Carbon Policy and Carbon Offset Trading Systems

CFGA AGM

November 15, 2017

Overview

Global negotiations, foreign approaches to pricing carbon and offsets.

A patchwork of policies, prices and engagement with the agriculture sector.

Policy development, advocacy and lobbying.

The Global Landscape

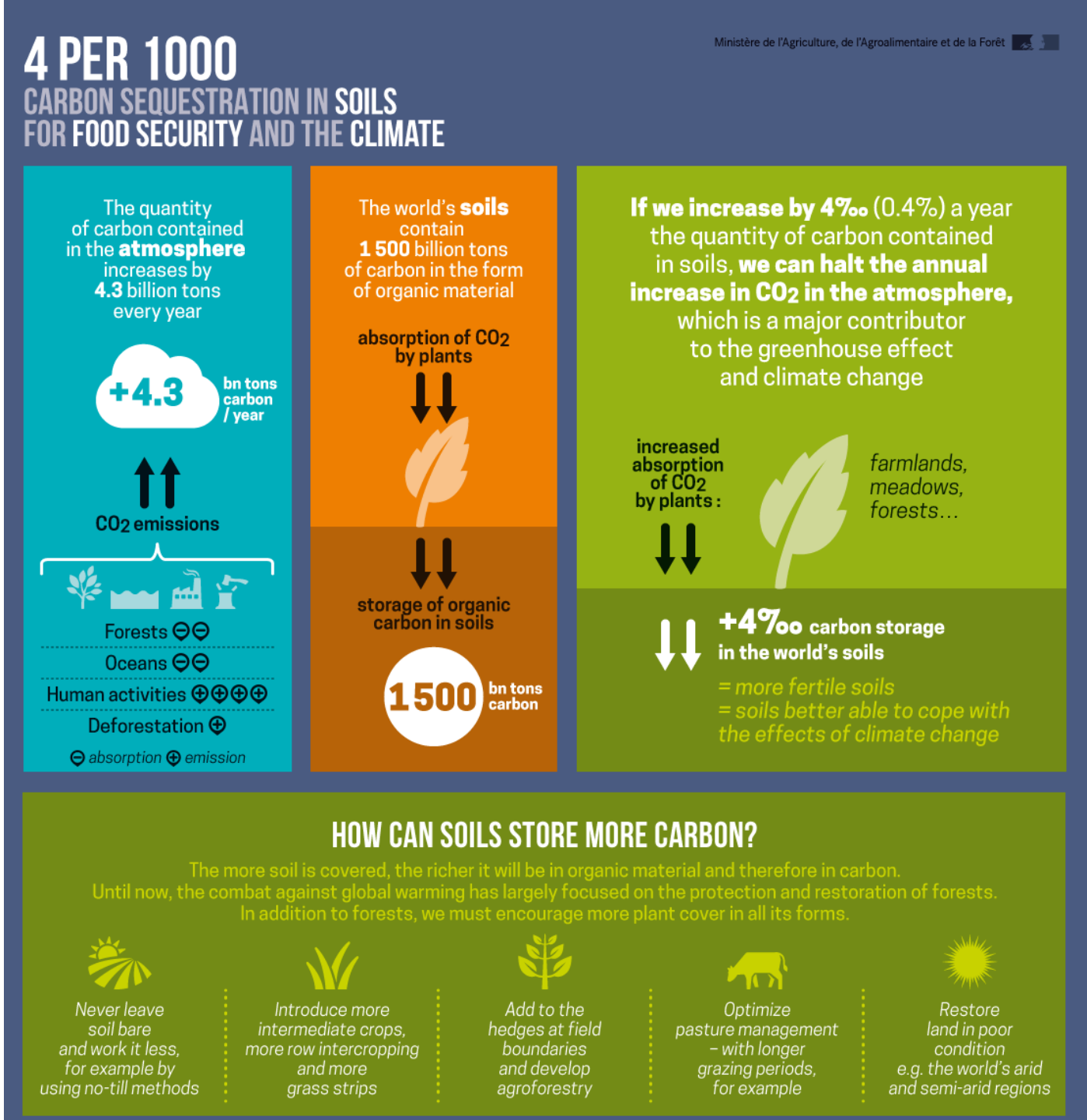
The Paris Agreement

UNFCCC COP 21

- Different from past climate change negotiations as each country was asked to come up with their own targets and contributions to reduce GHG emissions.
    - Canada's target: 30% below 2005 levels by 2030.
- The Agreement includes provisions for emissions trading, but details are still being worked out.
- The Agreement addressed the need to safeguard food security and agricultural production.
- 90% of countries included agriculture as part of their solution.

France launches 4 by 1000 initiative

- A 4% increase of carbon in soils not only creates more fertile soils, but would account for all new carbon released to the atmosphere.
- Focuses on management activities and technological solutions, many of which are already in place in Canada.
- To demonstrate that agricultural soils are crucial for food security and climate change solutions.



The Paris Agreement

UNFCCC COP 23 Bonn

- The U.S. has signaled its intention to withdraw, but other nations' commitments remain strong, 169 out of 197 signatories have ratified.
- The Paris Agreement includes provisions on emissions trading, but details are still being developed.
    - Guidance in many areas is ongoing and expected to be completed by this time next year for adoption.
- International emissions trading is already taking place.
- Allows for linking compatible emissions trading systems.
- Need for scale in order to participate effectively.
- Finally, a breakthrough in the agricultural discussions

World Business Council on Sustainable Development supports climate smart agriculture

Increasingly business is taking leadership roles in reducing GHG emissions.

Carbon Prices Worldwide

In USD

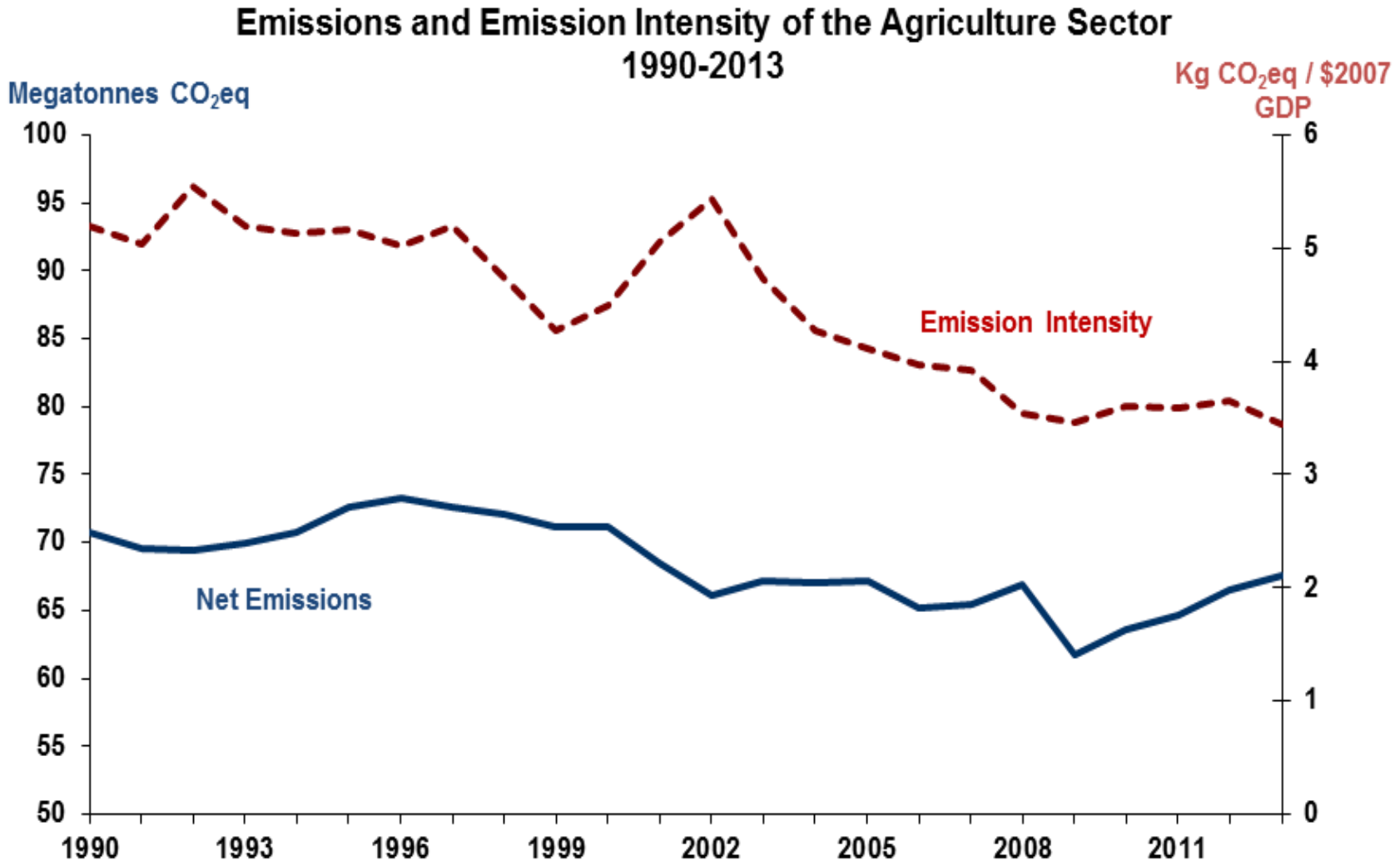
- 42 Countries have implemented a carbon price.
- Plus other subnational jurisdictions.
- Equaling 14.6% of global GHG emissions.
- Increasing support from countries and economists that carbon pricing is the cheapest approach to reduce economy-wide emissions.

Sweden:	$126
Switzerland:	$84
Finland:	$62-66
France:	$33
BC/AB:	$23
UK:	$22
Slovenia:	$18
Quebec, Ontario:	$14
New Zealand:	$12
Beijing:	$8
Shenzhen:	$5
Colombia:	$5
Estonia:	$2
Mexico:	$1-3
Ukraine:	$1

Offset Protocols

- The forestry sector is more further advanced through consensus in international negotiations and projects that recognize carbon sinks and afforestation.
    - International focus for many years was on REDD and REDD+ programs (Reduce Emissions from Deforestation and Degradation).
- Agricultural offset protocols were developed in Canada and have been implemented in Alberta with few other examples.
- California, Ontario and Quebec are now developing and implementing agricultural offsets that will be traded.
- Companies continue to show interest in purchasing credits directly to offset their own emissions.

Canadian Approaches



In Canada, Agriculture Produces 8% of the Greenhouse Gas Emissions (GHGs).

2005-2014 Canadian agricultural emissions dropped 4% (2 megaton CO2 Equivalent).

Source: Agriculture and Agri-Food Canada and Environment and Climate Change Canada

Canadian Approaches

- The Pan Canadian Framework on Clean Growth and Climate Change (December 2016) approach used to develop how Canada would deliver on its international commitments.
  - Supported by 4 F/P/T Working Groups
  - Saskatchewan and Manitoba did not sign.
  - Carbon pricing is a key component of the Framework.
  - Consultation held on the carbon pricing backstop technical paper summer 2017.
  - New supporting legislation for implementation expected.

Why the Focus on Carbon Pricing?

- A market signal to reduce emissions.
- The costs meant to be passed on to the consumer to change purchasing decisions.
- 80% of Canadians already lived with carbon pricing: BC, AB, ON, QC.
- Provinces design their own systems: carbon tax, cap and trade, or a hybrid.
- All other provinces with the exception of SK, have indicated that they will adopt some form of carbon pricing, with various levels of detail released to date.
- From the beginning, the federal government was clear provinces would lead program development and allocate revenues as they see fit.
- Biological emissions are not covered.

Current Carbon Prices

- The minimum price set at $10 per tonne in 2018, rising $10 per year to $50 per tonne by 2022.
  - Alberta's will be $30 in 2018
  - Ontario and Quebec is set by the market –approx. $18
  - Manitoba $25 (set price until 2022)
- Other provinces and territories have different systems in development, few concrete details announced.
- The Federal Government will impose a price on carbon, or a "top up" to meet minimum price if it deems necessary.
- AAFC analysis has shown a price on carbon is unlikely to result in any significant reductions in emissions from the agricultural sector

Specific Mitigation Opportunities

The FPT Working Group found limited options to reduce emissions in agriculture compared to other sectors

Policy Tool	**Estimated Range of Emissions Reductions in 2030**	**Estimated Cost per Tonne**
Reduced methane from cattle *(dietary changes/ reduced age at harvest)*	<1-2 Mt	$0-$50 or $50-$100, depending on policy option
Conversion of marginal land from annual crops to permanent cover	<1 Mt	$0-$50
Increase planting of nitrogen-fixing crops, pulses and forages	<1 Mt	$0-$100
Increase adoption of zero-till	<1 – 1 Mt	$0-$50
Manure management technologies	<1 Mt	>$250
Precision fertilizer application	Up to 1 Mt	$0-$50 or $50-$100, depending on policy design and level of ambition

CFA FCA
Canadian Federation of Agriculture
Fédération canadienne de l'agriculture

Canadian Offsets

Offsets Relevant to Agriculture

- Agriculturally relevant offsets in Alberta:
  - Conservation Cropping
  - Nitrous Oxide Emissions Reduction (fertilizer management)
  - Dairy
  - Beef (Low-Residual Feed Intake, reduced age of harvest and emissions from fed cattle)
  - Micro-Generation
  - Biomass
  - Biogas
  - Efficiency

- Since 2002 Alberta producers and aggregators have received $170 million through offsets.
- Some have estimated with greater adoption of these protocols, it could be close to $100 million/year.

Offsets Relevant to Agriculture

- Ontario and Quebec have 13 under development including:
  - Fertilizer management
  - Livestock
  - Organic waste digestion
  - Organic waste management
  - Grasslands
  - Conservation cropping
  - Forest
  - Afforestation
- Quebec has one in place:
  - Biogas capture

Agricultural Offset Protocols

Challenges:

- Ensuring the early adopters are recognized.
- Demonstrating permanence and additionality.
- Administrative burden on producers: time, complicated process, low compensation, verification, scale.
- Competition with other industries for funding and to market a sizeable offset.
- Is it worth your time?

Opportunities:

- Combining multiple offsets through a single process.
- Companies are now starting to integrate offsets into their service stream, reducing administrative burden to producers.
- Enabling offsets across borders.
- Accessing into voluntary offsets.

Opportunities and challenges from current approach

Financial opportunities for producers are likely to be mixed.

- Highly dependent on which province you operate in.
- Offset protocols where they have been established have brought administrative costs so that not all producers see value in participating in the program, even if they qualify. But it is a made-in Canada approach that has room to expand.
- Scale impacts the ability to participate in offsets.
- Differences in region impacts the attractiveness of participating in an offset.
- Increased costs of production from carbon pricing.
- Position as price takers in the market will result in downloading of carbon pricing costs from the supply chain with no opportunity to pass it on.
- Any loss of global and domestic competitiveness will lead to carbon leakage.

CFA's Action

International Engagement

- Member of the World Farmers' Organisation's (WFO) Climate Change Working Group.
  - Developed an updated climate change policy for WFO.
  - Regularly contributes to policy positions and statements for international meetings.
- Member of the North American Alliance for Climate Smart Agriculture.
- Accredited to UNFCCC and regularly participates in climate change negotiations.


On-farm renewables and sustainable intensification to address climate change and food security
UNFCCC COP 22 Side Event
November 9, 2016
MARRAKECH 2016
COP22 | CMP12 | CMA1
UN CLIMATE CHANGE CONFERENCE

Climate Change – National Engagement

Emphasizing Adaptation and Agriculture as Providing Solutions

- CFA provided multiple submissions to the PCF.
- Participated in stakeholder engagement sessions for each of the four FPT Working Groups.
- Submission to the Carbon Pricing Backstop Technical Paper.
- Involved in other sustainability initiatives, including:
  - National Environmental Farm Plan
  - Canadian Roundtable on Sustainable Beef
  - Canadian Roundtable on Sustainable Crops
- Carbon Pricing Committee currently updating CFA's policy, coordinating positions across producer organizations.

CFA's emerging positions

- Carbon intensity rather than absolute emissions is a better starting position for agriculture.
- Climate policy must not create a perverse disincentive for food production.
- All on-farm fuel use must be exempt from carbon pricing, including natural gas and propane.
- Offsets can work, but they need to be designed to encourage adoption.
- Environment Ministries need to develop a better understanding of agriculture.
  - Business as usual is not the same thing as in other industries.
- Agriculture is part of the solution and investments in clean technology, innovation and the bioeconomy are needed.
- Increased investments to support producers to adapt to climate change and build resilience must also be included.
- Canadian emissions reductions and offsets must be prioritized.

Some Conclusions

- Provinces and Territories have significant discretion in implementing carbon pricing and action on climate change as long as the federal minimum is met.
- Exemptions and rebates to compensate producers from costs of carbon pricing are possible, but require making the case to governments and competing with other industries.
- Offset protocols could provide a new but small revenue stream.
- Determining the potential costs and opportunities for producers still depends on program details in most cases.
- Addressing higher costs of production and competitiveness, especially for some commodities, may wipe out compensation received from carbon offsets.

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