

U.S. Environmental Protection Agency Board of Scientific Counselors
Joint Climate Change and Social and Community Science Subcommittee Meeting
Virtual Meeting Summary
March 7, 2024

Dates and Times: March 7, 2:00 p.m. to 5:00 p.m., Eastern Time

Location: Virtual

Executive Summary

On March 7, 2024, the Environmental Protection Agency’s (EPA’s) Board of Scientific Counselors (BOSC) Climate Change and Social and Community Science subcommittees convened in a virtual meeting. The goals of the meeting were to discuss and finalize the draft Climate Change and Social and Community Science report. The virtual meeting format allowed for presentation of charge question strengths, suggestions, and recommendations, open dialogue, program feedback, Subcommittee deliberations and questions, and EPA responses to questions.

Thursday, March 7, 2024

Welcome and Opening Remarks

Mr. Tom Tracy, Designated Federal Officer, Office of Science, Advisor, Policy, and Engagement (OSAPE) welcomed the Subcommittee members, ORD leadership and colleagues, and members of the public. He indicated that the meeting culminates the work addressing three charge questions. He appreciated the Subcommittee members and EPA staff efforts in providing advice and recommendations in the Subcommittee reports.

ORD Welcome and Subcommittee Introductions

Dr. Bruce Rodan thanked the subcommittees for their work addressing the charge questions. Dr. Rodan emphasized that ORD looks for opportunities to engage with scientists. In addition, he mentioned that these efforts help bring input from outside to support EPA’s implementation of science. He said that BOSC reviews provide 1) basic peer-review to ensure ORD is on the right track, 2) identification of aspects that are problematic, and 3) expertise and knowledge to push the conversations further and support ORD where they need. ORD has a national scope for research so the advice that BOSC provides is essential, especially as programs grow at the EPA. Dr. Rodan welcomed suggestions and recommendations from BOSC, clarifying that these are followed considering ORD’s capacity. Dr. Rodan said that he and his colleagues would be present during the meeting to answer any questions addressed to ORD.

Mr. Tracy requested the BOSC committee members to introduce themselves.

Public Comment

There were no public comments.

Presentation of Charge Question 1 Response

Dr. Gilbert Gee introduced the Charge Question 1 workgroup members. He proceeded to read Charge Question 1, which had three parts. Dr. Gee recognized the work that ORD has been

doing, e.g., identifying social science as a priority, and hiring more social scientists, including hires for leadership positions. The group also appreciated the solutions-driven research approach from ORD.

The group prepared suggestions and showed them during the presentation. He highlighted that ORD needs even more social scientists since less than 5% of current staff are social scientists. They also observed that social scientists are working in grant administration, but they could also work on programmatic efforts.

Dr. Robyn Wilson then presented the group's recommendations. First, ORD should craft and organize frameworks to clarify the objectives for social scientists at ORD. It is not clear how the hires fit strategically. Second, ensure that social scientists play a role in agenda setting and having senior leadership positions. Third, provide team approaches and training within ORD to better understand the contributions of different social science traditions. Fourth, engage in individual capacity building of new hires so they can engage communities in research. Dr. Wilson said the latter is especially important for junior new hires. Fifth, develop networks and partnerships within the agency and with other federal entities and universities to provide continuity.

Mr. Tracy welcomed clarifying questions from EPA.

EPA Clarifying Questions

Dr. Bryan Hubbell thanked the group for their recommendations and said he did not have questions. Dr. Wilson clarified that they tried to emphasize some of the recommendations that have been given in the past.

Dr. Sean Smith asked if there was a connection between ORD research and the forms of engagement that have been going on for decades with, e.g., the U.S. Army Corps of Engineers. Dr. Hubbell said they have been focusing on the translational science process, at the state level and other levels. He said that this is an area where social scientists could play a key role. Dr. Wilson read a question from the chat and Dr. Derek Shendell then clarified the question. Dr. Wilson said that information and communications scientists were not part of the recommendations, but acknowledged they were also needed.

Dr. Michael Schmeltz asked about the hiring process at ORD. Dr. Gee said they recognized there were multiple ways of working with ORD, including partnerships with universities, and said that internships could also be considered. Dr. Wilson and Dr. Tim Collins mentioned that there are some limitations about, e.g., ORISE postdoctoral fellowships as a way of bringing social scientists into ORD. Dr. Wilson said ORD is more likely to need more senior social scientists currently. Dr. de Jesus Crespo said that partnering with universities could help with work that is more time-consuming, e.g., engaging with communities. Dr. Arthur Lee indicated that outreach should also include small businesses, not only academics, to include people from different areas of the community. Dr. Bart Croes asked if there was a goal for how many social scientists were needed within ORD. Dr. Wilson mentioned that the goal and number of social scientists needed depends on the organizational framework to understand the number of experts in these areas are needed. Dr. Gee mentioned that the issues of, e.g., environmental justice, require greater

numbers of social scientists. Dr. Croes asked for an example about another agency or a university that is conducting similar efforts. Dr. Hubbell mentioned that this process has been ongoing for several years, and a continued recognition of the gaps within ORD but do not specific numbers of how many social scientists are needed at ORD.

Dr. Gee read a question from Dr. Lloyd Treinish: “Does EPA have an opinion on how NOAA's Office of Ocean and Atmospheric Research has included social scientists?” Dr. Hubbell said ORD has had conversations with NOAA about this but has not made a direct comparison. Dr. Rodan emphasized need-based approaches to identify and support the areas that need more social scientists. Dr. Louie Rivers expressed his support for the recommendations.

Subcommittee Deliberations

There were no subcommittee deliberations.

Presentation of Charge Question 2 Response

Dr. Jaime Madrigano introduced the Charge Question 2 workgroup members. Dr. Madrigano provided an overview of the charge question. First, she mentioned the strengths observed, including the establishment of ICS in 2023 and the progress made so far. Second, the group recognized the efforts from ORD prioritizing environmental justice concerns. Third, the group recognized the integration of cross-cutting topics. Fourth, the outreach to external groups including EPA’s regional and local partners was also highlighted within the subcommittee. Finally, the subcommittee praised ORD’s efforts researching new climate-related exposure-response functions.

Dr. Madrigano provided the subcommittee’s suggestions for ORD. First, she mentioned ORD should think about compounding climate risks in their approach to considering cumulative health impacts. Second, ORD could also explore approaches to evaluate social impacts of climate actions and the concept of “just transition.” Third, the subcommittee recommended the use of mixed methods to incorporate the use of quantitative and qualitative data, including community-generated data. Fourth, co-benefits and harms should continue to be studied, e.g., health equity in energy transitions. Fifth, additional expert guidance could be provided in the aftermath of disasters, incorporating modeling capabilities that EPA already has. Sixth, EPA could build capacity in climate change using educational resources and networking opportunities for current staff. Seventh, additional outreach to the business community is recommended to gain insight on novel climate solutions.

Dr. Patrick Kinney continued with the second part of the suggestions for the charge question. First, ORD could put greater efforts in understanding high emissions’ behaviors and conducting research on other greenhouse gases besides CO₂-related gases. Second, ORD could develop more collaborations with other federal agencies to further understand air quality links to climate change. Third, the indoor environment should receive more attention as ICSD programs develop. Fourth, EPA could study the multi-faceted aspect of climate change by developing composite indicators. Dr. Kinney briefly presented two additional suggestions that are listed in the slides related to downscaling climate impacts’ modeling and study the environmental justice impact of emerging technologies for direct greenhouse gas removal. He then provided suggestions for the

third part of the charge question. First, to enhance capacity in climate science at EPA. Second, to develop strategies to understand how ORD projects are succeeding or falling short. Third, to enhance the RCAN process to increase transparency in the process. Fourth, to consider an integrated system when studying climate change. Lastly, Dr. Kinney indicated two large recommendations for charge question 2. He said that ORD should prioritize three or four key transdisciplinary goals to be achieved over the next few years. In addition, ORD should develop guidance on data integration from multiple types, e.g., quantitative, qualitative, lived experience, etc.

Dr. Kinney welcomed input from the group. Dr. Derek Shendell asked why the group did not include a recommendation on creating opportunities for mid-career candidates interested in joining the agency. Dr. Madrigano and Dr. Kinney agreed that it should be a recommendation.

EPA Clarifying Questions

Mr. Tracy asked for clarifying questions. Dr. Rebecca Dodder said she did not have questions, and thanked the subcommittee for their input, especially relevant for the new ICSD division. Dr. Rodan also shared his appreciation for the recommendations. He emphasized the importance of communicating science by understanding that the audience involves people who are not scientists. Dr. Hubbell then mentioned the need for examples and recommendations on how ORD could approach some of the challenges brought up in compounding situations. Dr. Kinney and Dr. Madrigano thanked EPA for the opportunity to help addressing charge question 2.

Subcommittee Deliberations

There were no subcommittee deliberations.

Presentation of Charge Question 3 Response

Dr. Barrett Ristroph introduced Charge Question 3 and the subcommittee that worked on the recommendations. She presented the three different parts of the charge question. She acknowledged the overlap between charge questions and indicated that the suggestions will be complementary to previous recommendations. She also acknowledged that ORD has a limited ability to implement the suggestions, but the group sees the recommendations as practices that can be implemented over time.

Dr. Ristroph recognized that ORD is already mindful of collaborating with communities, beyond working with universities. She presented additional strengths that the subcommittee listed on the slides. Dr. Ristroph then provided the group's suggestions for ORD. First, ORD should focus on cultural competency. She then presented the additional recommendations on the slides, emphasizing the importance of knowledge creation using mixed methods and creating, e.g., using a webpage that allows open access to the information. For the second part of the question, the subcommittee recommended a greater understanding of the socioeconomic context and history. The subcommittee emphasized the importance of community knowledge, and to consider it in ongoing research efforts at ORD. Dr. Ristroph also highlighted the importance of interdisciplinary and interagency data collaboration. She suggested the co-creation of community tools to contribute to environmental health adaptation to critical events. Through an

environmental justice lens, Dr. Ristroph recommended looking beyond mitigation efforts and ensure that those efforts are not going to hurt another community. Other suggestions included sharing general principles consistent with environmental justice, strengthening relationships and trust with communities, focusing on social learning, training in a participatory manner, and defining communities carefully. In addition, ORD should clarify the modality of interaction with communities, build partnerships with advisory boards, diversifying who participates and develop networks as partners. Additional suggestions included further interagency place-based research collaborations, having environmental justice Thriving Communities Technical Assistance Centers (TCTACs) as partners, obtaining consent prior to conducting research, and honoring tribal IRBs.

Dr. Ristroph provided additional suggestions on research design, including equity-centered and culturally appropriate approaches, managing expectations, clarifying terminologies, and providing clear benefits for participating communities. She also said that dissemination of research results should also be done beyond journal publications and using understandable language for non-scientific audiences. Similarly, ORD should consider rights to data sharing and sustainability. Dr. Ristroph then presented two general recommendations for Charge Question 3. She first emphasized the prioritization of the affected community in the entire research process, and also recommended more collaboration across and within agencies.

EPA Clarifying Questions

Dr. Tracy Corley and Dr. Ristroph asked for clarifying questions. Dr. Lee congratulated the two on their efforts and reaffirmed the importance of defining the community, including all elements like local commerce. He agreed with the suggestion that communities must be fairly compensated for their time and efforts and recommended working with local partners to organize community-based research. Dr. Corley and Dr. Ristroph acknowledged that they did not include local businesses when talking about defining the community and plan to include that consideration going forward.

Dr. Rivers thanked the group for their work and how their response connected to the other charge questions. Dr. Rodan thanked the group for their work and expressed a concern about the TCTACs. He explained that EPA staff are allowed to reference communities to the TCTACs, but not allowed to assist in the grant application process. Dr. Ristroph asked if these restrictions would still apply for an EPA employee assisting a community with an application for a different government agency. Dr. Rodan recommended professional legal assistance and reiterated the information he received from EPA. He referenced a recently published manuscript which identified community-based research issues, such as a federal agency leaving a community after developing a mutual trust through research. Dr. Ristroph suggested developing peer-to-peer groups for past and current participants. Dr. Hubbell placed a link to the manuscript Dr. Rodan was referencing in the chat.

Closing

Mr. Tracy explained that each subcommittee will finalize their charge question responses and the responses will then be presented to the Executive Committee. Following that, the responses will be presented to ORD for review. Mr. Tracy thanked the participants and adjourned the meeting.

Meeting Agenda and Other Meeting Materials

The [agenda](#)¹ and other meeting materials can be accessed at [Joint Climate Change and Social and Community Sciences Subcommittee Meeting - March 2024 | US EPA](#).

Meeting Participants

BOSC Climate Change Subcommittee Members:

Jaime Madrigano, *Co-Chair*
Patrick Kinney, *Co-Chair*
Daniel Cohan
Matei Georgescu
Adrienne Hollis
Manoj Jha
Kevin Lanza
Arthur Lee
Jane Lin
Pamela McElwee
Rebecca Neuman
Eri Saikawa
Gregory Simon
Michael Schmeltz
Berrin Tansel
Lloyd Treinish
Timothy Wallington

BOSC Social and Community Science Subcommittee Members:

Robyn Wilson, *Co-Chair*
Gilbert Gee, *Co-Chair*
Melissa Burroughs
Genny Carrillo
Christina Chanes
Timothy Collins
Tracy Corley
James Dearing
Rebeca de Jesus Crespo
Sara Grineski
Bonnie Keeler
Stephen Jasper Lee
Woo Hyung Lee
Monica Ramirez Andreotta
Corie Rockett Sapp
Sean Smith

¹ [BOSC Meeting Agenda](#)

Siddhartha Roy
Gerald Torres
Kelly Wright

BOSC Social and Community Science Subcommittee Expert Consultants:

Barrett Ristroph
Derek Shendell

BOSC Climate Change Subcommittee Expert Consultants:

Bart Croes
Michael Kleinman

EPA Designated Federal Officer (DFO): Tom Tracy, *Office of Science Advisor, Policy, and Engagement*

Other EPA Attendees:

Bruce Rodan
Louie Rivers
Andy Miller
Bryan Hubbell

Rebecca Dodder
Emily Sokol
Madison Clark
Candace May

Darrell Winner
Tom Long

Other Attendees:

Linda Wilson
Lexie Burns

Jonathan Arnon
Ashwaq Bahkali

Adam Carpenter
Michelle Ryan

Contractor Support:

Leah Hennelly
Andrew Maresca
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