

Engaging the Ag Sector on Climate Change Policy: Soil Carbon

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A photograph of a rural farm scene. In the foreground, a blue tractor is pulling a yellow combine harvester through a field of harvested crops. In the middle ground, there is a large red barn, several white silos, and a white house with a green roof. The background shows rolling hills under a clear sky.

Fearless Prediction:

*Maximizing sink potential will
depend on producers taking action!*

Overview

- Atmospheric Integrity
- Sink Ownership
- Economic considerations
 - “low hanging fruit”
 - “windfall profits”
- Involvement and commitment
- Example of a practical offset system
- Temporary credit issues
- Other issues



Atmospheric Integrity

- System must ensure atmospheric integrity or the credits will be internationally discounted
- Offset credits must not be decoupled from land ownership
- System must not shift value from the Ag sector and replace it with maintenance liability



Ownership

- Sink offsets must remain the property of the producer who creates and maintains them
- Multiple pools (Canada's BAU) approaches are unworkable



Multiple Pool Issues

- Creating separate pools would be difficult to administer and very expensive to monitor
- **Creates Perverse Incentive**
 - Rewards late adopters
 - Would create have and have not producers in the same community
 - Perceived as unfair



Other Ownership Issues

- Ownership through incenting action
 - TransAlta's claim
 - Fertilizer industry
 - Competing claims??
- Greencover Program
 - Appropriates offset value with no mention in contract



Low Hanging Fruit?

- Ag sinks are not “low hanging fruit” but a unique one-time opportunity that should not be wasted as a mechanism to avoid taking action
- Sinks can be a bridge to low cost emission reductions



Windfall Profits?

- Ag sinks will NOT result in “Windfall Profits”
 - Ag producers are price takers for both outputs and inputs
 - Input prices are affected by energy costs
 - Example. Last year John Bennett’s urea cost increased by \$16000 driven by natural gas prices

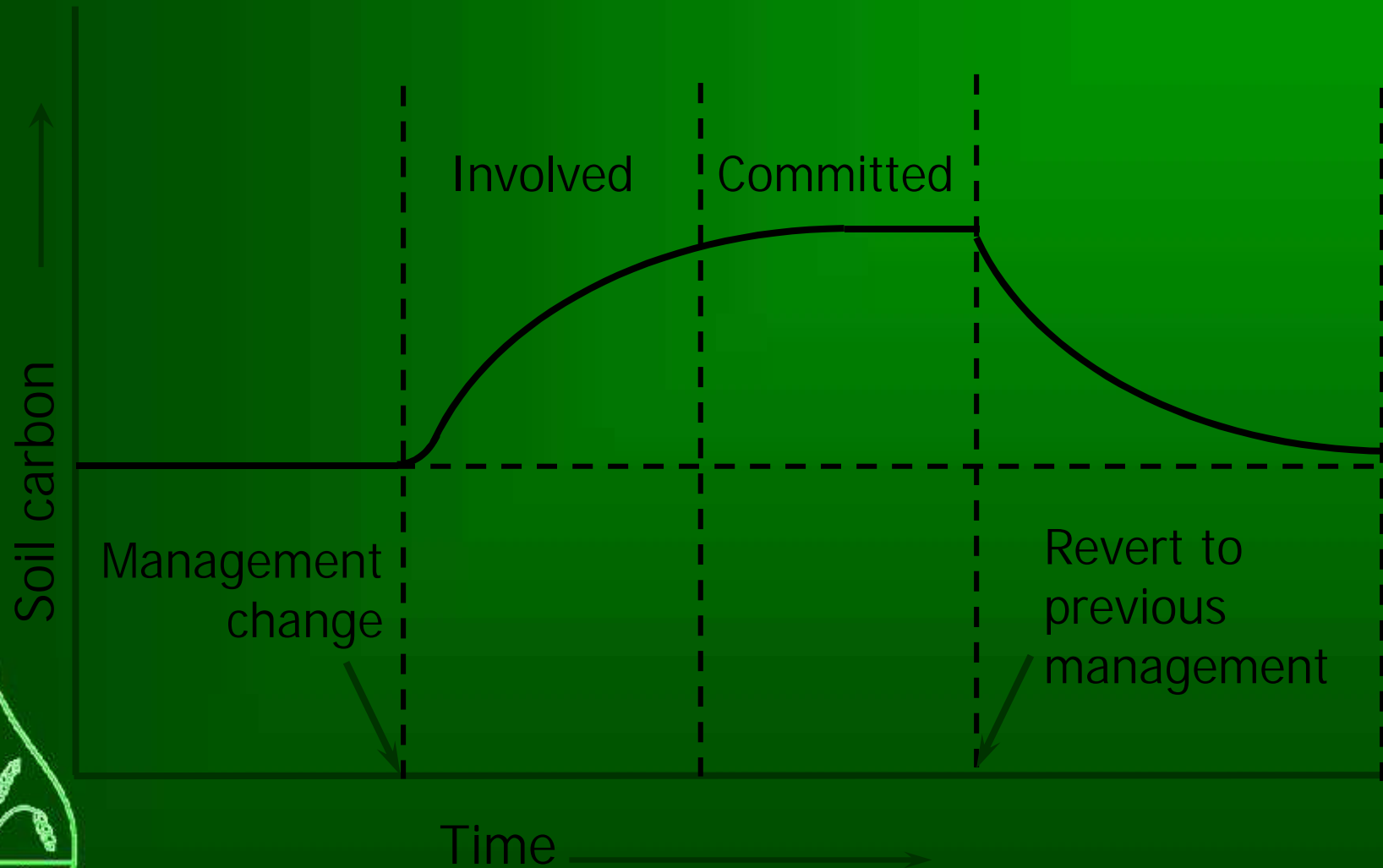


Involvement and Commitment

- Sink creation (involvement)
- Sink maintenance (commitment)

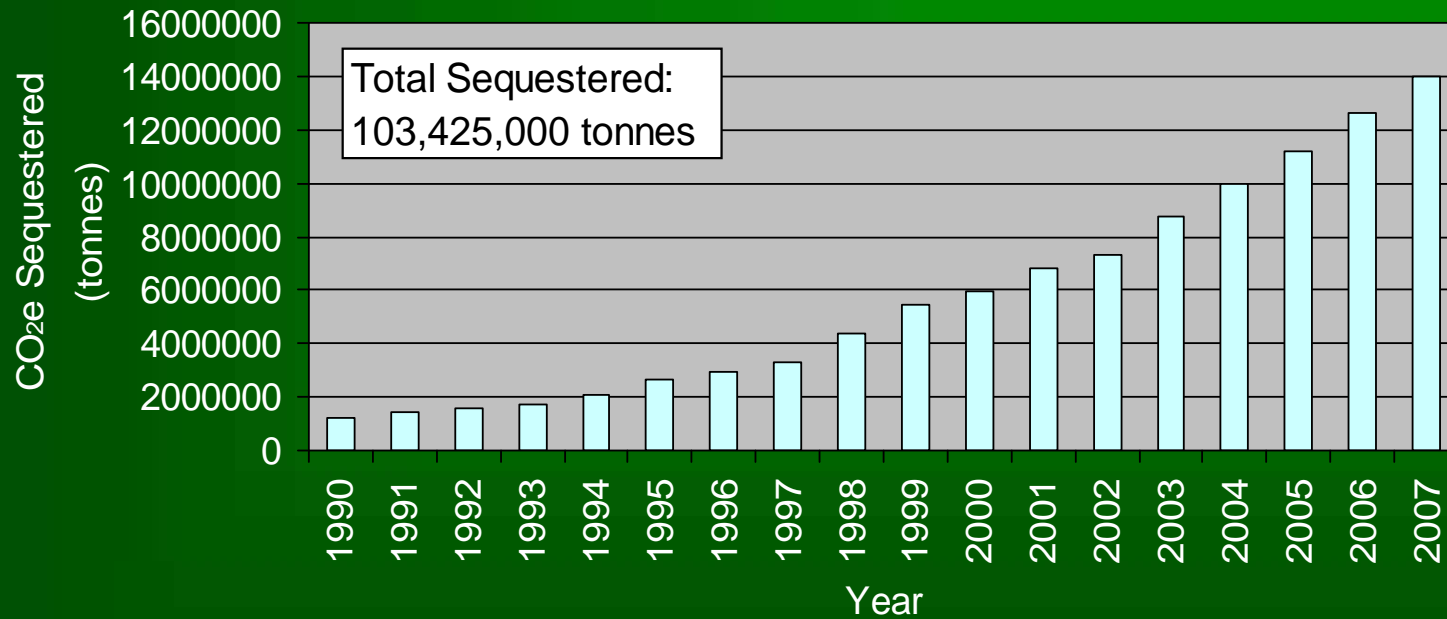


Involvement and Commitment



Ag Sink Trend

CO₂e Sequestered in Saskatchewan Since 1990
(Based on 0.5 t CO₂/ac/yr)

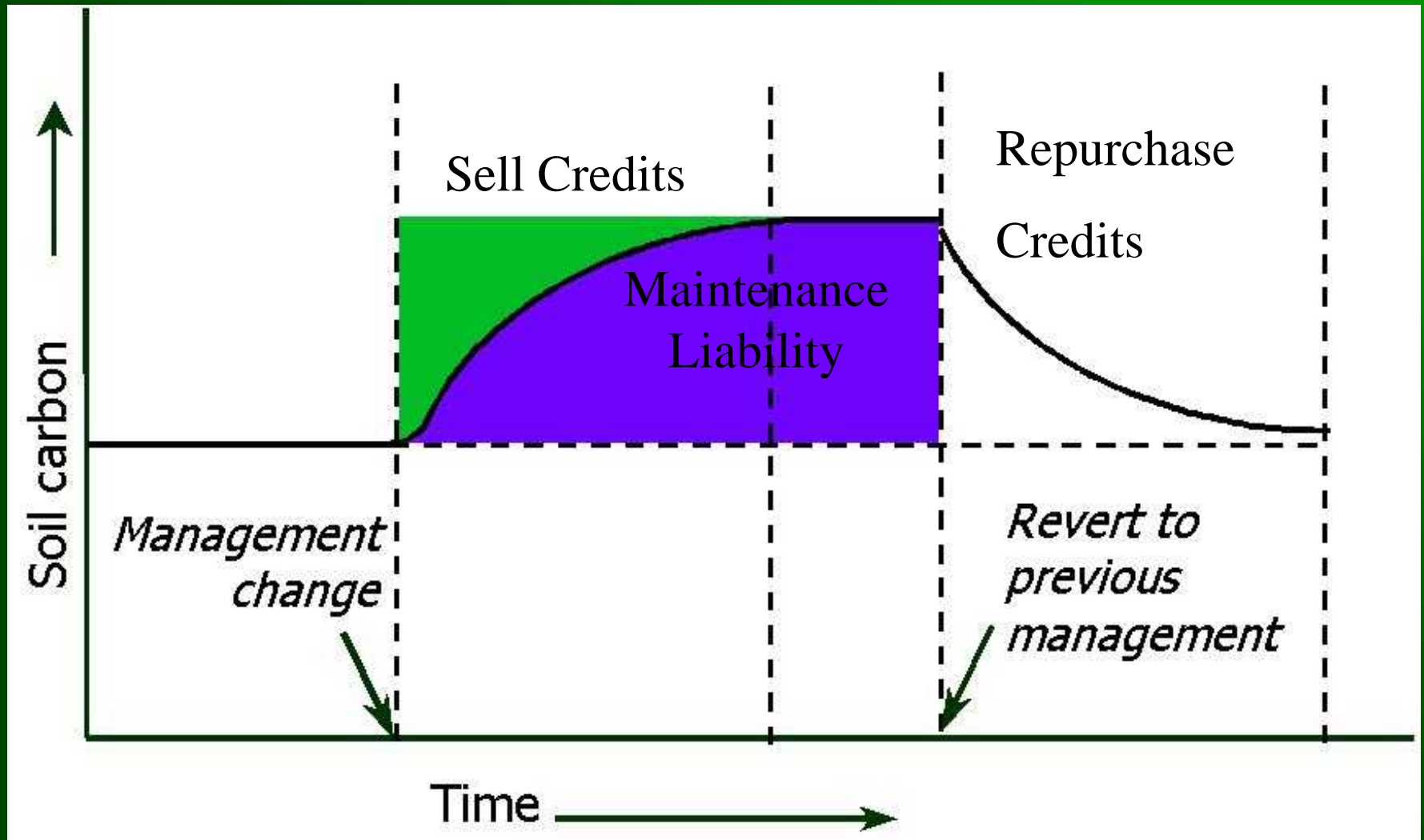


Permanent vs. Temporary

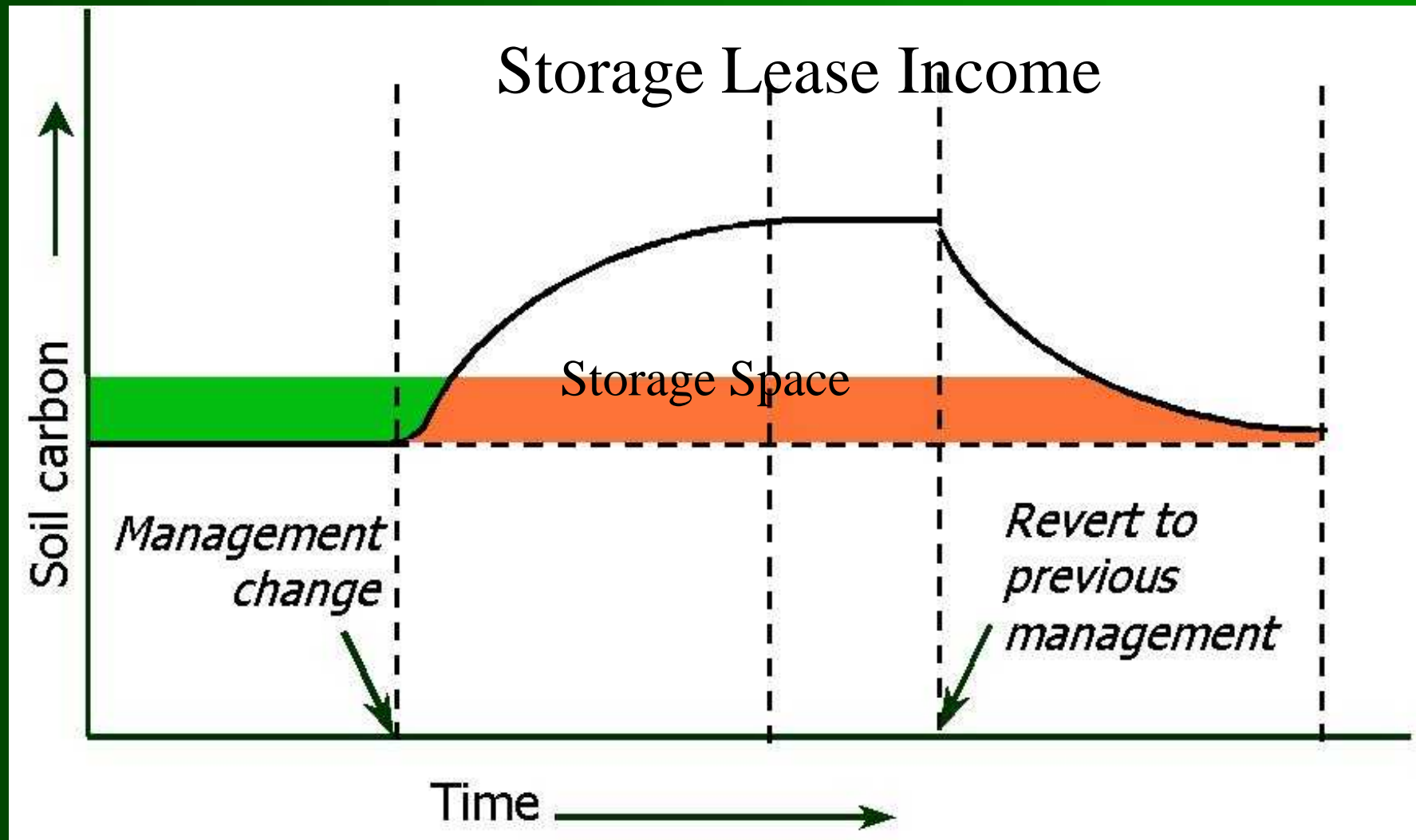
- Emission reductions need different offset policies than removals
- Permanent credits (commodity)
 - Emission reductions (N_2O)
 - permanent sink credits have long-term maintenance liability
- Temporary credits (service)
 - Leased credits reduces or eliminates maintenance liability



C sequestration as a Commodity



Sequestration as a Service

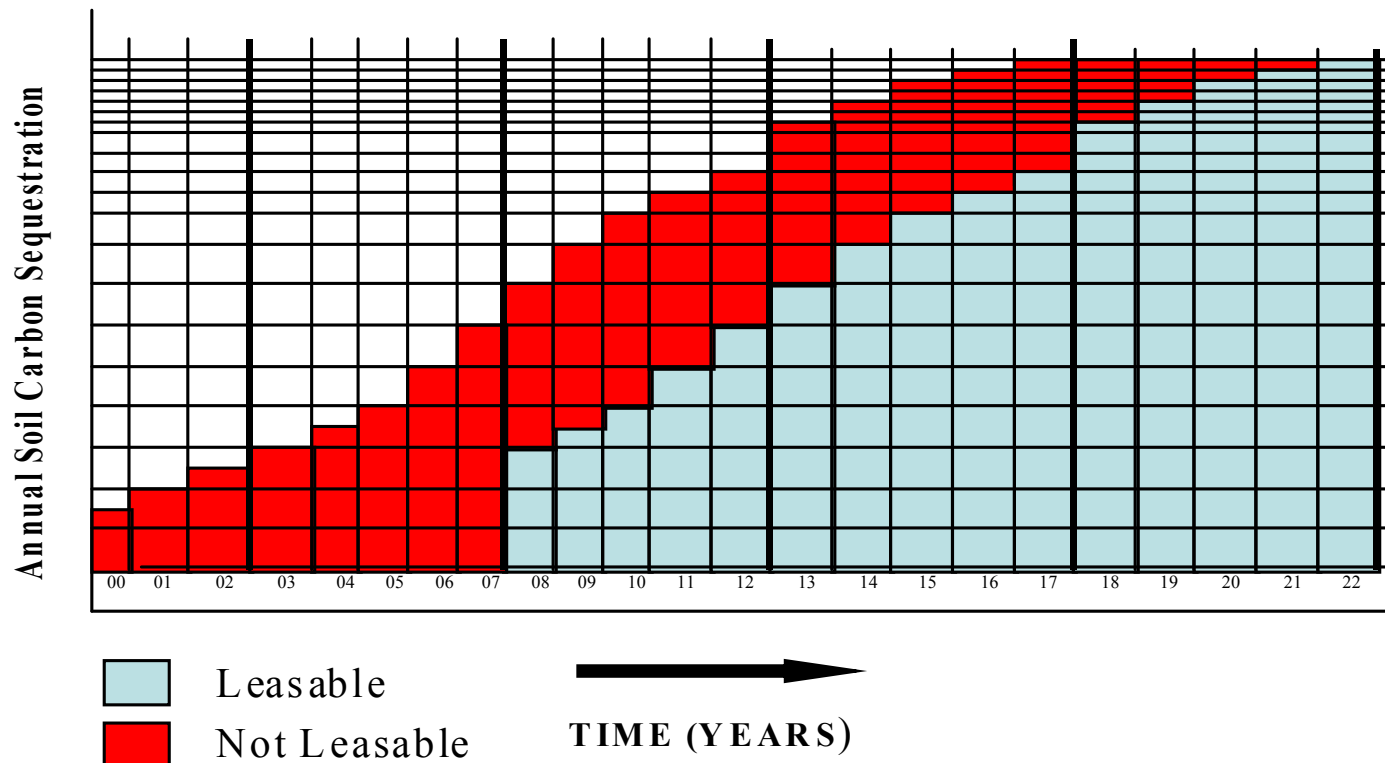


SSCA's Offset Model

- Single pool, all adopters can participate
- Simple rules-based model
- Based on a Temporary Credit (tonne/year)
 - Credits leased for fixed term
 - Accumulate over time
 - Incentive for maintenance
- 5-year lag from initial adoption
 - Ensures only committed producers participate



Canada's Annual Soil Carbon Sequestration Over Several Commitment Periods



Temporary Credit Issues

- Emitters prefer permanent credits to avoid the long-term management
- If temporary credits are not part of the system, the financial community would create them
- Sink credits are robust. Risk that credits could not be renewed is overstated!



Other Issues

- Compatibility of Canadian – USA system
- Compatibility with CDM-TER system
- Any domestic system that took advantage of the Ag Sector will not likely work internationally
 - Ecological colonialism



Summary

- Ensure atmospheric integrity
- Producers must clearly own the credits for the sinks they create
- Multiple pools are unworkable
- Maintenance risk can be addressed with TCs
- Practical rules-based offset system essential
- Compatibility between different offset systems highly desirable



Success or failure is dependent on “actors” in this case producers

