



Climate Policy and the Changing Economics of Soil Management

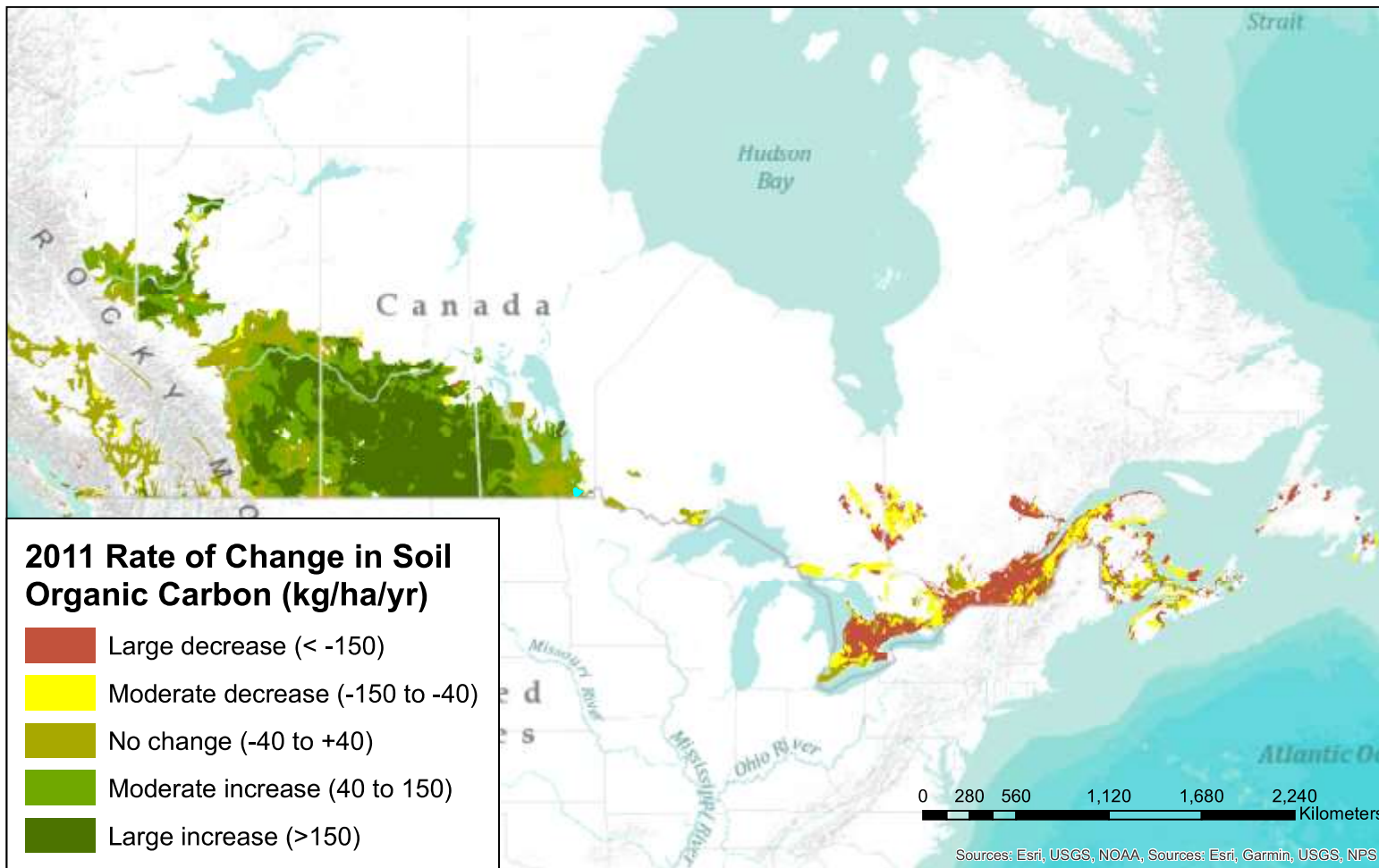
SSCA ANNUAL MEETING

FEBRUARY 5, 2019

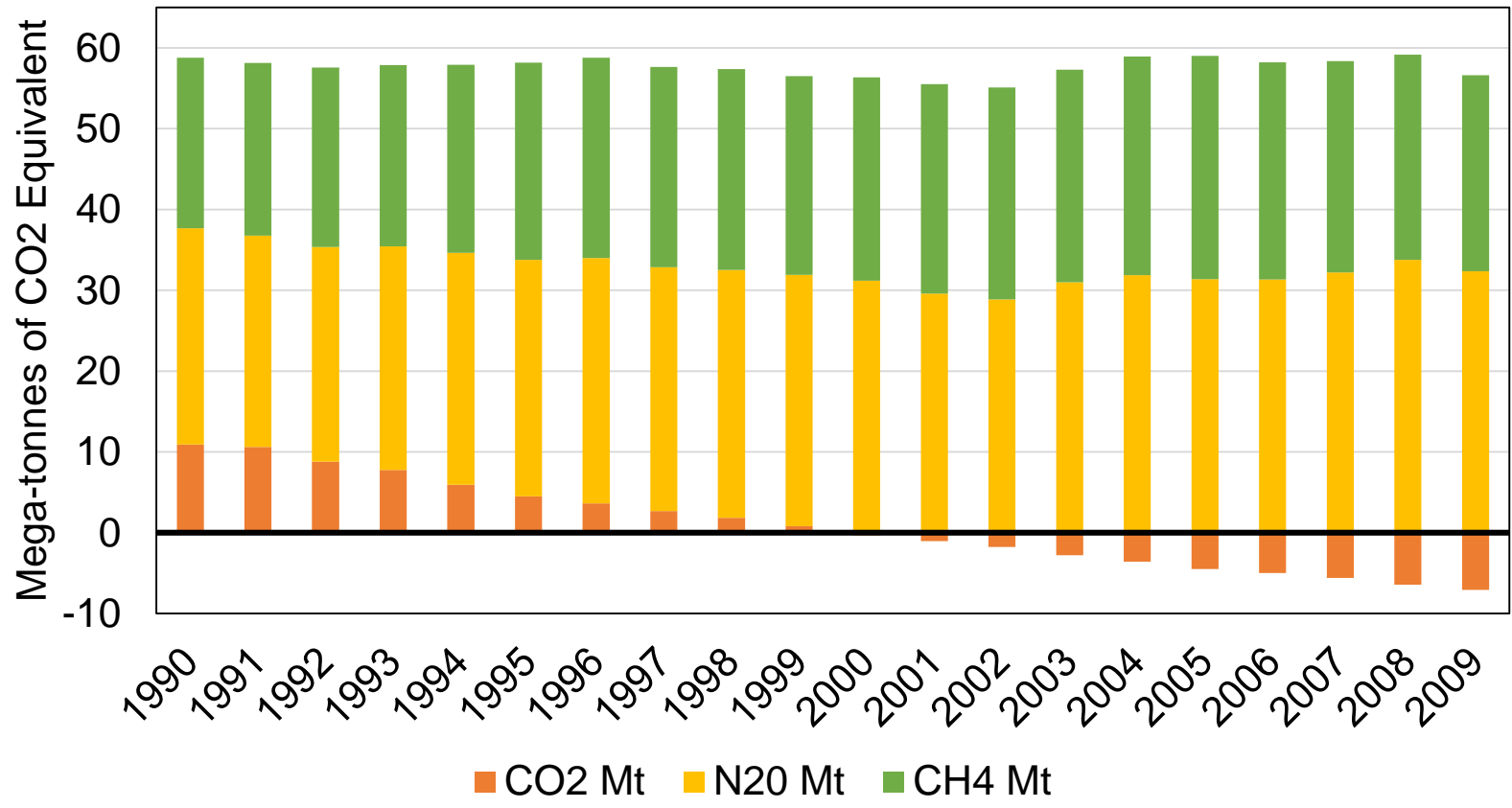
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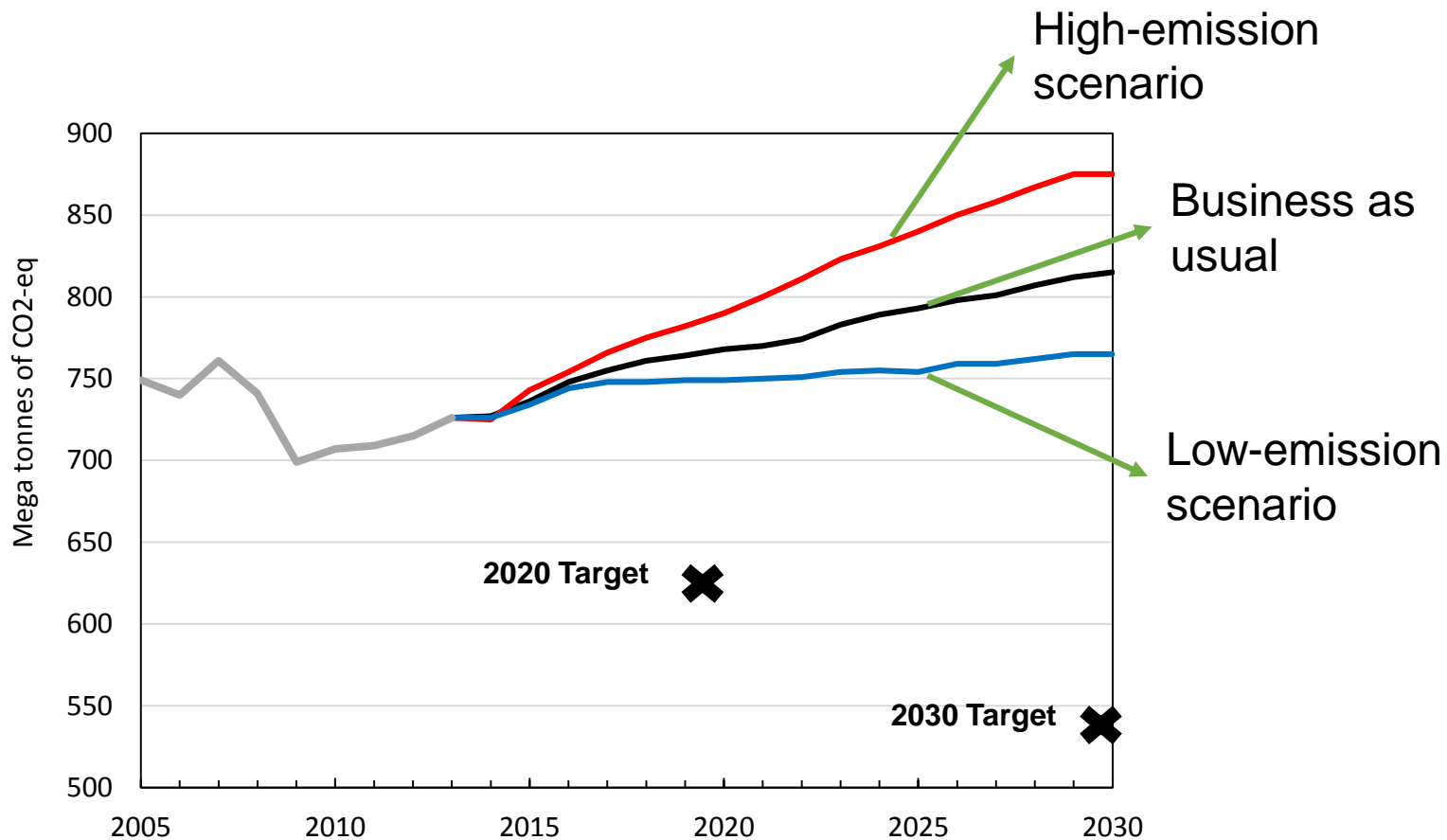
2011 Soil Carbon Change Rate (kg/ha/yr)



Direct On-Farm Emissions and Removals from Primary Agriculture in Canada, 1990-2009



Federal Government Objective

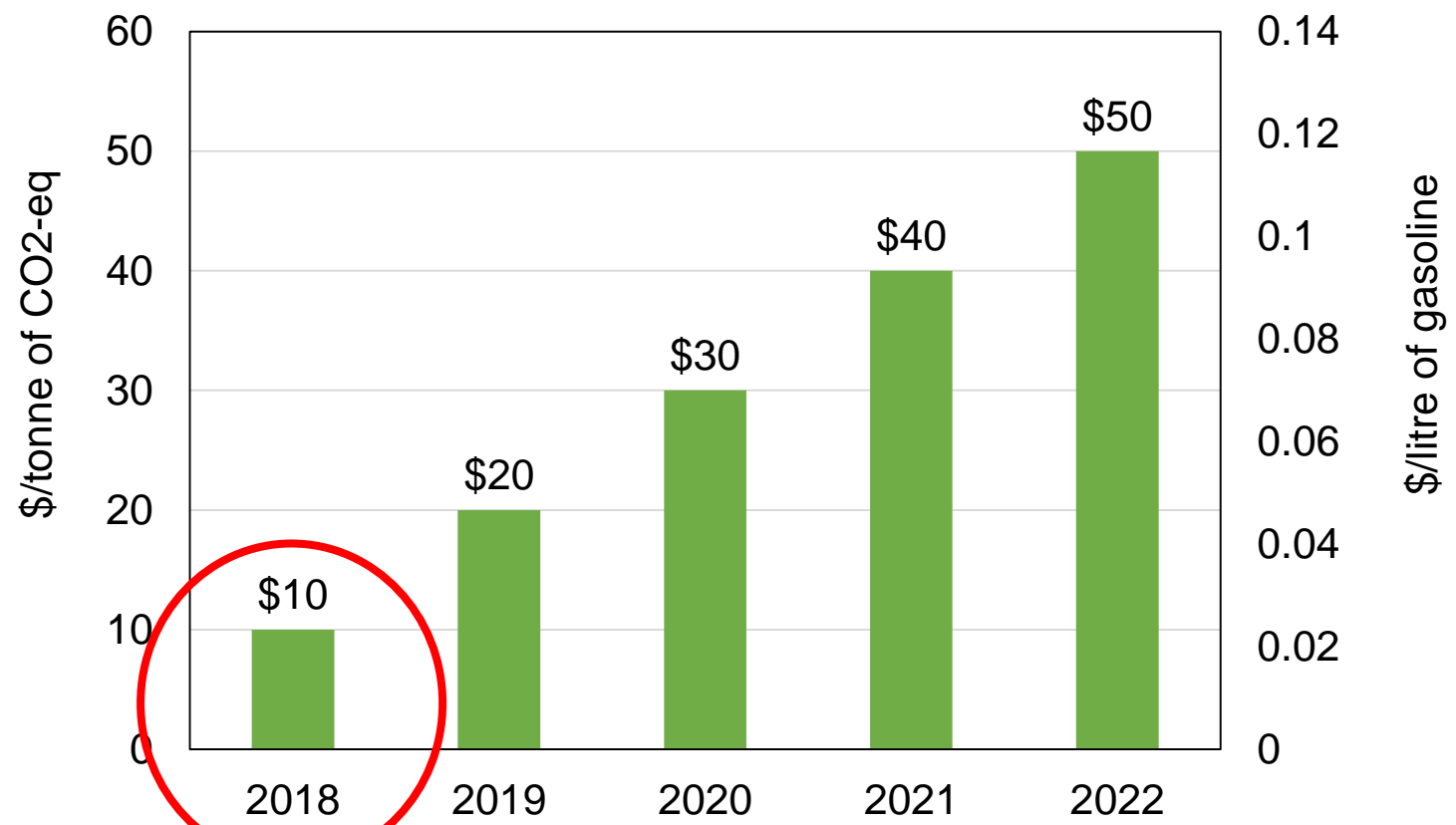


Source: Environment and Climate Change Canada

Greenhouse Gas Pollution Pricing Plan

- New name for the Federal carbon pricing backstop set to apply in provinces without their own framework
 - Saskatchewan, Manitoba, Ontario, New Brunswick, Alberta(?))
- Constitutional reference case for Saskatchewan: February 13-14, 2019
- Scheduled implementation date: **April 1st, 2019**

Federal Carbon Tax (Backstop)



Skipping this year...

Fall 2018 Update

Average cost impact per household* of federal system**

Average Climate Action Incentive † payment per household

	2019	2020	2021	2022	2019	2020	2021	2022
Ontario	\$244	\$357	\$463	\$564	\$300	\$439	\$571	\$697
New Brunswick	\$202	\$296	\$386	\$470	\$248	\$365	\$476	\$583
Manitoba	\$232	\$342	\$447	\$547	\$336	\$495	\$649	\$797
Saskatchewan	\$403	\$588	\$768	\$946	\$598	\$883	\$1,161	\$1,161

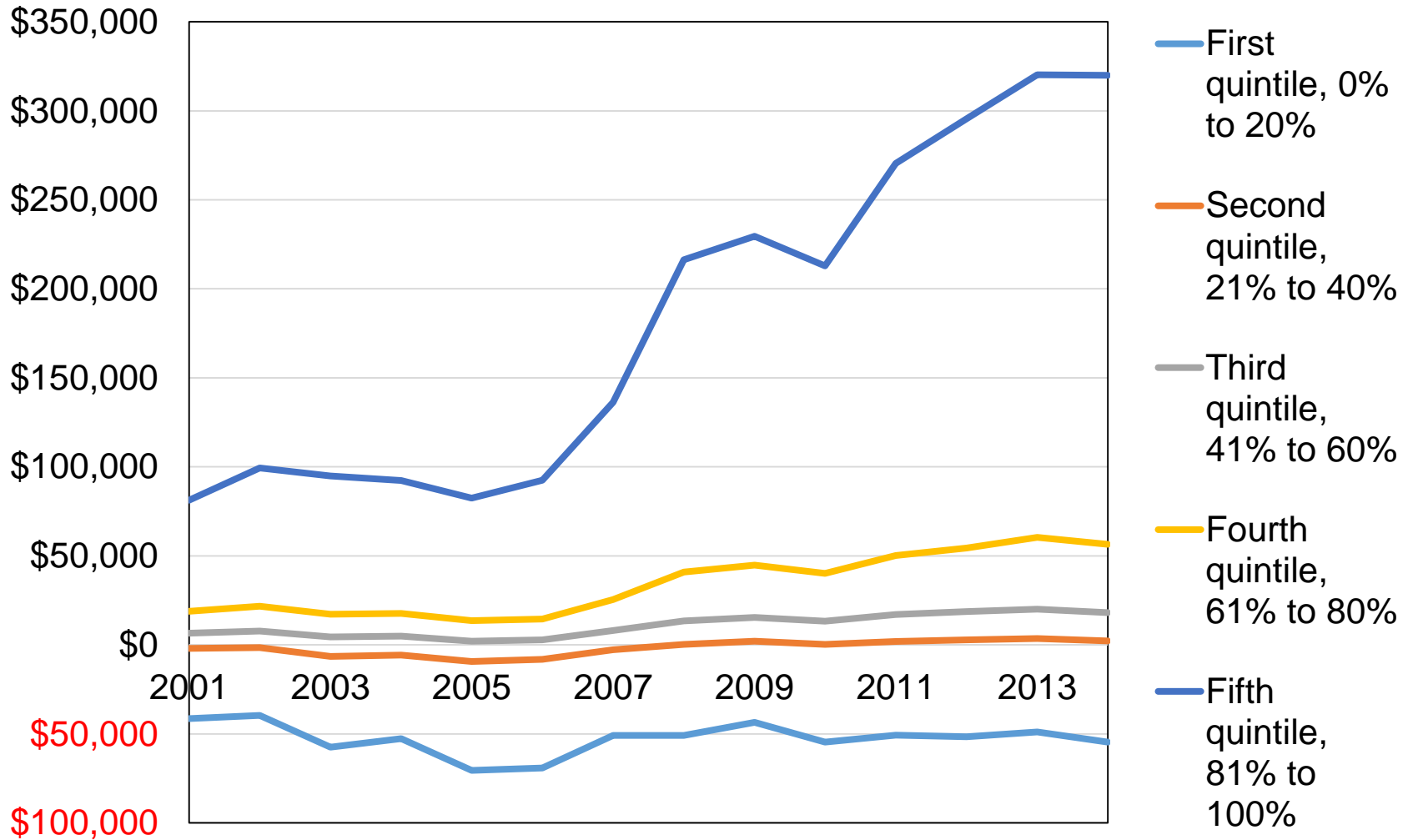
- New backstop plan: **Removes provincial revenue-return decision**

Farm-Level Considerations

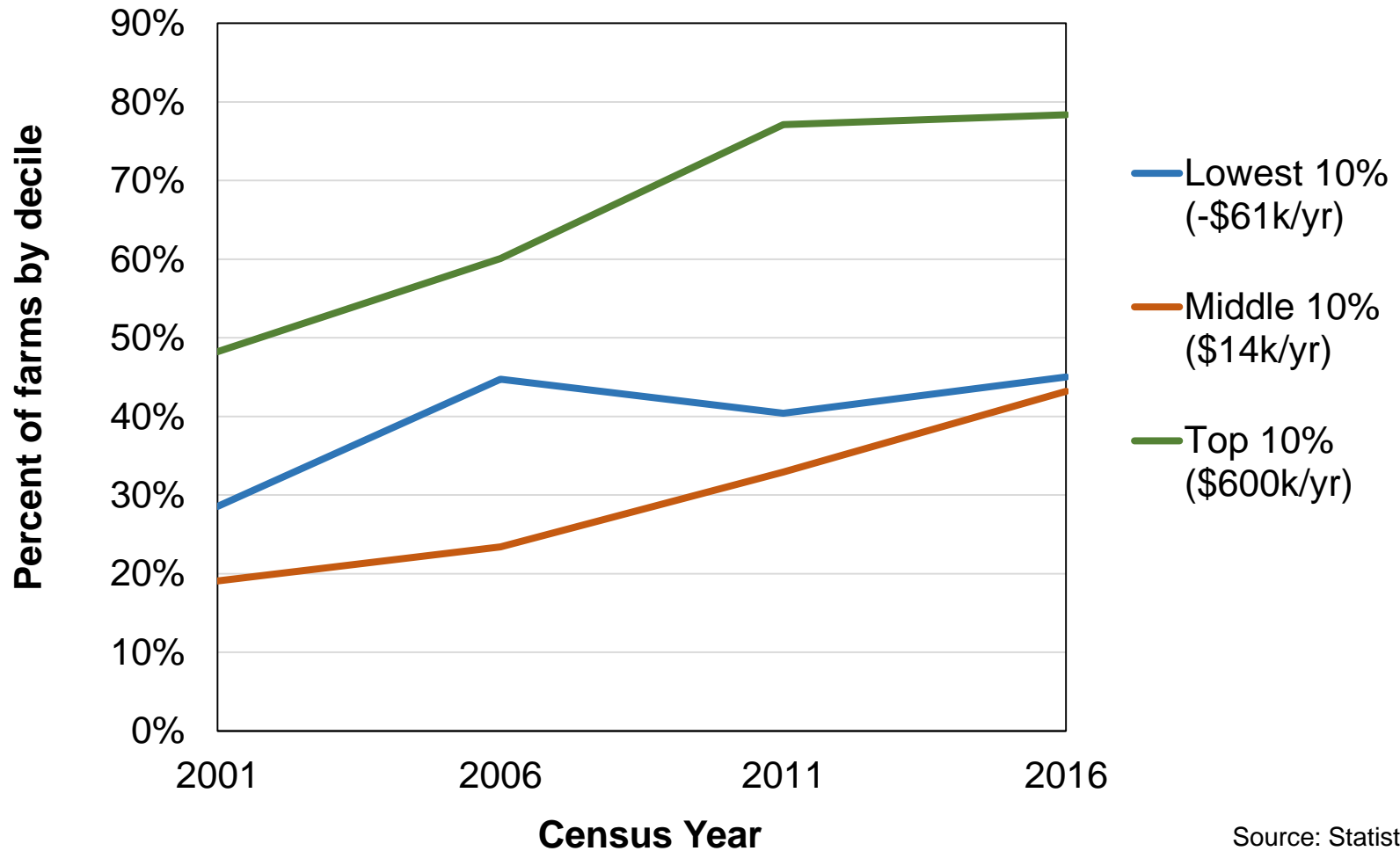
Soil quality, SOC, and working capital

- There are a variety of BMPs available for improving soil quality
- Many of these require diversions of management resources, technology adoption, and **sacrificing short-term economic gain**
- Without external assistance, these types of improvements may only be feasible for farms with high liquidity
 - Look to Clubroot as an example

Net Market Income by Quintile: Canadian Crop Production



Percent of farms using zero-till seeding by net-farm income decile



Current Saskatchewan Incentives



The screenshot shows the Saskatchewan Government website for the Farm Stewardship Program (FSP). The page features the Saskatchewan logo at the top left and a language selector (EN) at the top right. A navigation bar includes 'Residents and Visitors', 'Business and Industry', and 'Government'. The breadcrumb trail reads: Home > Business and Industry > Agriculture, Natural Resources, and Industry > Agribusiness, Farmers, and Ranchers > Canadian Agriculture & Agribusiness > Environmental Sustainability and Climate Change > Farm Stewardship Program (FSP). The main heading is 'Farm Stewardship Program (FSP)'. The text describes the FSP as providing funding for beneficial management practices (BMPs) in water, climate change, and biodiversity. It lists four outcomes: improved water quality, reduced greenhouse gas emissions, enhanced agricultural resilience, and maintained biodiversity. A BMP is defined as an agricultural practice that ensures long-term land health, positively impacts economic and environmental viability, and minimizes negative impacts. A 'Funding' section notes that each BMP has its own limits and requirements, and separate applications must be made for each project.

- Drainage Stewardship
- Invasive Plant Biocontrol and Targeted Grazing
- Livestock Stewardship
- Native Rangeland Grazing Management
- Permanent Native Forage
- Permanent Tame Forage
- Riparian Grazing Management
- **Variable Rate Mapping**

BMPs plus Carbon Policy

Carbon policy as an opportunity for soil quality improvement

- Need for a robust provincial **offset policy** to complement the existing options under the Farm Stewardship Program
- Match payments to rising Federal Carbon Tax

Issues

- Farm-level measurement (issues with aggregators)
- Strong market for buying offsets (failure of the previous iteration)

Thank you for your time

Questions?

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