



# Launch of WWF-IISD Russia report: *Fossil Fuels – At What Cost?*

## International Context

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**GSI** Global  
Subsidies  
Initiative

**iisd** International  
Institute for  
Sustainable  
Development  
Institut  
international du  
développement  
durable  
Better living for all—sustainably

# Global Subsidies Initiative (GSI)

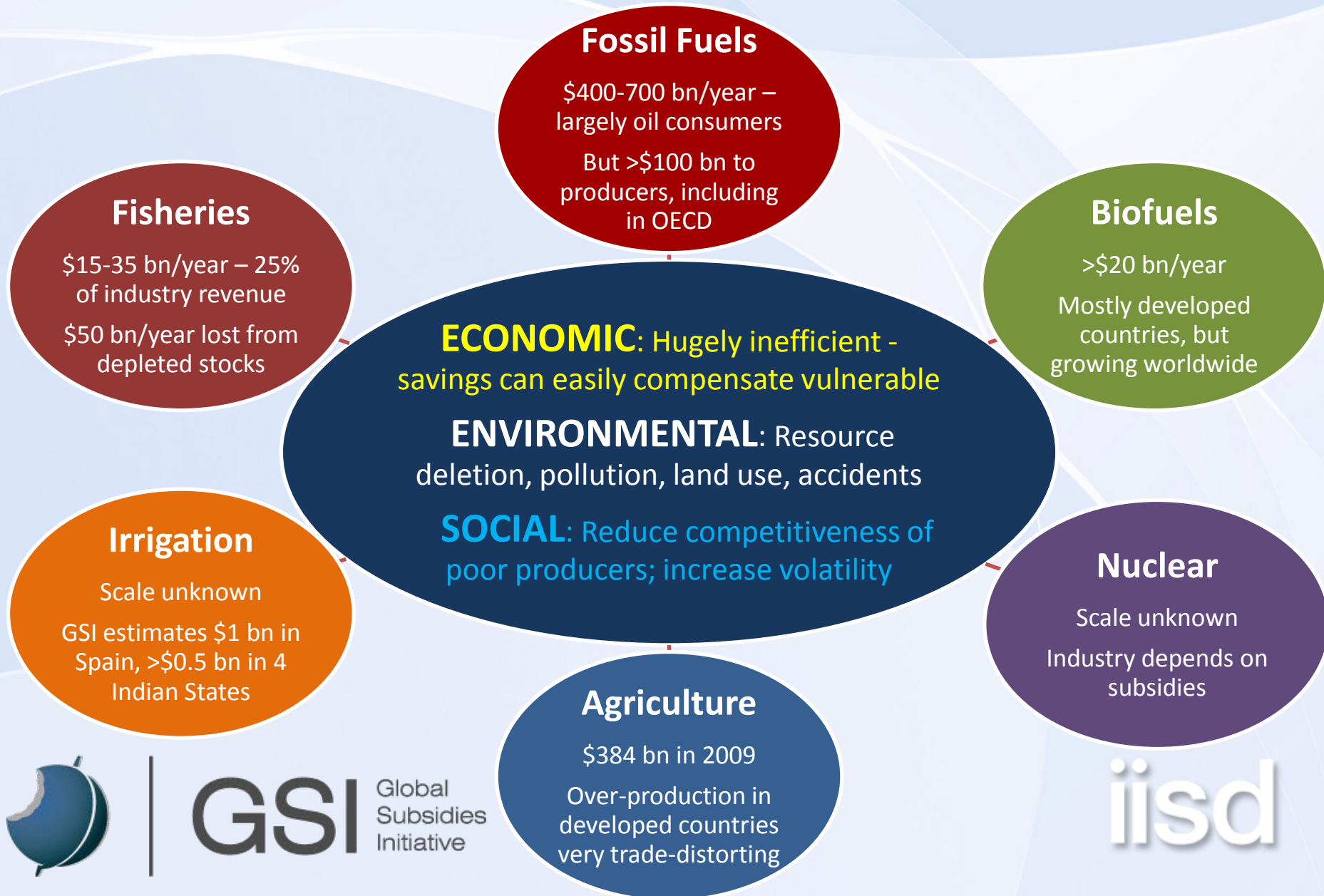
- Established by the **International Institute for Sustainable Development (IISD)** in 2005
- **Purpose:** to investigate and promote the reform of subsidies that undermine sustainable development
- Phase I (2006 – 2008): Biofuel subsidies
- Phase II (2009 – 2011): Fossil-fuel subsidies
- **Phase III (2012 – 2014): Energy and Water**



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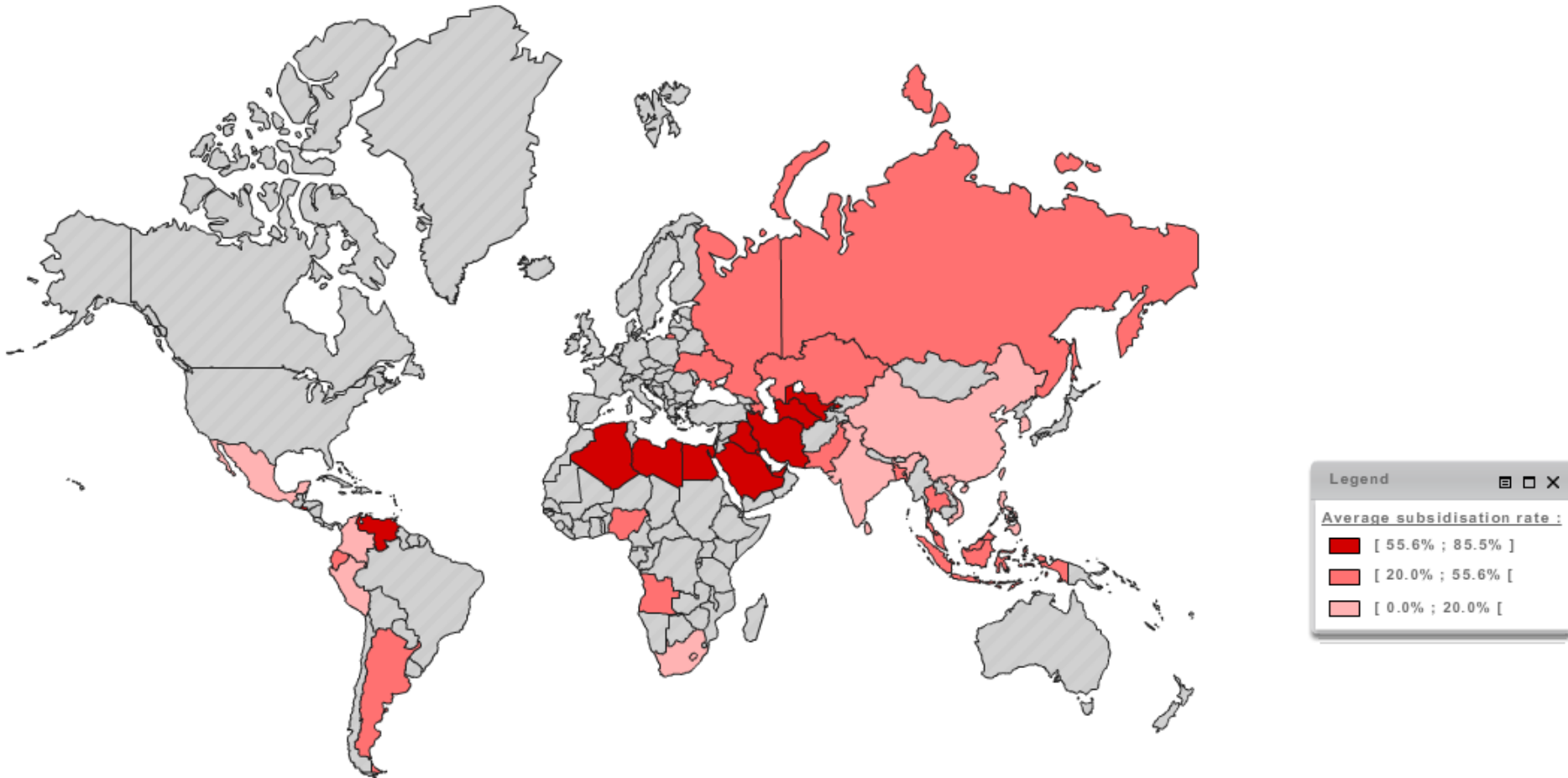
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# Subsidies' contribution to unsustainable development



# IEA estimates global consumer subsidies at \$410 billion

Fossil-fuel consumption subsidy rates as a proportion of the full cost of supply, 2010



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# But how big are subsidies to energy producers?



- GSI estimates \$100 billion + per year
  - In developed and developing countries
- How big are they? Are they effective?
  - Studies tend to be ad hoc, outdated
  - OECD providing some new estimates for members (2011)
  - GSI series of in-depth country studies:
    - Indonesia and Canada (2010); Norway and Russia (2011)



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# Fossil Fuels – At What Cost? series

- Purpose:
  - Improve transparency
  - Encourage public debate

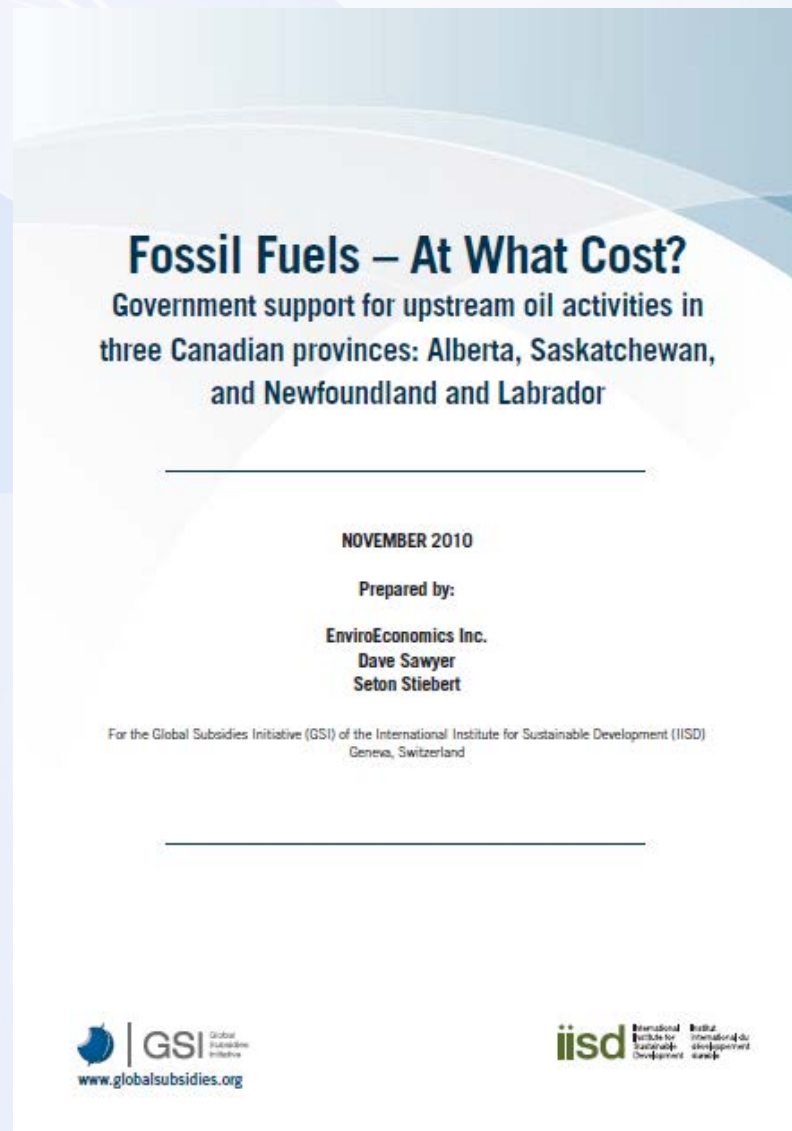
- Approach:



- Definition:
  - Based on WTO definition
  - GSI applied to energy sector
  - Similar to IEA, OECD



**GSI** Global Subsidies Initiative



<b>Direct and indirect transfer of funds and liabilities</b>	<b>Direct spending</b>	<b>Earmarks:</b> Special disbursements targeted at the sector.
		<b>Agency appropriations and contracts:</b> Targets spending on the sector through government budgets.
		<b>Research and Development support:</b> Funding for research and development programs
	<b>Government ownership of energy-related enterprises</b>	<b>Security-related enterprises:</b> Strategic petroleum reserve; some Homeland Security Administration; securing foreign energy shipments or key assets.
		<b>Municipal utilities and public power:</b> Significant public ownership of coal- and natural gas-fired electricity stations; some transmission and distribution systems for both natural gas and electric power
	<b>Credit support</b>	<b>Government loans and loan guarantees:</b> market or below-market lending to energy-related enterprises, or to energy-intensive enterprises such as primary metals industries
		<b>Subsidized credit to domestic infrastructure and power plants</b>
		<b>Subsidized credit to oil and gas related exports</b>
	<b>Insurance and indemnification</b>	<b>Government insurance/indemnification:</b> market or below-market risk management/risk shifting services
		<b>Statutory caps on commercial liability:</b> can confer substantial subsidies if set well below plausible damage scenarios
<b>Occupational health &amp; accidents</b>	<b>Assumption of occupational health and accident liabilities</b>	
<b>Environmental costs</b>	<b>Responsibility for closure and post-closure risks:</b> facility decommissioning and cleanup; long-term monitoring; remediation of contaminated sites; natural resource restoration; litigation	
	<b>Waste management:</b> avoidance of fees payable to deal with waste.	
	<b>Environmental damages:</b> avoidance of liability and remediation to make the environment whole.	
<b>Government revenue foregone</b>	<b>Tax breaks and special taxes</b>	<b>Tax expenditures:</b> Tax expenditures are foregone tax revenues, due to special exemptions, deductions, rate reductions, rebates, credits and deferrals that reduce the amount of tax that would otherwise be payable.
		<b>Overall tax burden by industry:</b> Marginal tax rates are lower than other industry.
		<b>Exemptions from excise taxes/special taxes:</b> excise taxes on fuels; special targeted taxes on energy industry (e.g., based on environmental concerns or "windfall" profits)

# Fossil Fuels – At What Cost? series

- Subsidy estimation:
  - Use government data and estimates where possible
  - *GSI Subsidy Manual & Policy Brief*: a collection of methodologies for estimating each subsidy type

## Box 2: How to use the GSI manual - Measuring Accelerated Capital Cost Allowances

The **table** provides a quick reference for finding the relevant subsidy category, tips on data availability and at least one reference for finding available estimation methodologies. In the example, accelerated depreciation allowances fall under the second category, “government revenue foregone,” and identifies Chapter 6 of the GSI manual as the primary source for finding information, highlighting a range of estimation methodologies available.

The **manual** provides background information, methodologies for estimating subsidies, including mathematical equations and examples. In this case, Chapter 6.2 of the manual starts with background information on acceleration depreciation schemes, including a description of the different approaches that can be used to measure them. It then provides mathematical equations developed by the OECD for calculating the value of the subsidy. For instance, the following equation can be used to calculate a straight line depreciation scheme:

$$\left[ \begin{array}{l} GGBE \\ NCG \end{array} \right] = \sum_{y=0}^{n-1} EA \times (sr - ar) \left( \frac{1}{1 + rg} \right)^n \times t$$

Or, for a scheme with a declining balance, the following equation can be applied:

$$\left[ \begin{array}{l} GGBE \\ NCG \end{array} \right] = EA \times t \times rg \left( \frac{(1 + rg)(sr - ar)}{(sr + rg)(ar + rg)} \right)$$

Where:



# Fossil Fuels – At What Cost? Norway report

Total in 2009: NOK 25.5 billion (USD \$4 billion)

**TABLE 1.1: SUBSIDIES IDENTIFIED AND ESTIMATED FOR UPSTREAM OIL AND GAS ACTIVITIES IN NORWAY**

Section	Expenditure/policy	Is it a subsidy?	Size of subsidy (million NOK)
	<b>Transfer of funds or liabilities</b>		
4.1.1	Government spending on SDFI and Petoro	No	
4.1.2	Public infrastructure	No	
4.1.3	Research and development programs	Yes	216
4.1.4	Emergency preparedness	Yes	N/A
4.1.5	Insurance subsidies	No	
	<b>Provision of goods and services at below-market prices</b>		
4.2.1	Seismic investigations by the Norwegian Petroleum Directorate	Yes	257
4.2.2	Gassco infrastructure and facilities services	Yes	24
4.2.3	Guarantee Institute for Export Credit and government credit guarantees	No	
4.2.4	Eksportfinans and favourable long-term financing	No	
	<b>Government revenue foregone</b>		
4.3.1	Government coverage of 78 per cent of expenditures	No	
4.3.2	Loss carried forward with interest rate	Yes	N/A
4.3.3	Guaranteed reimbursement of loss carried forward	Yes	N/A
4.3.4	Exploration reimbursement to exploration companies	Yes	4,024
4.3.5	Fast deduction of investments	Yes	20,812
4.3.6	Liquefied natural gas in Northern Norway: The case of Snøhvit	Yes	181
4.3.7	Uplift: An additional investment subsidy	No	
4.3.8	Transfer of production licences	No	

# ***Fossil Fuels – At What Cost? Norway report***

- Impacts of subsidies:
  - Government revenue would decrease by 3 – 13%
  - Employment would decrease by 0.2 – 0.7%
  - CO2 emissions would also decrease by 0.5 – 2.4 %
- Study only analyzed gross impacts on oil & gas sector, did not consider net economy-wide impacts if government reallocated subsidy expenditure to other sectors.



# Fossil Fuels – At What Cost? Norway report

*”None of the instruments are what one in daily speech would think of as subsidies”*

*”wrong method to call this subsidies”*

- Critics are not arguing based on whether they are subsidies under the definition or not, but whether they are *desirable or not*
- These studies are based on a definition that over 150 countries support, including Norway, Canada and Russia as members of the WTO.
- Evaluating whether the subsidies are desirable or not requires a comprehensive impact assessment, and public debate on the best use of public resources.



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# Fossil Fuels – At What Cost? Canada report

Total in 2009: CAD \$2.84 billion

**TABLE 3: SUMMARY OVERVIEW OF SUBSIDIES TO OIL IN CANADA (ANNUALLY, IN MILLIONS, 2009)**

Major Category	Typology of Subsidies		Estimate of Annual Value of Subsidies (\$millions)				
	Secondary Category	Type	Federal	AB	SK	NFL	TOTAL
Direct and indirect transfer of funds and liabilities	Direct Spending	Agency appropriations and contracts	\$7	\$133	\$2	\$6	\$148
		Research and development support	\$205	\$68	\$1	–	\$273
		Earmarks	–	–	–	\$11	\$11
	Credit Support	Government loans and loan guarantees	\$28	–	–	–	\$28
	Environmental Costs	Environmental damages Responsibility for closure and post-closure risks	–	–	\$2	–	\$2
			–	\$3	–	–	\$3
Government revenue foregone	Tax Breaks and Special Taxes	Tax expenditures	\$1,142	\$8	\$64	\$53	\$1,266
		Provincial tax reductions due to federal programs	–	\$254	–	–	\$254
		Exemptions from excise taxes/special taxes	–	–	\$3	\$13	\$16
Provide goods or services below market value	Government-owned energy minerals	Royalty relief or reductions in other taxes	–	\$485	\$255	–	\$740
		Process of paying royalties due	–	\$100	–	–	\$100
		<b>TOTAL</b>	<b>\$1,382</b>	<b>\$1,049</b>	<b>\$327</b>	<b>\$83</b>	<b>\$2,841</b>



# Fossil Fuels – At What Cost? Canada report

- Impacts of subsidies:
  - Minimal impact on national GDP (but significant for oil sector)
  - Minimal net impact on employment
  - Contribute to increased GHG emissions:
    - 2% nationally
    - 10% for oil sands
  - Drain on government budgets: up to 5% in Alberta
  - Oil sector to double by 2020 with/without subsidies



# *Fossil Fuels – At What Cost? Canada report*

**CALGARY HERALD**

ALBERTA GIVES OILPATCH \$1B A YEAR IN  
'SUBSIDIES,' SAYS STUDY

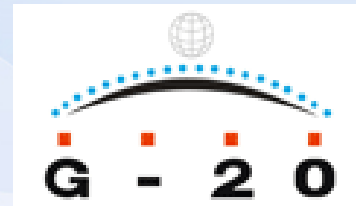
*ENERGY MINISTER DISMISSES REPORT AS  
'GOOFY NUMBERS'*



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# G-20 & APEC Commitments



*To rationalize and phase out fossil-fuel subsidies that encourage wasteful consumption, over the medium term*

- G-20: Submitted national strategies in 2010
  - Included producer and consumer subsidies
  - Energy experts group workshops
  - Little progress on national reform, no reporting
- APEC: Energy Working Group
  - Studies and workshops
  - Voluntary reporting mechanism



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# FFS reform: A high-impact outcome for Rio+20

## Countries should pledge to:

1. Phase out fossil-fuel subsidies that undermine sustainable development
2. Assist developing countries to phase out their FFS

## In addition countries pledge to provide the following supporting measures:

1. Reporting & Review: Prices, Subsidies, Subsidy Reform
2. Technical & financial assistance for developing countries
3. Common research and analysis
4. Secretariat support



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[www.globalsubsidies.org/en](http://www.globalsubsidies.org/en)

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