

Critical Gaps in the Social-ecological Understanding of Wildfire Consequences: Economic Perspective

Marian Weber

BC Ministry of Emergency Management
and Climate Readiness

*NASEM Workshop: The Social-Ecological
Consequences of Future Wildfire in the West*

June 13-14, 2024, Irvine CA



Economic Costs of Wildfire

Fire Management Costs

- Risk Reduction, Preparedness & Response

Direct Wildfire Damages

- Structures / Infrastructure, Natural Resources, Health, Productivity, Evacuation Expenditures

Indirect Losses

- Macro-economic (Jobs, GDP, Tax Revenue)

1. Misaligned Incentives & Fire Management Costs

- Land Use Planning
- Insurance & Disaster Assistance
- Fire Response

Increased Exposure



2. Uncertain Direct Damages

- “tens to hundreds of billions of dollars per year” (DOI 2023)
 - ✓ Structures & Economic Activity
 - ? Health
 - ? Ecosystem Services

Recurrent Disaster



3. Recovery Pathways & Indirect Costs

- Positive Local Economic Impacts in Medium / Long Run
- Neutral or Negative Regional/National Economic Impacts

Broken Window Fallacy



The Future Economy with Wildfire

- More Resources Allocated to Fire Management and Related Damages
- Higher Tax Burden
- Lower Productivity Due to Impacts on Assets and Natural Resources
- Lower Investment and Fewer Jobs
- Burden on the Vulnerable



Pathway to Adaptation

Current State

- Increasing demands of fire on a constrained land base
- Misaligned development incentives increase exposure
- Poorly understood impacts of degraded ecosystems on cost and economic opportunity

Opportunity

- National standards for wildfire economic – ecological accounting
- Baseline socio-economic scenarios for wildfire
- Long term community monitoring