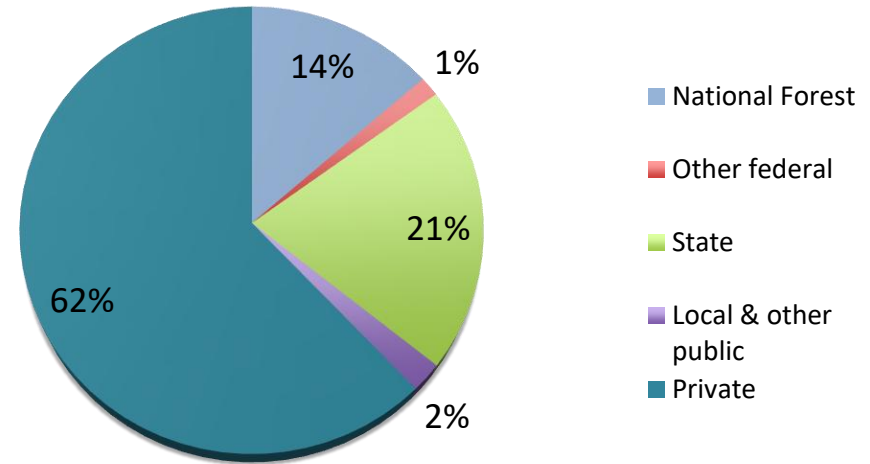


US-Canada Forest Issues

Dr. Emily J. Silver
Department of Forestry
Michigan State University

Forest Inventory and Analysis (USDA USFS)

- Measures and tracks trees (numbers, species, volume)
- Who owns America's forests?
 - "Corporate" includes both domestic industry and foreign owned
 - ***Different ownership motivations***



20.1 million acres total

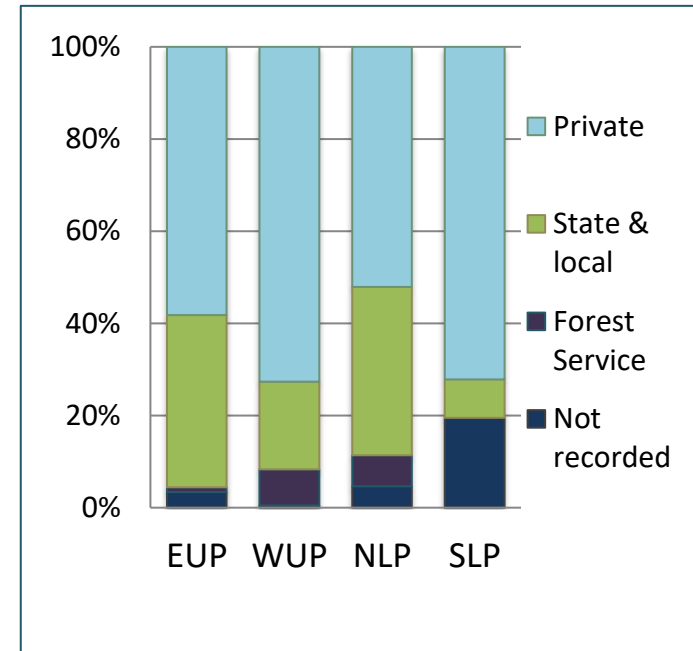
Private forestland

- **Family and individual forests**
- **Corporate**
 - forest products industry -Weyerhaeuser
 - investments by
 - Timber Management Organizations and
 - Real Estate Investment Trusts
- **Non-governmental conservation/natural resources organization**
- **Unincorporated local partnership/association/club**
- **Native American (Indian)**



Why have private lands policy?

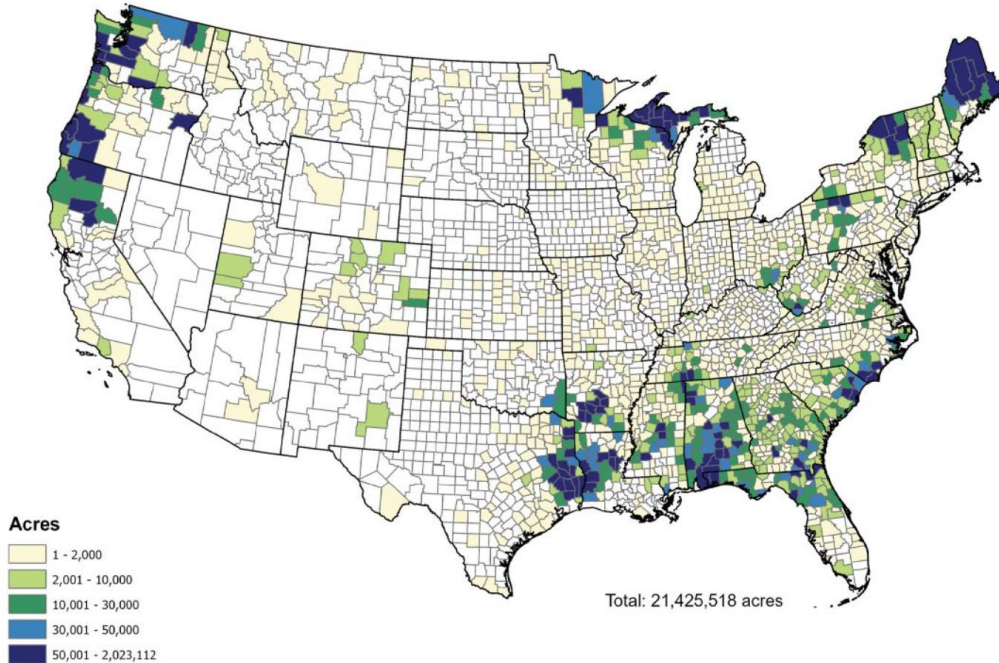
- to ensure we have fiber for the future
- to encourage investment
- to increase production
- externalities & market failures
- Family forest owners often do not manage their forests without incentives



Michigan property tax programs for forests

- **Commercial Forest Program**
 - created in 1925
 - amended most recently in 2013
 - specific tax of \$1.35/acre
- **Qualified Forest Property Program**
 - created in 2006
 - amended in 2013 and 2016
 - *ad valorem* tax with reduced millage rate

County Concentration of Foreign Holdings of Forest Land
as of December 31, 2022



- *Culture of investing country*
- *Motives for investing*

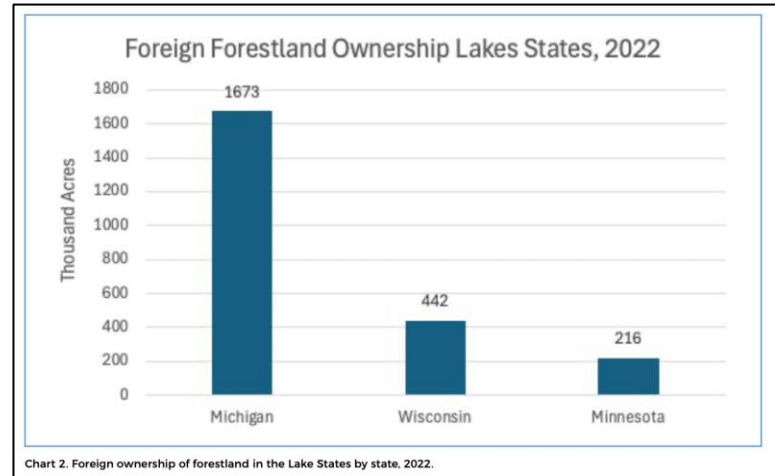
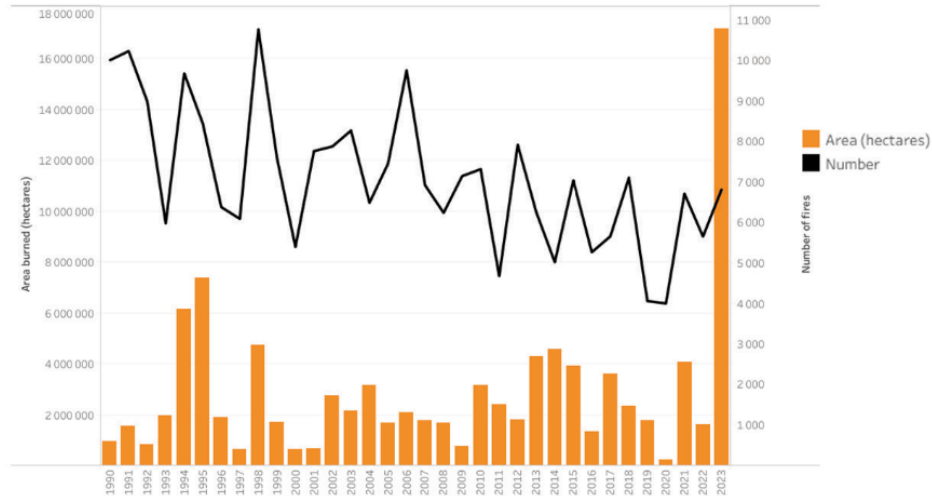


Chart 2. Foreign ownership of forestland in the Lake States by state, 2022.

Current Policy Issue: Wildfires

Figure 1: The average area burned per fire in hectares and the annual number of fires from 1990-2023 for all of Canada. Data: The National Forestry Database Program and Canadian Interagency Forest Fire

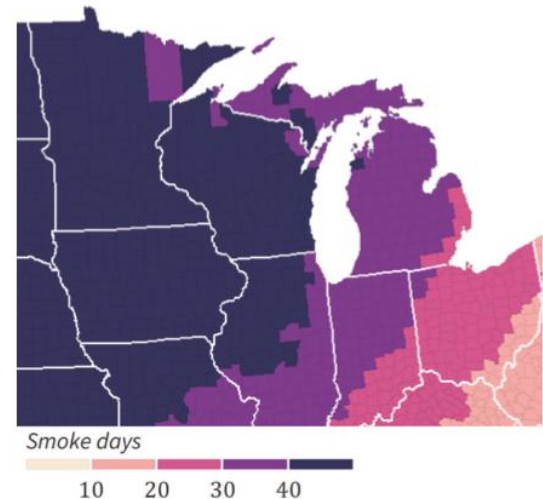


See policy brief handout for more detail

Impacts from smoke

- Labor – lost workdays, productivity
- Tourism revenue
- Housing prices
- Crop productivity
- Increased gov't spending

2. Days of smoke per year for the midwestern United States, 2007-2019. Data from orgschulte, M., Molitor, D. and Zou, E. Y. (2024). Air Pollution and the Labor Market from Wildfire Smoke. *The Review of Economics and Statistics*, 106(6):1558-1570. doi.org/10.1162/rest_a_01243



Michigan – relatively low wildfire risk, expected to increase

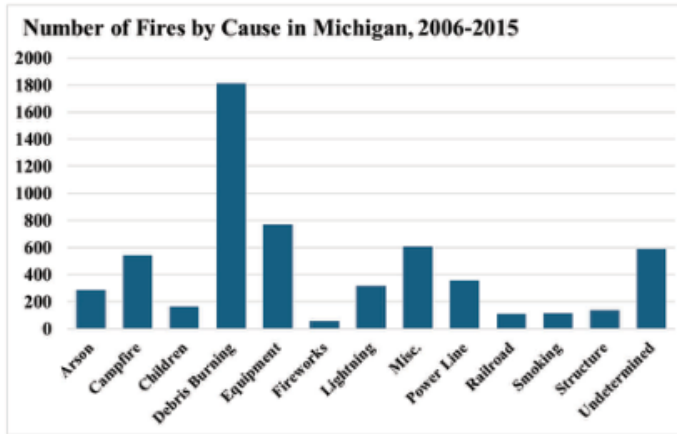


Figure 3. Number of fires by cause in Michigan, 2006-2025. Data: Michigan Department of Natural Resources Fire Report Dashboard

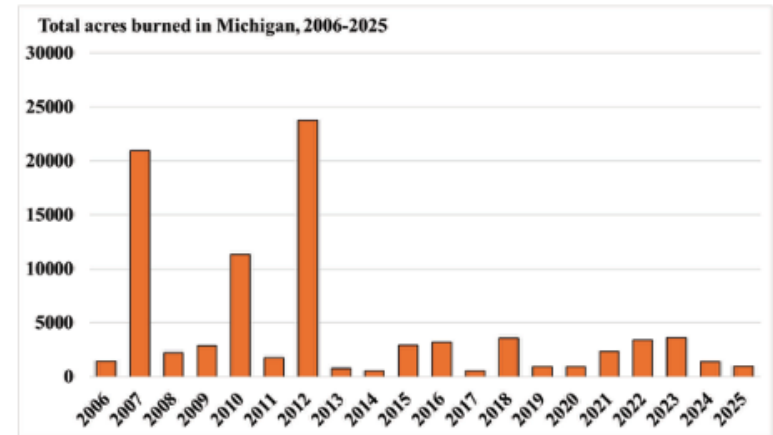
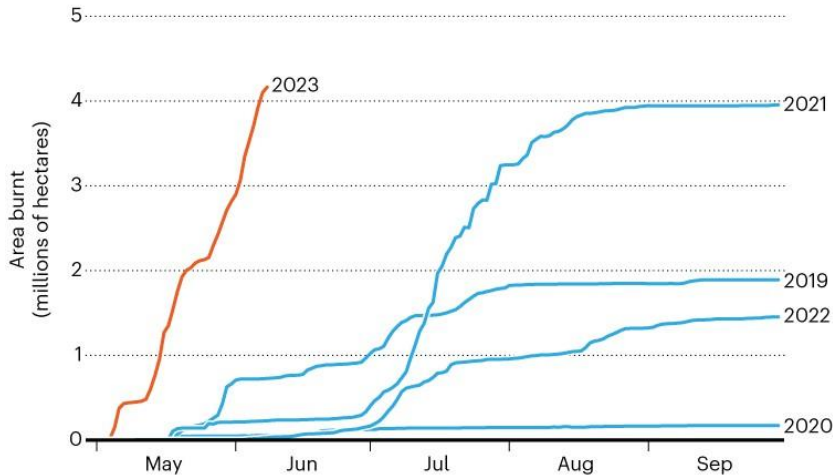


Figure 4. Total acres burned in Michigan, 2006-2025. Data: Michigan Department of Natural Resources Fire Report Dashboard

Canada – relatively high risk, expected to increase

EARLY START

A warm, dry spring in Canada led to an earlier-than-usual start to the fire season, with the area burnt this year already surpassing that razed by the end of 2021's extreme fire season.



©nature

- Hotter and drier conditions
- Fire-prone forest ecosystems
- Managed with fire suppression
 - Less prescribed/pre-emptive burning than historically present
- Lightning ignited fires were 93% of total area burned



Canadian forest ownership patterns



Canada's forests: Managing for the future

Forests in Canada are managed for a variety of economic, ecological, and social benefits for both current and future generations.

Treaty/settlement lands are owned and managed by a First Nation, Métis, or Inuit authority. In addition to their rights on these lands, these authorities generally also have specified non-exclusive rights in a broader area defined in the treaty, settlement, or final agreement.

Indian reserves are Crown lands that have been "set apart by Her Majesty for the use and benefit of a band" under the Indian Act.

Federal reserves include military bases and training areas and other lands owned by the federal government. Forestry is rarely the primary management objective on these lands.

Private forests range from small family-owned woodlots to large woodlands owned and managed by forest companies. These forests are managed for various purposes, including commercial timber supply.

Other forest lands are areas that do not fit into any of the other categories. The expression often occurs in these forests and there may be local use of forest resources.

Restricted areas are managed for a wide variety of special purposes, ranging from wildlife values in some, to mining in others.

Protected areas sustain natural and cultural heritage and conserve biodiversity. Forest management activities, such as prescribed burning, may occur.

Non-forested land

The map data and metadata can be found online at <https://open.canada.ca/data/en/dataset/d5fa9a38-c4cf-442a-8319-980b06c23060>. A description of the mapping methodology is published in The Forestry Chronicle, and can be found at <https://doi.org/10.5581/nc.2019.017>.

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Short-term tenure areas are the areas where volume- or area-based tenure arrangements of less than five years, or cutting permits, are granted. These areas are primarily managed for commercial timber harvesting.

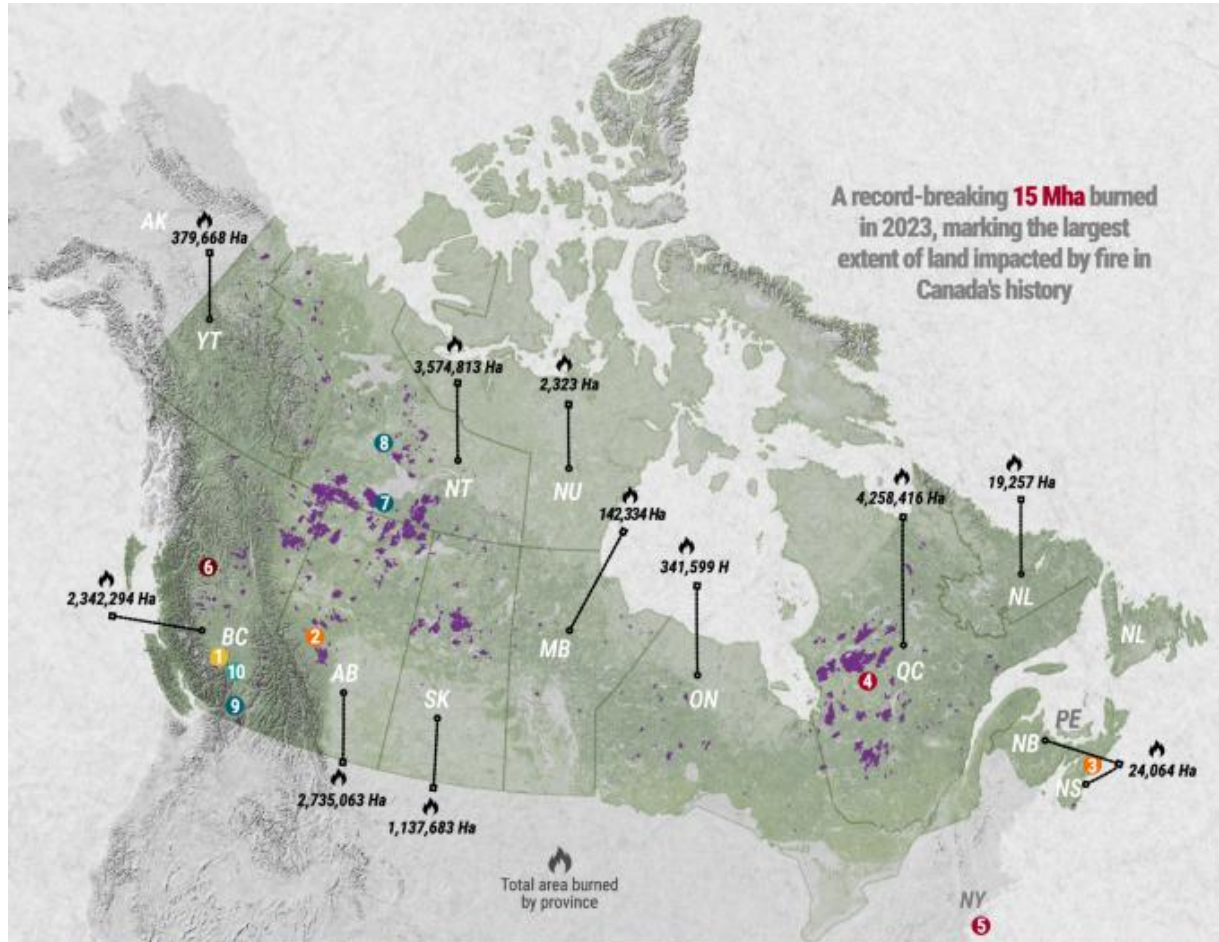
Long-term tenure areas are the areas where volume- or area-based tenure arrangements of more than five years are in place. These areas are primarily managed for commercial timber harvesting.

What are tenure areas?

Tenure is how governments allocate harvest rights and management responsibilities for timber on Crown land. Ninety percent of forests in Canada are on provincial or territorial Crown land, and these contribute 84% of Canada's commercial timber supply. Some tenure arrangements grant access to a specified volume of timber, while others grant access to timber resources in a specified area; therefore, tenures may overlap or only apply to certain types of timber within a designated area.

Note: This map does not indicate the managed forest for the purposes of reporting on greenhouse gas emissions to the United Nations Framework Convention on Climate Change. For more information, see the sustainability indicator Carbon emissions and removals.





Wildfire prevention, risk reduction, forest management

- Necessary forest management tools:
 - Forest thinning (harvesting)
 - Prescribed burning
 - Fuel reduction
 - Hazard mitigation
- Utilize woody biomass from fire treatments – economic driver
- Divert wood to long-lived materials like mass timber and short-lived uses like energy
 - (US/CA) Reframe from fire suppression to risk mitigation and forest management, bilateral management strategies
 - (US) More precise goals for CF program for domestic and foreign-owned land
 - (US/CA) Leverage opportunities to compensate/incentivize individual and family forest owners (e.g., ecosystem services)

MSU Forestry as a resource

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