

**Committee on Agriculture
U.S. House of Representatives
Biographical Form**

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Part I: Carbon Reduction Program Design

- 1) Members of Congress have introduced numerous bills to address the wide spectrum of climate change issues. Do you think Congress should enact a program that uses carbon taxes/fees, a cap-and-trade program, or a hybrid of these two approaches? Why?

Please respond in 600 words or less.

We have neither endorsed nor opposed either. We have noted several times that it is essential to work with the new Administration and the scientific community to develop and implement the most effective combination of existing and new tools to reduce Greenhouse gases as fast as possible while ensuring optimum ecosystem integrity. Most recently, our North American Section's President-elect testified before the Public Lands and Forests Subcommittee of the Natural Resources Committee saying that "the nation needs a comprehensive national goal with early and aggressive efforts to reduce GHG concentrations to a 350 parts per million (ppm) mid-term target (safety net) and a national implementation plan that addresses all major sources of GHG emissions by clearly describing contributions required from every federal agency..."

(http://resourcescommittee.house.gov/images/Documents/20090303/nfppl/oversight/testimony_dellasala.pdf , Hansen et al. 2008)

SCB recommended in December that President Obama "form an interagency team charged with developing options for use of and modest amendments to existing laws, including but not limited to NEPA, Clean Air Act, ESA, and the Internal Revenue Code, to minimize net greenhouse gas emissions and maximize the ability of ecosystems to sequester and convert greenhouse gases."

(<http://www.conbio.org/Activities/Policy/docs/SCB2008TransitionTeamRecommendations.pdf> , Section 3, first recommendation)

Dr. Dellasala also recommended the inclusion of non-federal lands in such a climate-land management program: ...

Under "Adaptive Management, Dedicated Funding, and Multi-jurisdictional Coordination" he recommended:

(12). As part of adaptive management, apply climate change and land-use models to address potential impacts of climate change and existing stressors – this includes modeling effects on vegetation, hydrology, snow pack, wildlife, fire, and forest productivity with a temporal extent of decades to a century.

(13). Direct federal agencies to cooperate and coordinate federal management plans across jurisdictions and provide incentives for technology transfer and climate preparation and sequestration on nonfederal lands - significant outreach to private landowners, including timber companies and ranchers, will be needed to implement the 3-R's strategy and 350 ppm national target across broader planning scales.

Dellasala also said:

“In general, changing forestry and other land management practices on federal land represents one of the most powerful, and, quite frankly, least costly tools that the nation has in fighting climate change. Increasing carbon storage on and decreasing GHG emissions from federal lands is feasible across extensive areas and can be effectively implemented. To combat climate change on public lands, a fundamental shift from current forestry practices is needed that: (1) retains existing stores of carbon in mature and old forests as “carbon banks” and (2) allows or helps plantations and other intensively managed public forests to optimize carbon stores by regrowing to old forest conditions, according to their historical composition (Harmon 2001). The Committee should also direct federal agency programs that influence state, private, and international forestry and agriculture to present cooperative and incentive-based plans to address climate change as federal lands should not be used as an offset for unsustainable practices elsewhere.”

Therefore, should the committee want to contribute through exercising its jurisdiction to a climate change bill and to forest conservation and sustainable use, it would have a reasonable scientific basis for capping emissions from the forestry sector which cap could be implemented by protecting mature and old-growth forests on public lands and providing incentives to nonfederal landowners to extend timber harvest rotations in order to maximize total carbon captured and stored. As Dellasala noted, a tax on carbon from forestry emissions could be used to provide incentives to landowners that forgo timber harvest by extending rotation ages. (See also, chapter 3 in “Recommendations for actions by the Obama Administration and the Congress to advance the scientific foundation for conserving biological diversity.”

- 2) Should the agriculture and forestry sectors be covered under a carbon reduction program? Why or why not?

Please respond in 300 words or less.

Yes. In our Recommendations to the Obama Administration and in the Dellasala testimony we call for a comprehensive interagency program. Mark Harmon testified that logging mature and old-growth forests is a net loss of stored carbon to the atmosphere and contributes more to CO₂ emissions than even severe forest fires (http://resourcescommittee.house.gov/images/Documents/20090303/npfpl/oversight/testimony_harmon.pdf, Harmon and Marks, 2002 Harmon et. al 1990).

About 8% of methane releases nation-wide come from agriculture and logging of old forests is a major source of CO₂ emissions (EPA 2008). Globally at least 18% of GHG are attributable to agriculture and about 20% to forest loss (FOA 2006). This committee can influence this through the international programs of USDA/ICD and the Forest Service. As a domestic example, in western Oregon the BLM has approved plans to increase logging of old forests by over 400% within a decade (Western Oregon Plan Revisions). This would release approximately 180 million tons of carbon, the equivalent of driving 1 million cars for 32 years. BLM and Forest Service should be a national carbon trust, and maintain the

biodiversity and ecosystem services that are at risk from these activities and from climate change. Capping forest and farm GHG would reduce both GHGs and the stresses that are making it harder for forests to contribute to climate mitigation and adaptation. These ecosystems are stressed by climate change resulting in increases in drought and wildfire intensity and frequency (Westerling, Tony, HNR testimony, 2007), invasive species and disease. Some forests are declining in growth rates and rapidly approaching the point at which they will begin to die off and become carbon emitters due to increasing ambient heat levels. (Clark, Deborah; Organization for Tropical Studies, Clark et al., May 13, 2003, Proceedings of the National Academy of Science, Vol. 100 No. 10, page 5852).

- 3) If a cap-and-trade program is chosen, how should emission allowances be distributed? For example, should they be at no cost, auctioned, or a combination of both? How should Congress prioritize the distribution of available allowances? Should allowances for the agricultural and forestry sectors be allocated at no cost, if so, should there be a limit on the number of no-cost allowances?

Please respond in 600 words or less.

Public lands should not be presumed to be capable of withstanding more pollution or used as offsets for permitting avoidable ongoing pollution, particularly from the forestry and agricultural sectors, as these lands are our only natural terrestrial carbon sinks and should be thought of as a reserve “fund” to help the US meet its GHG emission targets while sustaining ecosystem services. (SCB Obama Recommendations on interagency option team, p. 7, Dellasala, p. 5)/

- 4) Should a cap-and-trade program or a carbon tax/fee program be linked to existing or emerging U.S. regional or other carbon reduction programs (i.e. RGGI or individual state programs)? If so, which programs and why?

Please respond in 600 words or less.

- 5) If a cap-and-trade program is established, should an existing government agency regulate it or should a new agency be created? Please explain.

Please respond in 300 words or less.

SCB recommended that each agency proceed to use its authority aggressively in consultation with other agencies and the Congress, therefore, EPA would be presumed to regulate emissions in consultation with the land and water management agencies once appropriate accounting mechanisms are determined (see Chapter #3 of Obama and Congressional Recommendations).

- 6) If a derivatives or futures market in carbon reduction arises in the wake of the creation of a cap-and-trade program, should the Commodity Futures Trading Commission (CFTC) continue its role as the regulator of this derivative carbon market, or should there be a different regulator? Please explain.

Please respond in 300 words or less.

As in chapter 3 of SCB's Recommendations, interagency cooperation is essential and as in chapter 5 of SCB's recommendations, independent actions by scientist-whistleblowers, and others to enforce standards should also be encouraged.

- 7) Currently, derivatives of energy-based commodities can be traded through: a) highly structured instruments on regulated, transparent futures markets accessible to anybody and anyone; b) flexible instruments on lightly regulated, transparent derivative markets accessible to only major market participants, or; c) flexible instruments on unregulated, opaque over-the-counter markets accessible only to major market participants.

Should derivatives markets in carbon reduction arising in the wake of the creation of a cap-and-trade program also be permitted to develop under similar options as for energy-based commodities?
Please respond in 600 words or less.

- 8) Will enactment of a carbon reduction program have negative impacts for regions or populations whose welfare is of special interest to the agriculture community? Such groups could include: residents of rural areas; populations served by USDA nutrition programs; agricultural producers and forest landowners; or input, transportation, and processing sectors of agriculture and forest products.

Please respond in 600 words or less.

- 9) How might revenue generated under a carbon reduction program be best used to offset any negative impacts?

Please respond in 300 words or less.

As indicated in our testimony submitted to the Ways and Means Committee in 2007, revenues generated from any plan could be used to ease the transition to a cleaner and more sustainable economy. This is true of any program that regulates emissions from the agriculture and forestry sectors. These could include relief measures for affected persons and communities and incentives for nonfederal landowners to institute management practices that further reduce GHG emissions (i.e. extend and/or alter the design and intensity of timber harvests, switch to lower GHG and less fossil – dependent agricultural systems, capture methane from livestock yards, barns, etc.). In addition, as Dellasala noted, revenues could be used to purchase grazing leases on public lands (to reduce emissions of methane) and buy-back of oil and gas leases purchased but not yet developed. Thorough studies of this question were done as early as 2002 and 2004 by Jim Barrett et al. and Hanson, Laitner et al. (EPA and Argonne National Laboratory) respectively using thousands of variables and policy options. They demonstrated that the use of far less than half of the revenue would be required to hold harmless low-moderate income people and spur a very efficient positive cycle of investment in efficiency and renewable.

- 10) Should businesses that are affected (either indirectly or directly) by higher overall costs due to a carbon reduction program receive transitional assistance?

Please respond in 300 words or less.

As we pointed out in our Ways and Means Testimony of 2007, if imposed more quickly than proposed in the Lieberman Warner legislation tariff and trade measures that appear to be legal under the WTO can help the domestic businesses meet high standards in the face of competition from imports made with more pollution or less forest management discipline. Moreover, proceeds could be lent back in part to assist exporters to come up to standard quickly or face embargoes under article XX (b) and (g) of the GATT as in the Sea Turtle and Shrimp Appellate Decisions of the WTO.

- 11) What role should public lands play in helping to sequester carbon and/or reduce greenhouse gas emissions?

Please respond in 300 words or less.

As Dellasala noted, Congress should provide clear direction to the Forest Service and the BLM to adopt new approaches that optimize carbon capture and storage and minimize GHG emissions from land management activities, including energy extraction, on public lands. This includes redirecting both agencies to have the same mission on public lands. Further, federal agencies should adapt natural resource management to the changes brought on by climate change by adopting a 3-Rs approach – Reduce existing stressors to ecosystems (such as logging, road building, mining, ORVs, etc) and increase Resilience and Resistance of species and ecosystems to climate change (Hansen et al. 2003, Joyce and Haynes 2006, and Millar et al. 2007). SCB also provided comments to the USDA climate program in 2008. We noted there that if stressors are not minimized, natural and managed ecosystems are likely to experience reductions in primary productivity, potential for carbon storage, richness and viability of native species, and extractive value as climate change progresses. Along with reducing greenhouse gas emissions, reducing the impacts of current stressors to natural and managed systems is the single most effective approach the federal government can take to combat the impacts of climate change. Therefore, federal agencies need clear direction to prioritize the preservation and restoration of ecological integrity of public lands so that these lands will continue to provide Americans with biological diversity and other sustainable ecosystem services such as abundant clean water, carbon sequestration and storage, air filtration, flood control, and recreation. This would help federal agencies contribute to a nation-wide reduction in GHGs to meet the 350 ppm safe limit recommended by scientists.

- 12) Should carbon prices be determined exclusively by market forces or should limits on carbon prices be established? Please explain.

Please respond in 600 words or less.

- 13) What, if any, lessons can be learned from the European Union's Emission Trading System (ETS) or any other carbon reduction program already underway or being developed? Do any international carbon reduction programs currently exist for agriculture and forestry?

Please respond in 600 words or less.

Part II: Carbon Reduction Program Administration and Implementation

The administration and implementation of an offset or allowance program will be a major topic during any potential climate change discussion. Please answer the following questions regarding the scale, scope, and limitations of any program as part of the larger carbon reduction debate.

- 14) What options or combination of options would be most effective for agriculture and forestry sectors in a carbon reduction program: a voluntary offset program, bonus allowances for selected agriculture and forestry activities, or agreed upon performance standards for segments of the agriculture and forestry sectors?

Please respond in 600 words or less.

The testimony of Dellasala and the Recommendations to the Obama Administration recommend a goal, a process, target and plan that makes use of panel or a committee of scientific experts and starts with federal agency land management and other programs using existing laws adding recommendations to Congress for additional tools. The existing tools are largely performance standards.

- 15) Should the total number of offsets issued annually by the government be limited? If so, how much?

Please respond in 300 words or less.

- 16) How should Congress prioritize the distribution of available offsets (who gets them and how much)?

Please respond in 600 words or less.

- 17) What should the criteria be for measuring (quantification, verification, and monitoring) and accounting for the legitimacy of offsets under the program?

Please respond in 600 words or less.

- 18) What should be the criteria for assessing offset projects?

Please respond in 300 words or less.

- 19) How should Congress design a system for verifying offset projects?

Please respond in 300 words or less.

- 20) Should Congress establish a standards-based approach with pre-calculated values or a project-based approach that measures field results for establishing eligible offsets under the program?

Please respond in 600 words or less.

SCB has recommended overall a staged or iterative process of interaction with agencies, independent scientists and Congress. Field results are more easily accommodated in an adaptive management program, but one can also begin with cautious standards and adjust them in light of field results.

- 21) What should be the relationship between offsets and allowances?

Please respond in 600 words or less.

- 22) Describe the most important factors in establishing the permanence and duration of offsets under the program, including contract length and flexibility?

Please respond in 300 words or less.

- 23) How should Congress address existing offset projects or credits established through a voluntary market or system (e.g., the Chicago Climate Exchange or an emission registry)?

Please respond in 600 words or less.

- 24) The terms "additionality" and "stackability" are often used when discussing the details of an offset program. How should producers and forest landowners who may have been early-actors and already undertaken activities that sequester carbon or reduce greenhouse gas emissions be treated? Should activities undertaken to reduce carbon emissions also be allowed to count towards other environmental market activities, such as water quality or wildlife habitat creation, therefore allowing landowners to "stack" credits?

Please respond in 600 words or less.

25) How should activities that may have been paid for in part by assistance from Federal or state government programs (i.e. cost share, technical assistance) be treated? How should those activities be treated if the practice was not specifically implemented to address carbon sequestration or greenhouse gas emission reduction?

Please respond in 300 words or less.

26) Should a producer be required to return revenue or be held liable if an offset project does not sequester carbon or reduce greenhouse gas emissions? How about in the event of a natural disaster or another event uncontrolled by the producer and/or landowner?

Please respond in 300 words or less.

27) Should the protocols and procedures for the offset program be detailed in legislation, or should authority be delegated to the appropriate government agency to develop regulations? If so, which agency or agencies should be responsible for devising protocols and procedures?

Please respond in 300 words or less.

28) What are the obstacles faced by agricultural producers and landowners to implement practices and technologies?

Please respond in 600 words or less.

29) Do existing conservation and forestry programs provide sufficient incentives to encourage the adoption and implementation of practices that mitigate climate change impacts, sequester carbon and/or reduce greenhouse gas emissions? If not, what might Congress consider offering as additional financial incentives and technical assistance to speed up adoption/implementation?

Please respond in 300 words or less.

Part III: Carbon Reduction Program Additional Thoughts

Please use the next 1000 words to provide additional comments on subjects which may not be covered by the questionnaire, such as a low-carbon fuel standard, life-cycle analysis, leakage, or biofuel incentives.

Life cycle analysis is essential in considerations involving forestry practices, particularly biomass utilization. For instance, forestry operations are a net reduction in stored carbon through reduction of carbon stores once a site is initially logged (Harmon 1990). This reduction continues through the distribution and processing of wood products, which have relatively short storage times compared to the carbon pools in the original unlogged forest. Simply planting a clear-cut, for example, with young trees in no way will make up for the loss of this stored carbon if the original forest was mature or old-growth to begin with. An unbiased carbon accounting would recognize this loss of carbon storage.

As to biofuels – they can be a source of GHG emissions through the removal, processing, and conversion of biomass to liquid fuels (Fargione et al. 2008). This is especially troubling in the West where processing of biomass to liquid fuels typically involves power from coal-burning power plants. A full life cycle analysis is important to have before undertaking any major program or project. For example, GHG emissions from forest floor to processing and distribution of biofuel can result in a net loss of stored carbon. Biofuels using corn to ethanol, for example, also divert production away from food sources, thereby driving up food prices. As an alternative, trees might be planted on agricultural lands located close to biofuels processing facilities to reduce transportation related emissions. Aforestation of agricultural sites that were formerly forested could provide dual benefits in storing carbon and then acting as a source for biofuels, providing the power source used in the fuel conversion is from low GHG sources such as wind or solar. In addition, production of biofuels from algae tend to be more efficient and yield lower GHG emissions than from wood or agricultural sources. (See SCB Africa Section statement on Agro-Fuels -- www.conbio.org)

SCB advised The Obama Transition Team and Congress (p. 7) that neither ESA nor NEPA should be easily or too quickly preempted or weakened in regulating carbon emissions. The point of each is to ensure an on-going process responding to proposed actions in fact that makes the public aware of threats to key natural resources and ecosystems, and safeguards what Congress cannot recreate. Even if Congress makes a pretty good guess at what will work, it may not get it right and only executive branch agencies can move fast enough to respond to specific cases and new developments, and only if they are left with the duty and the power to do the right thing

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Please list specific types of <i>forestry practices</i> that should be available as offsets, and then use the terms provided to evaluate the practices.				
Type of Practice	Effectiveness at sequestering carbon or reducing GHG emissions (<i>Excellent, Good, Moderate</i>)	Ability to verify carbon sequestration or GHG emission reductions (<i>Excellent, Good, Moderate</i>)	Cost for agricultural producers and private forestland owners to implement (<i>High, Medium, Low</i>)	Capacity of agricultural producers and private forestland owners to implement immediately (<i>High, Medium, Low</i>)

Please list specific types of <i>practices associated with livestock operations (e.g. manure management, grazing/pastureland practices)</i> that should be available as offsets, and then use the terms provided to evaluate the practices.				
Type of Practice	Effectiveness at sequestering carbon or reducing GHG emissions (<i>Excellent, Good, Moderate</i>)	Ability to verify carbon sequestration or GHG emission reductions (<i>Excellent, Good, Moderate</i>)	Cost for agricultural producers and private forestland owners to implement (<i>High, Medium, Low</i>)	Capacity of agricultural producers and private forestland owners to implement immediately (<i>High, Medium, Low</i>)

Please list specific types of <i>crop production practices</i> that should be available as offsets, and then use the terms provided to evaluate the practices.				
Type of Practice	Effectiveness at sequestering carbon or reducing GHG emissions (<i>Excellent, Good, Moderate</i>)	Ability to verify carbon sequestration or GHG emission reductions (<i>Excellent, Good, Moderate</i>)	Cost for agricultural producers and private forestland owners to implement (<i>High, Medium, Low</i>)	Capacity of agricultural producers and private forestland owners to implement immediately (<i>High, Medium, Low</i>)