



**BIOLOGICAL
CARBON
CANADA**

101-5101-50 Avenue, #906
LEDUC AB T9E0B9
5879894180
graham@biologicalcarbon.ca

Senate of Canada
Standing Senate Committee on Agriculture and Forestry
Ottawa, Ontario
Canada, K1A 0A4

RE: Soils, Carbon Markets, and Greenhouse Gas Exemptions

December 13, 2023

Dear Senator Black and Committee Members,

Please find enclosed follow-up to the questions you and your fellow Senators asked.

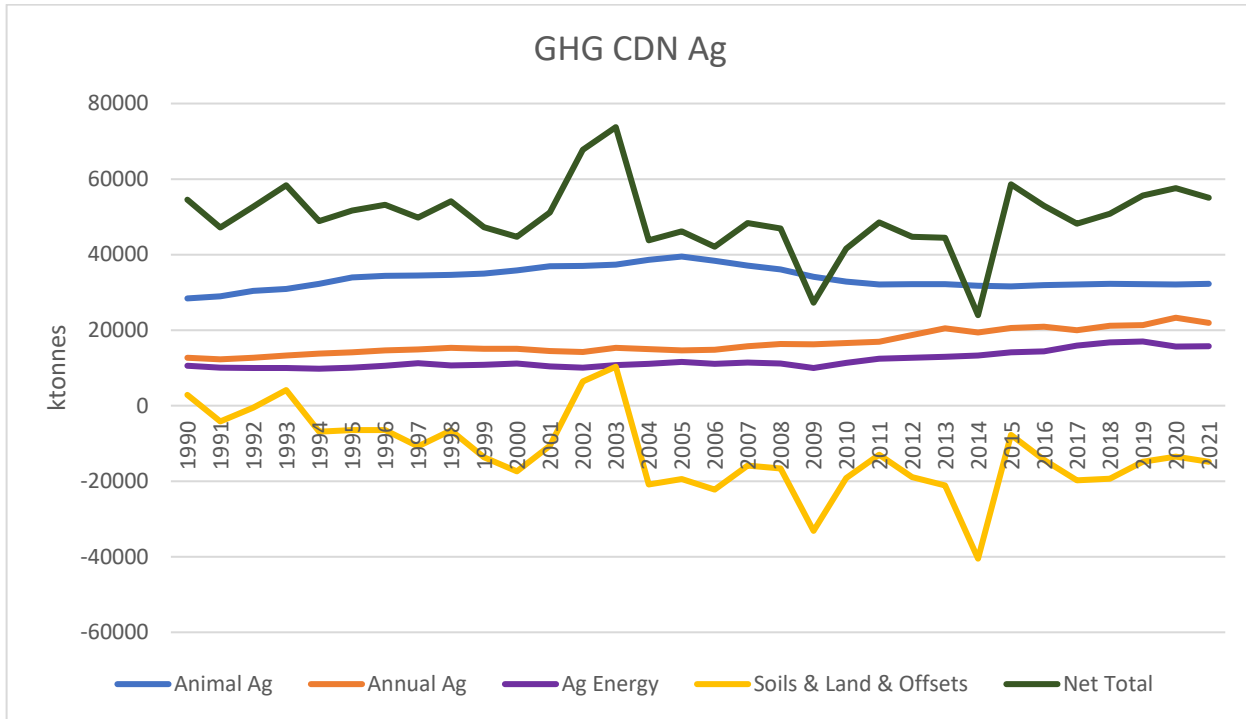
Thank you for the opportunity to present.

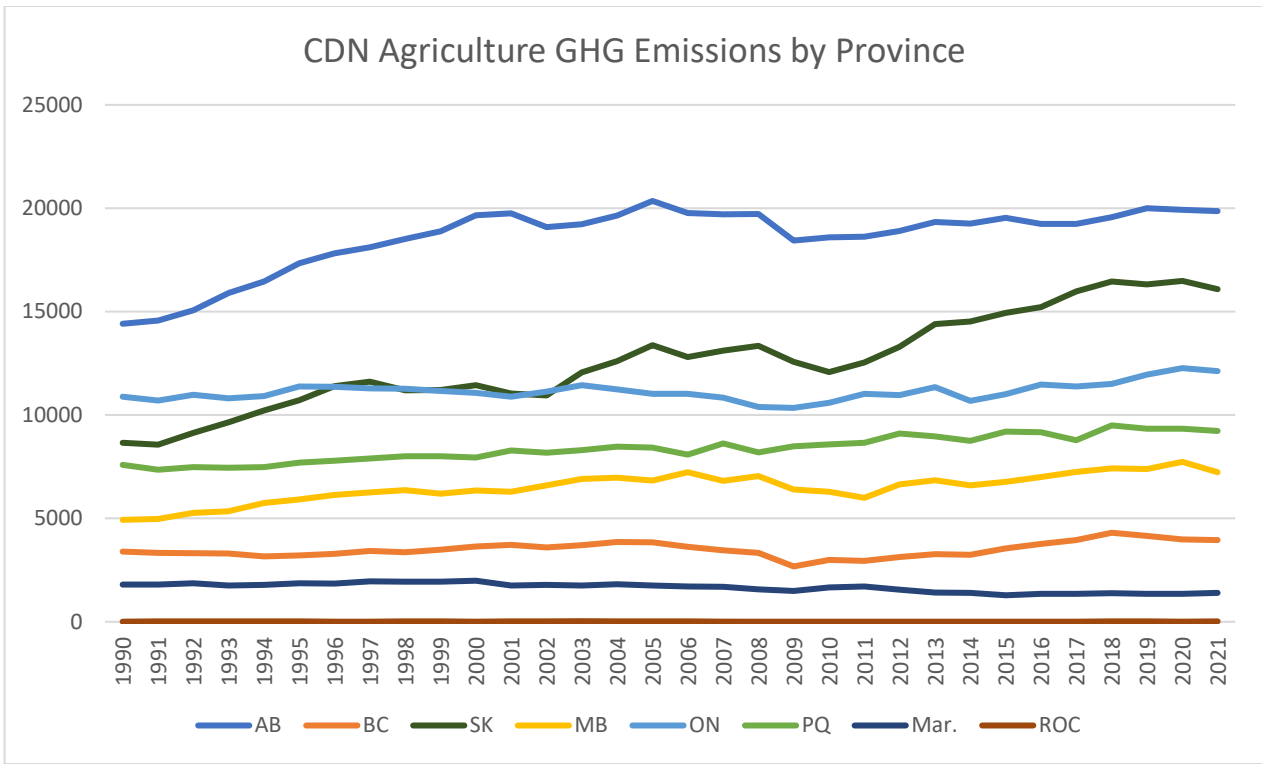
Sincerely,
Graham Gilchrist PAg
CEO



The GHG Emissions

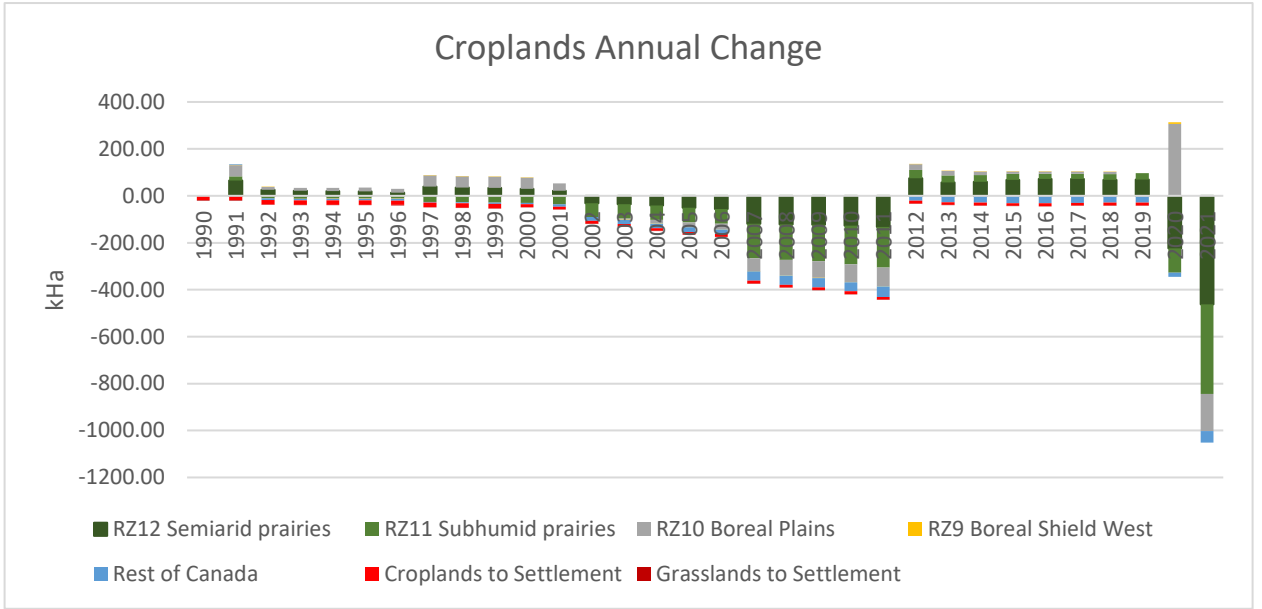
Below is a summary of the emissions from the agricultural sector as published by ECCC.



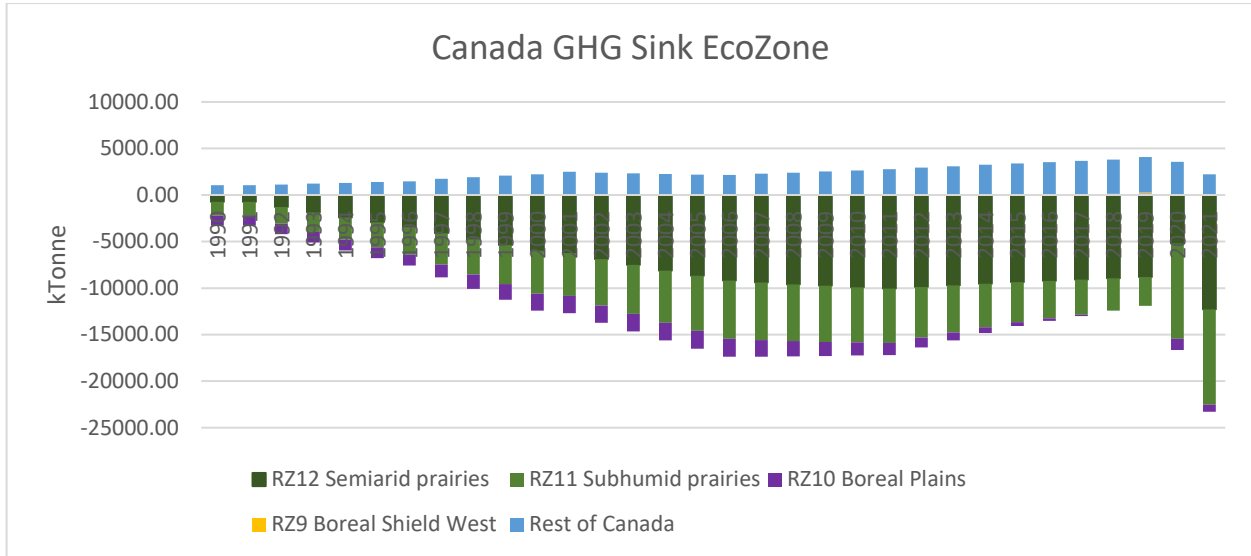


Above is a provincial summary of the emissions from the agricultural sector. The sink (soil health) data is not summarized by province.

Below is ECCC data on annual changes to the size of Canada’s soil sink.

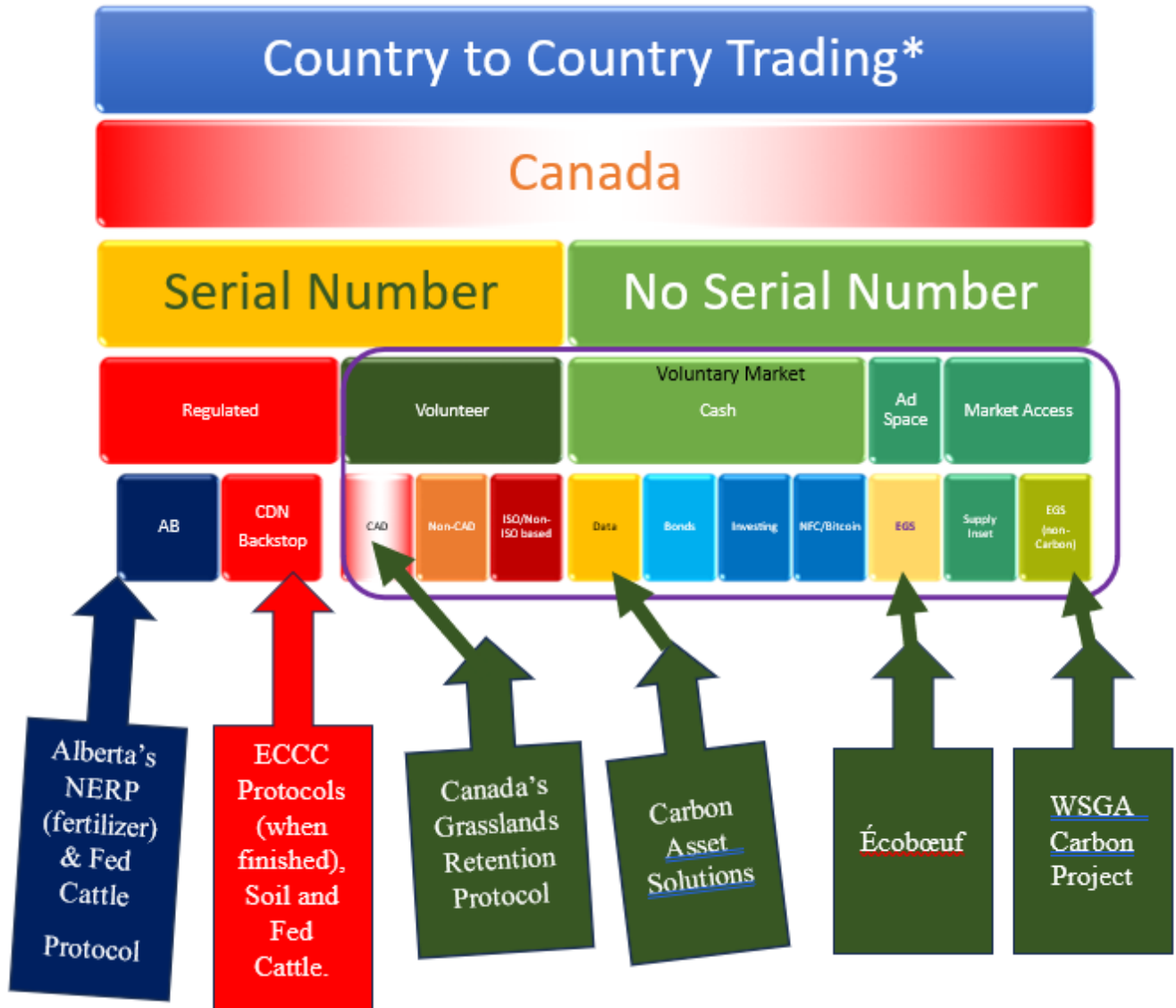


Below is the soil sink annual changes.



The Marketplace

The Senators had questions about the marketplace. Below is a summary of the carbon marketplace and indicators where the speakers are located in the marketplace.



Senator Deacon said it best in the C-234 debate. This new marketplace now has a direct link to soil health.

“Market frameworks require, yes, incentives and different programs to help with costs, but the market framework itself has to be put in place so that it’s not government subsidizing the function

of the market. It's the market itself able to create value that others buy and want to buy. That is about creating rules, creating standards and creating the marketplace, just like we have a carbon stock exchange where farmers can reliably sell a carbon credit to another party and that delivers value to that party as an offset to them, and the farmer receives the revenue back. Senator C. Deacon November 23.2023"

Senator Simons: If people reduce their fertilizer use, is there an offset credit for that?

Yes, Alberta has that protocol for their market. It is called NERP. A copy is available here. <https://open.alberta.ca/publications/9781460125502>

Senator Simons: Thank you to all of our witnesses for being here. This has been a remarkable panel. I wanted to hone in on something that Mr. Gilchrist and Dr. Newton both mentioned: the verification of carbon credits.

Verification is another name for audit. In the context of carbon, the verifier assures the project has been built at a reasonable level of assurance as defined by the protocol.

The protocol defines the science, the evidence a project must have, and the output (offset or credit) when built as prescribed.

What is happening is that when there is no regulator, the buyer is conducting a verification as well and charges that cost back onto the project.

In our presentation, we touched on the rules in Alberta for being a verifier. Canada has similar rules for their backstop projects. Once we leave the regulated world, there are few rules on who can be a verifier.



Senator Burey: There are no clear definitions of standards?

There are...13 of them. The ISO 14064 is the main one and is used by Alberta and ECCC when designing protocols. In the voluntary space there are 13 different standards in designing a protocol.

A regulator would set the standard for Canada.