"Ancillary" Benefits and Climate Change Policy: *A Canadian Perspective*

Presentation to Washington Workshop on Ancillary Benefits

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Presentation Outline

- Canada's National Climate Change Process
- Canada Wide Standards for Air Quality
- Framework for Decision-Making
- Potential Importance of Co-Benefit Estimates
- Domestic versus International Action
- Joint Analysis and Decision-Making
- Key Policy Issues and Decision Points
- Concluding Observations on Policy Context

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Sidebar: *Ancillary or Co/Joint Benefits*

- **ANCILLARY** - Webster's Collegiate definition:
  - 'subordinate', 'subsidiary', 'auxiliary', 'supplementary'
  - implies secondary = less important
- **CO-** or **"Joint" Benefits:**
  - 'with', 'together', 'in or to the same degree'
  - suggests of similar/parallel importance
- More than just semantics in policy context
  - Important for policy and communications to link with approaches to directly address other air quality goals
- Empirical issue as to whether "ancillary" in relation to potential avoided climate damages
- Support use of "multiple" benefits term

Canada's Climate Change Process

- Over 450 experts, 15 Issue Tables, 18 months
- Broad participation from industry, environment & non-government groups, all levels of government
- Issue Tables developed wide range of options to reduce Canada's GHG emissions
  - large variance in relative costs, impacts & benefits
- Analysis and Modelling Group:
  - mandate to estimate costs and benefits and interpret analysis results for decision-makers; for Fall 2000
  - looking at sectoral vs. economy wide targets; extent of international flexibility in meeting Kyoto commitment
  - challenge to portray co-benefit estimates in comparative framework with estimated costs of GHG mitigation

Framework for Decision-Making
Climate Change

- Political Direction:
  - First Ministers asked for development of "thorough understanding of impact, costs and benefits of Kyoto's implementation, and the various implementation options open to Canada" (Dec'97
  - Energy & Environment Ministers asked officials to examine "economic, environmental, health and social" implications of options to meet Kyoto target
  - Benefits of taking action to deal with climate change accepted as part of the decision-making framework
- Ministers meeting March28:
  - reviewed results to date from Issue Table process
  - agreed on phased business plan approach to develop national strategy including implementing Phase I measures with multiple benefits

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Canada Wide Standards for Air Quality

- Established federal/provincial Development Committee to steer the development of standards for PM & Ozone
  - Participation of industry, environment & non-government groups, all levels of government
- Preliminary cost/benefit assessment indicates benefits are significant relative to costs but analysis raised numerous issues
  - Cost analysis excluded opportunities for fuel substitution, improved energy efficiency
  - Benefit analysis highlighted methodology issues
  - Established Expert Panel to review assessment
- Developing sector implementation strategies
  - focus on key industry sectors including electricity

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Framework for Decision-Making
Air Quality

- Canadian Council of Environment Ministers (CCME) Jan'98 accord on environmental policy harmonization
  - agreed to develop national standards for mercury, benzene, particulate matter and ozone
- CCME meeting in Nov'99:
  - accepted in principle new national standards for PM, Ozone for 2010/2015 but asked officials to explore options for tightening both levels and time frames
  - agreed on joint initial actions and need to develop strategies for key emitting sectors
  - supported pollution prevention approach and noted common sources and integrated solutions

Air Quality Policy Context
Canada - U.S. Transboundary Issues

- Canada - U.S. Air Quality agreement in place (since early 90's?)
  - currently negotiating new annexes
- Atmospheric studies show significant contribution of transboundary flows (U.S. to Canada) to Canadian air quality concerns (acid rain, smog)
  - 80% from U.S.in SW Ontario
  - 50% from U.S. at Toronto
  - 50% from U.S, Ontario at Montreal
- U.S. air quality & AB studies typically ignore potential impacts outside of U.S. borders
  - viewed in Canada as important for baseline, impacts
- Opportunity for joint analysis work?

Policy Relevance of Co-Benefits

- Recognize range of environmental policy goals exist, including climate change and air quality
- Strategies for direct control of CAC's:
  - available but studies suggest these may be costly
  - could have significant competitiveness impacts
- Sole consideration of direct costs of reducing GHG emissions ignores other potential benefits
  - intent of analyses to both *inform* decision-makers and hopefully *influence* choice and magnitude of actions
- Significant contribution of fossil fuel combustion to both GHG & CAC emissions
  - Cost effective pollution prevention opportunities for co-reduction are available

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Policies with Multiple Objectives

Promoting Sustainable Communities

- Municipalities Table developed range of options:
  - building energy efficiency, water & waste management, (including landfill gas), community energy systems, urban transportation, land use planning
- Options address broad range of policy goals, including cost savings, community development, local air quality (and climate change)
  - Cost effective approaches to address multiple goals
- Provided rationale for early (Phase 1) measures:
  - Federal Budget 2000 announced $125M Green Municipal Funds to jointly address clean air/clean water/climate change
  - Proposed infrastructure initiative with "green" rationale

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Domestic versus International Action

- Domestic policy options available to reduce GHG emissions but may be higher cost than options available in other countries
- Less domestic action:
  - would reduce magnitude of co-benefits
  - could increase total costs of addressing range of domestic air quality and related environmental goals
- Increased international action:
  - potential for climate policies to generate co-benefits could encourage greater engagement of developing countries in climate change policy
  - could also encourage stronger policies to address air quality concerns

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Joint Analysis and Decision-Making

- Lowest cost options to meet Kyoto Protocol commitments may not represent least cost approach to address multiple goals
- Policy process requires good quality analytic information on relative costs of different approaches to address these goals
- Preferred domestic strategies to address climate change commitments unlikely to also be best way to tackle multiple goals
- Traditional clean air policy approach also not optimal; joint analysis/decision-making required

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Key Policy Issues and Decision Points

- Policy Issues (Domestic Perspective):
  - Whether and how co-benefits are considered
    - challenge to both inform and influence
    - use of "policy scorecard" approach?
  - Magnitude relative to cost savings from international flexibility to address Kyoto Protocol commitments
  - Quality of co-benefit estimates relative to "hard" estimates of relative costs of reducing emissions
  - Ability to properly inform decision-makers about potential trade-offs, value of integrated approach
- Decision Points:
  - Preliminary co-benefit estimates in June
  - Report for stakeholder review in September
  - Information to Ministers for Fall 2000

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Policy Context:

Challenges & Opportunities

- Linkage with other air quality goals being forged but key challenges remain to promote integrated policy approaches
  - No resolution to date on key methodology issues, policy relevance of co-benefit estimates
  - Analytic capability not as sophisticated as traditional energy/emissions analysis
  - Ability to present policy relevant analyses could compromise goal of influencing policy direction
- IPCC TAR could be helpful in increasing awareness of other benefits from GHG mitigation
- International collaboration useful on approaches to maximize benefits and/or minimize costs

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