

SOCCR Revised Draft Outline

Executive Summary

I. Why should we care about the carbon cycle?

- Impacts: Climate change, ocean pH change, CO₂ fertilization, soil carbon

II. How do North American carbon sources and sinks relate to the global carbon cycle?

- Contribution of North American vegetation, land use and management, continental margins, and fossil fuel emissions to global budget
- Oceans and atmosphere in a global sense

III. What are the primary carbon sources and sinks in North America, how are they changing and why?

- Primary contributions to changes in atmospheric CO₂ concentration (sources by sector, sinks by sector discussed in proportion to prominence in the budget)
- Integrated time scale, present budget and historical ~300 yr budget,
- Dynamics, drivers
- What are the primary uncertainties in the North American carbon budget, and what factors affect carbon budget uncertainties and information quality?

IV. What are the options and measures that could significantly affect the carbon cycle?

- Business as usual scenario; what can we expect with current trajectories
- What are the options and measures that can enhance carbon sinks or reduce sources?
- What are the effectiveness (leakage, permanence, feasibility) and cost of these options?
- How might these options be affected by climate, technological and other changes?

V. How can we improve the application of scientific information to decision support for carbon management and climate decision-making?

- Utility: Understanding needs and decision process of decision-makers
- Information: Improving information and analysis
- Communication plus: Improving ability to deliver information

