



Outcome-based Forestry for Old-Growth Forest

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Key points

- What is outcome-based forestry?
- An example: Maine Forest Service's program
- Key considerations for old-growth



Outcome-based forestry

What does it mean?

...achieving forest sustainability goal(s) through an adaptive process of performance measurement (the "outcome"), verification, and improvement.

(State of Maine)...' "Outcome-based forest policy" means a science-based, voluntary process to achieve agreed-upon economic, environmental and social outcomes in the State's forest, as an alternative to prescriptive regulation, demonstrating measurable progress towards achieving statewide sustainability goals and allowing landowners to use creativity and flexibility to achieve objectives, while providing for the conservation of public trust resources and the public values of forests.'



Outcome-based forestry

Focuses on the “what”, also called

- Evidenced-based
- Results-based
- Management by results
- Accountability systems
- Performance-based
- Data-driven

Contrasts with “how-to” approaches

- Input-based
- Practice-based



Key success factors¹

- Industries with a high compliance culture
- Goals/objectives are specific, measurable (e.g., SMART), and enforceable
- Timelines are appropriate (allowing for innovation but not too long)
- Risks to key values are low to medium

¹Natural Resources Canada. 2013. Literature Review to Assess the Relevance of Outcome-Based Regulations to Innovation. Natural Resources Canada, CanmetMINING-Green Mining Initiative, Minerals and Metals Sector. Ottawa, Canada.



Setting SMART Goals



The research shows that specific and challenging goals lead to better performance (Locke, 1968). In this lesson we will be working on designing a plan and creating SMART goals to help us achieve a healthier lifestyle.



You goal should be as specific as possible and answer the questions: **What** is your goal? **How** often or how much? **Where** will it take place?



How will you measure your goal? Measurement will give you **specific feedback** and hold you accountable.



Goals should push you, but it is important that they are **achievable**. Are your goals attainable?



Is your **goal and timeframe realistic** for the goal you have established?



Do you have a **timeframe** listed in your SMART goal? This helps you be **accountable** and helps in **motivation**.



An example: Maine Forest Service



Brief legislative history...

- 1999 – MFS publishes first State of the Forest Report, advocates for the establishment of outcome based forest policy
- 2001 – 120th Legislature enacts PL 1999, c. 339, An Act to Promote Outcome-based Forest Policy
- 2007 – 123rd Legislature enacts PL 2007, c. 271, An Act To Extend the Time Allowed for Outcome-based Forestry (repealed 100,000 acre cap on individual agreements, 200,000 acre overall cap, and requirement to include ownerships less than 1,000 acres; extended sunset date an additional five years)
- 2012 – 125th Legislature enacts PL 2011, c. 488, An Act To Remove the Repeal Date for Outcome-based Forestry (repealed 5 year sunset date)



Characteristics

- A statute covers public and private forest landowners
- Voluntary
- Participation has been used waive requirements of the ME Forest Practices Act regarding clear-cut size and green-up standards
- Must show measurable progress towards achieving Maine's forest sustainability goals:
 - 1. Soil productivity
 - 2. Water quality
 - 3. Timber supply and quantity
 - 4. Aesthetic impacts
 - 5. Biological diversity
 - 6. Public accountability
 - 7. Economic considerations
 - 8. Social Considerations
 - 9. Forest health



Governance and Verification

- Governor appoints a panel of experts to work with Maine Forest Service and the forest landowner
- Panel, MFS and landowner establish landowner objectives
- Data and maps supplied to Panel and MFS (some proprietary)
- Open access of forest land to Panel. Panel has conducted field audits and relied on 3rd party forest certification audits (SFI and FSC) to assess compliance.
- Landowner supplies own annual report to MFS and Panel
- Landowner, Panel, and MFP report to Legislature



Criterion 5 – Biological Diversity

Goal: Maintain biological diversity of healthy populations of native flora, fauna, ecosystems, and communities.

Outcomes

- Management address the habitat needs of the full range of species present.
- Maintain or manage for acreage in late successional (LS) condition through management and protection.
- Maintain a reasonable component of standing dead trees, live cull trees, and down logs across the landscape (not necessarily on every acre).
- High Conservation Value forests are properly identified and value protected on the ownership.
- Rare, threatened, and endangered species habitats are properly identified, and the land is managed to protect the habitats and occurrences of rare, threatened, and endangered species



Limitations

- Panel does not include a conservation biologist
- Objectives are not specific, not measureable, and lack targets/goals
- Does not address old-growth specifically



British Columbia

- Tried to go to outcome-based
- Evolved into a hybrid of outcome-based and practice-based because science was lacking and cheaper monitoring costs than “pure” outcome-based



Key considerations for old-growth



✓ 1. High compliance culture

- Many eastern forest landowners comply with voluntary water quality BMP and wildlife tree retention standards.
- But little experience with species-based outcomes



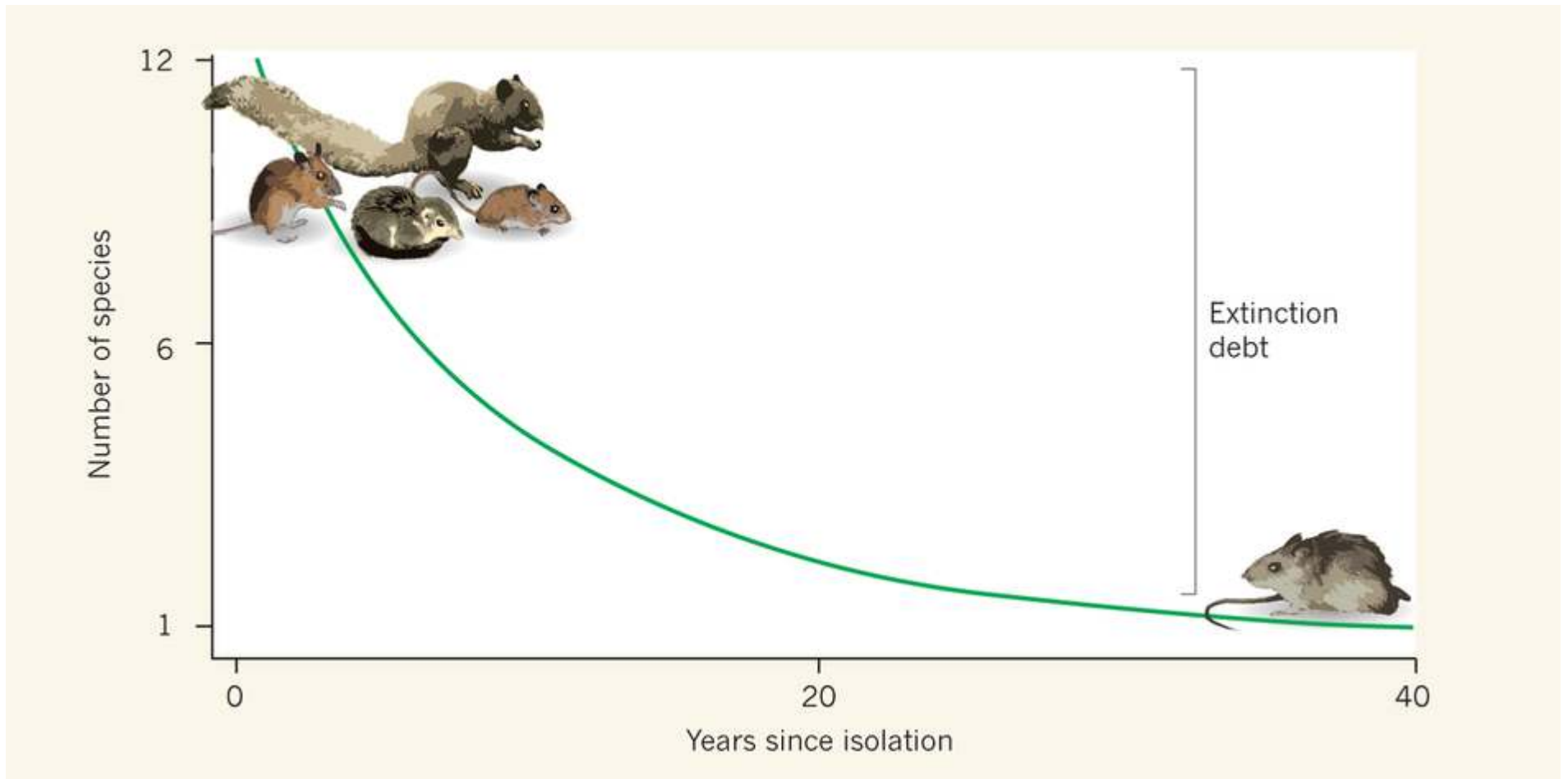
✓ 2. 'SMART' and enforceable objectives

- We can confidentially identify structural objectives for LS/OG (large trees and deadwood)
- We can't confidentially identify landscape-level objectives for species (e.g., if we build it, they will come)



3. Timelines are appropriate

- Uncertainty due to extinction debt
- ...“the future extinction of species due to events in the past. Extinction debt occurs because of time delays between impacts on a species, such as destruction of habitat, and the species' ultimate disappearance.”





4. Risks to key values

Risks to LS and OG are high.

- Economic pressures to LS/OG are high.
- Hard to quickly restore LS/OG when mistakes are made



Summary

- Definition: ...achieving forest sustainability goal(s) through an **adaptive process** of performance **measurement** (the "outcome"), **verification**, and **improvement**.
- ME example – strong but lacks conservation biologist and specific outcomes
- Lack of scientific knowledge and risk factors may make it difficult to apply outcome-based forestry to LS/OG.