Agricultural Offset in Québec
Our mission

- To induce GHG emissions reductions in Quebec
- To generate Green Economic Development in Quebec through the Carbon Market mechanisms
What do we do?

• We put in place programs of activities in different sectors with the actors involved
  – We identify projects,
  – We identify barriers, solutions ...and we help implement projects
• We market credits to finance part of our activities
• We are putting in place a Carbon Fund to finance projects in North America (early stage)
A pilot project: Agro Carbone

• A structure of support to the dairy farmers
  – Identification of potential
  – Identification of projects
  – Standardisation
  – Implementation
  – Aggregation
• ... replication in other agricultural sectors
• Objective: to lower project costs (direct and indirect) as much as possible and make projects being implemented
• Beginning in September
Offsets in agriculture

• Total emissions: 6.4 MtCO₂e
• Several possibilities:
  – CH₄ capture and destruction from manure storage facilities
  – CH₄ reduction from enteric fermentation
  – N₂O reduction (fertilizers)
  – Agroforestry
  – No-till / conservation agriculture
• Only one existing protocol → CH₄ from manure storage facilities
  – # projects registered = none
  – Barriers:
    • Small project
    • E.g. average size : = 60 cows
    • Biogas utilisation does not lead to carbon offset
    • Biogas utilisation is barely profitable given the absence of feed-in tariff + low energy costs
N\textsubscript{2}O emissions: the most interesting potential

- 6.2% of Qc total GHG emissions (3\textsuperscript{rd} after CH\textsubscript{4} and CO\textsubscript{2})
- Due to nitrogen fertilizer, but also cattle, fossil fuel and biomass combustion
- QC inventory $\rightarrow$ 3.0 MtCO\textsubscript{2}éq.
- Increase of 13.9% since 1990 (2.6 to 3.0 MtCO\textsubscript{2}e)
- Why N\textsubscript{2}O should be targeted:
  - emissions 3 times more than CH4 manure
  - Enteric fermentation is difficult (no antecedent, lack of data)
Other reasons to target N2O

• International
  – Alberta already adopted
  – California is considering
  – CDM has a methodology

• Canadian protocol developed by:
  – Canadian Fertilizer Institute

• Need to be adapted to QC:
  – Document common practices (BAU)
  – Quantify emission reduction potential
  – ***Agregator is needed
Other possibilities

• Agroforestry: no sequestration protocol yet, but one is foreseen towards the end of 2015
• The protocol may be applicable to projects in agricultural lands
• No till: potential seems to be low
• Enteric fermentation: potential would be interesting to explore as the total emissions are quite important (2.3 MtCO$_2$e)
We are looking for partners

• We have local partners
  – Dairy farmers
  – Processing players
  – Financial partners

• We don’t want to reinvent the wheel
  – We want to share knowledge
  – ...+ some more financing