

Comments and Responses on Public Review Draft of SOCCR/SAP 2.2 (September 2006)

COMMENTS FROM PUBLIC REVIEWERS						AUTHOR'S RESPONSE						
Comment Number	Reviewer ID	Chapter	Page	Line	Comment Text	Acknowledged, but no further response or revisions are required	Revisions have been incorporated as suggested in the comment	Agree, but see "Notes on Response"	Agree, but elaboration is precluded by length limitations	Disagree; see "Notes on Response"	Beyond scope of report/chapter	Notes on Response
III-001	6	Pt III O'view	III-1		I believe that Part III on Land Carbon Cycles seriously underestimates the past, present, and probably future climate impacts on carbon source fluxes from ecosystems of western North America. As my research team at NASA has published (Potter et al. 2005 and 2003) satellite image results that show that several large regions in the United States, Mexico, and Canada have been adversely affected over the past 20 years by rapid shifts in weather patterns. Areas particularly hard hit by climate variations during the 1980s and 1990s were detected along the northern tundra zones of Canada and Alaska, the western Great Lakes, the Great Plains of the central U.S., the Mountain West, and the arid zones of the southern U.S. and Mexico. The most frequent cause of these large-scale declines in plant health was drought. Periods of unusually low rainfall, combined with warming trends, make ecosystems of the Mountain West and the southwestern U.S. particularly vulnerable to major wildfires and damaging insect outbreaks.		X					Text added under "Key uncertainties...."
III-001a					References provided in Comment III-001: Potter, C., P. Tan, V. Kumar, C. Kucharik, S. Klooster, V. Genovese, W. Cohen, S. Healey, 2005. Recent history of large-scale ecosystem disturbances in North America derived from the AVHRR satellite record, <i>Ecosystems</i> , 8(7), 808. Potter, C., S. Klooster, P. Tan, M. Steinbach, V. Kumar, V. Genovese, 2003. Variability in terrestrial carbon sinks over two decades: Part 1 - North America. <i>Earth Interactions</i> , Vol. 7, Paper 12.		X					
III-002	12	Pt III O'view	III-1	14-15	The connection between the observed land sink and future managed sinks must be stated more carefully. Because we do not know the cause of the current land sink (as stated in the following paragraph), it seems speculative to imply that proper management of this sink will make it significantly larger. The current wording is susceptible to misrepresentation by those who may wish to exaggerate prospects for managed land biosinks.		X					
III-003	12	Pt III O'view	III-1 to III-2	31-1	It is important to state that agricultural soils may take a very long time to recover to predisturbance forest levels and quality of soil carbon.		X					
III-004	12	Pt III O'view	III-8	Table 1	There are a number of inconsistencies within this table and between this table and other parts of the report. The double-counted areas (footnote 7) are not acceptable in a report of this magnitude. They should be resolved or better explained, and their implications should be described. The flux estimates appear to disagree with the land sink estimates given in chapter 3, and the forest sinks appear to disagree with those given in Chapter 11. Uncertainties are not given for most estimates. Data sources are not documented. Future potential annual fluxes are given, but the estimates are vague and uncertain and undocumented.		X					Double counting has been accounted for. Comparisons with Chapter 3 are still necessary. Future sources and sinks have been removed from the Table; mean carbon stocks have been added.
III-005	12	Pt III O'view	III-3	29-33	It is not clear how Table 1 implies the level and areas of management required for a given sequestration target. This discussion is very important for consideration of management options, and should be better explained and documented.		X					

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III-006	12	Pt III O'view	III-4	1-5	No references are given for the flux and cost estimates suggested.		X					
III-007	12	Pt III O'view	III-5	17 ff	This is a good summary of research needs, but does not include an assessment of current research directions (including those of the NACP, which are supposed to be evaluated by this report) other than to say they aren't enough.					X		It is not the charge of this Report to evaluate the adequacy of the NACP.
III-008	12	Pt III O'view	III-5	28-29	Given the magnitude of this report, it should be answering this question, not asking it.		X					
III-009	12	Pt III O'view	III-5	31-33	This double counting of land areas is simply unacceptable given the magnitude of this report. Resolving such issues is simply a matter of basic scholarship, which should be a fundamental task of this report.		X					Double counting of areas and carbon stocks have been accounted for.