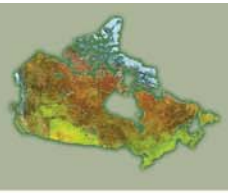
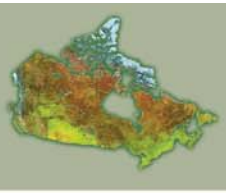


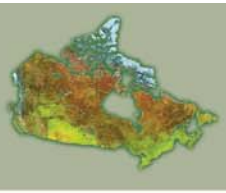
# BUGS AND PEOPLE: SOCIAL SCIENTISTS' ROLE IN FOREST HEALTH RESEARCH

Bill White
Western Forest Economists
Welches, OR
May 2 2006



# OUTLINE

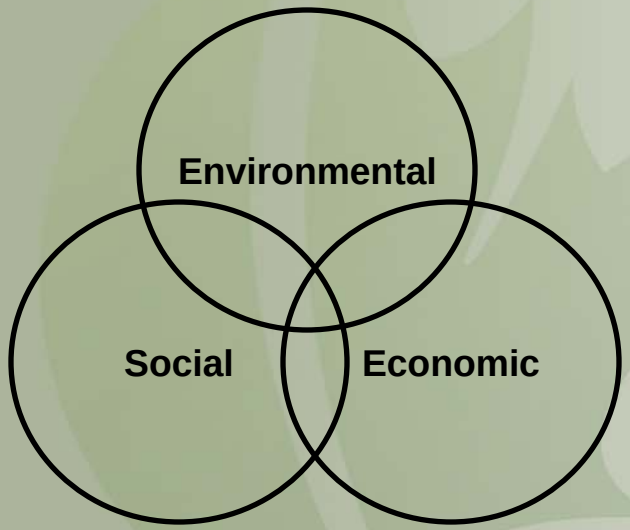
- Social science in sustainable forest management
- Case studies
  - Beetle proofing - Regional economic impacts
  - Bioenergy potential - Community vulnerability
  - Public perceptions



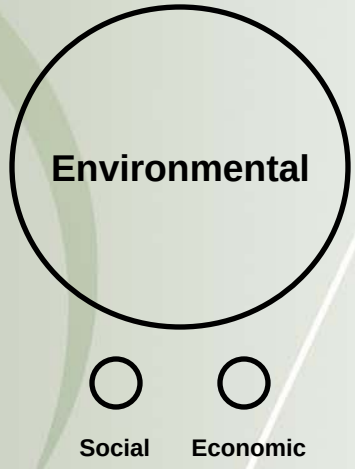
# Social Science as part of SFM

- Three legs or circles
  - Competitiveness and community sustainability
  - Assumed equality
    - Seldom the case

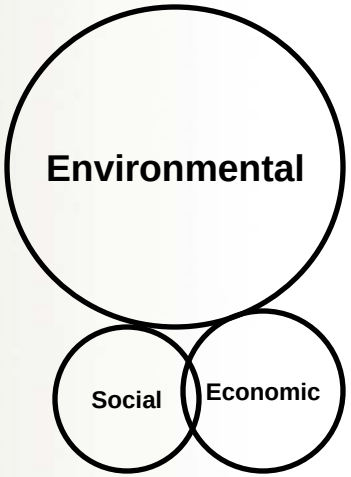
# Sustainable Development



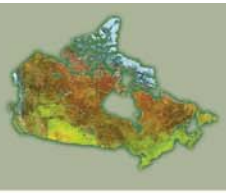

**IDEAL**




**REALITY**

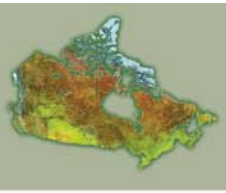



**FMF**



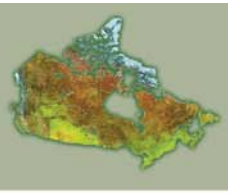
# Case Studies

- Beetle-proofing
  - Economic efficiency: greatest return from least resources.
  - Can we spend money today to save us money over time?
  - Reviewed previous studies.



# Beetle-proofing

- Beetle-proofing as a form of preventative maintenance to maintain the economic viability of pine stands.
  - Financial analysis
  - Commercial thinning offered the most promise and in most cases provided positive returns.
    - Partial cutting to 4 and 5m
    - None of the studies looked at longer-term opportunity cost of beetle damage. Assumed to do good.
  - Also reviewed best practices and data requirements
    - Growth, probabilities, prices (green, dying, dead), costs
    - Primer for non-economists



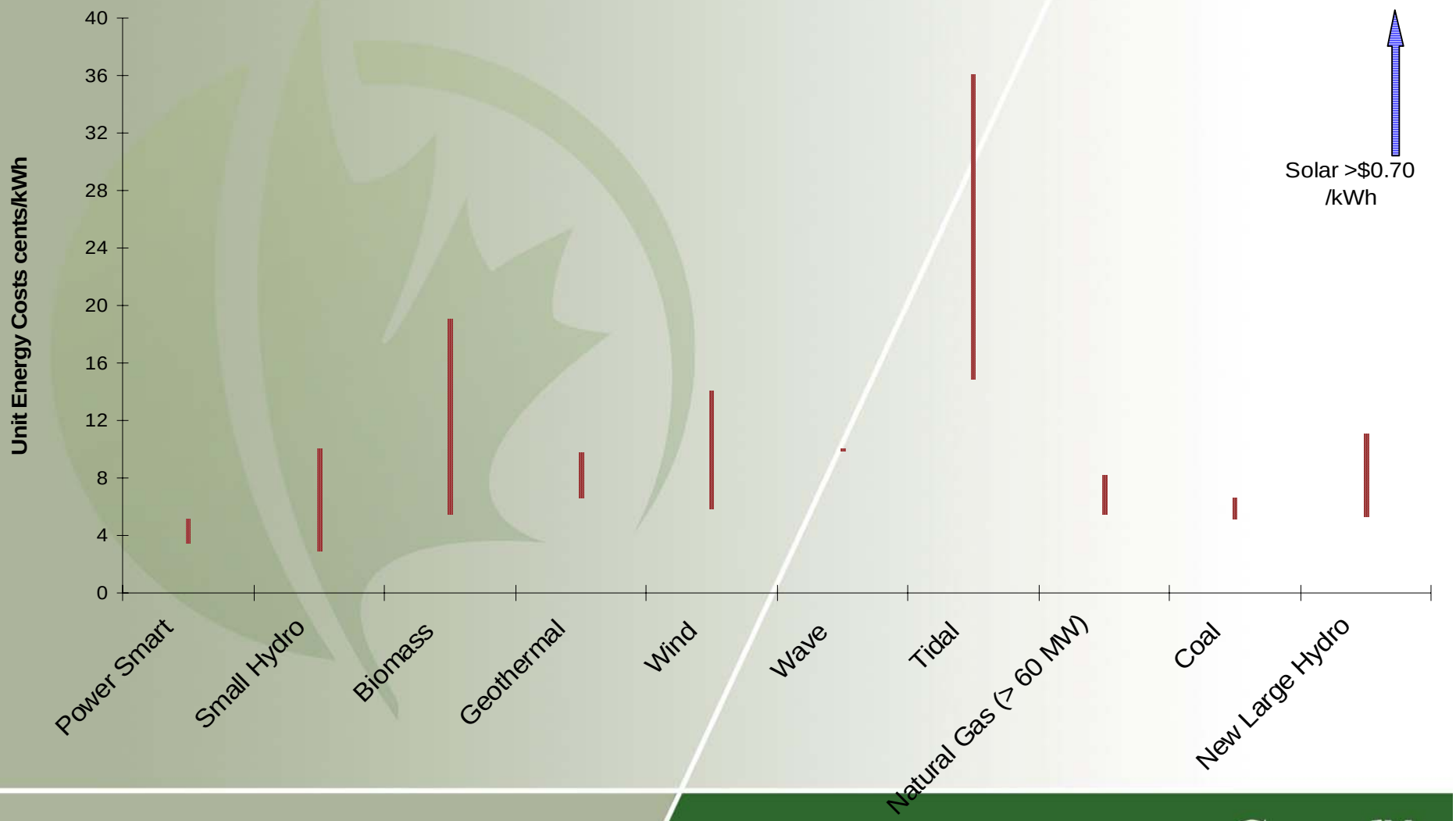
# Regional Economic Impacts

- Uplift followed by decline
- Existing economy and linkages
  - Industry and individual's spending habits
- Serious economic impacts for all sectors of the economy
  - Short termIncreases (42%; 17%) can not offset long term decreases (4%; 9%)
  - Cannot be offset by augmenting tourism or agriculture
- Information helps planners with mitigation efforts

# Bioenergy potential of beetle killed timber

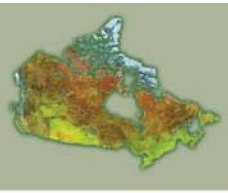
- 200M cubic metres of MPB killed timber expected to remain unsalvaged if new uses are not found for the fibre
  - Fire risk and impediment to new stands
- Examined feasibility of using this for energy
- Not competitive with hydroelectricity or natural gas

CFS CANADIAN FOREST SERVICE
SCF SERVICE CANADIEN DES FORÊTS
cfs-scf.nrcan-rncan.gc.ca



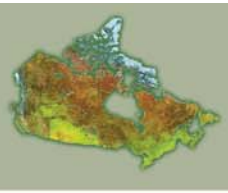

Natural Resources Canada
Ressources naturelles Canada

Canada



# Community vulnerability

- Vulnerability of 11 BC and 2 Alberta communities to MPB activity
- Vulnerability framework based on social science research in the areas of climate change, community capacity, hazards management and risk perception.
  - Focus groups also held
  - Index developed
- Results showed that vulnerability is not just a function of physical proximity to the beetle but various social, economic and political factors as well.
- Communities in heavily infested areas may be less vulnerable than communities with low to moderate beetle activity depending on existing economy and social capital.

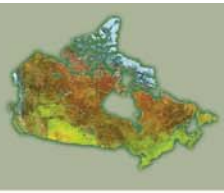


# Public Perceptions

- Most forest operations and parks are on Crown land
- Public views important
- MPB in national parks can impact safety and values beyond park boundaries.
  - Control measures have been implemented
- Public attitudes, knowledge, and management preferences collected for Banff and Kootenay National Parks

# Public Perceptions

- Control measures aimed at current infestation were supported
- Proactive measures in unaffected areas were not supported
- Results useful in in designing park management and education programs.



# Conclusion

- Social Science is about the impact bugs have people's behaviour.
- Social science is about policies developed to deal with pests and their affect on people.


Questions?