Bio-fiscal reform: Aligning federal subsidies in natural resource sectors with Canada's biodiversity commitments

Annex: Subsidy descriptions

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1 Introduction

This annex provides detailed descriptions of the 113 federal subsidies identified across the agriculture, fisheries and aquaculture, forestry, and mining sectors. For each sector, we apply the five-part assessment framework — starting with an estimate of the fiscal cost of each subsidy, then categorizing them as harmful, beneficial, or mixed, and finally identifying a shortlist of priority candidates for reform.

2 Fisheries

This evaluation covers all 29 fisheries and aquaculture federal subsidies. Each program profile includes information on the subsidy's name, type, environmental impact, and estimated average annual funding where applicable.

2.1 Environmentally beneficial subsidies (11 Programs)

These subsidies deliver both environmental and economic value to the fisheries sector and should be sustained or strengthened to support long-term ecological and industry resilience.

1. **Great Lakes Fishery Commission**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $2.8 M
    - **Environmental benefits:** Coordinates binational invasive sea lamprey control, fisheries management, and scientific research in the Great Lakes.
    - **Enhancement opportunities:** Improve climate adaptation strategies and enhance ecosystem monitoring within the Great Lakes region.
2. **BC Salmon Restoration and Innovation Fund**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $28.57 M
    - **Environmental benefits:** Supports protection and restoration of Pacific salmon habitats, sustainable fisheries practices, innovation in the seafood sector, and involves Indigenous participation in projects.
    - **Enhancement opportunities:** Strengthen climate resilience components and standardize data collection efforts within Indigenous-led projects.
3. **Sustainable Fisheries Solutions and Retrieval Program ("Ghost Gear Fund")**
    - **Type**: Socializing private risk
    - **Annual average:** $5 M
    - **Environmental benefits:** Removes abandoned fishing gear from marine environments, reduces plastic pollution, and tests new fishing technologies.

- **Enhancement opportunities:** Coordinate consistent strategies to track and monitor gear.

4. **Emergency Response to the MV Schiedyk Shipwreck**
    - **Type**: Socializing private risk
    - **Annual average:** $33 M
    - **Environmental benefits:** Funded removal of pollutants from a sunken ship to protect marine ecosystems in Nootka Sound, BC.
    - **Enhancement opportunities:** Develop proactive measures to prevent future issues.
5. **Oceans Protection Plan**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $354 M
    - **Environmental benefits:** Comprehensive protection for Canada's marine ecosystems, improving marine safety and responsible shipping.
    - **Enhancement opportunities:** Develop clear objectives and provide transparent updates on progress.
6. **Freshwater Action Plan**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $19.6 M
    - **Environmental benefits:** Supports clean-up efforts in major Canadian waterways including the Great Lakes, St. Lawrence River, and Lake Winnipeg.
    - **Enhancement opportunities:** Enhance coordination between the federal and provincial governments and standardize data sharing.
7. **Fisheries and Aquaculture Clean Technology Adoption Program**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $5 M
    - **Environmental benefits:** Assistance to industry in improving environmental performance through clean technology adoption and innovation.
    - **Enhancement opportunities:** Expand focus on transformative technologies with ecosystem benefits.
8. **Transfer Payments**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $410.3 M
    - **Environmental benefits:** Supports First Nations, Inuit peoples, NGOs, and others in environmentally beneficial fisheries initiatives.
    - **Enhancement opportunities:** Strengthen ecological criteria and monitoring frameworks.

9. **Pacific Salmon Strategy**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $129.4 M
    - **Environmental benefits:** Comprehensive approach to wild Pacific salmon conservation, including habitat protection and sustainable harvest practices.
    - **Enhancement opportunities:** Establish a consistent method for measuring results, set benchmarks and publish progress.
10. **Conserving Canada's Oceans**
    - **Type**: Direct transfers of government funds and departmental support
    - **Annual average:** $211.8 M – unclear the share of direct transfers vs. supporting departmental operations.
    - **Environmental benefits:** Supports marine protected areas and conservation initiatives to protect biodiversity.
    - **Enhancement opportunities:** Strengthen long-term biodiversity initiatives.
11. **Renewal of the Marine Spatial Planning Program**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $14 M
    - **Environmental benefits:** Supports ecosystem-based management through comprehensive marine spatial planning.
    - **Enhancement opportunities:** Increase collaboration between federal and provincial Governments.

2.2 Priority reform candidates (8 Programs)

These subsidies have been identified as priorities for reform based on their environmental impacts and feasibility.

1. **Temporary Foreign Worker Program**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $ 8M
    - **Environmental impact:** Distorts investment towards overcapitalization
    - **Current design:** Streamlined access to foreign workers for fish processing, lowering labor costs.
    - **Reform options:**
        - Implement sustainability criteria for participating processors
        - Require traceability systems for processed products
        - Develop waste reduction and efficiency requirements
        - Create stronger labor and environmental standards linkages

2. **Fuel Charge Exemption (Repealed)**
    - **Type**: Tax expenditure
    - **Annual average:** $61 M
    - **Environmental impact:** Lowers the price of a commodity
    - **Current design:** Exempts fishing vessel fuel from federal carbon pricing.
    - **Reform options:**
        - Phase out gradually with transition support
        - Implement declining exemption rates over time
        - Create rebate program tied to efficiency improvements
        - Develop targeted support for low-carbon fishing technologies
3. **Special Rates for Certain Fishing Boats**
    - **Type**: Tax expenditure
    - **Annual average:** Not quantified
    - **Environmental impact:** Locks in harmful production processes
    - **Current design:** Enhanced capital cost allowance for fishing vessels.
    - **Reform options:**
        - Implement sustainability criteria for eligibility
        - Create graduated rates based on vessel efficiency and impact
        - Redirect tax benefits toward lower-impact technologies
        - Require vessel replacements to maintain or reduce harvesting capacity
4. **Cash Basis Accounting**
    - **Type**: Tax expenditure
    - **Annual average:** Not quantified
    - **Environmental impact:** Locks in harmful production processes
    - **Current design:** Allows fishermen to use cash accounting rather than accrual methods.
    - **Reform options:**
        - Require environmental compliance for eligibility
        - Create sustainability benchmarks for continued participation
        - Develop advantages based on environmental performance
        - Link to participation in fisheries monitoring programs
5. **Deferral of Capital Gains Through Intergenerational Rollovers of Family Farms or Fishing Businesses**
    - **Type**: Tax expenditure
    - **Annual average:** Not quantified
    - **Environmental impact:** Locks in harmful production processes

- **Current design:** Allows tax-deferred property transfers between generations.
- **Reform options:**
    - Require environmental improvement plans for eligibility
    - Implement sustainability certification requirements
    - Include knowledge transfer and training components
    - Create enhanced benefits for adopting clean technology

6. **Deferral Through Ten-Year Capital Gain Reserve**
    - **Type**: Tax expenditure
    - **Annual average:** Not quantified
    - **Environmental impact:** Locks in harmful production processes
    - **Current design:** Allows deferral of capital gains tax when selling to family members.
    - **Reform options:**
        - Link to documented environmental improvements
        - Require sustainability certification or planning
        - Implement ecological knowledge transfer requirements
        - Create habitat stewardship components
7. **Fuel Excise Tax Exemption**
    - **Type**: Tax expenditure
    - **Annual average:** $15.5 M
    - **Environmental impact:** Lowers the price of a commodity
    - **Current design:** Exempts fishing vessel fuel from federal excise taxes.
    - **Reform options:**
        - Phase out gradually with transition support
        - Introduce declining exemption rates over time
        - Redirect savings to support fuel-efficient vessel upgrades
        - Create rebates tied to environmental performance
8. **Lifetime Capital Gains Exemption**
    - **Type**: Tax expenditure
    - **Annual average:** $45 m
    - **Environmental impact:** Locks in harmful production processes
    - **Current design:** Provides tax exemption on eligible capital gains from fishing property.
    - **Reform options:**
        - Implement tiered exemptions based on environmental performance
        - Require sustainability certification for full benefits

- Add ecological improvement requirements
- Create knowledge transfer components

2.3 Subsidies with implementation challenges (4 Programs)

These subsidies have potential environmental impacts but face significant implementation challenges for reform.

Implementation challenge - potential for limited reform (1 Program)

1. **Quebec Fisheries Fund**
    - **Type**: Socializing private risk
    - **Annual average:** $6 M
    - **Environmental impact:** Distorts investment towards overcapitalization
    - **Implementation challenge:** shared government oversight limits consistent environmental enforcement.
    - **Alternate approaches:**
        - Enhance environmental criteria within current agreement
        - Improve monitoring and reporting
        - Incorporate climate considerations in future renewal
        - Apply lessons learned to create best practice for future agreements

Implementation challenge – low priority for reform not recommended (3 Programs)

1. **Sustainable Fisheries**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $7 M
    - **Environmental impact:** Distorts investment towards overcapitalization
    - **Implementation challenge:** International rules limit actions.
    - **Alternative approaches**:
        - Collaborate with Indigenous groups to inform stock rebuilding
        - Ensure to prioritize stock assessments for vulnerable species
        - Fund recovery plans that include trackable ecological goals
2. **Atlantic Fisheries Fund**
    - **Type**: Socializing private risk
    - **Annual average:** $49 M
    - **Environmental impact:** Impairs competitive markets

- **Implementation challenge:** Wide range of funding contributes to difficulties tracking ecological goals across jurisdictions.
- **Alternative approaches**:
    - Enhance environmental criteria within existing framework
    - Increase support for projects with measurable sustainability outcomes
    - Improve impact tracking to guide future investments

3. **Zero-rating of Agricultural and Fish Products and Purchases**
    - **Type**: Tax expenditure
    - **Annual average:** Not quantified
    - **Environmental impact:** Locks in harmful production processes
    - **Implementation challenge:** Limits ability to steer purchasing toward more sustainable inputs.
    - **Alternate approaches:**
        - Require disclosure of environmental impacts
        - Gradually phase out tax breaks for high emitting methods
        - Set sustainability criteria for eligibility

2.4 Subsidy with significant social impact (1 Program)

This subsidy, while potentially having environmental impacts, cannot be reformed due to its critical social importance.

1. **Employment Insurance Fishing Benefits**
    - **Type**: Direct transfers of government funds
    - **Annual average:** $354 M
    - **Environmental impact:** Impairs competitive markets
    - **Social Importance**: Provides essential income support for self-employed fisherman during periods of low fishing activity.
    - **Alternative approaches**:
        - Add optional ecological training
        - Offer opportunities to participate in ecological enhancement
        - Develop programs for sustainable practice adoption
        - Offer increased benefits for participation in conservation initiatives

2.5 Subsidies with financial impact concerns (2 Programs)

These subsidies have potential environmental impacts but cannot be reformed due to significant financial implications.

1. **Small Craft Harbours**
    - **Type**: Direct transfers of government funds
    - **Annual average** : $245 M
    - **Environmental impact:** Distorts investment towards overcapitalization
    - **Financial concerns**: Supports essential infrastructure tied to safety, difficult to replace funding.
    - **Alternative approaches:**
        - Implement environmental management within harbor operations
        - Upgrade facilities with energy efficient technologies
        - Develop tailored environmental protocols for each harbour
2. **Farm Credit Canada Support (applies to aquaculture businesses and fish processers)**
    - **Type**: Socializing private risk
    - **Annual average:** Not quantified
    - **Environmental impact:** Locks in harmful production processes
    - **Financial concerns**: Critical credit support with limited alternatives, reform would severely impact credit access.
    - **Alternative approaches:**
        - Develop preferential terms for sustainable investments
        - Increase dedicated financing streams for green upgrades
        - Ensure supported business meet minimum sustainability criteria

2.6 Phased-out subsidies (3 Programs)

These subsidies have been or are being phased out, and therefore do not require reform.

1. **Canadian Seafood Stabilization Fund**
    - **Type**: Socializing private risk
    - **Annual average:** Not quantified
    - **Environmental impact:** Distorted investment towards overcapitalization
    - **Phase-out status:** Completed; was a temporary COVID-19 measure.
    - **Lessons learned:** Place conditions on support to incorporate sustainability criteria from the outset.
2. **Canadian Fish and Seafood Opportunities Fund**
    - **Type**: Socializing private risk
    - **Annual average:** Not quantified
    - **Environmental impact:** Impaired competitive markets
    - **Phase-out status:** Program completed its intended cycle.

- **Lessons learned:** Market development programs should include strong sustainability requirements.

3. **Fish Harvester Benefit and Grant Program**
    - **Type**: Direct transfers of government funds
    - **Annual average: $**156 M
    - **Environmental impact:** Locked in harmful production processes
    - **Phase-out status:** Completed; was a temporary COVID-19 support measure.
    - **Lessons learned:** Emergency supports should include transition planning for increased sustainability.

3 Forestry

This analysis examines all 19 forestry subsidies, organized by their reform status as identified in the evaluation process. For each subsidy, we provide details on the subsidy name, type, environmental impact, and annual average funding where available.

3.1 Environmentally beneficial subsidies (5 Programs)

These subsidies support both ecological sustainability and economic activity within the forestry sector and should be continued or expanded to reinforce their positive impact.

1. **2 Billion Trees Program**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $320 M
    - **Environmental benefits**: Supports tree planting projects that contribute to Canada's commitment to plant two billion trees by 2030 and establish nature-based solutions to reach net-zero emissions by 2050. The forestry sectors is not the sole beneficiary of this program.
    - **Enhancement opportunities**: Strengthen integration with biodiversity conservation goals and climate adaptation planning.
2. **Forest Innovation Program**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $15.30 M
    - **Environmental benefits**: Supports research, development, and technology transfer activities in Canada's forest sector with a focus on sustainability.
    - **Enhancement opportunities**: Enhance focus on ecosystem-based management technologies and practices.
3. **Early Intervention Small Scale Research Program**
    - **Type**: Socializing private risk
    - **Annual average**: $7.5 M
    - **Environmental benefits**: Reduces the risk of spruce budworm outbreaks in Atlantic Canada through early intervention, protecting forest ecosystems.
    - **Enhancement opportunities**: Expand to include climate adaptation research and ecosystem resilience components.
4. **Old Growth Nature Fund**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $9.2 M

- **Environmental benefits**: Conserves and protects British Columbia's old-growth forests, preserving biodiversity and carbon storage. Total value not just going to the forestry sector.
- **Enhancement opportunities**: Develop stronger Indigenous co-management frameworks and connectivity with broader conservation initiatives.

5. **Canada Infrastructure Bank**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $46.17 M
    - **Environmental benefits**: Supports Enerkem in producing biofuels and renewable chemicals from landfill waste and wood waste, reducing demand for virgin materials.
    - **Enhancement opportunities**: Strengthen life cycle assessment requirements and circular economy principles.

3.2 Priority reform candidates (6 Programs)

These subsidies have been identified as priorities for reform based on their environmental impacts and feasibility.

1. **Expanding Market Opportunities Program**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $8 M
    - **Environmental impact**: Impairs competitive markets
    - **Current design**: Increases market opportunities for the Canadian forest industry in offshore markets and non-residential construction.
    - **Reform options**:
        - Incorporate sustainability certification requirements
        - Implement tiered benefits based on ecosystem impact measurements
        - Create stronger links to sustainable forest management practices
        - Develop reporting requirements for biodiversity impacts
2. **Investments in Forest Industry Transformation Program**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $10.36 M
    - **Environmental impact**: Impairs competitive markets
    - **Current design**: Supports Canada's forest sector in becoming more economically competitive through targeted investments in advanced technologies.
    - **Reform options**:
        - Require stronger environmental performance criteria
        - Prioritize projects with measurable ecosystem benefits

        - Create incentives for reduced ecological footprint
        - Develop ecosystem-based management requirements

3. **Forest Sector Support**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $61.33 M
    - **Environmental impact**: Locks in harmful production processes
    - **Current design**: Renews and updates forest sector support programs, including for research and development.
    - **Reform options**:
        - Implement ecosystem-based management criteria
        - Require sustainability performance monitoring
        - Create certification requirements for participating organizations
        - Develop biodiversity protection components
4. **Logging Tax Credit**
    - **Type**: Tax expenditure
    - **Annual average**: $55 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Current design**: Non-refundable tax credit to offset federal income taxes payable for logging taxes.
    - **Reform options**:
        - Implement tiered benefits based on ecological impact
        - Require sustainable forest management certification
        - Create habitat protection requirements
        - Develop climate-conscious harvesting standards
5. **Next-generation Biofuels Fund**
    - **Type**: Socializing private risk
    - **Annual average**: $1 M
    - **Environmental impact**: Locks in harmful production processes
    - **Current design**: Facilitates large-scale demonstration facilities for next-generation biofuels production.
    - **Reform options**:
        - Strengthen sustainability criteria for biomass sourcing
        - Require comprehensive life cycle assessments
        - Create ecosystem protection requirements
        - Develop land-use impact monitoring systems

6. **Green Construction Through Wood Program**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $1.53 M
    - **Environmental impact**: Locks in harmful production processes
    - **Current design**: Encourages the use of wood-based building technologies in construction projects.
    - **Reform options**:
        - Implement sustainable sourcing requirements
        - Require forest management certification
        - Create ecosystem impact reporting
        - Develop habitat protection linkages

3.3 Subsidies with implementation challenges (1 Program)

This subsidy has potential environmental impacts but faces significant implementation challenges for reform.

1. **Defending the Canadian Softwood Lumber Industry**
    - **Type**: Socializing private risk
    - **Annual average**: $8.67 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Implementation challenge**: International trade agreement complexities and ongoing disputes with the United States.
    - **Alternative approaches**:
        - Develop sustainability criteria within existing trade frameworks
        - Enhance environmental compliance components
        - Create ecosystem protection guidance documents
        - Implement best practice resources for sustainable harvesting

3.4 Subsidies with social impact concerns (3 Programs)

These subsidies, while potentially having environmental impacts, cannot be reformed due to their significant social importance.

1. **Indigenous Forestry Initiative**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $1.4 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Social importance**: Increases participation of First Nations, Inuit, and Métis peoples in the Canadian economy.

- **Alternative approaches**:
    - Enhance ecological knowledge transfer components
    - Support traditional ecological knowledge integration
    - Develop ecosystem-based management guidance
    - Create sustainability certification support

2. **The Indigenous Forestry Initiative**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $2.6 M
    - **Environmental impact**: Impairs competitive markets
    - **Social importance**: Provides support for Indigenous-led activities in forest stewardship and economic development.
    - **Alternative approaches**:
        - Strengthen traditional ecological knowledge components
        - Enhance conservation and stewardship elements
        - Develop monitoring frameworks for ecosystem health
        - Create links to broader conservation initiatives
3. **Whitesand First Nation Biomass Generation Facility**
    - **Type**: Socializing private risk
    - **Annual average**: $5.83 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Social importance**: Supports Indigenous-led energy infrastructure and economic development.
    - **Alternative approaches**:
        - Implement sustainable biomass sourcing guidelines
        - Enhance ecological monitoring components
        - Develop ecosystem-based management training
        - Create biodiversity protection requirements

3.5 Subsidies with no reform recommended (1 Program)

This subsidy has potential environmental impacts but cannot be reformed due to specific contextual factors.

1. **Irving Pulp and Paper Mill - NB**
    - **Type**: Socializing private risk
    - **Annual average**: $3.33 M
    - **Environmental impact**: Locks in harmful production processes

- **Reform constraints**: Loan specifically targeted for environmental cleanup of mill effluent.
- **Alternative approaches**:
    - Enhance monitoring and reporting requirements
    - Strengthen ecological restoration components
    - Develop best practice frameworks for remediation
    - Create ecosystem health benchmarks and targets

3.6 Phased-out subsidies (3 Programs)

These subsidies have been or are being phased out, and therefore do not require reform.

1. **Green Construction Through Wood (GCWood) Program**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $3.32 M
    - **Environmental impact**: Distorted investment towards overcapitalization
    - **Phase-out status**: Completed in 2022
    - **Lessons learned**: Future construction incentive programs should include stronger sustainability criteria and ecosystem protection requirements.
2. **Sustainable Development Technology Canada**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $26.00 M
    - **Environmental impact**: Distorted investment towards overcapitalization
    - **Phase-out status**: Program completed
    - **Lessons learned**: Technology development programs should incorporate stronger ecosystem protection and biodiversity components.
3. **Carbon Fuel Charge Exemption** (**repealed**)
    - **Type**: Tax expenditure
    - **Annual average**: $57.22 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Phase-out status:** Program phased out
    - **Lessons learned:** Link exemptions to clear phase-outs and cleaner alternatives.

4 Agriculture

This analysis reviews all 44 agricultural subsidy programs. For each program, details are provided on the subsidy's purpose, funding structure, environmental implications, and estimated annual spending where applicable.

4.1 Environmentally beneficial subsidies (9 Programs)

These programs contribute positively to both environmental outcomes and economic development and should be preserved or further strengthened to maximize their long-term benefits.

1. **Deferral of Income from Sale of Livestock in a Region of Drought, Flood or Excessive Moisture**
    - **Type**: Tax expenditures
    - **Annual average:** Not quantified
    - **Environmental benefits:** Helps maintain pasture health and support climate resilient herd recovery.
    - **Enhancement opportunities**: Require environmental risk assessments for eligibility, encourage spending on infrastructure that withstands climate impacts and incentivize conservation of sensitive habitats.
2. **Crop Loss Compensation**
    - **Type:** Direct transfers of government funds
    - **Annual average : $**20.84 M
    - **Environmental benefits:** Encourages wildlife friendly farming.
    - **Enhancement opportunities:** Expand coverage to support pollinator friendly practices, add incentives for non lethal wildlife deterrent measures and encourage utilizing ecosystem based planning.
3. **Eurasian Wild Boar Transition Assistance Initiative**
    - **Type:** Direct transfers of government funds
    - **Annual average:** Not quantified
    - **Environmental benefits:** Supports removal of invasive species and protects local ecosystems.
    - **Enhancement opportunities:** Provide funding for long term fencing to discourage re-entry, support community led response teams and encourage biodiversity protection efforts.
4. **Agriculture Clean Technology Program**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $45.75 M

- **Environmental benefits:** Drives clean technology use in farming and supports climate smart farming practices
- **Enhancement opportunities:** Encourage integration of circular economy models by creating value added products utilizing farm waste, Increase Indigenous-led clean technology projects and encourage projects that enhance the health of soil, water and biodiversity.

5. **On-Farm Climate Action Fund**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $65.2 M
    - **Environmental benefits:** Improves soil health, biodiversity and reduces harmful GHGs while increasing carbon storage.
    - **Enhancement opportunities:** Increase funding for verified GHG reduction outcomes, offer training on biodiversity impacts and soil and water health and increase monitoring of carbon sequestration benefits.
6. **Resilient Agricultural Landscape Program**
    - **Type:** Direct transfers of government funds
    - **Annual average:** Not quantified
    - **Environmental benefits:** Supports ecosystem resilience and carbon storage.
    - **Enhancement opportunities:** Require soil health outcomes, integrate Indigenous knowledge in program design and expand on long-term monitoring systems .
7. **Net-Zero Emission Agriculture R&D**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $13.9 M
    - **Environmental benefits:** Supports research that drives low emission farming.
    - **Enhancement opportunities:** Expand on soil carbon monitoring methods, increase support for biodiversity research and increase Indigenous knowledge lead practices.
8. **Supporting Farmers for Diversifying Away from Russian Fertilizers**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $5.5 M
    - **Environmental benefits:** Supports reducing reliance on synthetic fertilizers and encourages more sustainable options.
    - **Enhancement opportunities:** Encourage use of organic fertilizer alternatives, link support to reduced reliance on synthetic inputs and integrate training on healthy and climate intelligent long term soil and biodiversity practices.
9. **Preventing Mad Cow Disease**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $8 M

- **Environmental benefits:** Enhances food safety and reduces risks of disease outbreaks
- **Enhancement opportunities:** Enhance existing traceability frameworks to improve outbreak response, improve climate resilience planning and expand on tracking how practices affect ecosystems.

4.2 Priority reform candidates (14 Programs)

These subsidies have been identified as priorities for reform based on their environmental impacts and feasibility.

1. **Canadian Agricultural Loans Act**
    - **Type:** Socializing private risk
    - **Annual average:** Not quantified
    - **Environmental impact:** Lock-in harmful production processes
    - **Current design:** Loan guarantees for farm development.
    - **Reform options:**
        - Structuring loan guarantees based on environmental performance
        - Implement environmental impact assessment for projects receiving funding
        - Adopt a sustainability criteria plan for projects
2. **Deferral of Income From Destruction of Livestock**
    - **Type:** Tax expenditures
    - **Annual average:** $.5 M
    - **Environmental impact:** Lock-in harmful production processes
    - **Current design:** Defers tax on livestock destroyed to ease herd recovery.
    - **Reform options:**
        - Require an environmental land assessment before approving land reuse
        - Introduce incentives for rotational grazing (lower impact livestock practices)
        - Add environmental compliances to decrease land degradation
3. **Deferral of Income from Grain Sold through Cash Purchase Tickets**
    - **Type:** Tax expenditures
    - **Annual average:** $.83 M
    - **Environmental impact:** Lock-in harmful production processes
    - **Current design:** Defers grain sale income to support delivery and exports.
    - **Reform options:**
        - Implement ecological impact assessment or management

    - Implement cap on deferral for operations that continue to degrade
    - Encourage the implementation of diversified crop

4. **Patronage Dividends Paid as Shares by Agricultural Co-operatives**
    - **Type:** Tax expenditures
    - **Annual average:** $1.3 M
    - **Environmental impact:** Lock-in harmful production processes
    - **Current design:** Delays taxation on co-op share dividends until the shares are sold.
    - **Reform options:**
        - Require environmental reporting
        - Encourage eco-friendly upgrades
        - Phase-out non environmentally complaint operations
5. **Tax Treatment of Farm Savings Accounts (Agrilinvest and Agri-Quebec)**
    - **Type:** Tax expenditures
    - **Annual average:** Not quantified
    - **Environmental impact:** Lower the price of a commodity
    - **Current design:** Offers matching contributions to support farmer savings for income stability.
    - **Reform options:**
        - Increase incentives for low emission and regenerative farming
        - Restrict funding for environmentally harmful practices
        - Mandate climate and biodiversity plans for qualification
6. **Dairy Innovation and Investment Fund**
    - **Fund Type:** Direct transfers of government funds
    - **Annual average:** $71 M
    - **Environmental impact:** Impair competitive markets
    - **Current design:** Funds research and processing to increase use of surplus dairy by-products.
    - **Reform options:**
        - Link funds to low impact technologies
        - Support eco-friendly product development
        - Require sustainable dairy practices for eligibility
7. **Advance Payments Program**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $12.83 M
    - **Environmental impact:** Lock-in harmful production processes

- **Current design:** Offers farmers cash advances, repaid from product sales.
- **Reform options:**
    - Scale benefits by GHG reduction achievements
    - Restrict support for high emission practices
    - Promote funding for conservation equipment upgrades

8. **Lifetime Capital Gains Exemption**
    - **Type:** Tax expenditures
    - **Annual average:** $635.3 M
    - **Environmental impact:** Distort investment towards over capitalization
    - **Current design:** Exempts capital gains on farm and fishing sales to boost investment and retirement funds.
    - **Reform options:**
        - Mandate ecological assessments for major farm transfers
        - Promote succession plans featuring regenerative practices
        - Disqualify repeat environmental violators from full benefits
9. **Deferral of Income from Grain Sold through Cash Purchase Tickets**
    - **Type:** Tax expenditures
    - **Annual average:** $20 M
    - **Environmental impact:** Distort investment towards over capitalization
    - **Current design:** Allows farmers to delay reporting grain income to the next year if paid by purchase ticket.
    - **Reform options:**
        - Require participation in environmental data reporting
        - Incentivize reinvestment into low impact farming
        - Limit deferrals for high emitting large producers
10. **Fuel Excise Tax Exemption**
    - **Type:** Tax expenditures
    - **Annual average:** $238.27 M
    - **Environmental impact:** Lower the price of a commodity
    - **Current design:** Exempts fuel sold to farmers from excise tax when used for farming purposes.
    - **Reform options:**
        - Create efficiency-based exemption caps
        - Gradually phase out while supporting low carbon options
        - Shift to renewable rebates

11. **Supply Management**
    - **Type:** Producer or consumer price support
    - **Annual average:** $3,098 M
    - **Environmental impact:** Distort investment towards over capitalization
    - **Current design:** Manages supply and imports to keep prices stable and secure farmer income.
    - **Reform options:**
        - Integrate sustainability benchmarks into production controls
        - Initiate incentives for low emitting practices
        - Establish quota trading to promote sustainable innovation
12. **Carbon Fuel Charge Exemption (repealed)**
    - **Type:** Tax expenditures
    - **Annual average:** $557.8 M
    - **Environmental impact:** Distort investment towards over capitalization
    - **Current design:** Exempts farmers from paying federal fuel charges in certain provinces.
    - **Reform options:**
        - Provide renewable energy rebates
        - Require environmental plans for continued access
        - Phase out exemptions with clear timelines
13. **Carbon Fuel Charge Exemption (2) (repealed)**
    - **Type:** Tax expenditures
    - **Annual average:** Not quantified
    - **Environmental impact:** Distort investment towards over capitalization
    - **Current design:** Allows greenhouses to receive carbon charge breaks on fuel and heating.
    - **Reform options:**
        - Offer clean energy transition support
        - Require renewable heating
        - Gradually reduce exemptions over time
14. **Return of Fuel Charge Proceeds to Farmers Tax Credit**
    - **Type:** Tax expenditures
    - **Annual average:** Not quantified
    - **Environmental impact:** Distort investment towards over capitalization
    - **Current design:** Provides farmers with a refund tied to eligible expenses and provincial fuel charge rates.
    - **Reform options:**

- Offer bonuses for renewable upgrades
- Phase in sustainability benchmarks for increased access
- Tie in eligibility with environmental plans for the farm

4.3 Subsidies with implementation challenges (13 Programs)

These subsidies have potential environmental impacts but face significant barriers to reform.

1. **Sustainable Canadian Agricultural Partnership - SCAP**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $366.66 M
    - **Environmental impact:** Lock-in harmful production processes
    - **Implementation challenge:** Reconciling competing priorities while securing sustainable program input.
    - **Alternative approaches:**
        - Strengthen environmental criteria across programs
        - Prioritize funding for climate resilient systems
        - Expand ecological outcome monitoring
2. **AgriRecovery**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $143.8 M
    - **Environmental impact:** Impair competitive markets
    - **Implementation challenge:** Shared funding hinders uniform environmental standards between regions and emergency events.
    - **Alternative approaches:**
        - Link support to climate adaptation planning
        - Prioritize funding for low impact farm systems
        - Increase ecosystem restoration in recovery efforts
3. **AgriInvest**
    - **Type:** Socializing private risk
    - **Annual average:** $140 M
    - **Environmental impact:** Distort investment towards over capitalization
    - **Implementation challenge:** A self-managed savings structure prevents environmental standard enforcement.
    - **Alternative approaches:**
        - Promote reinvestment in biodiversity improvements
        - Restrict use of funds for ecologically harmful activities
        - Increase incentives for farms utilizing regenerative practices

4. **Agri-Québec**
    - **Type:** Socializing private risk
    - **Annual average:** $54.7 M
    - **Environmental impact:** Distort investment towards over capitalization
    - **Implementation challenge:** As a provincial program Agri-Quebec encounters issues implementing consistent environmental standards.
    - **Alternative approaches:**
        - Increase contributions to producers who engage with strong environmental practices
        - Promote increased funding for biodiversity projects
        - Limit or restrict support for harmful practices
5. **AgriInnovate**
    - **Type:** Socializing private risk
    - **Annual average:** Not quantified
    - **Environmental impact:** Impair competitive markets
    - **Implementation challenge:** Can deter small firms due to strict financial criteria.
    - **Alternative approaches:**
        - Increase funding for projects that incorporate low emission solutions
        - Aim to increase funding for programs that improve biodiversity quality
        - Implement environmental risk management framework into project approval
6. **AgriScience**
    - **Type:** Socializing private risk
    - **Annual average:** Not quantified
    - **Environmental impact:** Impair competitive markets
    - **Implementation challenge:** Lacks alignment with Federal environmental goals.
    - **Alternative approaches:**
        - Ensure that funds are directed to projects that display measurable goals related to climate change mitigation
        - Encourage collaboration with environmental organizations
        - Incorporate clear strong environmental performance metrics
7. **Provincial Stabilization Programs, gross payments**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $377 M
    - **Implementation challenge**: Differences in structure across jurisdictions contribute to inconsistencies in implementing uniform environmental goals and outcomes.

- **Environmental impact:** Distort investment towards over capitalization
- **Alternative approaches:**
    - Limit payment for high emitting practices
    - Offer increased incentives for diversified and low input operations

8. **Wildlife Damage Compensation Program**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $2.97 M
    - **Environmental impact:** Lock-in harmful production processes
    - **Implementation challenge:** Variations across jurisdictions contribute to inconsistent sustainability goals.
    - **Alternative approaches**:
        - Increase support for biodiversity safeguards
        - Encourage the use of non-lethal preventative measures against predators
        - Increase promotion of coexistence strategies through educational programs
9. **Livestock Predation Compensation Program**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $2.87 M
    - **Environmental impact:** Lock-in harmful production processes
    - **Implementation challenge:** Provincial differences make it hard to apply consistent environmental standards and predator prevention measures.
    - **Alternative approaches:**
        - Support wildlife coexistence training
        - Increase compensation for coexistence strategies
        - Limit payments for poor management practices
        - Encourage habitat conservation efforts
10. **Livestock Insurance Programs**
    - **Type:** Socializing private risk
    - **Annual average:** $1.6 M
    - **Environmental impact:** Impair competitive markets
    - **Implementation challenge:** Shared delivery across provinces makes it hard to apply consistent environmental safeguards.
    - **Alternative approaches:**
        - Scale benefits by environmental performance
        - Limit support for harmful production processes
        - Encourage diversification for risk reduction

11. **PEI Potato Wart Response Plan**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $6.16 M
    - **Environmental impact:** Impair competitive markets
    - **Implementation challenge:** Emergency focus limits long term environmental goals.
    - **Alternative approaches:**
        - Encourage diversification to reduce disease outbreak and risk
        - Prioritize monitoring environmentally safe disposal
        - Increase education on soil health strategies for disease resilience
12. **Maintaining Livestock Sector Exports with a Foot-and-Mouth Disease Vaccine Bank**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $8 M
    - **Environmental impact:** Distort investment towards over capitalization
    - **Implementation challenge:** Focus on emergency response limits inclusion of environmental safeguards.
    - **Alternative approaches:**
        - Increase existing environmental risk plans for emergencies
        - Link vaccine access to high animal welfare and environment standards
13. **Farm Credit Canada**
    - **Type:** Tax expenditures
      Annual average: Not quantified
    - **Environmental impact:** Distort investment towards over capitalization
    - **Implementation challenge:** Broad loan access hinders enforcement of green lending standards.
    - **Alternative approaches:**
        - Align loans with environmental risk plans
        - Offer increased incentives for regenerative farming practices
        - Require sustainability assessments for sizable loans

4.4 Subsidies with financial impact concerns (8 Programs)

These subsidies have potential environmental impacts but cannot be reformed due to significant financial implications for producers.

1. **AgriStability**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $195 M

- **Environmental impact:** Lock-in harmful production processes
- **Financial concerns:** Tied to income loss, making it hard to reduce support for environmentally harmful practices without risking farm viability.
- **Alternative approaches:**
    - Link payment to environmental plans
    - Provide enhanced coverage for sustainable farms
    - Reduce support for harmful practices
    - Implement basic health and habitat requirements

2. **Crop Insurance (AgriInsurance)**
    - **Type:** Socializing private risk
    - **Annual average:** $3.5B
    - **Environmental impact:** Impair competitive markets
    - **Financial concerns:** High cost in risk protection make it difficult to adjust without major economic impact.
    - **Alternative approaches:**
        - Create ecosystem health benchmarks
        - Reward crop diversification
        - Support ecological farming
3. **Waterfowl Damage**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $2.45 M
    - **Environmental impact:** Distort investment towards over capitalization
    - **Financial concerns:** Reducing support could impact farmers' income and limit tolerance for wildlife presence.
    - **Alternative approaches:**
        - Provide incentives to preserve wetlands or nesting areas
        - Include conservation planning as a condition of eligibility
        - Promote crop strategies that are waterfowl friendly
4. **Compensation for Animal Losses**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $31.97 M
    - **Environmental impact:** Distort investment towards over capitalization
    - **Financial concerns:** Critical for managing disease outbreaks, cutting support risks undermining response efforts.
    - **Alternative approaches:**
        - Introduce increased animal disease prevention measures
        - Expand support for operations involving high sustainability compliance

    - Increase payment size for farms that utilizes low emitting technology

5. **Tree fruit replant program**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $0.14 M
    - **Environmental impact:** Lock-in harmful production processes
    - **Financial concerns:** Limited funding and vastly important for industry, cuts could disrupt orchard renewal efforts.
    - **Alternative approaches:**
        - Exclude funding projects that incorporate ecologically harmful orchard systems
        - Prioritize replanting climate resilient trees
        - Incorporate biodiversity improvement plans
6. **Dairy Direct Payment Program**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $269.83 M
    - **Environmental impact:** Impair competitive markets
    - **Financial concerns:** Reducing support could breach commitments and impact the dairy sector as funding is trade compensation.
    - **Alternative approaches:**
        - Support investments in clean technology
        - Require climate planning for eligibility
        - Link payments to adoption of sustainable dairy practices
7. **Temporary Foreign Worker Program**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $4.02 M
    - **Environmental impact:** Impair competitive markets
    - **Financial concerns:** Reducing funding could disrupt operations in key processing sectors, affecting labour supply.
    - **Alternative approaches:**
        - Encourage sustainability requirements for facilities receiving support
        - Encourage facilities to invest in energy efficiency upgrades
        - Increase incentives for high ecological performances
8. **Providing Interest Relief for Agricultural Producers**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $2.17 M
    - **Environmental impact:** Lock-in harmful production processes

- **Financial concerns:** Helps producers manage rising input costs, cutting support could increase financial strain and production risk**.**
- **Alternative approaches:**
    - Scale benefits by environmental improvement targets
    - Prioritize producers using low emission methods
    - Overall incorporate relief with sustainable farm management

4.5 Phased-out subsidies (1 Program)

This subsidy has been phased out and does not require further reform.

1. **Sustainable Development Technology Canada**
    - **Type:** Direct transfers of government funds
    - **Annual average:** $8.33 M
    - **Environmental impact:** Distort investment towards over capitalization
    - **Lessons learned:** Tie technology funding to clear sustainability standards and measurable environmental outcomes.

5 Mining

This assessment reviews 20 mining subsidies, categorized according to their current reform status based on environmental impact and feasibility. For each subsidy, the analysis outlines key details including the program name, funding mechanism, estimated annual expenditure, and its ecological implications, where data is available.

5.1 Environmentally beneficial subsidies (2 Programs)

These programs deliver both environmental and economic value to the mining sector by supporting cleaner technologies, improved reclamation practices, and ecosystem restoration. These programs should be maintained where possible.

1. **Clean Technology Manufacturing Investment Tax Credit Support for Polymetallic Extraction and Processing**
    - **Type**: Tax expenditure
    - **Annual average**: $97.5 M
    - **Environmental benefits**: Promotes the adoption of cleaner mining technologies and methods for critical mineral extraction.
    - **Enhancement opportunities**: Enhance alignment with national decarbonization goals and ecosystem conservation standards.
2. **Qualifying Environmental Trusts**
    - **Type**: Tax expenditure
    - **Annual average**: Not quantified
    - **Environmental benefits**: Enables financial support for mine site restoration through deductible contributions to environmental trusts.
    - **Enhancement opportunities**: Improve evaluation of restoration success and broaden eligible activities to include ecosystem recovery.

5.2 Priority reform candidates (12 Programs)

These subsidies have been identified as priorities for reform based on their environmental impacts and feasibility.

1. **Canadian Critical Minerals Strategy**
    - **Type**: Socializing private risk
    - **Annual average**: $312.85 M
    - **Environmental impact**: Impairs competitive markets
    - **Current design**: Comprehensive strategy promoting critical minerals supply chain development through subsidies, tax expenditures, and infrastructure investments.
    - **Reform options**:

    - Establish strict environmental requirements for funded projects
    - Require life-cycle assessments for all supported developments
    - Link project funding more directly to ecosystem protection commitments
    - Develop resource efficiency and circular economy components

2. **CCMS - Strategic Innovation Fund**
    - **Type**: Direct transfers of government funds
    - **Annual average**: $214.29 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Current design**: Provides up to $1.5 billion over seven years for infrastructure investments supporting critical minerals supply chains.
    - **Reform options**:
        - Introduce more refined support based on environmental performance
        - Require comprehensive environmental management systems
        - Create stronger ties to habitat protection and restoration
        - Develop climate impact reduction requirements
3. **CCMS - Critical Minerals Infrastructure Fund**
    - **Type**: Socializing private risk
    - **Annual average**: $214.29 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Current design**: Allocates $1.5 billion towards energy and transportation projects needed to unlock priority mineral deposits.
    - **Reform options**:
        - Implement sustainability criteria for all infrastructure projects
        - Require impact assessments beyond regulatory minimums
        - Create designs that minimize ecosystem fragmentation
        - Develop climate resilient infrastructure requirements
4. **Flow-through Share Deductions**
    - **Type**: Tax expenditure
    - **Annual average**: $238.33 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Current design**: Allows corporations to transfer certain unused tax deductions to equity investors.
    - **Reform options**:
        - Implement graduated deductions based on environmental performance
        - Require sustainability reporting for participating companies
        - Create preferential rates for low-impact exploration methods
        - Develop environmental management requirements

5. **Critical Mineral Exploration Tax Credit**
    - **Type**: Tax expenditure
    - **Annual average**: $37 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Current design**: Provides a 30% tax credit for specified mineral exploration expenses targeted at critical minerals.
    - **Reform options**:
        - Implement environmental performance criteria for eligibility
        - Require restoration planning for all exploration activities
        - Create preferential rates for projects with lower ecological footprints
        - Develop community benefit requirements
6. **Mineral Exploration Tax Credit**
    - **Type**: Tax expenditure
    - **Annual average**: $41.4 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Current design**: Provides a 15% non-refundable tax credit on eligible exploration expenses.
    - **Reform options**:
        - Implement environmental cross-compliance requirements
        - Require progressive rehabilitation of exploration sites
        - Create tiered credits based on environmental impact assessments
        - Develop incentives for innovative low-impact exploration methods
7. **CCMS - Global Leadership on Critical Minerals**
    - **Type**: Socializing private risk
    - **Annual average**: $12 M
    - **Environmental impact**: Impairs competitive markets
    - **Current design**: Provides $70 M over eight years to advance Canada's global leadership on critical minerals.
    - **Reform options**:
        - Incorporate strong ecological standards into transparency frameworks
        - Require sustainability reporting beyond extraction data
        - Create environmental performance metrics in global partnerships
        - Develop ecosystem preservation components
8. **CCMS - Centre of Excellence on Critical Minerals**
    - **Type**: Socializing private risk
    - **Annual average**: $4 M
    - **Environmental impact**: Locks in harmful production processes

- **Current design**: Assists developers in navigating regulatory processes and accessing support measures.
- **Reform options**:
    - Integrate environmental best practices into developer assistance
    - Require ecological impact minimization planning
    - Create sustainability knowledge transfer components
    - Develop ecosystem protection guidance

9. **Flow-Through Shares and Critical Mineral Exploration Tax Credit – Lithium from Brines**
    - **Type**: Tax expenditure
    - **Annual average**: $3 M
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Current design**: Enables corporations undertaking lithium from brines exploration to issue flow-through shares and renounce expenses to investors.
    - **Reform options**:
        - Implement water sustainability requirements
        - Require comprehensive hydrological impact assessments
        - Create tiered benefits based on water efficiency measures
        - Develop ecosystem protection requirements for aquifer systems
10. **Provincial and Territorial Mining Taxes and Royalties Deduction**
    - **Type**: Tax expenditure
    - **Annual average**: Not quantified
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Current design**: Allows full deduction of mining taxes and royalties paid to provinces or territories.
    - **Reform options**:
        - Implement environmental performance criteria for full deductibility
        - Require sustainability reporting and management systems
        - Create graduated deductions based on ecological impact
        - Develop habitat protection and restoration requirements
11. **Capital Cost Allowances**
    - **Type**: Tax expenditure
    - **Annual average**: Not quantified
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Current design**: Provides 25% depreciation rate on a declining balance basis for most capital assets.
    - **Reform options**:
        - Implement tiered rates based on environmental efficiency

    - Require resource efficiency improvements for maximum benefits
    - Create accelerated depreciation for low-impact technologies
    - Develop climate-friendly equipment standards

12. **Investment Tax Credit for Clean Technology Manufacturing**
    - **Type**: Tax expenditure
    - **Annual average**: Not quantified
    - **Environmental impact**: Distorts investment towards overcapitalization
    - **Current design**: Provides 30% refundable tax credit for investments in new machinery and equipment for clean technology manufacturing.
    - **Reform options**:
        - Expand focus on circular economy applications
        - Require supply chain sustainability measures
        - Create stronger ties to ecosystem protection outcomes
        - Develop comprehensive life-cycle assessment requirements

5.3 Subsidies with implementation challenges (2 Programs)

These subsidies have potential environmental impacts but face significant implementation challenges for reform.

1. **CCMS - Support for Northern Regulatory Processes**
    - **Type**: Socializing private risk
    - **Annual average**: $5 M
    - **Environmental impact**: Impairs competitive markets
    - **Implementation challenge**: Complex jurisdictional relationships with territorial governments and Indigenous organizations.
    - **Alternative approaches**:
        - Enhance environmental assessment components within existing frameworks
        - Strengthen Indigenous-led monitoring and oversight
        - Develop improved cumulative effects assessment methodologies
        - Create innovative approaches to habitat protection in northern ecosystems
2. **CCMS - Support to Developers**
    - **Type**: Socializing private risk
    - **Annual average**: $3.53 M
    - **Environmental impact**: Impairs competitive markets

- **Implementation challenge**: Integrated into complex regulatory assistance frameworks.
- **Alternative approaches**:
    - Enhance environmental guidance within developer assistance
    - Strengthen ecosystem protection components in regulatory navigation
    - Develop best practice resources for environmental management
    - Create sustainability-focused mentorship and technical assistance

5.4 Subsidies with financial impact concerns (2 Programs)

These subsidies have potential environmental impacts but cannot be reformed due to significant financial implications.

1. **CCMS - Technology Research, Development, and Deployment**
    - **Type**: Socializing private risk
    - **Annual average**: $29 M
    - **Environmental impact**: Impairs competitive markets
    - **Financial concerns**: Critical research funding with limited alternatives, reform could significantly impair innovation objectives.
    - **Alternative approaches**:
        - Implement environmental criteria within existing research frameworks
        - Strengthen ecosystem protection components in technology development
        - Create sustainability-focused research streams
        - Develop ecological restoration technology priorities
2. **CCMS - Integrated Data**
    - **Type**: Socializing private risk
    - **Annual average**: $15.4 M
    - **Environmental impact**: Impairs competitive markets
    - **Financial concerns**: Essential data infrastructure with few alternatives, reform could undermine information accessibility.
    - **Alternative approaches**:
        - Enhance environmental data collection and accessibility
        - Integrate ecosystem monitoring within data frameworks
        - Create sustainability indicators and benchmarking tools
        - Develop resources for ecosystem-sensitive exploration planning

5.5 Phased-out subsidies (2 Programs)

These subsidies have been or are being phased out, and therefore do not require reform.

1. **Accelerated Capital Cost Allowances**
    - **Type**: Tax expenditure
    - **Annual average**: Not quantified
    - **Environmental impact**: Distorted investment towards overcapitalization
    - **Phase-out status**: Phased out
    - **Lessons learned**: Future capital depreciation frameworks should include sustainability criteria from the outset.
2. **Corporate Mineral Exploration and Development Tax Credit**
    - **Type**: Tax expenditure
    - **Annual average**: $28 M
    - **Environmental impact**: Distorted investment towards overcapitalization
    - **Phase-out status**: Phased out after 2015, though unused credits can still be carried forward.
    - **Lessons learned**: Corporate tax incentives should be designed with environmental safeguards and sustainability requirements.