

Pricing Oil Sands Pollution? Balancing Expert and Stakeholder Input

Chris Joseph cjoseph@sfu.ca

June 14, 2007

School of Resource &
Environmental Management,
Simon Fraser University

Outline

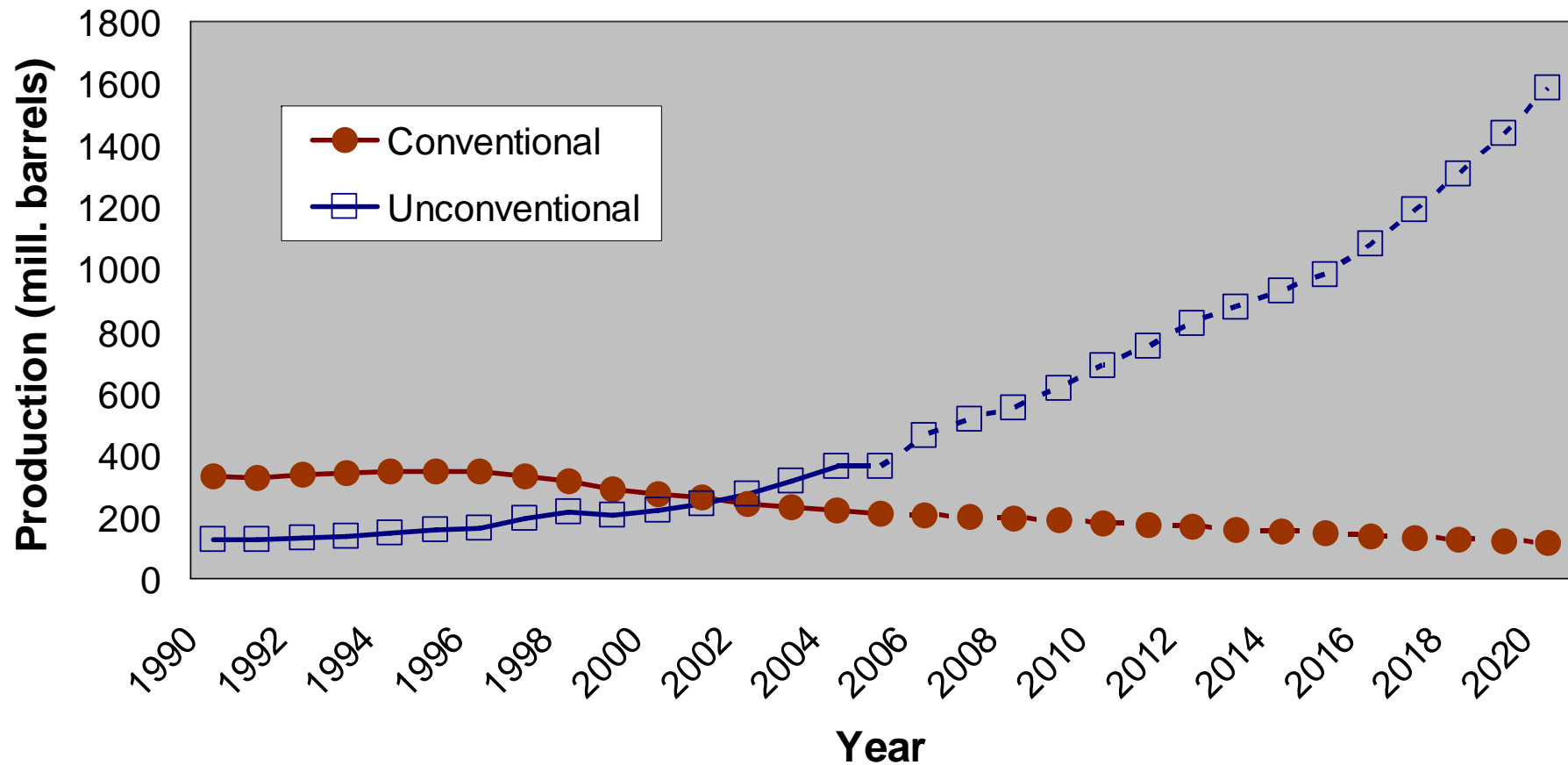
My Ph.D. research:

Value of the changing Alberta oil industry

Hypothesis:

Stakeholder involvement will significantly improve environmental valuation

Alberta Crude Oil Production (Historical and Predicted)





Chris Evans, Pembina Institute



David Dodge, Pembina Institute



Suncor Energy Inc.

Chris Joseph

cjoseph@sfu.ca

Study Objectives

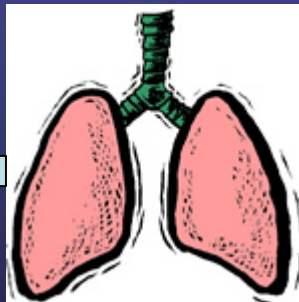
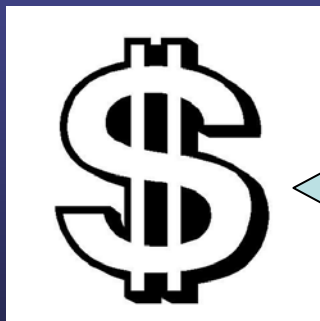
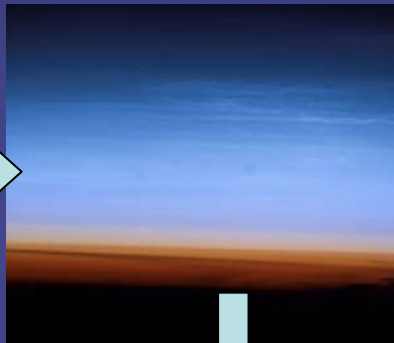
- Determine value of the oil industry to Alberta and how value will evolve in near future
- Determine capacity and quality of current management framework

Pricing the Environment

- **Increasingly, we're viewing the environment through the eyes of economists**
 - **What is clean water worth?**
 - **How much damage does a tonne of SO₂ cause?**
- **Rationale is clear; the evidence is supportive**
- **But problems coming up with the price...**

Standard Method of Pricing Problematic

1. Poor accuracy




Standard Method of Pricing Problematic

1. Poor accuracy
2. Relies on subjective decisions of analysts

action, up
become
it by

ve need to
and
n now to
of the
and how
as said.

having
ve the
ut only if
ly and



FROM ACROSS THE
[Climate change portal](#)

FROM [ACTION NETWORK](#)



[Climate c](#)
[Contacts, f](#)
[and advice](#)
[take action](#)

RELATED INTERNET
[New Economics Found](#)

“ We have the time and knowledge to act but only if we act internationally, strongly and urgently ”

Sir Nicholas Stern

Standard Method of Pricing Problematic

1. Poor accuracy
2. Relies on subjective decisions of analysts
3. Rejection of economic value as basis of public policy
4. Narrow focus on one aspect of pollution problem

Result: Controversy

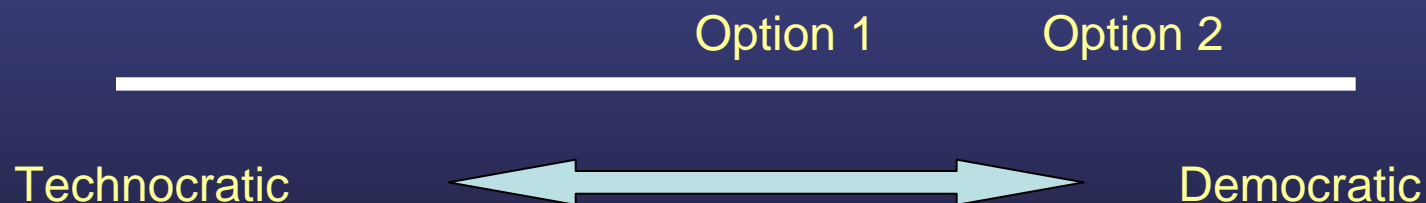
- Stakeholder ambivalence:
 - Support for pricing when results in favour
 - Rejection of results when not in favour
- Policy built upon such analyses unlikely to gain solid stakeholder support
- And when stakeholders don't support policy, implementation success unlikely

Hypothesis:

Stakeholder involvement will improve valuation process

Two options:

1. Modify expert-driven approach to make valuation more stakeholder-inclusive
2. Shift pollution policy making paradigm



Chris Joseph

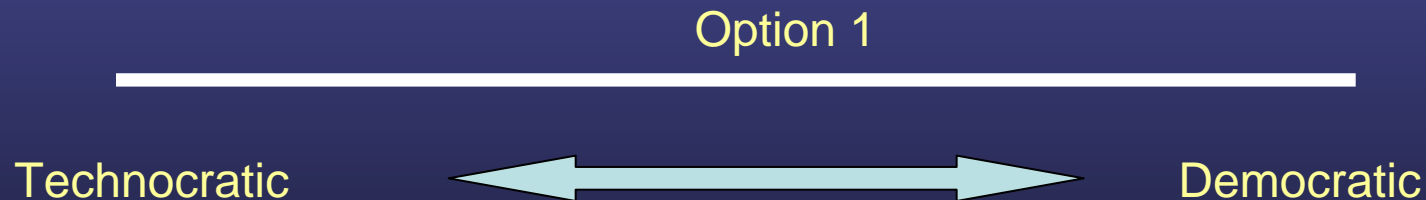
cjoseph@sfu.ca

Option 1: Modify current approach

→ Stakeholders work with analysts

Examples for Oil Sands

- Stakeholders' input shapes damage costing to make up for technical gaps and resolve subjective decisions
- Stakeholder panels set discount rates



Chris Joseph

cjoseph@sfu.ca

Advantages of Option 1

- More accurate valuations
- Subjective decision making more in the open and representative
- More democratic analysis
- Results more fair
- Builds social and intellectual capital
- Reduces black box nature of valuation
- Builds support for use in policy

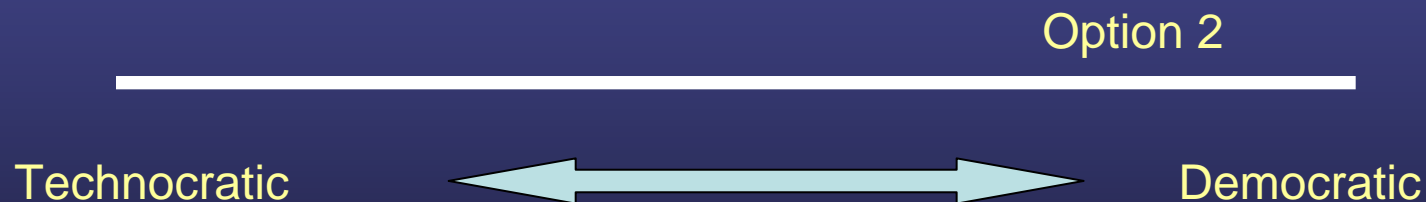
Disadvantages of Option 1

- Makes valuation process more costly, lengthy, and complex
- Doesn't address philosophical objections
- Maintains narrow focus
- Questionable effect on policy making

Option 2: Shift policy making paradigm

➡ Set pollution policy through a collaborative, consensus-based decision making process

- Valuation becomes part of a broader exercise
- BC example
- Possible for Oil Sands



Advantages of Option 2

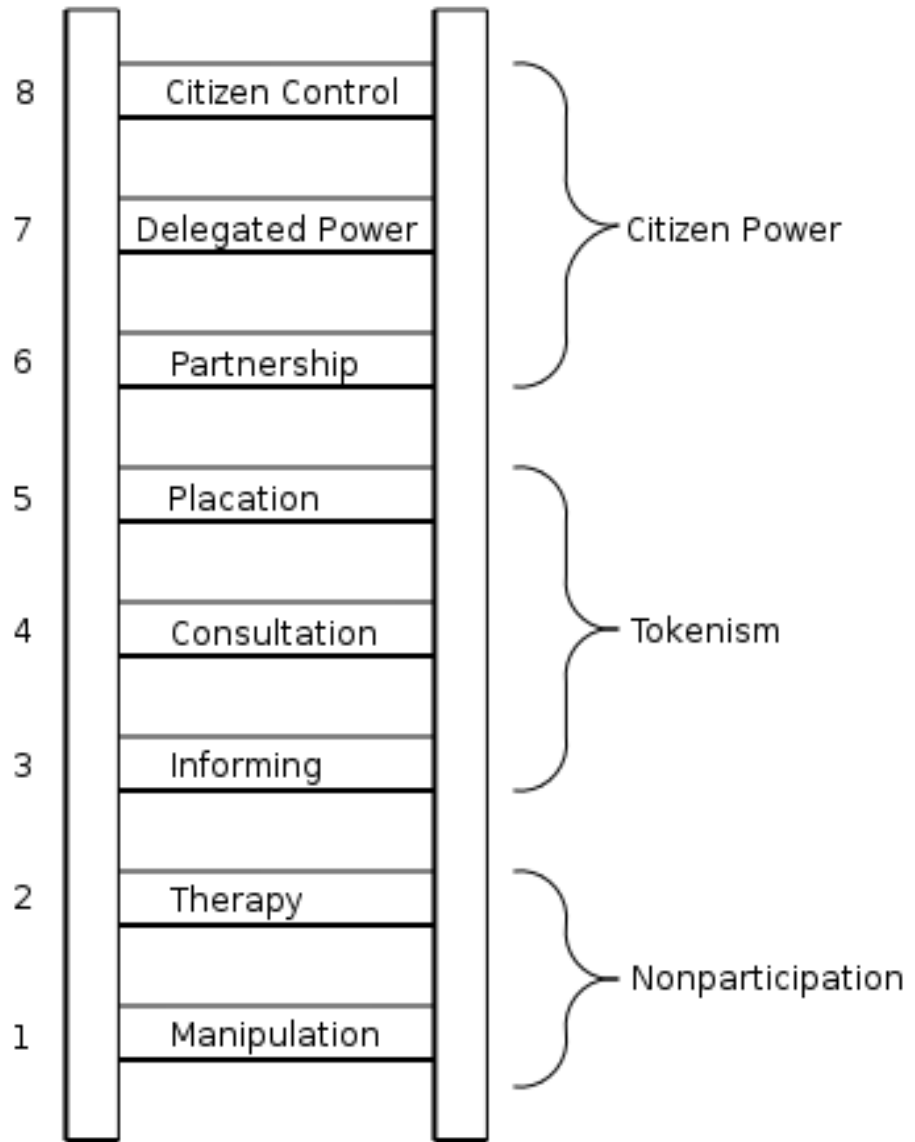
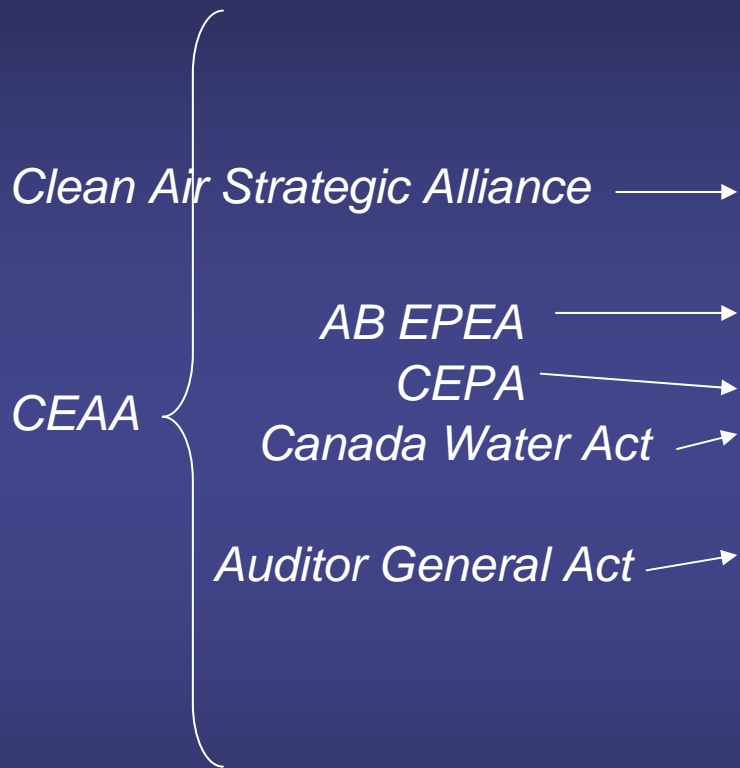
- Advantages of Option 1 plus...
- Addresses key disadvantages of Option 1:
 - Addresses philosophical objections to economic valuation
 - Widens focus to broader scale
 - Replaces traditional channel of influence: have to find common ground
- Growing evidence that best way to resolve big, complex issues

Disadvantages of Option 2

- Establishes sweeping process requiring careful framing, careful design, and careful implementation
- Costly
- Lengthy

Challenges

- Reaching agreement
- Getting the powerful “on board”
- Reducing stakeholder imbalances
- Ensuring process remains accountable to public



Arnstein 1969

Conclusion

- Practical advantage of pricing environment
- Current method problematic and unlikely to influence policy greatly
- Hypothesis: make valuation more stakeholder-inclusive
- Key question: retain expert-driven approach, or shift to stakeholder-driven paradigm?

Acknowledgements

- Environment Canada
- Social Sciences and Humanities Research Council (SSHRC)
- Supervisors: Drs. Tom Gunton, Mark Jaccard, Murray Rutherford
- Additional advice: Dr. Marvin Shaffer; students of the Energy & Materials Research Group at SFU

Pricing Pollution?

- Practical advantage of pricing environment
- Current method problematic and unlikely to influence policy greatly
- Hypothesis: make valuation more stakeholder-inclusive
- Key question: retain expert-driven approach, or shift to stakeholder-driven paradigm?