The rapid pace of environmental change, especially climate change, poses an existential threat to human well-being. This urgent and complex challenge touches all aspects of societal health and stability—today and for future generations. We can find solutions. By linking research to action, we can develop new management strategies, policies, financial tools, and technologies to mitigate and adapt to environmental change.

The Environmental Resilience Institute at the University of Virginia takes an interdisciplinary approach to understanding the physical, biological, and social processes behind environmental change—and how to improve systems, institutions, and individual behaviors in ways that shift our trajectory toward a more sustainable and secure future. We are one of the only environmental resilience institutes in the country and are in a unique position to enable collaborations and discoveries that will enrich and improve lives in Virginia and beyond.
“Climate change is one the greatest challenges facing society. The ERI builds bridges across disciplines and with communities in Virginia and across the globe to find solutions to create a better, more sustainable and equitable future.”

- KAREN MCGLATHERY, DIRECTOR, ERI, PROFESSOR OF ENVIRONMENTAL SCIENCES, AND DIRECTOR, VIRGINIA COAST RESERVE LONG TERM ECOLOGICAL RESEARCH PROGRAM

INNOVATION THROUGH COLLABORATION

As the first university in the nation to establish a Department of Environmental Sciences, UVA has long recognized the need to invest in scientific inquiry that addresses environmental challenges. The ERI taps into UVA’s unique strength: a comprehensive research university with a top-tier liberal arts college that connects the natural and social sciences, humanities, and the arts, and leading professional schools in public policy, business, law, engineering, architecture, and data science. At the same time, UVA is small enough to foster and sustain relationships across fields, enabling the ERI to be nimble and responsive to emerging research needs.

The ERI is a bridge between schools, bringing together faculty and students from across Grounds to solve the most formidable problems of our day. To close the gap between academic research and solution adoption, we involve communities, government agencies, and NGOs. Through collaborative teams, research summits, and community workshops, the ERI creates new partnerships, accelerates discovery, and delivers results to those in need.

PARTNER WITH THE ENVIRONMENTAL RESILIENCE INSTITUTE

Our collaborative approach to research transcends disciplinary boundaries, eliminates barriers, and promotes effective and lasting solutions. We invite diverse philanthropic partners to help us define problems, create a common language, share methods, and measure impact. Private philanthropy can spark innovation by investing in the following opportunities.

DISCOVER – Support our research teams to explore new solutions, dig deeper to solve big problems, and respond rapidly to emerging, timely challenges. Investments will provide seed funding to jump-start new interdisciplinary projects as well as for “rapid” grants to spark research on rapidly developing events (such as hurricanes or environmental implications of COVID-19).

ACT – Turn research into action by putting it in the hands of citizens, decision-makers, grassroots organizations, and communities. Support the ERI in building relationships with at-risk communities and creating pathways for solution adoption through open-source information and communications.

MULTIPLY – Train the next generation of experts by supporting students, postdocs, and faculty members. Help us communicate transformational discoveries to the public and hold trainings to expand the reach and impact of these important tools.

We look forward to solving the greatest environmental challenges and building a more sustainable and resilient world with you.

CORE INITIATIVES

The ERI focuses on understanding interactions between people and the planet—and how to alter them to create a better future. Researchers engage with community members on the ground in some of the world’s most vulnerable regions, ensuring that our solutions are just, equitable, and actionable.

COASTAL RESILIENCE – The ERI is spearheading cutting-edge approaches to protect coastal communities from sea-level rise and storms, as well as technology and design solutions that make coastal cities resilient to flooding.
   • In Norfolk, Virginia, our research is providing decision-makers with the technologies and nature-based design to mitigate the effects of recurrent flooding on transportation and infrastructure.

WATER FUTURES – We examine issues related to water sustainability in the face of climate change, from water quality to greening of cities to social equity.
   • Combining environmental science, policy, and ethics, a team is addressing how water scarcity simultaneously affects the global economy and the basic human right of access to a clean and adequate water supply.

CLIMATE RESTORATION – The ERI explores how to remove carbon dioxide from the atmosphere—key to meeting global climate goals—through land use practices, new technologies, ecosystem restoration, and economic and policy solutions.
   • From tropical African forests to the Alaskan tundra and Virginia coast, researchers are studying how carbon capture by healthy ecosystems can alter the course of global climate change.

THE NEXT GENERATION

The ERI trains and educates the environmental leaders of tomorrow, ensuring they have the skills and tools they need to solve complex challenges now and in the future. We do this through research fellowships for students and postdoctoral fellows; summer internships and job-shadowing with alumni mentors in industry, nonprofits and government agencies; and enhancing curriculum with cross-school “big idea” seminars.

INFORMATION RESOURCES

- res.ervirginia.edu
- Twitter: @resilienceUVA
- Instagram: @resilienceUVA

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