

Environmental education

Environmental education (EE) provides a foundation for building awareness and action about local and global environmental challenges and a sustainable future. While EE is a lifelong process, it often pays particular attention to children and youth. Its goal is to develop knowledge, values, skills, and actions focused on social-ecological systems and the prevention and solution of environmental problems. EE occurs in many venues, particularly in formal K-12 schools, as well as in non-formal educational settings, including community-based organizations, such as the YMCA, 4-H, Boys and Girls Clubs, and conservation organizations, such as zoos, aquariums, watershed organizations, municipal parks, and nature centers. EE includes local, state, national, and international associations.

Environmental education encompasses a wide array of pedagogical practices, from place-based stewardship education and community-based environmental action research to citizen-science projects. Although whole courses devoted to EE are relatively rare in K-12 education, EE's relevance to a wide range of subject matter is increasingly recognized through EE content integrated into curricula across disciplines.

In the United States, the National Environmental Education Act of 1990 serves as the authorizing legislation for federal investment in EE and is institutionalized through various federal offices, an independent national foundation, public-private partnerships, and a multi-stakeholder advisory council, as well as through state environmental literacy plans and offices. Major new investments are essential and can build upon the infrastructure that has been put in place.

Environmental Education is inherently civic, as illustrated in the first widely accepted definition put forth in the Tbilisi declaration at the first intergovernmental conference on environmental education organized by the United Nations Education, Scientific, and Cultural Organization (UNESCO) which included participation as a main category of objectives in EE. Despite these civic foundations of EE, in practice it has historically focused predominately on knowledge, awareness, and individual behavioral change. However, over the past decade, there has been a shift in the field to focus both on linking civic action and participation to environmental science content and expanding and diversifying the groups involved in EE and the appeal of the field to a diverse array of audiences.

Echoing this shift, there are a number of newer approaches under the umbrella of EE worth noting, that focus more directly on the civic engagement underpinnings of the field, including Place-Based Education, Action Civics, Youth Organizing, National Service Community Organizing and Environmental Justice/EcoJustice Education. This transformation of EE toward a civically focused exercise based on sound scientific content, mirrors the importance of public civic engagement around environmental issues at this critical time in human history.

Brief History of Significant Events in EE

Education about nature goes back many decades. In the 1960s, as the environmental movement began to grow, major national environmental organizations developed specific magazines, clubs, and programs targeted to children and youth. Prominent among these were the National Wildlife Federation (NWF) and the National Audubon Society.

On April 22, 1970, a massive teach-in took place in some 1,500 colleges and universities, as well as in 10,000 schools and a multitude of other community settings. This first Earth Day gave a huge boost to environmental education.

Several months after Earth Day, the Environmental Education Act of 1970, passed by Congress, provided funding for various initiatives, while its later iteration in 1990 exhibited institutional resilience at all levels. Modest funding from EPA's Office of Environmental Education, as well as from the National Science Foundation, was critical to further building the training capacities of EE organizations, and hence the professional legitimacy of the field, including in research and community engagement. These events laid the groundwork for EE to grow over the coming decades.

For more about the history of EE, see the North American Association of Environmental Education website at: <https://naaee.org/about-us/about-ee-and-why-it-matters>.

References:

Adam Rome, *The Genius of Earth Day: How a 1970 Teach-In Unexpectedly Made the First Green Generation* (New York: Hill and Wang, 2013).

National Environmental Education Advisory Council (NEEAC), *2015 Report to the U.S. Environmental Protection Agency Administrator*.

James Elder, *A Field Guide to Environmental Literacy: Making Strategic Investments in Environmental Education* (Environmental Education Coalition, 2003).

North American Association for Environmental Education (NAAEE), *Guidelines for Excellence: Community Engagement* (Washington, 2017).

Carmen Sirianni and Stephanie Sofer, "Environmental Organizations," in Lester M. Salamon, ed., *The State of Nonprofit America*, second edition (Washington, DC: Brookings Institution Press, 2012), 294-328.

Robert B. Stevenson, Michael Brody, Justin Dillon, and Arjen E. J. Wals, eds., *International Handbook of Research on Environmental Education* (New York: Routledge, 2013).

Strategic capacity building across EE field

The institutional capacity of the EE field has become more robust over time, although it has had to weather criticism and relative neglect on various fronts, including from some conservatives in Congress and the executive branch. Here we sketch a few key components of the institutional and policy field, including some proposals within the field for further capacity building in the coming years.

Major new investments in environmental education, especially in place-based projects and networks that promote sustainable cities, restored ecosystems, and environmental justice, and that help to build the skill sets for collaborative governance across landscapes and sustainable business practices across industries, are vital for a democratic and effective response to climate change.

National Environmental Education Act (NEEA)

The original Environmental Education Act of 1970 established an Office of Environmental Education (OEE) in what was then the Department of Health, Education, and Welfare (HEW), home to various environmental programs before the U.S. Environmental Protection Agency (EPA) was established later that year. OEE became part of the newly formed Department of Education in 1979. Controversy over the role of states at the beginning of the administration of President Ronald Reagan (1981-1989) led to the elimination of the office.

The 101st Congress passed NEEA in 1990 and it was signed into law by President George H.W. Bush (1989-1993), with the full support of William Reilly, administrator of EPA, where the new OEE was housed. The original funding authorization expired at the end of FY1996, but it continued to be refunded at approximate \$9 million per year thereafter for another decade or so. Criticisms included charges of scientific bias and issue advocacy among conservatives, as well as questions of performance metrics by the Office of Management and Budget (OMB), which claimed that results could not be demonstrated. These criticisms and EE's dependence on federal funds are partly responsible for the field's thin history (with notable exceptions) of promoting the civic education/engagement element of EE.

NEEA established other key institutional supports for environmental education (below), as well as funding for EE grants, training, fellowships, and awards.

References:

[National Environmental Education Act](#), Public Law 101-619, November 16, 1990.

David M. Bearden, *National Environmental Education Act of 1990: Overview, Implementation, and Issues for Congress* (Washington, DC: Congressional Research Service, August 2006).

National Environmental Education Advisory Council (NEEAC), [*2015 Report to the U.S. Environmental Protection Agency Administrator*](#).

National Environmental Education Advisory Council (NEEAC)

NEEAC was established by the 1990 law, in accordance with the Federal Advisory Committee Act (FACA) of 1972 that enables balanced representation from various stakeholders. It includes 11 members: 2 each from primary/secondary education, colleges/universities, nonprofits engaged in EE, state departments of education/natural resources, and business/industry, as well as one from senior Americans (who are included in EE). Its purpose is to provide advice to EPA on its grant and training programs, as well as to assess the state of EE in the nation, obstacles and challenges in view of current and anticipated environmental problems. It also makes recommendations about how to build capacity across the EE field, including nonprofit organizations and educational institutions.

References:

National Environmental Education Advisory Council (NEEAC), [*2015 Report to the U.S. Environmental Protection Agency Administrator*](#).

[NEEAC charter](#) (updated 2018).

Susan L. Moffitt, [*Making Policy Public: Participatory Bureaucracy in American Democracy*](#) (New York: Cambridge University Press, 2014), for a general analysis of federal citizen advisory committees.

EE Task Force

This task force is comprised of representatives of federal agencies, especially those that engage in activities relevant to environmental education, such as the National Park Service and U.S. Fish and Wildlife Service. Its activity, however, has been sporadic, at best.

National Environmental Education Foundation (NEEF)

NEEF was established by the 1990 law as a 501(c)(3) nonprofit to complement the work of the EPA. It raises money from various private and foundation sources, as well as from government grants and a federal appropriation. NEEF provides grants to organizations across the field to build capacity and increase diversity for lifelong environmental education and public health (e.g. pediatric asthma), as well as to conduct public and corporate sustainability, employee participation, and community service campaigns.

NEEF leverages public and private partnerships, including other federal agencies, to engage young people in education, stewardship, and resilience work. Its grant capacity, however, has remained relatively modest at under \$1 million per year.

NEEF has supported programs to increase climate literacy for nearly 400 broadcast meteorologists in over 130 stations across the U.S.

References:

National Environmental Education Foundation (NEEF), [*The Business Case for Environmental and Sustainability Employee Education*](#) (February 2010).

NEEF, [*The Engaged Organization: Corporate Employee Environmental Education Survey and Case Study Findings*](#) (March 2009).

NEEF, [*2018 Annual Report*](#).

North American Association for Environmental Education (NAAEE)

[NAAEE](#) is a professional association designed to promote EE through teaching, research, and service. It encompasses various pedagogies, as well as the understanding of policy making, problem solving, and management, but does not advocate for policy outside its purview of environmental education. NAAEE was originally founded as a national association in 1971; it officially became tri-national in 1983 with the inclusion of members from Canada and Mexico and is the premiere association in the field in North America.

NAAEE has placed increasing emphasis on civic engagement and diversity, equity and inclusion. Its 169-page publication, *Community Engagement: Guidelines for Excellence*, which was developed in collaboration with public agencies, national associations, and other institutions, includes a broad range of pedagogically sound principles and practices for engaged EE that is community-centered, collaborative, and inclusive, and that fosters healthy, resilient, and just communities.

Notable to the idea of CivicGreen, NAAEE's Civics and Environmental Education (CEE)-Change-Fellowship is a new initiative building environmental education and civic engagement leadership through community based environmental education action projects by bringing together civic and environmental educators.

For more information about NAAEE see: <https://naaee.org/about-us/history-and-key-achievements>

References:

North American Association for Environmental Education (NAAEE), [*2020-2023 Strategic Framework*](#).

NAAEE, [*Community Engagement: Guidelines for Excellence*](#) (Washington, DC, 2017).

NAAEE, [*State Environmental Literacy Plans: 2014 Status Report*](#).

North American Association for Environmental Education, [*NAAEE: Thirty Years of History, 1971-2001.*](#)

NAAEE, [ee360.](#)

EPA, [*National Environmental Education Training Program.*](#)

We welcome suggestions and comments to help improve this entry: [civicgreen@tufts.edu.](mailto:civicgreen@tufts.edu)