

# The Canadian Circular Bioeconomy

**Hank Trim**

Senior Economist

Circular Bioeconomy and Supply  
Chain Economics

Canadian Forest Service, Natural  
Resource Canada

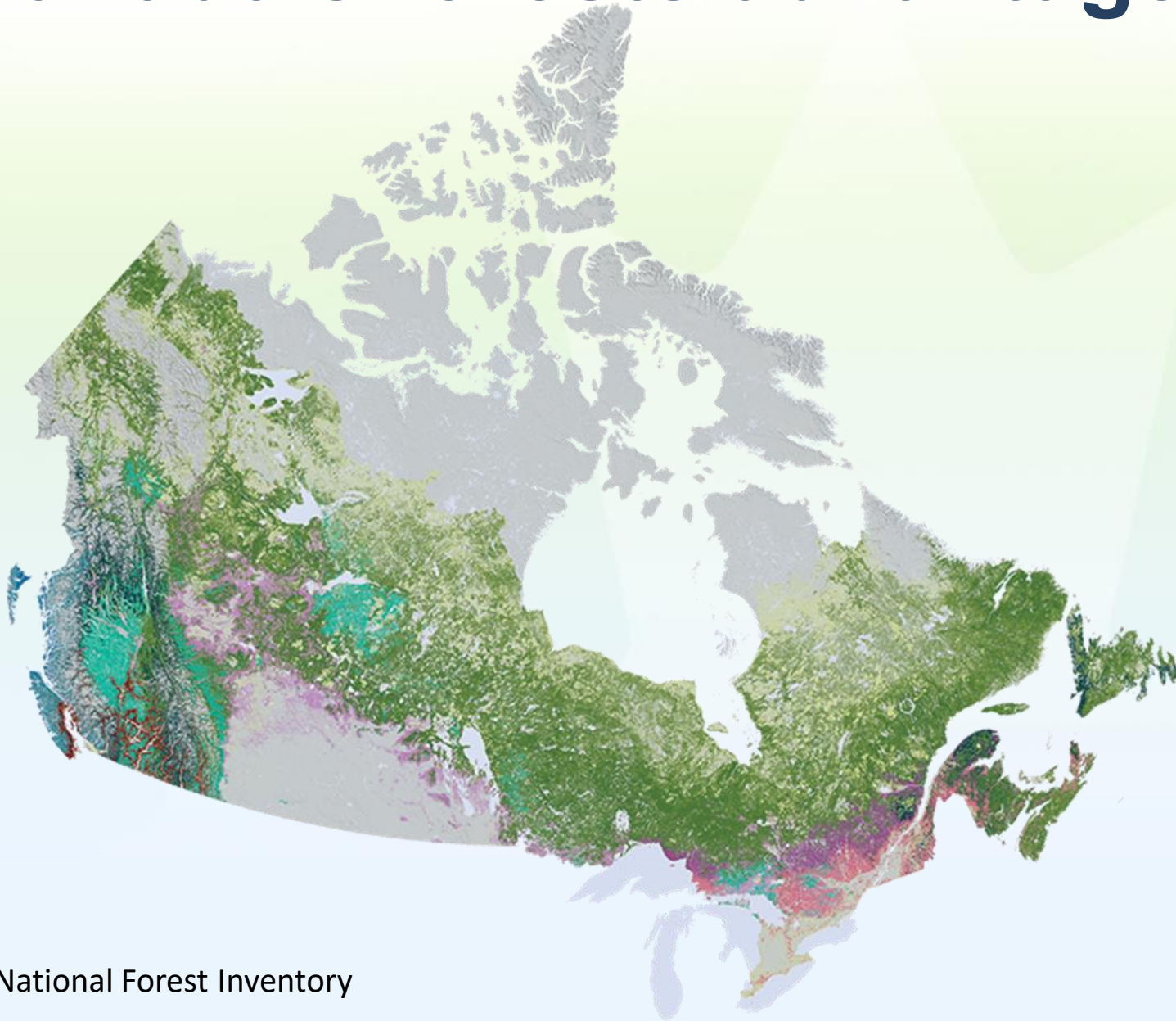


Natural Resources  
Canada

Ressources naturelles  
Canada

Canada 

# Canada's forests advantage



- 347M hectares, 9% of the world's forests
- 49% of total forest cover in Canada are certified sustainably manages , which represents 36% of the world's total
- <1% of Canada's forests are harvested each year
- 9% of the world's forest product trade
- 300 communities reliant on forests
- 20Mt CO<sub>2</sub>e removed by managed forests and products



# Canada Forest Bioeconomy Policy

A Forest Bioeconomy Framework for Canada



***“Canada will be a global leader in the use of forest biomass for advanced bioproducts and innovative solutions”***

***CCFM Forest Bioeconomy Framework for Canada (2017)***



Communities



Supply



Demand



Innovation

# The Circular Bioeconomy in Federal Policy

A growing number of federal policy initiatives either require the circular bioeconomy or support it indirectly:

## Climate Goals

- Meeting or exceeding 30% emissions reductions by 2030
- Achieving net-zero carbon by 2050
- Transition to Low Carbon economy

## Plastics and Circular Economy

- Zero Plastic Waste Strategy
- Support for innovation
- Developing Circular Economy goals
- Hosting the World Circular Economy Forum 2021

## Sustainability

- Protect and enhance biodiversity
- Increase Canada's protected areas
- UN SDG's
- Federal Sustainable Development Strategy

## Bioeconomy

- CCFM Forest Bioeconomy Framework
- Support for innovation
- Nature-based solutions
- Planting 2B Trees

## Economic Recovery

- Implementing a green economic recovery policy
- Inclusive growth
- Green infrastructure investments
- Support for industry transformation

# Circular Bioproducts for a Low-Carbon Future

- Circular bioproducts follow the circular economy principles:
  - Designing out waste, keeping materials in use as long as possible, regenerate nature.
  - In circular bioeconomy and biomaterials, biological resources are renewable, sustainably managed, recovered and reused as much as possible.
- Circular bioproducts have many co-benefits:
  - Reduce GHG emissions
  - Enable resource efficiency, minimize land use impacts on biodiversity
  - Provide regional development opportunities & jobs
  - Increase competitiveness and value-added biomass products



“Circular Bioeconomy: A US\$7.7 trillion global opportunity for business by 2030”

- World Business Council for Sustainable Development & Boston Consulting (2019)



# Green Construction Through Wood

- New four year program launched in 2018 in support of Canada's Climate Change Plan: *Green Construction Through Wood (GCWood)*
- Program has three key funding components that aim to support the increased use of wood as a sustainable and climate-friendly construction material in infrastructure projects:
  - Wood and hybrid demonstration projects
  - Building code revisions & research including performance-based codes
  - Technology transfer, design tools, and education



# Investment Attraction is a Challenge

- Understanding the investment gap
  - The bioeconomy sector as a whole has difficulty attracting investment
  - The gap is most acute for transformational industrial technologies
  - Investor mismatch, lack of information, and integrated nature of bioeconomy all contribute
- Possible ways to address the gap
  - Gather data and educate investors about the integrated nature of the bioeconomy
  - Work with investors, innovators, and established industry to build consortia
  - Support commercial scale demonstrations to de-risk investment in new technology



# Next Steps

- Continue to support innovation through federal programming
- Engage with stakeholders to implement Canada's Forest Bioeconomy Framework
  - This includes working with industry stakeholders to accelerate commercialization and market acceptance on new products, and
  - Support efforts to develop and update standards and regulations
- Emphasize coordination and communications across government, industry, and academia.







Natural Resources  
Canada

Ressources naturelles  
Canada

# Thank you! Merci!

Canadian Forest Service  
Natural Resources Canada

Hank Trim

[Henry.trim@nrcan-rncan.gc.ca](mailto:Henry.trim@nrcan-rncan.gc.ca)



Canada