

Advisory Committee for Environmental Research and Education (AC-ERE)

June 21, 2021

Summary Minutes

Committee Members in Attendance: Lora Billings, Ann Bostrom, Andrés Clarens (Chair), Vicki Grassian, Peter Huybers, Charles Isbell, Kimberly Jones, Maria Carmen Lemos, Diane Pataki, Raina Plowright, Anu Ramaswami, Jeanne VanBriesen

Subcommittee Members in Attendance: Sharon Burke, Geoff Dabelko, Patricia Matrai, Shannon O’Lear

NSF Staff: Anjuli Bamzai (GEO, Executive Secretary for AC ERE) Brandi Schottel (ENG/CBET), Suzi Iacono (OH OIA), Steve Meacham (OD OIA)

Notetakers: Ashley Pierce (AAAS S&T Policy Fellow, ENG/CBET)

Monday – June 21, 2021

1:00 – 1:05p Welcoming Remarks, Andrés Clarens (AC-ERE Chair)

Dr. Bamzai welcomed the committee and thanked everyone for attending.

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1:05 – 1:25p Update from NSF, Suzi Iacono (Head, OIA)

Dr. Iacono welcomed the committee and thanked Dr. Megan Bang, Dr. Peter Huybers, and Dr. Ann Bostrom for their service as they rotate off the AC-ERE.

Dr. Iacono noted that the Director has been using a slide showing a defining moment for global competition, climate change, diversity, equity, and inclusion, the global pandemic, and new ways of working. There are many forces at work currently and aligned visions coming from the Director, the National Science Board, and the new Administration.

Dr. Iacono then went over NSF’s FY22 budget request of \$10.17 billion, a 19.8% increase over the previous budget and the first time the NSF budget has been in the double digits. The [FY22 budget](#) priorities can be found in the first chapter of the budget request. Dr. Iacono explained the [Alan T. Waterman award](#) and its history and noted that nominations are due mid-September. Dr. Iacono briefly went over the schedule for the meeting and then gave some cross-NSF updates on the [Emerging Frontiers in Research and Innovation \(EFRI\)](#), [Growing Convergence Research \(GCR\)](#) and the [Established Program to Stimulate Competitive Research \(EPSCoR\)](#) programs.

1:25 – 2:00p Committee Business

Minutes from the March 18, 2021, AC-ERE meeting were approved.

Discussion on forming a subcommittee on Green Research and Innovation

The goal of this discussion was to gauge interest in a subcommittee on Green Research and Innovation. The subcommittee will plan to meet regularly with a goal of organizing a webinar or panel for the fall meeting. Interested members will meet to formalize the subcommittee.

Discussion of status of report: Engaged Research to Advance Discovery and Societal Impacts in Environmental Research and Education (Anu Ramaswami, subcommittee co-Chair)

Dr. Ramaswami described the Engaged Research report, going over the sections that are included in the report so far, and outlining the next steps for the report. The report covers why engaged research is important and touches on some of the different definitions that exist. The report also includes key considerations for when to do engaged research.

Discussion of status of report: Emerging Opportunities for Convergence Between Environmental Research and Education (Julia Parrish, subcommittee Chair)

Dr. Parrish was not able to make the meeting. Dr. Clarens briefly described the Education report and where it stands. Dr. Clarens noted that additional committee members were needed on this subcommittee.

2:00 – 3:15p Environmental Change and Human Security: Research Directions Webinar

Subcommittee members: Ann Bostrom (chair), Sharon Burke, Andrés Clarens, Geoff Dabelko, Peter Huybers, Patricia Matrai, Shannon O’Lear, Benjamin Preston

Dr. Bostrom introduced the report and gave the background of the report and the eight key research findings. Dr. Matrai discussed one of the case studies on security and the Arctic. Dr. O’Lear and Dr. Clarens discussed the geoengineering case study. Dr. Dabelko and Dr. Burke added comments from the security community.

The discussion that followed touched on the need for the security community to have more and better access to state-of-the-art research on environmental security issues. Currently, climate risk analysis does not include environmental analysis for future modeling. The security community will need analyses in a form that makes sense for how they look at security that incorporates climate change, water issues, food security, as well as early warning and intervention possibilities. The discussion also touched on how to ensure technological advances keep pace with future environmental issues and how to ensure that vulnerable communities are not neglected. International cooperation and collaboration will continue to be important in this space. Dr. Burke noted that there will be a special session at AGU on this topic run by the subcommittee members.

3:15 – 3:30p Break

3:30 – 4:45p Environmental and Human Health: Research Priorities Webinar

Subcommittee Members: Diane Pataki (chair), Andrés Clarens, Lora Billings, Ann Bostrom, Maria Carmen Lemos, Samuel Myers, Raina Plowright

Dr. Pataki introduced the report, gave the impetus and methodology for the report, and outlined the emerging research questions and recommendations made in the report. Dr. Plowright discussed zoonotic spillover events and infectious disease. Dr. Myers had a pre-recorded video where he discussed planetary health.

The discussion that followed touched on infrastructure and ecology as focuses for research to improve and help safeguard public health. Other funding opportunities at NSF were also discussed such as the new funding opportunity, the [Predictive Intelligence for Pandemic Prevention](#) initiative. Committee members also touched on deficiencies in the research landscape on the topic of atmospheric aerosols and the gaps between agencies and the opportunity for partnerships in this area.

4:45 – 5:00p Break

5:00 – 5:30p Wrap-up discussion

Dr. Iacono noted that the next steps for the reports would be a communication campaign to the external community. Dr. Iacono also noted that she would be retiring before the next AC meeting.

Dr. Clarens thanked Dr. Iacono for her contributions to the AC-ERE. The committee would work on next steps for the outward-facing communications. Dr. Clarens reminded the committee that the engaged research report would be circulated for review and that work on the education report would be ongoing. There will also be planning for those interested in the Green Research and Innovation topic for the fall meeting. Dr. Clarens thanked the committee and closed the meeting.

5:30p Adjourn