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一、全球環境教育夥伴會議參與人員



NICOLE ARDOIN

Associate Professor
Stanford University
United States

Nicole Ardoin, Emmett Family Faculty Scholar, is an associate professor in the Social Sciences Division of the Stanford Doerr School of Sustainability, senior fellow at Stanford's Woods Institute for the Environment, and Sykes Family Faculty Director of the Emmett Interdisciplinary Program in Environment and Resources (E-IPER). Her research focuses on the nexus of environmental behavior, environmental learning, and sense of place. Prof. Ardoin's Social Ecology Lab group studies the design, implementation, and effectiveness of conservation practices that motivate individual and collective environmental behaviors in terrestrial and marine environments in the United States and internationally. Her work occurs primarily in informal and community settings including, but not limited to, parks and protected areas, within fishing communities, with participants on nature-based tours, and in farmers' markets, among other everyday-life settings. Prof. Ardoin and her research group frequently pursue their work in collaboration with community partners including nonprofit conservation organizations, national and state parks, philanthropic foundations, and a range of national and international governmental agencies. She has a PhD in Social Ecology from the Yale University School of the Environment. She is a trustee of the California Academy of Sciences and the George B. Storer Foundation and an associate editor of the journal Environmental Education Research.



JUDY BRAUS

Executive Director
North American Association for Environmental Education
(NAAEE)
United States

Judy Braus brings to her role as NAAEE Executive Director a wealth of experience in the environmental education profession, with a focus on conservation education, diversity and inclusion, and using the power of education to help create healthier communities that empower people to help restore and protect the environment. She comes to NAAEE from the National Audubon Society, where she was the Senior Vice President of Education and Centers, overseeing an extensive nationwide network of nature centers and educators. Prior to that, she led the education programs at World Wildlife Fund (WWF), the U.S. Peace Corps, and the National Wildlife Federation (NWF). Judy also has extensive experience with NAAEE, having served in a number of capacities in the past two decades, including past president, conference chair, head of the elementary and secondary commission, and editor of a number of NAAEE monographs. Additionally, Judy is a proven fundraiser, working with foundations, corporations, government, and individual donors to raise more than \$35 million for education and conservation. She is committed to strong partnerships and has negotiated and implemented lasting relationships with organizations, including Toyota Motor North America, REI, National Geographic, the U.S. Fish and Wildlife Service, Disney's Animal Kingdom, Eastman Kodak, and Aardman Animations, among others.



MICHAEL BROOKS

Facilitator

United States

Michael Brooks (he, him) helps diverse groups grow new visions and programs, make collective decisions, and learn together. He has designed and facilitated more than 125 such virtual and in-person sessions. Mike draws on his direct experience as a practitioner: Chief Strategy & Digital Officer at ChildFund International, Senior Vice President of Innovation & Strategy at United Way Worldwide, Managing Director at Longpath Labs, and founder of acquired civic engagement startups. Mike cares deeply about people and our precious world. He earned a Master of Divinity at Yale and a Master of Public Administration at George Washington.



TZU-CHAU (TC) CHANG

Professor, Graduate Institute of Environmental Education

National Taiwan Normal University

Taiwan

Professor Chang received his Ph.D. in Science Education from Cornell University and served as the executive secretary of the Environmental Protection Division of the Ministry of Education of Taiwan to coordinate national environmental education programs in 2008–2012. He is now a professor at the Graduate Institute of Environmental Education of National Taiwan Normal University and is also the coordinator of the GEEP APRC (Asia Pacific Regional Center) for Environmental Education of Taiwan.



WEN-FENG CHANG

Environmental Coordinator

Department of Comprehensive Planning, Taiwan Environmental
Protection Administration

Taiwan

Wen-Feng serves as a coordinator in environmental education at the Department of Comprehensive Planning at EPA Taiwan. She was the main contact coordinator for International Environmental Partnership (IEP) environmental education programs from 2014 to May 2019, including GEEP and KMS programs. She was also in charge of the US-Taiwan Eco-Campus Partnership Program from 2014 to June 2022.

She is now in charge of the Demark-Taiwan environmental education partnership and environmental caring designs competition program. Wen-Feng is also responsible for the national environmental volunteer contest's planning and statistics, collaboration between EE programs and other government sectors, and EE programs of Taiwan local governments.

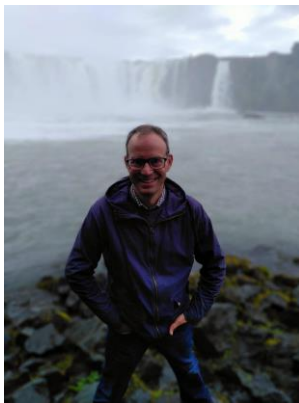


ANDREW (ANDY) DAVID (*Virtual*)

International Programs Coordinator

North American Association for Environmental Education (NAAEE)
United States

Andy serves as an International Programs Coordinator for GEEP, supporting all GEEP activities. After graduating with a B.A. in Geography and Political Science and minors in African Studies and Development Economics from the University of Wisconsin-Madison, he served as an AmeriCorps VISTA at Glacier National Park in a Tribal Liaison role. There, he worked to build trust between local Indigenous populations and the Park to collaboratively manage natural and cultural resources and grow economic opportunities. He recently completed a Master's in Development Practice (MDP) from Emory University, with concentrations in Environmental Sustainability and Monitoring and Evaluation. Throughout his time at Emory, he completed two practicums: one at the Georgia Conservancy (2021) and the other at World Agroforestry (CIFOR-ICRAF).



BILL FINNEGAN (*Virtual*)

Curriculum Project Lead, Environmental Sustainability, University
of Oxford

Director, Tamarack Media UK
United Kingdom

Bill Finnegan is based at the University of Oxford, where he is involved in a number of climate and sustainability education initiatives, including implementing the curriculum priority of the University's sustainability strategy, supporting a new interdisciplinary research hub on the future of education and training for the climate, and leading public engagement activities such as the Museum of Climate Hope. Bill continues to support NAAEE through Tamarack Media UK, a digital communication firm that specialises in helping environmental charities harness digital and social media to communicate, educate and advocate. His work as a multimedia producer has been featured on BBC Ideas, Radio 4, public television and at film festivals around the world.



CAROL FORSTER

Head of Business Development
Keep Northern Ireland Beautiful
Northern Ireland

Carol joined Keep Northern Ireland Beautiful as Head of Operations in 2018 after five years with the umbrella body for environmental charities in Northern Ireland. As Operations Manager and Deputy CEO at Northern Ireland Environment Link, Carol provided support on strategy development, project management, membership and new business development. She has also previously worked as AONB Manager at the Causeway Coast & Glens Heritage Trust, where she delivered a range of initiatives and projects to promote best practice environmental and protected landscapes management. Carol previously worked as a town planning consultant in Northern Ireland and the Republic of Ireland.



RUTH GAJ-McKEEVER
Senior Theme Coordinator
Green-Schools Programme, Eco-Schools
Ireland

Ruth Gaj-McKeever is currently Senior Theme Coordinator on the water theme of the Green-Schools programme which is run by An Taisce and is part of the Eco-Schools network. She completed her degree in Natural Science from TCD in 2004 and her masters in World Heritage Management from UCD/Charles Darwin University (Australia) in 2007. Following this she worked with Dublin Zoo, Birdwatch Ireland, Apuseni Nature Park (Romania) and the Burren National Park.



MADELINE HALVEY
International Programs Coordinator
North American Association for Environmental Education (NAAEE)
United States

Madeline joined NAAEE's Global Environmental Education Partnership (GEEP) team in August 2021. Madeline recently received her Master's degree in Global Environmental Policy from American University in Washington, D.C. She previously worked as a researcher for the Johns Hopkins Center for a Livable Future. Much of her scholarship has focused on sustainable and equitable policies toward climate change resiliency, including published research on sustainable agriculture, environmental activism, and public-private partnerships. Madeline has a B.A. in Writing and Rhetoric and a B.S. in Interdisciplinary Studies-Social Sciences from the University of Central Florida (UCF).



NINA HAMILTON
Senior Manager, International Programs
North American Association for Environmental Education (NAAEE)
United States

Nina Hamilton supports coordination of the GEEP and NAAEE's international leadership program, EE 30 Under 30. She joined NAAEE with a background in community-based conservation and social inclusion, from working with mangrove-dependent communities in Madagascar to coordinating a global advisory group to promote women's land rights. She is particularly passionate about working across cultures and connecting people with the networks and resources they need to have their greatest impact. Nina has a Master's in Environmental Management from Duke University and received her B.A. in Biology from Kenyon College.



CHIA-HUI HO
Director
Shin Pu Elementary School
Taiwan

Ho has served as the director of Shin Pu Elementary School in Taiwan for 11 years. In addition to her role as a director, she has also been involved in the Society of Wildness as a guide for parent-child groups, the president of the nurturing society, and a promotional lecturer. She is dedicated to promoting environmental education on campus. She has also participated in a training program with exchange and learning activities in Japan.



SCOTT HOWES

Strategic Lead-Climate Action

Keep Northern Ireland Beautiful

Northern Ireland

Biography coming soon.



IAN HUMPHREYS

CEO

Keep Northern Ireland Beautiful

Northern Ireland

Dr. Ian Humphreys joined Keep Northern Ireland Beautiful as Chief Executive Officer in 2008 bringing strong environmental and research credentials. Ian is championing the need to generate a greater sense of civic pride throughout our society. Ian sees the ability to collaborate as critical to success and has built a strong cross-sectoral behaviour change partnership to deliver the Live Here Love Here civic pride campaign. He has instigated robust monitoring and research methodologies, developed support services for councils including the Northern Ireland Environmental Quality Forum and ensured every school is registered with Eco-Schools. Ian initiated work with central government that has created climate training for teachers and other sectors of society.

Ian sits on the Advisory Group for the Global Environmental Education Partnership, was elected onto the international Foundation for Environmental Education board in 2016, sits on the Board of the Northern Ireland Environment Link and the Leadership Council of the All-Island Sustainable Development Solutions Network (SDSN) Ireland. Ian is married with three children and is a keen ornithologist, licensed ringer and volunteer for Copeland Bird Observatory.



CHING-HUNG HSU

Principal

Dashan Elementary School

Taiwan

Principal Hsu graduated from the Humanities and Sociology program at National Hsinchu University of Education, and has served as the principal of Dashan Elementary School in Miaoli County since 2016. Principal Hsu shared eco-school practices at the 2022 GEEP APRC Online International Symposium on Environmental Education. He has served as the environmental education ambassador and representative in many international exchange programs, visiting Korea in 2017 and the American Eco-school program in 2016. In 2016, he hosted school representatives in the 2016 American Eco-School Delegation Visit to Taiwan Plan.



SU-CHIH HSU

Deputy Director

Department of Comprehensive Planning

Taiwan Environmental Protection Administration

Taiwan

Su-Chih Hsu joined the Administration in 1991, after receiving a Master's degree of Public Health from the National Taiwan University. She first joined the Department of Comprehensive Planning as a specialist and transferred to the Department of Air Quality Protection and Noise Control in 1996. For many years, she has actively worked towards promoting environmental management efforts. She has been involved with environmental issues through policy development, strategic planning, environmental impact assessment, air quality protection, and noise control.

She has managed the Clean Air Action Plan, which cooperates across the central government, local governments, and private sector. The action plan has successfully advocated for the implementation of air pollution reduction strategies at the source and has achieved significant milestones in air quality protection. She has also managed scientific and technological projects focused on air pollution and its health effects.

She rejoined the Department of Comprehensive Planning as a deputy director in April 2021. In her new position, she began working on international cooperation. Though she is new to environmental education and international cooperation, she is very pleased to work with her colleagues on International Environmental Partnership (IEP) programs and the Global Environmental Education Partnership (GEEP). She believes that environmental education can help connect people with various possibilities and opportunities for change and action to create a better world. Through international cooperation, that impact can be spread even further.



MPHEMELANG KETLHOILWE

Associate Professor of Environmental Education

University of Botswana

Botswana

Mphemelang Ketlhoilwe holds a PhD in Environmental Education. He has taught Environmental Education since 1993 and has been a Curriculum Development Officer, Coordinator of Environmental Education, Lecturer, Senior Lecturer, and now an Associate Professor in Environmental Education, since 2015. A member of the Environmental Education Association since 1997 and GEEP since 2015, he is now pioneering the establishment of a GEEP Africa Hub with an Africa based planning group supported by GEEP Secretariat and US EPA (GEEP Leadership Team). Mphemelang has published research based articles, book chapters, monographs, articles, and consultancy reports in Environmental Education and Education for Sustainable Development. His job responsibilities as an environmental educator included teaching/lecturing; coordination of environmental education programs; participation in national, regional and international environmental education activities; research, community mobilization and engagement. Mphemelang retired from formal university employment in March 2021.



ALEX KUDRYAVTSEV (*Virtual*)

Researcher and Online Course Instructor

Cornell University

United States / Russia

Alex Kudryavtsev (pen name: Alex Russ) is an environmental education researcher, book editor, and online course instructor in the Cornell University Civic Ecology Lab. He has worked in environmental education since 1996 in Russia and then in the U.S. He completed his MS (2006) and PhD (2013) degrees in environmental education at Cornell University. His research focused on urban environmental education and sense of place. Alex is the first editor of the "Urban Environmental Education Review" international textbook (Russ and Krasny, 2017) published by Cornell University Press (<http://tinyurl.com/UEERbook>). Alex has authored articles in top environmental education journals, traveled seven continents to observe environmental education programs, and is interested in advancing environmental education through research and educator training to foster environmental sustainability and human well-being. <http://ak383.org>



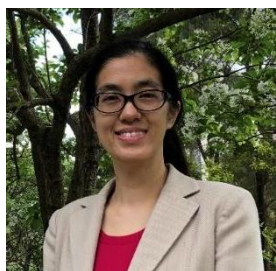
SU-TING (TINA) LIN

Project Manager

Chinese Society for Environmental Education (CSEE)

Taiwan

Tina received her Environmental Education Master's degree from the University of Taipei and worked at the Chinese Society for Environmental Education (CSEE) as an Administrative Secretary for 1 year. While in school, she was a research assistant for Dr. Shih-Tseng Liu and joined the Association for Ecological Education of Taiwan to host ecology camps. She also spent time in Australia for an internship at the start of graduate school, as one of two interns from Taiwan who stayed in Boyne Island Environmental Education Centre for about 1 month to learn how to lead environmental curricula. Now, Tina is a project manager of CSEE, through which she has learned a lot about environmental education, and made some friends, too! For her, this is a great opportunity to participate in exchanges about environmental education with so many countries, not only by attending or hosting forums and workshops but also by sharing her experiences with other participants.



SHIH-TSEN (NIKE) LIU

Chairman, Chinese Society for Environmental Education (CSEE)

Associate Professor, University of Taipei

Taiwan

Shih-Tsen (Nike) Liu, PhD, is an associate professor at the Department of Earth and Life Science at the University of Taipei. She also serves as the chairman of the Chinese Society for Environmental Education (CSEE), actively promoting the exchange of EE in Taiwan and the world. The GEEP project is undertaken by CSEE, and Dr. Liu is the co-host of the project. In addition to international exchanges, her research interests include intergenerational education, ESG, and EE certification system.



ANNA MANWAH LO MBE

Northern Ireland

Born in Hong Kong, Anna came to live in Northern Ireland in 1974. Initially, she worked for the BBC in Belfast as a secretary and a freelance contributor for the Chinese Service. After qualifying in social work in the University of Ulster, she worked in social services and Barnardos before becoming the director of the Chinese Welfare Association in 1997. She was elected to the Northern Ireland Assembly in 2007 and retired in 2016. The Blackstaff Press published her autobiography in October 2016. Anna was awarded an honorary doctorate from the Open University in 2018.



NADINE MCAULEY

Campaign and Events Officer

Keep Northern Ireland Beautiful

Northern Ireland

Nadine joined KNIB in October 2022. She had previously spent 5 years with The Conservation Volunteers as their Employment and Training Advisor. Her educational background is actually Speech and Language Therapy, however, her passion for the environment and conservation led her to this sector. She has a keen interest in connecting people with green spaces and while undertaking a Masters in Mindfulness Studies she researched the additional benefits of practicing mindfulness outdoors and in nature.



STEVE MCCREEDY

Head of Operations

Keep Northern Ireland Beautiful

Northern Ireland

Before joining Keep Northern Ireland Beautiful in December 2022, Steve spent 20 years in public service roles overseas and in the UK, most recently in the Northern Ireland Office and from 2017 to 2021 as Resident British Commissioner to St Lucia. Prior to this Steve's roles included Chief of Staff to the Governor of Anguilla, Political Officer in Japan, Private Secretary to Ministers and other management and consular positions including in Africa, Latin America, and the Middle East. Having resettled in Northern Ireland Steve wants to use his government and overseas experience to help tackle global environmental challenges at a local level.



AUGUSTO (GUS) MEDINA

Independent Consultant

Canada

Gus Medina is a former Program Officer for the World Wildlife Fund (WWF-US). In that capacity he worked with government agencies and nongovernmental organizations throughout Latin America and the Caribbean to design conservation initiatives, environmental education programs, and public awareness campaigns, conduct environmental education professional development workshops, and develop educational resources. In collaboration with the U.S. Fish and Wildlife Service, the

Smithsonian, the U.S. Environmental Protection Agency, the North American Association for Environmental Education, and Environmental Education and Conservation Global, he has presented sessions and facilitated workshops on environmental education and social marketing in China, India, Taiwan, and Thailand.



SINEAD MURRAY

Environmental Education Coordinator

Keep Northern Ireland Beautiful

Northern Ireland

Sinead joined Keep Northern Ireland Beautiful in October 2022 as Environmental Education Coordinator working within the team that delivers the Eco-Schools NI programme, which aims to improve the environmental awareness of pupils in schools across NI.. She has a background working in environmental education and the voluntary sector and is passionate about educating others on how to protect the beautiful landscape we live in. In November 2022, Sinead was awarded a place on the first

Northern Ireland 30 Under 30 Climate Change Makers programme.



GINGER POTTER

Senior Education Specialist, Office of Environmental Education (OEE)

U.S. Environmental Protection Agency

United States

Ginger Potter is the Senior Environmental Education Specialist in the Office of Public Engagement and Environmental Education (OPEEE) for the U.S. Environmental Protection Agency. Ms. Potter is responsible for environmental education program design, implementation, and management as well as research, evaluation, and program assessment and strategic planning in the Office of Environmental Education. She serves as the Project Officer for the National Teacher Training and Professional Development Program (ee360+) and is the Co-Chair of the Global Environmental Education Partnership (GEEP). Before coming to EPA, Ms. Potter was a research chemist for the U.S. Geological Survey. Ms. Potter has degrees in Chemistry, Business Administration, and Organizational Development/Behavioral Psychology. She has published several articles on environmental education and speaks frequently at national and international conferences on education and sustainable development education issues.



JENNA POTTER

Environmental Leadership & Awards Programme Manager
Keep Northern Ireland Beautiful
Northern Ireland

Biography coming soon.



TZU-YI PAI

Professor, Master Program of Environmental Education and
Management
Department of Science and Application
National Taichung University of Education
Taiwan

Pai's expertise and practical experience include environmental mathematical modeling, environmental impacts assessment, environmental management, environmental education, and intelligence computation. Pai has published more than 90 journal papers, 440 internal and local conference papers. He is also an associate editor of Granular Computing and editorial board member of other international journals such as Water. Pai has been elected as Standing Supervising Member, Supervising Member, and Council member of The Chinese Institute of Environmental Engineering; Council Member of Twain Water Environment Association; and Council Member of Taiwan Association of Sustainable Development for Environment and Resources.



MAHESH PRADHAN

Coordinator, COBSEA
United Nations Environment Programme
Bangkok

With nearly three decades with the United Nations, Mahesh currently serves as the Coordinator for the Coordinating Body on Seas of East Asia (COBSEA), an intergovernmental mechanism bringing together nine countries to protect and conserve the East Asian Seas region. COBSEA is one of 7 Regional Seas Programmes (RSPs) administered by the UN Environment Programme (UNEP). Earlier, during 2011-16, Mahesh led UNEP's global Environmental Education and Training portfolio, where he focused on higher education and strategic partnerships with academia and relevant stakeholders, including the establishment of the Higher Education Sustainability Initiative (HESI) at the Rio+20 Conference, amongst others.



GAYATRI RAGHWA

Education Consultant

India

Gayatri Raghwa lived in Abu Dhabi, United Arab Emirates for 27 years and recently moved to her home country, India, to be with her family. She has worked to raise the profile of EE since its inception at Abu Dhabi. She has worked as a volunteer, with an NGO, and with the government to promote EE. At the Environment Agency-Abu Dhabi, where she worked as a senior specialist, she strategized for EE at the government level, developing, designing, and implementing programs for schools, colleges, and other audiences. She also developed MOUs with EE organizations, such as NAAEE, Centre for Environmental Education (CEE), AAEE, and in other parts of the world. She has developed resource materials, such as books and manuals for varied audiences, regularly conducting training of trainer modules for school and college educators. She also contributes as a member of the Zayed Future Energy Prize, Eye on Earth, and United Nations Commission on Sustainable Development Education. She has developed and run successful programs such as the Enviro-Spellathon, Sustainable Schools Initiative, and the Sustainable Campus Initiative for the Environment Agency-Abu Dhabi. She continues her work on sustainability with Wildecologue, an organization which strives to promote sustainable life styles as Executive Director and also a free-lance consultant developing resource materials for Abu Dhabi organizations and several other organizations in India.



ALAN REID (*Virtual*)

Professor and Dean

Monash University

Australia

Alan Reid is a Professor of Education at Monash University. He works with a range of environmental and sustainability education (ESE) research networks, locally and internationally. Key activities include editing the research journal, *Environmental Education Research*, and supporting the *Global Environmental Education Partnership*, an international stakeholder network. More at <https://research.monash.edu/en/persons/alan-reid>.



KARTIKEYA SARABHAI (Virtual)

Founder and Director

India's Centre for Environmental Education (CEE)

India

Kartikeya V. Sarabhai is the founder and director of India's Centre for Environment Education (CEE), headquartered in Ahmedabad. He is a member of the United Nations Decade of Education for Sustainable Development Reference Group of UNESCO. He has long been associated with the International Union for Conservation of Nature and Natural Resources (IUCN), and was chair of South and South East Asia IUCN Commission on Education and Communication. He is currently vice-chair of the Indian National Commission of IUCN. He is also a member of the Earth Charter International Council. He was a member of the Indian delegation to the United Nations Conference on Environment and Development (UNCED) in Rio in 1992 and the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, and Kartikeya co-authored India's report for UNCED. He has been closely associated with communication initiatives of United Nations Environment Programme (UNEP), especially those connected with ozone. He has served on several committees of India's Ministry of Environment and Forest and Ministry of Human Resource and Development.



BILL SCOTT

Emeritus Professor of Education

University of Bath

United Kingdom

Bill Scott is Emeritus Professor of Education at the University of Bath where his research focused on the role of learning in sustainable development, on the contributions that education (viewed broadly) can make to this, and on the problems of researching the effectiveness of such activities. He was Director of Bath's *Centre for Research in Education and the Environment*, and founding editor of *Environmental Education Research*. Recent books for Routledge with Paul Vare are: *The World We'll Leave Behind: grasping the sustainability challenge* (2018), and *Learning, Environment and Sustainable development: a history of ideas* (2020). Bill is Chair of the UK's National Association for Environmental Education [NAEE] and he writes at blogs.bath.ac.uk/edswahs



PRAMOD KUMAR SHARMA (Virtual)

Senior Director of Education

Foundation for Environmental Education

Denmark

Pramod Kumar Sharma is Senior Director of Education at the Foundation for Environmental Education (FEE), a non-governmental and non-profit organisation promoting globally sustainable development through environmental education since 1981. Pramod has a long experience acquired over 23 years of working with environmental education and Education for Sustainable Development.



JOHN THOMPSON

Board Memeber, KNIB

Safety, Climate and Resilience, Translink

Northern Ireland

John heads up Safety, Climate and Resilience at Translink, leading a team who are passionate about making the workplace, public transport and our wider community safer, greener and even more responsible. He has a Masters with Distinction from Queens University and his experience spans public, private and local government and sectors.

He is the Chair of the Development and Governance Committee at the Northern Ireland Safety Group. He sits on the Belfast Resilience and Sustainability Board and is a member of the BITC Corporate Responsibility Leaders Group and is the Northern Ireland representative on BITC’s national Business Emergency Resilience Group (BERG). He also sits on the Belfast, Northern and Southern Areas Emergency Resilience Forums.

John is also a Board Governor at Bangor Academy and Sixth Form College, one of NI’s largest Academy schools. He is a Bangor man, a Liverpool supporter and a dad of two.



ANNE UMALI

Director of Professional Development

North American Association for Environmental Education
(NAAEE)

United States

Anne is the Project Manager for NAAEE’s ee360 Project, U.S. EPA’s most recent National Environmental Education & Training Program. Before NAAEE, she was the Project Manager for EECapacity, the U.S. EPA’s National Environmental Education & Training Program that was housed at Cornell University from 2011–2016. Previously, she worked at the National Audubon Society developing and managing the Conservation Leadership Fellows Program of TogetherGreen, Audubon’s 5-year \$20 million innovative conservation program in alliance with Toyota. As the first Fellows Program Manager, she led the program’s initial design and implementation, including the program’s Leadership Institute. Before Audubon she worked over four years at the Department of Environmental and Conservation Programs at the Field Museum of Chicago as the International Programs Manager for education. She organized EE training and natural resource use workshops for forest communities within a newly established 3.4 million acre protected area in Bolivia’s super diverse Amazon region.



ARJEN WALIS (Virtual)

Professor
Wageningen University
The Netherlands

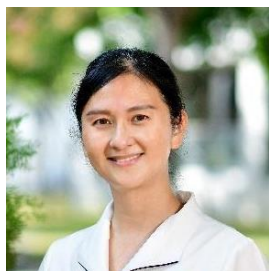
Arjen Wals is a Professor of Transformative Learning for Socio-Ecological Sustainability at Wageningen University where he also holds the UNESCO Chair of Social Learning and Sustainable Development. Furthermore, he is a Guest Professor at the Norwegian University for the Life Sciences (NMBU) and the Western Norway University of Applied Sciences. He holds an Honorary Doctorate from Gothenburg University in Sweden. His work focuses on enabling, supporting, and assessing ecologies of learning that foster sustainable living by inviting more relational, ethical, and critical ways of knowing and being. He writes a regular blog that signals developments in the emerging field of sustainability education: www.transformativelearning.nl.



CHING-HSIEN (IVY) WENG

Project Manager
Chinese Society for Environmental Education (CSEE)
Taiwan

Ivy Weng received her Master’s degree from the Department of Earth and Life Science (Master Program of Environmental Education and Resources) at the University of Taipei, Taiwan. In her college and Master’s years, Ivy had a wide range of outdoor experiences, including a geology field trip in Jinguashi, observing sea creatures in Magang, and promoting forest management in nature centers in Taiwan. Her EE exposure was expanded further during an internship in Australia and engagements at the World Environmental Education Congress (WEEC) in Thailand. She is now the project manager of the Asia-Pacific Regional Center (APRC) of the Global Environmental Education Partnership (GEEP), and she is dedicated to building and maintaining partnerships among Asia-Pacific countries specifically for environmental education. At the same time, she also strives to share the beauty of Taiwan's environment and innovative responses to climate change to partners outside Taiwan.



HSIU WEN YEN

Director of Students Affairs
Tainan Tzu-Chi Senior High School Elementary Department
Taiwan

Yen has served as Director of Students Affairs of Tainan Tzu-Chi Senior High School Elementary department since 2016. She graduated from the Special Education Institute of Taiwan Normal University, and is now a doctoral candidate at the Department of Special Education at National Tainan University. In 2000, she was awarded as the Outstanding Young Person published by Asia Weekly. Yen has extensive experience with international exchange, including leading students to the American Primary School in 2019, conducting bilateral exchanges with local schools in China from 2012 to 2016, and participating in an exchange to the Malaysian Refugee School.

SPEAKERS:



UNA BARRET

Felix O'Hare & Co.

Northern Ireland

A graduate in City Planning and Design, Una has recently begun working with Felix O'Hare & Co., researching carbon reduction strategies in construction to accelerate the sector's transition to net zero. This research will form the basis for the 'Roadmap to Net Zero,' which Felix O'Hare & Co. will publish next year, and will have a strong focus on embodied carbon reduction. In her current role, Una's passion for environmental activism and education has been nurtured. The team at Felix O'Hare & Co. encouraged her participation in the Northern Ireland 30 Under 30 Climate Changemakers programme, recognising the potential of meaningful youth-led cross-sectoral discussions in tackling the climate crisis. In November 2022, Una was awarded a place on the first Northern Ireland 30 Under 30 Climate Change Makers programme.



JOHN BARRY

Professor of Green Political Economy, Centre for Sustainability,

Equality and Climate Action

Queens University Belfast

Northern Ireland

Professor John Barry is a father, a recovering politician and Professor of Green Political Economy in the Centre for Sustainability, Equality and Climate Action at Queens University Belfast. He is also co-chair of the Belfast Climate Commission, a member of the Committee on Climate Change's Economics Advisory Group on Adaptation and Resilience, and member of the Sustainable Future Committee of the Joseph Rowntree Charitable Trust.

What keeps him awake at night is the life opportunities and future wellbeing of his and other children in this age of the planetary emergency and intersecting social and economic injustices within and between countries. What also keeps him awake at night is the following question: why it is easier for most people to believe in the end of the world than the end of capitalism and economic growth.

His areas of academic-activist research include post-growth and heterodox political economy; decarbonisation and decolonisation; the politics, policy and political economy of climate breakdown and climate resilience; socio-technical analyses of low carbon just energy and sustainability transitions; climate injustice-based nonviolent direct action and social mobilisation; and the overlap between conflict transformation and these sustainability and energy transformations. His last book was *The Politics of Actually Existing Unsustainability: Human Flourishing in a Climate-Changed, Carbon-Constrained World* (2012, Oxford University Press), and he is currently writing a book provisionally entitled, *The Greatest Story never told?: The origins, tyranny and end of ecocidal economic growth* (Agenda Publishers).



RUAIRI BROGAN

Policy Officer

RSPB Northern Ireland

Northern Ireland

Ruairi is a policy officer at RSPB NI where he works with farming networks and government to make NI agriculture more sustainable. He recently completed a masters in Leadership for Sustainable Development at Queen's University Belfast and is also an organiser with the UKYCC, where he works to empower young people to take positive action for climate justice. Joining passionate delegates from such varied backgrounds, he hopes to gain a different perspective on the environmental, social and economic

problems we face, inspiring and challenging him to learn new skills and to think differently, making me a more effective change-maker. In November 2022, Ruairi was awarded a place on the first Northern Ireland 30 Under 30 Climate Change Makers programme.

In August 2023, Ruairi was selected as a 2023 NAAEE EE 30 Under 30.



ROBBIE JAMISON

Senior Business Advisor

East Belfast Enterprise

Northern Ireland

Robbie is currently employed as a Senior Business Advisor with East Belfast Enterprise, where his role is to plan, manage and deliver a range of services and programmes to support economic development locally. With an academic background in International Business, he has a real interest in how enterprises can not only impact their local economy, but also thrive to become players in the international market. The Climate Crisis is impacting us all and he hopes that through his work, he can assist both clients and stakeholders to hold sustainability and environmental issues as

fundamental drivers in their ventures. In November 2022, Robbie was awarded a place on the first Northern Ireland 30 Under 30 Climate Change Makers programme.



KEVIN KELLY

Director

Podiem

Northern Ireland

Kevin has been working in the area of business strategy and marketing for some 15 years. He joined the Diageo Marketing Department in 2001 before moving to the Management & Leadership Network in 2006. He Co-Founded Podiem Ltd in 2009 and, together with Bill Manson and Philippa Spiller, has successfully overseen the

growth of both MLN and Podiem in the years since.

Kevin completed an MBA through the Ulster Business School in 2009, this is in addition to an MSc (with Distinction) in Strategic Project Planning from Heriot Watt University in Edinburgh and a First Class Honours BSc in Communications Advertising and Marketing from Ulster University. Kevin is married with four wonderful (and very young) children so his football playing days are over. That said, he still finds time to watch the 'mighty' (his words) Liverpool FC.



SINEAD MURRAY

Environmental Education Coordinator

Keep Northern Ireland Beautiful

Northern Ireland

Sinead joined Keep Northern Ireland Beautiful in October 2022 as Environmental Education Coordinator working within the team that delivers the Eco-Schools NI programme, which aims to improve the environmental awareness of pupils in schools across NI. She has a background working in environmental education and the voluntary sector and is passionate about educating others on how to protect the beautiful landscape we live in. In November 2022, Sinead was awarded a place on the

first Northern Ireland 30 Under 30 Climate Change Makers programme.



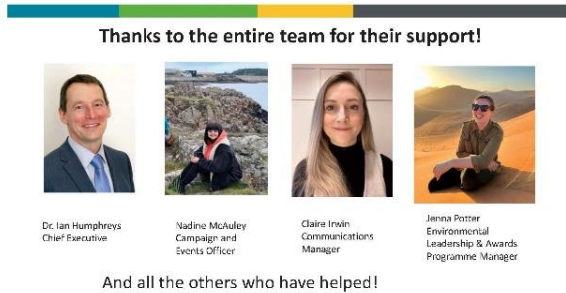
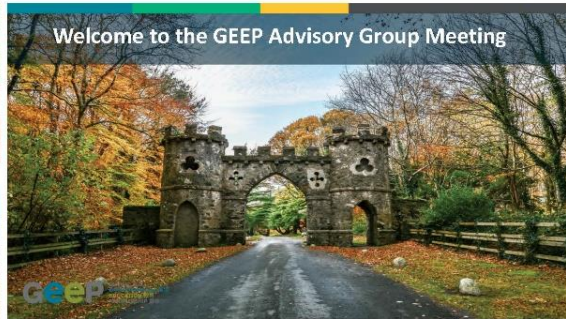
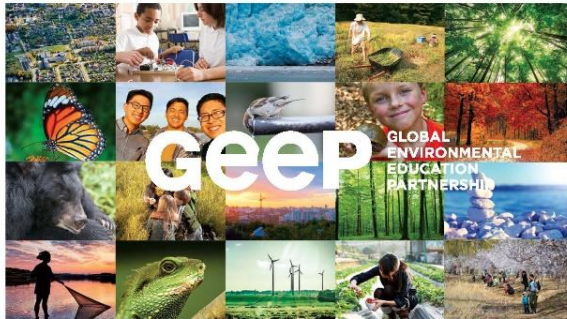
ROSALIND SKILLEN

Graduate Student, Columnist, Consultant

Northern Ireland

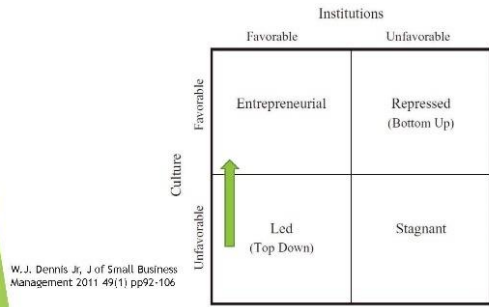
Rosalind Skillen is currently studying Environmental Policy in Dublin. Alongside her studies, Rosalind works for Northern Ireland Resources Network and she is a columnist at the Belfast Telegraph. Rosalind has represented the views of young people at climate change conferences, including COP26 and COP27, and was named a global EE 30 Under 30 in the 2022 class. In November 2022, Rosalind was awarded a place on the first Northern Ireland 30 Under 30 Climate Change Makers programme.

二、全球環境教育夥伴會議簡報（含亞太中心推動介紹） – 第一天



And all the others who have helped!
Several of the KNIB team will join us this week!





W.J. Dennis Jr, J of Small Business Management 2011 49(1) pp92-106

Our Values

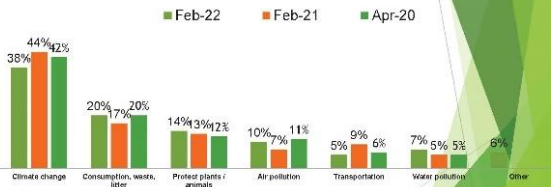
- Collaboration** - Achieving our mission is only possible by working with others.
- Integrity** - We are open and honest with ourselves and others. We rely on science to guide our work.
- Positivity** - We share hope even in the face of major challenges.
- Innovation** - We are ready to challenge the status quo and look for bold solutions.
- Environmental Stewardship** - We are working towards net-zero.

Our Strategic Plan 2020-2025



- Three key pillars:**
- Climate Action
 - Biodiversity Recovery
 - Pollution Solutions

Main thing that you want the government to prioritise

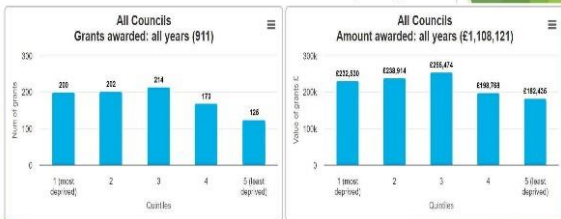


The Kübler-Ross Change Curve



Helping those most in need

Tables 1 and 2. Live Here Love Here Small Grant Distribution 2018-2023: Grants vs indices of multiple deprivation split into quintiles across the 890 Super Output Areas.



Our Partnerships - Local & Global...

Keep Northern Ireland Beautiful works with a broad range of local and international partner organisations, including all 11 Local Authorities in Northern Ireland:



Our Programmes



Three generations...



Qualifications



OCNNI Level 2 Certificate in Reducing Carbon Footprints through Environmental Action

1. Reducing Carbon Footprints through Environmental Action
2. OCNNI Level 2 Award in Biodiversity Recovery
3. OCNNI Level 2 Award in Climate Campaigning
4. OCNNI Level 2 Award in Tackling Single Use Plastic Waste
5. OCNNI Level 2 Award in Tackling Fast Fashion



Community Development



Live Here Love Here is a positive, people powered campaign focused on improving our local environment and building a sense of pride in local communities.

Adopt A Spot



Live Here Love Here Impact

- ▶ 65% of the NI population are aware of Live Here Love Here
- ▶ 1000 Adopt A Spot Volunteer Groups are supported with 100,000's of volunteers supported through Live Here Love Here since 2014
- ▶ 752 community and school projects funded under Live Here Love Here in 2022/23 (value of £4.5m)
- ▶ TV and other above the line advertising

Eric Rainey



Terrestrial and Marine Litter Surveys





Carbon Literacy: “An awareness of the CO₂ costs and impacts of everyday activities, and the ability and motivation to reduce emissions, on an individual, community and organisational basis.”

KEEP NORTHERN IRELAND BEAUTIFUL

- Carbon Literacy for Teachers & pupils
- Carbon Literacy for Farmers (in development)
- Carbon Literacy for Youth leaders & groups
- Carbon Literacy for Businesses
- Carbon Literacy for University staff & students
- Carbon Literacy for Community Leaders
- Carbon Literacy for Government



Significant Developments # 1

- ▶ Eco-Communities & Best Kept
- ▶ A collaboration with



Significant Developments # 2

- ▶ A collaboration with



Significant Developments # 3

- ▶ EE 30 Under 30 Environmental Leadership & Awards Programme
- ▶ A collaboration between KNIB &



Thank You & Questions!

Thanks to US EPA



Ginger Potter
Senior EE Specialist
US EPA



Thanks to the Taiwan EPA Team



Su-Chih Hsu
Deputy Director
Department of Comprehensive Planning
Taiwan Environmental Protection
Administration
Taiwan



Thanks to our GEEP team!

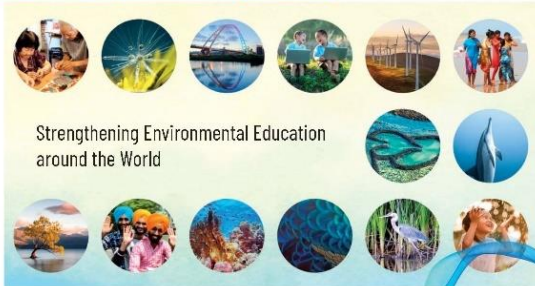


Anne Urmall, Director of Professional Development
Nina Hamilton, Sr. Manager of Leadership and the GEEP
Madeline Halvey, Coordinator International Programs
Amy David, Coordinator International Programs



The GEEP Is a Learning Network

GOAL: To create a vibrant and inclusive learning network designed to build capacity in countries around the world to strengthen environmental education leading to a more just and sustainable future.



Partnership Program

Working together to strengthen EE around the world! The leadership team includes US EPA, NAAEE, and Taiwan EPA, and the GEEP Advisors come from around the world. In the future, we hope to include representation from all the regions.



Exciting to have so many of you here in person and we hope to have a few connect virtually!



Meeting Goals

- Advance GEEP work: a reminder of GEEP's strategic plan and work within it
- Learn more about Keep Northern Ireland Beautiful, including their EE 30 Under 30 pilot
- Connect as GEEP colleagues and share country/regional updates



Share Ideas and Insights! Help shape the next steps of the GEEP!



A chance to connect with colleagues and work through the goals and strategy!

Take Care of Yourself



Introducing our Facilitator

Michael Brooks



- Facilitated hundreds of meetings
- Co-Founder of Gamut Purpose Partners
- Formerly...
 - Chief Strategy & Digital Officer at ChildFund International
 - Senior Vice President, Innovation at United Way Worldwide
 - Managing Director at Longpath Labs
 - Founder of acquired civic engagement startups
- Master of Divinity at Yale
- Master of Public Administration at George Washington



Agenda: Monday Morning

- 9:00 Welcome and connect as GEEP Colleagues
- 9:30 Orientation to GEEP's strategic plan
- 10:00 Inform design of GEEP's November workshop (Strategic Plan Goal #1)
- 10:45 Understand GEEP's Discussion Guide and brainstorm how to use it (Goal #1)
- 11:15 BREAK
- 11:30 Inform design of GEEP website and video (Goals 1-5)
- 12:30p Lunch

Agenda: Monday Afternoon

- 1:30 Support regional hubs and expand GEEP's reach (Goal #1)
- 2:30 KNIB and Northern Ireland's 30 Under 30 (Goal #3)
- 3:30 BREAK
- 3:45 Table work regarding 30 Under 30 (Goal #3)
- 4:30 Closing
- 5:00 Optional walking tour of Belfast
- 7:30p Dinner at Jumon (Unit 6 McAuley House, Fountain St, Belfast)

Guidelines for Working Together

1. *Soft on the people; hard on the issues*
2. *Fixed on the goals; flexible on the means*
3. *Confirm understanding*



Starting Activity: Getting to Know Each Other

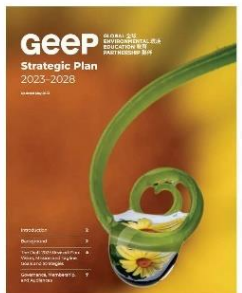


Discussion



At tables:
Briefly introduce yourself and share one thing you're looking forward to this week

Orientation to GEEP's Strategic Plan



Orientation to GEEP's 2023-2028 Strategic Plan

Thanks to all of you who weighed in with comments in the previous round and this round. After our discussions this week, the Executive Committee will finalize!

Background

- Revised in 2018 (until 2022)
- Mission to create a vibrant learning network designed to build capacity in countries around the world to strengthen environmental education (EE) to create a more equitable and sustainable future.
- Ideas for membership and governance included, with the goal of moving toward regional hubs with global leadership



54

Background

- We discussed the plan in Tucson and revised the draft with your comments.
- We circulated that draft and updated it again.
- The version you are seeing now included everyone's comments before this latest draft.
- We did receive comments from Alan, James, and Gus, and will add those to what comes out of this meeting. (Thanks, Gus!)



55

Background

- The comments were very positive and all said it creates a good frame for our collective work.
- This week, we will hone in on activities within each goal.
- This is the high-level strategy. We put a yearly work plan together that supports this strategy.



56



We seek to use the power of education to create a sustainable and just future where people and nature thrive, and where environmental and social responsibility drive individual, community, and institutional choices.

Vision



The mission of the GEEP is to create a vibrant and inclusive learning network designed to build capacity in countries around the world to strengthen environmental education that leads to a more just and sustainable future.

Goals



- **#1: Collaborate to Scale Impact**
To connect and build bridges among practitioners, researchers, policy makers, institutions, providers, and international networks to elevate effective practice, scale impact, share global resources, and catalyze collaboration
- **#2 Demonstrate impact of EE on SDGs**
To demonstrate the value and impact of EE as a tool for achieving the SDGs



Goals (cont.)



- **#3: Support new generation of EE leaders**
To support, mentor, and empower a new generation of innovative and inspirational leaders to shape the future
- **#4 Build a global fund to support EE & GEEP**
To help build a global fund to sustain the field and advance our collective work
- **#5 Promote innovation**
To promote Innovation through a Global EE Think Tank



Discussion



At tables:
Share one thing that gets you excited about the potential of the GEEP

Goal #1: Build bridges, share and elevate effective practice, and scale impact of EE

November Workshop



Strengthen EE and Build on the Success of the Asia Pacific Regional Forum in 2021

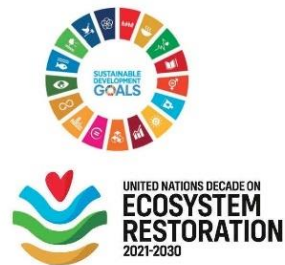
Explore goals, topics and themes, speakers, and timing.



It's Virtual

November Workshop

- EE and the SDGs
- Climate Change Education and Climate change policy
- EE and the Decade of Ecosystem Restoration





Thanks to everyone who helped make it a success!

Discussion



At tables:

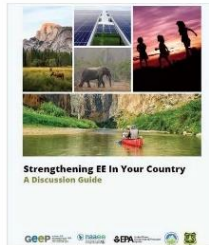
1. What **topics** would be timely, helpful, and engaging?
2. Who might be good **speakers**?
3. If time, what would be meaningful **activities**?

Please brainstorm as a group, and then pick two favorites to report back

Next Steps

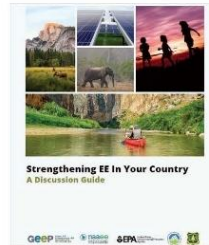
Are there volunteers to help design the November workshop in small groups tomorrow?

Discussion Guide



New resource to help strengthen EE and support professional development opportunities in countries around the world. We updated it, based on comments from a number of you.

Discussion Guide



In your groups, discuss:

- How can we use and promote this guide?
- How would you use it in your country or region?

Next Steps

Can we each commit to share the Discussion Guide with one or more colleagues?



GEEP Website and Video: Our Major Communication Hub



Dr. Bill Finnegan

Tamarack Media UK and Oxford University

GEEP Goals 1-5: Inform Design of GEEP Website and Video



Website and Video Updates

GEEP Website 2023



GEEP Website 2023

Questions:

- How does/can the website advance the GEEP Strategic Plan for 2023-2028?
- How does/can the website support the audiences we are trying to reach?
- How can we measure success of the website for both of the above?

GEEP Website 2023

Alignment with the GEEP Strategic Plan 2023-2028

Goal	Website current	Website future
1) To connect and build bridges among practitioners, researchers, policy makers, institutions, providers, and international networks to elevate effective practices, scale impact, share global resources, and catalyze collaboration	Country profiles / case studies / ebook	Discussion guide / video testimonials
2) To demonstrate the value and impact of EE as a tool for achieving the SDGs	Case studies / ebook	Discussion guide / video testimonials
3) To support, mentor, and empower a new generation of innovative and inspirational leaders to shape the future	3D Under 30, Youth Innovation Challenge	Facilitate mentoring
4) To build a global fund to advance our collective work		Donations / pledges
5) To promote innovation through a Global EE Think Tank		Blog / white papers

User Stories

Names generated by [Behind the Name](#)
Images generated by [DALL-E \(OpenAI\)](#)

GEEP Website 2023

User 1: Okorie Ayomide, national leader in EE from Angola

A professor in environmental education based at a university responsible for educating many teachers, who is also involved in advising the government on national policy.

I want to:

- Add and update my country profile *so that* I can promote our activities in Angola
- Find and join the GEEP Africa hub *so that* I can make contact with regional peers to set up events / conferences / projects.



GEEP Website 2023

User 2: Alfredo Amílcar, civil servant implementing EE policy in Brazil

A civil servant who was recently assigned to a task force combining the ministries of the environment and education in advance of the UNFCCC COP23 meeting.

I want to:

- View country profiles to find out how other countries are working *so that* I can make informed recommendations for the ministers.
- Find EE policies from other countries *so that* I can compare our policies and provide better guidance on implementation.



GEEP Website 2023

User 3: Fu Mei, environmental educator at Kenting National Park, Taiwan

An informal environmental educator working at a national park that serves a wide range of audiences and ages.

I want to:

- View case studies *so that* I can learn about good practice in EE.
- Propose a new case study based on my work *so that* people around the world can learn about what we are doing in Taiwan.




GEEP Website 2023

Measuring success: Google Analytics data 2022

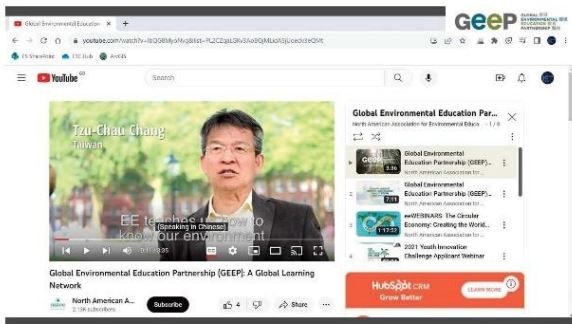
TOTAL	78,738	64,743	TOTAL	39,432	50,790
Most-Visited Pages	Pageviews	Unique Pageviews	Top Countries	Users	Sessions
team/country-profiles					
/					
youth-innovation-challenge					
team/country-solutions					
about					
team/countries					
team/case-studies/ebook					

GEEP Website 2023

Measuring success: Google Analytics data 2022



GEEP Video 2023



GEEP Video 2023

Questions:

- What audiences are we trying to reach through a GEEP video?
- What are the most important messages to include in the video (and/or actions we hope people will take after watching the video)?
- What channels will we use to reach the audience (GEEP website, social media, presentations, etc.)?

GEEP Video 2023

Teaser of interviews, Tucson, Arizona, USA, 2022 (3:15)



Questions

Website:

- How does/can the website advance the GEEP Strategic Plan for 2023-2028?
- How does/can the website support the audiences we are trying to reach?
- How can we measure success of the website for both of the above?

Video:

- What audiences are we trying to reach through a GEEP video?
- What are the most important messages to include in the video (and/or actions we hope people will take after watching the video)?
- What channels will we use to reach the audience (GEEP website, social media, presentations, etc.)?

Next Steps

GEEP Web/Video Team


Network Ideas

Karikeya Sarabhai
Centre for Environment and Education



Solve this math puzzle to win the prize!

What is the # of the parking spot covered up by the car?

16	06	68	88		98
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Solve this math puzzle to win the prize!



What is the # of the parking spot covered up by the car?

GEEP Goal #1 Support regional hubs and expand GEEP's reach geographically



Asia Pacific Regional Center

2021 ASIA PACIFIC VIRTUAL EE FORUM
THE POWER OF CONNECTION!



TC Chang
Professor, Taiwan Normal University
APRC Lead



2023
Aug. 8

GEEP APRC updates

- ➔ Advisory Committee
- ➔ IEIE for Youth
- ➔ International Internship Project
- ➔ International Workshop



Advisory Committee

11 consultants from 8 countries
4 meetings a year



Brainstorm to develop all the possibilities of promoting EE.
Share EE case in Asia-Pacific Region.

2

IEIE for Youth

2 day workshop for **foreign youth** in Taiwan
Hope to inspire actions to solve environmental problems in the future.



Focusing on how livestock industry integrate circular economy



video for this year.

Youth as salespeople showing how to communicate to the public why should choose circular economy products



3

International Internship Project

6 youth participate in the project

Experience EE program

<p>Sites in Asia Pacific Region</p> <ul style="list-style-type: none"> 📍 Vietnam ICISE 👤 Joe Chen, Peggy Lin 📅 Aug 14 – Aug 28 📍 Australia BIEEC 👤 Emma Yang, Eric Chang 📅 Jul 21 – Aug 4 	<p>Sites in Taiwan</p> <ul style="list-style-type: none"> 📍 Aowanda Nature Center 👤 Chen Xin Ying 📅 July 2 – July 19 📍 Chihnan Nature Center 👤 Luong Ngoc Chung 📅 July 5 – July 18
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On line Check in  Check-in during Internship 

4

Hybrid International Workshop

Theme: Transitioning to Net-zero through Resource Circulation

Topic: Net-Zero Green Living
Development of Sustainable Ocean
ESD and Partnership

Date: Aug. 20 - 24

Venue: Taipei City, Taiwan

Virtual: Webex & Broadcast on Youtube for Symposium



Register Here
For the 2-day symposium

5

International Workshop - Agenda

Date	Morning	Afternoon	Evening
Aug 20 (Sun.)	Guest Arrive, Pick up at airport		Welcome Banquet
Aug 21 (Mon.)	Group Meeting	Symposium Opening Ceremony Flagpole Unveiling Ceremony Keynote Speech Experience Green Life in Taiwan	Green Gala
Aug 22 (Tue.)	Symposium Keynote Speech Topic A - Share	Symposium Keynote Speech Topic B - Share Topic C - Share Closing Ceremony	Free Time
Aug 23 (Wed.)	Outdoor Excursion National Museum of Marine Science & Technology	Outdoor Excursion Marine education activity	Free Time
Aug 24 (Thu.)	Outdoor Excursion Changtai Reservoir	Guest Depart	

6

Thank You Very Much!

GEEP Africa



Thanks to the GEEP Africa Planning Team!



An honor to work with these amazing colleagues!

Thanks to MJ for leading these efforts!



Dr. MPHEMELANG KETHLHOIWE (MJ)
Associate Professor of Environmental Education
University of Botswana
Botswana



GEEP Africa Hub



GEEP AFRICA VISION AND MISSION

• VISION

A just and sustainable Africa through meaningful thought leadership and lifelong learning to maximise Africa's potential

• MISSION

To enable and strengthen a dynamic regional sustainability movement that is transformational, collaborative, and grassroots oriented, using multi-sectoral networks, social inclusion, and indigenous knowledge to advance Environmental Education for a just and sustainable Africa.

Goals

To accomplish its mission, the GEEP Africa Hub will strive to:

- Build capacity to advance policy and practice in EE/ESD in Africa
- Foster strategic partnerships to create a vibrant "EE/ESD network of networks in Africa" resulting in a stronger global environmental education community
- Promote and encourage innovation in EE/ESD throughout Africa at multiple scales
- Serve as a source for sharing EE/ESD resources and expertise, as well as learning opportunities.

Objectives

To accomplish the GEEP Africa Hub goals, the following objectives are suggested

- Promote high-quality EE/ESD programmes and strategies
- To demonstrate the value and impact of how education helps address key social and environmental issues, such as climate change, biodiversity loss, pollution, ocean acidification, and other topics
- Create a network of continental leaders who have the skills and tools
- To create a forum for innovative, cutting-edge thinking that encourages discussion and shared learning
- To align the GEEP Africa Hub to Africa's Climate Change and Resilient Development Strategy and Action Plan, Vision 2030, Sendai Framework, UN Biological Diversity Convention, etc.

GEEP Africa – west Africa region

- Consulted West Africa region on 20 01 2023
- Over 70 participants from across the region
- Feedback was encouraging to go ahead with establishing GEEP Africa

GEEP Africa Hub Action Plan 2023

Outcomes	Action	Outputs	Responsibility	Time range	Performance
Virtual workshops in Africa regions	Conduct virtual workshops for all Africa regions	GEEP Africa planning team members coordinate virtual regional consultative workshops	GEEP Africa planning team	By June 2023	Number of consultative workshops conducted
Completed the mapping exercise	Regions are mandated to complete the mapping exercise	Individuals/teams submit to complete report on mapping exercise	GEEP Africa planning team	By August / Sept 2023	Number of identified or validated on ESDSD response exercise
Constitution GEEP Africa Advisory Board	Develop and establish GEEP Africa Hub Advisory Board	Regional representatives to constitute Advisory Board	GEEP Africa planning team GEEP Africa Hub Advisory Board	By end of June 2023	Number of regional representatives to GEEP Africa Hub Advisory Board
Establishing GEEP Africa Hub Secretariat	Finalize GEEP Africa Hub Secretariat	Identify personnel/individuals to constitute office	GEEP Africa planning team GEEP Africa Hub Advisory Board	July 2023	Personnel and location of office
GEEP Africa Hub Centre	Finalize GEEP Africa Hub Centre	Identified location of GEEP Africa Hub Centre	GEEP Africa planning team	By August 2023	Location of GEEP Africa Hub



- Consultation meetings and workshops
- GEEP Africa West Regional Consultative workshop February 20th
 - GEEP Africa East Regional Consultative workshop February 14th
 - GEEP Africa North and Central Regions Consultative meetings and workshop from April to June 2023

GEEP Africa Hub strategic governance



GEEP AFRICA STRATEGIC ISSUES

- Climate change
- Loss of biodiversity
- Environmental justice
- Professional development
- Guidelines for excellence and sharing effective practice
- Developing stronger networks to create systemic change
- Supporting Policies that advance EE
- Indigenous People and Local Communities (IPLCs)
- Indigenous and local knowledge
- Promoting Research and Evaluation
- Promoting equity and inclusion throughout Africa.

Next Action Items

- Continue virtual meetings, webinars and workshops
- To complete the mapping exercise
- To constitute and establish GEEP Africa Hub Advisory Board
- To set up GEEP Africa Hub centre
- To establish GEEP Africa Hub Secretariat

Discussion



At tables:

1. Any other thoughts about hubs and growing the GEEP geographically?
2. Please brainstorm people or organizations who might join GEEP and expand our geographical reach

Please prepare to share a summary with the group.

EE 30 Under 30



The New Class of 2023!



So many great young leaders!

Thanks to Nina, who manages EE 30 Under 30, as well as Anne, Madeline, and Andy on our team!



Started at an idea we had in 2016 and has grown from there!



Small grants, professional development, speaking engagements, resume and network building, and more!



Expanding globally and nationally



Thanks to Ian for all he did to make this Northern Ireland pilot happen.



Thanks to Jenna and the whole KNIB team who made this happen.



Congratulations to all the Northern Ireland awardees!





A world-class leadership programme designed to unearth, inspire, and equip 30 'exceptional potential leaders' under the age of 30




Six workshops delivered by internationally-renowned thinkers and leaders who provide insight, inspiration and impetus allowing participants to affect meaningful, planet-positive change.

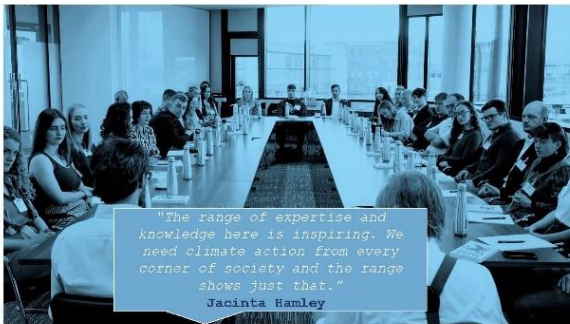




Workshop 1 - Finance, Economy & Business
Friday 11th November 2022



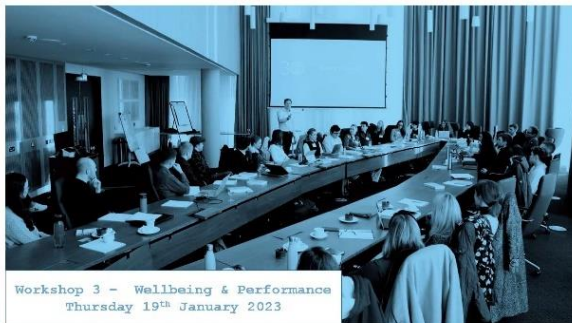
Workshop 2 - Social Impact & Purpose
Friday 2nd December 2022



"The range of expertise and knowledge here is inspiring. We need climate action from every corner of society and the range shows just that."
Jacinta Hamley



"An engaging and incredibly open second session that led to a deeper understanding of me and how I am driven and motivated as a person."
Ralph Lavery



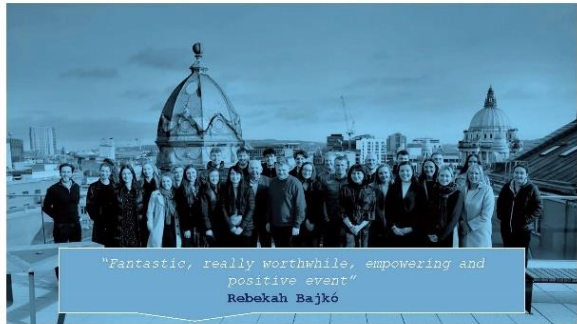
Workshop 3 - Wellbeing & Performance
Thursday 19th January 2023



"This event is amazing, and I am always growing my knowledge. It continues to mould me for the future."
Reece England



Workshop 4 - Biodiversity & Ecology
Thursday 9th February 2023

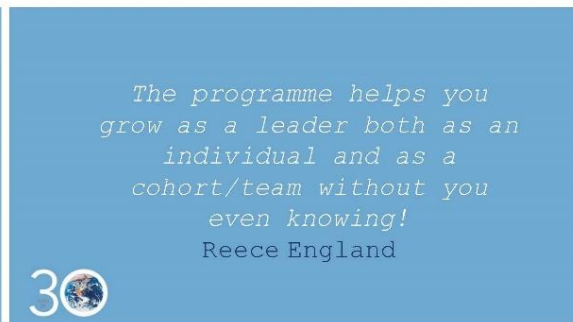


"Fantastic, really worthwhile, empowering and positive event"
Rebekah Bajkó



Workshop 5 - Leadership, Persuasion & Influence
Friday 3rd March 2023





"It is really exciting to see just how many diverse and impactful projects are being formed as a result of the 30 Under 30 programme. Having experts to bounce ideas off has been invaluable in making these ideas a reality".



Ruairi Brogan



Northern Ireland
CLIMATE
Change-Makers

Panel Q&A and Discussion



Kevin Kelly
Podium
Moderator

Discussion



BREAK

At tables:

How might we grow EE 30 under 30 to more countries (specific countries, good partners, funding, other)?

Please prepare to share a summary with the group.

Insights from the day and closing comments

Next Steps

Any volunteers to help grow EE 30 Under 30 in small groups tomorrow?



What are things you'll remember from today!

Our provocateurs:

- Gayatri
- Bill
- TC

Evening Events

- Optional Walking Tour (Starts at 5:30 from hotel)
- Dinner at Jumon (Unit 6 McAuley House, Fountain St)
- Thank you to Taiwan for supporting our dinner!

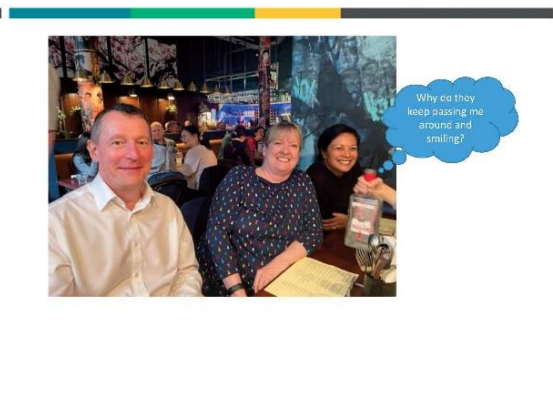
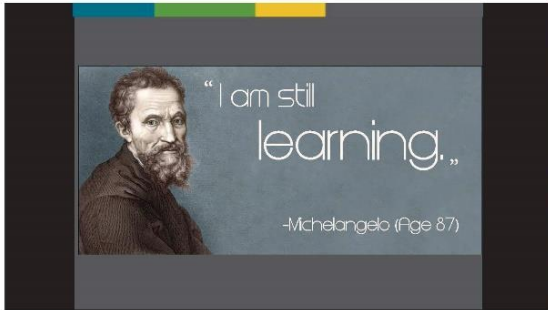


Thank you
all for a
great day!



GEEP GLOBAL GOVERNANCE
ENVIRONMENTAL
EDUCATION &
PARTICIPATION

三、全球環境教育夥伴會議簡報 – 第二天





This is how our facilitator prepares for work!



I am so cool!



The dynamic duo of EE 30 Under 30!



He always shows us off in his presentations!



Thanks to our friends from Taiwan for the wonderful gift bags!!



We are so lucky to work with TCI!





Such a great photo of our Taiwan friends! 😊

What does Claude think of the GEEP?



Here are 5 positive aspects of the Global Environmental Education Partnership:

1. Fosters global collaboration - GEEP connects educators, governments, NGOs, and other partners from around the world to collaborate on environmental education initiatives. This global collaboration allows for sharing of knowledge and innovative ideas.
2. Develops educational resources - GEEP has created teaching materials, toolkits, and multimedia resources focused on key environmental topics that are freely available online. These can be used by educators worldwide to integrate environmental education into their classrooms.
3. Builds educator capacity - GEEP offers training programs and professional development for educators to strengthen their environmental education teaching skills. This builds capacity to effectively teach environmental topics.
4. Promotes youth engagement - GEEP supports programs that provide hands-on environmental learning and empower youth to take action in their communities. This helps engage and motivate the next generation.
5. Advances UN Sustainable Development Goals - By promoting environmental awareness and sustainability, GEEP helps countries work towards achieving SDGs related to climate action, responsible consumption, life on land, and partnerships.



Michael Alcorn
Pro-Vice Chancellor of Sustainability and Strategic Projects
Queens University

Sara Lynch
Head of Sustainability
Queens University

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Michael Alcorn
Pro-Vice Chancellor of Sustainability and Strategic Projects
Queens University

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22



Michael Alcorn
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Head of Sustainability
Queens University

23



Sara Lynch
Head of Sustainability
Queens University

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Today's Agenda

Inform actions of the GEEP strategy

- Goal #2: Impact of EE on SDGs
- Goal #4: Build a global fund
- Goal #5: Promote innovation

Small Group work

New Advisors

Keynote: Professor John Barry

Guidelines for Working Together

1. *Soft on the people; hard on the issues*
2. *Fixed on the goals; flexible on the means*
3. *Confirm understanding*



GEEP Scavenger Hunt

- | | |
|--------------------------------|--------------------------------|
| 1. Photo of non-mammal pet | 12. Pair of socks |
| 2. Something with a logo | 13. Passport |
| 3. pre-1975 penny | 14. Pencil |
| 4. Non BPA water bottle | 15. Flash drive more than 4 GB |
| 5. Receipt for more than \$100 | 16. Aspirin (not advil) |
| 6. Rubber band | 17. A screwdriver |
| 7. Paper clip | 18. A flashlight |
| 8. Opened pack of mints | 19. Nail file |
| 9. Flip phone | 20. A pen with green ink |
| 10. A toothpick | 21. A flash drive |
| 11. Love Note | 22. Gift Card |

How EE Can Support All the SDGs



Goal 2: Discuss case studies as a way to link environmental education and the UN Sustainable Development Goals (SDGs)

Eco-Schools Northern Ireland – Empowering Young People Through an Environmental Education Framework



Thank to all of you who submitted a case study!



A Case study is a systematic or narrative description of a real-life EE activity or program, which can be used for professional development of environmental educators.

- Discover new perspectives in your field
- Develop shared professional culture
- Make better decisions in program design



Environmental Education in Action: Learning from Case Studies Around the World

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<https://thegeep.org/learn/case-studies/ebook>



EE topics



- Intro to EE
- Positive Youth Development
- Marine Literacy
- Climate Change
- Biodiversity (coming)

Discussion - SDGs



At tables:

1. Are there easy ways we can use the case studies to demonstrate the impact of EE on the SDGs?
2. Are there other achievable ways to demonstrate the impact of EE on the SDGs?

Brainstorm, and then pick two favorites to report back

Next Steps

Are there volunteers to help demonstrate the impact of EE on the SDGs in small groups?

GEEP GOAL #4: Build a global fund to support EE and GEEP



Growing Support for the GEEP and EE!



"When I grow up, I want to work with the affluent."

Funding Support

- Taiwan EPA
- US EPA
- NAAEE
- Wells Fargo helped support EE 30 Under 30 projects
- KNIB helped support this meeting, along with US EPA, Taiwan, and NAAEE and found funding to EE 30 Under 30 in N Ireland
- US Forest Service (helped with Discussion Guide)
- Another foundation has helped support EE 30 Under 30



Funding Supports All that We Do!



Think Tank Ideas

Next Steps

Are there volunteers to help
build a global fund to support EE and GEEP
in small groups?



Innovation

- Global Call to Action
- Global Pledge
- GEEPX Talks (maybe we should label our webinars GEEPX, although now with Twitter turning to X...)
- Global Learning Labs



Why Innovation Matters!



Discussion - Innovation

At tables:

1. What is special about GEEP?
2. Please develop **one idea to promote innovation in EE** that reflects what makes GEEP special (brainstorm ideas, select one idea to pitch)

Chose one person to share a two-minute pitch

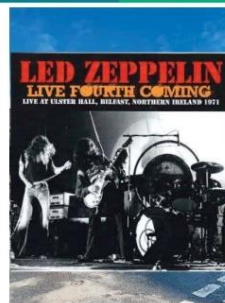
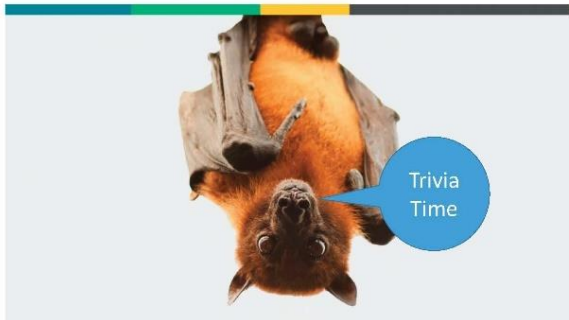
Next Steps

Are there volunteers to help
promote innovation
in small groups?

Small Groups

1. November Workshop (Anne)
2. Digital – web, social, video (Madeline)
3. Demonstrate impact of EE on SDGs (Mahesh)
4. Growing EE 30 Under 30 or AKA (Nina)
5. Build a global fund (Judy, Ian)
6. Promote innovation (Ginger)

1. **November Workshop (Anne)**
 - Time zones / geography, agenda, speakers, project or communications plan
2. **Digital – web, social, video (Madeline)**
 - Social media ideas, next steps on video and web
3. **Demonstrate impact of EE on SDGs (Mahesh)**
 - Define who needs to hear it, draft EE-SDG messaging (for web, social)
4. **Growing EE 30 Under 30 or AKA (Nina)**
 - Trade-offs of 2-3 models; program definitions, learning materials, countries
5. **Build a global fund (Judy, Ian)**
 - Targets, how to fundraise cooperatively, 1-2 early wins
6. **Promote innovation (Ginger)**
 - Propose one key action to take to promote innovation



Where and when did Led Zeppelin first play their iconic rock song "Stairway to Heaven?"

The song was first performed live on March 5, 1971 in Ulster Hall in Belfast.

What animal symbol is found on buildings throughout Belfast?

The seahorse!

Belfast's coat of arms depicts two seahorses, a ship and a ship's bell. The sea, ships and seahorses centre around all aspects of the city's history. The seahorse is originally a symbol of good fortune and protection, which is important for those traveling by boat or ship. Early merchants printed the creature on their coins in the 17th century.



What are two animals on the Belfast Coat of Arms?



The precise origins and meanings of the symbols contained on the Coat of Arms are unknown. But images such as the bell, the seahorse, the ship and the chained wolf were all used by 17th century Belfast merchants on their signs and coinage. The seahorse, which is used twice, shows the maritime importance of Belfast, as does the ship at the base of the shield.



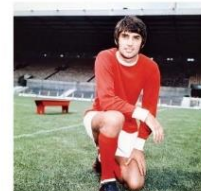
Everyone knows that everyone's favorite food is...



Fairy Butter
Ingredients
2 eggs
1 tablespoon orange or rose water
2 teaspoons sugar
4 ounces of butter (1 stick), slightly softened
Garnishes (edible flowers, herbs, etc.)

One of the *best* footballers in the world was from Belfast. What was his name? (Note: there's a hint in the question!)

George Best



What is Northern Ireland's highest peak?



Slieve Donard in the Mourne Mountains

What is the second largest city in Northern Ireland after Belfast?



Derry/Londonderry

Who's never won anything?

• What building is this?



- 1. November Workshop (Anne)**
 - Time zones / geography, agenda, speakers, project or communications plan
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John Barry
Professor

Professor of Green Political Economy, Centre for Sustainability, Equality and Climate Action
Queens University Belfast
Northern Ireland

Thank you so much!



Inform Selection of New GEEP Advisors



Inform Selection of New GEEP Advisors

In Tucson, we talked about:

- Adding 4-6 new advisors to increase geographic representation, add several younger leaders, and bring people in who are connected to networks
- All current advisors are grandfathered in, but we will check to make sure everyone is OK with continuing.



Advisory Group Board Roles



Advisory Group Roles

Guide

- Provide input into the development of the GEEP, weighing in on key decisions
- Review strategies and policies
- Nominate candidates to serve on the Advisory Group
- Offer advice, support, and guidance to the GEEP leadership team

Gather:

- Attend one full meeting annually (NAAEE conference)
- Participate in a limited number of scheduled conference calls

Promote:

- Promote the GEEP to colleagues through networks and conferences
- Present about the GEEP and provide content for GEEP newsletter & eePro
- Help recruit new members

GEEP Matrix

Adviser Name: _____		Skills, Experiences, and Expertise	
<input type="checkbox"/> Government		<input type="checkbox"/> EI (and/or education)	<input type="checkbox"/> Sustainability
<input type="checkbox"/> University, academia		<input type="checkbox"/> Strategic planning	<input type="checkbox"/> Policy
<input type="checkbox"/> Non-profit		<input type="checkbox"/> Evaluation, research	
<input type="checkbox"/> Foundations, philanthropy		<input type="checkbox"/> Working with groups/unrepresented in your region	
<input type="checkbox"/> Private sector		Demographics, Geography, and Language	
<input type="checkbox"/> Other (see include independent)		Gender, pronouns: _____	<input type="checkbox"/> Africa
Network Connections		<input type="checkbox"/> Age < 35	<input type="checkbox"/> North America (U.S. & Canada)
<input type="checkbox"/> National	<input type="checkbox"/> Regional	<input type="checkbox"/> Age > 35	<input type="checkbox"/> Middle East
Please list your top three networks: _____		<input type="checkbox"/> Latin America and the Caribbean	<input type="checkbox"/> Asia & Oceania
Languages spoken: _____			
Additional Skills, Expertise			
Please list any other skills or expertise you would bring to the work of the GEEP: _____			

Inform Advisor Selection



On your own (individually):

1. Please read the biographies of nominated advisors
2. Please complete the online form to confidentially share your recommendations for advisors

The GEEP executive team will select advisors based on this input and factors such as representation

We will take all the feedback, and make the best decisions possible and then contact the nominees to see if they are interested in serving



Partner Updates



We've had time to interact, have fun, and think about the future!



"Follow that dream!"



It's been wonderful to get a taste of Belfast! The hospitality has been wonderful!



Thanks for the Great Thinking and Collaboration Today!



"Sometimes I think the collaborative process would work better without you."

We Did a Lot of Work!



Thank you for all you're doing to make the world a better place!



Thoughts from Our Provocateurs for today:

- Nicole Ardoin
- MJ
- Jenna



Closing Thoughts



Reflections

Take a minute to jot down some of your biggest take-aways from this meeting and one thing you're going to do as a result!





Ian Humphreys
 Chief Executive
 Keep Northern Ireland Beautiful
 GEEP Advisory Group



Thank you, Ian!



Thanks to the entire team for their support!



Dr. Ian Humphreys
 Chief Executive



Nadine McAuley
 Campaign and Events Officer



Claire Irwin
 Communications Manager



Jenna Potter
 Environmental Leadership & Awards Programme Manager

And all the others who have helped!
 Several of the KNIB team will join us this

Thanks to US EPA



Ginger Potter
 Senior EE Specialist
 US EPA



Thanks to the Taiwan EPA Team



Su-Chih Hsu
 Deputy Director

Department of Comprehensive Planning
 Taiwan Environmental Protection Administration
 Taiwan

Thanks to our GEEP team!



Anne Umali
 Director of Professional Development



Nina Hamilton
 Sr. Manager of Leadership and the GEEP



Madeline Halvey
 Coordinator International Programs



Andy David
 Coordinator International Programs

Thanks to Mike!



Dinner Tonight: 7:00

Mourne Seafood Bar



For those leaving tomorrow,
have a safe journey home.



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四、GEEP Discussion Guide



Strengthening EE In Your Country

A Discussion Guide



Strengthening EE In Your Country

A Discussion Guide



On behalf of the GEEP Advisory Group and Leadership Team, welcome to *Strengthening EE in Your Country: A Discussion Guide*. This Guide is designed to help you advance environmental education in your country. We organized it into several sections to help you reflect on what's happening in your own country and to learn more about what's happening in other parts of the world.

The Global Environmental Education Partnership (GEEP), is an international learning network focused on strengthening environmental education around the world. Our network is designed to spark innovation, strengthen leadership, and build bridges across organizations, institutions, and communities, as well as boundaries, disciplines, and sectors. We believe that education is a powerful tool in our toolbox to create a more just and sustainable future, where people and nature thrive. And our hope is to build a world where environmental and social responsibility drive individual, community, and institutional choice.

Thank you to everyone who made this Guide possible, including the members of the GEEP Advisory Group (see below). A special thanks to Esther Cowles and Kathy McGlaflin, as well as Ginger Potter, Rachel Bayer, Drew Burnett, Anne Umali, Nina Hamilton, Alex Kudryavtsev, Alan Reid, and Madeline Halvey.

We look forward to your comments and will continue to update this Guide to reflect the needs of the field globally.

Sincerely,
Judy Braus
Executive Director, NAAEE
Secretariat of the GEEP

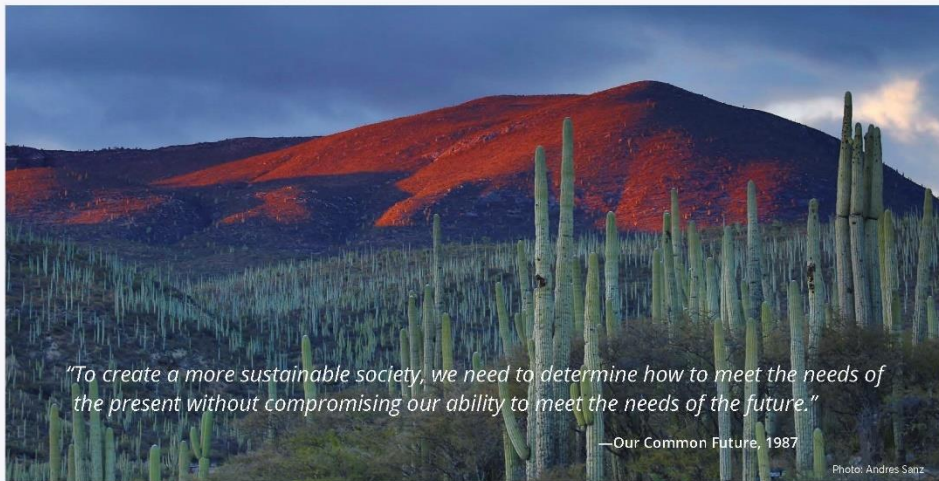
GEEP Leadership Team and Advisory Group

Judy Braus (US)	Mahesh Pradhan (Thailand)
Tzu-Chau (T.C.) Chang (Taiwan)	Gayatri Ragwha (India)
Ian Humphreys (Northern Ireland)	Alan Reid (Australia)
Mphemelang (M.J.) Ketlhoilwe (Botswana)	Kartikeya Sarabhai (India)
Alex Kudryavtsev (US & Russia)	William Scott (UK)
Wen-Feng Chang (Taiwan)	Margie Simon (Mexico)
Gus Medina (Canada)	Nathan Spees (Austria)
Thiaga Nadeson (Malaysia)	Arjen Wals (Netherlands)
Ginger Potter (US)	

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I. Introduction



This discussion guide is designed to help you and your colleagues answer these questions and others. It will help you assess environmental education (EE) efforts in your country or region. Use it to discuss where your strengths are, what gaps might exist, and how to make improvements.

- What does a strong environmental education program in a country or region look like?
- What needs to be in place to ensure that people of all ages have opportunities to develop the awareness, knowledge, skills, and dispositions to tackle the environmental and social issues we face as a global society?
- What is the status of environmental education in your country or region?
- How does EE change our society, its values, and broader systems (such as economic, political, and educational) that share our interactions with the environment?
- How does EE in your country contribute to long-term social prosperity?

If you're working in EE and sustainability, whether it's in government, nonprofits, academia, corporations, or other settings, this discussion guide is for you. While it identifies essential components of EE at the country and regional level, it can also be applied to local and state or provincial work.

4 Strengthening EE In Your Country: A Discussion Guide

Are you working in environmental education or sustainability as a...

- Government official
- Nonprofit leader
- Education program manager
- Higher education faculty
- College student
- Environmental educator
- Classroom teacher
- School administrator
- Nature center educator
- EE network coordinator
- Youth group leader
- Corporate sustainability manager
- Zoo or aquarium educator
- Volunteer

Whatever your position—if you want to strengthen EE in your country—this discussion guide is for you!

How to Use the Discussion Guide

A hallmark of a strong national EE program is inclusivity for all audiences. This same quality can and should be applied to the process of using this guide. As you scroll through the pages and envision the many ways that EE can do more to improve education and to tackle complex and important issues in your country, you are encouraged to engage with people from multiple disciplines and sectors to benefit from one another's knowledge in your respective areas of expertise. And to involve a broad spectrum of people in your country, bringing diverse lived experiences to the conversation of what is working well for whom, and where improvements can be made. While it is possible to use this discussion guide individually, collaborating with others broadens the base of knowledge about what exists in your country, focuses the range of possible actions, and builds commitment and capacity to implement solutions.

There is no one way to organize EE in a country. The possibilities are as multiple and varied as the nations on our planet. For ease of review, this guide groups the components of a strong national environmental education program into four main categories: structure, programs, quality assurance, and funding. Each section describes the related components, highlights examples, and poses questions about the status of EE in your country. A final section provides guidance and prompts for crafting a plan to strengthen EE in your country. Your plan may address just one component that is an area of greatest need or impact, or it may address multiple areas.

It is possible to have a strong EE program without all the components of each category, depending on your country's unique context. But the more that are present, the better the chances for all people and places to benefit from the transformative power of EE.



II. What Makes a Strong National Environmental Education Program?



About Environmental Education

For this discussion guide, EE is defined as a process that helps individuals, communities, and organizations learn more about the environment, and develop skills and understanding about how to address global challenges. It has the power to transform lives and society. It informs and inspires. It influences attitudes. It motivates action. EE is a key tool in expanding the constituency for the environmental movement and creating healthier and more civically-engaged communities.

The definition above builds on an early definition developed in 1977 at an international conference in Tbilisi, Republic of Georgia.

“EE is a learning process that increases people’s knowledge and awareness about the environment and its associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action.”

The modern field of EE is built on a rich history of research and practice, as well as core values of stewardship, justice, innovation, and other ideals passed down through generations and cultures around the world.

Two Moments in History that Shaped Today’s Field of EE

1977, Tbilisi, Georgia

The United Nations Educational, Scientific, and Cultural Organization and UN Environment Programme hosted the Intergovernmental Conference on Environmental Education, which laid out the goals, objectives, and guiding principles of environmental education that many environmental educators still use today.

1972, Rio de Janeiro, Brazil

World leaders at the United Nations Conference on Environment and Development, commonly referred to as the Earth Summit, signed on to Agenda 21, which affirmed that environmental education is foundational to global environmental protection and sustainable development.

Components of a Strong National EE Program

Collectively, the components of a strong environmental education program help to create global citizens who are motivated to tackle the environmental, social, and economic issues facing our world, including the US Sustainable Development Goals.

- **All Audiences:** A national EE program is inclusive, reaching all ages, backgrounds, and sectors, including formal and nonformal education, government ministries and agencies, NGOs, corporations, and other community organizations that focus on education and the environment.
- **Policy:** Government legislation or policies advance EE through mandates, funding, and programs.
- **Frameworks:** Standards of excellence demonstrate what high-quality EE looks like and provide guidance for how to improve the quality of EE.
- **Networks:** A professional association or network provides opportunities for EE practitioners and leaders in the field to share, learn, and grow.
- **Formal Education:** EE is integrated into formal education—from early childhood to higher education.
- **Nonformal EE:** EE is a part of nonformal organizations, including zoos, aquariums, museums, community centers, and more.
- **Curriculum and Instructional Materials:** High-quality teaching materials are accessible to educators of all ages in both formal and nonformal settings.
- **Professional Development and Training:** EE professionals, including formal and nonformal educators, have access to and receive high-quality professional development.
- **Higher Education:** Higher education institutions offer degrees in EE and sustainability, and incorporate EE into the preparation of teachers, business leaders, health experts, and other key professions.
- **Accreditation:** Third-party, standards-based recognition programs ensure that higher education programs equip students with the knowledge and abilities to provide high-quality EE.
- **Certification:** EE institutions and environmental educators are recognized through certification for meeting stringent professional competencies.
- **Evaluation:** The impact of EE is measured at the program level, as well as rolled up to demonstrate the difference it is making for people and the planet.
- **Innovation:** Promoting experimentation, new ideas, opportunities for collaboration across disciplines, and other initiatives spark new thinking.

Environmental Education, Education for Sustainability, and Education for Sustainable Development

Rather than tease apart the similarities and differences among these educational approaches, this discussion guide explores generally how education can tackle the environmental, social, and economic issues facing global societies.

EE and education for sustainability share a goal of creating a more equitable and sustainable future. All the elements of environmental education and education for sustainability are vital and necessary to create a more environmentally literate and civically engaged global citizenry. Protecting the environment is inherently linked to equity and inclusion, shared prosperity, and more resilient communities.

EE also shares similarities with education for sustainable development (ESD), which is sometimes used interchangeably with EE and has a strong presence in many countries around the world.

UNESCO uses this definition: *ESD empowers learners to take informed decisions and make responsible actions for environmental integrity, economic viability, and a just society. ESD is a lifelong learning process and an integral part of quality education. It enhances the cognitive, social, and emotional and behavioral dimensions of learning. It is holistic and transformational, and encompasses learning content and outcomes, pedagogy, and the learning environment itself.*

ESD is recognized as a key enabler of all Sustainable Development Goals and achieves its purpose by transforming society. ESD empowers people of all genders, ages, present and future generations, while respecting cultural diversity.

Source: UNESCO. 2019. What is Education for Sustainable Development? Retrieved from <https://en.unesco.org/themes/education-sustainable-development/what-is-esd>

Equity, Diversity, Inclusion, and Justice

EE as a field and approach can honor the beliefs, attitudes, languages, interpersonal styles, and values of all individuals, and promote equity, diversity, inclusion, and justice. EE plays an essential role in raising awareness of environmental injustices for a country's marginalized communities, and ensuring they have a voice in tackling issues that affect them. EE can also help people living in vulnerable and underrepresented communities acquire the knowledge, skills, motivations, and confidence to advance positive changes that are

culturally relevant and meaningful for them.

While EE can't heal all divisions and inequalities in society, it can help to create opportunities for cross-cultural understanding and exchanges. It can also ensure that everyone—especially those groups that have more power and support—tackle systemic racism and center equity in their programming, communications, and policies. EE must help to build a stronger movement by creating a field that supports, inspires, and welcomes everyone.

Key Underpinnings of Environmental Education

Human Well-Being: Human well-being is inextricably bound with environmental quality. Humans are a part of the natural order. Humans, and the systems they create—societies, political systems, economies, religions, cultures, technologies—impact the total environment and are impacted by the environment. Since humans are a part of nature rather than outside it, they are challenged to recognize the ramifications of their interdependence with Earth systems.

Importance of Where One Lives: Beginning close to home, EE helps learners connect with, explore, and understand their immediate surroundings. It also helps learners appreciate the nature around them wherever they live. The sensitivity, knowledge, and skills needed for this local connection to both the natural and built environments provide a base for moving into larger systems, broader issues, and an expanding understanding of connections and consequences.

Integration and Infusion: Disciplines from the natural sciences, social sciences, and the humanities are interconnected through the environment and environmental issues. EE offers opportunities to integrate disciplinary learning, fostering a deeper understanding of concepts and skills. EE works best when infused across the disciplines rather than treated as a separate or isolated experience.

Justice, Equity, Diversity, and Inclusion: EE instruction is welcoming and respectful to all learners and embraces the principles of fairness and justice. EE is designed to employ and engage people with different backgrounds, experiences, abilities, and perspectives through culturally relevant and responsive instruction. EE actively works to create equitable learning opportunities and promotes the

dignity and worth of people of all races, ethnicities, religions, genders, sexual orientations, gender identities, abilities, incomes, language groups, marital statuses, ages, geographic locations, and philosophies.

Lifelong Learning: EE emphasizes critical and creative thinking, decision making, communication, and collaborative learning. Development and ongoing use of a broad range of skills and practices are essential for active and meaningful learning, both in school and over a lifetime.

Roots in the Real World: Learners develop knowledge and skills through direct experience with their community, the environment, current environmental issues, and society. Investigation, analysis, and problem solving are essential activities and are most effective when relevant to learners' lives and rooted in their experiences.

Sustainable Future: Supporting the United Nations Sustainable Development Goals, learning reflects on the past, examines the present, and is oriented to the future. Learning focuses on environmental, social, and economic responsibility as drivers of individual, collective, and institutional choices.

Systems and Systems Thinking: Systems thinking helps make sense of a large and complex world. A system is made up of parts. Each part can be understood separately. The whole, however, is understood only by examining the relationships and interactions among the parts. Earth is a complex system of interacting physical, chemical, and biological processes. Organizations, communities of animals and plants, living cells, and families can all be understood as systems. And systems can be nested within other systems.

The Education We Need for the World We Want

“In the context of a global climate crisis, rapid technological transformation, profound changes in the world of work, lower levels of trust in public institutions, the erosion of democratic values, and the rise of disinformation, intolerance and hate speech, current systems of learning are failing children, young people, and learners of all ages.”

- From [About the UN Transforming Education Summit](#)

That one of the 17 UN Sustainable Development Goals addresses Quality Education underscores the pivotal role education must play in tackling the global challenges of today and tomorrow. Increasingly, people are asking if our dominant educational systems and approaches are up to the challenge of equipping all people with the knowledge, skills, attitudes, and motivation needed to create a more sustainable world.

At its 2022 [Transforming Education Summit](#), the UN identified a “global crisis in education – one of equity and inclusion, quality and relevance” and sought to “elevate education to the top of the global political agenda.” Among many questions, the Summit sought answers to “What transformative pedagogical approaches can best prepare learners to collaborate with others, navigate complexity, and solve future challenges (e.g., project-based learning, problem-posing, inquiry-based learning, student laboratories, technical and vocational workshops, and artistic and creative collaborations)?”

Education and sustainability thought leaders across sectors and disciplines are examining how to transform education. It isn't enough to teach knowledge and skills for technical solutions. Instead, education must move more intentionally and urgently toward building new cross-discipline knowledge and developing agency in learners to create solutions around complex issues and global problems. Ideas include greater attention to [transformational capacities](#) (e.g., systems thinking, working within complexity, analyzing unequal systems of power, and more) that build on important life skills (e.g., critical thinking, creativity, collaboration, flexibility, etc.).

The field of EE has much to contribute to the discussion and move toward more transformative education. One of its strengths and underpinnings is its ability to address topics and issues in ways that intersect disciplines, sectors, and more. It is also able to integrate the teaching of content knowledge and skills with exploration of values, attitudes, and motivations to inspire hope and action. This guide emphasizes how EE is delivered rather than what should be taught, not because the “what” is unimportant, but instead because it is so varied and dependent on the unique needs of learners and communities.

To learn more about emerging thinking on transforming education, consult these resources.

- [A New Green Learning Agenda: Approaches to quality education for climate action](#), Brookings Institute
- [Future of Education and Skills 2030](#), Organization for Economic Cooperation and Development
- [Sustainable Development Goals: Education](#), United Nations
- [Transforming Education Summit](#), United Nations
- [Mission 4.7](#), UN Sustainable Development Solutions Network, in partnership with the Ban Ki-moon Center for Global Citizens, UNESCO, and the Center for Sustainable Development at Columbia University

The UN Sustainable Development Goals

In 2015, world leaders adopted the 2030 Agenda for Sustainable Development. At its core are 17 Sustainable Development Goals (SDGs) that call on all countries to...



"secure a sustainable, peaceful, prosperous, and equitable life on earth for everyone now and in the future. The goals cover global challenges that are crucial for the survival of humanity. They set environmental limits and set critical thresholds for the use of natural resources. The goals recognize that ending poverty must go hand-in-hand with strategies that build economic development. They address a range of social needs including education, health, social protection, and job opportunities while tackling climate change and environmental protection. The SDGs address key systemic barriers to sustainable development such as inequality, unsustainable consumption patterns, weak institutional capacity, and environmental degradation."

Source: United Nations. Transforming Our World: The 2030 Agenda for Sustainable Development. 2015. Retrieved from <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

Education is explicitly addressed in SDG #4, Quality Education, and seeks to "[e]nsure inclusive and equitable quality education and promote lifelong learning opportunities for all." Education also has a critical role to play in addressing all of the sustainable development goals, from climate action to life on

land to responsible consumption and more. EE builds learners' capacity to work individually and cooperatively to improve environmental quality, social equity, and economic prosperity, which supports progress on the SDGs.

SDG #4 Quality Education



Of the 10 targets and indicators for the education goal, target 4.7 projects, "By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development,

including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity, and of culture's contribution to sustainable development."

In addition, this target will be measured by the "[e]xtent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education and (d) student assessment."



National Issues & Priorities

It is important to have a population with the knowledge, skills, and motivation to tackle complex environmental, social, and economic issues now and in the future. Strong EE programs are a valuable tool to address these issues. Different countries have different priorities and every country has a unique political, cultural, and economic context to address them.

How can EE help to tackle issues in your country? Is your country facing significant challenges from climate change, loss of biodiversity, water quality and access, habitat loss and fragmentation, urban sprawl, overfishing, illegal hunting, pollution, or something else? Many issues require a multi-faceted approach and EE can play an important role. It can raise understanding for immediate, pressing issues, as well as equip people to tackle longer-term strategies that change behavior and build will for systemic action.

A hallmark of EE programs is their ability to present unbiased information on issues that are often controversial, guide and support all learners to apply their own ways of knowing, and generate creative, culturally relevant solutions to complex environmental issues.

National, provincial, state, and local government agencies, universities, and NGOs are good sources of information on issues. They can help you identify key issues, surface root causes, and identify opportunities for education and action. Several case studies on theGEEP.org highlight how other countries use EE to address environmental issues.



III. Structure: How Is EE Organized in Your Country?



How a country's EE program is organized relies on governmental agencies, intergovernmental and non-governmental organizations, and networks and collaborations. The structure of your country's EE program may include one or more of these key components. When agencies and organizations collaborate, it elevates the quality and reach of EE and enhances interdisciplinary approaches to address the key issues in a country.

National Governments

National governmental agencies and ministries play an instrumental role in creating and sustaining environmental education programs. They can serve many roles, including implementing policies and mandates, setting and providing strategic directions, serving as thought leaders and ambassadors, funding programs and initiatives that build capacity in the field, and much more.

As you consider the structure of EE in your country, what is the influence of how your country is organized politically (i.e., nationally, federally, by state and territory, by biozones, ethnicity, etc.), that is crucial to discussions about EE programming, strategy, and innovation? How do autonomy and innovation factor into your EE sector?

In most countries, the governmental agencies and ministries that are often most active with environmental education policy and programming include:

Education agencies and ministries are responsible for overseeing schools and educational systems, promoting student achievement and preparation to be engaged citizens of the world, including environmental literacy, and funding educational priorities.

Environmental agencies and ministries are responsible for protecting people and the environment from significant health risks, developing regulations to enforce environmental laws, contributing to related research, and advancing EE.

Natural resource agencies and ministries are responsible for developing land management policies, conducting research, and managing and educating about public lands and natural and cultural resources.

Some countries also authorize research agencies or ministries to advance the development of knowledge in science and other disciplines that contribute to EE policy and programs. Other agencies and ministries that may play a role in supporting EE are state departments and embassies, regional funding agencies, and more. Below are examples of national governmental agencies and ministries with responsibility for EE.

Find out more at the [Global Environmental Education Partnership website](#).

The Country Profiles showcase environmental education efforts in over 60 countries around the world. Each profile identifies people and organizations who are leading EE efforts, as well as policies and practices.

A growing library of Case Studies offers insights into what EE looks like in practice for many countries when applied to a variety of topics, such as the SDGs, eco-clubs, youth development, air quality, climate change, and much more.

National Government Mandates, Laws, and Policies

In many countries, governments set forth laws, mandates, and policies to equip people with the knowledge, skills, attitudes, and behaviors to live sustainably. These guiding documents may apply at one or more levels of country, region, province, state, municipality, and more. For this discussion guide, emphasis is placed on governments at the country level, with the understanding that their policies may be scaled for application in smaller jurisdictions. The following are examples of countries that have adopted constitutional mandates and government laws and policies. Refer to the [Country Profiles](#) on the GEEP website for more details and examples.

Constitutional Mandates

Argentina

The importance of EE is broadly represented in the Argentine constitution. It establishes that “[t]he authorities will provide for the protection of this right [healthy environment], the rational use of natural resources, the preservation of natural and cultural heritage and biological diversity, and environmental information and education.”

Brazil

The Brazilian Constitution of 1988 contains guidelines for national education that includes EE as an area of focus.

Mexico

In 2019, the Mexican government amended its constitution to include an understanding of and respect for the natural world as a basic requirement of education.

Government Laws and Policies

Armenia

The Law of the Republic of Armenia on Environmental Education and Training of Citizens, enacted in 2001, establishes “continuous EE” as state policy. Key provisions of the law authorize the government to develop and implement a national EE program at all educational levels, establish competencies for the training of educators, government employees, and others in EE, and certification of institutions and organizations that deliver EE.

Australia

In 2005, the Australian Government Department of the Environment and Heritage (renamed the Department of Climate Change, Energy, the Environment and Water on July 1, 2022) adopted *Educating for a Sustainable Future: A National Environmental Education Statement for Australian Schools*. This statement provides a description of the nature and purpose of environmental education for sustainability through all years of schooling, including a vision and a framework for its implementation. In 2009, *Living Sustainably: The Australian Government’s National Action Plan for Education for Sustainability* identified the knowledge and skills required to live sustainably for all Australians. In 2010, the Sustainability Curriculum Framework set forth what students need to learn to live sustainably, and considers the most appropriate times and environments in which these learnings should occur.

Brazil

In Brazil, EE is a state policy, encoded in the National Environmental Education Program. The act provides that EE is a right for all people and it be delivered in formal and nonformal settings at all educational levels. Key components address management and planning of EE in the country; capacity-building of environmental educators; communication for EE; inclusion of EE in educational institutions; and monitoring and evaluation of programs and projects in EE.

Chile

In 2009, Chile enacted its National Education Policy for Sustainable Development. The Chilean Environmental Ministry has an Environmental Education Division dedicated to implementing strategies and projects for sustainable development in Chile. The Ministry also offers funding for EE initiatives through its Environmental Protection Fund. EE is present in formal and nonformal educational settings, and the Chilean Environmental Ministry oversees a National System of Environmental Certification for Educational Establishments. Teachers and environmental educators may participate in online and in-person professional development courses, and some of the nation’s universities also offer diploma and degree programs related to EE.

Colombia

Colombia's National Policy of Environmental Education was updated in 2012 and emphasizes the rights of all people to EE and their obligation to manage the environment sustainably. It bestows responsibility for institutionalizing an "ethical framework which emphasizes attitudes of appreciation and respect towards the environment" to authorities at the national, regional, and local levels. It strengthens EE in formal education at all levels and supports school-based projects to "allow children and teenagers [to] develop basic and community competences so that they can make ethical and responsible decisions regarding the sustainable management of the environment." Examples cited in the act of critical environmental issues facing Colombia are "climate change, biodiversity, water, soil management, risk management, and comprehensive solid waste management, among others."

Italy

In 2019, Italy enacted what is considered to be the world's first law mandating that climate change and sustainable development education be addressed as part of its national curriculum. In addition, the Ministry of Ecological Transition established the National Program for Environmental Education, Information and Training in 2015 to disseminate EE programs across the country.

Japan

In 2013, the government enacted the Act on the Promotion of Environmental Conservation Activities through Environmental Education, which updated a 2003 EE act by embedding the principles of ESD. The act promotes EE through voluntary efforts, stipulates "the promotion of EE at home, in school, in the workplace and in the community" to improve public understanding of environmental conservation, promotes teacher training, and develops instructional materials. The Ministry of Environment is primarily responsible for EE in the nonformal sector, while the Ministry of Education, Culture, Sports, Science and Technology advances EE in the formal sector.

Mexico

In 2019, Mexico's Ministry of Education and Ministry of Environment collaborated to create a new EE law, making EE and ESD obligatory throughout schools in the whole country. The development of this new law followed a Constitutional amendment to include an understanding of and respect for the natural world as a basic requirement of education.

Morocco

In 2009, a National Charter for Environment and Sustainable Development elevated the importance of EE nationwide. The Charter serves as a government-mandate to expand EE across the nation. Article 8 of the Charter specifies the need for environmental and sustainable development awareness programs, academic learning opportunities, and training for the people of Morocco. The [Ministry of National Education and Vocational Training](#) grants regional Education Districts the responsibility of implementing EE policy in public schools.

New Zealand

New Zealand schools are guided by both [The New Zealand Curriculum](#) and [Te Marautanga o Aotearoa](#) (based on Māori philosophies). EE and sustainability are positioned as cross-curricular in both guiding documents. Schools are also supported to design and implement EE in their own school curriculum by the [Guidelines for Environmental Education in New Zealand Schools](#), set forth by the Ministry of Education. In addition, students can earn [Education for Sustainability credits](#).

Philippines

The National Environmental Awareness and Education Act, passed in 2008, promotes national awareness of the importance of EE for sustainable development in the Philippines. This policy mandates that EE be integrated into school curricula at all levels, and that students are provided with a core curricular foundation in environmental issues and laws, the state of international and local environmental policy, citizens' responsibilities to participate in environmental behavior, and sustainable development. The [National Environmental Action Plan, 2018-2040](#) aligns local and global development agendas to enhance education in the Philippines through formal, informal, and nonformal EE measures.

Republic of Korea

Korea's Environmental Education Promotion Act, passed in 2008, advances EE at the national and local levels through several initiatives. The Minister of Education and Minister of Oceans and Fisheries, in collaboration with other agencies, are required to prepare and implement a comprehensive EE plan every five years, with regional plans also required. The act advances EE in public schools through the development and distribution of EE programs and materials for use in environment-specific and general education curricula. In the nonformal sector, the act promotes EE through the development and distribution of instructional materials for use in "national institutions, military camps, businesses, and social organizations" and through human resources programs. The act also provides for the certification of nonformal environmental educators who design, deliver, and evaluate EE programs and provide systemic EE at the national and local levels. Finally, the act allows for the designation of EE Centers responsible for training educators, developing and distributing EE instructional materials, and otherwise supporting and promoting EE nationally and locally.

Taiwan

The Environmental Protection Administration of Taiwan (EPAT) was founded in 1987 to promote blue skies and green earth, verdant mountains and pristine waters, and health and sustainability. In 2011, Taiwan adopted a visionary EE policy, the [Environmental Education Act](#). The act provides a nationwide process for advancing environmental literacy and achieving the goals of Taiwan's strategic plan for sustainable development. It informs national EE guidelines, an EE action plan addressing certification programs, evaluations, and assessments, as well as the conduct of government organizations. The national policy requires that all students and any staff in government and business engage in four hours of government funded EE curriculum each year.

United States

The United States Environmental Protection Agency (U.S. EPA) was founded in 1970 to protect human health and the environment. It houses the Office of Environmental Education responsible for implementing the [National Environmental Education Act of 1990](#). The office supports a number of program areas including professional development for educators, youth and educator recognition, competitive grants, and educational resources. The Act requires the US EPA to provide national leadership to increase environmental literacy and is implemented through the Office of Environmental Education.

The US Forest Service, within the Department of Agriculture, manages more than 193 million acres of public lands, including national forests, grasslands, experimental forests, and research and development stations. Their Conservation Education (CE) Program provides EE programs, funding, and technical expertise to individuals, communities, organizations, and agencies to expand learning, understanding, and action for cultural and natural resources. The CE Program, in collaboration with other branches of the Forest Service, develops and delivers EE programs across the country, in partnership with local and Indigenous communities on educational initiatives. The U.S. Forest Service also has an International Program that works collaboratively with intergovernmental organizations, (such as the UN and World Bank), non-governmental organizations, and universities to promote sustainable forest management and biodiversity conservation internationally. Some of this work intersects with EE.

Intergovernmental Organizations

Several intergovernmental organizations (IGOs) play essential roles in advancing EE globally and across countries in geographic regions. Agencies within the United Nations have established foundational policies, principles, goals, definitions, and more for EE. They continue to set much of the international agenda for EE, along with other key influential organizations, including these examples.

Association of Southeast Asian Nations

The Association of Southeast Asian Nations (ASEAN) promotes intergovernmental cooperation across 10 states in Southeast Asia. Its [Working Group on Environmental Education](#) promotes coordination and collaboration among ASEAN member states. Their Environmental Education Action Plan outlines actions related to ESD at the national and regional level.

European Union

The European Union is a supranational union with 27 member states located primarily in Europe. In 2020, the European Commission of the European Union adopted the [Council Recommendation on Learning for Environmental Sustainability](#) that calls on member states, NGOs, and education providers to equip all learners with knowledge and skills related to sustainability, climate change, and the environment. Supporting this proposal was a new European competence framework on sustainability identifying skills needed to make informed decisions that benefit the environment and global climate. The Commission's recommendations provide for all learners to have access to high-quality and inclusive education and training on climate change, biodiversity and

sustainability; prioritize learning for environmental sustainability; promote systemic approaches to education for sustainability; promotes educational partnerships with local and wider communities; and funds infrastructure, training, and resources to support a green transition.

United Nations Educational, Scientific and Cultural Organization

The [United Nations Educational, Scientific and Cultural Organization](#) (UNESCO) seeks to build peace through international cooperation in education, sciences, and culture. UNESCO's programs contribute to the achievement of the Sustainable Development Goals defined in the 2030 Agenda, adopted by the UN General Assembly in 2015. It is leading the Global Education 2030 Agenda through Sustainable Development Goal 4.

United Nations Environment Programme

The [United Nations Environment Programme](#) (UNEP), formed in 1972, sets the global environmental agenda, promotes the implementation of the environmental dimension of sustainable development, and serves as an advocate for the global environment. UNEP's work addresses the root causes of the three planetary crises of climate change, nature and biodiversity loss, and pollution and waste, and raises awareness and advocates for effective environmental action.

Visit the [GEEP website](#) to search profiles for nearly 500 Intergovernmental and Non-Governmental Organizations operating around the world.

UN Decade on Ecosystem Restoration

Environmental education plays a vital role in addressing urgent global challenges. The UN General Assembly proclaimed 2021-2030 as the [UN Decade on Ecosystem Restoration](#), heralding a compelling call to action to preserve and revitalize life on Earth. The [associated action plan](#) identifies Education "to educate the next generation of citizens to be aware of the value of nature, and to train a generation of professionals who can scale up restoration efforts" (p.68) as one of 12 restoration

challenges. Education also plays an essential supporting role in other challenges, such as Youth and the Human-Nature Relationship. Strengthening EE programs in all countries, at local to global levels, and in partnership with all stakeholders and rights holders is essential to living in harmony with our environment.



Non-Governmental Organizations

Non-governmental organizations (NGOs) play an important role in EE. They provide funding for programs, create supplementary instructional materials, design and deliver programs for formal and nonformal educators, partner with national agencies and ministries to implement programs, and influence policy and decision making. NGOs active in EE tend to have varied missions. Some focus explicitly on EE. Some advocate for environmental issues—such as climate change, renewable energy, clean water,

species conservation, and habitat loss—and support EE, too. Still others address specific education topics, such as social studies, science, math, or language arts—and may also have programs, policies, and funding to support EE. Thousands of NGOs operate at the global to local levels. Below are examples of prominent international and national NGOs involved in EE, many of which can direct you to organizations at provincial, state, regional, and local levels.



International NGOs

EarthDay.org

EARTHDAY.ORG works with more than 150,000 partners in over 192 countries to drive positive action for our planet and to ensure that students across the world benefit from high-quality EE.

Environmental Education Association of Southern Africa

The [Environmental Education Association of Southern Africa](#) (EEASA) is an association of educators, researchers, policy makers, students, and practitioners. EEASA hosts conferences, publishes the Southern African Journal of Environmental Education, and develops EE and ESD programs.

Foundation for Environmental Education

The [Foundation for Environmental Education](#) (FEE) has over 100 member organizations in 81 countries. Eco-Schools, Learning About Forests, and Young Reporters for the Environment are their main programs for advancing EE and empowering young people.

North American Association for Environmental Education

The [North American Association for Environmental Education](#) (NAAEE) works with partners to promote excellence in EE, accelerate environmental literacy and civic engagement, and create a more sustainable future. NAAEE's influence stretches across North America and around the world, with members in more than 30 countries and 56 affiliate organizations in the United States, Canada, and Mexico. Collectively, their membership exceeds 20,000 professionals with EE responsibilities and interests representing government, NGOs, academia, business, formal education, nonformal education, early childhood education, and other sectors.

Mission 4.7

[Mission 4.7](#) is a collaboration of governments, academia, civil society, and businesses, which advances and advocates for EE and other types of transformative education envisioned in the UN Sustainable Development Goal 4.7. It builds upon UNESCO's global leadership in education, curates and creates educational resources, promotes greater investment in education, and more.

National NGOs

Australia

The [Australian Science Teachers Association \(ASTA\)](#) is a federation of Science Teachers Associations from all Australian states and territories and is the national voice of science teachers and works to promote the profession. It helps to advance EE.

India

India's [Center for Environment Education \(CEE\)](#) mandate is to promote environmental awareness nationwide and is committed to ensure that EE leads to action for sustainable development.

Mexico

The mission of the [Center for Environmental Information and Communication of North America, AC \(CICEANA\)](#) is to contribute to a sustainable society focusing on EE and communication.

Nigeria

The [Social Studies Educationists Association of Nigeria \(SOSAN\)](#) is a professional organization of learners, teachers, educators, curriculum developers, writers, and qualified educational practitioners in the field of social studies education.

Networks and Collaboration

Having professional networks or alliances in a country or region provides opportunities for EE leaders, practitioners, and others to learn from one another and grow the capacity and impact of the field. These networks may be formal organizations or they may be informal associations of people and organizations with shared interests in EE. The field of EE is strengthened and elevated through collaborations within and across government agencies or ministries, NGOs, corporations and businesses, funders, communities, schools, educators, and more. Through cooperation, EE stakeholders can share and learn effective practices, create and innovate programs and initiatives, and leverage greater capacity for systemic change.

Canada

The [Canadian Network for Environmental Education and Communication \(EECOM\)](#) is a member association of government agencies, NGOs, businesses,

South Africa

The [South African Education and Environment Project \(SAEP\)](#) is a Cape Town-based nonprofit organization that aims to empower people who are neglected by South Africa's education system through tutoring, skills development, enrichment activities, support, and mentorship.

The [Wildlife and Environment Society of South Africa \(WESSA\)](#) is a national environmental organization that aims to initiate and support high impact environmental and conservation projects. They work with schools and teachers throughout South Africa on a range of local and international programs to support and improve school curricula.

Sweden

[Skogen i Skolan](#) works to increase students' knowledge of the forest and its many values through a national collaboration between the school and Sweden's forestry stakeholders.

academics, nonformal educators, community organizations, schools, teachers, and more. Through networking and collaboration, EECOM strives to ensure all Canadians are environmentally literate, engaged in environmental stewardship, and contributing to a healthy and sustainable future.

Finland

In Finland, several ministries and NGOs collaborate to advance EE at the local, regional, and national levels. The Ministry of Environment, Ministry of Education and Culture, and the National Board of Education cooperate in national and regional programming. Both the Ministry of Environment and Ministry of Education and Culture subsidize organizations that offer EE services for schools and communities. Two national associations also instrumental in EE are the Association for EE in Finland (Suomen Ympäristökasvatuksen Seura, FEE Finland) and the

Association of Nature Schools and Environmental Schools (Luonto- ja ympäristökoulujen liitto, LYKKY) Regional associations are also active.

International

The [Global Environmental Education Partnership \(GEEP\)](#) champions EE around the world using the power of education to create a more just and sustainable future, where people and nature thrive. GEEP is a global network and platform that shares best practices to improve the quality and quantity of EE around the world.

The [International Union for Conservation of Nature \(IUCN\)](#) is a diverse environmental network of more than 1,400 member organizations and 15,000 experts. IUCN implements conservation projects worldwide that combine the latest science with traditional knowledge of local communities to work to reverse habitat loss, restore ecosystems, and improve people's well-being.

Questions to Consider

National Governments, Mandates, Laws, and Policies

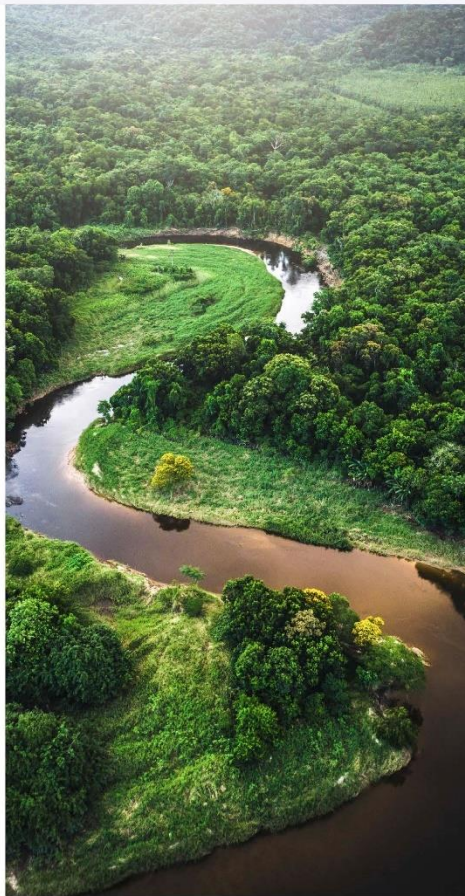
1. How is EE reflected in your country's constitution, executive orders, acts, or other national policies?
2. Which government agencies are involved in EE? What are their roles and responsibilities for EE? Note if they are local, regional, provincial, or national in scope.

IGOs and NGOs

3. What IGOs and NGOs are involved in EE in your country? How does EE fit into their work? Note if they are local, regional, provincial, or national in scope.

Collaboration and Networks

4. In what ways do the agencies, IGOs, and NGOs in your country collaborate? How effective are their collaborations?
5. Who are the leaders of EE in your country? Is there a strong alliance or network for EE?
6. In what ways are agencies, IGOs, and NGOs in your country connected to international EE initiatives? How much do they collaborate with and learn from other countries' EE programs?
7. In what ways are agencies, IGOs, and NGOs fostering sustained and effective leadership through mentoring, succession planning, and other strategies?
8. How are networks and partnerships creating and advancing innovative approaches, such as youth movements?



IV. Programs: How Is EE Delivered in Your Country?



The term “program” is used to mean an integrated sequence of planned educational experiences and materials intended to reach a particular set of objectives. EE programs, taken together, are the

methods by which an organization’s education goals are accomplished. EE program components vary depending on the country, context, objectives, and intended audiences.

Program Types

Formal

Formal EE programs are delivered in the formal education system, which includes early childhood, elementary and secondary schools, universities, community colleges, and vocational colleges. EE may be part of a standardized curriculum for all students in a school or it may be a curriculum delivered for certain grade levels. Alternatively, it may be offered as a supplement to the school’s curriculum and delivered based on the interest or commitment of school leadership, teams of teachers, or even individual teachers. Instruction in EE may be delivered by teachers and faculty, or guest instructors from the community or NGOs. When integrated across the curriculum, EE draws upon the interconnectedness

of the natural and physical sciences, social sciences, and humanities. An advantage to formal EE programs is they can reach a broad population of students who might not otherwise have access to high-quality learning about the environment.

Examples of formal EE programs

- **Green Schools** refers to a category of programs and recognitions for schools that typically address a combination of sustainability-focused lessons or units, auditing and improving school site performance, and engaging in community programs. **Eco-Schools**, a program of FEE, is the largest global green schools program engaging over 59,000 schools in 74 countries.

- Chile's Environmental Ministry oversees the [National System of Environmental Certification for Educational Establishments](#), which gives a certification to K-12 schools that develop methodologies and strategies for EE practices.
- **Nature-based Schools** organize their learning experiences to be mostly or exclusively outdoors. These are more common for early childhood and elementary grade levels than upper grade levels. Nature-based preschools use nature and natural elements to address a child's development of cognitive, physical, emotional, aesthetic, and spiritual domains, plus ecological identity. (See NAAEE's [Natural Start Alliance](#) and [Nature-Based Preschool Professional Practice Guidebook](#).) Forest Schools situate all or most learning in a natural outdoor setting. Student learning is self-directed through exploration, discovery, and connections, with trained educators facilitating the learning process.



Formal Education is the hierarchically structured, chronologically graded education system, running from primary school through the university and including general academic studies, as well as a variety of specialized programs and institutions for full-time technical and professional training. K-12 and tertiary education from colleges are characterized as formal education. Source: K-12 Academics. Formal Education. 2021. Retrieved from <https://www.k12academics.com/Education%20Worldwide/Education%20in%20the%20Philippines/formal-education>

Nonformal Education is institutionalized, intentional, and planned by an education provider. The defining characteristic of nonformal

education is that it is an addition, alternative, and/or a complement to formal education within the process of the lifelong learning of individuals. It is often provided to guarantee the right of access to education for all. It caters to people of all ages, but does not necessarily apply a continuous pathway-structure; it may be short in duration and/or low intensity. Source: International Standard Classification of Education. Non-formal Education. 2011. Retrieved from [International Standard Classification of Education \(ISCED\) 2011](#)

Some use nonformal and informal education interchangeably, while others apply specific criteria to differentiate them.

Nonformal

Nonformal EE programs are developed and implemented by community-based groups, service organizations, government agencies, residential centers, nature centers, zoos, aquariums, museums, youth organizations, out-of-school organizations, and others. They take place in a variety of settings, such as parks, forests, neighborhoods, laboratories, online, school yards, vacant lots, school courtyards, business districts, nature centers, and community gardens. Some also take place within schools as supplemental programs that enrich the school's

established curriculum. Nonformal EE programs tend to be locally focused in both the themes and issues that they address, and in how they are delivered by local organizations.

Examples of nonformal EE programs

- Offered in over 60 countries, the [Roots and Shoots](#) program of the Jane Goodall Institute offers a four-step process to create positive change for people and the environment through service projects. It is typically delivered as an enrichment program in schools.

Who Are Environmental Educators?

Not surprisingly, many environmental educators work in nature centers, parks, museums, zoos, and other institutions, connecting people with nature and helping to build stewardship values that can last a lifetime. Others work with teachers, administrators, and school boards to integrate EE into curricula, conduct teacher training, and help schools green their buildings and schoolyards. And some are university professors, training the next generation of educators and environmental professionals or work in government ministries and agencies. But environmental educators aren't

limited to educational settings. Some work with businesses, helping managers and employees establish sustainable workplaces. Others work with doctors, nurses, and other health professionals to increase understanding about the link between public health and the environment. Many work alongside conservation professionals, helping communities address environmental problems. And others work with journalists, decision makers, and others to advocate for science education. Environmental educators have a place in all sectors of society.



Curriculum Development and Instructional Materials

High-quality EE depends upon quality curriculum and instructional materials and qualified educators. In some countries, governments at the national, provincial, or local level develop and disseminate a standardized curriculum and accompanying instructional materials for use with students at all grades or selected grades. In other places, governments and NGOs develop learning standards that define what students should know and be able to do at specific stages in their learning. These standards may be specific to EE, such as environmental literacy plans (see below). Academic standards in other disciplines (such as civics, language arts, or science) also address concepts that contribute to environmental literacy. School graduation requirements are another way that governments promote environmental literacy for their populations. These requirements are typically tied to academic standards and measured through performance assessments at the secondary level. These standards and requirements inform the design and content of school curricula.

Instructional materials include activity guides, lesson plans, assessments, and other resources that bring the curricula to life for educators and their students. They may be developed by individuals or teams of teachers, community groups, NGOs, governments, and others. High-quality EE materials reflect key characteristics, such as being accurate and inclusive, building skills and depth of understanding, personal and civic responsibility, instructional effectiveness, and usability. In places with learning standards, correlating instructional materials to these standards facilitates adoption of the materials by educators who are held accountable to the standards.

Examples

- **Italy** requires that climate change and sustainable development education be addressed as part of its national Civic Education curriculum. Learners at all grade levels are required to receive 33 hours a year to discuss climate and ecological issues.
- In the US, most states offer [environmental literacy plans](#), which are state-specific comprehensive frameworks that support school systems in expanding and improving EE programs. In the US state of Maryland, the state board of education mandates that students must complete an environmental literacy requirement to graduate from high school.

Curriculum

The term curriculum refers to the lessons and academic content taught in a school or in a specific course or program. Depending on how broadly educators define or employ the term, curriculum typically refers to the knowledge and skills students are expected to learn, which includes the learning standards or learning objectives they are expected to meet; the units and lessons that teachers teach; the assignments and projects given to students; the books, materials, videos, presentations, and readings used in a course; and the tests, assessments, and other methods used to evaluate student learning. An individual teacher's curriculum, for example, would be the specific learning standards, lessons, assignments, and materials used to organize and teach a particular course. Source: Glossary of Education Reform. Retrieved from <https://www.edglossary.org/curriculum/>

Academic/Learning Standards

Learning standards are concise, written descriptions of what students are expected to know and be able to do at a specific stage of their education. Learning standards describe educational objectives—i.e., what students should have learned by the end of a course, grade level, or grade span—but they do not describe any particular teaching practice, curriculum, or assessment method (although this is a source of ongoing confusion and debate). Source: Glossary of Education Reform. Retrieved from <https://www.edglossary.org/learning-standards/>

- [Project Learning Tree](#), [Project WET](#), and [Project WILD](#) offer supplemental EE instructional materials, correlated to national academic standards, for use by teachers and other educators, parents, and community leaders working with youth from preschool through grade 12. These three programs are used in many countries across the globe.

Professional Development and Training



Providing EE professionals, teachers, business leaders, and others with training and support is critical to the success of EE programs. Professional development opportunities also foster connections with educators and practitioners from other fields, which can strengthen interdisciplinary learning and expand the reach of EE. Professional development can take many forms:

- **In-service** professional development occurs as part of a person's employment and builds expertise within their profession or occupation. It is a common form of training for school teachers and nonformal environmental educators working in schools and NGOs. Within the field of EE, in-service teacher professional development is often designed and delivered by nonformal EE professionals.

Outside of the education field, this form of training is more commonly called **staff development or corporate training**. Governments, businesses, foundations, and others provide professional development for their employees in sustainability and EE. These programs may be designed and delivered by nonformal EE professionals.

- **Pre-service** training is provided for students in higher education degree programs. They may be studying to become teachers or may be enrolled in other disciplines that care about sustainability (e.g., business, natural resources, economics, social studies, etc.). These programs are typically delivered by faculty or nonformal EE professionals. Some K-12 teacher certification programs require coursework or training in EE to become certified.

- **Courses, workshops, webinars, and other events** are often selected by teachers and EE professionals to advance their knowledge, skills, and practices in delivering high-quality EE programming. These trainings can also help participants to develop the capacity to lead programs, mentor others, create materials and training for others, and become skilled EE professionals.

Professional development and training programs may address any number of topics that build individual expertise and organizational capacity for high-quality EE programs. These topics include but are not limited to sustainability themes, curriculum and instructional material development, adult training and professional development, pedagogy and teaching youth, program development and evaluation, project management, leadership development, policy and advocacy, civic engagement, communications and outreach, and more.

Questions to Consider

Program Types

1. How is EE being implemented in your country? Note if programs are local, regional, provincial, or national in scope.
2. How effectively is EE integrated into formal education, including early childhood through college? What are the barriers to integrating EE into formal education?
3. How effectively is EE integrated into nonformal education? What are the barriers to integrating EE into nonformal education?

Curriculum Development and Instructional Materials

4. What EE curricula programs are available to formal and nonformal educators?
5. How is EE implemented as part of a standardized or supplemental curriculum? Are there gaps in audiences, geographic places, or concepts being addressed? Note if the curricula are local, regional, provincial, or national in scope.

6. In what ways do your academic standards address EE? Do EE programs or frameworks in your country align or correlate to academic standards?

Professional Development and Training

7. What types of professional development are provided to formal educators to help them integrate EE into their curricula and instruction? What is the quality of the professional development?
8. What types of professional development are provided to nonformal environmental education professionals to help them strengthen their programs? What is the quality of professional development?
9. What types of training programs are provided to government, corporate, business or other employees to build their knowledge, skills and practices related to sustainability? What is the quality of these training programs?



V. Quality Assurance: How is High-Quality EE Cultivated in Your Country?



A strong national EE program depends upon high-quality components, ranging from the development of curriculum and instructional materials, to the preparation of environmental educators, teachers, and other professionals, to the design and evaluation of effective programs and more.

Guidelines for Promising and Effective Practices

North American Frameworks and Guidelines

NAAEE's [Framework for Assessing Environmental Literacy](#) focuses on the types of knowledge, competencies, and behaviors associated with environmental literacy. Many of the general skills and strategies that make up environmental literacy are broadly applicable to other social issues. Because many environmental and social problems are inextricably linked (e.g., access to water, food, or energy resources; proper methods of disposing of and treating sewage or solid waste), the development of environmental literacy can support a more comprehensive understanding and sustainable approach to addressing complex issues.

The [National Project for Excellence in Environmental Education](#) offers guidelines for the development of balanced, scientifically accurate, and comprehensive EE programs and materials. Quality EE programs develop an environmentally literate population that has the skills, knowledge, and inclinations to make well-informed choices and exercises the rights and responsibilities of members of a community and global economy. This six-part series provides guidelines for excellence in early childhood, K-12 education, EE materials, EE programs, community engagement, and the preparation of environmental educators.



Accreditation and Certification

Higher Education Accreditation

Some countries provide accreditation of higher education programs that engage in the preparation and professional development of environmental educators. These third-party, standards-based recognition programs ensure that environmental educators possess the knowledge and abilities to provide high-quality education to diverse audiences in various settings. Regardless of the EE program setting—whether in rural, suburban, or urban areas—environmental educators need practices and materials that effectively foster a high standard of environmental literacy.

Examples

- NAAEE's [Accreditation](#) program recognizes colleges and universities that meet the [Professional Development of Environmental Educators: Guidelines for Excellence](#). Interested institutions complete a self-study audit showing evidence toward meeting six themes detailed in the [Accreditation Manual](#). Twelve US colleges and universities are accredited as of 2022.

Certification of Environmental Education Institutions

Some countries certify organizations and institutions that deliver EE programs. These programs are often related to the certification of environmental educators.

Examples

- Through its law on Environmental Education and Training of Citizens, Armenia certifies institutions and organizations that deliver EE.
- The [Wildlife Habitat Council](#) (WHC) consults with companies on their sustainability and biodiversity efforts. WHC's certification program, called Conservation Certification®, is "the only voluntary sustainability standard designed for broad-based biodiversity enhancement and conservation education activities on corporate landholdings" Forty-seven U.S. states and 28 countries currently hold Conservation Certification® from WHC.

Certification of Environmental Educators

Professional certification ensures that individuals are fully prepared for work within a specific field of expertise. Certified environmental educators meet stringent requirements for proficiency in both the interdisciplinary content and pedagogy necessary to develop and deliver high-quality, effective EE programs.

While it is not necessary to be certified to work as an environmental educator, certification readily distinguishes highly qualified professionals and enhances the resumes of those who have attained it. Having a community of certified professionals also elevates respect for the profession. Certification programs vary and may require a combination of approaches based on experience, courses, mentorships, and demonstrating achievement of specific criteria. Much like with the accreditation of colleges and universities, some countries recognize programs that certify environmental educators, determining the programs meet rigorous standards.

Examples

- The Republic of Korea's Environmental Education Promotion Act, passed in 2008, provides for the certification of nonformal environmental educators who design, deliver, and evaluate EE programs and provide systemic EE at the national and local levels. It also allows for the designation of EE Centers responsible for training educators, developing and distributing EE instructional materials, and otherwise supporting and promoting EE nationally and locally.
- In Taiwan, environmental education professionals can be certified through one of six approaches: education, experience, expertise, recommendation, examination, and training. Environmental educators can be trained in certified EE facilities or institutes.
- In the US, 15 states [certify environmental education professionals](#). NAAEE offers a program to [accredit state certification programs based on the Professional Development of Environmental Educators: Guidelines for Excellence](#).

Evaluation and Research

High-quality EE can demonstrate that it is making a difference for people and the planet. The goals of EE are bold and there are rarely enough resources to implement all good ideas. Evaluation offers a systematic way to understand what is and is not working in a program. It provides information and evidence about a program's performance and informs decision-making. Should a program be continued? Scaled up or down? Refined for some audiences or expanded to reach new ones? Beyond informing program improvements, evaluation is also useful for communicating about the role and value of EE, raising additional funding to support individual programs or the field more broadly, and improving overall practice in the field to optimize impact.

Capacity to conduct evaluations and research is vital to a strong field of EE. Key components to capacity are professional evaluation practice through consultants and/or program staff, organizational commitment to evaluation, and investment by funders. Countries with robust evaluation and research capacity tend to have an active and collaborative community of professional evaluators with expertise in EE. However, program providers can apply evaluation processes on their own to measure progress toward their individual or collective goals.

EE programs vary tremendously in their goals, designs, audiences, partners, duration, settings, results, and more. Common results for EE programs, known as "outcomes" in evaluation terms, are environmental knowledge, skills, and behaviors; sense of place and connection to nature; civic engagement and community action; and much more. There is no single "right" outcome and most EE programs address more than one.

Culturally responsive and equitable evaluation (CREE) is an important and emerging shift in evaluation. CREE seeks to ensure that the practice of evaluation itself—not only the programs being measured—contributes to healthier communities and more just and equitable outcomes for all people. It attends to the rich diversity that exists in EE programs regardless of age, sex, disability, race, ethnicity, origin, religion or economic or other status. It embeds values of equity and inclusion in evaluation processes, to move beyond past injustices for marginalized communities.

What's the Difference?

It is common to hear people using the verbs "assessing" and "evaluating" interchangeably when talking about how they seek to measure a program's success. But these verbs mean different things within the field of evaluation. A useful way to distinguish between them is by the audience. Generally, we assess people and we evaluate programs. Another distinction is between evaluation and research. Again, evaluation is used to measure change in a program. Research looks at multiple evaluations or studies to create and generalize new knowledge for a wider population.

- Assessment seeks to measure change in an individual. Are program participants gaining new knowledge, skills, attitudes, or behaviors? Assessments provide information on the effectiveness of program activities.
- Evaluation seeks to measure a program's progress toward its goals. Is the program creating desired change in people or places? Evaluation provides information for making decisions about programs.
- Research seeks to generate new knowledge and understanding. In what ways does EE contribute to a population's environmental literacy? Research findings are generalizable beyond a program's participants to a wider population.

In some countries, EE thought leaders from government, NGOs, academia, foundations, and other partners pursue research agendas to demonstrate the value, impact, and effective practices of EE broadly. These research initiatives examine the findings of multiple evaluations and studies to generalize and publish evidence-based results of EE. This research can strengthen the understanding of policy makers and the public about the essential role of EE in tackling global, national, regional, and local challenges.

Examples:

- Brazil's National Environmental Education Program provides for the monitoring and evaluation of programs and projects in EE.
- The International Zoo Educators Association and World Association for Zoos and Aquariums' Social Change for Conservation: The World Zoo and Aquarium Conservation Education Strategy (2020) identifies a goal to "Strengthen the evidence of the contributions, value, and impacts of conservation education by zoos and aquariums."
- The Association for Zoos and Aquariums' Social Science Research and Evaluation Scientific Advisory Group advances social science-based research and evaluation for members' conservation education and other programs.
- In North America, the eeWORKS Anecdotes to Evidence initiative examines existing research within the field through a series of systematic literature reviews to communicate and share the role of EE in achieving conservation and environmental quality-related outcomes and impacts.



Questions to Consider

Guidelines for Promising and Effective Practices

1. What guidelines and framework exist to advance, review, and assess the quality of EE curricula and programs?

EE Accreditation and Certification

2. Are there accreditation programs for colleges and universities that confer degrees in or relate to EE? What is the quality of the program?
3. What certification programs exist to review and assess the quality of organizations and institutions that deliver EE? What is the quality of this certification program?
4. What certification programs are available to professional environmental educators to develop their expertise and verify their credentials? What is the quality of the program?

Evaluation and Research

5. How are agencies and organizations using evaluation to demonstrate and communicate the impact of EE programs?
6. How are the results of evaluations shared within the EE community and more broadly with stakeholders who care about EE programs?
7. How well are evaluation results being shared as a way to improve the overall practice of EE in your country? Are program providers sharing what is working well and where improvements can be made?
8. How well do EE program funders support evaluations as part of EE program design and implementation?

VI. Funding: How Is EE Funded in Your Country?



Stable, dedicated, and diverse funding is critical for EE program success. Funding sources vary by how EE is organized in your country, EE program types and purposes, intended audiences, and other factors. It is also affected by a country's culture of philanthropy, especially by private funders such as corporations, foundations, and individuals. Funding may be provided by governments, IGOs, NGOs, foundations, corporations, and/or individual donors. Funding for

related social goals can often be an important source of support for EE programs. Initiatives that advance youth development and employment, green job and career readiness, civic engagement, walkable communities, urban agriculture, and more can and do fund EE directly and indirectly. Having diverse sources of funding creates greater stability and sustainability for EE programs.

Government

Government agencies and ministries with authority over EE policies and mandates can be one of the largest sources of funding in a country. They may fund educational priorities at the national, provincial, state, or local level; form cooperative agreements and pass funds to specific organizations and programs; and offer competitive grants. They may provide direct support for EE programs. In addition to funding for programs, government agencies and ministries often contribute funding for research and innovation, as well as organizational and staff expertise, to advance knowledge in effective policies, programs, and practices in the field of EE.

Examples

- Benin's Ministry of the Living Environment and Sustainable Development contributes financial support to environmental projects through the National Fund for Environment and Climate.

- **Fonds Français pour l'Environnement Mondial** (French Facility for the Global Environment) was established by the French government in 1994 to advance sustainable development projects in developing and emerging countries. They have supported more than 350 projects in over 120 countries, mostly in Africa and the Mediterranean, including EE.
- In the United States, the **National Science Foundation** is an independent federal agency dedicated to promoting progress in science through support for basic research and innovation. The foundation provides competitive funding through dozens of thematic grant programs, many of which relate to EE.

IGOs and NGOs

Intergovernmental and non-governmental organizations fund EE in many countries. They may design and deliver their own EE programs, partner with organizations for programming, and/or fund initiatives designed to address a country's unique needs.

Examples

- The **Inter-American Development Bank (IADB)** provides financial and technical support to countries in Latin America and the Caribbean. With a goal to foster sustainable and climate-friendly development, IADB makes investments to improve health, education, and infrastructure while working to reduce poverty and inequality. IADB's educational initiative **Súbete Bid Cambio Climático** seeks to educate young people about climate change and supports them to achieve viable, sustainable, and long-term solutions to combat its effects.
- The **Sustainable Forestry Initiative** advances sustainability solutions through third-party certification of forest products, conservation research, community engagement, and EE. Annually, it provides small grants to support EE initiatives across Canada and the US through its Community Grants Program.



Foundations

Foundations are active funders of EE in many countries. They tend to fall into three categories: community, family, and private. Each type may design and deliver their own initiatives, partner with and pass funds to selected organizations, and/or offer competitive grant programs.

Examples

- **Fondo Verde (The Green Fund)** partners with local environmental organizations, with Latin America as a priority geographic region. In 2021, they had active projects in Bolivia, Dominican Republic, Mexico, Peru, and Spain.
- **Pisces Foundation** supports collaboration between the EE community and other stakeholders to increase EE in the lives of children. They support research, professional development, and innovative approaches to infuse EE in and outside of schools.

Corporations and Businesses

Corporations and businesses are a substantial source of funding in many countries for major philanthropic causes, such as education, environment, health and well-being, community improvement, sustainability, economic empowerment, diversity, equity, inclusion, justice, and more. Because EE addresses so many issues of economic, environmental, and social significance, it often aligns well with corporate priorities. Some corporations preselect the organizations and programs that they support, while others invite solicitations or proposals on a periodic basis. Some also advance EE through visitor and educational centers, as well as internal staff training programs.

Most corporations offer one or more channels for funding organizations and programs, making it important to research all the options.

- Sponsorship of programs and events, often funded through their marketing budgets.
- Grants to support programmatic and/or operational expenses, often funded through company foundations or philanthropic divisions.
- Grants, sponsorships, and/or partnerships through their Corporate Social Responsibility programs, which invest funds and other resources to advance shared societal goals.
- Corporate matching of employee gifts to charitable causes.
- In-kind donations of employee time and expertise, goods, and services to benefit an organization or program.

Examples

- Panasonic's Green Plan 2018 seeks to provide EE to 2 million students around the world. Panasonic partners with UNESCO, local governments, and others to provide EE through its Eco Learning Programs in China, Myanmar, and Vietnam. Programs are tailored to local cultures and needs, with the goal of providing climate change and conservation education and project-based learning.

- Nissan's Waku-Waku Eco-School provides students aged 11–12 with opportunities to learn about climate change-related issues and Nissan's environmental initiatives, including education and projects involving electric vehicles. This program has been piloted with Nissan's subsidiary companies in the U.K. and China. The Japan program has reached over 100,000 students since its initial launch in 2008 and is being piloted in the U.K. and China.

- As part of their company-wide sustainability efforts, Suntory provides EE to tens of thousands of their employees. Suntory offers many different EE courses, including an environmental management course, a sustainability management training, and environmental law training. Beyond EE courses, Suntory employees participate in environmental-focused efforts and volunteer at the Suntory Natural Water Sanctuaries.

- The Alcoa Foundation supports programs in communities where they have a presence, in nearly a dozen countries. A priority is "contributing to more equitable access to education and skills development, especially for underrepresented and underserved populations." The Foundation for Environmental Education (FEE) is one of their partners, supporting a global K-12 environmental literacy initiative focused on Green STEM as part of FEE's Eco-Schools Program.

- Deloitte offers programs that incorporate EE into their employee education and organizational consulting services. They recently invested \$1 billion to expand the Sustainability and Climate programs, including "build[ing] on its efforts of empowering individuals as part of its WorldClimate strategy by offering a robust curriculum of sustainability training courses to all 345,000 professionals along with its clients and suppliers. The curriculum will be offered virtually and through the network of Deloitte Universities."

Individual Donors

In some countries, donations from individuals account for the largest source of charitable giving, as much as 70% or more of total donations. Individuals may make one-time gifts to an organization, or recurring donations on a monthly, yearly, or other basis, or join as members of a nonprofit organization. Collectively, individual donors support causes at all levels, from

national to provincial/regional to local. Some are major donors, who give fewer, very large gifts, while most give smaller gifts more frequently. Many donors also provide charitable donations through their wills and bequests, called planned giving.



Questions to Consider

1. In what ways do the following types of funders support EE in your country?
 - a. Government agencies
 - b. IGOs and NGOs
 - c. Foundations
 - d. Corporations and businesses
 - e. Individual donors
2. How stable, sustainable, and diverse is funding for your country's EE program?

VII. Action Planning



Guidance for Next Steps

After assessing some or all of the components of EE in your country, what comes next? Identifying next steps will allow you to build on strengths, fill gaps, and enhance environmental literacy to tackle issues and needs of greatest importance to your country.

Strong and successful EE programs are multifaceted and multilateral. As you begin to identify actions to take, it will be valuable to collaborate with others. Through cooperation, you are able to learn from each others' perspectives and experiences, generate more creative and innovative ideas, build enthusiasm and momentum to take action, grow the capacity to tackle large and small actions, and broaden the interest and commitment for EE generally.

One way to initiate collaboration is to engage with key stakeholders in your country's EE community. Reflecting on your answers to questions in the preceding sections, what individuals and organizations are now involved in EE in some way? Are there networks or alliances of people and organizations already focused on EE? Common stakeholders are government officials, NGO staff and volunteers, EE practitioners, funders, landowners, community leaders, schools, educators, and youth. Think also about people who are the most affected by

environmental and social issues and problems, but whose voices are too often overlooked in defining problems and designing solutions, such as people from historically marginalized communities. You may choose to form a core team who will collaborate on the process of developing a plan, or invite stakeholders at key junctures in your process, such as identifying gaps in EE, brainstorming or prioritizing actions, serving as ambassadors or advocates to build support for EE generally or specific actions, and more.

What are the next steps to take? They depend on your country's needs and where you and others see as areas of greatest need or impact. Some possible actions include:

1. Identify 3-5 action steps that are feasible for your organization or a consortium of organizations. These actions might build on areas of strength, address areas of improvement, or fill key gaps.
2. Conduct a survey of educators, stakeholders, or others to gather data on needs for the future.
3. Form a working group to identify next steps, establish a timeline, implement actions, and monitor progress.

Planning Prompts

The prompts below are designed to help you generate strategies and actions in response to what you and others identified as strengths and gaps in the Questions to Consider of each discussion guide section. Armed with a list of potential strategies and actions, a next step is to prioritize them based on importance, urgency, or other factors relevant to your country. In tandem to prioritization, you may also want to identify what people and organizations would affect or be affected by the strategy or action, and who is best suited to play a role in its implementation.

Structure

Government Mandates or Policies

- What are the strengths and gaps in your government's mandates and policies?
- If you seek to introduce mandates or policies, what are effective approaches to enacting legislation? Who should be involved? What information is needed to make the case for policies that support EE?
- If you seek to strengthen implementation of existing mandates or policies, how can you work with the agency or ministry responsible to leverage greater action? How can you promote the impact and importance of EE legislation?

Networks and Collaboration

- What are the strengths and gaps in collaboration for EE?
- If a strong network or alliance does not already exist, how might you build one or strengthen what already exists?

Programs

Program Types

- What are the strengths and gaps in the types of EE programs delivered in your country?
- What are strategies to build on your strengths and fill your gaps?

Curriculum Development and Instructional Materials

- What are the strengths and gaps in the availability of high-quality EE materials for formal and nonformal educators in your country?

- What are strategies to build on your strengths and fill your gaps?
- What are strategies to align or correlate EE programs and materials to academic standards?

Professional Development and Training

- What are the strengths and gaps in the availability of high-quality professional development and staff training for governments, NGOs, corporations and businesses, formal and nonformal educators, and others?
- What are strategies to build on your strengths and fill your gaps?

Quality Assurance

Guidelines for Promising and Effective Practices

- What are the strengths and gaps in existing guidelines?
- How can creating new guidelines or strengthening existing ones help to advance EE in your country?

Accreditation and Certification

- What are the strengths and gaps in the availability of accreditation and certification programs in your country?
- What are the strategies to build or strengthen an accreditation program for higher education?
- What are the strategies to build or strengthen a certification program for professional environmental educators?

Evaluation and Research

- What are the strengths and gaps in EE evaluation and research in your country?
- What are strategies to build on your strengths and fill your gaps?

Funding

- What are the strengths and gaps in funding EE in your country?
- What are strategies to optimize and diversify funding for EE?



Strengthening EE In Your Country
A Discussion Guide



五、GEEP Strategic Plan 2023





Introduction

As a global society, we are facing unprecedented, and largely human-caused, environmental and social challenges. The need for environmental education has never been greater, and our opportunity to help leaders more effectively use environmental education as a strategy to improve the environment (or achieve environmental protection goals) is unprecedented. By sharing knowledge, tools, and resources, and by building a vibrant learning network, we can elevate the importance and impact of environmental education to help create a healthier planet.

This is the vision of the Global Environmental Education Partnership (or GEEP), which was created by the Environmental Protection Administration of Taiwan (EPA Taiwan) and the United States Environmental Protection Agency (US EPA) with input from NAAEE. NAAEE has served as the secretariat since GEEP's launch in 2014. This team came together with a group of global advisors with a shared belief in the importance of effective environmental education in addressing environmental issues globally, as well as the need to share effective practices and resources and scale our work by collaborating and learning together.

Background

In 2014, delegates from several countries came together to discuss each country's needs for achieving their environmental protection goals and addressing such issues as climate change through environmental education and citizen engagement. This Global Environmental Education Partnership (GEEP), as it became known, developed a list of more than 25 topics in environmental education, with the following six rising to the top as the most important globally in environmental education (EE):

- Professional development
- Globalization of environmental education standards guidelines
- Legislation and national-level policies that support EE
- Access to effective and promising practices
- Research and evaluation
- How EE can best address key issues, such as climate change, water shortages, and loss of biodiversity

To help countries improve the use of, access to, and quality of environmental education, the delegates recognized a need for a centralized way to share best practices and resources to help practitioners use environmental education more effectively in their countries. No such platform existed at that time. The GEEP was then envisioned as a global network and platform to share best practices and improve the quality and quantity of EE around the world.



In 2015, GEEP delegates met to establish the purpose and mission of the GEEP, as well as goals and objectives, through a series of in-person meetings that were informed by surveys, research, and interviews. The GEEP is designed to provide a space for collaboration where member countries can share experiences, promising practices, and opportunities, as well as generate new ideas and work together to solve problems. Soon after GEEP's launch, the North American Association for Environmental Education (NAAEE) was named the GEEP Secretariat.

In 2016, the Advisory Group (formerly the Steering Committee) met in Bristol, England, to talk through the strategy, governance, and audience, as well as options for how to sustain the GEEP. Then in April 2018, a sub-group of the Advisory Group met to update the vision, mission, goals, governance, and membership, given our experiences over the past several years. The Advisory group also met in 2019, in Lexington, Kentucky, and has held a number of calls every year.

In October 2022, the Advisory Group met in Tucson, Arizona as part of the NAAEE International Conference to review the 2018 strategy and the GEEP's accomplishments between 2018 and 2022, review the vision, mission, and goals, and brainstorm activities for the future. They decided that the goals should remain the same. However, this updated strategy also includes some additional ideas that were generated for the future, and how we can do more to build regional representation, add new advisors to the advisory group, and continue to achieve the ambitious goals of the GEEP.

The Draft 2023 Revised Plan



Vision

We seek to use the power of education to create a sustainable and just future where people and nature thrive, and where environmental and social responsibility drive individual, community, and institutional choices.

Mission and Tagline

- The mission of the GEEP is to create a vibrant and inclusive learning network designed to build capacity in countries around the world to strengthen environmental education that leads to a more just and sustainable future.
- The tagline for the GEEP is **“A Global Champion for Environmental Education”**

Goals and Strategies

The draft goals and strategies outlined below are based on more than six decades of research on what motivates individuals and communities to learn, take action, and create positive societal change. They are also based on research about how to structure an international network so that it can best advance a field by sharing effective practices, networking, and learning.

GEEP supports Goal 4 of the UN’s Sustainable Development Goals to “ensure inclusive and equitable education and promote lifelong learning opportunities for all.” In addition, the GEEP supports high-quality environmental education as a cross-cutting strategy to address each of the 17 Sustainable Development Goals (SDGs), which include goals for Clean Water and Sanitation, Affordable and Clean Energy, Responsible Consumption and Production, and Climate Action.

GEEP Goals (Updated)

- 1) To connect and build bridges among practitioners, researchers, policy makers, institutions, providers, and international networks to elevate effective practices, scale impact, share global resources, and catalyze collaboration
- 2) To demonstrate the value and impact of EE as a tool for achieving the SDGs
- 3) To support, mentor, and empower a new generation of innovative and inspirational leaders to shape the future
- 4) To build a global fund to advance our collective work
- 5) To promote innovation through a Global EE Think Tank

In addition, based on our collective work since 2014, another cross-cutting priority is focused on centering justice, equity, diversity, inclusion, and accessibility in all the work we do, and highlighting how the impacts of climate change, water and air pollution, biodiversity loss, and other environmental threats disproportionately affect those communities who are least responsible for the issues and have the least resources to address them. By centering equity and justice in each goal, including the recognition of Indigenous knowledge, we can build a stronger, more inclusive movement and build leadership for the future.



Here are the updated strategies to accomplish the goals in the next three years. Please note that this is a dynamic document and we will continue to update it as the GEEP continues to evolve.

Goal 1: To connect and build bridges among practitioners, researchers, policymakers, institutions, providers, and international networks to elevate effective and promising practices, scale impact, share global resources, and catalyze collaboration.

The strategies include:

- Convene thought leaders and GEEP advisors and ambassadors to build capacity for environmental education and address key issues, including hosting summits, workshops, webinars, and other opportunities to advance collaboration and innovation.
- Support regional hubs to strengthen environmental education regionally and build on regional culture and context to advance the work of the GEEP and share lessons learned globally.
- Continue to advance the GEEP website to host learning, resource sharing, and interaction, including adding to the online interactive map, promoting the GEEP Global Discussion group on ePRO, and linking to international partners and organizations.
- Develop materials that strengthen environmental education globally and share effective practices, including GEEP case studies, GEEP country profiles, the GEEP Discussion Guide, and others initiatives that spark learning and discussion.
- Promote and feature effective practice and promising leaders in the field via webinars, stories on the website, and through the GEEP newsletter, eePRO, and partner organizations.

Goal 2: To demonstrate the value and impact of EE as a tool for achieving the SDG goals.

- Showcase how EE can help support the SDGs through case studies, webinars, and workshops.
- Highlight how EE can advance understanding and action focused on key issues linked to the SDGs, including circular economy, loss of biodiversity, climate change, water pollution, toxic waste, and other environmental issues; publish thought papers on the role of EE in helping to address key environmental issues, and center equity and inclusion in the field.
- Connect GEEP members to eeWORKS, the Monitoring and Evaluating Climate Communication and Education (MECCE) network, the EE research library, and other national, regional, and global opportunities to link research and practice. Support the connection between global citizenship, environmental education, and the SDGs.





Goal 3: To support, mentor, and empower a new generation of innovative and inspirational leaders to shape the future.

- Grow EE 30 Under 30 and connect to other leadership programs; build on the pilot in Northern Ireland and explore other country-level competitions that link to the global program.
- Continue to grow the Youth Innovation Challenge (YIC) for young people ages 15–30 to support a solutions-oriented approach to marine issues.
- Explore a youth advisory component to the GEEP, and link to other leadership initiatives, including the UN Young Champions for the Earth, FEE Young Reporters for the Environment, Eco-Schools, and other programs; identify key opportunities for building global leadership.

Goal 4: To build a global fund to support our collective work.

- Create a plan for sustaining the GEEP beyond 2023 through a diversified funding stream (either through public or private funds, membership, partnerships, or some combination of strategies); explore environmental fines and other funding opportunities that could provide on-going revenue, as well as a collaborative fundraising strategy.
- Publish materials to assist with fundraising, including highlights from GEEP activities worldwide and insights from advisors. Link fundraising to issues, projects, or approaches (from circular economy to leadership).

Goal 5: To promote innovation through a Global EE Think Tank.

- Promote new ideas that advance the field, which could include Act Now for EE, GEEPx (talks to promote the power of education in addressing environmental and social issues), creating a virtual GEEP Learning Lab to incubate new ideas, intergenerational initiatives, explore hacks and crowdsourcing, and cutting-edge webinars and other types of professional development for GEEP members.
- Recognize excellence in global EE (i.e., awards).



Governance and Membership



Current Governance

Executive Committee: The Executive Committee has fiduciary and final decision-making authority for the GEEP. The team consists of six to eight representatives from:

- U.S. Environmental Protection Agency (EPA)
- Environmental Protection Administration of Taiwan (EPAT)
- North American Association for Environmental Education (NAAEE)

Advisory Group: The Advisory Group provides direction for the executive committee on matters related to the management and operation the GEEP. Advisory Group members are selected based on their overall experience in EE (whole-country view of EE needs) and their connection to networks (national, regional, and global), and should represent different regions throughout the world.

Advisory Group Terms of Reference: The terms of the Advisory Group are three years in duration (January 1 – December 31 of each year), with the option to renew. New advisors will be voted on by the current Advisory Group and final decisions (based on overall numbers) will be made by the Executive Committee. We will continue to seek advisors representing Africa, Central America, and Latin America. New members of the GEEP Advisory group will represent networks to strengthen the reach and impact of the GEEP. Advisors can represent NGOs, government agency networks, university networks, and others.

Approximate Numbers of Advisors: 15-20

General Responsibilities of the Advisory Group:

- Provide input into the development of the GEEP, weighing in on key decisions and possible directions for the future, including the creation of a long-term sustainability plan for the network
- Review strategies and policies
- Attend one full steering committee meeting at the annual NAAEE conference in the United States and other venues, with the possibility of a second meeting for a subset of committee members to work through specific issues as they arise
- Participate in a limited number of scheduled conference calls throughout the year and respond to emails about specific issues
- Promote the GEEP to colleagues through networks, conferences, and outreach activities
- Seek opportunities to present about the GEEP, formally and informally, to professional networks
- Nominate candidates to serve on the Advisory Group
- Help recruit new GEEP members and others to participate and join the GEEP network and sign up for the GEEP Global discussion group on eePRO
- Provide content for the GEEP eePRO web platform
- Offer advice, support, and guidance to the GEEP leadership team on goals and plans for the GEEP and provide feedback and new ideas

Next Steps for the Advisory Group:

- Add new advisors (nominated by the current advisors) to the GEEP.
- Ensure regional representation as well as a diversity of disciplines, ages, and expertise

General Membership in the GEEP Network

Members of the GEEP are those environmental education professionals who have joined the eePRO Global EE Discussion Group. The benefits include:

- Access to the GEEP network and website
- Nominations to become an advisor
- Access to GEEP webinars
- Ability to promote organizational programs and activities
- Access to resources
- Technical assistance (you can get help or give help)
- Opportunities to network with other EE professionals
- Opportunities to join attend the NAAEE International Annual Conference (possibly at a discounted rate) and other global and regional gatherings

Note: The GEEP website is currently open to everyone—from seasoned professionals to those just starting in the field. The GEEP will continue to support open access to resources on eePRO and opportunities to take part in regional workshops, attend webinars, and other professional development opportunities.

Levels of Engagement

1) Country Organizations and Networks Working Nationally or Regionally:

Country-level engagement is open to national and/or regional organizations who are interested in contributing to the collective wisdom of the GEEP, sharing effective practice, and supporting the GEEP “think tank” concept. These organizations would have a country or regional view (e.g., National Association for Environmental Education (UK)) or regional view (EE Association of Southern Africa) of EE to contribute to the GEEP. Members can share information about their organizations through the [GEEP online map interface](#). Some members of this group will periodically take part in GEEP meetings at the NAAEE Annual International Conference or other venues.

General Criteria for Organizational Membership:

Organizations interested in joining the GEEP should meet the following criteria:

- Being willing to serve as GEEP ambassadors to promote the GEEP and share resources and effective practices
- Represent the interests of environmental education in their country (through their organizations or national-level work)
- Have an interest in supporting the vision and mission of the GEEP by sharing effective practices, resources, ideas, and opportunities
- Have a commitment to collaborate with other GEEP members on issues related to sharing effective practices and resources, and policy initiatives that support environmental education
- Be willing to take part in “think tank” activities to advance the field

General Responsibilities for Organizational Membership:

- Support and promote the mission of the GEEP
- Share resources, effective practices, ideas, and opportunities from your country and region
- Help to recruit new members to the GEEP
- Contribute to GEEP content (newsletters, updates, case studies, etc.) to share information and perspectives from your country

Benefits of Engaging at the Organizational Level:

- Access to a network of environmental education leaders from around the world
- Listing of your organization's profile on thegeep.org
- Access to resources, effective practices, and opportunities related to environmental education
- Support the field of environmental education by amplifying your voice through a global network
- Opportunities to serve on the GEEP Advisory Group, providing access to an experienced group of global EE leaders, and authority to help shape future directions for the GEEP



2) Individuals (virtual members, including practitioners and others): The GEEP website is open to all practitioners and others who want to have access to a robust network and database of EE resources through thegeep.org and eePRO platform.

How to Join: Practitioners who have either a professional or personal interest in EE may join. We encourage all GEEP members to:

- Have an interest in supporting the vision and mission of the GEEP
- Be active and vocal supporters of EE in their countries and around the world
- To actively engage with the GEEP network, we encourage all GEEP members to complete a profile on eePRO, join the eePRO Global EE group, and sign up for the GEEP newsletter

General Responsibilities for Individuals:

- Share resources, effective practices, ideas, and opportunities from their country and region
- Spread the word about the GEEP to others interested in EE where possible
- Participate in webinars and discussions whenever possible

Benefits of Joining:

- Free access to the eePRO platform and GEEP eePRO group, which includes resources, opportunities (jobs, conferences, funding, award programs, etc.), and case studies
- Access to the GEEP network of environmental educators around the world
- Access to webinars and discussions focused on a variety of topics related to Global EE
- Ability to share resources and opportunities, and participate in discussions, through the eePRO platform and GEEP's Global EE eePRO group

Categories of Membership

