



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada



Valuing landscape services

CIELAP Workshop, November 13., 2008

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Canada 

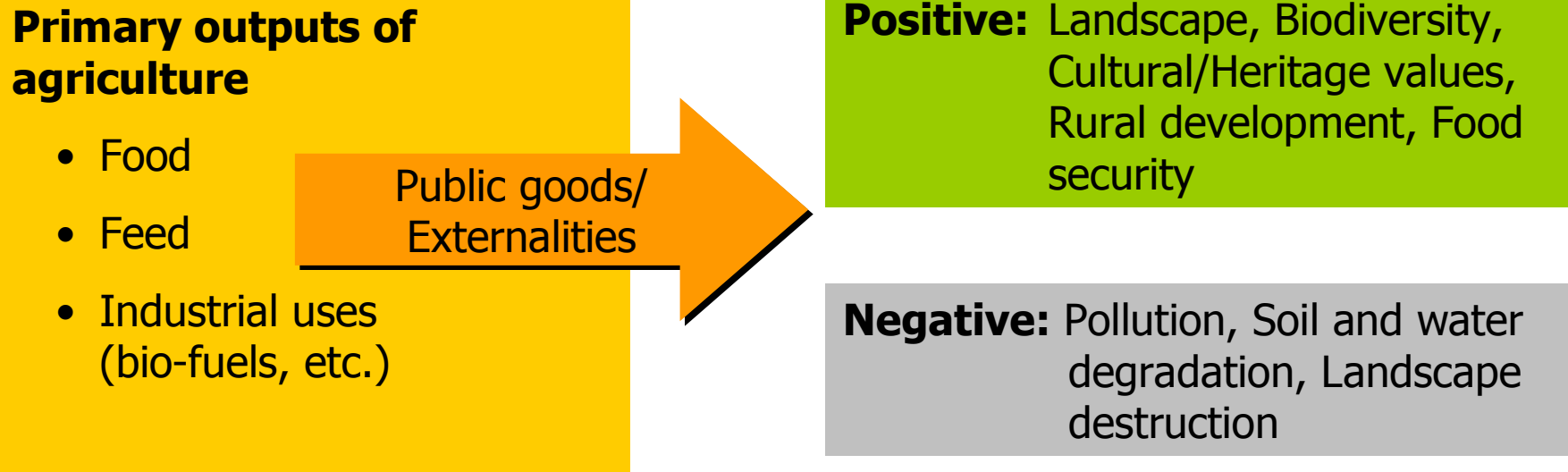
*The framework used in Canada is based on the
OECD framework for Multifunctionality...*

Market Outputs

**Primary outputs of
agriculture**

- Food
- Feed
- Industrial uses
(bio-fuels, etc.)

Public goods/
Externalities





Non-Market Outputs/Effects

Positive: Landscape, Biodiversity,
Cultural/Heritage values,
Rural development, Food
security

Negative: Pollution, Soil and water
degradation, Landscape
destruction

...which refers to the fact that an economic activity
may have multiple outputs.

Sometimes no markets exist to give appropriate signals...

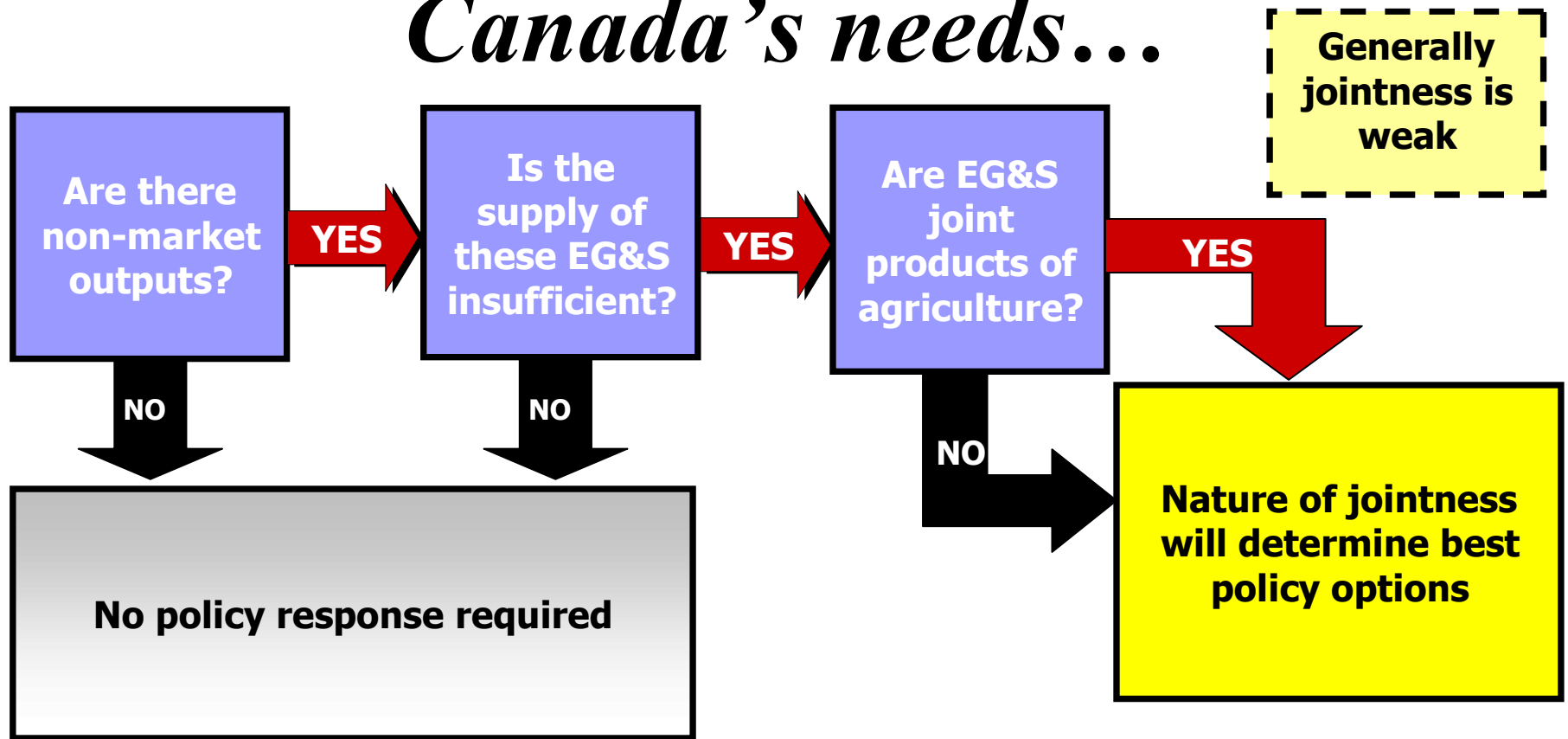
	When non-market outputs/effects exist:	
Farmers	Farmers do not benefit from producing public goods +	Farmers are not always penalized for negative externalities -
Others	Beneficiaries do not pay 	Others are left to pay the costs 

Are farmers adequately compensated for producing things society values?

What measures are needed to address negative externalities?

...governments then face pressure to respond with regulation, taxes, subsidies, or other measures.

*A framework to determine when
and how to intervene can fit
Canada's needs...*



...making the appropriate policy responses for most issues clearer.

Context –Public Policy Issues

Reasons to consider EG&S policy:

- Producers are paid for market goods, but rarely for public goods;
- May overuse resources and under-supply ecological services:
 - E.g.: May drain wetlands and cultivate marginal land in spite of crucial waterfowl habitat.

Reasons to be careful:

- Unintended effects: capitalization of payments, overpayment
- Gaps in scientific and economic knowledge
- Polluter Pays Principle
- Equity with non-farm providers



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Policy development activities completed or underway:

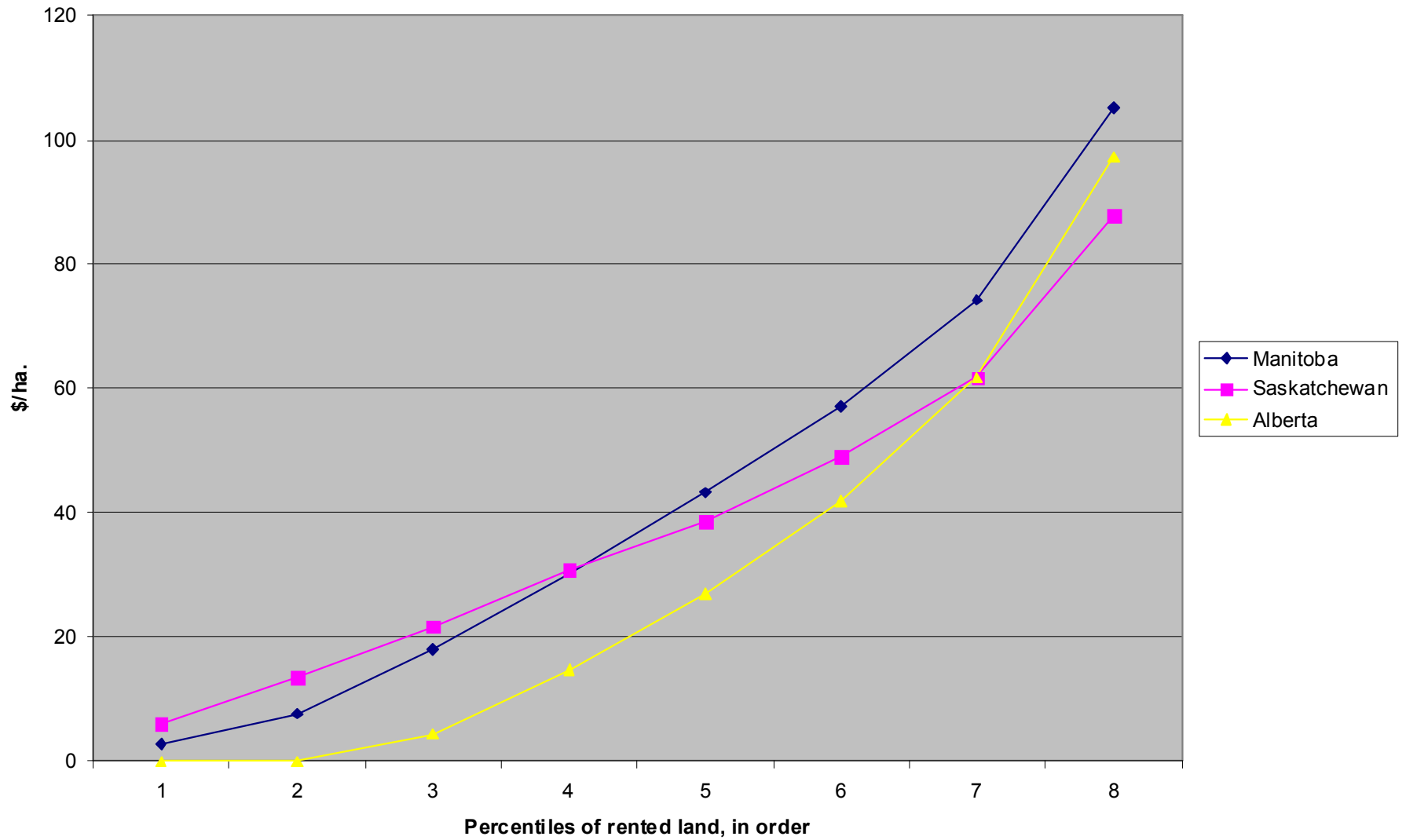
- F/P Working Group established;
- 2006 National Symposium on EG&S;
- Eight pilot projects underway;
- Cost-benefit analysis of potential EG&S options
- Other policy research:
 - Environmental tax credit programs
 - Reference levels
 - Auctions



Policy options for EG&S

- Regulation
- Annual payments
- One-time payments
- Conditional payments (e.g. BMP insurance)
- Auctions
- Tradable permits (e.g. Water Quality Trading, Tradable development rights)
- Tax incentives
- Environmental certification

Rental land supply, 1996



EG&S Estimates from the Conservation Cover Initiative Program Proposal (Ducks Unlimited Canada, 2001)

Estimated Annual Costs and Benefits of the CCIP				
Maritimes	Quebec	Ontario	Western Provinces	Canada
Targeted Hectares				
22,000	73,000	170,000	2,100,000	2,365,000
Benefits				
\$4,355,340	\$14,451,810	\$33,654,900	\$143,556,000	\$196,018,050
Costs				
\$1,975,749	\$6,067,273	\$22,328,950	\$72,324,000	\$102,695,972
Net Benefits				
\$2,400,000	\$8,400,000	\$11,300,000	\$71,200,000	\$93,300,000

Estimated Costs and Benefits of the CCIP for the Maritimes, Quebec, and Ontario.

Benefits and Costs		\$/ha/yr
Benefits	Reduced Program Costs	46.00
	Reduced Water Treatment, Flood and Air Pollution	35.00
	Increased Wildlife Viewing, Fishing, Hunting, and Recreation	80.00
	Reduced GHG emissions	37.00
	Total Benefits	198.00
Costs	Administration	2.00
	Increased Wildlife Depredation	0.60
	Payment to Producers	87.00
	Maritimes	80.00
	Quebec	129.00
	Ontario	
	Total Costs	90.00
	Maritimes	83.00
	Quebec	131.00
	Ontario	
Net Benefits	Maritimes	108.00
	Quebec	115.00
	Ontario	67.00

Look at the big picture

