Initiatives in Agricultural Greenhouse Gas Mitigation:

C-AGG, T-AGG, and M-AGG

Background

Agriculture can potentially play a major role in addressing the challenge of climate change. One important mechanism to unleash this potential is by providing financial incentives for farmers to 'produce' emission reductions or to sequester carbon. Any such system, however, must achieve the intended environmental outcomes and 'work' for both agricultural producers and potential investors. Land-based agricultural activities are gaining widespread attention as potential climate change mitigation tools in the context of land use and land-use change, but also from the perspective of sectoral mitigation and adaptation approaches.

With generous support from the David and Lucile Packard Foundation, three related initiatives focused on the policy, science, and quantification aspects of agricultural participation in carbon markets are underway. The three are described below.

C-AGG

The *Coalition on Agricultural Greenhouse Gases (C-AGG)* seeks to mitigate climate change and benefit farmers by advancing the development and adoption of science-based policies, methodologies, protocols, and projects for GHG emissions reductions and carbon sequestration within the agricultural sector. C-AGG members are agricultural producers, scientists, GHG quantification experts, carbon investors, policy experts, and GHG project developers.

C-AGG's report, "Carbon and Agriculture: Getting Measurable Results", will be released in April, 2010, and represents contributions from participants in C-AGG, and was developed in consideration of the diversity of opinions within the Coalition. It is intended to serve as a catalyst for ongoing discussion, and will likely evolve over time as science and data and information improve and evolve.

For more information about C-AGG, contact: Debbie Reed, C-AGG Executive Director, at: dreed@drdassociates.org, or visit the C-AGG website at: http://www.c-agg.org/

T-AGG

The *Technical working group on Agricultural Greenhouse Gases (T-AGG)* brings together technical expertise to assess and assemble the scientific and analytical foundation for developing high-quality agricultural protocols. T-AGG hopes to expand the opportunities for agricultural practices that can mitigate climate change and benefit farmers. T-AGG involves academic experts in agriculture and related fields from across the United States in dialogue with federal agencies, carbon registries, agricultural producers, project developers, and policy experts.

T-AGG will produce a series of reports on key GHG mitigation activities for U.S. agriculture during 2010: a survey and comparison of a wide range of agricultural practices that can provide a road map for future protocol and policy development; and in depth reports to guide protocol development for two promising agricultural activities – soil carbon management and nitrous oxide emissions reduction on cropland.

For information about T-AGG, advisers, experts, outlines, drafts and reports, please visit the T-AGG website at: http://www.nicholas.duke.edu/institute/t-agg/, or contact Lydia Olander, T-AGG Project Director, at Lydia.olander@duke.edu.

M-AGG

The *Market Mechanisms for Agricultural Greenhouse Gases (M-AGG)* is designed to bring particular focus to the carbon market infrastructure required for the agriculture sector to participate within emerging carbon policy and market frameworks. M-AGG is focused on identifying the current tools for quantifying greenhouse gas emission reductions and sequestration across a broad range of agricultural sectors. The M-AGG process will result in benchmarking a sub-set of these tools, namely quantification protocols, that fit a defined set of offset quality criteria common to most emerging carbon markets today.

The criteria include:

- i. Principles adopted under C-AGG and other carbon market initiatives
- ii. Regulatory and programmatic guidance available from federal, regional and international climate change regimes and programs.
- iii. Structure, scientific approach, transparency and scalability criteria.

The culmination of M-AGG will be a pair of reports on the availability of quantification tools across agricultural sectors and a benchmarking of available quantification protocols. This will highlight opportunities for the on-going development of tools and protocols and support voluntary or pilot (pre-compliance) projects to establish the path-to-market for carbon emission reductions and sequestration from within the agricultural sector.

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