

Research Brief

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Environmental education as a policy tool for conservation and climate outcomes

Effective environmental education is essential to addressing climate challenges. New analysis shows that community-based approaches, a focus on local community, and sustained, long-term programs are key for positive outcomes.

Background

Engaging people individually and collectively in efforts to address today's most pressing environmental issues—from climate change to biodiversity loss—is essential if we are to build a more just, sustainable future. One key pathway to creating this constituency is environmental education, which builds awareness, skills, and motivation among people of all ages. Yet despite decades of implementation, a consistent, coherent body of evidence about what actually makes environmental education effective has been lacking. Programs vary widely in their goals, audiences, and methods, and existing research on effectiveness has been scattered across disciplines and fields including education, psychology, environmental science, natural resources, and youth development, among others. As a result, educators, policymakers, and funders face a persistent challenge of how to identify and scale approaches that meaningfully enhance knowledge, attitudes, behaviors, and ultimately environmental outcomes.

An April 2026 paper led by Stanford researchers seeks to address this challenge by synthesizing insights across eight systematic reviews of environmental education research, each focused on a distinct component. By examining data spanning school-aged learning, climate change education, community science, civic engagement, and beyond, the analysis identifies common elements of effective practice that cut across all themes allowing for a more integrated understanding of how to design environmental education for impact.

POINTS FOR POLICYMAKERS

The overarching takeaway from the study is that a **diverse array of teaching and learning approaches in environmental education is key** to achieving the goals of building knowledge, attitudes, and skills related to the environment; connecting people and nature; and motivating conservation and environmental action through education.

Additional findings from the study include:

■ Participatory approaches and methods to environmental education yield results.

In contrast with more traditional forms of education—which often focus on knowledge transfer from teacher to student—participatory methods are more flexible and skills-focused, frequently involve collaboration, and create a multidirectional learning community.

■ **Including direct action as part of environmental education, where appropriate, strengthens impact.** Actions such as monitoring local environmental conditions, participating in community clean-ups, implementing habitat restoration projects, and engaging in environmental advocacy campaigns help build civic 'know-how' and foster a sense of citizenship, agency, and empowerment.

■ Focusing on local community issues enhances relevance and participation.

Community-based projects make environmental challenges more tangible and increase participation by connecting learning to issues that directly affect people's lives.

■ **Surfacing and discussing personally relevant and meaningful information supports engagement.** Connecting environmental issues to local contexts and lived experiences helps make those issues more understandable and meaningful. Paired with the knowledge and skills inherent in environmental education, this makes for a powerful formula that leads to sustained environmental civic action.

■ **Collaborating with experts and key stakeholders strengthens environmental education program design and implementation.** Partnerships among schools, community organizations, scientists, and local governments can enhance environmental education initiatives by improving quality and ensuring that learning is linked with real-world outcomes.

■ **Gaps in assessing long-term impacts highlight the need for improving how outcomes are measured and tracked over time.** A better understanding of what works will help inform future investment as well as policy decisions.

Across the analysis, several approaches consistently lead to stronger outcomes. Programs that include participatory learning, opportunities for direct action, and a focus on local community issues are more likely to bring about pro-environmental behaviors and build lasting connections between people and their environment. Powerful approaches highlighted in the study include community-based projects, citizen science, research/practice partnerships, and place-based learning, all of which serve to make environmental challenges more tangible and actionable.

The findings also emphasize the importance of sustained engagement. One-time programs tend to have limited impact, while initiatives that create opportunities for continued involvement and connect participants with scientists, educators, and community organizations are better positioned to transform knowledge into action. The research points to environmental education as a practical pathway for strengthening community-level environmental action. Integrating these approaches into existing climate and conservation efforts, particularly through local partnerships and longer-term program design, could help close the gap between awareness and measurable outcomes.



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ABOUT THE RESEARCH

This brief is based on **Engaging people in educational processes that foster environmentally valuable outcomes: A synthesis of key findings across eight systematic reviews** published in the British Ecological Society's journal *People and Nature* in February 2026. Co-authors include **Martha C. Monroe**, University of Florida; **Alan Reid**, Monash University; and **Heidi Ballard**, University of California, Davis.

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