



SCHOOL OF GLOBAL  
ENVIRONMENTAL SUSTAINABILITY  
COLORADO STATE UNIVERSITY



CLIMATE INITIATIVE  
COLORADO STATE UNIVERSITY

**2024-2025 Annual Report**

# A *Message* FROM THE DIRECTOR

It is with great excitement that I share this year’s annual report for the School of Global Environmental Sustainability (SoGES) providing a detailed overview of SoGES’ activities in 2024-2025.

The year 2025 marks **a turning point as we bring together the strengths of SoGES and the CSU Climate Initiative** into a unified, visible, and impactful home for sustainability and climate leadership at Colorado State University. As we chart this new chapter, we are building on the **extraordinary legacy of Dr. Diana H. Wall, the founding director of SoGES**. Dr. Wall shaped this School with her deep commitment to mentoring junior scholars, promoting diversity and inclusion in sustainability science, and translating research into policy and practice. We are proud to carry these values forward, especially through the **Sustainability Leadership Fellows program** that she so generously endowed—a program that continues to inspire and prepare emerging leaders.

This past year has been full of momentum. In 2025, we offered our first **Climate Change and Society undergraduate certificate**, and this fall we launched a new **Climate Change Studies minor**. These credentials join our existing sustainability programs to form a growing suite of **interdisciplinary opportunities that prepare students to lead on climate and sustainability challenges**. Through our **Climate Across the Curriculum training**, faculty across CSU are embedding climate content into courses across disciplines, and together we have now reached nearly **2,000 students**—an extraordinary step toward preparing the next generation of climate leaders. We also maintained and expanded core SoGES programs.

Our new strategic plan lays out an ambitious path forward, including:

- **Expanding educational offerings** that reflect student demand and provide skills in systems thinking and interdisciplinary problem-solving.
- **Driving High-Impact Research** through Global Challenge Research Teams and other new opportunities to seed bold, interdisciplinary projects.
- **Deepening community and policy engagement** with the launch of the Climate Hub at Spur, a new platform for connecting CSU’s expertise with partners across Colorado and beyond.
- **Building institutional resilience** by realigning leadership roles, improving communications, and diversifying revenue streams.

I am grateful to our students, faculty, staff, alumni, and partners who make these achievements possible. Your energy, creativity, and commitment fuel everything we do. Together, we are advancing discovery and preparing the next generation of leaders to take on the challenges—and opportunities—of a rapidly changing world.

With gratitude and excitement for what lies ahead,

**Dr. Courtney Schultz**

Director, School of Global Environmental Sustainability and the CSU Climate Initiative  
Colorado State University



Colorado State University’s Johnson Hall, where the School is located

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## RESEARCH

**\$110,000** to CSU researchers  
**3** research teams  
**5** faculty fellows  
**2** climate collaboratories

*In FY25 SoGES/CCI funded...*

**23**  
 faculty members

from

**17**  
 departments

across

**7**  
 colleges

## TRAINING

### Climate Across the Curriculum

**24** courses introduced new climate change content in Fall 2024 reaching over **1,000** students

### Diana Wall Sustainability Leadership Fellows

**14<sup>th</sup>** cohort   **17** fellows   **14** depts   **6** colleges

### ANGLES A Network for Graduate Leadership in Sustainability

**13** Universities participated in a pilot workshop at CSU Spur to improve sustainability leadership education

## EDUCATION

### Undergraduate Curriculum

*In 2024-2025...*

**372**  
 students completed  
 GES courses

**54**  
 students graduated  
 with a SoGES minor

*Since SoGES began education efforts in 2010...*

**6,705**  
 students have  
 completed GES courses

**1,013**  
 students have graduated  
 with a SoGES minor

### Curriculum Innovation Grants

*In FY25 SoGES/CCI funded...*

**11** projects

**29** faculty members

**15** departments

across **6** colleges

## ENGAGEMENT

*Robust dialogue among students, faculty, and stakeholders beyond the University*

**11**  
 events

over  
**1,000**  
 attendees

The School of Global Environmental Sustainability (SoGES) was created in 2008 to advance sustainability research, education, and engagement at Colorado State University. The School is a Special Academic Unit housed in the Office of the Provost and Executive Vice President that works with and across the University's eight colleges.

## Mission & Vision

### MISSION

- (1) Provide a challenging, integrative, and forward-thinking education that equips students with the knowledge and tools to be future leaders addressing climate change and sustainability grand challenges;
- (2) Facilitate and conduct innovative, interdisciplinary research that leads to new and deeper understanding of climate change and sustainability issues; and
- (3) Engage with the public and private sectors, decision-makers, and other partners to translate discoveries into useful information and practical solutions.

### VISION

Our vision is a future that is sustainable, resilient, just, and equitable -- realized through interdisciplinary research, education, and engagement that propel solutions to the world's most urgent climate and sustainability challenges.

## Affiliate Faculty

Affiliate faculty are a vital part of SoGES' community and the ability to achieve its mission. This affiliation connects faculty with a dynamic, interdisciplinary community focused on advancing sustainability scholarship, teaching, and engagement and allows faculty to contribute to SoGES' activities.

## 2024-2025 Leadership



### Courtney Schultz

**Director**, School of Global Environmental Sustainability and the CSU Climate Initiative  
**Professor**, Forest and Rangeland Stewardship

Dr. Courtney Schultz appointed as the new Director of the School of Global Environmental Sustainability (SoGES), effective January 15, 2025. Dr. Schultz has successfully led Colorado State University's Climate Initiative, strategically cultivating its impressive state and national reputation in a relatively short period of time since the initiative's launch in 2023.

In addition to her current role as Director of the CSU Climate Initiative, Dr. Schultz is a Professor, Public Lands, Forest and Fire Policy of Natural Resource Policy in Forest and Rangeland Stewardship, Director of the Public Lands Policy Group, and has served as a Presidential Fellow in Climate Change Analysis with the Office of the Vice President for Research. In all she has accomplished as a leader, researcher, and educator in her career, she has set a bar for excellence both at CSU and in national conversations on sustainability in a land-grant environment.

In her role as SoGES Director, Dr. Schultz is charged with the development and implementation of a strong actionable vision for the future of the School and its role both at CSU and in the national and international arenas in sustainability and climate change. She also is leading the integration of the School with the Climate Initiative and assess potential integration and alignment with other intellectually adjacent centers and efforts.



### Peter Backlund

**Interim Director** (March 2024-December 2024)  
**Associate Director** (January 2025-June 2025), School of Global Environmental Sustainability

*After over a decade of leadership, Peter Backlund retired from the University at the end of June 2025.*

Peter is a science and policy researcher whose primary interests include the intersection of global change and environmental sustainability, use of scientific information for decision-making, assessment of climate change vulnerability and impacts, and evaluation of adaptation and mitigation options.

His recent work focused on understanding and documenting the impacts of climate change on food systems and food security. Before joining CSU, he held senior positions at the US National Center for Atmospheric Research, the White House Office of Science and Technology Policy, and NASA. Peter is a fellow of the American Association for the Advancement of Science and a 2016 recipient of the Abraham Lincoln Honor Award from the US Department of Agriculture.

## Staff



**Sarah Badding**  
Assistant Director of  
Education and Development



**Aleta Weller**  
Assistant Director of  
Research and Engagement



**Jarvis Choury**  
Business Officer



**Paul Cisneros**  
Program Support  
CSU Climate Initiative



**Darren Cockrell**  
Research Proposal  
Coordinator



**Laura Shaver**  
Communications and  
Events Manager



**Eliisa Carter**  
Program Support  
CSU Climate Initiative



**Ryan Deming**  
Website Content  
Specialist *resigned in April 2025*



**Matt Norton**  
Fiscal Assistant Manager  
*resigned in August 2025*

## 2024-2025 Committees

### FACULTY LEADERSHIP

**Kathleen Galvin**, Assistant Director of Educational Programs; Professor, Anthropology and Geography; Director, The Africa Center  
**Eugene Kelly**, Faculty Research Liaison; Director of Agricultural Experiment Station; Associate Dean for Extension, College of Agricultural Sciences

### SENIOR SCHOLARS

**Former Colorado Governor Bill Ritter, Jr.**, Director, Center for the New Energy Economy, Colorado State University  
**Edward B. Barbier**, University Distinguished Professor, Department of Economics, Colorado State University

### EXTERNAL ADVISORY BOARD

**Robert Jackson (Chair)**, Michelle and Kevin Douglas Provostial Professor, School of Earth Sciences, Stanford University  
**Rosina Bierbaum**, Professor, School for Environment and Sustainability, University of Michigan  
**Thomas Dietz**, University Distinguished Professor, Environmental Science and Policy, Sociology and Animal Studies, Michigan State University  
**Maggie L. Fox**, Founder, MaggieFoxStrategies, LLC  
**Former Colorado Governor Bill Ritter, Jr.**, Director, Center for the New Energy Economy, Colorado State University  
**Oswaldo Sala (Emeritus Chair)**, Julie A. Wrigley and Foundation Professor, School of Life Sciences, Arizona State University  
**Scott J. Sternberg**, Executive Director, CUbit Quantum Initiative, University of Colorado Boulder

### CURRICULUM COMMITTEE

**Kathleen Galvin (Chair)**, Anthropology; The Africa Center; and SoGES  
**Delphine Farmer**, Chemistry  
**Dale Lockwood**, Biology and SoGES  
**Susan Melzer**, Soil and Crop Sciences and SoGES  
**Erika Osborne**, Art and Art History  
**Pinar Omur-Ozbek**, Civil and Environmental Engineering  
**Howard Ramsdell**, Environmental and Radiological Health Sciences  
**Lisa Stright**, Geosciences  
**Grace Wright**, College of Business

### EXECUTIVE COUNCIL

**Thomas Borch**, Soil and Crop Sciences  
**Tom Dean**, Management  
**Brian Dunbar**, Institute for the Built Environment  
**Emily Fischer**, Atmospheric Science  
**Chris Funk**, Biology and Global Biodiversity Center  
**Kathleen Galvin**, Anthropology & Geography  
**Alan Knapp**, Biology  
**Jan Leach**, Agricultural Biology  
**Kelly Martin**, Marketing  
**Suellen Melzer**, Soil and Crop Sciences  
**Kenneth Reardon**, Chemical and Biological Engineering  
**David Rojas**, Environmental and Radiological Health Sciences  
**Courtney Schultz**, Forest & Rangeland Stewardship  
**Joe Von Fischer**, Biology

# RESEARCH

The School invests in innovative research activities to advance global sustainability, including cultivation of interdisciplinary partnerships, experimentation with new methods, and development of projects that integrate disparate knowledge and approaches.

## Resident Fellows

Seed funding provided to faculty members engaged in creative sustainability research and problem solving to enhance scholarly contributions to sustainability, accelerate progress, and engage in the academic life of the school.

**Lindsay Burnette** Assistant Professor, Horticulture and Landscape Architecture

Used CSU's agricultural research centers to create detailed, community-informed visual stories imagining how Colorado's farming landscapes and rural cultures might evolve over the next 25 years amid climate change and other challenges.

**Iasmin Goes** Assistant Professor, Political Science

The product from this fellowship explores the challenges faced by seven recently oil-discovering low- and middle-income countries, arguing that a fair and sustainable global energy transition must include their voices, especially since they are among the most vulnerable to climate change.

**Hussam Mahmoud** Professor, Civil and Environmental Engineering

Augmented traditional community resilience models with cognitive theories to explore how public perception impacts community resilience.

**Yolanda Sarason** Associate Professor, Management

Addressed the gap in sustainable tourism research by focusing on best practices for developing countries. Sarason is publishing an open-sourced, edited book using successful sustainable tourism ventures in Guatemala as qualitative case studies.

**Christopher Snow** Professor, Chemical and Biological Engineering

Applied advancements in machine learning for protein design and structure prediction to create a new family of protein materials for carbon capture in crop plants, offering scalable, long-term CO2 removal.

## Climate Collaboratories

Interdisciplinary research retreats aimed at generating new ideas, collaborations, and partnerships focused on climate change.

### Circular Economy Collaboratory: Catalyst for Climate Change Challenges

Lead **Sonali Diddi** Design and Merchandising  
Organizer(s): **Eugene Kelly** Soil and Crop Sciences

Experts from diverse fields came together around the idea of a circular economy—a system that reuses resources and minimizes waste—to help combat climate change. Through a special retreat, they used future-focused planning and teamwork strategies to create a shared vision, build strong partnerships, and develop lasting solutions to complex climate problems by combining knowledge from many disciplines.

### EXploring Health, Ambient Air, Livestock, and Environment (ExHAALE)

Lead **Sheryl Magzamen** Enviro. and Radiological Health Sciences  
Organizer(s): **Colleen Duncan** Microbiology, Immunology and Pathology

Dairies are often seen as sources of air pollution that harm the environment, but they also suffer from air pollution that can reduce milk production and harm animal health. Using a systems engineering approach, researchers at CSU studied both sides of this issue, looking at animal welfare, worker health, economic impacts, and overall ecosystem health with help from experts in many fields.

## Global Challenges Research Teams

Collaborative teams of faculty that build cross-campus partnerships to address the world's most pressing regional and global sustainability issues.

### 2024–2026 Funded Teams

#### Untangling Misplaced Conservation Enthusiasm Improving public education and action on the global pollinator biodiversity crisis with experimental exhibits

Pollinator declines have sparked global concern over food security and species extinctions, prompting a rise in urban beekeeping. But non-native honeybees can actually harm wild pollinators by spreading disease and competing for resources. In response, this team is partnering with the Butterfly Pavilion to develop educational exhibits that bridge cultural enthusiasm for honeybees with ecological science.



<b>John Mola</b> Forest and Rangeland Stewardship	<b>Rebecca Niemiec</b> Human Dimensions of Natural Resources	<b>Nicole Archambeau</b> History	<b>Seth Davis</b> Forest and Rangeland Stewardship	<b>Tara Teel</b> Human Dimensions of Natural Resources	<b>Veronica Champine</b> Human Dimensions of Natural Resources
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## Modeling the Missing Costs of Climate Change



<b>Anders Fremstad</b> Economics	<b>Jesse Burkhardt</b> Agricultural and Resource Economics	<b>Terry Iverson</b> Economics	<b>Srijani Baral</b> Forest and Rangeland Stewardship	<b>Shantanu Jathar</b> Mechanical Engineering
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The Social Cost of Carbon (SCC) estimates the economic damage caused by each ton of carbon emissions and shapes climate policies worth over \$1 trillion in the U.S. alone. However, current models leave out key impacts from climate change. This team is improving a new model, GIVE, to include the cost of climate-caused wildfires and provide a more accurate picture of climate change's true cost.

#### Complexity of Anthropocene Migration Project (CAMP)



<b>Patrick Keys</b> Atmospheric Science	<b>Jessie Luna</b> Sociology	<b>Mindy Hill</b> Center for Environmental Justice	<b>Jon Salerno</b> Human Dimensions of Natural Resources
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This team is leading path-breaking research into why and how people do – or do not – move during 21st-century humanitarian crises. By analyzing recent crises from the past decade, they will develop a new way to classify Anthropocene migration events, explore emerging theories of how these crises unfold, and examine how justice narratives are embedded within them.

# CSU CLIMATE INITIATIVE

The CSU Climate Initiative is a university-wide collaboration to address climate change. By harnessing world-class educators and experts working on all aspects of climate change, Colorado State University is making a strategic investment to become a leading educational institution for climate education, research, and engagement in the United States and globally. In January 2025, the **CSU Climate Initiative merged with the School of Global Environmental Sustainability**, combining our strengths to enhance and unify interdisciplinary climate and sustainability efforts at CSU.

## Advisory Council Fall 2023–Spring 2025

**Kim Stackhouse-Lawson/Sara Place**, AgNext

**Patrese Atine**, AVP for Indigenous and Native American Affairs

**Jan Leach**, College of Agricultural Sciences

**Grace Wright**, College of Business

**Rodolfo Valdes Vasquez**, College of Health and Human Sciences

**Ken Shockley/Mica Glantz**, College of Liberal Arts and the Center for Environmental Justice

**Melinda Smith**, College of Natural Sciences and Climate Adaptation Partnership

**Colleen Duncan**, College of Veterinary Medicine and Biomedical Sciences

**Russ Schumacher/Becky Bolinger**, Colorado Climate Center

**Steven Miller**, Cooperative Institute for Research in the Atmosphere

**Alysha Tarantino**, CSU Online

**Bryan Willson/Lynsey Bosch**, Energy Institute

**Kauline Cipriani/ Bridgette Johnson**, Office for Inclusive Excellence

**Meg Suter/Dinaida Egan/Kyle Dunbar**, Office of the Vice President for Research

**Tracey Goldstein**, One Health Institute

**Jane Zelikova/Lauren Gifford**, Soil Carbon Solutions Center

**Hussam Mahmoud**, Walter Scott, Jr. College of Engineering

**Rich Conant**, Warner College of Natural Resources

## Faculty Leadership Team

**Lauren Gifford**, Soil Carbon Solutions Center

**Pat Keys**, Atmospheric Science

**Scott Shrake**, Institute for Entrepreneurship

Jill Zarestky, School of Education

## Climate Change Credentials

Equipping students with the knowledge to produce informed professionals who can develop solutions, understand and predict impacts, and lead the transition to a sustainable future.

## Climate Change and Society Certificate

Students enrolled in this certificate are introduced to the major implications of climate change on people and earth systems with the purpose of building a person's climate change literacy, empowering them to reduce impacts of climate change, and giving students awareness of climate change mitigation/adaptation strategies to bring to their workplaces

## Climate Change Studies Minor

*Enrollment began Fall 2025.* Students who complete this minor will gain and understanding of the implications of climate change on both biophysical and social systems, developing an awareness of climate change science, mitigation, and adaptation strategies relevant to their major discipline.

## Climate Across the Curriculum

Climate Across the Curriculum (CATC) is a training program designed to help instructors and faculty integrate climate research, education, and discussion into their classrooms.

The inaugural training occurred in August 2024. The training was a two-day workshop covering pedagogical practices, climate science basics, strategies to communicate climate change, exercises on climate futures thinking, and ways to turn students' climate grief into hope.

FY25 training impact:

- During Fall 2024, 21 participants started integrating climate change content into their courses, while the remaining cohort planned to do so in Spring 2025.
- **100% of participants** felt prepared to use the information from CATC in their classes.
- **24 classes included new climate change content** across campus, with all 21 instructors completing climate content integration in Fall 2024.
- Over 1,080 students were introduced to climate-related content in classes taught by CATC-trained instructors.
- Fall 2024 instructors plan to continue including climate change into their courses, anticipating **over 2,000 students with access to introductory climate content during the 2024–2025 academic year.**

In FY26, CATC expanded the trainings to reach K–12 teachers within Denver Public Schools and introduced a train-the-trainer model by sharing CATC with other universities and institutions.

## Spur Climate Hub

The CSU Spur Climate Hub is a new initiative at the CSU Spur Campus, supported by the **School of Global Environmental Sustainability**, the CSU Climate Initiative, the **Institute for Entrepreneurship**, and the **Colorado Climate Center.**



**Veera Mitzner**  
Director

The Spur Climate Hub is designed to elevate CSU's climate-related knowledge and expertise and extend its reach beyond academia. The Climate Hub's mission is to:

- Accelerate climate mitigation and adaptation through co-designed, evidence based climate solutions.
- Increase the impact of CSU's climate-related research and elevate CSU's role as a trusted source for climate knowledge and innovation.

*Veera came on board in February 2025, leading up to the official launch of the Spur Climate Hub in October 2025.*

# EDUCATION

SoGES' education efforts are interdisciplinary. Learning options include individual courses, undergraduate minors, and certificates for undergraduates and graduate students. The School educates and equips students with knowledge and tools to tackle sustainability challenges.

## Interdisciplinary Curriculum

Curricula for the School's minors focus on a comprehensive understanding of the interconnected systems—social, economic, and environmental—that shape sustainable futures. Students who complete the curriculum will be equipped to identify and address complex challenges arising from human interactions with these systems and to develop solutions that promote long-term well-being and resilience.

### Course Offerings 2024–2025

- |  |  |
|--|--|
| <b>GES 101*</b><br>Foundations of Global Environmental Sustainability  | <b>GES 120</b><br>Water in the Western US                              |
| <b>GES 130</b><br>Introduction to Sustainability Engagement            | <b>GES 141</b><br>Introduction to Sustainable Energy                   |
| <b>GES 330</b><br>Sustainability in Practice                           | <b>GES 362</b><br>Systems Thinking and Sustainability                  |
| <b>GES 440</b><br>Sea Level Rise and a Sustainable Future              | <b>GES 441</b><br>Analysis of Sustainable Energy Solutions             |
| <b>GES 465</b><br>Sustainable Solutions to Electronic Waste Management | <b>GES 470*</b><br>Applications of Global Environmental Sustainability |
| <b>GES 494</b><br>Independent Study in Global Sustainability           | <b>GES 520*</b><br>Issues in Global Environmental Sustainability       |

\* Face-to-face and online options

### Faculty and Instructors



**Dale Lockwood**  
Associate Professor, SoGES and Biology  
Academic Advisor



**Susan Melzer**  
Assistant Professor, SoGES and Soil & Crop Sciences



**Renee Harmon**  
Instructor, SoGES

### Undergraduate Credentials

#### Global Environmental Sustainability Minor

In 2024–2025 there were **139** students enrolled and **40** graduates from the GES Minor.

#### Climate Change and Society Certificate

Launched Fall 2024 there are **12** students enrolled and **2** graduates with the Climate Change and Society Certificate.

#### Climate Change Studies Minor

Enrollment begins Fall 2025.

#### Sustainable Energy Minor

*Collaborative with the CSU Energy Institute.* In 2024–2025 there were **20** students enrolled and **5** graduates from the Sustainable Energy Minor.

#### Sustainable Water Interdisciplinary Minor

*Collaborative with the CSU Water Center.* In 2024–2025 there were **21** students enrolled and **8** graduates from the Sustainable Water Interdisciplinary Minor.

#### Sustainability in Peace and Reconciliation Studies Minor

In 2024–2025 there were **8** students enrolled and **1** graduate from the Sustainability in Peace and Reconciliation Studies Minor. *\*The Sustainability in Peace and Reconciliation Studies Minor has been discontinued beginning Fall 2025.*



## Curriculum Innovation Grants

Sustainability's global grand challenges affect everyone. It is Colorado State University's goal that all graduating students have the knowledge and tools to tackle these complex and interconnected problems in their future careers. Sustainability Curriculum Innovation Grants for faculty take initial steps toward expanding student exposure to interdisciplinary sustainability concepts across all fields of study at CSU. With these grants, CSU faculty can develop creative approaches that integrate interdisciplinary sustainability content into existing and new coursework. They elevate both the quality and quantity of student exposure to complex sustainability concepts.

### SUSTAINABILITY Curriculum Innovation Grants

The School of Global Environmental Sustainability, in partnership with the **President's Sustainability Commission**, competitively awards annual Curriculum Innovation Grants to faculty to expand student exposure to interdisciplinary sustainability concepts across all fields of study at CSU.

**In 2024–2025 Sustainability Curriculum Innovation Grants funded –**



### Sustainability strategies for western ranches across changing social, economic, and environmental landscapes

**PROJECT LEADS:** **Anthony Vorster**, Assistant Professor, Natural Resource Ecology Laboratory  
**William H. Romme**, Assistant Professor, Natural Resource Ecology Laboratory

As part of the WRMES program, this immersive 20-day summer field course has been designed to bring graduate students into conversation with diverse ranchers across the Intermountain West, offering firsthand insight into the complex, place-based ways sustainability is practiced and understood across cultural, ecological, and historical contexts.

### Communicating Sustainability: The Fashion Context

**PROJECT LEADS:** **Samuel Tham**, Assistant Professor, Journalism and Media Communication  
**Ruoh-Nan (Terry) Yan**, Professor, Design and Merchandising

This course aims to teach students how to promote sustainable practices in the fashion industry—focusing on social, environmental, and economic issues—while building skills in digital marketing and messaging using tools like Web 3 and AI to prepare for careers in public relations and advertising.

### Experiential Learning of Topics in Sustainability for First-Year Students in Chemical and Biological Engineering

**PROJECT LEADS:** **Minnie Piffarerio**, Associate Professor, Chemical and Biological Engineering  
**Mark Gale**, Assistant Professor  
**German Parada**, Assistant Professor  
**Tim Gonzales**, Lab Manager

This hands-on, sustainability-focused course aims to create experiences around chocolate production to the first-year Chemical and Biological Engineering lab, giving students a practical, engaging way to explore engineering principles and sustainability challenges within a familiar and global context.

### Fostering Sustainable Laboratory Practices in Green Chemistry

**PROJECT LEADS:** **Akiko Nakamura**, Assistant Professor, Chemistry  
**Carlos Olivo-Delgado**, Assistant Professor, Chemistry

This initiative will enhance upper-level chemistry lab courses by integrating hands-on, sustainability-focused learning experiences that deepen students' understanding of environmental and health impacts while boosting engagement, performance, and interdisciplinary relevance.

### Global Studies through Global Data Course in International Studies

**PROJECT LEADS:** **Julia Lee**, Assistant Professor, Political Science  
**Meagan Todd**, Assistant Professor, International Studies

A new course on Global Studies through Global Data plans to teach International Studies students to work with real-world data on global issues like climate change, health, and economic development, building skills in data analysis, visualization, and communication to support sustainable solutions.

# EDUCATION

## CLIMATE CHANGE Curriculum Innovation Grants

The School of Global Environmental Sustainability, in partnership with the **CSU Climate Initiative**, competitively awards annual Curriculum Innovation Grants to faculty to expand student exposure to interdisciplinary climate change concepts across all fields of study at CSU.

### In 2024–2025 Climate Change Curriculum Innovation Grants funded –



## Building community resilience to climate-related health threats: Experiential, community-engaged learning for Environmental and Public Health students

**PROJECT LEADS:** Maggie Clark  
Associate Professor  
Environmental and  
Radiological Health Sciences

Danyel Addes  
Program Coordinator  
TILT

Environmental and Public Health students will engage with hands-on experience and community engagement skills to address local climate-related health challenges, advancing CSU's mission through real-world, resilience-focused learning.

## Centering Climate Change as the Unifying Theme of a Geoscience Degree

**PROJECT LEADS:**  
Dept. of Geosciences

**Rick Aster**  
Professor and Dept. head

**Jeremy Rugenstein**  
Assistant Professor

**Sean Gallen**  
Assistant Professor

**Daniel McGrath**  
Assistant Professor

**Sara Rathburn**  
Professor

**William Sanford**  
Associate Professor

**Lisa Stright**  
Associate Professor

The Department of Geosciences proposed to develop two new core geology courses that use climate change as a central theme to help students understand how Earth's systems interact and to prepare them for careers focused on climate resilience and adaptation.

## Epistemology and Values in Climate Science and Sustainability

**PROJECT LEADS:** Collin Rice  
Assistant Professor  
Philosophy

Katie McShane  
Professor  
Philosophy

Co-taught by a philosopher of science and an environmental ethicist, this course will help students explore how both scientific methods and ethical values shape effective work on sustainability and climate change.

## Graphic Greenprints: Sustainability Stories in Marginalized Worlds

**PROJECT LEADS:** Maricela DeMirjyn  
Associate Professor  
Ethnic Studies

Aparna Gollapudi  
Professor  
English

This interdisciplinary course, uses comics and graphic novels to help students explore climate change and sustainability through the lived experiences of communities of color and Indigenous peoples, while developing their own creative narratives for change.

## Introduction to Carbon Finance

**PROJECT LEADS:** Lauren Gifford  
Associate Director  
Soil Carbon Solutions Center

This proposed new undergraduate course explores climate solutions like carbon markets, climate tech, and net-zero strategies, featuring content from experts at the U.S. Department of Energy, The Nature Conservancy, and others, while connecting students to real-world policy, innovation, and career pathways.

## Introduction to Environmental Humanities

**PROJECT LEADS:** Andrea Duffy  
Assistant Vice Provost and  
Associate Professor  
History

Lynn Badia  
Associate Professor  
English

Sushmita Chatterjee  
Chair and Professor  
Ethnic Studies

The proposed course, will introduce graduate students from diverse disciplines to how the humanities can help us understand and respond to climate and environmental crises through interdisciplinary thinking and collaboration.

# TRAINING

Our sustainability training programs provide practical, solutions-focused learning on critical topics such as climate action, environmental justice, and sustainable leadership. Tailored for students and faculty, these training programs emphasize systems thinking, interdisciplinary collaboration, and real-world problem-solving—equipping participants with the skills to lead transformative change in their fields and communities.

## ANGLES: A Network for Graduate Leadership in Sustainability

CSU is a partner institution of ANGLES, a coalition of 20+ universities working to close leadership gaps for sustainability-focused graduate students. By combining institutional strengths, ANGLES enhances leadership training programs across universities. SoGES co-leads and is the administrative home for the network.



In October 2024, 13 ANGLES partner institutions came together to host a pilot multi-university training program for students and trainers, aimed at strengthening collaboration and connection to tackle global grand challenges. The workshop was **funded by and held at CSU Spur**, with SoGES, playing a central role in its planning and delivery. The pilot workshop focused on "train-the-student" and "train-the-trainer" models to expand leadership training capacity across campuses and better equip participants to deliver sustainability leadership programming at their home institutions. A second workshop is scheduled for October 2025 where we will expand and provide access to students from institutions where these programs do not already exist.

## Climate Across the Curriculum

Climate Across the Curriculum is a training program designed to help instructors and faculty integrate climate research, education, and discussion into their classrooms. (full details on page 15 of this report)

## Diana Wall Sustainability Leadership Fellows

The year-long Diana Wall Sustainability Leadership Fellows (SLF) program trains early career scientists to effectively communicate scientific findings to the media and public. The program hones professional development skills and techniques, and encourages fellows to strategically build meaningful careers that incorporate engagement and interdisciplinarity. The SLF helps the scientists that will be solving tomorrow's grand challenges of sustainability have greater impact, reach broader audiences, and think more expansively about their work and its role in the world.

### 2024-2025 Fellows

#### College of Agricultural Sciences

##### Lexi Firth

Postdoctoral Fellow, Dept. of Soil and Crop Sciences *Advisor: Megan Machmuller*

##### Erin Jackson

Ph.D. Student, Dept. of Soil and Crop Sciences and Graduate Degree Program in Ecology *Advisor: Megan Schipanski*

##### Katherin Meza

Ph.D. Student, Dept. of Soil and Crop Sciences and Graduate Degree Program in Ecology *Advisor: Steven Fonte*

##### Ashley Schilling Hazlett

Ph.D. Student, Dept. of Animal Sciences and CSU AgNext *Advisor: Kim Stackhouse-Lawson*

#### College of Health and Human Sciences

##### Sylvia Lee

Ph.D. Candidate, Dept. of Food Science and Human Nutrition *Advisor: Sarah Johnson*

##### Lauren Vilen

Ph.D. Candidate, School of Education *Advisor: Jill Zarestky*

#### College of Liberal Arts

##### Milena Dehn

Ph.D. Student, Dept. of Economics *Advisor: Elissa Braunstein*

##### Azmal Hossan

Ph.D. Student, Dept. of Sociology *Advisors: Michael Carolan*

##### Julia Choolwe Munsaka

Ph.D. Candidate, Dept. of Political Science *Advisor: Julia Lee*

#### College of Natural Sciences

##### Kathleen Condon

Ph.D. Candidate, Dept. of Biology and Graduate Degree Program in Ecology *Advisor: Alan Knapp*

##### Elizabeth Diaz-Clark

Ph.D. Student, Dept. of Biology and Graduate Degree Program in Ecology *Mentor: Meena Balgopal*

##### Kord Dicke

Ph.D. Student, Dept. of Biology and Graduate Degree Program in Ecology *Advisor: Dhruva Naug*

##### Tucker Melles

Ph.D. Candidate, Dept. of Chemistry *Advisor: Megan Willis*

#### Veterinary Medicine and Biomedical Science

##### Kalani Williams

Ph.D. Candidate, Dept. of Microbiology, Immunology, Pathology *Mentor: Rebekah Kading*

#### Warner College of Natural Resources

##### Amy Gill

Ph.D. Candidate, Dept. of Forest & Rangeland Stewardship *Advisor: Carrie Havrilla*

##### Miguel (Mikko) Jimenez

Ph.D. Candidate, Dept. of Fish, Wildlife, and Conservation Biology and Graduate Degree Program in Ecology *Advisor: Kyle Horton*

##### Ana Perez

Ph.D. Student, Dept. of Geosciences *Advisor: Sean Gallen*



2024-2025 Sustainability Leadership Fellow Group Photo

# ENGAGEMENT

SoGES places high priority on identifying and addressing societal needs, both within our local region, and at the national and global level. Maintaining a robust dialogue among students, faculty, and stakeholders beyond the University helps us understand problems and investigate potential solutions.

## Symposia and Special Events

### Managing the Planet Panel Discussions

Interactive public events that address a wide range of sustainability issues. Each features a panel of CSU experts who field questions from community members and students. **The four panels held during 2024–25 attracted about 260 participants.**

- Sept. 18 **Living in the Pyrocene: Managing the Changing Risks from Forest Fires.** Panelists: **Sheryl Magzamen**, Environmental and Radiological Health Sciences; **Camille Stevens–Rumann**, Forest and Rangeland Stewardship; **Jeffrey Pierce**, Atmospheric Science.
- Nov. 13 **Fostering Community Resilience: Adapting to the Impacts of Climate Change.** Panelists: **Jacob Castillo**, Chief Sustainability Officer, City of Fort Collins; **Joel Correia**, Human Dimensions of Natural Resources; **Josie Plaut**, Institute for the Built Environment, CSU.
- Feb. 12 **Packaging and Sustainability: Reduce, Reuse, Recycle; is there a best practice?** Panelists: **Dale Lockwood**, SoGES and Biology; **Caroline Mitchell**, Waste Reduction and Recycling Manager, City of Fort Collins; **Tony Rappe**, Chemistry; **Steve Simske**, Systems Engineering.
- Apr. 30 **Migration: Birds and Blooms** Panelists: **Liba Pejchar**, Fish, Wildlife, and Conservation Biology; **John Mola**, Forest and Rangeland Stewardship; **Kristen Ruegg**, Biology.

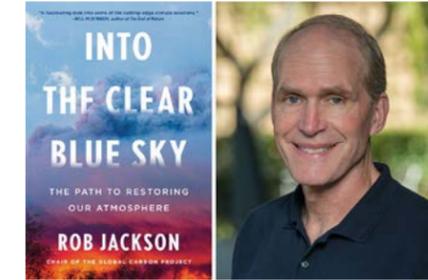
### Africa Center Lectures

Lectures to facilitate a forum for issues of African biodiversity, conservation, and sustainability.

- Nov. 19 **The Great Serengeti Ecosystem: People, Conservation, and Pastoralism** Panelists: **Terry McCabe**, CU Boulder; **Yannick Ndoinyo**, Traditional Ecosystems Survival, Tanzania; **Laura DeLuca**, CU Boulder; **Pablo Manzano**, Basque Center for Climate Change, Spain.
- Feb. 24 **African Art in America, Provenance Research, and Restitution.** Lecturer: **Cory Gundlach**, University of Iowa
- Mar.31 **Integrating cultural awareness into the engineering design process: Engineering capstone experiences in Africa.** Lecturer: **Peter Gorder**, University of Colorado, Colorado Springs.
- April 8 **Turkana Pastoralists at a Crossroads.** Lecturer: **Gregory Akall**, Independent Researcher.
- May 1 **Animation and the Cosmos.** Lecturer: **Abel Tilahun**, Independent Researcher.

Oct 15, 2024

### Diana H. Wall Memorial Lecture with guest speaker, Rob Jackson



**Rob Jackson**, Chair of the Global Carbon Project Senior Fellow at Stanford's Woods Institute for the Environment and Precourt Institute for Energy Professor, Stanford University Chair, SoGES External Advisory Board

The inaugural **Diana H. Wall Memorial Lecture** featured a presentation from one of the world's leading climate scientists. Rob Jackson offered a hopeful and attainable vision for restoring the atmosphere and ending the climate crisis.

Feb 27, 2025

### Climate Leadership Summit

Over 400 students in 8th through 12th grades from 19 Northern Colorado schools attended the event. This event, organized by the **Sustainable Living Association** in partnership with **CSU's Impact MBA, Poudre School District**, and the **School of Global Environmental Sustainability** aimed to equip the future generation with optimism and ideas to solve the world's problems.



A classroom of high school students participate in a session on wildfires.

## United Nations Multilateral Environmental Agreements

SoGES manages CSU's participation as an official observer organization to two major United Nations conventions: The Convention on Biological Diversity (CBD) and the Convention on Climate Change (UNFCCC). As an accredited observer, CSU can request credentials for delegates to attend the annual Conference of Parties (COP), which is the international body in which negotiations take place.

### Convention on Biological Diversity (CBD COP16)

**Cali, Colombia** | October 21–November 1, 2024

CSU Delegation: **Chris Funk**, Biology; **Liba Pejchar**, Fish, Wildlife, & Conservation Biology; **Vinamra Mathur**, CO Natural Heritage Program; **Colleen Duncan**, Microbiology, Immunology, and Pathology; **Gillian Bowser**, Ecosystem Science and Sustainability; **Sandra Duran Mancipe**, Forest and Rangeland Stewardship.

During CBD COP16 the CSU delegation participated in a **Science Forum** session, contributed to **side events**, and engaged in **pavilion sessions**. Chris Funk and Liba Pejchar were interviewed on **KGNU's How on Earth** about CSU's involvement.

### United Nations Climate Change Conference (UNFCCC COP29)

**Baku, Azerbaijan** | November 11–22, 2024

CSU Delegation: **Aleta Weller**, SoGES; **Hussam Mahmoud**, Civil and Env. Eng.; **Stacey Baumgarn**, CSU Facilities Management.

The UNFCCC Cop 29 delegation **hosted a CSU exhibit** highlighting the university's climate and sustainability initiatives: carbon energy management, greenhouse gas reduction efforts, and climate resilience. They also participated in **meetings and side events** focused on higher education and institutional approaches to sustainability and decarbonization.

# CENTERS

## Africa Center

The Africa Center, led by **Kathleen Galvin** (Professor, Department of Anthropology and Geography, University Distinguished Professor, SoGES Assistant Director of Educational Programs) at Colorado State University is a network of faculty, students, scholars, and community members worldwide that promotes and supports research, engagement, and teaching on African social and environmental sustainability.

### 2024-2025 Activity

- Celebrated 10th anniversary of the Africa Center under Dr. Galvin's leadership. Starting in Fall 2025, Dr. David Riep (Art and Art History) will be the director with Dr. Paul Evangelista (NREL) serving as the assistant director.
- Six Field Notes podcast/blogs featuring CSU research in Africa.
- Four recipients of scholarships that provides support for African research, forging international partnerships.
- Annual Africa and Ale event brought together local breweries, universities, and community partners to celebrate Africa through music and dance, about 150 attendees.

## Global Soil Biodiversity Initiative



**Leena Vilonen**  
Executive Director

The Global Soil Biodiversity Initiative (GSBI), housed at SoGES, is a network of more than 5,000 scientists worldwide who study soil life and its role in healthy ecosystems. GSBI advances research, education, and policy by connecting scientists and decision-makers to improve land management, protect soil biodiversity, and build global capacity for sustainable environmental solutions

### 2024-2025 Activity

- Significant planning for the 4th Global Soil Biodiversity Conference scheduled for April 12-15, 2026 in Victoria, Canada, which is the flagship event of the Global Soil Biodiversity Initiative. Abstract submissions have opened, registration has opened, three keynote speakers have been confirmed, and overall planning has continued.
- Hosted four webinars with attendees ranging from 300-1000 viewers per webinar
- Published ten blogs on soil biodiversity topics ranging from global change effects on diversity, creating your own soil biodiversity network, dark taxa, and more.
- Added 1,106 new members and sent out monthly newsletters
- Co-authored a chapter in the Biodiversity and Climate Change Assessment

## Student Sustainability Center



**Reaghan Fields**  
Director, Fall 2024  
Undergraduate,  
Dept. of International  
Studies



**Bella Conrad**  
Director, Spring 2025  
Undergraduate, Dept.  
of Ecosystem Science  
and Sustainability

The Student Sustainability Center works with undergraduate students to push innovative sustainability campaigns and projects at CSU and in Fort Collins. It is a resource center to continue furthering student's education outside of the classroom, while also providing professional development opportunities. These collaborative opportunities work with the local community, including non-profits, corporations, and Fort Collins residents.

### 2024-2025 Activity:

- The Patchwork Project was fully developed by the spring and evolved into its own registered student organization, with SSC support.
- As of the end of spring semester, the Community for Climate Anxiety has started creating its own application to be a registered student organization.
- The Native Plants project furthered its work, involving more community members and students, as Bennett Allen, undergraduate student, takes over the project to continue the overall goal.
- The SSC took on a new project, the Environmental Policy Action Committee, whose goal is to spread environmental and political awareness on campus through education, outreach, and research.



*A group of students gather during a Student Sustainability Center event*

## Global Biodiversity Center

To advance understanding, conservation, and appreciation of life's variation, ranging from genetics and organisms to ecosystems and their interactions. *The GBC has plans to develop a new strategic plan and vision for re-igniting the center in FY26.*



*Freshly planted succulents are shown off following SSC event*

# INVEST IN A SUSTAINABLE FUTURE



Donations play a key role at SoGES. Your support means we can tackle the sustainability challenges facing our world – today, tomorrow, and into the future. Please consider a gift to make an impact in sustainability.

Gifts can be general in nature or dedicated to any activity listed in the annual report. Thank you for considering a donation.

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If you are interested in learning more,  
please contact:

Kyle Dunbar, Director of Development

Kyle.Dunbar@colostate.edu  
(970) 222-6895

## Fundraising goals for our *RESEARCH* work

- **Research Seed Funding** – Grow external support for SoGES research programs to increase investments in research teams (goal of \$200,000 annually in philanthropic funds to augment internal funding).
- **Faculty Support** – Endow two new permanent faculty lines for the Climate Change and Society major (**\$12 million one-time goal**).

## Fundraising goals for our *EDUCATION and TRAINING* work

- **Climate Across the Curriculum** – Secure **\$40,000 annually** to expand faculty participation and instructional development in climate integration. Every \$1,000 trains a faculty member who in turn reaches hundreds of students.
- **Graduate Student Support** – Raise **\$40,000 annually** to expand the Sustainability Leadership Fellows program to include a separate cohort designed for master's students.
- **Sustainability and Climate Fellows Program** – Launch a paid summer fellowship program placing students with local governments, nonprofits, and sustainability-oriented companies (**\$100,000 annually for 10 fellows**).
- **Climate Change and Society Major Launch** – Raise **\$100,000 for teaching support** and **\$150,000 for advising infrastructure** during rollout (**\$250,000 total one-time need**).
- **Graduate Certificates and Master's in Sustainability** – Identify seed funding to launch new graduate credentials, with tuition revenue supporting long-term sustainability (**\$1,000,000 to seed a new and innovative program**).

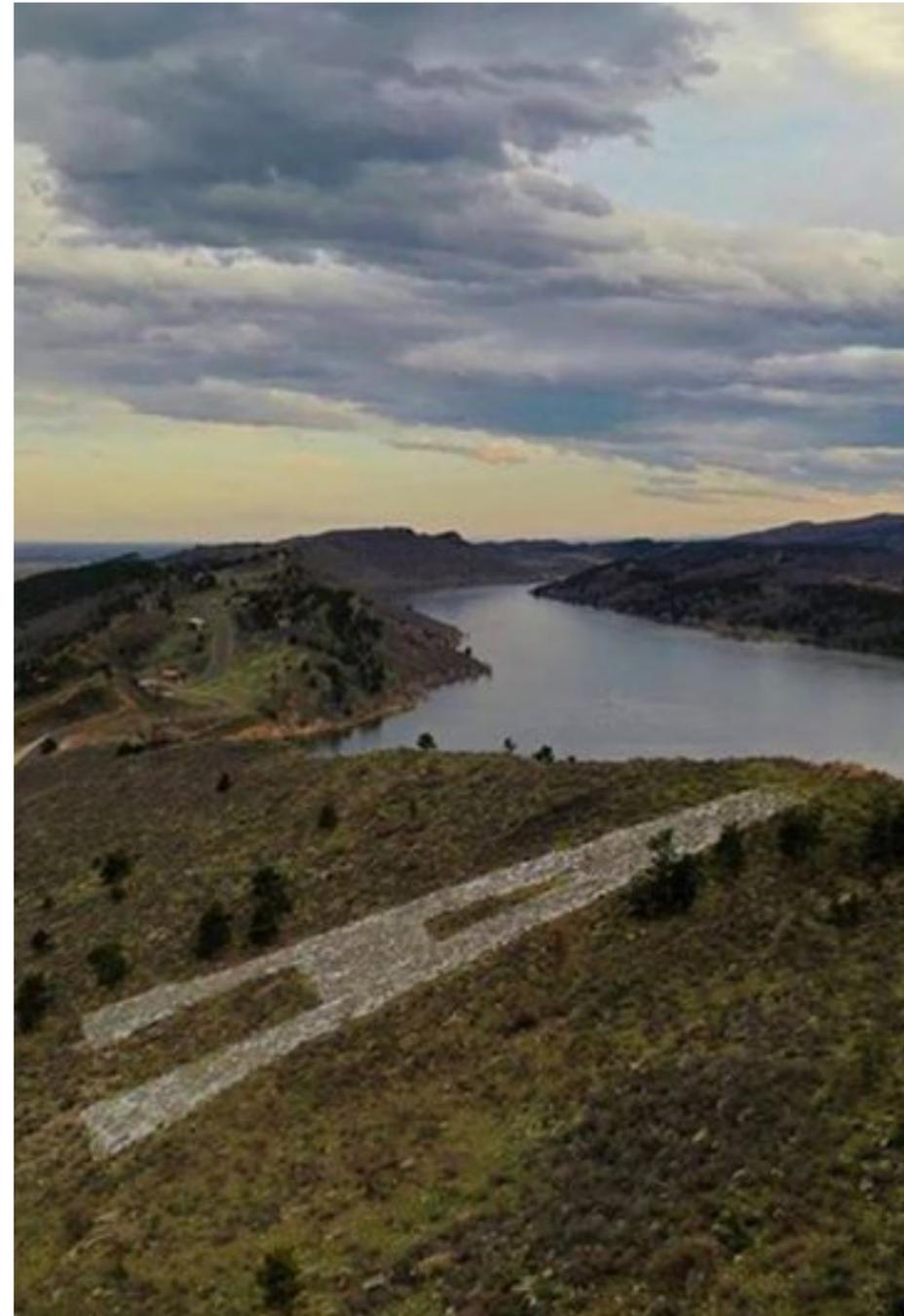
## Fundraising goals for our *OUTREACH AND ENGAGEMENT* work

- **Sustainability Colloquium Series** – Raise **\$30,000 annually** to bring high-profile speakers, foster interdisciplinary dialogue, and expand public engagement.
- **Community Engagement** – Through smaller donations, raise **\$10,000 annually** to support SoGES events, which draw an average of 4,000 attendees each year, and strengthen our role in connecting CSU to Colorado communities through the Climate Hub at Spur.

# FINANCE REPORT

## School of Global Environmental Sustainability

Description	Budget	Expenses	Credits
FY 25 BASE BUDGET	\$1,164,048.00		
<b>Salaries</b>			
Interim Director, Director, Associate Director		\$305,683.00	
Staff		\$477,419.00	
Student Hourlies		\$7,220.00	
<b>Salaries Total</b>		<b>\$760,322.00</b>	
<b>Program Activities</b>			
<b>Research</b>			
Global Challenges Research Teams (awarded \$30,000)		\$40,000.00	
Resident Fellows		\$50,000.00	
<b>Total</b>		<b>\$60,000.00</b>	
<b>Sustainability Leadership Fellows program</b>			
Science Communication Workshop, Trainings, and Year Operations and Supplies		\$28,846.00	
<b>Total</b>		<b>\$28,846.00</b>	
<b>Global Soil Biodiversity Initiative</b>			
Operating and salaries (travel, workshops, etc.)		\$62,536.00	
<b>Total</b>		<b>\$62,536.00</b>	
<b>Education</b>			
GES Traditional and Online Courses (Professors, GTAs, tuition, supplies, etc.)		\$167,890.00	
Sustainability Curriculum Innovation Grants (awarded \$50,000)		\$50,000.00	
<b>Total</b>		<b>\$217,890.00</b>	
<b>Student Sustainability Center</b>			
Salaries		\$7,185.00	
Operations and Events		\$2,438.00	
<b>Total</b>		<b>\$9,623.00</b>	
<b>Program Activities Total</b>		<b>\$408,895.00</b>	
<b>General Administration</b>			
Supplies		\$11,020.00	
Operating Charges (Events, Phone, Data, Etc.)		\$67,145.00	
Travel		\$11,409.00	
<b>General Administration Total</b>		<b>\$89,574.00</b>	
<b>EXPENSE TOTAL</b>		<b>\$1,258,791.00</b>	



## School of Global Environmental Sustainability (cont.)

Description	Budget	Expenses	Credits
<b>Miscellaneous Income</b>			
1x Monies			\$57,911.00
1x Monies from Presidents Office and Presidents Sustainability Commission			\$50,000.00
Differential Tuition			\$28,927.00
FY24 Carryforward			\$200,934.00
Salary savings from external and internal CSU grants/awards			\$43,696.00
Misc out to other departments		\$40,000.00	
<b>Balance for Future Commitments in FY 26</b>			<b>\$246,725.00</b>

*\*significant carryover in FY25 due to major staffing changes and vacancies at SoGES*

## CSU Climate Initiative

Description	Budget	Expenses
FY 25 BASE BUDGET	\$227,960.00	
<b>Salaries</b>		
Director and Leadership Team		\$113,306.00
Staff		\$51,824.00
Student Hourlies		\$5,588.00
<b>Salaries Total</b>		<b>\$170,718.00</b>
<b>Education</b>		
CLMT traditional and Online Courses (Professors, GTA's, tuition, etc.)		\$30,643.00
Climate Across the Curriculum		\$14,495.00
Curriculum Innovation Grants		\$14,887.00
<b>Total</b>		<b>\$60,025.00</b>
<b>Program Activities Total</b>		<b>\$230,743.00</b>
<b>General Administration</b>		
Supplies		\$1,635.33
Operating Charges (events, rentals, etc.)		\$14,758.00
Travel		\$9,810.00
<b>General Administration Total</b>		<b>\$26,203.33</b>
<b>EXPENSE TOTAL</b>		<b>\$256,946.33</b>
Balance will be covered in FY26		(\$28,986.33)



**SCHOOL OF GLOBAL  
ENVIRONMENTAL SUSTAINABILITY  
COLORADO STATE UNIVERSITY**

The School of Global Environmental Sustainability thanks the Colorado State University community and our external partners for their support! As we enter a new year, we look forward to connecting with new partners inside and outside of CSU. If you have any questions, suggestions, or want to contribute to SoGES' work, please visit our website.

Website: <https://sustainability.colostate.edu>