

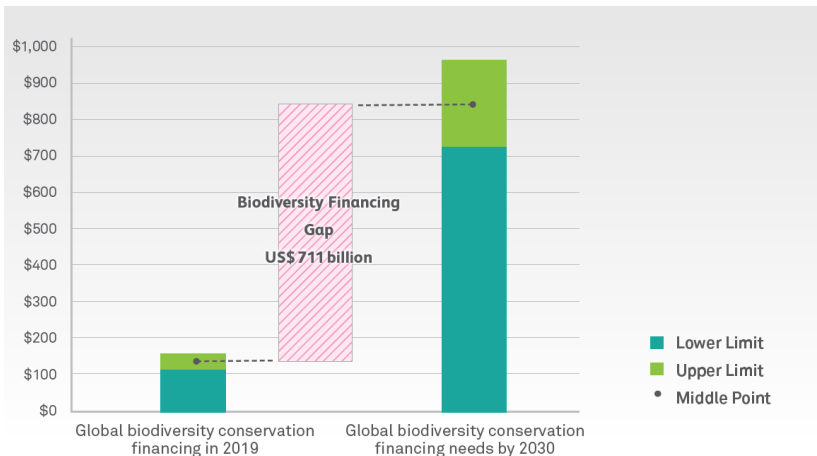
Economic and Financial Incentives to Accelerate Sustainable Practices in Forests

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IFSA 2024

Biodiversity conservation: Global financing gap



Source: "Financing Nature: Closing the Global Biodiversity Financing Gap". 2020. NCC, Paulson Institute, Cornell Atkinson.

Forest gap

- ▶ Global estimates: **US\$ 600 per ton of CO₂** captured by forests – > value of more than **US\$ 100 trillion** (almost 4 times the US nominal GDP in 2022).
- ▶ Canada has 9% of the world's forests.
- ▶ Only 23% of ecosystem services provided by forests is associated with regulating climate (e.g., carbon storage), and raw material production.
- ▶ For every contribution of nature that can be measured and imputed a dollar value, there are many more that cannot.

Poor data

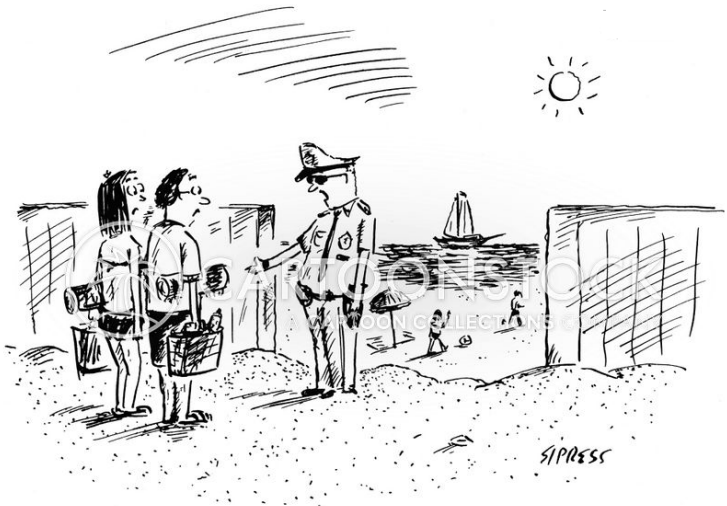
The (real) scientific method.



Investing in nature: who pays?

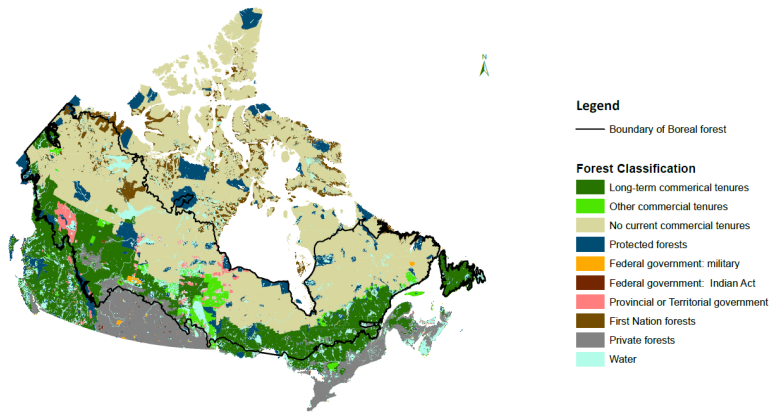
- ▶ Investments do not always generate revenue directly and are widely dispersed, there is no economic incentive for bearing the costs.
- ▶ Revenue streams are clearer and more immediate for harvesting than for conserving.
- ▶ Poorly defined property rights of environmental goods and services, hard to derive direct financial benefit from conservation.
- ▶ Many of nature benefits are public goods that are non-excludable and non-rivalrous in nature, so markets tend to undervalue them.

Public good, private benefits



"Sorry, folks, but I'll have to see your tax return."

Making conservation valuable



Source: "Invest in Nature: Scaling conservation finance in Canada for a nature-smart economy." SPI, 2021. Data from: Baldwin et al. (2019)

Forests in Canada

Climate solutions with biodiversity co-benefits: Conservation and improved forest management can lead to GHG mitigation of 7.92 million tonnes of CO₂ equivalent annually in 2030 – equivalent to 1.7 million passenger cars worth of driving each year.

Cost-effective: These activities can be cost efficient: roughly 40% of these GHG results can be achieved at less than \$50 per ton of CO₂e.

Current policy frameworks in Canada

Forest Carbon Offset draft protocols: BC and federal.

- ▶ Quality of offsets versus attractiveness.
- ▶ High costs, sometimes prohibitive: upfront costs, baseline establishment, MMRV.
- ▶ Methodological challenges.
- ▶ Social challenges.
- ▶ Incorporation of fire management.
- ▶ Can we make it work for conservation? Carbon-rich landscapes in the north face no immediate threat of conversion, so are not eligible for carbon credits.

Current policy frameworks in Canada

Addressing property rights issues and reconciliation:
BC's Atmospheric Benefit Sharing Agreements (ABSA)

- ▶ Allows First Nations to generate funds from carbon offsets on Crown land.
- ▶ Address issues of property rights, gives agency to FN.
- ▶ However, uptake of carbon projects is very low: Great Bear Rainforest carbon project had millions of tonnes of unsold credits in 2020.

Other instruments and their challenges

- ▶ Market-based instruments (tax, subsidies, offsets, cap-and-trade)/Payment for Ecosystem Services (PES).
- ▶ Resilience bonds: payments based on the anticipated cost savings the project delivers to target beneficiaries.
- ▶ Recreation bonds.
- ▶ Environmental impact bonds (or pay-for-performance bonds)
- ▶ Combine (stack, bundle) CO₂ and biodiversity incentives and other payment for performance.

What we heard

- ▶ Industry/ENGOs: Robust instruments that allows us to move away from additionally.
- ▶ First Nations:
 - ▶ How to use financial instruments to finance IPCAs.
 - ▶ Overlapping markets, overseen by different regulators (such as federal and provincial). Changes in regulation adds uncertainty.
- ▶ Academics
 - ▶ Need technical consensus on the establishment of baselines.
 - ▶ Lower the barriers to entry by: disseminating data technology, and public financing of upfront costs.

What can we do?

- ▶ Interdisciplinary research and convening.
- ▶ Connect relevant academic findings with policy-making.

What are we doing at SPI?

- ▶ National framework for PES.
- ▶ Development of business case for investing in nature-based solutions for climate.
- ▶ Partnering with researchers in many fields to gather and disseminate relevant data, and for conducting pilot studies to test different instruments.