

U.S. Global Change Research Program (USGCRP) Carbon Cycle Interagency Working Group (CCIWG)

Terms of Reference

Date Approved by the CCIWG - November 24, 2015

Purpose

The Carbon Cycle Interagency Working Group (CCIWG) coordinates and integrates the carbon cycle research funded by the U.S. government. The CCIWG plans, evaluates and reports on interagency coordination and implementation of carbon cycle research of participating U.S. agencies. The goals and objectives of the carbon cycle research coordinated by the CCIWG align directly with the goals of the USGCRP Strategic Plans. The specific carbon cycle goals will be guided by the USGCRP Strategic Plans and associated updates and community based science plans (e.g., the 2011 community-based science plan: “A U.S. Carbon Cycle Science Plan¹”). CCIWG activities and functions will also support new priorities and directives of the USGCRP, as well as carbon cycle research needs arising from new scientific findings and observations.

Background

The CCIWG was constituted in 1998 as a working group of U.S. Global Change Research Program (USGCRP). The CCIWG was formed in parallel with the development of a plan for U.S. carbon cycle science². The CCIWG has a strong heritage in a predecessor interagency group that coordinated the Terrestrial Ecology and Global Change³ (TECO) research program and the interagency research announcements for TECO released in 1995-1998. In 1999, the CCIWG established the U.S. Carbon Cycle Science Program under the auspices of the USGCRP. The CCIWG was brought under the umbrella of the U.S. Climate Change Science Program (CCSP) in 2002 as a standing working group of the program, reporting to the CCSP interagency Subcommittee on Global Change Research (SGCR). This document updates the October 2007 and May 2011 Terms of Reference.

CCIWG Mission and Responsibilities

On September 12, 2014 the CCIWG developed and approved the mission statement for the U.S. Carbon Cycle Science Program: ‘To coordinate and facilitate federally funded carbon cycle research, and provide leadership to the USGCRP on carbon cycle science priorities’. The CCIWG is responsible for coordinating the research of the U.S. Carbon Cycle Science Program; specific responsibilities include, but are not limited to:

1. Convening federal program managers: The CCIWG provides a mechanism for regular interagency consultation of Federal program managers that represent carbon cycle science interests and responsibilities
2. Producing program implementation priorities, plans and strategies: The CCIWG is responsible for the development of research plans for U.S. carbon cycle science

(land, ocean, atmosphere, and human dimension). Detailed implementation plans will be developed through CCIWG-sponsorship of planning efforts involving CCIWG and other pertinent federal efforts, the carbon scientific community and/or the SGCR, as appropriate.

3. Planning and coordinating activities: The CCIWG plans, strategizes, and coordinates agency and department approaches for addressing carbon cycle research priorities and needs by developing single- and multi-agency solicitations that will increase the overall value of the research. CCIWG maintains interagency awareness by exchange of agency annual plans and coordinates allocation of resources to the extent possible. CCIWG seeks to reduce redundant research, review and paperwork through this coordination. CCIWG identifies implementation priorities annually with formal recommendation of carbon cycle research priorities as requested by SGCR.
4. Evaluating and ensuring research progress is achieved: The CCIWG assesses the extent to which carbon cycle goals and objectives of the 2012-2021 USGCRP Strategic Plan are being met by Federally-funded researchers. The CCIWG takes steps to ensure that this research remains relevant and productive and provides feedback to the SGCR on progress and priorities.
5. Reporting carbon cycle research: The CCIWG provides contributions to USGCRP's annual report to Congress (*Our Changing Planet*). The CCIWG provides input to or sponsors the development of other USGCRP documents (e.g., Strategic Plans and associated updates, National Climate Assessments, Sustained Assessment etc.) and reports on research plans and results, as requested and/or appropriate.
6. Interacting with relevant USGCRP elements, relevant U.S. Government programs, the science community and public: CCIWG interacts with and supports USGCRP and its subsidiary IWG's, other related government programs, and segments of the scientific community and public. The goal of these interactions is to guide the Nation's carbon cycle research in ways that improve our understanding and prediction of coupled Earth (natural and human) systems in the context of a changing climate, and that serve governmental and societal needs.
7. Advising and participating in relevant syntheses and assessments: For example, the National Climate Assessment (NCA). The CCIWG facilitates relevant synthesis and assessment processes by coordinating interagency input, reviewing draft prospectuses and reports, and providing agency feedback to lead agency and authors.
8. Serving as point of contact on carbon cycle research both nationally and internationally, supporting and coordinating as appropriate: The CCIWG serves as a point of contact among the SGCR (including the USGCRP Executive Director), the National Coordination Office, other USGCRP IWGs or subcommittees, other relevant agency programs, the research community of carbon cycle science, and the general public. It also supports and coordinates with appropriate international programs such as Earth System Science Partnership (ESSP), the Global Carbon Project (GCP), the Global Atmospheric Watch Programme (GAW) of the World Meteorological Organization, and Group on Earth Observations (GEO) Carbon, the carbon component of the Global Earth Observing Systems of Systems (GEOSS). In

addition, the U.S. Carbon Cycle Science Program Office serves as an Affiliate Project Office of the ESSP Global Carbon Project.

CCIWG Composition and Responsibilities of Members

Membership: The CCIWG is composed of representatives from each federal agency or department actively engaged in carbon cycle sciences with funding part of the distributed USGCRP budget cross-cut. Members must be approved by their agency or department to represent their agency or department on matters related to carbon cycle science. It is desirable that members have budgetary authority over some aspect of their agency carbon cycle research. There is no term limit on member service.

Specific responsibilities of each CCIWG member include, but are not limited to:

1. Helping execute CCIWG tasks, via regular participation in CCIWG meetings and contributions to requested inputs and responses to CCIWG actions in a timely manner.
2. Providing communication between their respective agencies, the CCIWG, and the scientific community . CCIWG members are also responsible for communicating with their agency SGCR Principal to ensure that CCIWG matters are adequately coordinated with their agency.
3. Supporting through financial and/or “in kind” contributions, the activities of the CCIWG and its office, as appropriate to their agency role within the U.S. carbon cycle science program.

Any agency or department interested in carbon cycle research may participate in the CCIWG, by requesting observer or member status from the Co-Chairs of the CCIWG.

Co-Chairs: Co-Chairs are selected from the CCIWG membership and the selection is the responsibility of the CCIWG. Final concurrence comes from the SGCR Principal from the agency or department of the proposed new Co-Chair. Co-Chairs nominally serve 2-year terms that are staggered by 1 year. Co-Chairs may be reappointed at the discretion of the CCIWG. Following a Co-Chair term, a past Co-Chair may continue to serve on the CCIWG, but may not be reappointed to Co-Chair within two years. Small deviations from these terms are allowable so as to accommodate member schedules and provide for smooth transitions in leadership.

The responsibilities of the co-chairs include, but are not limited to:

1. Convene and chair regular CCIWG meetings, an annual retreat, and special meetings, as needed.
2. Communicate directly with the SGCR Principals, USGCRP NCO Director, and other USGCRP IWG Co-Chairs on behalf of the CCIWG.
3. Interface with the Carbon Cycle Science Program Office (see below) on matters associated with carbon cycle science activities, such as annual contributions and fiscal budgets, quarterly expense budget reports, planning meetings and workshops, and managing and supporting on-going science programs.

4. Ensure that all reports, briefings, and documents prepared on behalf of the CCIWG are accurate, balanced, and responsive and that they fully represent the interests and activities of all CCIWG member agencies. The Co-Chairs are responsible for the overall technical quality of all reports, briefings and documents prepared on behalf of the CCIWG.
5. Assure that the CCIWG and U.S. carbon cycle research are represented at relevant meetings convened by other Federal and international groups, scientific meetings, workshops, and conferences.

U.S. Carbon Cycle Science Program Office

The CCIWG will establish and maintain a U.S. Carbon Cycle Science Program Office responsible for facilitating the work of the CCIWG and assisting the Co-Chairs and CCIWG with communicating with the SGCR Principals, USCRP NCO, the CCIWG community activities, the U.S. and international science community, and the general public. The Head of the Carbon Cycle Science Program Office serves as an *ex-officio* member of the CCIWG. Specific responsibilities are written and concurred upon by both the CCIWG and UCAR. They include, but are not limited to:

1. Maintaining meeting records of the CCIWG, including agendas, minutes, and other documents.
2. Serving as a point-of-contact for USGCRP/OSTP, CEQ, and other federal bodies, external information requests on the CCIWG and U.S. Carbon Cycle Science Program.
3. Participating in meetings and coordinating relevant activities with the USGCRP NCO on behalf of the CCIWG.
4. Preparing and/or supporting the development of CCIWG-sponsored documents and CCIWG input to reports of the USGCRP (e.g., *Our Changing Planet, Strategic Plan and associated updates*).
5. Preparing, tracking, and reporting on the CCIWG annual budget. Overseeing and reporting on the tasks supported by that budget, including community engagement activities and workshops.
6. Maintaining cognizance of the research results of the U.S. Carbon Cycle Science Program and the status of research programs and projects and, as directed by the CCIWG, analyzing the scope and content of funded carbon cycle science program and project activities.
7. Keeping the CCIWG abreast of information relevant to carbon cycle science, and more generally, to climate change science provided by USGCRP NCO, the SGCR, the White House (OSTP and CEQ), federal government and other organizations as it is channeled through USGCRP NCO and U.S. Carbon Cycle Science Program Office.

Science Community Engagement

The CCIWG will regularly engage with the scientific community via open public forums, workshops and other activities encompassing representatives of the carbon cycle science community across the pertinent disciplines such social, ocean, terrestrial, and atmospheric

sciences. The purpose is to exchange individual scientific, societal, and stakeholder input as the CCIWG coordinates carbon cycle science and applications within the U.S. Federal government. Relevant information and consultation that helps ensure that the U.S. Carbon Cycle Science Program remains coherent and robust and addresses science questions in an integrative approach will be sought. As appropriate, the CCIWG participates in such public engagement to enable meaningful interaction and information exchange.

These public engagement groups (e.g. Forums, Workshop Planning Committees etc.) may also assemble, as needed, science groups for major programs and activities funded, established and coordinated by or affiliated with the CCIWG/U.S. Carbon Cycle Science Program (e.g., community science groups of the North American Carbon Program, the Ocean Carbon and Biogeochemistry Program, AmeriFlux, FluxNet, CarboNA, GEOCARBON, Global Carbon Project etc.).

CCIWG Meetings

The CCIWG will meet as needed, nominally every third week, to address carbon cycle science matters. For specific activities or additional work of the CCIWG, the Co-Chairs will request volunteers for working subcommittees that meets as needed. A subcommittee Chair is selected internally from the group and reports regularly to the CCIWG, providing information and seeking endorsement of major decisions. Subcommittees shall exist until terminated by the CCIWG. Additionally, the CCIWG holds an annual day-long retreat. Special meetings to address urgent priorities may also be convened as needed by the CCIWG Co-Chairs.

Funding

U.S. agencies and departments participating in the CCIWG are responsible for supporting the time required for Federal program managers to engage in activities with the CCIWG. The Federal program managers, through the participating agencies and departments, will fund the U.S. Carbon Cycle Science Program Office and activities of the CCIWG and community engagement activities as approved by the CCIWG. Each year the CCIWG will develop an annual budget in support of its planned activities and program office. Each member agency will be asked to contribute an appropriate share of the required total. Agency contributions are voluntary. The CCIWG will modify its planned activities if contributions do not match the annual budget plan.

References

¹ *A U.S. Carbon Cycle Science Plan (2011): A Report of the Carbon Cycle Science Steering Group and Subcommittee*, Anna Michalak, Rob Jackson, Gregg Marland, Chris Sabine, Co-Chairs.

² *A U.S. Carbon Cycle Science Plan (1999): A Report of the Carbon Cycle and Climate Working Group*, Jorge L. Sarmiento and Steven C. Wofsy, Co-Chairs.

³ *The Role of Terrestrial Ecosystems in Global Change: A Plan for Action (1994)*: National Research Council.