

The Conflicting Economic and Environmental Logics of North American Governance:

NAFTA, Energy Subsidies, and
Climate Change

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“Reform of energy subsidies – especially those that encourage fossil fuel consumption – together with rational taxation structures and other policy initiatives could in many countries steer their development onto a more sustainable path”

(UNEP & IEA, 2001)

Findings

- Energy subsidies result in many negative environmental impacts, in particular the release of Greenhouse Gases
- North American governments continue to rely on subsidies
- NAFTA has strengthened and encouraged the expansion of subsidy regime
- Economically and environmentally sustainable alternatives are readily available

Organization

- 1) The Environmental Costs of Fossil Fuel Subsidization
- 2) The North American Context
- 3) Free Trade and Energy Policy
- 4) Solutions and Recommendations for Sustainable Reform

Subsidy: (i) a government payment or tax concession and/or (ii) a government intervention such as a tariff or price control that effects market transfers from consumers to producers (or vice versa)

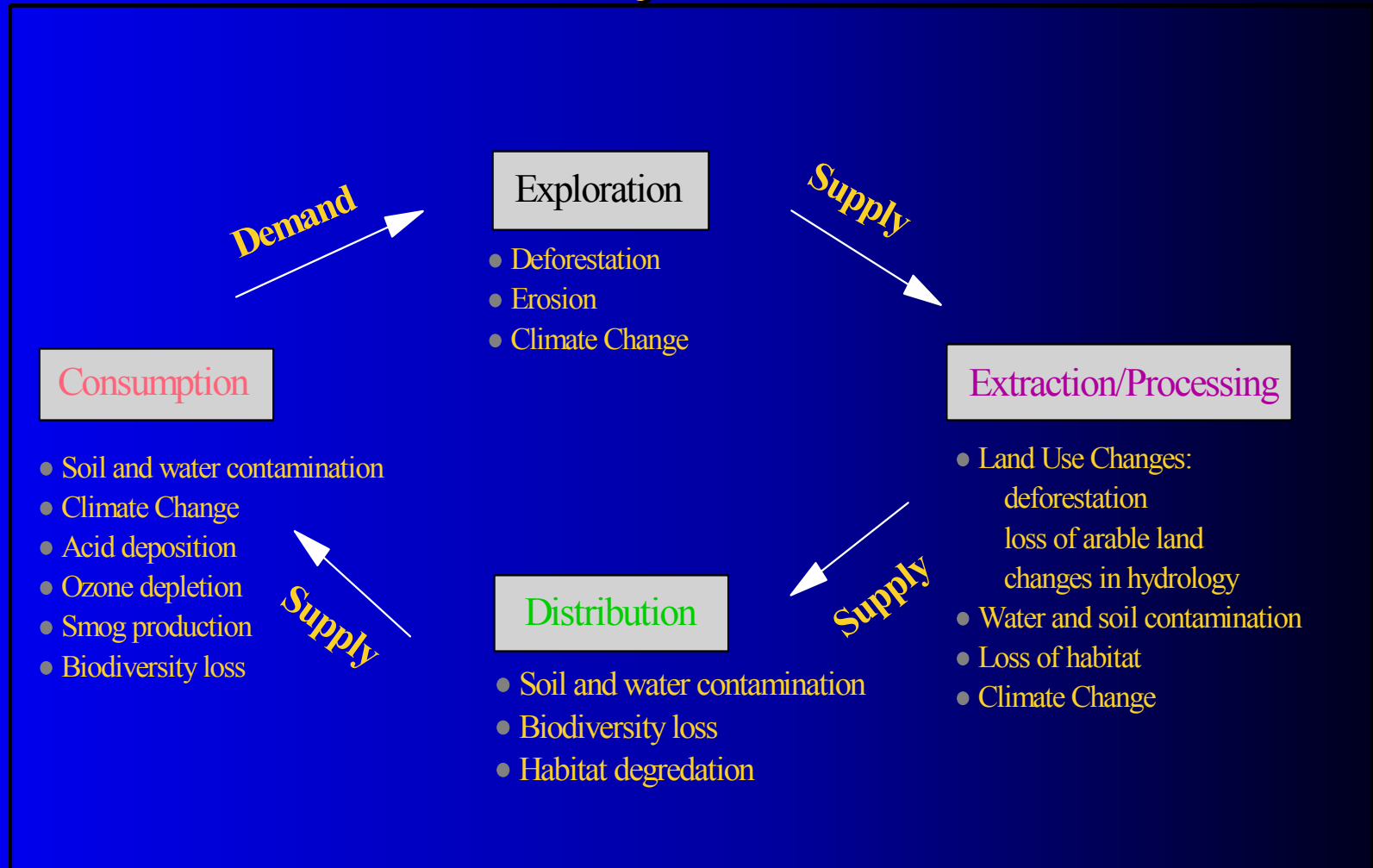
(Steenblik, 1995)

Extent of Fossil Fuel Subsidies

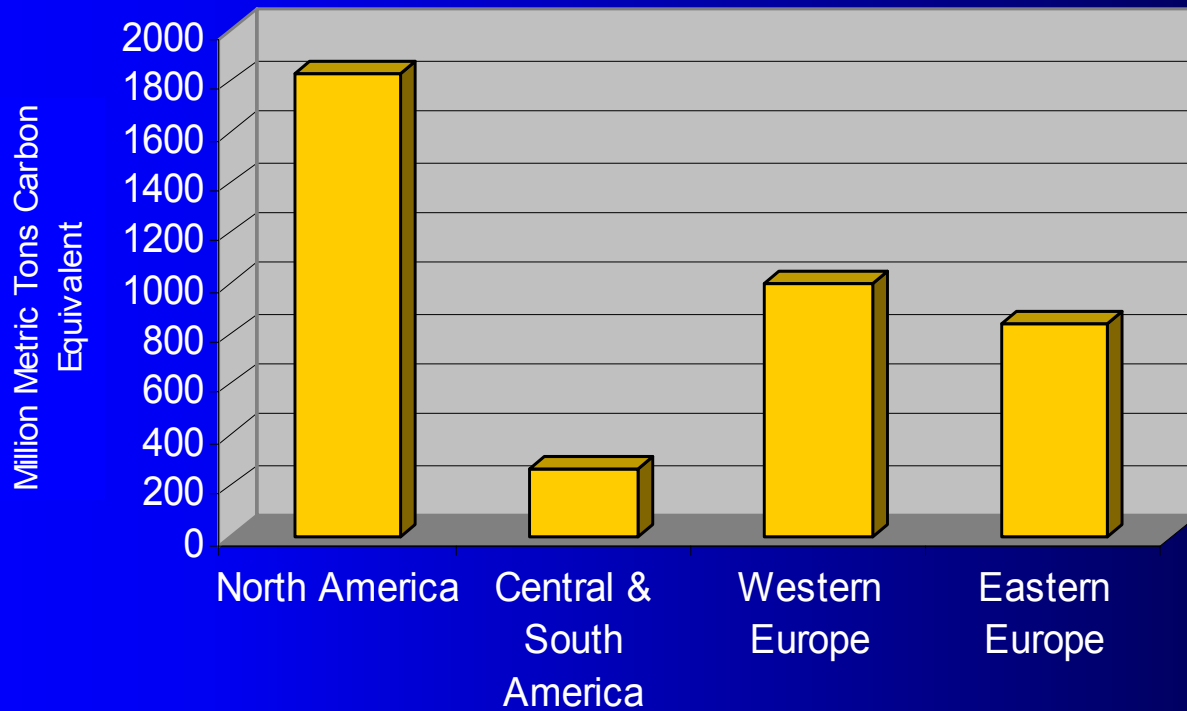
- Hard to determine, but estimates for the U.S. alone run from **US \$200 million to US \$1.7 trillion** annually
- Examples
 - R&D
 - Direct grants
 - Loan forgiveness
 - Tax credits



Environmental Effects of the Fossil Fuel Cycle



Regional CO₂ Emissions, 2000



North America's Particular Vulnerability

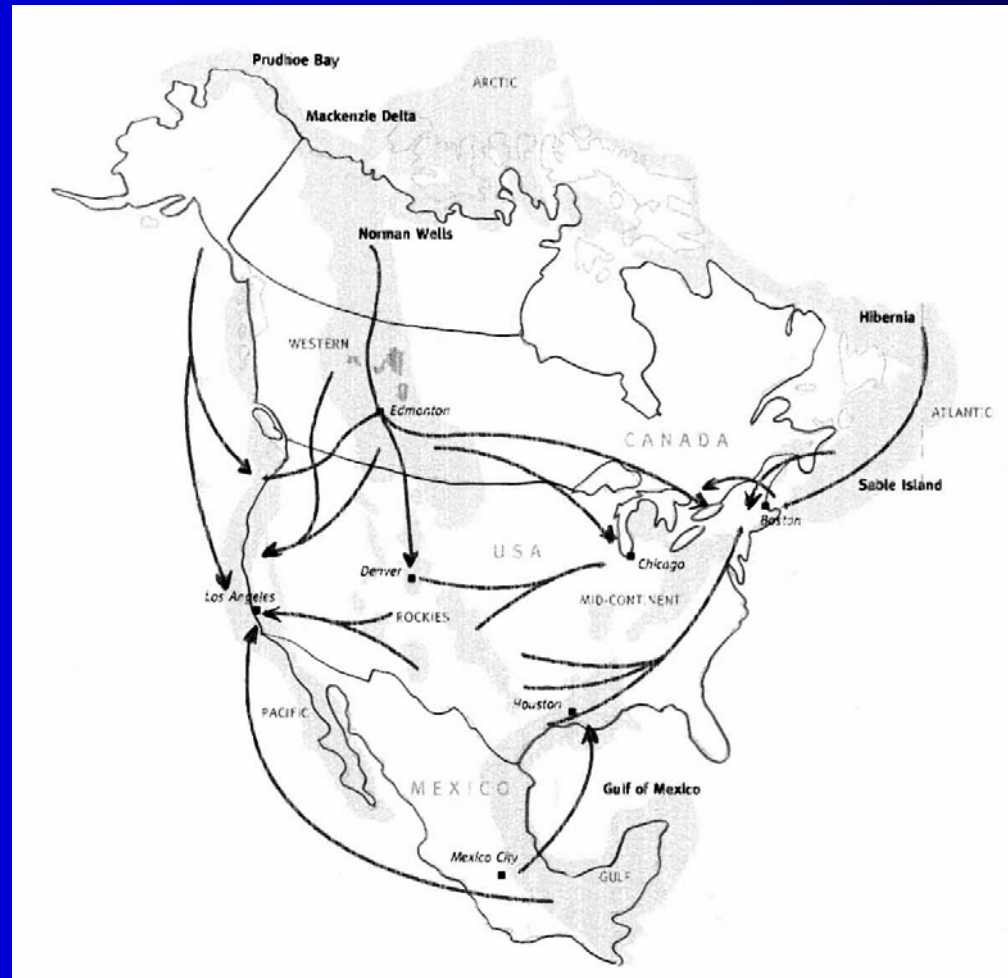
Most severe climate change effects visible in northern hemisphere

Visible effects:

- 1) Rising spring and winter temperatures – 0.17 C/decade since 1976
- 2) Reduction in snowpack, glacial extent and ice season
- 3) Increased frequency and severity of El Nino episodes
- 4) Increased frequency and magnitude of severe weather events

The North American Context

The Geographic Context Energy Flows



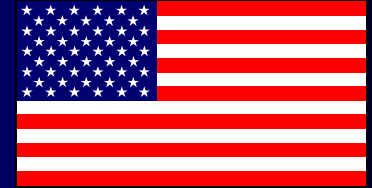
Policy Context

General Trends

- Persistence of high subsidies to fossil fuel industries
- The absence of subsidy reform discussion
- Contradictory commitment to both environmental protection and fossil fuel promotion
- Strong connection between energy sector and ideological principles (security, identity, unity)

Energy Regulation

United States



The Energy Plan

“a comprehensive long-term strategy that uses leading edge technology to produce an integrated energy, environmental, and economic policy”

- Increased funding to traditional fossil fuel technology
- Expanded capacity – 1900 new electric power plants by 2020
- Access to federal lands for exploration and exploitation, in particular the Arctic National Wildlife Refuge
- Roll-back on environmental standards for coal and nuclear power plants

Canada



“[The] structure of taxes, grants and subsidies may inadvertently disadvantage environmental objectives vis-à-vis other goals.”

(Department of Finance, 1996)

- Brief flirtation with subsidy reduction (1995-96)
- Re-emergence of fossil fuel funding and subsidization
 - i.e. Tar Sands Development
- Strong environmental commitment
 - 2002 - ratification of Kyoto Protocol

Mexico



“In Mexico, the people rightly think that the electrical industry and the petroleum industry should be public property and that [they are] the fundamental basis for their nation’s existence and of their national sovereignty.”

(Statement by Mexican Electrical Unions, 2002)

- Energy is central to national identity and sovereignty
- Strong opposition to policy reform and subsidy reduction
- Gradual privatization and continental integration since 1992
- Increasing concern for environmental protection and resource conservation

Free Trade and Energy Policy

NAFTA and Energy

1. NAFTA encourages governments to finance fossil fuel exploration and development:

"The Parties agree to allow existing or future incentives for oil and gas exploration, development and related activities in order to maintain the reserve base for these energy resources."

Article 608.2 (Energy and Basic Petrochemicals)

This is an "astonishing inducement to use public funds to support the extravagant fossil fuel appetites that Canada and the U.S. share

(Steven Shrybman)

NAFTA and Energy cont'

2. NAFTA prohibits the imposition of an export tax on energy or a basic petrochemical that exceeds those applicable to domestic consumption (Article 605b)

“When coupled with quantitative control prohibitions of GATT Article XI, this ban on export taxation effectively and entirely removes government control of energy exports.”

(Steven Shrybman)

NAFTA and the Energy Trade

Over last two decades energy trade has increased significantly

- Canadian exports of natural gas to US – 4X
- Canadian crude oil exports to US – 3X

Causes: 1) Canadian deregulatory initiatives (softening of volume restrictions on cross-border transactions)

2) Increased US demand (declining domestic production)

3) New state orientation towards continental integration and neo-liberal reforms

4) While NAFTA may not have driven the enormous increases in trade it did constitutionalize the neo-liberal framework in place

The North American Energy Working Group

- Created: April 22 2001
- Purpose: “to enhance North American energy trade and interconnections consistent with the goal of sustainable development, for the benefit of all”
(NAEWG, 2001)
- Focus: increasing integration and trade flows between the three NAFTA countries.

NAEWG Cont'

Two Problems:

1. Supply side approach instead of demand side management: NAFTA governments should be focusing on greater energy efficiency rather than increased energy production
2. Subsidy reduction is not on the NAEWG's agenda

Solutions and Recommendations

Policy Reform

1. Reducing and Eliminating Perverse Energy Subsidies

Benefits:

- a) Reducing demand for fossil fuels
- b) Reducing emissions of CO₂

Table: Potential CO₂ reductions achieved through the removal of perverse energy subsidies

Region	Estimated Reductions in GHG emissions	Source
Mexico	elimination of funding to energy sector would decrease total carbon dioxide emissions by <i>3.4% relative to 1991 levels</i>	2001 joint project by UNEP and the World Bank's Energy Sector Management Assistance Program
United States	subsidy removal would result in a <i>6% reduction in total carbon emissions by 2010 and an 8% reduction by 2035</i>	Shelby et al., <i>The Climate Change Implications of Eliminating US Energy (and Related) Subsidies</i> . Washington D. C. US Environmental Protection Agency, 1997.
OECD regions	subsidy removal & energy tax implementation (an ad valorem tax increase by 2% per annum for coal, 1.6% for crude oil and 1.2% for natural gas) could reduce carbon dioxide emissions by <i>25% by 2020 without imposing significant economic effects on GDP.</i>	OECD, <u>OECD Environmental Outlook</u>, (Paris: OECD, 2001)

Policy Reform Cont'

- c) Removal of perverse subsidies would enhance the competitive position of renewable energy sources

NAFTA countries have already adopted national energy policies that focus on natural gas since:

- it burns more cleanly than either coal or oil
- produces less greenhouse gas emissions, and
- emits fewer pollutants to terrestrial and aquatic ecosystems.

Jacobson and Masters 2001

(Exploiting Wind vs. Coal, Science, v.230, p. 1438)

- **Price of coal would increase by 2-4 cents/kWh in the US if it included full social and environmental costs**
 - e.g., payment of black lung disease benefits to coal miners which amount to US\$35 billion since 1973
- **The US could meet Kyoto targets by replacing 59% of its current coal energy use with wind turbines**
 - Wind energy can now be produced for about 3-4 cents/kWh
 - Large land areas required for the 214,000 - 236,000 wind turbines
 - A more modest effort to replace 10% of US coal consumption would be more practical, and could be funded through investment markets

Policy Reform Cont'

2. Introducing Environmentally-Friendly Subsidies & Targets

“Were the U.S. Congress to fund renewable energy with the same amount in tax credits, financial incentives, and other subsidies that it provides for coal and oil, renewables would readily become competitive with fossil fuels. In fact, a near-complete transition to a renewable-energy economy could be readily achieved for about \$25 billion a year over the next ten years – a sum to be compared with the \$21 billion worth of subsidies now supplied annually by the government for fossil fuels and nuclear energy.”

Myers & Kent, 2001

Examples of Renewable Initiatives:

CEC:

North American Fund for Environmental Cooperation (2002):

- 16 renewable energy projects
- US \$400 000 to 16 community groups

e.g., the Center for Resource Solutions set up an integrated North American market for tradable renewable energy certificates in Mexico & the U.S.

Canada:

Federal government: C\$50 million/year to encourage energy conservation and to support markets for renewable energy

- However, Canada has no national target for wind energy or for renewable energies

United States:

- Bush administration: two years ext. one wind energy production tax credit
- Most innovative action on subsidy reform at state level
e.g. California requires utilities to boost purchase of electricity from renewable sources by 1% a year until they reach 20% by 2017
- However, there is a need for a national policy to replace the current fragmented approach

Policy Reform Cont'

3. Energy Taxes, Regulations, & the Polluter Pays Principle

GREEN TAXES - internalize the environmental costs of polluting activities

e.g., in Belgium, the government cut sales taxes on energy-saving materials and imposed higher taxes on gas-guzzlers than on fuel-efficient cars

Problem: CARBON LEAKAGE

Solution: border tax adjustments

Social Organizations: Agenda Setting

Subsidy reform is not on the domestic or international agenda

The CEC could play an important agenda-setting function

- a) sponsor regular conferences and policy papers on subsidy reform
- b) increasing involvement with NGOs working on subsidy reform

International Institute for Sustainable Development
Pembina Institute
Taxpayers for Common Sense

Conclusions

Current barriers to reform:

- Entrenched consumption habits
- Ideological associations
- Powerful interest groups

The 9/11 tragedy and the Iraq crisis have had profound effects on the energy market

- They have further entrenched link between energy and national security
- They also provide a window of opportunity for reform