Natural Resources Defense Council • Union of Concerned Scientists

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Global Change Program Office
United States Department of Agriculture
Room 112-A, J. L. Whitten Building
1400 Independence Ave, NW
Washington, DC 20250- 3814

(Also submitted by e-mail to ghgcomments@oce.usda.gov)

Dear Sir or Madam:

Thank you for the opportunity to comment on the topic of accounting rules and guidelines for reporting greenhouse gas emissions and sequestration in agriculture and forestry. On behalf of our members the Union of Concerned Scientists and the Natural Resources Defense Council respectfully submit these comments and look forward to working with you and Congress in designing an effective system for accurately and comprehensively tracking global warming pollution and making that information available to the public.

These comments related to forestry and agriculture should be placed in the context of our previous comments on emissions reporting submitted June 5, 2002.[1] In brief, UCS and NRDC have two key points regarding greenhouse gas emissions reporting:

1. **The U.S. should have a mandatory reporting system that requires entity-wide reporting of emissions.** A decade of voluntary reporting has failed to achieve anywhere near comprehensive reporting from emissions sources, or to develop information of a uniform or high quality (beyond existing Clean Air Act reporting required of electric generators). Reporting under 1605(b) is dominated by dubious reductions claims based on cherry-picked projects, inflated baselines, and inconsistent and poorly documented assessment methodologies.[2] Only mandatory entity-wide reporting of emissions and carbon stocks, conducted with transparency, consistency, and rigorous quality control, will show real trends.
2. **There is neither statutory authority nor policy need for government certification of transferable credits.** The request made by President Bush for agencies to recommend reforms regarding baseline protection and transferable credits has no basis in the statutory authority conveyed under section 1605(b) or any other current law. In fact, attempts to confer credit to reported reductions were rejected explicitly during passage of the 1992 EPAct legislation, and subsequent legislative proposals to award credit or for baseline protection have not been enacted. The award of transferable credits inevitably will preempt decisions that should properly be made in the context of future climate policy formulation. Therefore changes to the existing voluntary reporting system should not include promises of baseline protection or the certification of transferable credits.

[1] Full comments are posted at: https://ostiweb.osti.gov/pighg/attachments/doniger.doc
[2] See NRDC (2001), http://www.nrdc.org/globalwarming/reductions/reductions.pdf

The forest and agriculture sectors offer considerable opportunities to achieve climate benefits, and therefore these sectors can be a valuable part of a broad portfolio of climate action. These sectors should be held to the same criteria as any other in terms of the overall quality of reporting. USDA and other agencies should recommend that forestry and agriculture reporting should be mandatory, entity-wide, and for emissions and stocks (not claimed emission reductions or increases in stocks). As it does for other sectors, this recommended approach avoids many of the difficulties inherent to assessing voluntary, project-based emission reduction claims, such as developing counterfactual baselines, evaluating leakage and defining project boundaries, and addressing permanence.

There is little point in collecting more project-based information of questionable value, nor is it wise to require landowners (and government administrators) to spend the time and resources to apply assessment methodologies which, even if credible, are not likely to be those used under future regulations.[3] The information collected to date in 1605(b) reports is of such varying quality and transparency that it serves little purpose. For example, the reports for most projects are completely inadequate to support private transactions in the emerging carbon market, or as a basis for rewarding early actors.[4] Incremental improvements in the quality of reports would avoid some of the most dubious emission reductions claims, but can only support private transactions if the reports are held to a consistently high standard.

Establishing a project-based emission reduction reporting and verification system that achieves consistency and credibility will require significant time and resources on the part of reporters, government administrators, and other stakeholders. These resources should not be expended unless there is a point. However, there is no reason for the federal government to certify emission reductions credits in the absence of a mandatory requirement that anybody hold such credits. Furthermore government certification of project-based emission reductions under the current policy vacuum, where there is no requirement to hold such reductions, is likely to move into areas where there is no legislative authority. If the reporting program certifies credits and provides an explicit or implicit guarantee that the credits will be rewarded under future regulations, then the current reporting program improperly prejudices future decisions about the treatment of project-based reductions. Decisions regarding project eligibility and certification standards should be developed only in the context of the system in which they will be used. And if the current reporting program does not pre-empt climate policy decisions then the effort made by project developers and others may be largely wasted because they may not meet the future standards, or they may expend unnecessary effort if they exceed the future standards. A project-based certification program is therefore in a Catch-22 situation until it can be developed as part of a specific climate policy.

[3] There may well be value in government-supported development of project-based assessment methodologies. This should be achieved through pilot programs designed specifically for that purpose. Voluntary reporting under 1605(b) has failed to develop assessment methodologies.

[4] There is value in this emerging market to having experimentation, including private transactions. Transactions involving emissions reported under 1605(b) should be included as part of complete emissions reporting. However, 1605(b) tracking of transactions cannot constitute a government guarantee that the underlying reports form the basis for meeting current or future obligations, voluntary or otherwise.

Specific Responses to the Background Issue Papers
The following responses to the issues raised in the background paper are provided, recognizing that the 1605(b) voluntary reporting will continue to exist and therefore that there is value in incrementally improving the quality and consistency of information gathered by this system. However, as explained above, we does not believe that 1605(b) reports alone should be the basis for meeting current or future obligations, voluntary or otherwise.

Reporting Boundaries
Even in a voluntary reporting system, requiring comprehensive entity-wide reports is much better than self-selected project boundaries. Experience with 1605(b) and other project-based systems has shown that information on the entire operation of an entity, and often some information on the economic and technological context within which an entity operates, is critical to evaluating the validity of claimed reductions. For example, independent analysis of the validity of many previously reported reductions under 1605(b) was only possible because of high-quality data available through other mandatory reporting systems.[5]

Entity-wide reporting reduces some concerns related to emissions reduction assessment. In particular, it greatly facilitates accounting for internal (intra-entity) leakage. Entity-wide reporting cannot, however, account for external (inter-entity) leakage, for which further analysis is required.

Transfer of land ownership presents particular challenges for the definition of reporting boundaries. For acquired land, entity-wide reporting must include all emissions and sequestration occurring after the date of acquisition. For land that is relinquished, entity-wide reporting must either continue indefinitely for that land or all claimed net carbon sequestration on the transferred land must be invalidated. Note that the purchaser of the land could continue reporting. This requirement for continuous and ongoing reporting is a necessary application of the permanence provisions described below. The potential impermanence of carbon sequestration creates a large accounting loophole if lands can be removed voluntarily from the reporting system.

In contrast to the carbon accounting benefits of requiring entity-wide reports, allowing reporters to self-select project boundaries allows for cherry-picking projects (i.e., reporting only areas of a business where emissions are declining, despite entity-wide increases); double-counting of reductions if claimed or reported by more than one entity; greater gaps in coverage of emissions and sequestration; and increased opportunity for leakage.

To prevent double counting of reported reductions, reports should be geo-referenced to specific land parcels.

Entity-wide reporting should be conducted in a cost-effective manner. Costs can be controlled through the use of sampling techniques, and by focusing on areas where there are changes in either carbon stocks or management practices.

[5] See NRDC (2001), http://www.nrdc.org/globalwarming/reductions/reductions.pdf

Reporting Boundaries For Industrial Private Forest Owners Must Include All Source Lands
Accounting for carbon sequestration projects carried out by industrial private forest landowners (those who also own timber or pulp mills) presents a special challenge intermediate between internal and external leakage because their mills frequently source wood from lands they do not own, and from foreign lands. Thus, an entity's activities may lead to decreasing overall forest carbon sequestration even though sequestration on its own domestic lands are increasing. In the context of voluntary reporting, the only adequate way to capture such intermediate leakage is to require that for industrial private landowners, entity-wide reporting capture emissions from all source lands for their mills, whether domestic or foreign.

Other Emissions Reporting Issues
Minimum Size Requirements. There is no reason to exclude small landowners from reporting. Smaller landowners may face a barrier to participation because the fixed costs of reporting would be a relatively large component of total reporting costs. For this reason, rules to facilitate aggregation of smaller landowners into a single report may be helpful.

Limiting Types of Activities. Limiting the types of activities is only relevant for project-based accounting; entity-wide accounting would comprehensively include all land management activities. Within the context of project-based accounting, there may be some activities that are difficult to evaluate or for which methodologies do not yet exist. The administrator of the reporting system should have the authority to only accept projects that can be evaluated satisfactorily. In allocating resources to develop methodologies and review projects, priority should be given to those projects that are likely to generate non-climate benefits such as protecting or restoring wildlife habitat and water quality.

International Activities. Including international activities will increase the number of projects, the volume of claimed reductions, and the heterogeneity of projects that will need to be assessed. International activities should be included only if there are available resources for credible project evaluation. International activities introduce one unique consideration, which is that they must be tracked to ensure that they are not used for compliance with under foreign regulatory commitments.

Measurement and Accounting Methods
Projects should be allowed flexibility in developing a monitoring plan. However, direct measurement of carbon stock changes is a required element of such a plan. Underlying data must be geo-referenced and reported at a sufficient level of disaggregation to be fully transparent and support necessary validation.

The heterogeneity of conditions can make the use of regional default tables or similar tools very uncertain. Default tables should only be developed for homogeneous project types and conditions, and applied in a way that will conservatively underestimate net project benefits for most projects. This is especially true if projects have an option to use defaults or direct measurement, where self-selection can skew the overall program results.

As indicated in the *Background Paper*, measurement uncertainty can vary considerably by project type and the measurement approach taken. This variability means that projects should

not be required to all meet the same level of certainty, which would rule out some projects. However, it also requires that projects provide a quantitative estimate of the measurement uncertainty. Without this quantitative assessment of uncertainty for each project the reporting system will lump "apples and oranges" together, making it impossible to use the reports for future policy purposes.

Baselines and Base Years

The baseline is probably the most important element of assessing the climate benefits of projects because it defines what represents an emissions reduction or increase in sequestration. In order for emission reductions reported from projects to be credible the principle guiding baseline development must be that reported reductions reflect real, incremental climate benefits. In practical terms, this means that the baseline must be based on a reasonable projection of conditions in the absence of the project.

Any other principle for setting baselines will allow activities that would have happened anyway to be labeled as emission reductions, rendering the term meaningless. The atmosphere sees no benefit if such artificial reductions are used to meet voluntary or regulatory commitments.

The scale of projected business-as-usual sequestration in the U.S. makes credible baseline definition all the more important. Forests and agricultural lands in the U.S. sequester over 200 million of tons of carbon each year and will continue to do so under likely land management practices and policies. Inadequate baseline rules will allow a large number of invalid tons into the reporting system, undermining its credibility.

One implication of the principle of reporting only real incremental climate benefits is that base year conditions are not a generally applicable baseline approach. Emissions reductions and increased sequestration must be evaluated relative to a forward-looking projection of what would occur in the absence of the project, not relative to a historical snapshot. Base year conditions are only useful for developing a baseline if the conditions at the site are projected to remain static.

The use of default baseline tables for specific project type, location, and other relevant parameters should be allowed, but subject to the same caveats that we placed on the use of default values for assessing project leakage and gross carbon sequestration. Chief among these is that the use of defaults must lead to conservative underestimates of each project's net carbon sequestration.

Other Measurement Issues

Comprehensiveness. Forest and agriculture sector projects often have significant impacts on greenhouse gases other than carbon dioxide, and these other gases should therefore be considered in all reports. Project reporters may choose to avoid reporting on a particular GHG if the net project impact for that gas can be shown with a high degree of certainty to be de minimis or a net climate benefit.

Natural Disturbances. Reporting must be based on actual carbon measurements without adjustment for natural disturbances. Natural disturbances are a risk to be managed as part project

development. Project-based reporting already relies on hypothetical baselines; it should not also rely on hypothetical project performance.

Permanence

Carbon sequestration in forests and agriculture is not permanent. The climate benefit is only based on the longevity of the stored carbon, which almost always can be released. This unique difference between sequestration and emission reductions must be addressed in reporting so that the fate of stored carbon is known.

In the context of voluntary reporting, where the use of the information reported is up to private entities or future policymakers, the treatment of permanence is somewhat limited. However, any user of the reported information must be able to know whether or not the claimed reductions are based on carbon stocks that still exist. The reporting system must clearly indicate how much carbon has been lost and when the loss occurred. Thus, project reporters must regularly demonstrate that previously reported carbon sequestration continues to exist. If a reporter fails to include this demonstration in annual reports or fails to report at all, then previously reported benefits from that project should be removed from the system or otherwise invalidated.

If transferable credits are issued, which is not recommended, then these credits must also be invalidated if the associated carbon is lost. It is all the more important to require ongoing documentation that stored carbon still exists. Any policy system that recognizes reported carbon or issued credits must have clear liability rules that determine who is responsible for replacing any invalidated credits.

The "temporary reduction" concept provides a clear, automatic requirement that reported reductions from agricultural and forestry activities sunset after a set time period unless they are re-measured and re-reported. This places the burden to re-validate on the reporter or the landowner, rather than on the program administrator.

Leakage

Any report of emissions reduction activities is susceptible to leakage, where benefits reported within the project boundary are offset by emissions outside the project boundary that are attributable to those activities. However, the potential for leakage with the comprehensive coverage achieved by mandatory entity-wide reporting is obviously less than for voluntary reporting of self-selected projects. Even voluntary reporting on an entity-wide basis would reduce some leakage concerns.

Leakage is not just a problem for forest and agriculture activities. However, specific guidance is required because the experience with project-based programs shows that leakage is often ignored or handled inconsistently by reporters and program administrators. The goal should be to promote consistent and rigorous evaluation of leakage for all project types. If the reporting does not include a rigorous evaluation of leakage then the information reported will not be adequate for many current and future purposes.

Leakage is not just a local phenomenon. It can occur through market forces as well as local responses to a project, and therefore leakage analysis cannot be restricted locally. Just as markets can cross regional and national borders so too can leakage.

Reporting guidelines should accommodate two general approaches to assessing leakage. First, leakage can be monitored directly if it occurs locally or as a result of the response of identifiable entities. Second, leakage can be estimated based on market analysis. Default factors for specific project types and markets could be developed to ensure consistency and avoid the need for each project to perform a unique analysis. (As mentioned in the Measurement section, defaults should be developed so as to conservatively underestimate net project benefits.) These two approaches have been discussed generically for years but consistent reporting methodologies have not been developed. It would be very useful to develop such approaches in the context of this reporting system.

Verification

DOE may find that reported emissions and reductions adhere to the standards and guidelines of the 1605(b) program, as it exists at the time a report is submitted. However, the department lacks authority to guarantee that the reported values will be considered valid or accurate under any future reporting regime or climate policy. The lack of rigor, transparency, and verification in the first round of 1605(b) means that the current revisions are being drafted without benefit of needed information and experience. Under these conditions, it is virtually inevitable that some aspects of the rules will be inadequate to meet the needs of future regulation. It is highly likely that revised 1605(b) rules will fail to include rules that are key to properly assessing sequestration outcomes for some combinations of project parameters.[6] For this reason, 1605(b)'s lack of legal authority to guarantee future recognition of its reports is desirable and should be respected in order to ensure that 1605(b)'s shortcomings do not burden the effectiveness of future policy.

There should be no reporting, and certainly no verification or certification, of projected emission reductions. Only actual performance should be reported. Certifying future performance raises many difficult questions that are best avoided. For example, future reductions would need to be discounted in some manner to reflect the fact that their benefit has less value because it does not occur in the present. It is completely invalid to report future reductions on an equivalent basis with current reductions. There also needs to be some mechanism to handle failure to achieve projected performance, in terms of invalidating the associated certified emission reductions. The reporting and verification procedures also would need to include approved methodologies for projecting future performance.

Transparency of reported information is critical for accountability of the reporting system. All emissions data and information and analysis provided to demonstrate compliance with reporting criteria must be publicly available, while reasonably protecting confidential business information. In any future program that certifies credits for emission reductions, reports should

[6] We use the term "project parameters" to indicate the full set of parameters such as project type (afforestation, improved management, reserve creation, etc.), location, ownership, timing, carbon monitoring protocol, natural conditions, etc., that combine to determine the carbon sequestration outcome of any particular project.

be made available for public comment prior to certification to facilitate meaningful third party review, and procedures should be established to provide meaningful response to public comment.

Revisions to Accounting Rules and Guidelines

USDA should establish in rule a requirement that the total reductions reported, both for all forestry and agricultural activities together and for each separately recognized project type, should either equal or underestimate the actual reductions achieved, net of baselines, leakage, and permanence, as measured or estimated using the best available methodologies.

An ongoing program of independent research should be sponsored by the EPA to investigate such methodologies, as well as the success of the existing rules and guidelines at achieving the conservative net sequestration estimates described in the paragraph above. The National Academy of Sciences should be requested to produce a report every five years on the current rules' success at achieving conservative net sequestration estimates.

Following the report, and no less frequently than every five years, USDA should propose revisions to the greenhouse gas accounting rules and guidelines for agriculture and forestry activities, taking account of new science, practical experience, and best accepted carbon accounting methodologies, following public notice and opportunity for comment.