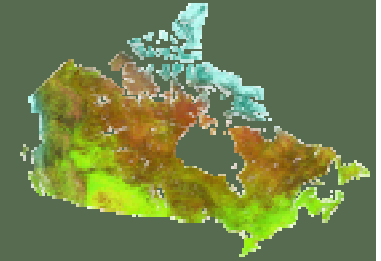


# Extractive Industries Review



## Government Approaches to Mineral Policy, Taxation, and Transparency

Slides and Notes

Presentation  
to  
The Extractive Industries Review  
March 5, 2003

**By:** Keith J. Brewer, Ottawa, Canada  
**E-Mail:** [kbrewer@nrcan.gc.ca](mailto:kbrewer@nrcan.gc.ca)  
**Telephone:** (613) 992-2662

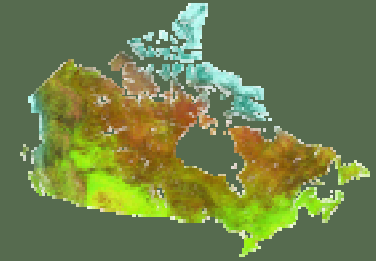


Natural Resources Canada  
Ressources naturelles Canada

1

Canada

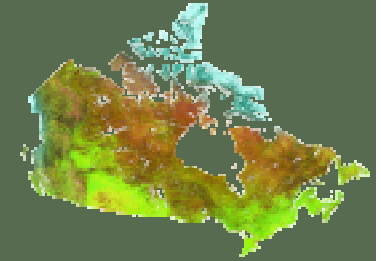
# The Extractive Industries Review



- Part A: How and Why Canada Conducts Its Policy Towards Mining and Minerals
- Part B: Strengths and Challenges in Canada's Approach
- Part C: Potential Lessons for Other Jurisdictions from Canada's Experience



# Part A: How and Why Canada Conducts Its Policy Towards Mining and Minerals



## Current Global Environment



Open Economy - Private Sector Drives Investment



Government Measures for Economic Sustainability



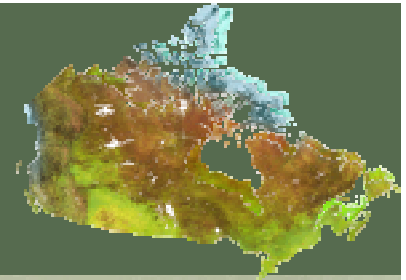
Government Measures for Environmental Sustainability



??Government Measures for Social Sustainability

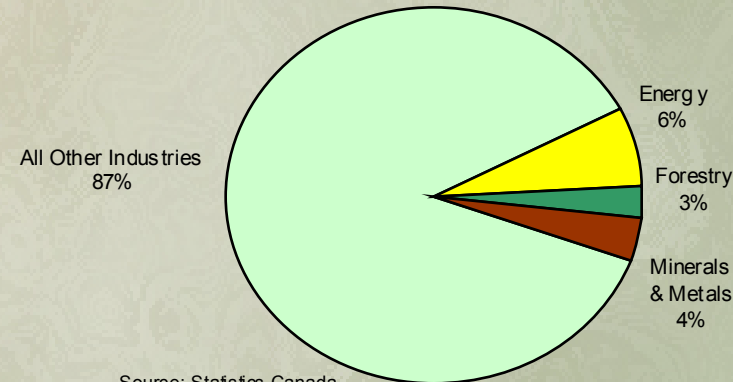


# The Natural Resource Sectors and Allied Industries Form a Cornerstone of Canada's Economy



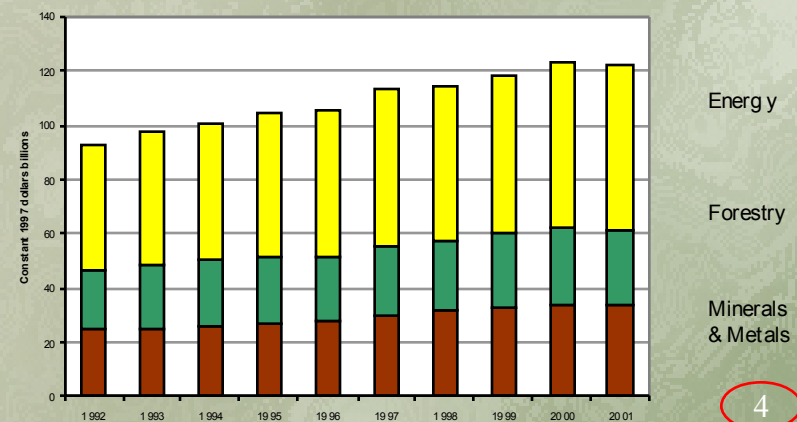
- The natural resource sectors contributed \$121.6 billion to Canada's total GDP of \$940.1 billion in 2001.
- As the Canadian economy has grown and diversified over the past two decades, the sectors' contribution to Canada's GDP has remained consistent, representing between 13% and 15% of GDP.
- The sectors' production grew in real terms through the same period to reach a record high of over \$120 billion in 2000 and 2001.

Percentage Contribution of the NR Sectors to Canadian GDP in 2001



Source: Statistics Canada

NR Sector's Contribution to GDP 1992-2001 (1997 Constant \$)



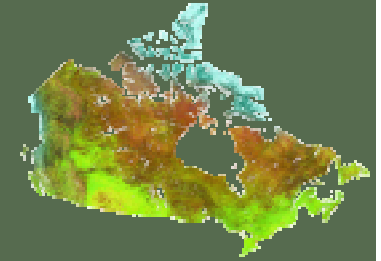
Source: Statistics Canada



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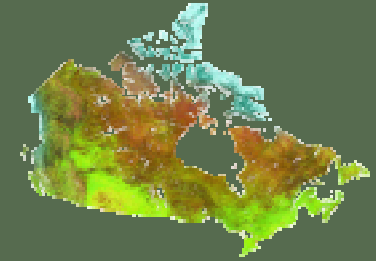
# The Successful Life-cycle of the Sullivan Mine



Natural Resources  
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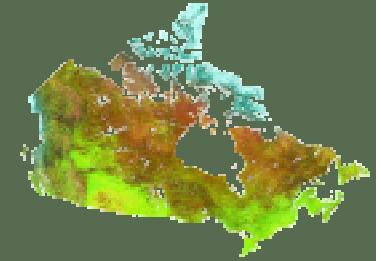
# Sullivan Mine – Kimberley



- Ore-body discovered 1892, mining began 1909
- Up until 2001, the mine produced almost 8 million tonnes of zinc, more than 8 million tonnes of lead, and 280 million ounces of silver
- Gross Earnings \$20 billion, \$200 million annually
  - of which tax revenue is 15-20 %
- Mine employed an average of 1,000 people during its 92 year life.
- Annual salary plus benefits averaged \$68,000 per employee in today's terms.



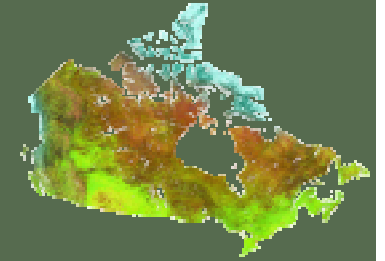
# Mine Closure Plan



- Teck Cominco is reclaiming all the tailings areas and waste dumps in order to bring them back to productive land use that will sustain wildlife and natural use for future generations.
- By the time reclamation is complete, Teck Cominco will have spent approximately \$70 million on the reclamation



# Reclamation Work



Mark Creek  
Before

City of Kimberley  
teckcominco

Mark Creek Today



City of Kimberley  
teckcominco

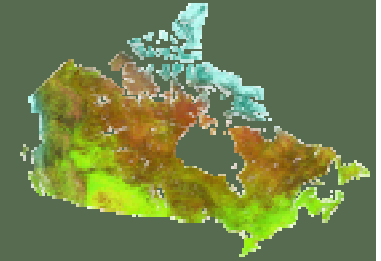


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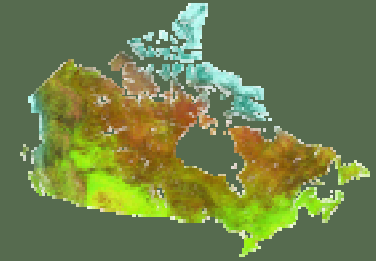
# Teck Cominco – Local Community



- Teck Cominco and the City of Kimberley teamed up in the early 1990's to transform the city into a tourist resort and retirement destination. Improvements include the development of golf courses, ski hill and residential community.
- Public involvement was included in the planning and decision-making with the formation of the Sullivan Mine Public Liaison Committee.



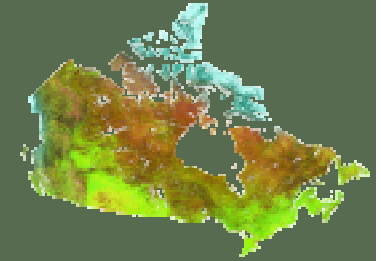
# Downtown Today – City of Kimberley



The Platzl



# Local Golf Course



## Signature Hole - Trickle Creek



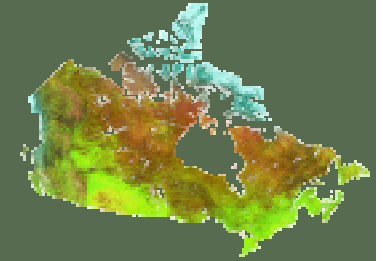
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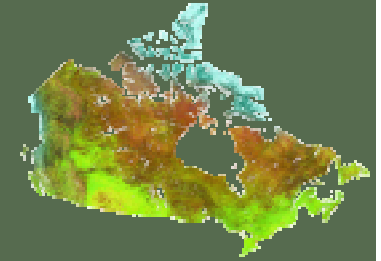
# High Wage Rates and Mining



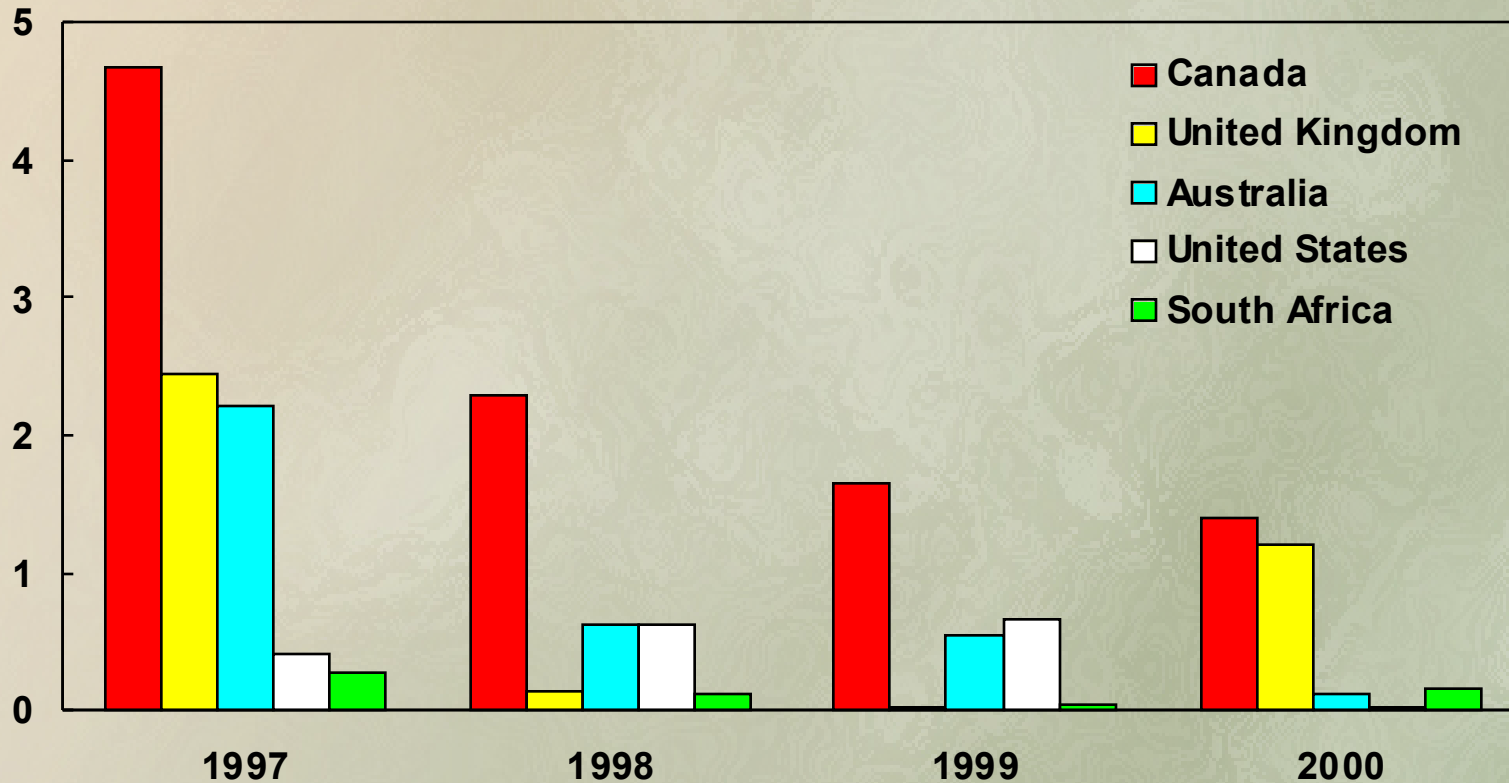
- \$1,000 weekly wages in mining - highest in Canada.
  - \$650 average weekly wage in Canada.
- Over 100 communities (60,000 people) depend on mining alone.
- 2.5 % of Canadian employment is in mining



# Sources of Equity Financing for Mineral Exploration and Development, 1997-2000



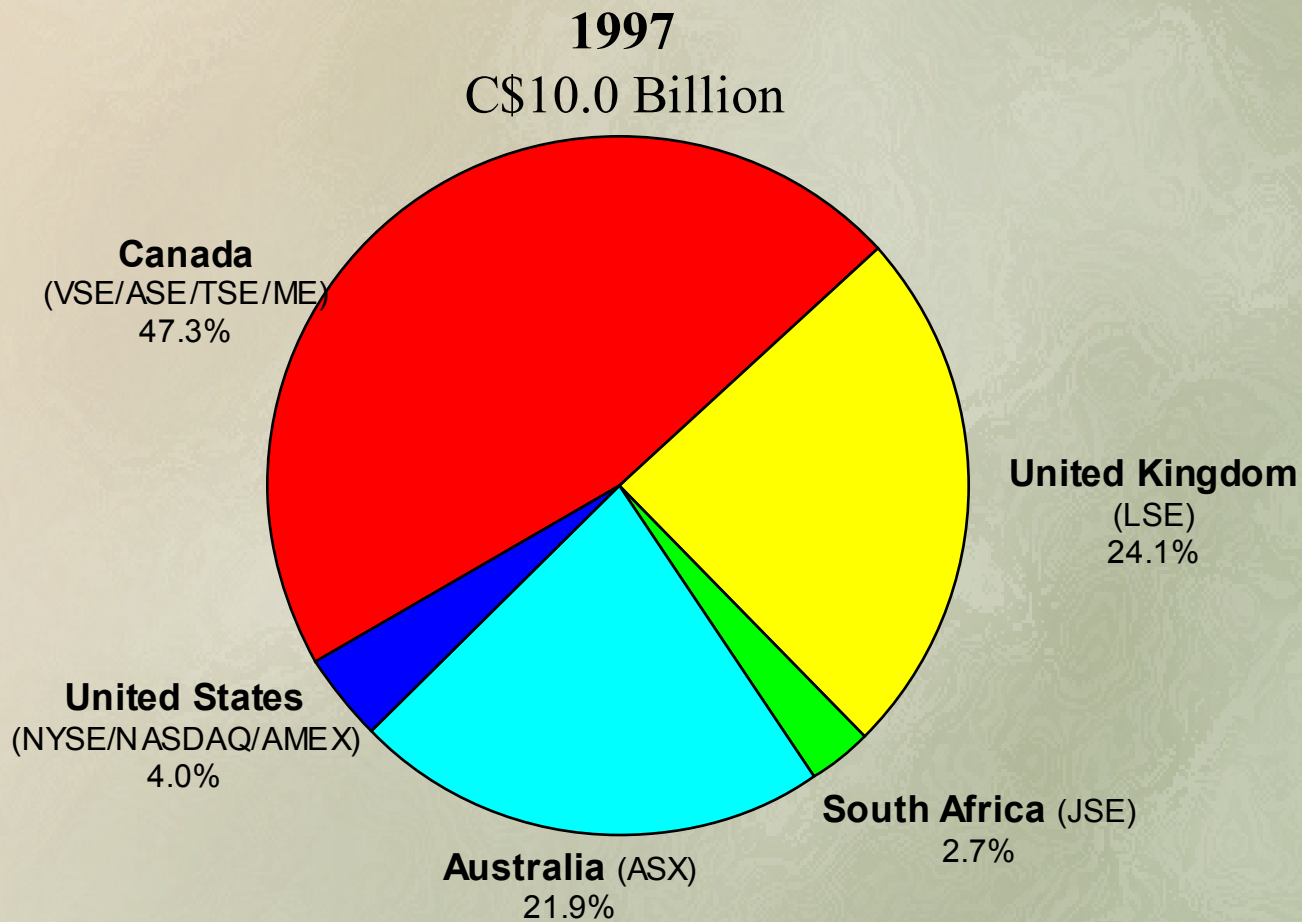
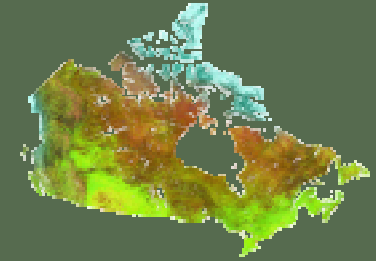
Billions of Canadian dollars



Sources: Toronto Stock Exchange, Natural Resources Canada, Securities Data Co., FP Data Group, Gamah.



# Sources of Equity Financing for Global Mineral Exploration and Development

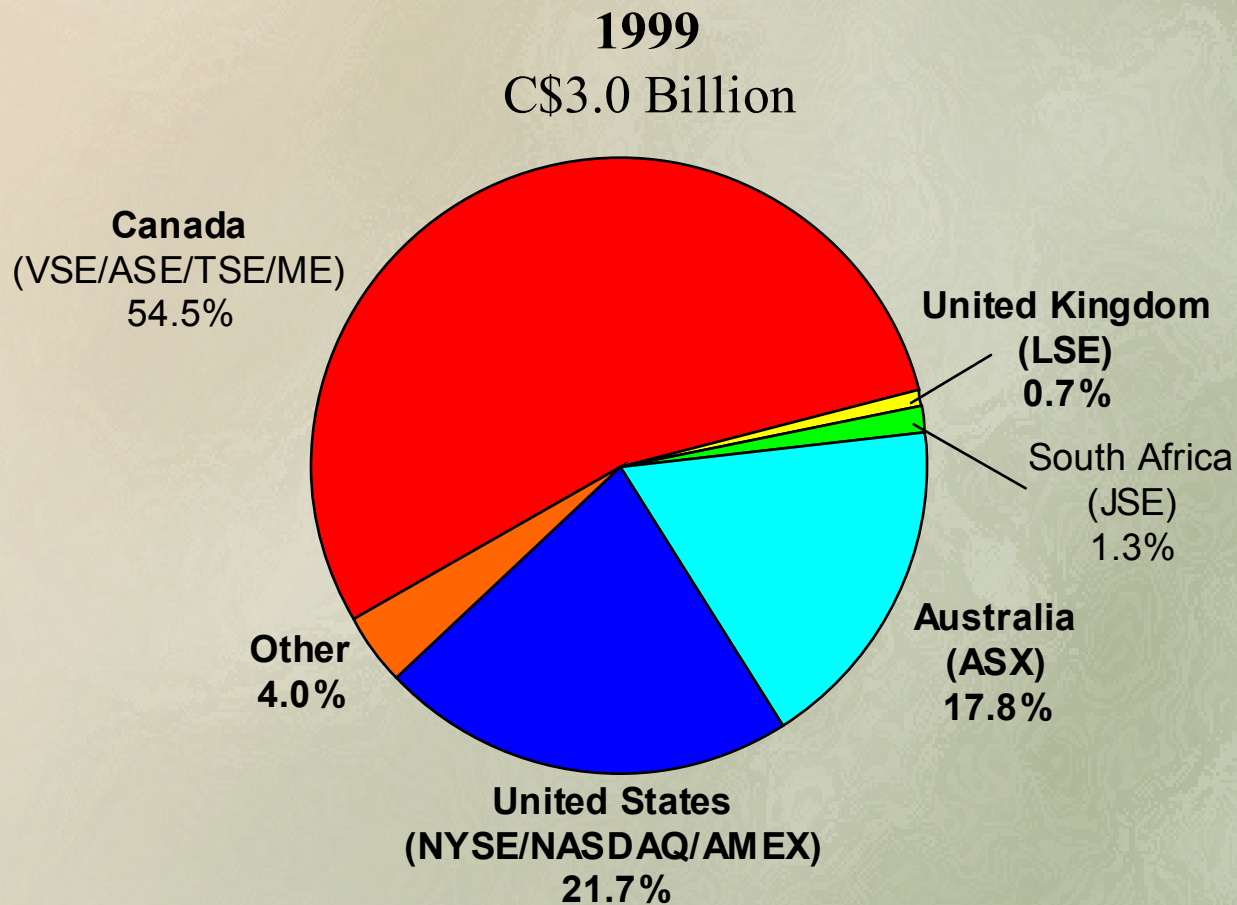
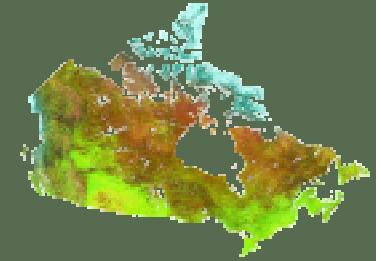


Sources: Toronto Stock Exchange; Natural Resources Canada.



Natural Resources  
Canada      Ressources naturelles  
Canada

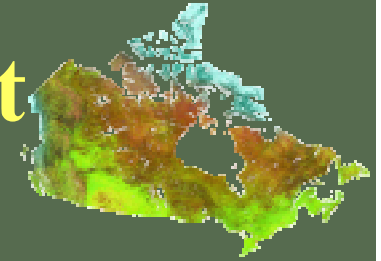
# Sources of Equity Financing for Global Mineral Exploration and Development



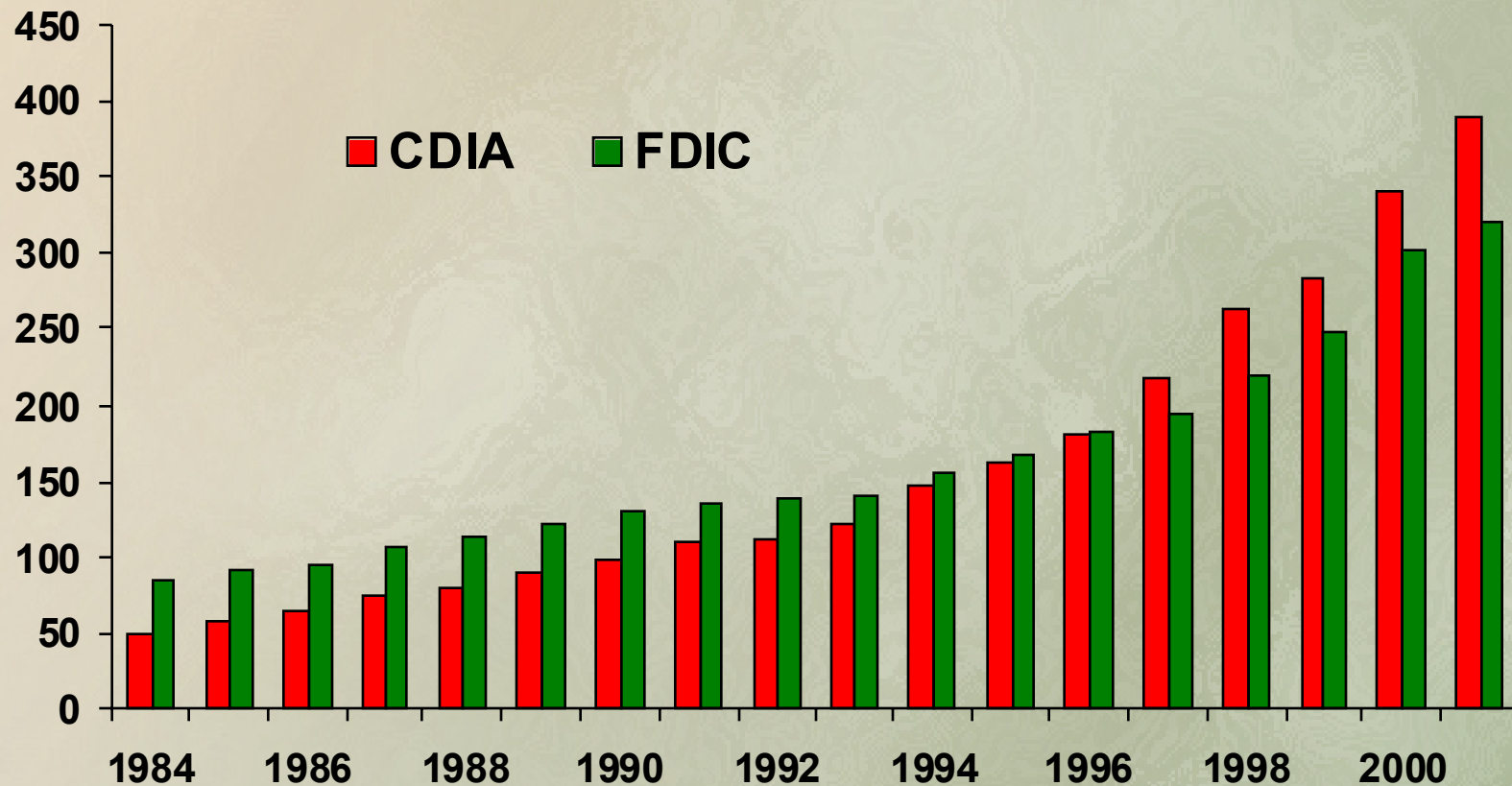
Sources: Toronto Stock Exchange, NRCan, Securities Data Co., FP Data Co., Gamah International.



# Canada's International Investment Position (Stocks)



billions of dollars



Source: Statistics Canada.

16



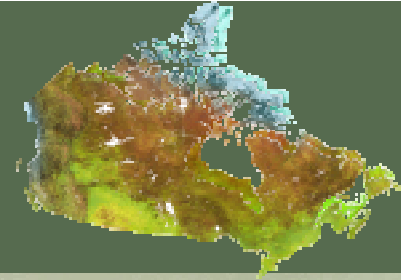
Natural Resources  
Canada

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Canada

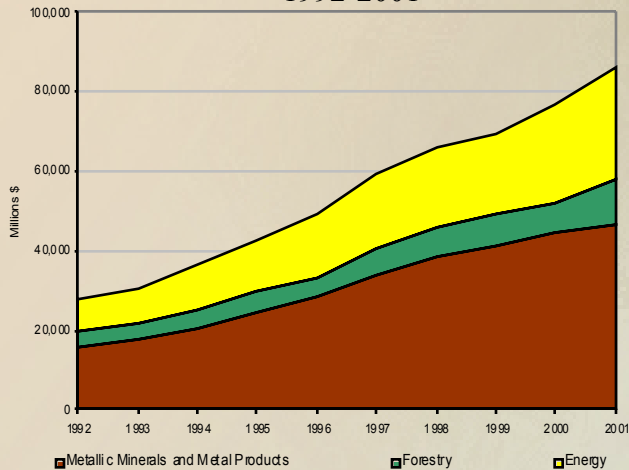
Canada



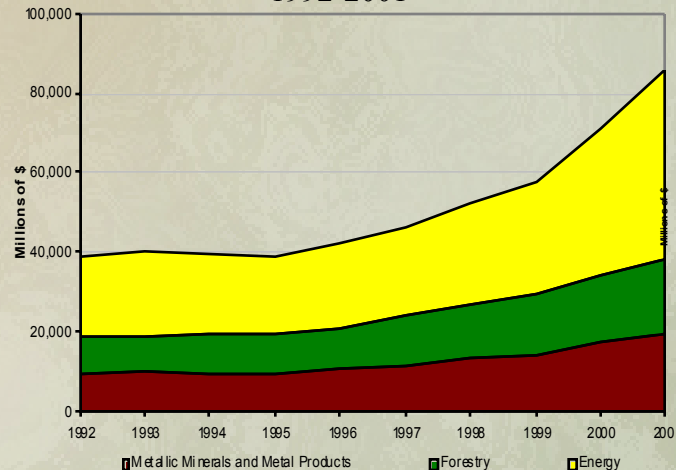
# Canadian Investment Abroad in Natural Resource Sectors has Tripled over the Past Decade, while Foreign Investment in Canada has Doubled



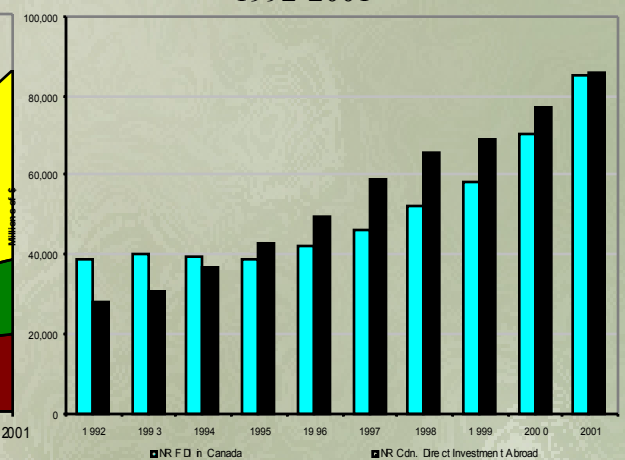
Stock of Canadian Direct Investment Abroad (CDIA) for NR Sectors 1992-2001



Stock of Foreign Direct Investment in Canada (FDI) for NR Sectors 1992-2001



Stock of Total FDI in Canada and CDIA for NR Sectors 1992-2001

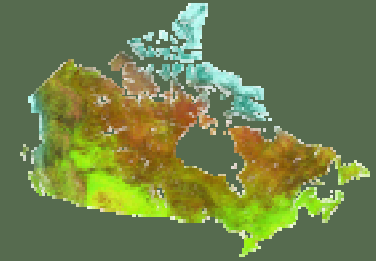


Source: Statistics Canada.

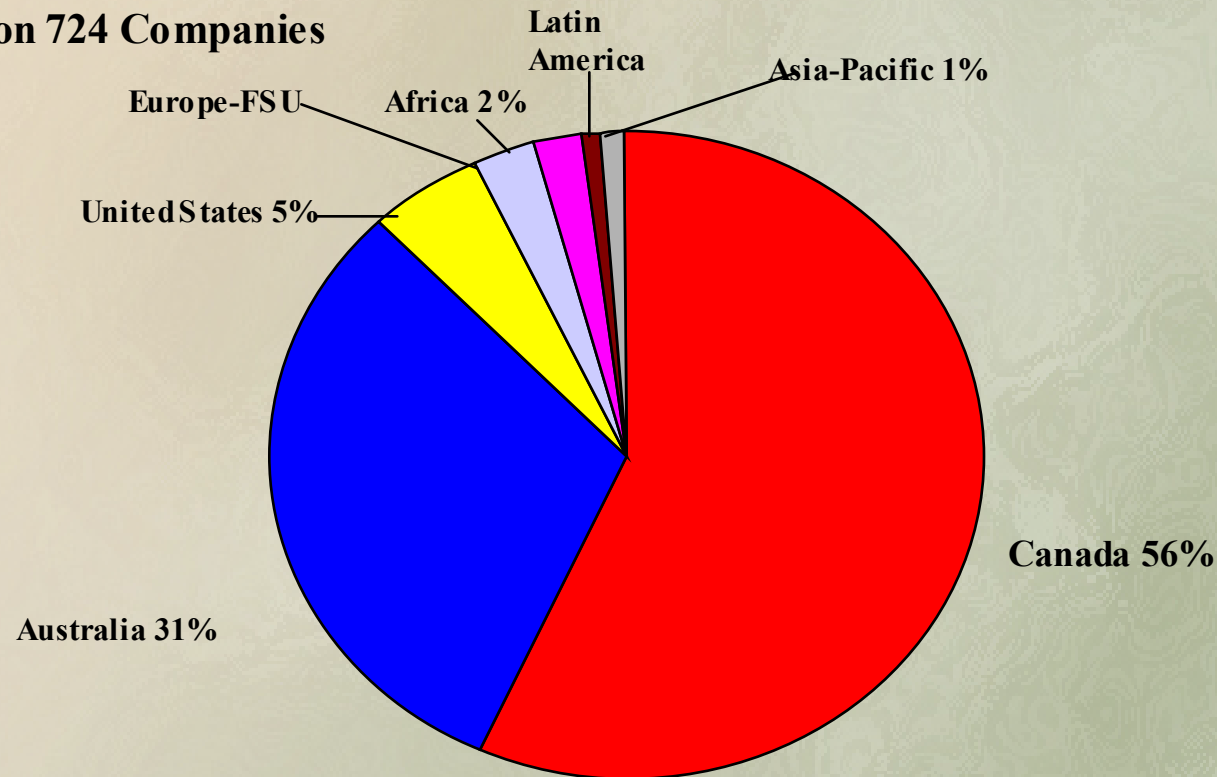
- The sectors' direct investments abroad are increasing, as reflected in the growth in the stock of Canadian investment abroad in natural resources rising threefold, from \$27.8 billion in 1992 to over \$86 billion in 2001. Much of the increase has occurred in the mining sector (\$46B in 2001 or 12% of Canada's total).
- The stock of foreign direct investment in Canada's natural resources sector did not grow at the same pace, but has still doubled from \$40 billion in 1992 to \$85.5 billion in 2001.



# Distribution of the World's Mining Companies by Domicile, 2002



Based on 724 Companies



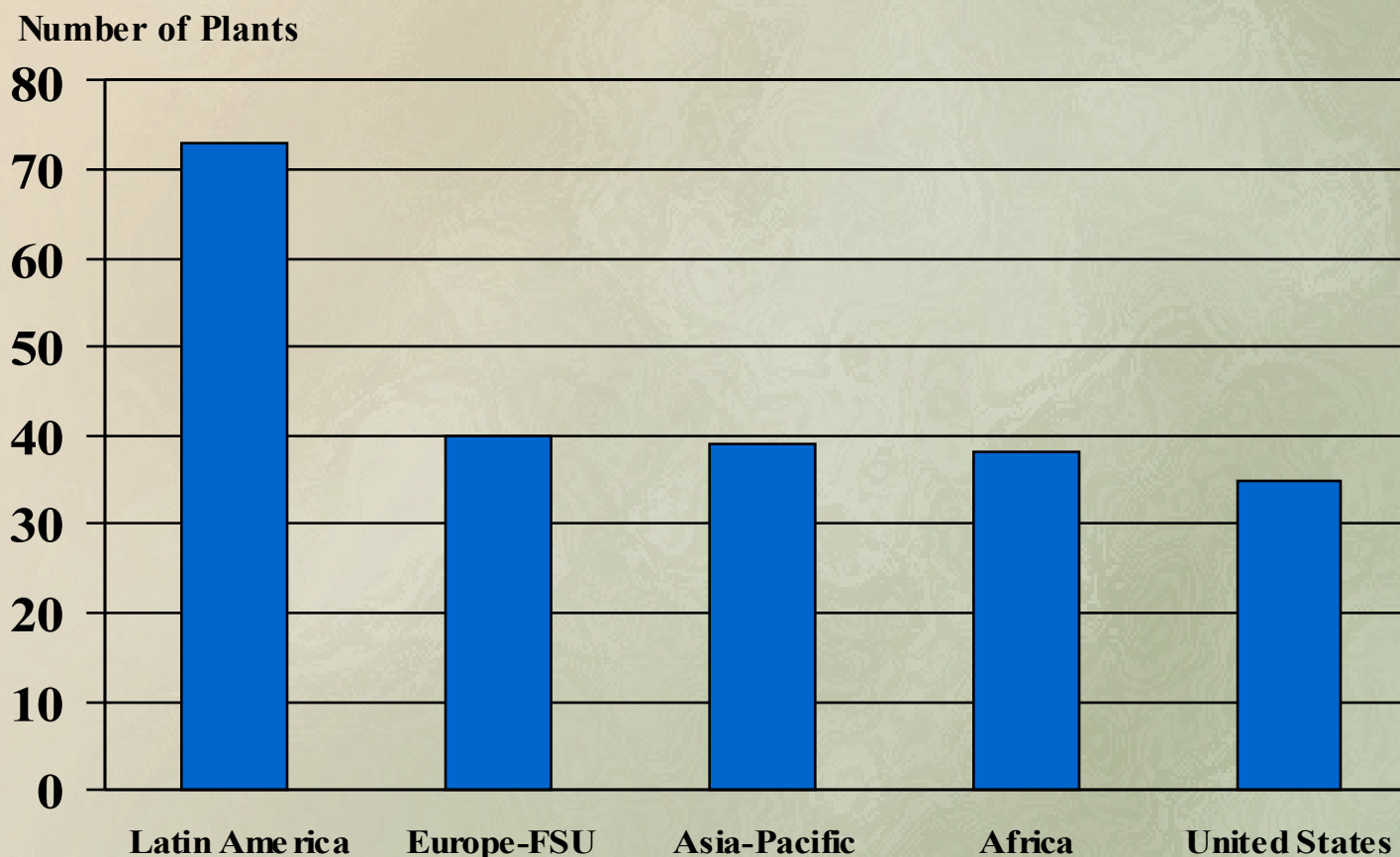
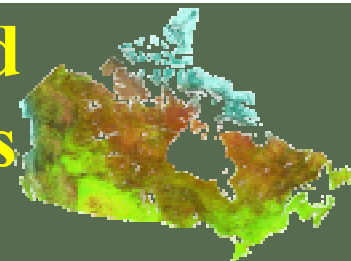
Source: NRCan, based on data from Metals Economics Group



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# Mines, Refineries, Smelters and Other Advanced Projects Abroad in Which Canadian Companies Have an Interest

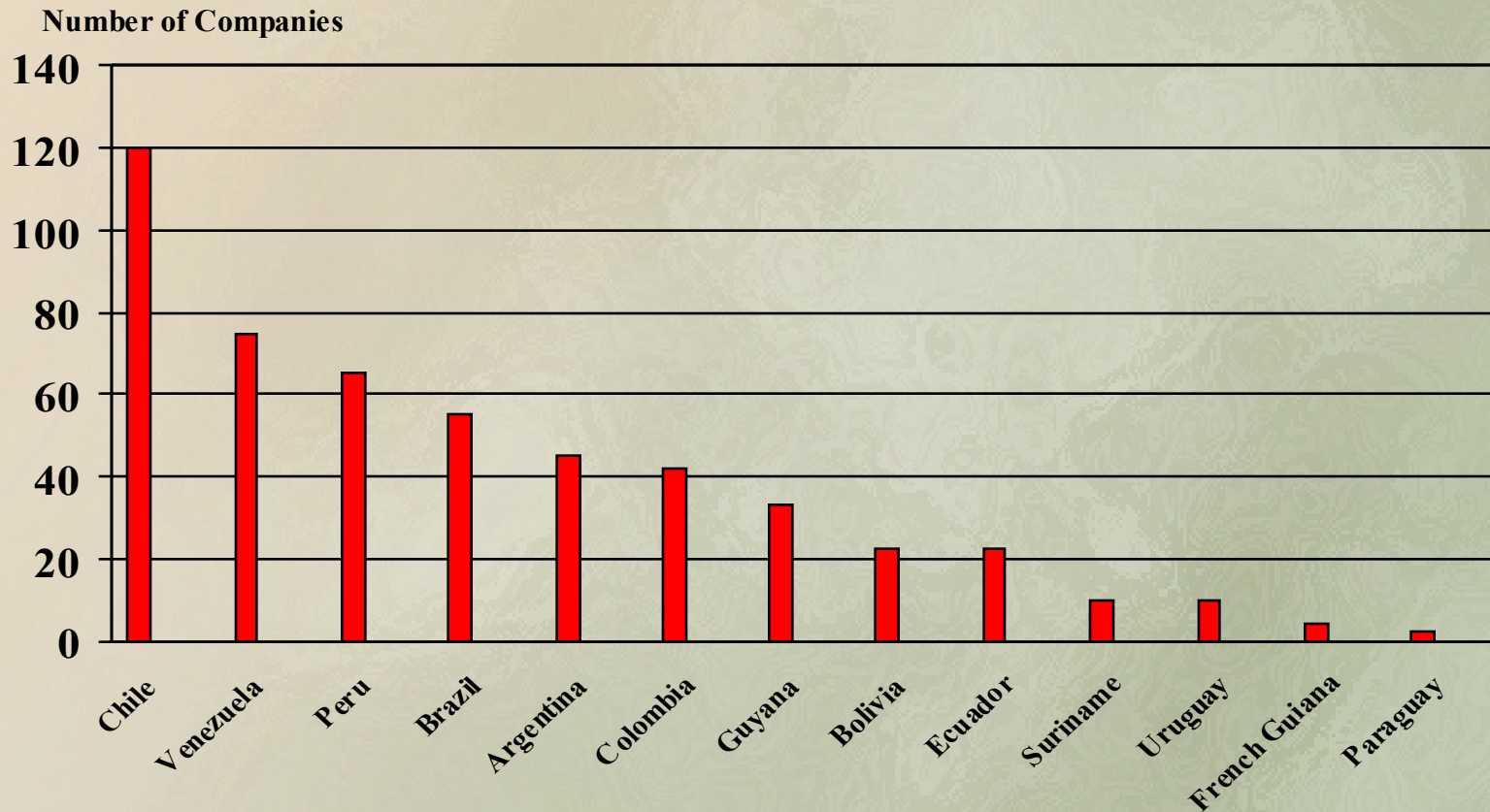
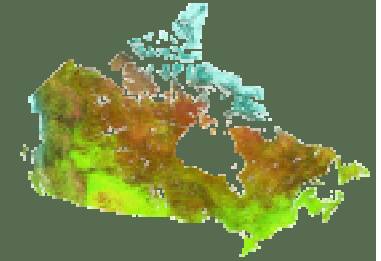


Source: Natural Resources Canada, based on Corporate Exploration Strategies: A Worldwide Analysis, Metals Economics Group, Halifax, Nova Scotia.



Natural Resources Canada  
Ressources naturelles Canada

# Canadian Suppliers of Specialized Mining Goods and Services Export Presence in South America



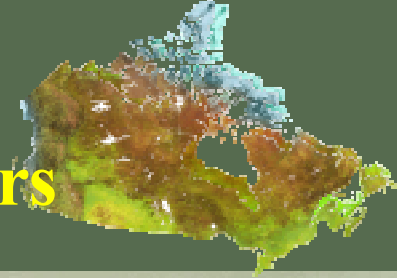
Source: Natural Resources Canada, based on *Directory of Canadian Exporters: Mining Equipment and Services*, Department of Foreign Affairs and International Trade, 1994



Natural Resources  
Canada

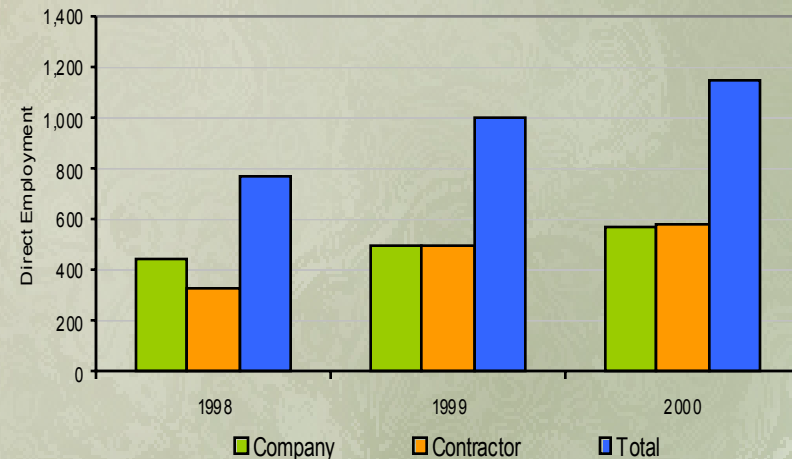
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Canada

# There is Increasing Participation of Aboriginal Communities and Businesses in Resource Sectors



- 85% of the more than 1,300 communities (greater than 20% Aboriginal population) in Canada are located within 200 km of natural resource-based activities.
- The majority of the some 20,000 Aboriginal owned businesses in Canada are owner operated contractors and sub-contractors to natural resource sectors.
- Of Aboriginal Canadians who are employed in the primary resource sectors:
  - 31% were in forestry and logging sectors; and
  - 26% were in mining and energy sectors.
- Between 1991 and 1996, Aboriginal employment increased by 25% in forestry and 10% in mining, oil and gas.

Aboriginal Direct Employment  
Athabasca Oil Sands Development  
1998, 1999 & 2000



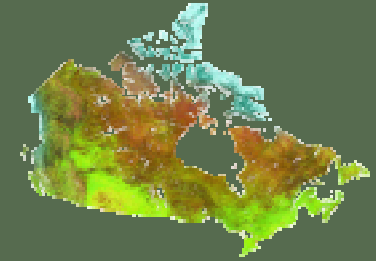
Source: Athabasca Oil Sands Developers & Canadian Association of Petroleum Producers



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Canada

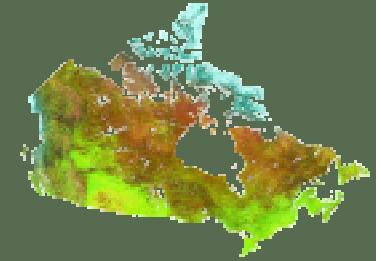
# Part A: How and Why Canada Conducts Its Policy Towards Mining and Minerals



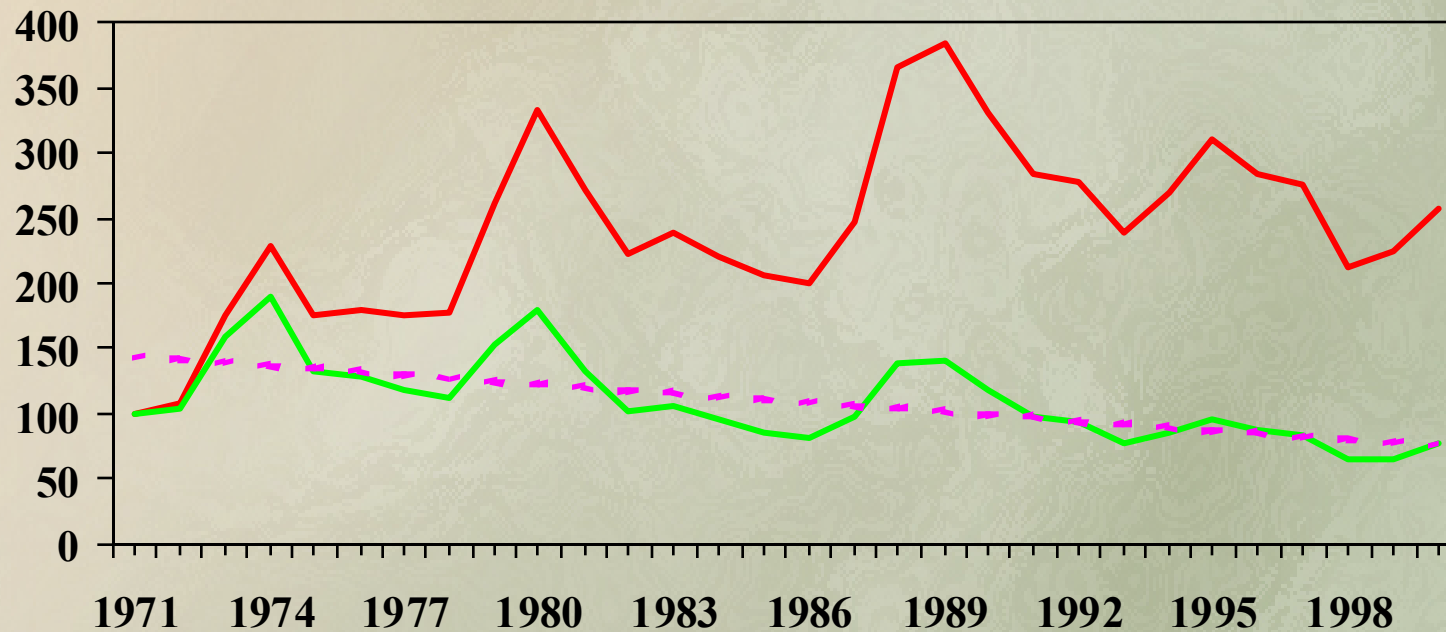
- 🍁 Current Global Environment
- ➡ **Open Economy - Private Sector Drives Investment**
- 🍁 Government Measures for Economic Sustainability
- 🍁 Government Measures for Environmental Sustainability
- 🍁 ??Government Measures for Social Sustainability



# Metal Prices 1971-2000



Indexes: 1971 = 100



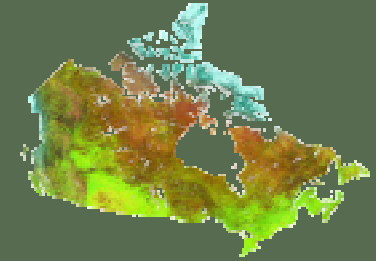
— Nominal — Real - - - Linear (Real)



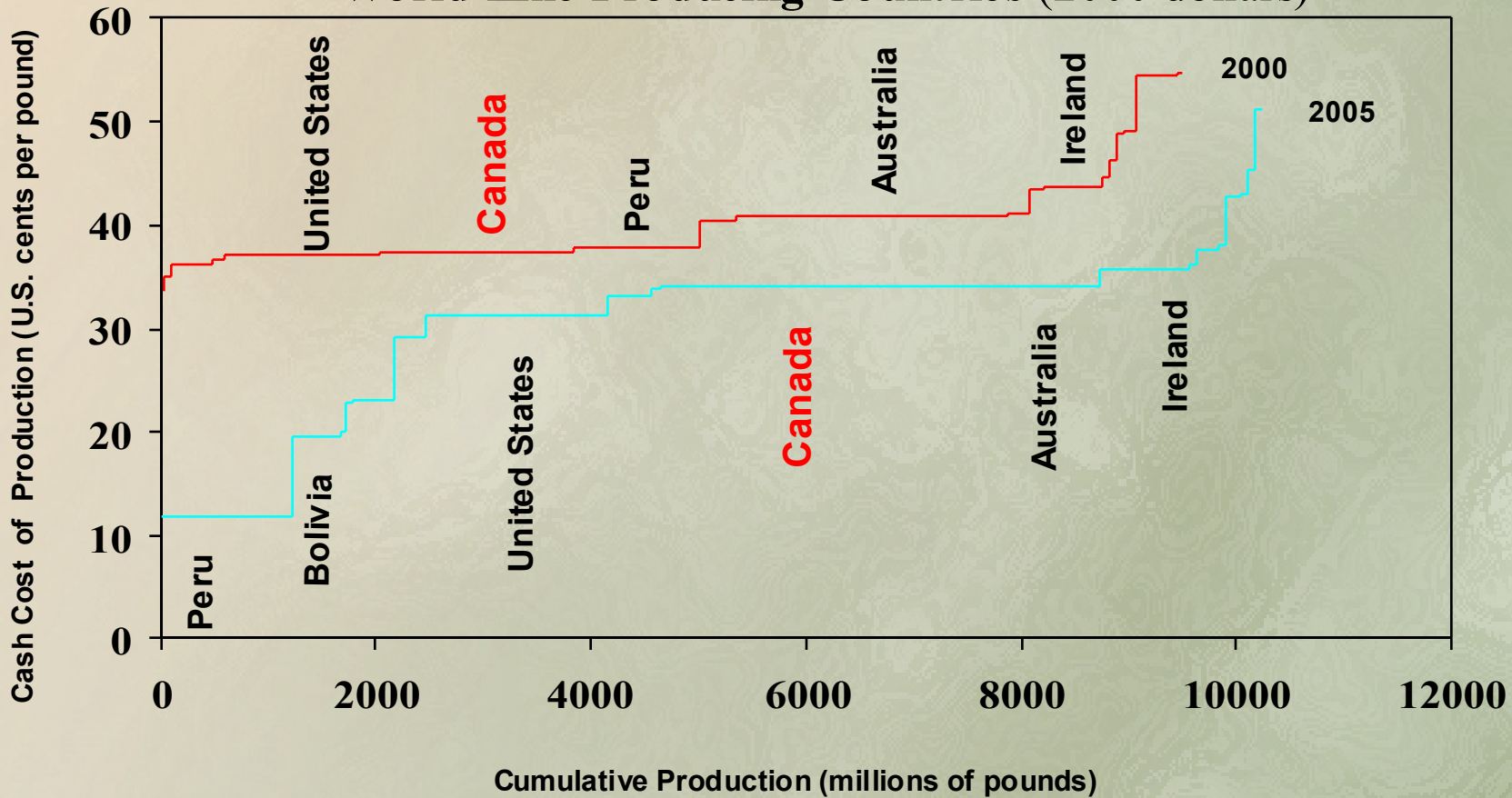
Natural Resources  
Canada

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Canada

# Competitiveness of World Mining



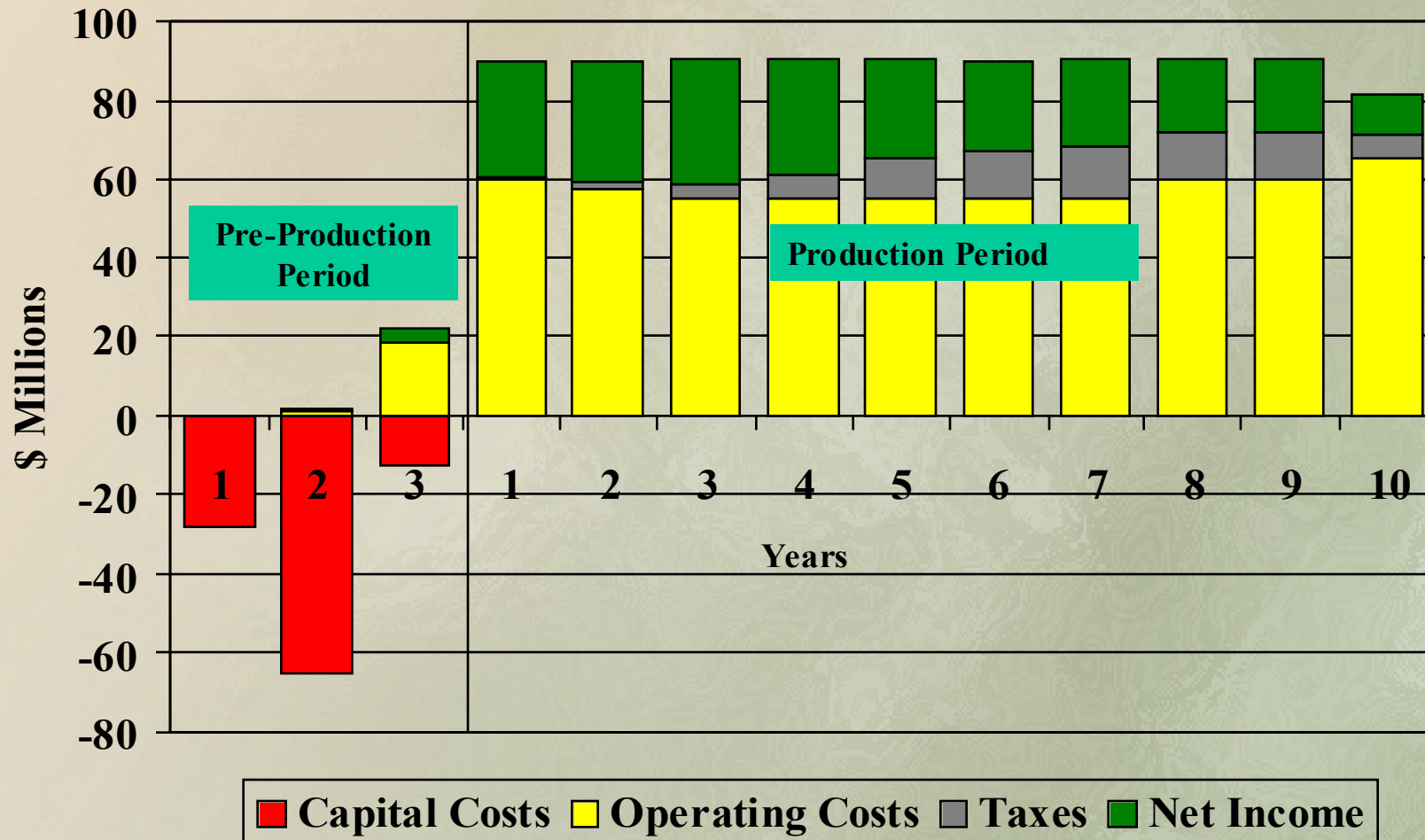
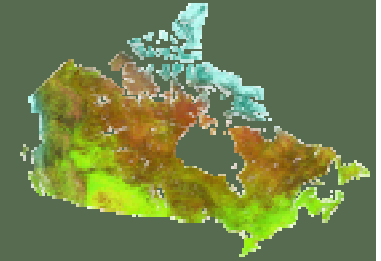
Average Production Cost Estimates of Major Western World Zinc Producing Countries (2000 dollars)



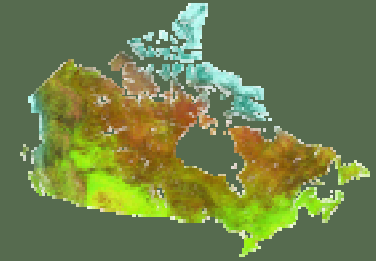
Source: Natural Resources Canada.  
Based on data from AME Mineral Economics and used with express permission.



# Needs of Private Sector Investors



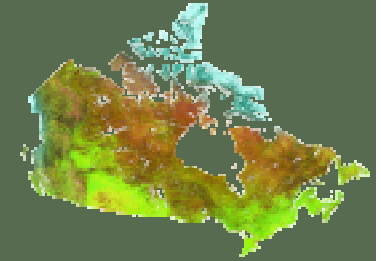
# Needs of Private Sector Investment



- Private Sector Determines the Pace of Mineral Development
- Government Plays a Complementary Role
- Rules and Regulations Are Known in Advance
- Range of Stakeholders are Consulted on Proposed Modifications



# Part A: How and Why Canada Conducts Its Policy Towards Mining and Minerals

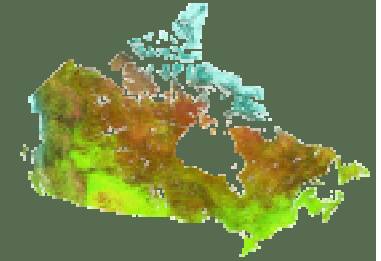


- 🍁 Current Global Environment
- 🍁 Open Economy Private Sector Drives Investment
- ➡ **Government Measures for Economic Sustainability**
- 🍁 Government Measures for Environmental Sustainability
- 🍁 ??Government Measures for Social Sustainability

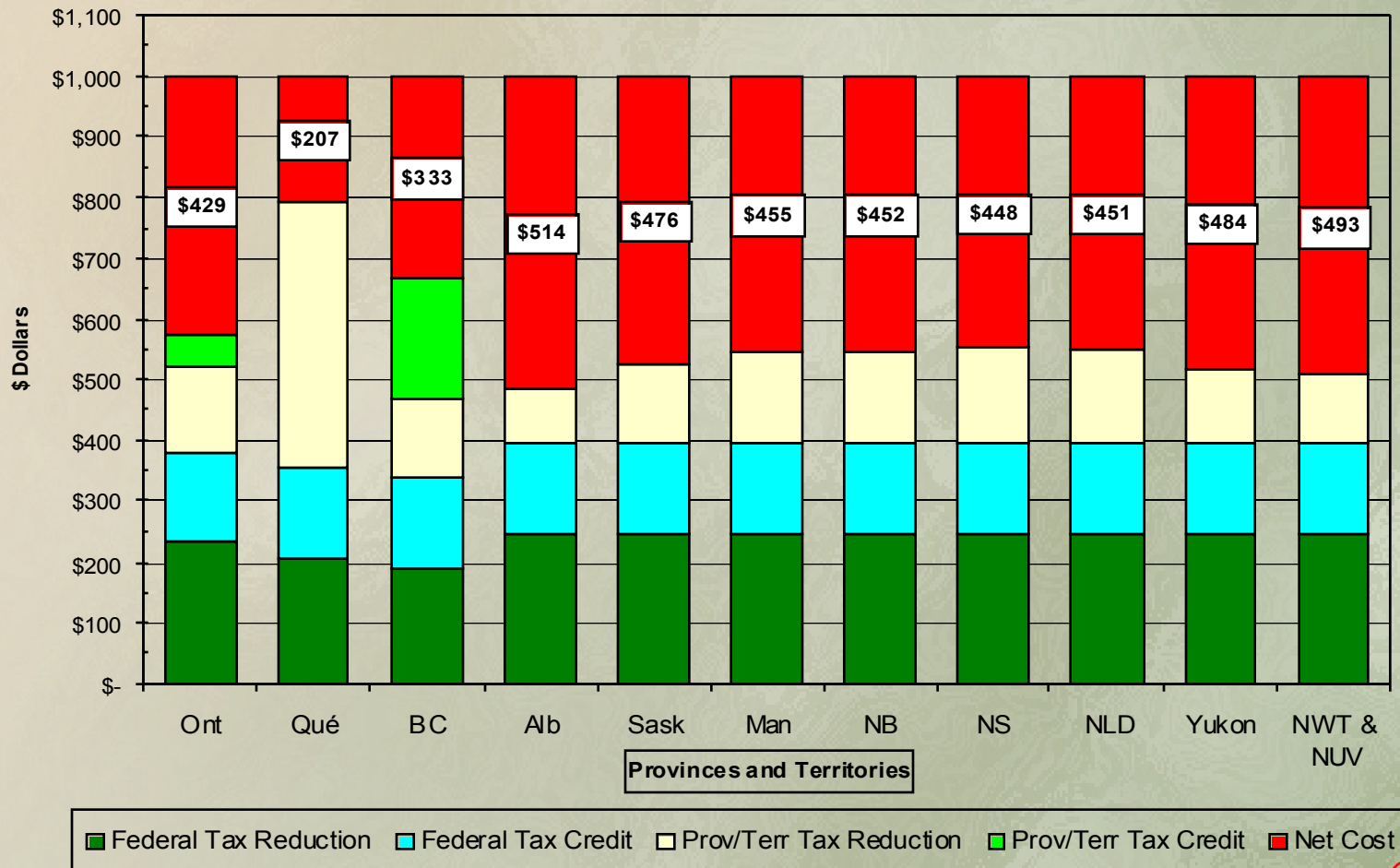


# New Investment Tax Credit for Exploration

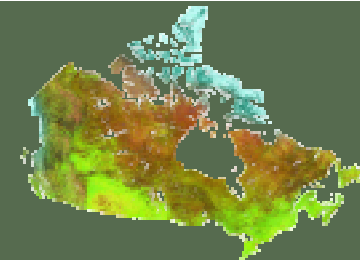
## Ranges of Tax Treatment by Province/Territory in 2001



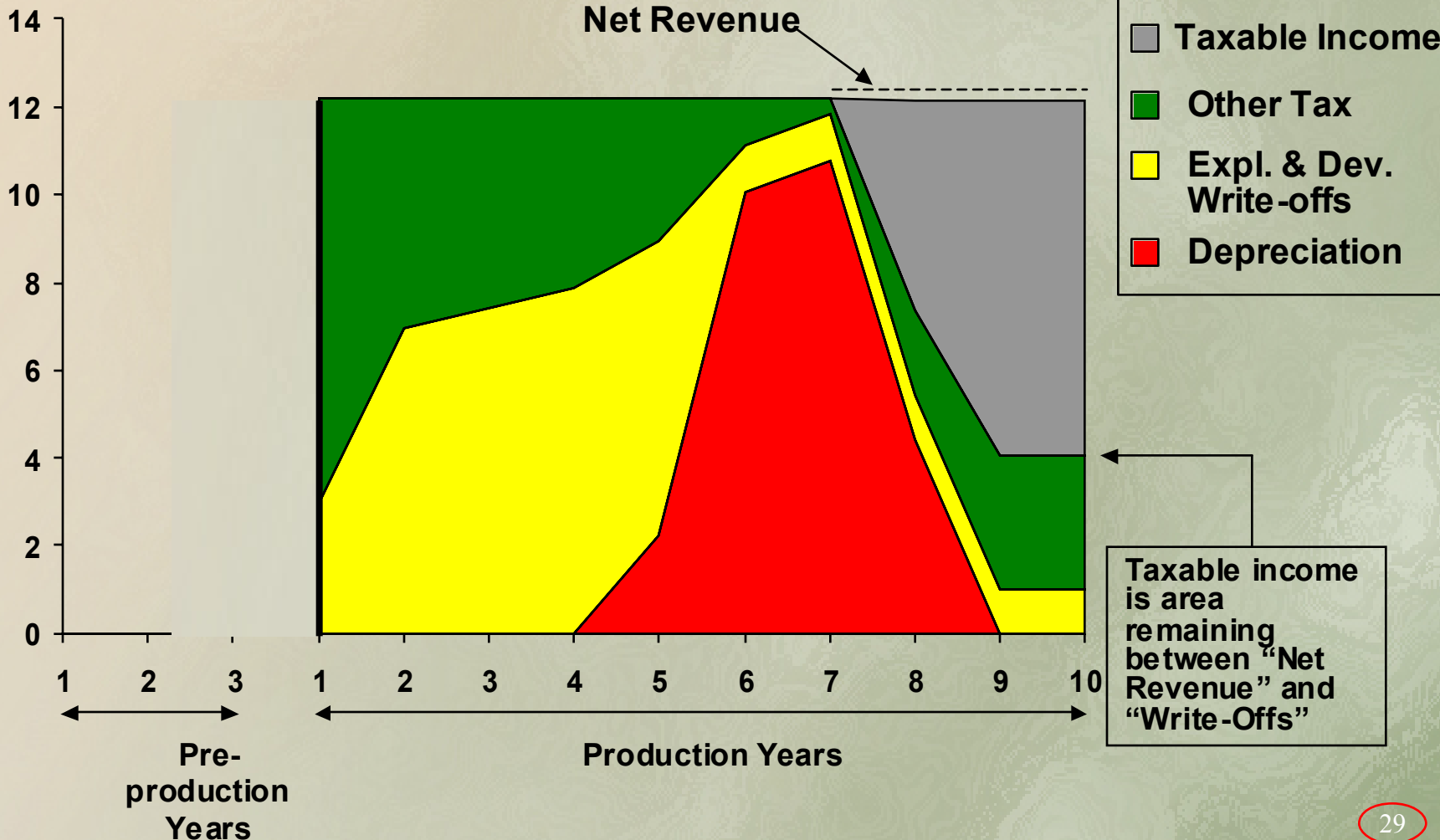
After-Tax Cost of a \$1,000 Investment in Flow-Through Shares  
Top Marginal Tax Rates for 2001, as of January 2001



# Impact of Deductions on the Tax Base: Project with 10 Percent Internal Rate of Return in Ontario



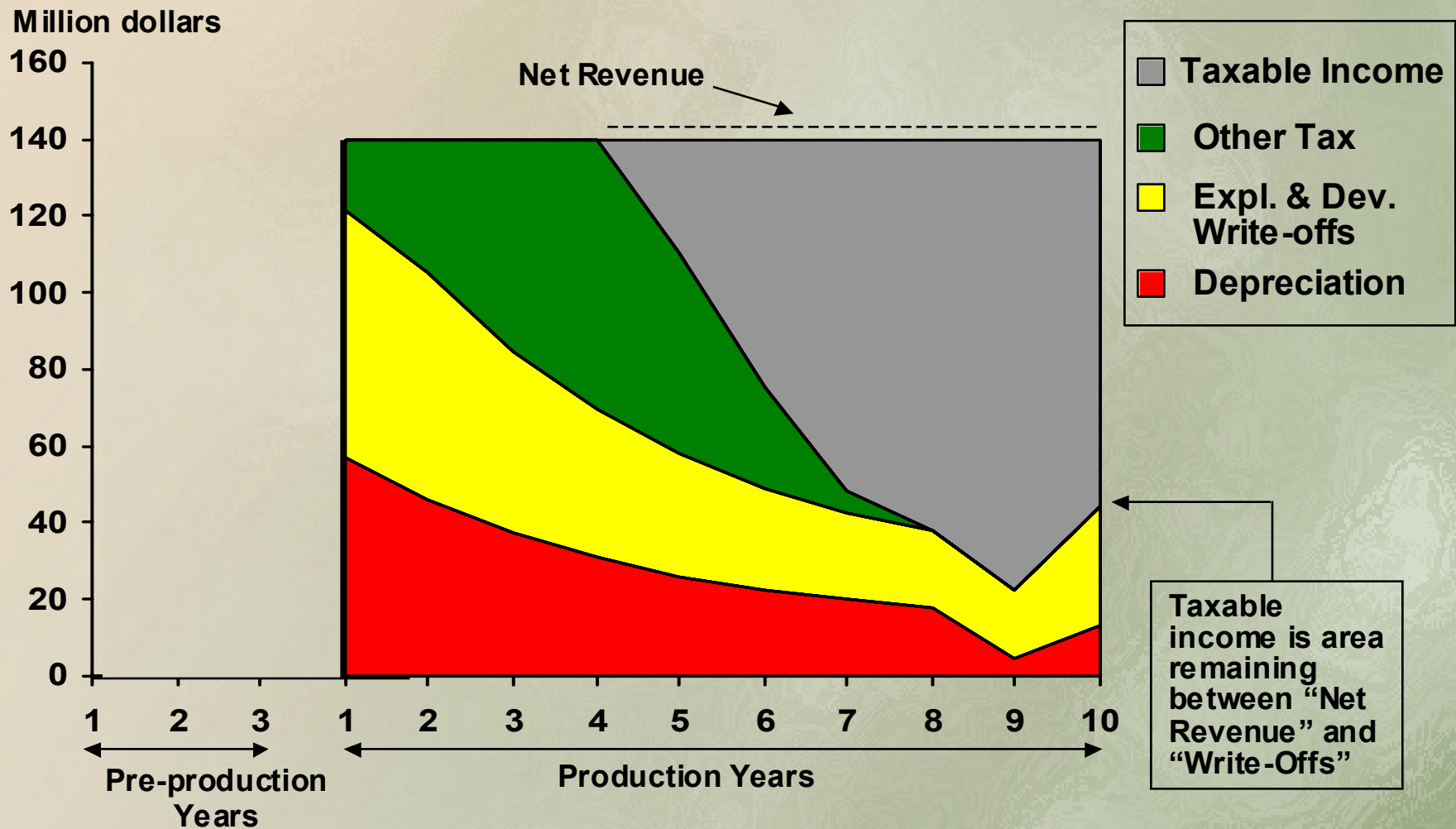
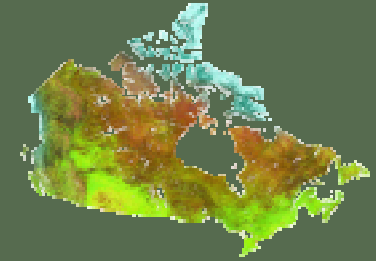
Million dollars



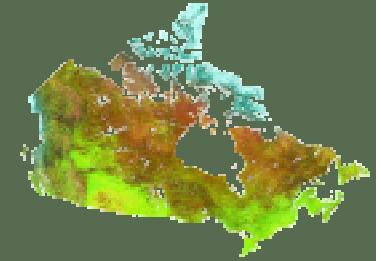
Natural Resources  
Canada

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Canada

# Impact of Deductions on the Tax Base: Project with 10 Percent Internal Rate of Return in Indonesia



# Analyzing Tax Choices

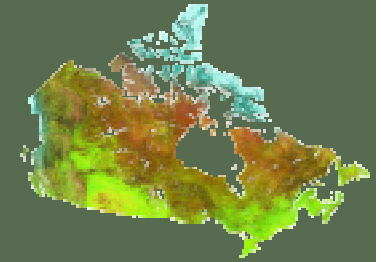


## Combinations of Taxes: 5 Cases

Model	Profit Tax	Gross Mining Royalty	Export Tax
Case 1	40%	0%	0%
Case 2	35%	2%	0%
Case 3	35%	5%	0%
Case 4	25%	2%	10%
Case 5	25%	0%	0%

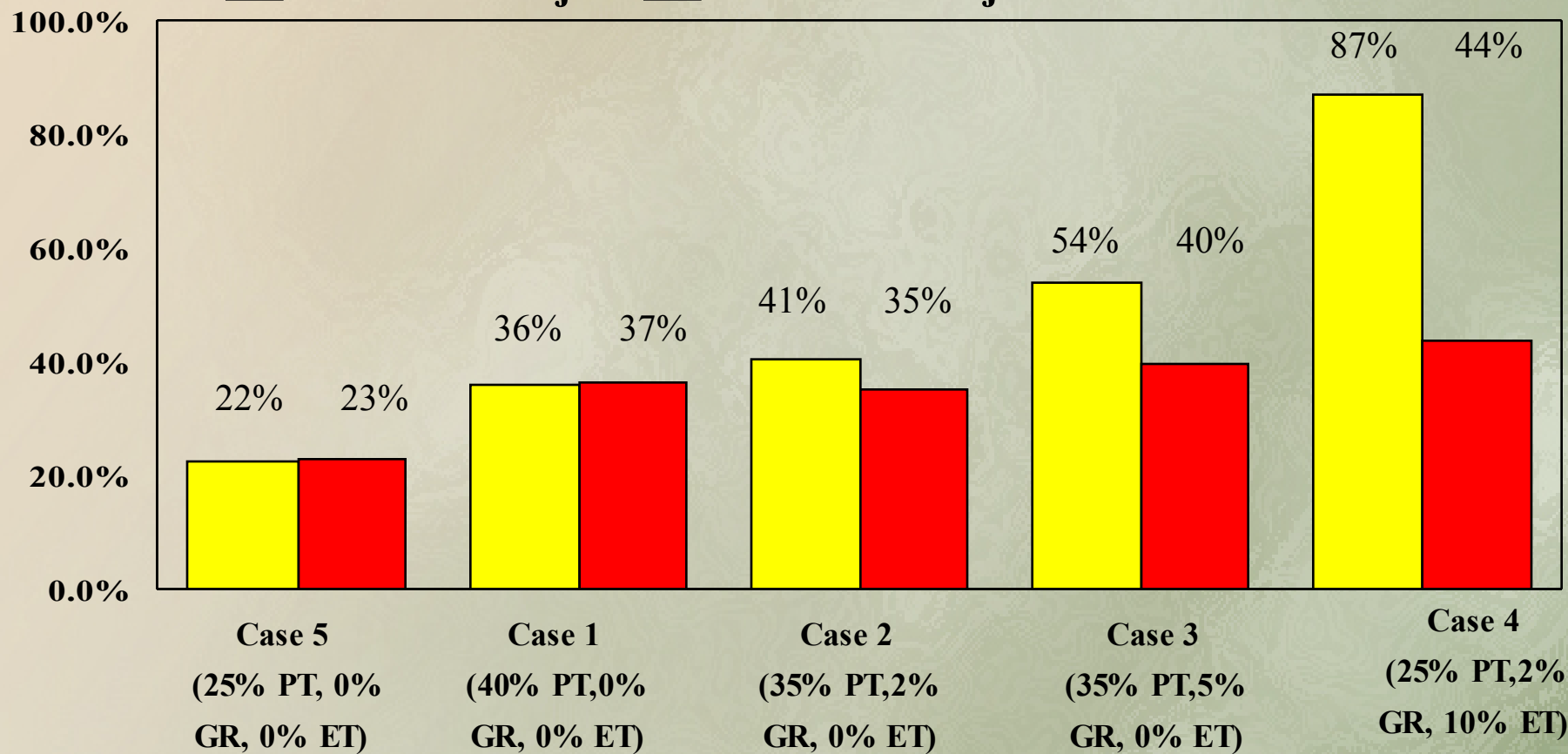


# Calculation of Average Tax Rates for Five Cases with Three Types of Tax



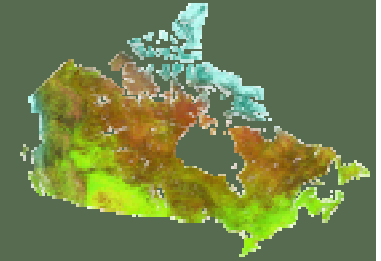
(PT - profit tax rate, GR - gross royalty rate, ET - export tax rate)

10% IRR Project 25% IRR Project

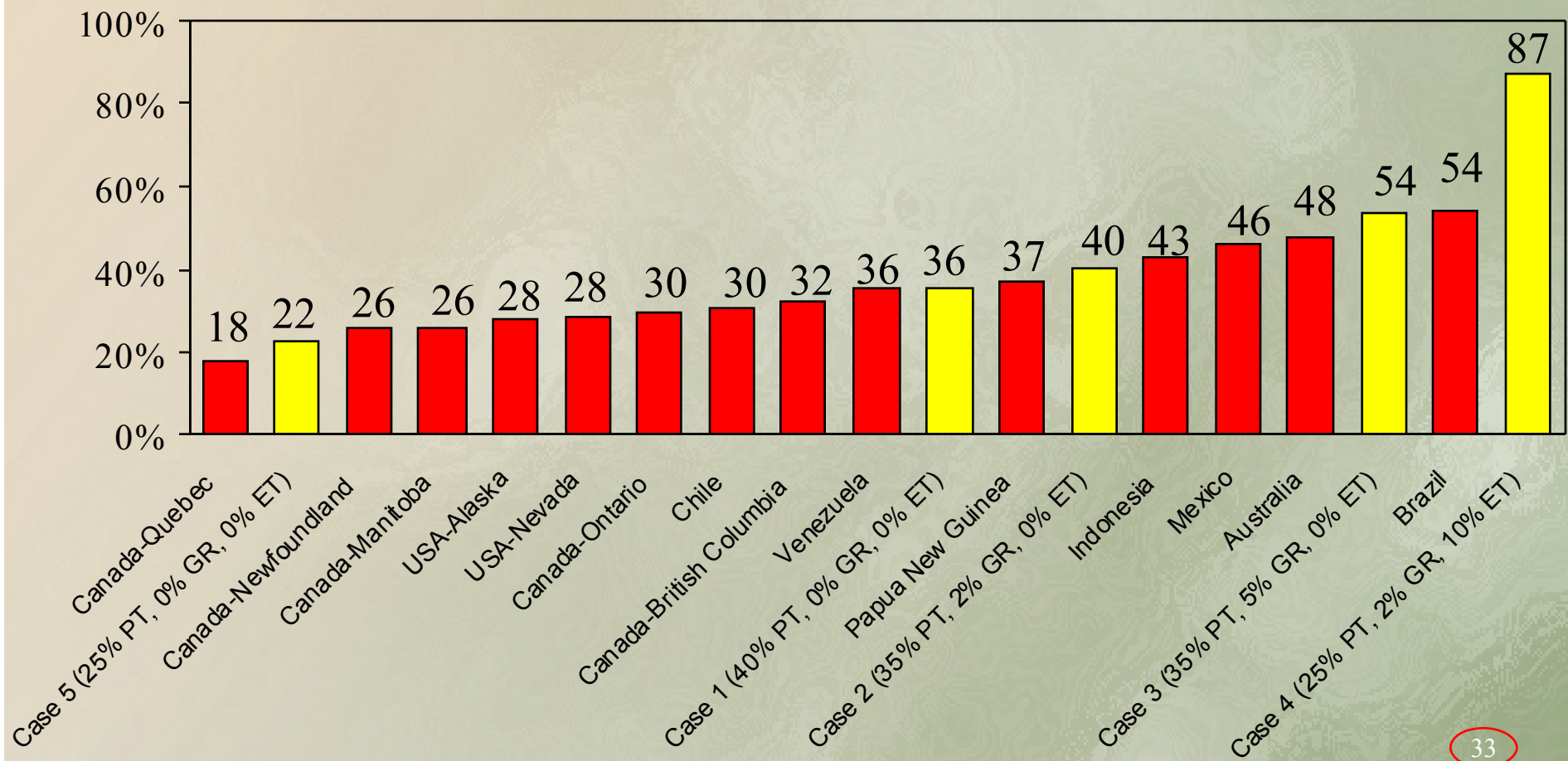




# Average Effective Tax Rates for Project with 10% IRR



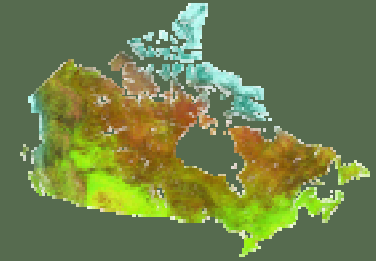
(PT - profit tax rate, GR - gross royalty rate, ET - export tax rate)



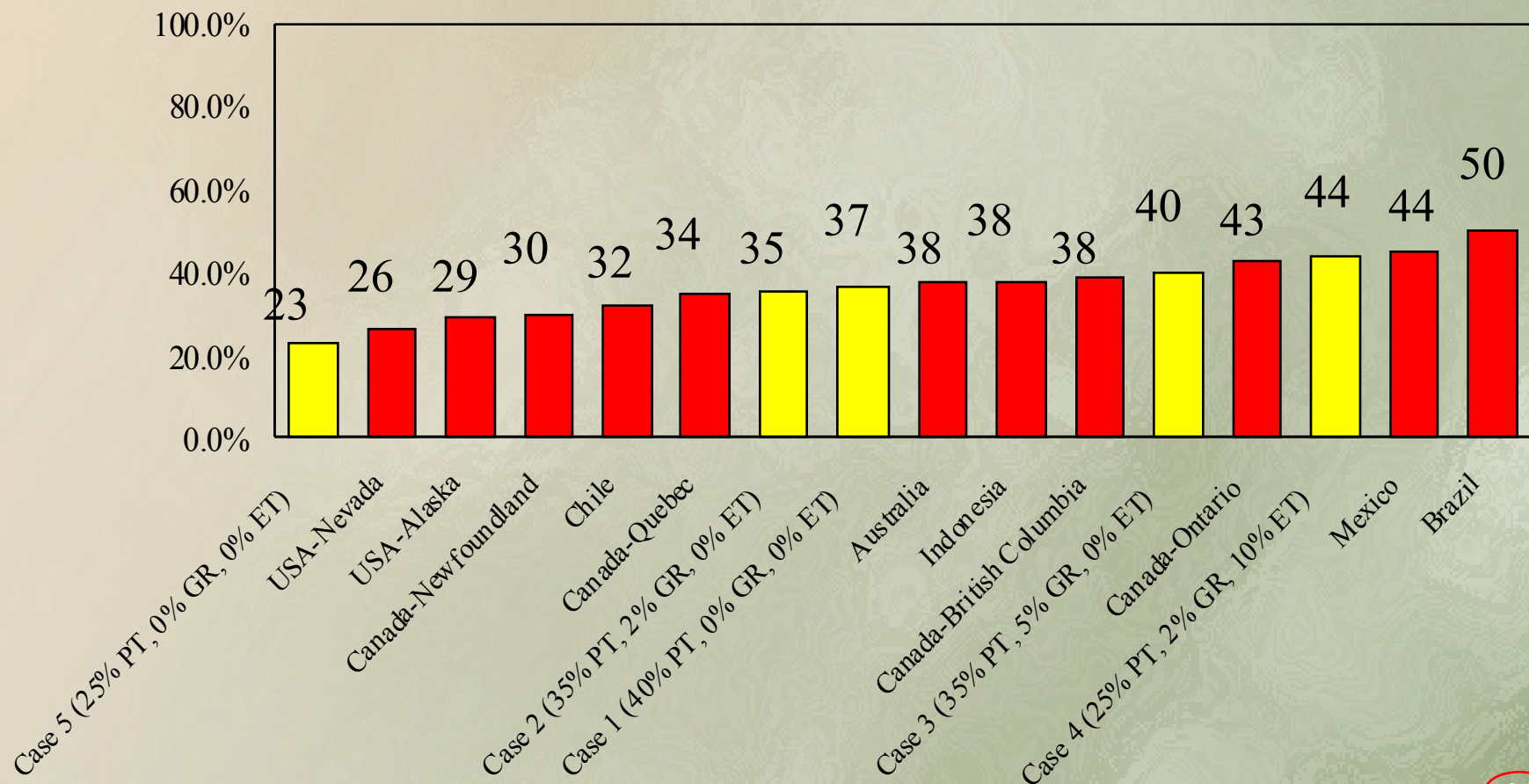
Natural Resources  
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Canada

# Average Effective Tax Rates for Project with 25% IRR



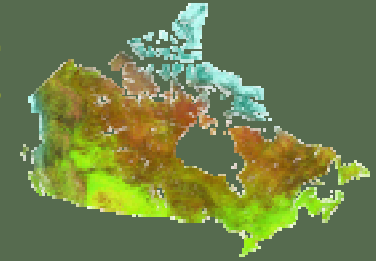
(PT - profit tax rate, GR - gross royalty rate, ET - export tax rate)



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Canada

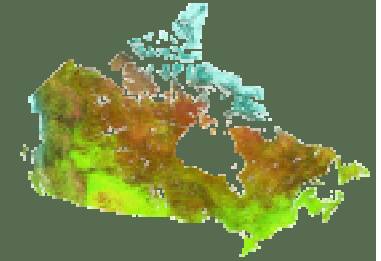
# Sharing Tax Revenue and Financing the Canadian Federation



- **Canada's System of Government**
  - Federal
  - Provincial/Territorial



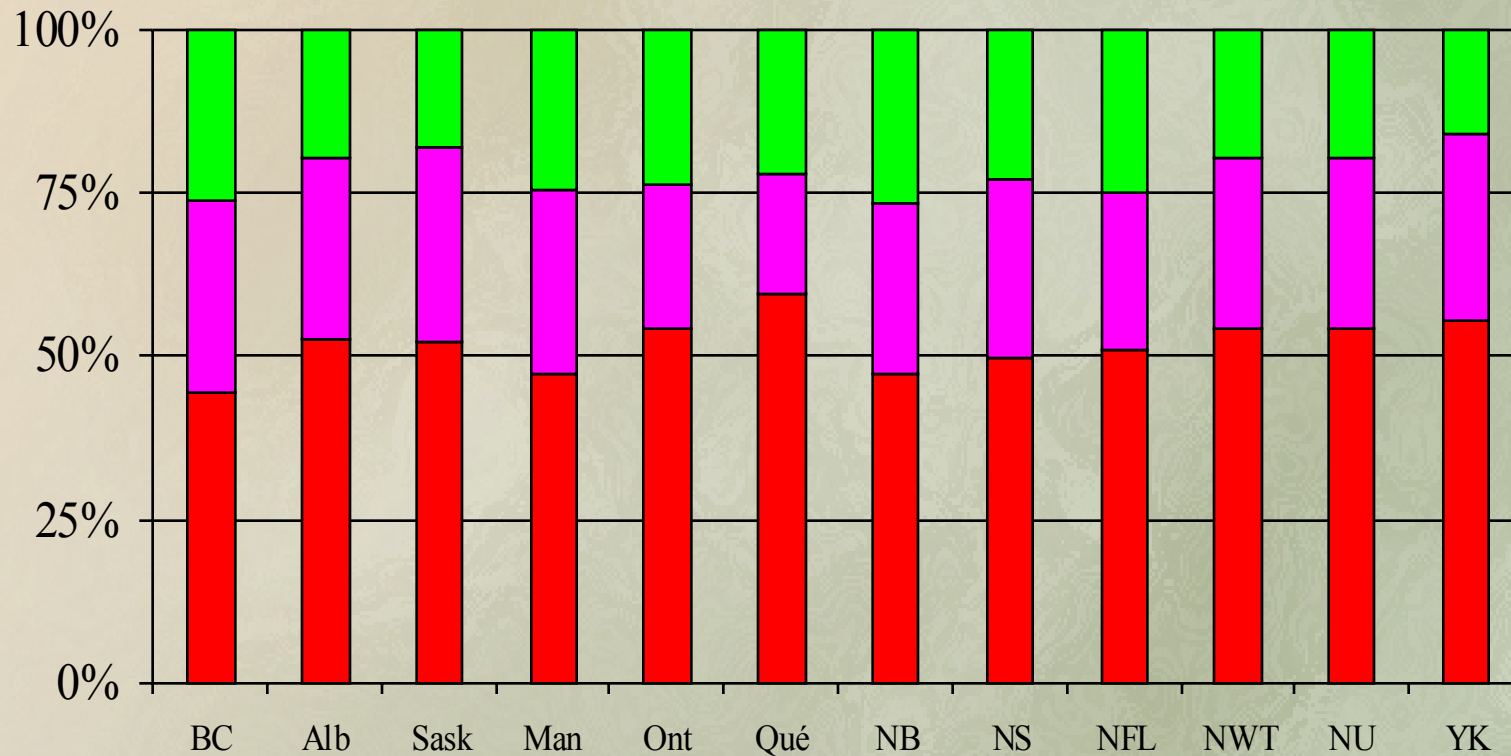
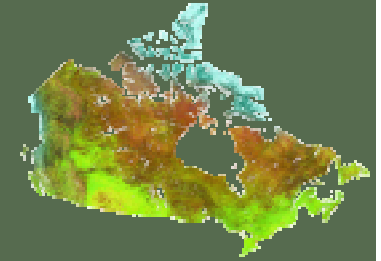
# Total Tax Burden



- Federal Corporate Income Tax
- Provincial/Territorial Corporate Income Tax
- Provincial/Territorial Mining Taxes/ Royalties
- Nonprofit Taxes and Levies



# Share of Tax on Mine Income March, 2001

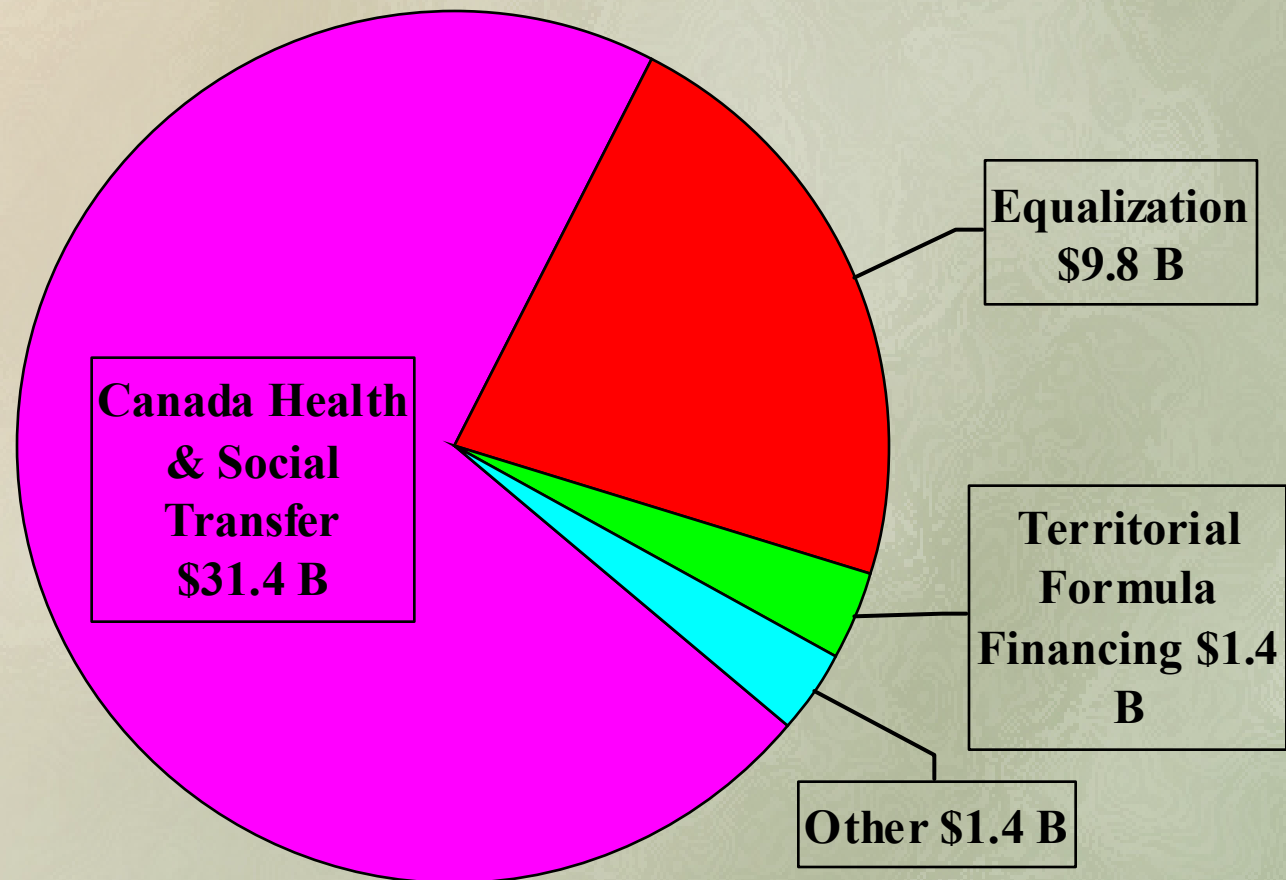
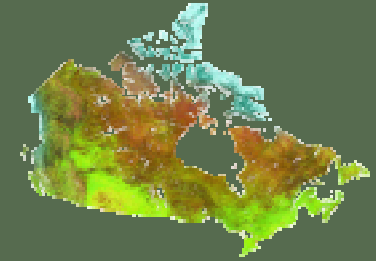


■ Federal Income Tax 
 ■ Prov/Terr Income Tax 
 ■ Prov/Terr Mining Tax

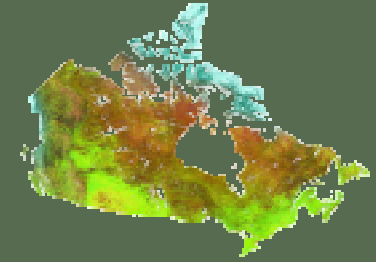


# Total Federal Transfers - 2000/01

## \$43 Billion to Provinces and Territories



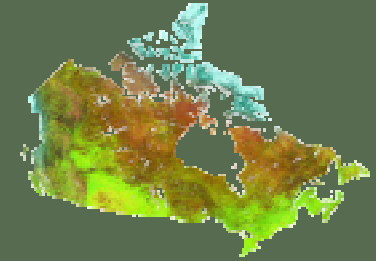
# Part A: How and Why Canada Conducts Its Policy Towards Mining and Minerals



- 🍁 Current Global Environment
- 🍁 Open Economy. Private Sector Drives Investment
- 🍁 Government Measures for Economic Sustainability
- ➡ **Government Measures for Environmental Sustainability**
- 🍁 ??Government Measures for Social Sustainability



# Environmental Regulations in Canada: Recent Developments

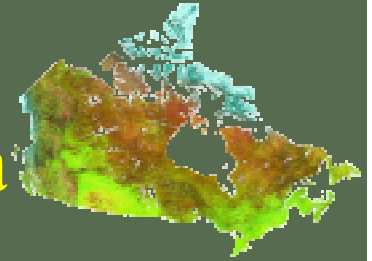


- Canada-Wide Accord on Environmental Harmonization
- Federal-Provincial Agreements to Cooperate on Environmental Assessments
- Federal Coordination Regulation and Guidelines for Panel Reviews

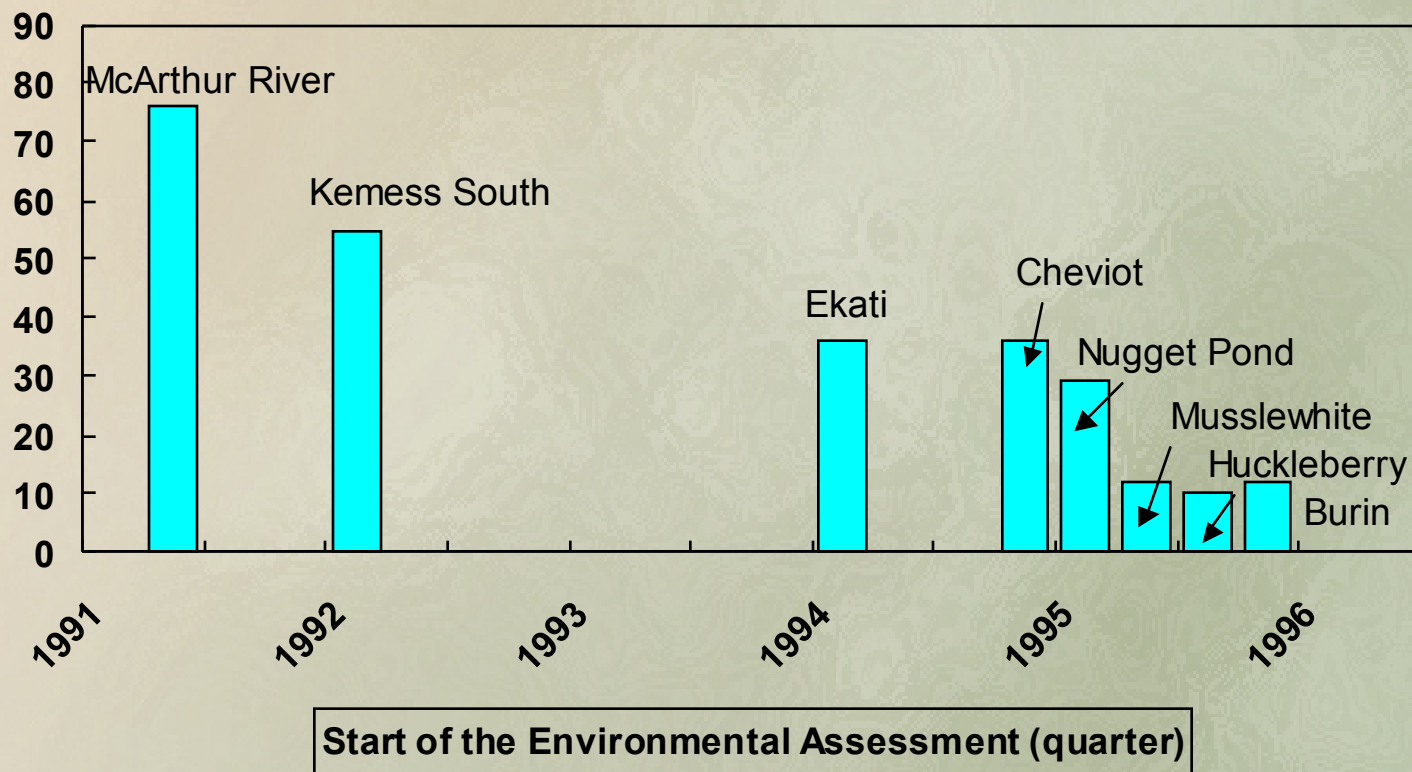




# Time to Complete the Environmental Assessments of Mining Projects in Canada



Time to Complete the Assessment (months)

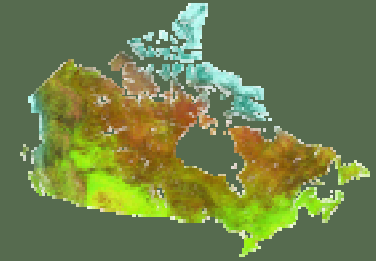


Source: Natural Resources Canada.



Natural Resources Canada  
Ressources naturelles Canada

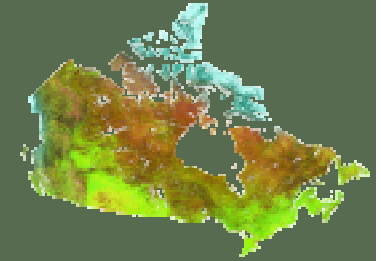
# Special Tax Treatment for Mine Reclamation Funds



- Mechanism
- Tax Treatment



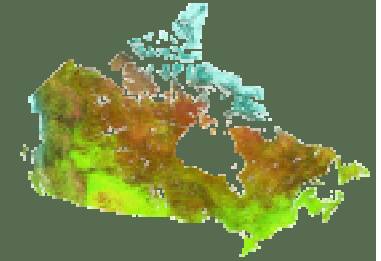
# Other Types of Tax Measures



- Community Development
  - Water Supplies
  - Hospital
  - Housing
  - Other



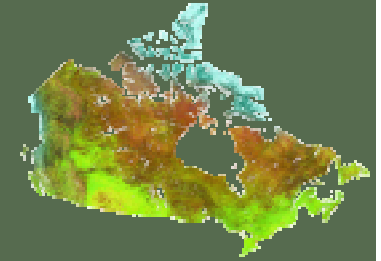
# Part B: Strengths and Challenges in Canada's Approach



- 🍁 Periodic Stakeholder Discussions & Negotiations on the Investment Climate of Canada
- 🍁 Willingness to Impose “Qualified Person” restraint
- 🍁 Others



# Supportive Government Policy Framework for Mining



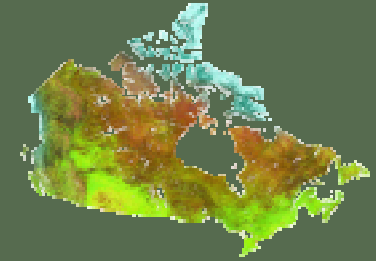
- Continual dialogue with stakeholders
  - The Whitehorse Mining Initiative (WMI) Process
- Clear rules relating to mineral rights, land tenure and prospecting licences



- Direct government support
  - Geological Survey of Canada
  - Geomatics Canada
  - Minerals and Metals Sector



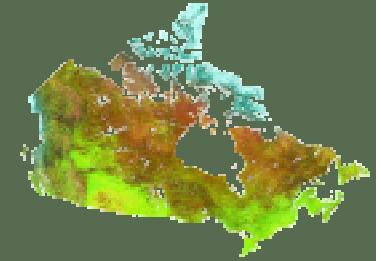
# Outcome of September 1993 Mines Ministers' Conference



- Multi-stakeholder process
- Estimated cost \$1.1 million (approximately one third federal; one third industry; one third provinces)
- Department of Natural Resources(NRCan) Minister was 1 of 3 co-chairs on the WMI Leadership Council
- NRCan led the federal participation



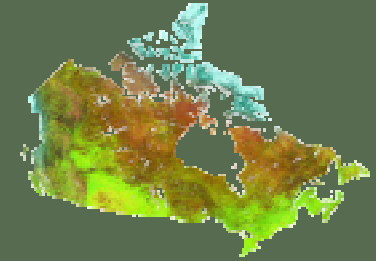
# Structure of the Whitehorse Mining Initiative Process



- Federal-Provincial Studies 1992, 1993 on the Structure, Conduct, Performance, Competitiveness, and Regulatory Issues facing the Mining Industry
- Four Issue Groups
  - Finance and Taxation
  - Land Access
  - Environmental
  - Workplace/Work Force/Communities
- Leadership Council Accord



# Intergovernmental Working Group on the Mineral Industry Studies (1)

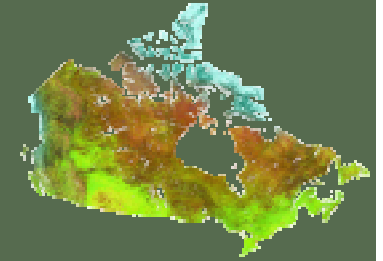


- The Canadian Mineral Industry in a Competitive World
- The Importance of Mining to Canada
- Canadian Minerals Industry Competitive Position: Trends and Short-Term Outlook
- Trends in Prices and Production: Nonferrous Metals
- Canadian and Worldwide Mineral Activities of Domestic and Foreign Multinationals: Recent Trends





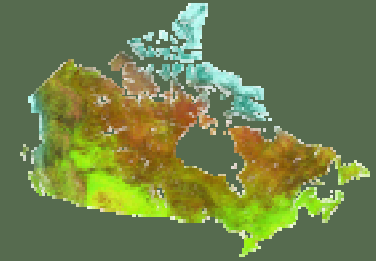
# Intergovernmental Working Group on the Mineral Industry Studies (2)



- Canadian Mining Presence in Latin America and the Caribbean
- Worldwide Mineral Properties of the Canadian Mining Industry
- Mineral Exploration Trends: Canada and the World
- Financing Mineral Investment in the Developing World: Debt-Equity Swaps
- The Commonwealth of Independent States (C.I.S.): An Emerging Competitor for Mineral Capital



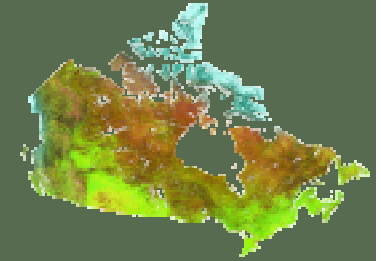
# Intergovernmental Working Group on the Mineral Industry Studies (3)



- What the Developing World is Doing to Attract Mineral Investment Capital: Recent Changes
- Extracts from the Ministry's International Communiqué 1988-92 - Items Related to World Mineral Investment Climate
- Changing Global Competitiveness for Mineral Capital - Regional and Country-Specific Analyses
- Canada's Mineral Taxation System Compared



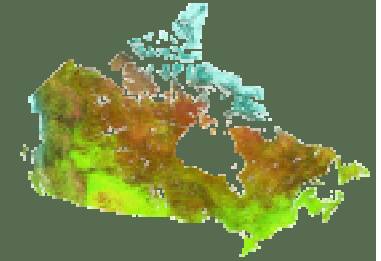
# Focus of Studies of the Intergovernmental Working Group on the Mineral Industry



- Land access concerns
- Mineral taxation concerns and incentive regimes
- Detailed tax studies
  - Australia
  - Brazil
  - Chile
  - Indonesia
  - Mexico
  - South Africa
  - Philippines
  - Peru
  - Papua New Guinea
  - United States
  - Zimbabwe
- International comparison of average effective tax rates
- Canada's environmental regulatory systems
- International environmental regulations (Australia, United States, Chile and Mexico)



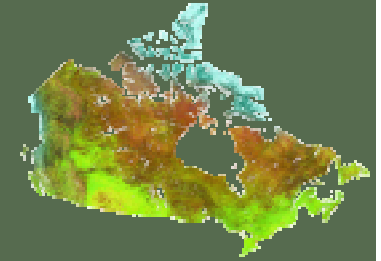
# Results of the Whitehorse Mining Initiative



- Mines Ministers' Conference 1994
- Signing of WMI Accord
- Release of Issue Group Reports
- Federal government deliverables:
  - Federal Advisory Council
  - Interdepartmental Implementation Committee
  - Federal-Provincial Task Force
  - Federal/Provincial/Non-Government Stakeholders
  - Departmental responses to recommendations
- Similar CIDA-Funded Exercise in South Africa (Kwagga)



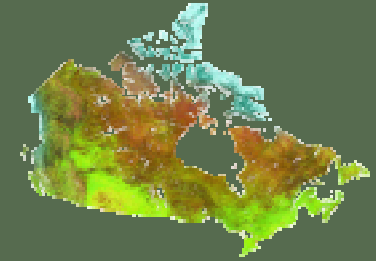
# Transparency: National Instrument 43-101: Standards of Disclosures for Mineral Projects



- Purpose of Rule is to Enhance Accuracy and Integrity of Disclosure about Deposits in the Mining Sector.
- All Scientific and Technical Disclosure to be based on Information prepared by a “Qualified Person”.
- Developed by Canadian Securities Administrators; became law across Canada on February 1, 2001.



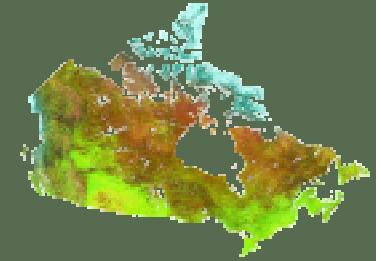
# Transparency: What is the Qualified Person Concept?



- The Qualified Person concept is a regulatory concept, not a new title or license.
- Means that only suitably qualified, regulated, professionals are responsible for scientific and technical disclosure that is reported to the public market place.
- Brings the application of professional standards and responsibility into technical reports to the public.



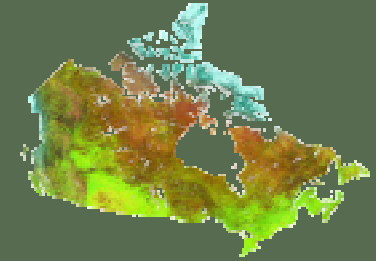
# Transparency: Responsibility of a Qualified Person



- Adhere to professional and industry standards.
- Be involved in design and implementation of programs.
- Review news releases reporting their work to ensure accuracy.
- Undertake a site visit. Adhere to Exploration Best Practices.
- Data verification to be undertaken. Sign and seal the document
- Provide a Certificate in accordance with NI 43-101
- Consent
  - To filing and use of technical report
  - No reason to believe misrepresentation in disclosure derived from technical report.



## Part C: Potential Lessons for Other Jurisdictions from Canada's Experience

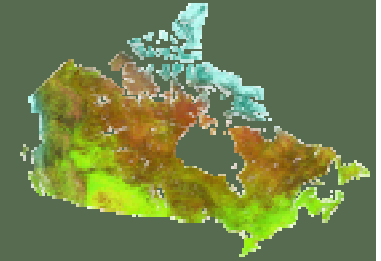


- What to do about Small Miners ?
- How to Integrate Resource Extraction and the Other Sectors of the Economy ?
- Are Key Institutions Missing ?
- Is Governance Strong Enough ?
- Transparency and Dissemination of Statistics ?
- Is Foreign Capital Always Needed ?
- How to get Stakeholders to Agree ?
- The Framework for Sustainable Development?
- Willingness to Impose “Qualified Person” restraint?
- Government Measures for Social Sustainability?
- Framework for SD – Theory and Practice?





# Framework for Sustainable Development

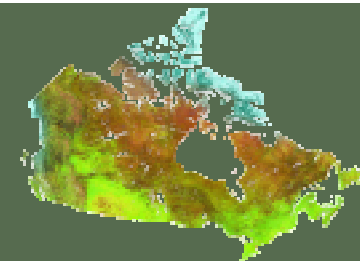


## RESORTING TO THEORY

- Economic Efficiency ?
- How Much Environmental Disruption?
- Social Compensation ?



# Framework for Sustainable Development



## Resorting to Consultation and Negotiation

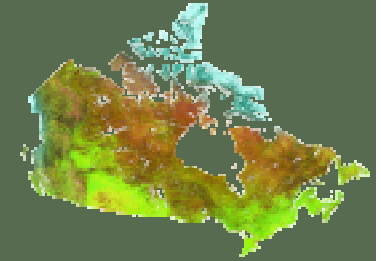
Who to Consult With and Why?

Who to Negotiate With?

A Lasting Solution?



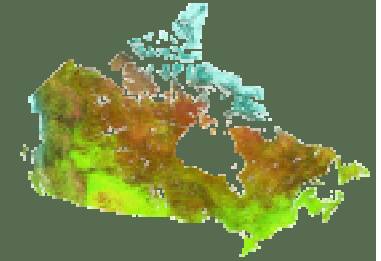
# Need for Enforceable Property Rights



- Easier Said Than Done!
- Still a Problem in a Market Economy.
- More of a Problem in Other Social Structures.



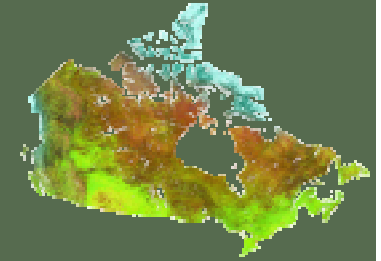
# Pre-Conditions for Development of Any Country



- **CANADA has:**
- Transparent Cadastral and Legal Systems
- Transparent Land Registries & Mining Recorders
- Transparent Legal Redress & Dispute Settlement
- Transparent Ownership of Title
  - HENCE,
- **CANADA has:**
- Conditions for the Private Sector to Function
- Ability for Government to Impose and Collect Tax
- Ability to Fine-Tune Taxation Systems
- Ability to Share Revenues among Governments



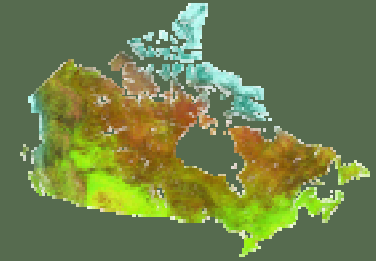
# Unsettled Land Claims and Aboriginal Development



- **A Possible, Eventual, General Outcome is a Layer of Regional Governments in Provinces.**
- **With Senior Government Standards for Industry**
- **With Revenues**
- **With Improvements in Regional Governance.**



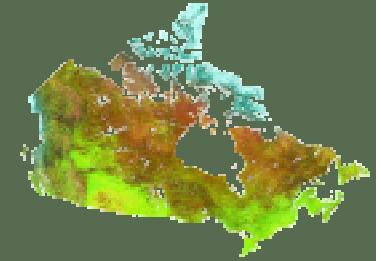
# Tax Treatment of Impact and Benefits Agreements



- An arrangement between company and local community
- Question as to whether payments to communities are tax deductible by companies in calculating their taxes.



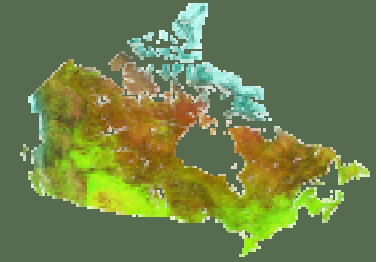
# World Bank Activities and the IMF



- Canada tries to Integrate its Micro- and its Macro-Economic Policies.....
  - Could IMF and World Bank Policies be More Closely Linked... or even Integrated ?
- Current ‘Transparency of Payments’ Initiative
- Need for Land Use Planning



# Lessons from the Canadian Experience

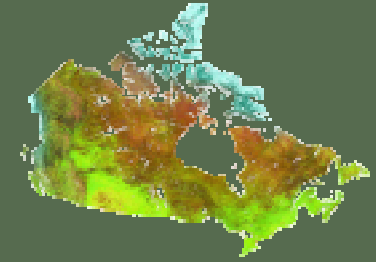


- Global Shortage is of Good Projects, not Finance
- Countries Compete on Geology/Investment climate
- Private Sector Property Rights have to be Secure
- Tax System Recognises Public Good/Social Aspects
- Government Share is Taken by Means of Taxation
- Taxation Rules as Simple as Possible & Stable
- Clearly Explain Taxation Regime to Investors
- Agree Taxation between Levels of Government
- Do Not Impede the Cross Border Flow of Capital
- Companies Negotiate Agreements with Communities





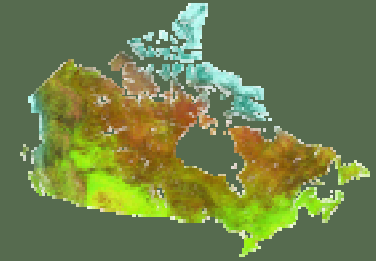
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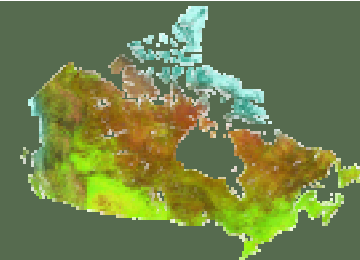


# Continuing “Global Dialogue” on Resource Development



- Participation on World Bank/MIGA Missions
- World Bank/IMF Seminars, Washington/Montreal/Istanbul
- CIDA projects in Brazil/Guyana/Zambia/others
- Canadian Capacity Building Missions Abroad
- Hosting Seminars and Students in Canada; MOUs with Foreign Governments:
  - Colombia/China/Mexico/Argentina/Indonesia/Iran/  
Saudi Arabia/Russia/Oman/Chile/Mongolia/Peru/  
Kazakhstan/South Africa
- Investment Promotion ‘Road-Shows,’ Europe and Asia

# The Extractive Industries Review



END



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