UVA Sustainability Plan 2016-2020: Funding Impact Report

October 2019

UVA's first strategic plan for sustainability, the <u>UVA Sustainability Plan 2016-2020</u>, was supported with \$3 million of central funding, which has accelerated implementation of the plan by catalyzing pilot initiatives into replicable and scalable longer-term solutions, enabling deeper engagement, and fostering new pan-University and community partnerships. The funding was allocated across UVA's strategic framework of Discover, Engage, and Steward and is administered by the University Committee on Sustainability and its three subcommittees: Teaching and Research (Discover), Civic Engagement (Engage), and Steward (Environmental Stewardship). The funding has enabled the development of new sustainability courses, instituted new sustainability fellows, seeded new research, provided career and professional development, implemented student-led projects, and has facilitated engagement events, Grounds as a living lab projects, and further strategic sustainability development.

University of Virginia Sustainability Plan (2016 - 2020)

Near-Term Budget Needs: FY2017-FY2020	
DISCOVER	
Competitive summer faculty research grants, sustainability faculty fellowships, staffing - sustainability curriculum Program Manager/Director and admin support, annual Sustainability Symposiums, sustainability colloquia, Grounds as a Learning Tool support for student course projects.	\$1,700,000
ENGAGE	
Orientation programs, student and employee training and professional development, events, marketing, incentives, tools, and program development.	\$300,000
STEWARD	
Pilot projects, demonstration/educational installations and projects, initial project cost deltas, student and employee grants for on-Grounds projects, events, consulting.* *major initiatives will be undertaken via the capital planning process or operational	\$1,000,000*
budgets.	
TOTAL	\$3,000,000

Highlights from each area include:

DISCOVER (Teaching and Research Subcommittee)

- Sustainability Fellows: Through the support of Sustainability Plan funding, an inaugural cohort of Sustainability Faculty Fellows were selected from across disciplines to enhance teaching and scholarly activity in sustainability-related fields across the University. This innovative and ambitious framework brings together the strengths of individual sustainability-focused faculty from all schools to increase sustainability teaching and encourage faculty engagement in cross-disciplinary conversations at UVA, and to build a rigorous undergraduate sustainability curriculum. The Fellows role as multi-year core teaching faculty strengthen the existing Global Environments + Sustainability program while building relationships amongst the interdisciplinary community of scholars whose work relates to sustainability. The 5 Sustainability Faculty Fellows now co-teach the Global Sustainability introductory course, co-advise students in the Global Environments + Sustainability Research Capstone Seminar, and are now accepting significantly more students into their sustainability-related courses in order to meet increasing demand.
- Course Development Grants of \$8000 each have enabled faculty members to create new sustainability-related courses or revise existing courses to include a sustainability focus. Since the fall of 2017, grants for the development of 35 new sustainability courses have been created across departments and topic areas.
 Departments have agreed to hold these classes at least three times. Courses include Corporate Resilience and

Sustainability, Ethics of Food, Examining Sustainability in Place: The Environment in the Middle East & South Asia, Smart Cities Enabling Sustainability, Asceticism and Sustainability; Sustainability in France: Local Solutions to Global Challenges; Narrating (Un-) Sustainability: Ecocritical Explorations in Italy and the Mediterranean; Anthrochemistry: Chemistry of the Anthropocene; Climate History; Words on Paper - History of Climate Science, Policy and Art; Sustainable Local Economies; Islam, Science, and the Environment; Climate Swerve: Regional Writing on Sustainable Climate Solutions, and more.

- Research Development and Grounds as an Engagement Tool Grants have provided seed funding to begin or continue sustainability-related research. Since 2016-2017 the T&R subcommittee has awarded 48 grants totaling over \$300,000 across a range of including adaptive control of stormwater systems, consumer demand with environmental impact labeling, data-driven sustainability decision making, bee hotels as conservation tools, studies of native wildflowers, the impact of natural environments on children's emotions, vehicle idling reduction policies, air pollution inequalities, women's sense of belonging in STEM, local business sustainability, oyster reef resilience, efficiency-enhancing window film, man-made floating wetlands, energy storage devices, and ecosystem carbon fluxes. Results have been shared in two pan-university research symposia.
- Summer Internship Support Grants: In 2019 the T&R subcommittee awarded 18 inaugural Sustainability Internship grants through the University Career Services Parents Fund Internship Grants program. These \$3000 grants helped support 2nd, 3rd, and 4th year UVA undergraduate students who were hired for unpaid, sustainability-focused summer internships across the world.

ENGAGE (Civic Engagement Subcommittee)

- The Equity and Environment Fund supports student-led projects and programs that explore the intersections of social and environmental issues. A student committee review applications. Projects funded to date include Greens to Grounds Boxes for Access UVA students and Morven Food Lab's Equity & Environment Fellows student fellowships funded to enhance Morven's farm-to-school research in partnership with City Schoolyard Garden to foster student engagement in Charlottesville's food system.
- A Community MLK Event partnership between UVA sustainability and other UVA and community groups, organized by the CE subcommittee and funded through the Plan, has been held in the Jefferson School for three consecutive years, attracting hundreds of community members. Events held to date include: Stirring Up Food Justice with Bryant Terry; Healing Through Community and Art with Candy Chang and Happy Johnson; and Voices for Change: Mixing Hip Hop and Environmental Justice with Mustafa Santiago Ali a partnership with the 9 Pillars Hip Hop Cultural Festival.
- Career Development: In partnership with the UVA Career Center, the Green Career Series has featured sustainability expert workshops, green career fairs, green career conversations, and Hoos at the Table: Sustainability Edition in partnership with the Multicultural Center.
- Sustainability Alumni Network: Sustainability Plan funding helped launch the UVA Sustainability Alumni Network, focused on career development, sustainability expertise sharing, and networking. There are currently over 1000 members and receptions have been held in San Francisco, DC, Boston, and Norfolk.
- Sustainability Award: An annual award to recognize a student, faculty or staff member who has made a significant sustainability impact at UVA, the UVA Sustainability Award has honored 3 winners and collected hundreds of nomination forms from members of the UVA community, demonstrating the impacts individuals can make.

• Sustainability in Orientations: Initially a project of CES' Outreach Working Group, sustainability is now part of the orientations resource fair for all new students, Resident Advisor trainings, Welcome Week programming, and has led to the Office for Sustainability's Green Living Program, which helps on-Grounds students develop sustainable daily practices.

STEWARD (Environmental Stewardship Subcommittee)

- New Pan-University and Community Partnerships: Sustainable food at UVA has made substantial progress with support from plan funding. The Institute for Environmental Negotiation was funded to facilitate the newly-created Sustainable Food Strategy Task Force, bringing together all three dining entities at UVA and a range of other stakeholders. The task force, in partnership with many others, held the Bicentennial Food Justice Symposium Our Evolving Good System: from Slavery to Sovereignty in October 2018 as well as summits bringing together universities from across Virginia. The Task Force also developed UVA's first Sustainable Food Action Plan. More details can be found in the Task Force's annual report.
- New Pan-University and Community Partnerships: The UVA Bicentennial Sustainability Summit in October 2018 was co-funded by the Bicentennial and Sustainability Plan funding and drew nearly 600 attendees. The three-day event showcased the breadth of UVA's interdisciplinary work in the multi-faceted realm of sustainability, and aimed to collaboratively envision UVA's longer-term role as a global sustainability leader. The Summit featured over sixty guest speakers including UVA President Jim Ryan, multiple UVA deans, faculty, staff, alumni, and leaders in the field of sustainability. Events included faculty and alumni flash talks, nine breakout sessions, a sustainability alumni football tailgate, a lunch talk with a Board of Visitors member and faculty speakers, roundtable discussions, a sustainability pitch night, a farmers market, and tours. The core planning team included the Office for Sustainability, University Committee on Sustainability, Career Center, Alumni Association, Environmental Resilience Institute, the Office of the Architect, the Global Sustainability Initiative, the School of Engineering, and the School of Architecture.
- **Piloting New High-Impact Programs:** UVA's Smart Labs program was launched using initial Sustainability Plan funding, for initial pilot labs metering, upgrades and engineering support. The results are summarized in a whitepaper, Piloting Sustainability in UVA Research Labs.
- Developing New Programs: Student interns funded through the plan have significantly advanced new and
 existing work in athletics, housing, and nitrogen. Nitrogen student interns have explored several projects,
 including nitrogen action plan projections, nitrogen footprint calculations, estimating the impact of various
 strategies, food labeling studies, and more. The nitrogen team developed UVA's first <u>Nitrogen Action Plan</u> and
 the housing interns developed UVA's first <u>Green Living Certification Program</u>.
- Strategic Planning: Sustainability action plans Greenhouse Gas, Water, Nitrogen, Materials/Waste, and Food, outlining a strategic approach to meet each goal - have been developed using both consultant and internal staff and faculty expertise.
- Connecting Academics with Operations: Coursework to use the Grounds for experiential learning has been supported, with student findings informing sustainability action plans. In Civil Engineering 3500 Solid Waste Management" (Spring 2018), students engaged in hands-on waste audits and strategy work sessions with the Office for Sustainability and UVA Recycling to better understand how to make recommendations for a strategic UVA Materials Action Plan. In Civil Engineering 3050 "Intro to Green Engineering" (Fall 2017), students worked with Professor Andres Clarens and the Office for Sustainability to inform a rooftop solar PV plan for UVA. Students were provided with a dataset of all roof segments (over 4000) on Grounds and used that dataset to determine the optimal locations for solar panels. In the spring 2019 semester a new one-credit course,

Sustainability Leadership – From the Grounds Up was offered – a workshop-based course in which students developed leadership skills in translating their project ideas into action, using UVA's Grounds as a sustainability classroom. As an extension to the Global Sustainability course, students refined their own project idea and worked with UVA's Office for Sustainability and other UVA stakeholders to refine and implement a project pilot that address environmental challenges. Funding for this initial small-scale project pilot was provided via UVA Sustainability Plan funding. Projects included pilots for paper towel composting, exterior composting, plastic bag reductions, single use plastic utensil reduction, lab water misers, fume hood shut the sash campaign, and a solar canopy analysis.

• Student Project Support: Environmental Stewardship Subcommittee Working Group support has provided funds to enable students and staff to work together to implement pilot projects. Projects funded to date include composting in residence halls, paper towel composting, carbon pricing studies, a water to go bar, a stormwater awareness stencil competition, Campbell Hall submetering, Green IT Hack-a-Thon sustainability competition, lab submetering, and a Bicentennial history of water at UVA video.