



NATURAL RESOURCES CANADA - INVENTIVE BY NATURE

Defining and Quantifying the Ecological Restoration Economy

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Concept

- There is a powerful narrative that environmental protection **is bad for business** and that environmental regulations **kill jobs and revenues**
- ...missing from this public debate has been a **detailed accounting** of the **economic output and jobs** that are actually created **through environmental conservation, landscape restoration, and mitigation actions...**



Concept

- **Ecological Restoration:** The process of regaining **ecological functionality** and **enhancing human well-being** across degraded forest landscapes (Society for Ecological Restoration)
- The "**restoration economy**" refers to **economic growth** that's based on repurposing, reclaiming, renewing and reconnecting the degraded, damaged ecosystem / landscape
- is more than just planting trees...
- The concept of restoration **is evolving**



Concept



Human Footprint

■ Billion dollars Cleanup and Rehabilitation

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Edmonton

Alberta plans to restore caribou habitat disturbed by industrial use

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Energy companies expected to contribute, despite economic downturn

Kyle Muzyka - CBC News - Posted: Oct 01, 2016 2:15 PM MT | Last Updated: October 2, 2016

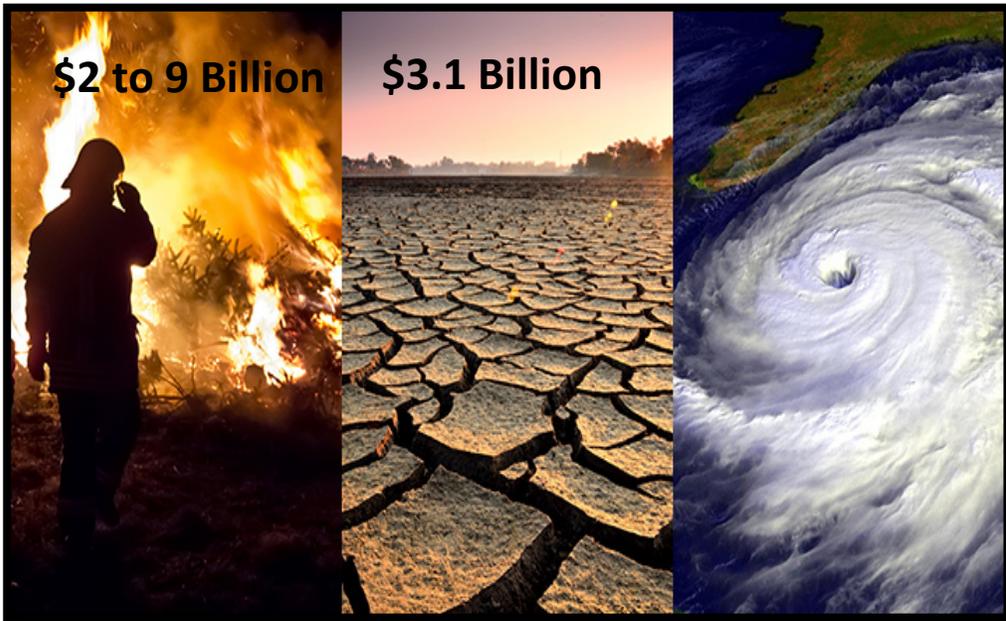


The government announced the beginning of its five-year plan to conserve caribou in the province. Caribou are currently classified as a species at risk in Canada. (The Canadian Press)



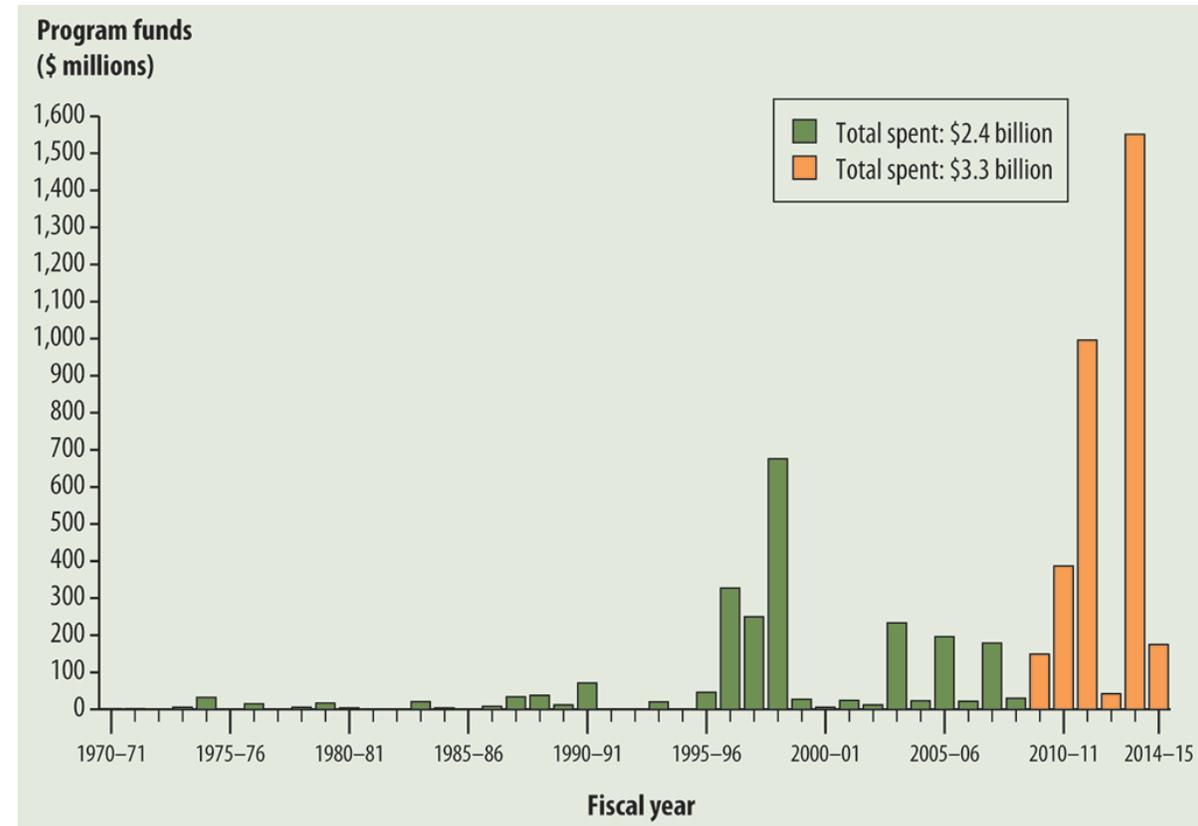
Natural Disturbances and Climate Change

- Alberta has seen some of the most expensive **natural disasters** in the world, including the 2013 floods and the Fort McMurray wildfires



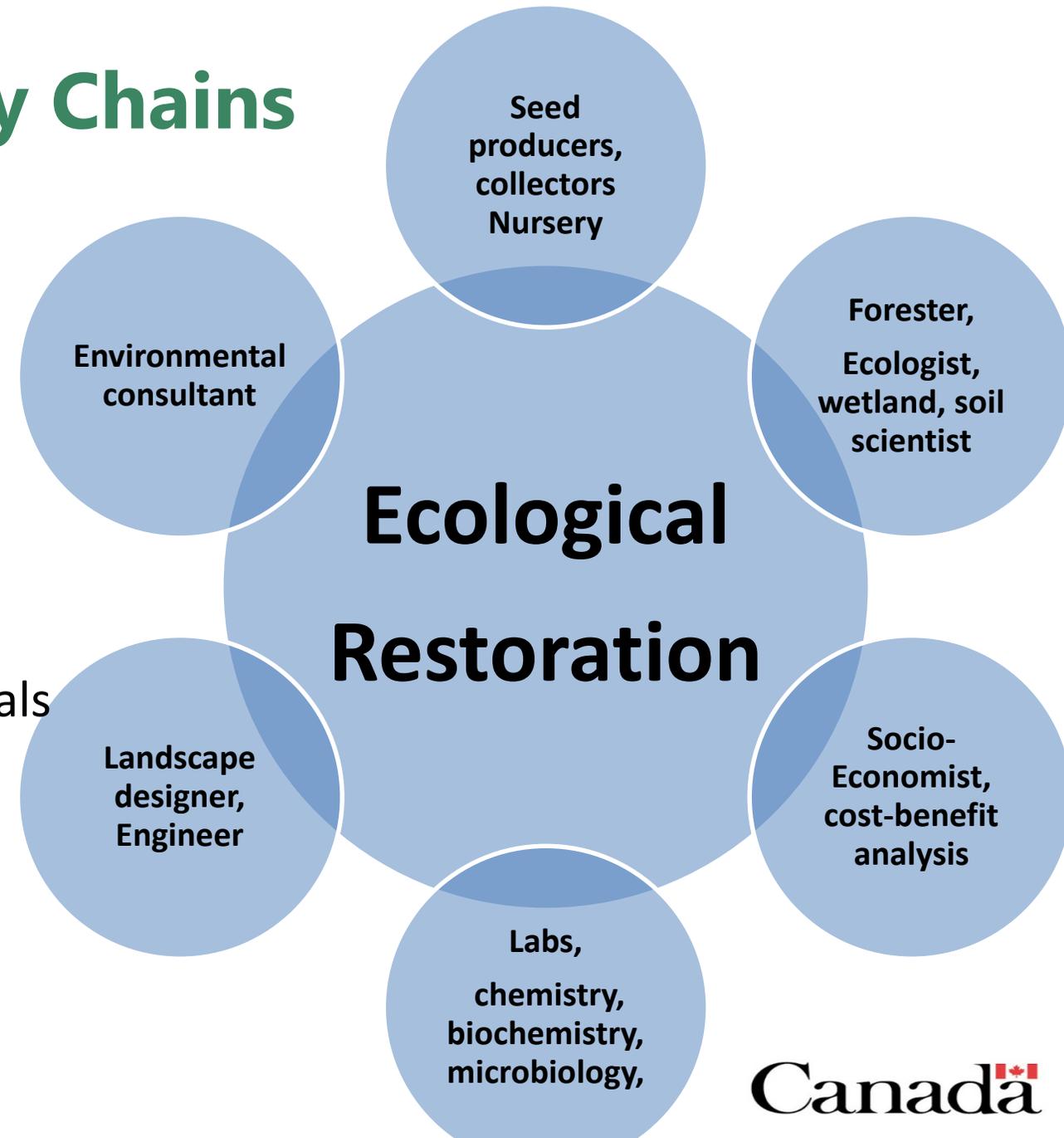
Natural Disturbance and Climate Change

- **Disaster Financial Assistance Arrangements program**, helps provinces and territories recover from natural disasters
- That fund has seen the same [sharp](#) increase that private insurers have noted,
- That fund has paid out more — nearly \$1 billion dollars more, in fact — than it did over its first 40 years of operation.



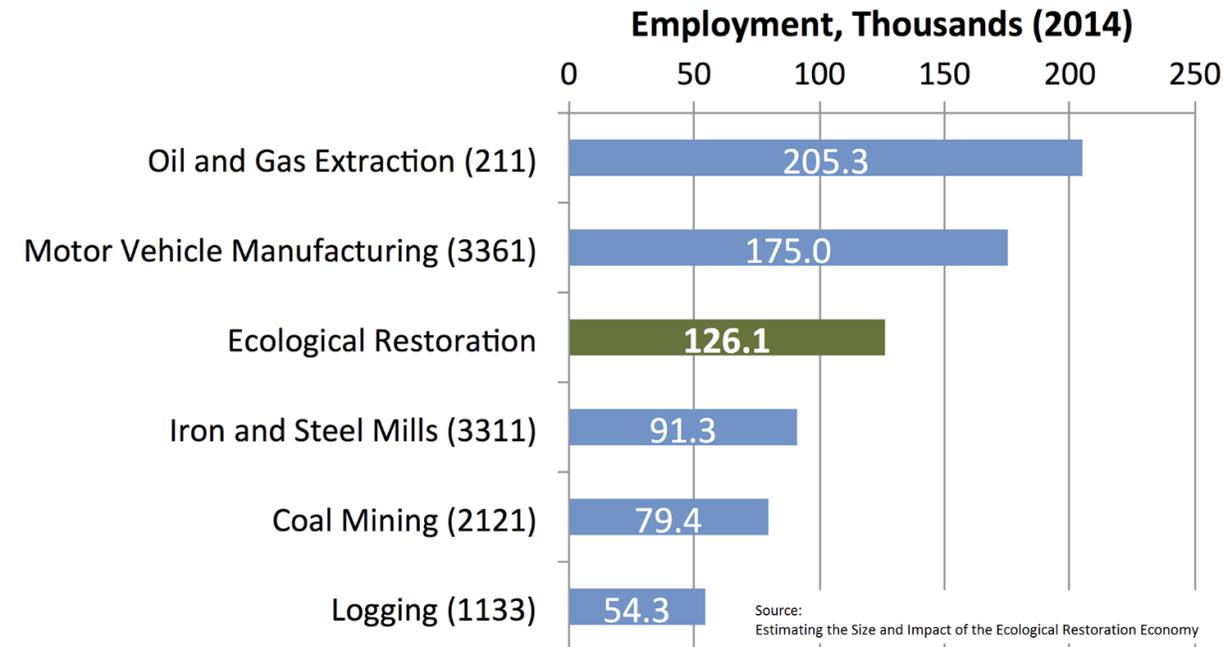
Stakeholders and Supply Chains

- Identify stakeholders
- Identify gaps and issues
- Build capacity and bridges between stakeholders
- Breaking silos among sectors
- Only a collaborative effort between stakeholders will achieve restoration goals (Local, people, science, business, investors and governments)
- Upstream to downstream processes



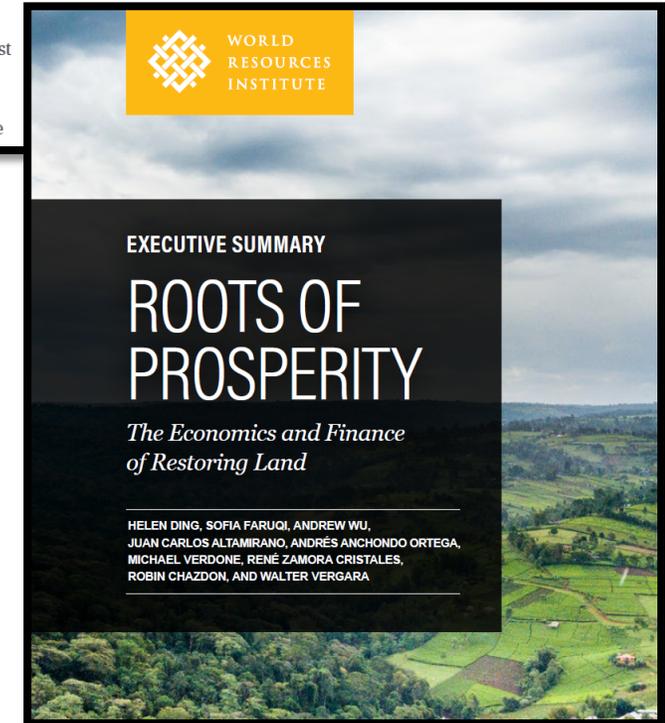
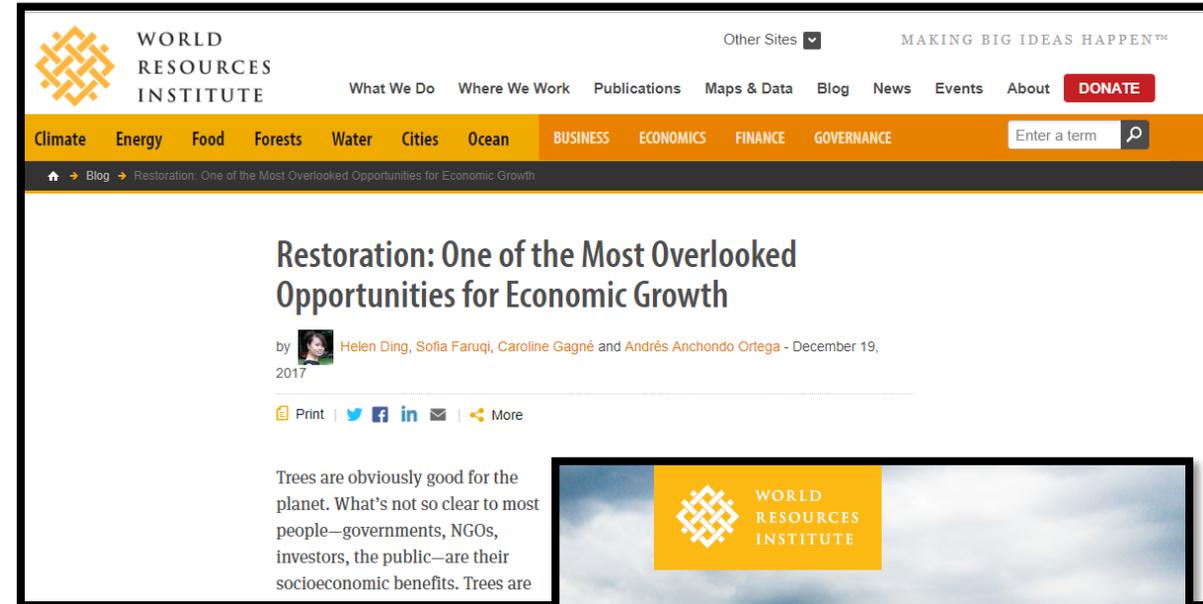
Market Opportunities

- **Jobs and revenues in the US:** 126,000 workers and generates ~ \$9.5 billion in economic output (sales) annually.
- This activity supports an additional 95,000 jobs and \$15 billion in economic output through indirect (business-to-business) linkages (Bendor et al. 2015)
- Restoration supports as many as 33 jobs per \$1 million invested (Nielsen-Pincus M, Moseley C 2010)



Market Opportunities

- **Financing mechanism :**
- Forest and land degradation is estimated to cost the world more than US\$6.3 trillion a year ~ to 8.3% of global GDP in 2016
- Investing in nature infrastructure
- Ecosystem service markets, nature-based solution
- Mitigation banking
- Restoring degraded forests generates an estimated \$7–30 in economic benefits for every dollar invested



Motivations, Goals

- Size the restoration industry as a piece of the broader green economy/bioeconomy
- Develop the Canadian expertise, best practices, share success stories
- Support national and regional priorities (Caribou recovery, Mine closure, etc.), develop adapted policies
- Scale-up and connect ongoing initiatives in restoration, build a community of practice
- Support international commitments (contributing to Aichi Targets, 11, 14, 15, restoring degraded ecosystem and increasing protected areas), Climate Change mitigation
- Position Canada on the international scene

