The Perception of Risk to Agriculture and Climatic Variability in Quebec:

Implications for Farmer Adaptation to Climatic Variability and Change

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Ten Years of Research into Agricultural Adaptation and Climate Change in Quebec

- Climate change modelling
- The human agency factor & capacity for adaptation
- Understanding farmers’ perceptions of CC & CV
- Role of CC & CV in farmers’ decision making
- The implications for policy
The Information Base

**Early 1990s**
- Climate scenarios & historical climate data
- Farmer interviews
- Workshops with:
  - Farmers
  - Other professionals

**Late 1990s & 2000+**
- All of the above plus insurance claims data & farm level modelling
Farmer Perceptions of CC & CV

• Little awareness in early 1990s
• But interested in how they would fare compared to others
• Now more aware, but tend to see CC & CV as secondary (other concerns)
• But some signs of change
Farmers’ Risk Management Strategies (RMS)

- The existing tool-bag to deal with extremes in climatic conditions and other concerns:
  - Water management, crop choice, diversification
  - Crop insurance
  - Income stabilisation
Why are CC & CV of Secondary Concern?

- Decision-making environment is multi-faceted
- Other sources of stress more pressing
- Decisions often taken in shorter term perspective
- Crop insurance as an intervening variable
Current Research

• **Research team:** U de M, McGill; & Steering Committee involved OURANOS, La Financière, MAPAQ, UPA

• **Direct financing:** CCIAD; Ouranos
Current Research cntd.

**Focus:**

- Farmers’ RMS & CV (past 30 years)
- How adapting or not adapting to variability (CV) may affect yields
- Integration of data on returns, costs, losses, agro-climatic indicators and farm-level modelling
- Moving from aggregate, to regional, to locality scale
- And FARMERS
The Reality of CV & Costs to Farming

Évolution des cotisations des clients et des indemnités versées (1993-2001)

Source: La Financière agricole du Québec

Saisons froides avec fréquence élevée de précipitations (FADQ)

Premiums & Claims paid out
The Reality of CV & Costs to Farming

Évolution de la part des cotisations et des indemnités totales versées au producteurs de maïs-grain (régimes collectif et individuel)

Source: La Financière agricole du Québec
The Reality of CV & Costs to Farming

Indice des pertes dans les régions Sud-Ouest de Montréal, Trois-Rivières et Abitibi-Témiscamingue

Source: Financière agricole
The Reality of CV & Costs to Farming

Évolution des rendements réels du Soya (1987-2001)

Parting Comments

• Note the non neutral nature of crop loss data

• Importance of vulnerability

• CC & CV becoming recognized as a significant source of stress

• Capacity to adapt as a focus of policy