

Skill Check Week 1: Introduction to Structured Decision Making

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

Instructor: Brielle Thompson

For the scenario below, in groups you will identify:

- The bias(es) present
- How the bias could affect decision outcomes
- How SDM principles (e.g., PrOACT, problem decomposition) could improve the decision

*Be prepared to share your answers with the rest of the class



Scenario 1:

A wildlife agency has spent \$2 million developing a corridor to connect fragmented habitats. Early monitoring shows minimal animal movement through the corridor. Despite this, the agency continues investing in signage, fencing, and outreach.

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Scenario 2:

After watching a documentary on coral bleaching, a coastal conservation group shifts all funding to reef restoration, even though local data shows mangrove degradation is a more pressing issue.

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Scenario 3:

A regional water authority is considering expanding a reservoir to increase water storage capacity. The expansion was proposed 10 years ago, and millions have already been spent on feasibility studies and land acquisition. However, recent climate models suggest that rainfall patterns are shifting, and the reservoir may not fill as expected. Despite this, the authority continues to push forward with the expansion.

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Scenario 4:

A conservation district has used the same fertilizer blend for over 15 years to support native grass restoration on degraded soils. Recent soil tests show increased salinity and reduced microbial activity, suggesting the blend may be contributing to long-term soil degradation. Despite this, the district continues using the same formula, citing past success and ease of procurement.