Instructor: Brielle K Thompson

Course: NAT_R 8001 Decision Analysis for Research
and Management of Natural Resources

Finish up with final presentations



Discussion

- What did you learn about your project by going through a PrOACT rapid prototype?
- How useful was this process?

Closing thoughts – what **did** you learn?

Two key elements of Structured Decision Making



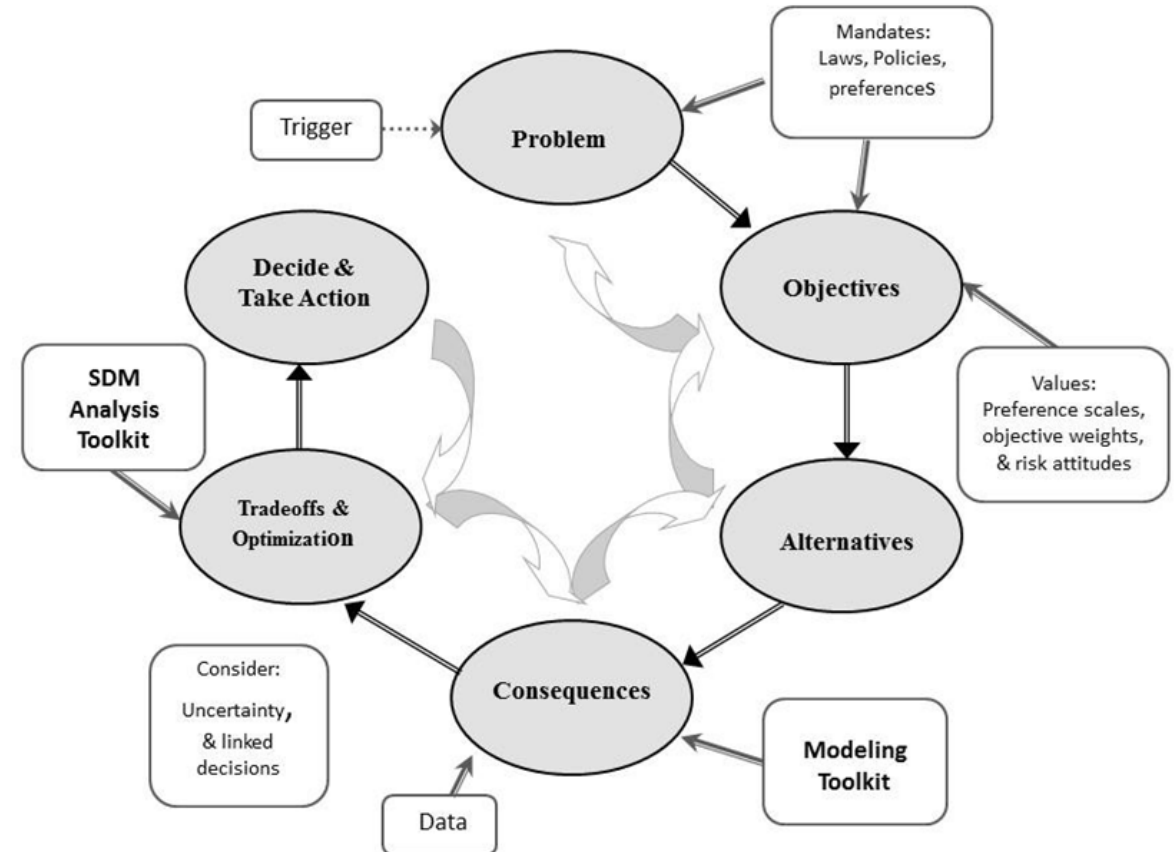
1. Values-focused

- Objectives are discussed first
- Contrasts with alternative-focused methods



2. Problem decomposition (PrOACT)

- Break problem into components, separating science from values
- Complete relevant analysis
- Recompose the parts to make a decision
- Additional considerations: risk, uncertainty, adaptive management

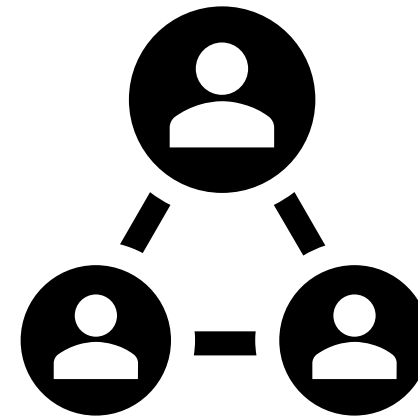
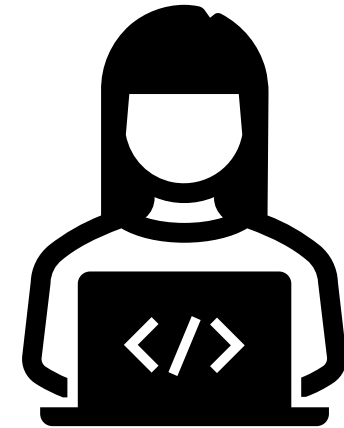


Source: Jean Fitts Cochrane

Closing thoughts – what **didn't** you learn?

Closing thoughts – what **didn't** you learn?

- What we didn't cover:
 - **Variety of quantitative tools**
 - Other types of value of information analysis
 - Multi-Criteria Decision analysis tools
 - Bayesian Belief Networks
 - Adaptive management modeling techniques
 - Projection modeling
 - Optimization modeling
 - **Dealing with people**
 - Stakeholder analysis, forming a team
 - Facilitation
 - Expert elicitation



Closing thoughts – What can SDM be used for?

Waterfowl harvests
(Williams and Johnson 1995)



Bighorn Sheep disease mitigation
(Sells et al. 2016)



Whooping crane management
(Moore et al. 2008)



Dreissenid mussel management
(Sepulveda et al. 2022)



Bull trout reintroduction
(Brignon et al. 2017)



Prairie Pothole wetland management
(Hunt et al. 2020)



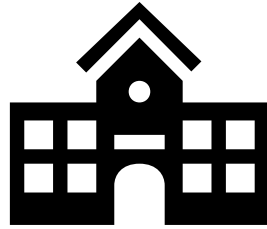
Across many scales

- Routine: one decision maker
- Small-scale: one decision maker or closely collaborating decision makers, few stakeholders
- Medium-scale: multiple collaborative decision makers, many stakeholders
- Large-scale: multiple collaborative decision makers, many stakeholders

Closing thoughts – What can SDM be used for **beyond natural resources?**



Buying
a car



Choosing a
college



Career
decisions



Deciding
dinner plans



Buying a
house



Making
travel plans

Books to read:

Increasing rigor

