



Climate change impacts on forest and range resources: Analysis complete

The document, commissioned by the MOFR's Forest Stewardship Division, distinguishes between climate change mitigation (reducing greenhouse gas emissions) and adaptation (making adjustments to accommodate climate change), and focusses on the latter.

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A new report makes recommendations on how the Chief Forester should strategically confront the potential impacts of climate change on the province's forest and range resources.

Completed by the BC Ministry of Forests and Range (MOFR), the report, entitled "Preparing For Climate Change: Adapting to Impacts on British Columbia's Forest and Range Resources," makes both short- and long-term recommendations, and took a year to complete. The document, commissioned by the MOFR's Forest Stewardship Division, distinguishes between climate change mitigation (reducing greenhouse gas emissions) and adaptation (making adjustments to accommodate climate change), and focusses on the latter. However, the report also identifies three sectors where mitigation by the MOFR can play a key role: policies and programs that enhance CO₂ removal through afforestation and reforestation; initiatives that support the use of biomass for energy; and actions to reduce the greenhouse gas emissions from MOFR operations.

As for climate change adaptation strategies, the report recognizes that the government has the dual roles of "adaptor" and "catalyst." As an "adaptor," the government identifies and manages climate change-related risks to public values, such as public safety and health. As a "catalyst," the government supports developing regional capacity to recognize and manage climate-related risks.

Adapting to climate change can be either reactive (responding to the impacts of climate change) or proactive (preparing in advance), says the report. The large scale of the provincial forest land base means that much of the forest will adapt to climate change without benefit of human intervention. The report further acknowledges work by MOFR researcher **Dave Spittlehouse**, who recommends that adaptation efforts focus on the major commercial tree species and perhaps a few animal species (Spittlehouse 2005).

The MOFR faces two major challenges according to the report: 1) the necessity to manage the existing standing forests to ensure they continue to provide goods and services to society into the future, and 2) the need to develop forest management strate-

gies for future forests, i.e., forests that will be suited to the new climate and to changed biophysical conditions.

Many of the report's recommendations focus on gathering more information, doing further analysis, and modelling the impacts of climate change on various forested ecosystems. Another series of recommendations deal with forest tree species and genetic diversity, and ways to facilitate species and genotype shifts in response to climate change. A third set of recommendations responds to the impact of climate change on forest-dependent communities. The report also addresses the increases in mountain pine beetle populations related to climate change.

The report concludes by recognizing the significant threat of climate change to British Columbia's forest and range resources, and argues that preparation requires both both long- and short-term responses. Long-term actions focus on assessing the potential impact of climate change on the province's natural resources, and the vulnerability of the forest- and range-based communities to these changes. Further long-term strategies highlight the need for more research on the impacts of climate change in key risk areas; for developing tools that will support the adaptation strategies; for communication, consultation, and awareness-raising; and for developing program-specific management strategies. Short-term recommendations are grouped into three main strategies: 1) improving knowledge through analysis and research, 2) reviewing operational policies and practices, and 3) building awareness and capacity within and outside the MOFR. 🌲

The Report, published in May 2006, is available for viewing or downloading as a PDF at http://www.for.gov.bc.ca/mof/Climate_Change/

Reference

Spittlehouse, D. 2005. Integrating climate change adaptation into forest management. *Forestry Chronicle* 81 (5): 691-695.