The Resilience Gap:
How Campus Climate Plans Fail to Address Health, Equity and the Underlying Drivers of the Climate Crisis

Center for Biological Diversity

May 2026

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Executive Summary

Climate planning empowers colleges and universities to take responsibility for their contributions to the climate crisis. It builds resilience in the face of increasing threats from extreme weather, wildfire, floods, and other climate-related disasters. As climate plans attempt to address their community's needs, they can either perpetuate existing inequities or help dismantle them.

Rising greenhouse gas emissions, and the resulting extreme weather events, affect us all but fall disproportionately on women, trans and nonbinary people, and Black, Indigenous and people of color. Climate plans must explicitly address these inequities — and their upstream drivers — in order to counteract them.

Not doing so means failing to take care of communities, leaving behind vulnerable populations, unnecessarily increasing pressure on health and social service infrastructure during disasters, and weakening the overall fabric of campus communities.

To learn if college and university climate plans include the disparate harms and underlying causes of the climate crisis, the Center for Biological Diversity reviewed 14 higher education climate plans from colleges and universities across the United States with wildlife mascots. In the wild, many of these species are facing the threat of extinction due to habitat loss and climate change. Climate plans were analyzed for their inclusion of several key issue areas along with often overlooked Scope 3 emissions that intersect with the impacts of the climate crisis.

Three main themes emerged: Equity in climate planning, health and education, and underlying drivers of climate change. The plans were analyzed for the frequency and strength of their inclusion of the following topics: gender, race, vulnerable populations, population growth, consumption, pollution, family planning and sustainability education.

Key Findings

- Considerations of gender and racial inequity are noticeably lacking in university climate plans with only three of the analyzed plans referencing these issues. Reproductive health isn't mentioned in any of the analyzed university climate plans, despite its importance to public health, gender equity and resilience in climate disasters.
- There is an uneven inclusion of upstream actions like lowering consumption, addressing indirect and embedded emissions related to procurement and other campus activities (Scope 3 emissions), or recognizing how population growth affects efforts to mitigate and adapt to the climate crisis. Only nine plans note population or growth as a concern. Thirteen plans mentioned consumption.
- The majority of the university climate plans analyzed failed to fully account for health considerations in climate planning through cross-sector partnerships or planning efforts.

There's a growing body of research showing that gender and racial inequity are exacerbated as the climate crisis worsens. The absence of these issues from university climate plans mirrors their lack of representation in municipal climate plans, as seen in the Center's 2022 report, Gender and the Climate Crisis: Equitable Solutions for Climate Plans.

Key Recommendations

By adopting the recommendations below, universities can create comprehensive and effective climate plans that address the multifaceted challenges of climate change and build stronger communities and healthier environments that meet the needs of all populations.

- **Support and invest in comprehensive climate planning.** Universities, along with public and private funders, should support the development, implementation, and more frequent updating of campus climate plans, including funding opportunities that prioritize environmental justice, climate resilience and community

engagement. Climate plans should be regularly reviewed and updated to reflect new data, goals and best practices. Some of the plans analyzed in this report were updated within the past year, while other institutions have not updated their climate plans in five to 10 years or more. Climate planning should also include regular reporting about the institution's progress toward their stated climate goals.

- **Expand education and training on climate, equity and health.** Universities should provide training for faculty, staff, and administrators on the links between climate change, social inequity, and public health, ensuring that climate planning efforts are informed by interdisciplinary knowledge and best practices and work to address the underlying issues.
- **Ensure inclusive and cross-sector climate governance.** Climate planning should include representatives from environmental sustainability, campus operations, and health services, as well as students, staff, and community members who are most affected by environmental harm. Recognizing the interconnected nature of climate, health and equity can help universities design more effective and just climate strategies.

Issue Area	Results
I. Equity in Climate Planning	
Gender	Three of the 14 plans mentioned gender. However, none of the plans included strategies to mitigate gender inequity.
Race	Three of the 14 plans mentioned race. However, none of the plans included strategies to mitigate racial inequity.
Vulnerable populations	Five of the 14 plans mentioned vulnerable populations. Only two included strategies to address disproportionate impacts on vulnerable populations.
II. Health and Education	
Pollution	Ten of the 14 plans mentioned pollution. Seven plans included actions to alleviate the effects of pollution.
Family planning	None of the 14 plans mentioned family planning or included actions to improve access to reproductive health resources on campus.
Sustainability education	Thirteen of the 14 plans mentioned environmental or sustainability education. Eight plans included making environmental curriculum available on campus.
III. Underlying Drivers of Climate Change	

Issue Area	Results
Population/ Growth	Nine of the 14 plans mentioned population growth as a concern. Five plans included actions to address the impact of their growing campus population. None acknowledged global population growth.
Consumption	Thirteen of the 14 plans mentioned consumption and included actions to shift energy and food consumption.

Introduction

Cities, states, countries, universities and other institutions develop climate plans (alternatively called climate action plans, sustainability plans, or other similar terminology) to outline steps to mitigate and adapt to the effects of climate change and create community resilience.

With the enormous influence colleges and universities have on the lives of young people, local economies, communities, and healthcare, food, and energy systems, campus climate plans present a unique and significant opportunity to influence the direction of climate action to ensure a just and sustainable future.

The Association for the Advancement of Sustainability in Higher Education (AASHE) tracks and assesses university sustainability initiatives, including climate plans, through a self-reported framework called the Sustainability Tracking, Assessment, and Rating System (STARS).

There are currently 387 institutions of higher education worldwide with an active STARS rating. Institutions receive points for having a public commitment to sustainability, including a publicly available climate or sustainability plan. They also receive points for having a measurable goal that addresses stakeholder engagement and for addressing racial equity and social justice.

Since 2017 more than 400 U.S. colleges and universities have signed on to the We Are Still In declaration, committing to continued climate action to meet the international plans laid out in the Paris Agreement — whether the U.S. government remains a signatory of the agreement or not.

Globally there are 1,155 colleges and universities from 80 countries committed to achieving net-zero emissions by 2050. Of these 334 are in the United States.

The importance of building resilience in the face of the climate crisis extends far beyond campus boundaries. For example, the wildlife megafauna represented by common university mascots like lions, tigers and bears face increasing threats due to climate change. These species are dealing with habitat loss, changing prey dynamics, and altered migratory patterns driven by the climate crisis. As temperatures rise and weather patterns become more unpredictable, the ecosystems that support these — and countless other — wild animals are destabilized. This not only jeopardizes their survival but also disrupts the ecological balance they help maintain. Protecting our university mascots in the wild necessitates urgent climate action.

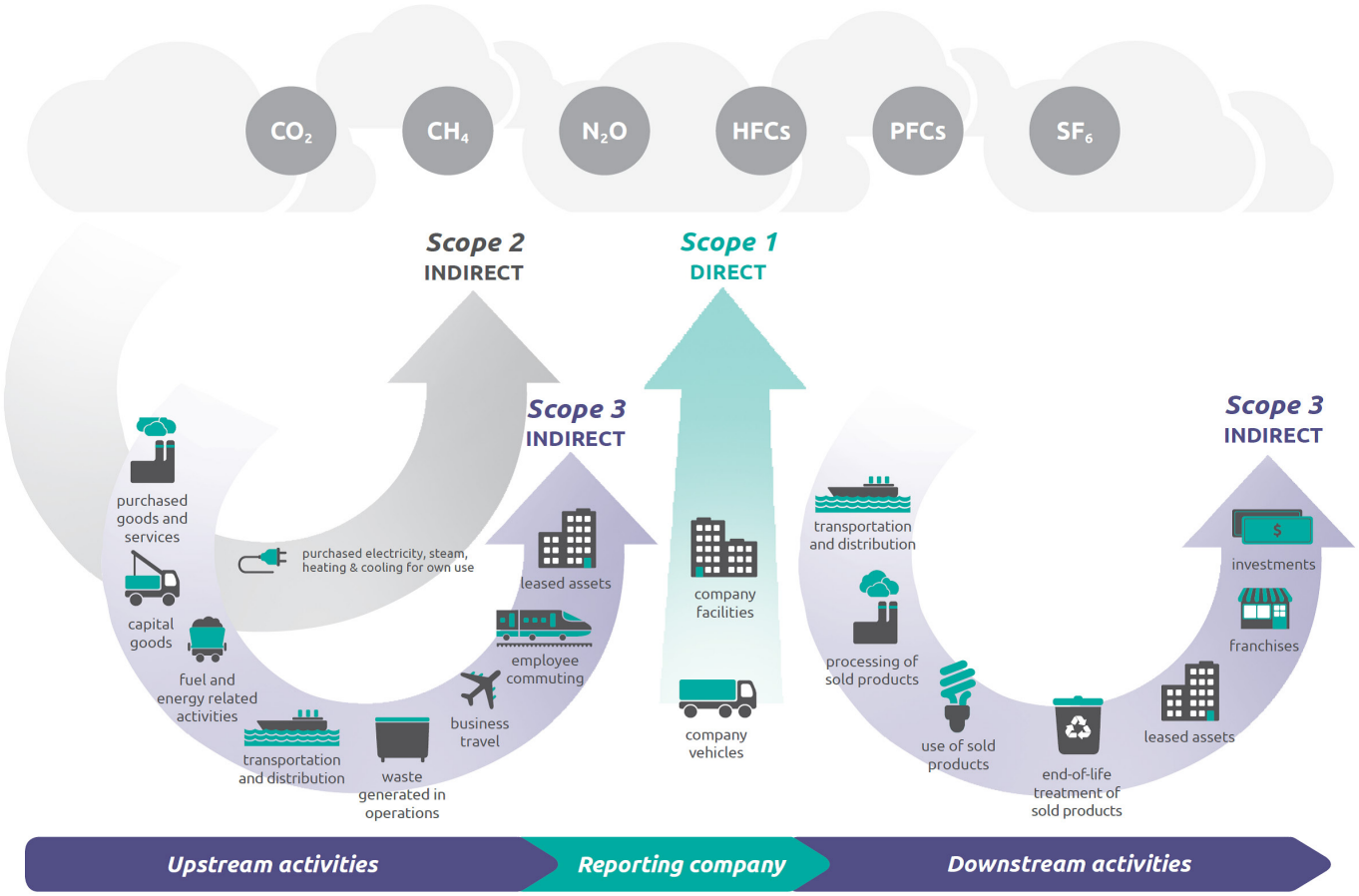
Mitigation efforts seek to lessen the effects of climate change by tackling issues at the source, such as implementing renewable energy or sustainable transportation systems. Adaptation efforts are reactive to climate change, such as disaster preparedness or infrastructure adjustments to help with flooding or drought.

Most climate plans address only Scope 1 and Scope 2 emissions. Scope 1 emissions are direct GHG emissions from sources controlled by the entity (e.g., campus-owned van idling or gas used to heat buildings). Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity.

Scope 3 emissions— those often left out of climate plans — are the result of activities from assets not owned or controlled by the institution but that the institution indirectly affects through purchased goods, employee commuting, or pension fund holdings. For institutions like colleges and universities, Scope 3 emissions are often the largest category, even surpassing the total Scope 1 and 2 emissions combined.

As a result, only examining direct emissions doesn't fully capture the emissions an institution is responsible for or how these emissions further the climate crisis and negatively impact their campus community. Climate plans that focus narrowly on Scope 1 and 2 emissions or traditional sustainability indicators fail to fully prepare campuses and universities for the shocks of climate disasters.

Climate disasters affect the entire campus community, but women, trans and nonbinary people, and Black, Indigenous and people of color are more likely to experience the worst outcomes and face greater barriers to recovering from them. Comprehensive climate planning means addressing the intersections of health, social inequities, and the environment. Understanding how these issues affect each other and are influenced by economic and cultural factors will help colleges and universities lead the way in making climate solutions more accessible and equitable.



The Powerful Role of University Climate Plans

To effectively address the multifaceted challenges of climate change, climate planning must be interconnected and comprehensive. By focusing on reducing emissions while also promoting equity and healthcare access, institutions can address climate challenges at both local and global scales.

Universities are uniquely positioned to lead in this endeavor. They function as microcosms of society while facing global challenges like climate change, allowing them to showcase practical applications of interconnected climate initiatives within their campuses.

By leveraging their resources and expertise, universities can experiment with solutions that address climate issues, serving as experimental sites for ideas that can be scaled up to tackle broader global challenges. This approach not only demonstrates feasibility but also encourages students and researchers to explore and implement alternative strategies essential for a sustainable future.

University climate plans often serve as the first encounter students have with organized climate planning efforts. This initial interaction presents an opportunity to engage students in meaningful ways as key stakeholders and future community leaders. By involving them in the development and implementation of these plans, universities can ensure that the processes and outcomes represent the diverse interests and needs of their student populations, particularly those disproportionately affected by climate change. This can help align university climate plans with existing policies and commitments to increase equity and inclusivity.

Students' experiences of climate-related harms depend on a range of factors, including not just gender and race, but also geographical location, healthcare access, and economic resources. Those most affected are typically the lowest contributors to GHG emissions. Climate plans can enhance community resilience by integrating the perspectives of these communities and providing targeted support.

Empowering students to take part in climate action enriches their educational experience and helps cultivate a community of informed and active citizens dedicated to building a healthy, sustainable and equitable world.

Many colleges and universities are facing enormous pressure to eliminate Diversity, Equity and Inclusion programs or face federal funding cuts. At the same time, climate action and science are under attack. While these challenges may create significant barriers for many institutions, they only increase the urgency of responding to the climate crisis and building safe, resilient campus communities.

Data Selection And Methodology

Twenty-two U.S. colleges and universities with wildlife as their mascots were analyzed in this report. Many of the bears, large cats, reptiles, and insects represented by these mascots are facing the threat of extinction due to habitat loss and climate change.

Our research included an exhaustive website review of the 22 schools between February and March 2026. Only 14 of the 22 schools that fit our criteria had official, publicly available climate plans published between 2010 to 2026. Those without climate plans were subsequently removed from the analysis.

- Auburn University Tigers (no climate plan)
- Baylor University Bears (no climate plan)
- Boston College Eagles (no climate plan)
- Clemson University Tigers
- Georgia Institute of Technology Yellow Jackets
- Kansas State University Wildcats (no climate plan)
- Louisiana State University Tigers (no climate plan)
- North Carolina State University Wolfpack
- Northwestern University Wildcats
- Pennsylvania State University Nittany Lions
- Texas Christian University Horned Frogs (no climate plan)
- University of Arizona Wildcats (no climate plan)
- University of California, Berkeley Golden Bears
- University of California, Los Angeles Bruins
- University of Colorado Boulder Buffaloes
- University of Iowa Hawkeyes
- University of Kentucky Wildcats
- University of Maryland Diamondback Terrapins
- University of Michigan Wolverines
- University of Missouri Tigers (no climate plan)
- University of Pittsburgh Panthers
- Washington State University Cougars

These findings should be understood as a snapshot intended to highlight broad trends rather than an implication of any specific institution. Climate planning should be a dynamic process that reflects changing campus communities and emerging knowledge about effective climate action.

To better understand how equity in climate planning, health and education, and underlying drivers of climate change appeared in university climate plans, a set of criteria for analysis was developed. These criteria were designed to explore each issue's definition as well as its practical implications for climate action and building resilience to climate change.

Merely mentioning the issue doesn't indicate commitment or action, so we also assessed whether each issue area is acknowledged, whether the college has plans to address it, or if the issue is already being addressed. The table below outlines how each issue was evaluated for its inclusion in the climate plans analyzed. More detailed tables can be found on the webpage.

Criteria for each issue area	Keyword appears in text	Defines, acknowledges or references the importance of the issue	Outlines steps they plan to take to address the issue	Includes actions they are currently taking to address the issue

Part I: Equity In Climate Planning

The gendered impact of the climate crisis often goes unaddressed, but the data is stark. Women and girls are 14 times more likely than men to be killed or injured as a result of climate crises and natural disasters, and they account for 80% of those displaced in climate disasters. This creates added instability for female students both on campus and back home.

Due to the gender pay gap, women may have fewer resources to rely on during crises, and they lose their jobs more often than men after natural disasters. Since nearly half of college students in the United States are employed, this disparity is concerning for female students who may experience employment disruptions while working to pay for tuition.

According to the Association of American Universities, nearly 17% of undergraduate and graduate students identified as gay, lesbian, bisexual, asexual, trans, nonbinary, queer or questioning. Studies have shown that trans and gender-nonconforming individuals experience higher poverty rates, lower income, and lower employment rates due to discrimination compared with their cisgender peers.

As a result, they often live in lower-income neighborhoods disproportionately affected by the climate crisis. One study showed that pregnancies are more common among lesbian, gay, and bisexual youth than their heterosexual peers because of healthcare discrimination, stigma, lack of resources, and fewer connections to family and school — a problem that's compounded during climate emergencies when access to healthcare may be compromised.

The history of racism and discrimination in the United States means that climate disasters fall especially hard on Black, Brown, and Indigenous people. Communities of color face poor health outcomes as a result of redlining, and industry polluters are often located in their neighborhoods.

These environmental injustices and associated poor health outcomes follow people even when they move away to college or university. According to the United Negro College Fund's Blueprint to Activate Historically Black Colleges and Universities Leadership in Climate Change and Sustainability, about 60% of Black Americans live in the Southeast, where exposure to heat, hurricanes, and flooding is high.

HBCUs have an emphasis on interdisciplinary knowledge and lived experience and a history of community engagement, values which align with prioritizing sustainability and furthering environmental justice. For example, Spelman's climate plan (which was not included in this analysis) has a strong emphasis on the intersection of race, gender and class, stating "climate is not gender neutral."

Including gender and racial inequity in climate plans allows for a more comprehensive examination of the systemic injustices and disparities that impact marginalized communities, particularly as they face the burden of climate-related disasters and pollution. Climate plans should highlight the need to address root causes and prioritize equitable solutions rather than simply acknowledging gender and racial differences.

Climate plans can help alleviate these inequities by providing a clear and inclusive framework that empowers communities to lead and benefit from a more sustainable future.

Results

Table 1: Equity keywords and strength of inclusion in climate plans.*

Keywords searched	Results
Gender, gender-sensitive, gender identity, gender roles, gender justice.	Three of the 14 plans mentioned gender. However, none included strategies to mitigate gender inequity.
Race, racial inequity, racial justice, racism, marginalized, diversity, racial equity.	Three of the 14 plans mentioned race. However, none included strategies to mitigate racial inequity.
Vulnerable, vulnerable populations, climate vulnerability, marginalized.	Five of the 14 plans mentioned vulnerable populations. Only two included strategies to address disproportionate impacts on vulnerable populations.

*Merely mentioning the term doesn't indicate commitment or action, so we also assessed whether the issue is acknowledged, the college has plans to address it, or if the issue is already being addressed.

Gender

Only three plans mention gender directly. University of Colorado Boulder mentions that "climate change and climate change mitigation differentially affect individuals and communities based on socio-economic status, race and ethnicity, ability, gender, sexual identity, nationality, geographic location, and a host of other factors."

None of the plans include ways in which they are currently working or plan to work to mitigate gender inequity in climate planning, although several do refer to overarching efforts to incorporate justice, equity, diversity, and inclusion into sustainability work without explicitly outlining actions related to gender. The oversight of gender demonstrates a failure of institutions of higher education to properly plan for the disproportionate impact of climate disasters and to create campuses that are truly resilient.

Race

Only three plans mention race directly. NC State mentions diversity including "ethnicity, race, national origin, age, gender, sexual orientation, socioeconomic background, religion, and disability" in its Guiding Principles for the Culture of Sustainability.

None of the plans mentioned ways in which they are currently working to mitigate racial inequity in relation to climate planning. As with gender, there are several plans working to incorporate Justice, Equity, Diversity, and Inclusion principles more broadly into sustainability programming.

Without actions to specifically address racial inequity in climate planning, universities and colleges fail to effectively support their BIPOC students, staff and faculty and act as forces for environmental justice. This additionally creates a harmful knowledge gap about the role of systemic racism in environmental harm and the potential of equitable interventions when preparing for climate disasters.

Vulnerable Populations

Some schools have begun initiatives to aid vulnerable communities on campus more broadly. For example, the Georgia Tech Climate Vulnerability Index, developed as part of the Georgia Tech Climate Action Plan, evaluates how climate hazards — such as extreme heat, drought, flooding, high winds, poor air quality, and vector-borne diseases — could affect campus infrastructure, operations, and overall community health.

The Vulnerability Index also assesses the resulting impact on people and vulnerable populations. However, the neglect of vulnerable populations in the majority of university climate plans analyzed highlights a significant oversight in addressing health and sustainability in an equitable way. Failure to consider the specific needs of marginalized communities perpetuates injustices and misses opportunities for inclusive and effective climate solutions.

Recommendations

Colleges and universities should take the following steps to support the inclusion of equity in climate planning:

- **Implement an inclusive, participatory process for climate planning that involves people who are disproportionately harmed by the climate crisis.**

  Inclusive decision-making processes are essential to effective climate planning, ensuring that the voices of those most affected — particularly marginalized communities — are heard. To achieve this, universities should establish advisory boards that include representatives who are gender diverse and racially diverse, disabled, and from low-wealth groups to guide climate action strategies. Additionally, providing accessible resources and support for these communities to participate actively in the planning process is crucial.

- **Address gender and racial inequity as public health issues within climate plans.**

  Universities should develop specific initiatives that address the unique vulnerabilities faced by women — particularly women of color — during a climate disaster such as addressing power dynamics and investing in public health infrastructure. Implementing gender-responsive policies and collecting gender-sensitive data in climate projects ensures that resources are allocated equitably and effectively. Universities can participate in United Negro College Fund climate hubs or the American Indian Higher Education Consortium climate resilience network with the National Oceanic and Atmospheric Association. Centering racial justice and meaningfully engaging with affected communities is critical in all aspects of health and climate policy and planning.

Including gender empowerment initiatives in climate plans is not without precedent. The first internationally recognized Climate Change Gender Action Plan (ccGAP) was adopted at the 23rd UN Framework Convention on Climate Change, Conference of the Parties (COP23) summit in 2017. It emphasized that women face greater risks when it comes to the effects of climate change but also have unique skills that allow them to contribute greatly to mitigation and adaptation efforts. In 2025 a new climate change Gender Action Plan was adopted at COP30. When colleges and universities invest in women and girls, communities are healthier, democracies are more stable, economies are stronger, and society and individuals are more resilient to climate change.

- **Offer resources that provide direct support for students, faculty, staff and campus community members most affected by climate change.**

Climate resilience hubs on campuses can provide resources, education, and support services tailored to the needs of diverse populations, enhancing everyone's ability to withstand and recover from climate shocks. For example, sexual health emergency preparedness kits give people the tools to face disruptions in reproductive healthcare that may be caused by climate-driven disasters. Cultivating mutual aid networks, community gardens, free stores, and distribution plans for critical items like fans and air conditioners can prepare your community to quickly get help to those who need it most in an emergency. Developing programs

that offer emergency preparedness training, mental health support, and access to safe housing during such emergencies can significantly bolster resilience.

Case study: The Green Initiative Fund at University of California, Berkeley (Golden Bears)

In 2007 the University of California, Berkeley started The Green Initiative Fund (TGIF) to provide funding for student, faculty, and staff-led projects that improve campus sustainability efforts. UCLA has a similar TGIF fund. Established by student leaders and funded through a student fee, TGIF supports initiatives related to energy efficiency, sustainable transportation, habitat restoration, waste reduction, and environmental justice. Managed by a committee of students, faculty, and staff, TGIF also funds educational programs, student internships, and behavior change initiatives.

At UC Berkeley TGIF typically funds about 20 projects per year and has distributed over $5 million to 336 projects since its start. In 2024 its grants supported numerous projects focused on improving gender and racial equity. This included an initiative titled, Cultivating Equity for a Just Future (CEJF): Empowering Latinx Students Through Sustainable Research, which provides educational workshops, presentations, and a paid summer research opportunity for Latino students and those of color in the field of sustainability and environmental justice.

The 2024 fund also supported the BIPOC Earth Day Festival, which shines a spotlight on conversations about environmental justice; the Island Justice Fellows Program, which provides funding to address gaps in scholarship on the Pacific Islander region and in on-campus representation of Pacific Islander communities; the Sustainable Menstrual Products Program, providing free eco-friendly period products on campus; and the Queer Indigenous Speaker Series, exploring the intersections of indigeneity and queerness in activism and sustainability.

For more details please visit The Green Initiative Fund's website.

Part II: Health And Education

Endless growth destroys habitat, pollutes our environment, and worsens climate change. This is devastating for wildlife and has a wide range of negative human health outcomes from infectious diseases and poor nutrition to poor water quality and sanitation. Pollutants are often one of the most direct, visible environmental harms in a community and one that climate plans can help mitigate.

The health effects of our fossil fuel economy can be seen everywhere — in early-onset cancer diagnoses, fertility problems, and high rates of asthma and other respiratory diseases. And yet the connection between health and environmental harm rarely gets the attention it needs.

Climate change specifically affects reproductive health with concerning implications for the majority of students who are of reproductive age. The increase in the frequency, intensity, and duration of heat waves increases the likelihood of pregnancy complications. Pregnant people experience a much higher risk of preterm birth, low birth weight, and stillbirths during heat waves. Systemic inequities like housing discrimination, medical racism, and poverty also compound the effects of extreme heat and worsen disparities in maternal health for Black and Hispanic women.

In the aftermath of extreme weather and climate disasters, healthcare — including reproductive healthcare — is often disrupted. Health clinics may close for a few days, weeks, or even months, forcing people to travel further to access basic care. People have a harder time accessing contraception, they may delay plans to get pregnant, or they may lose the home and community where they planned to raise their children.

These impacts are more severe when people haven't received comprehensive, medically accurate sex education. According to the National Center for Health Statistics, only about half of teens aged 15-19 reported that they had received sex education that supports adolescent health outlined by Healthy People 2030. As a result many young adults rely on colleges and universities to provide them with resources and education on reproductive and sexual health, empowering them to understand their reproductive health choices.

Project Drawdown, a nonprofit leader working to reduce emissions, identifies gender equity and empowerment initiatives as two important climate mitigation and adaptation strategies. When people have access to healthcare, education beyond high school, and economic opportunity, they tend to delay starting families, have fewer and healthier children, and are more likely to actively manage their reproductive health.

There are also many co-benefits to improving health and education (from formative education to sex education and green job training), such as positive social outcomes like improved housing, environmental stewardship, economic stability and political engagement. General sustainability and climate education, when combined with access to healthcare and systemic changes, can empower people to improve their environmental health outcomes. University climate plans present an opportunity to proactively advance health and equity to build a stronger and more just society.

Results

Table 2: Health and education keywords and strength of inclusion in climate plans.*

Keywords searched	Results
Pollutants, pollution, environmental health, contaminants.	Ten of the 14 plans mentioned pollution. Seven plans include actions to alleviate the effects of pollution.

Keywords searched	Results
Family planning, contraception, reproduction, reproductive justice, reproductive health, menstrual.	None of the 14 plans mentioned family planning or actions to improve access to reproductive health resources on campus.
Education, sustainability education, outreach, curriculum.	Thirteen of the 14 plans mentioned environmental or sustainability education. Eight plans included making environmental curriculum available on campus.

*Merely mentioning the term doesn't indicate commitment or action, so we also assessed whether the issue is acknowledged, whether the college has plans to address it, or if the issue is already being addressed.

Pollution

Many plans noted the harmful effects climate change will have on the wellbeing of people and the planet, including 10 plans that specifically reference pollution. Penn State highlights that the direct public health effect of carbon emissions is greater than smoking, noting that fossil fuel production and use emits pollutants that impair lung function and cause asthma, lung cancer, cardiovascular disease, strokes, preterm birth, and reduced neurological function.

Half of the plans, however, failed to adequately address public health concerns, many of which disproportionately affect women and gender diverse people, effectively ignoring the existence of pollutants, opportunities to alleviate them, or ways the university may already be working to mitigate harmful health impacts to students and the larger community.

Family Planning/Contraception

None of the plans mentioned family planning, which includes access to all forms of contraception and universal reproductive healthcare including abortion, as a climate adaptation or mitigation solution.

Reproductive healthcare access, whether provided through the campus health centers or a community clinic, improves resilience and bodily autonomy, addresses population pressure, empowers individuals, and promotes social justice. The Center's 2023 Campus Health Clinic Scorecard — Wildlife Edition, which assessed the same universities as this report, showed that only two out of the 22 campus health clinics analyzed provided a full range of contraception methods from condoms to sterilization.

The absence of reproductive healthcare from university climate plans fails to recognize the intersection of health and the environment or meet the needs of students, especially those who might be disproportionately affected by limited access to healthcare. Including contraception in climate planning has additional long-term benefits: Research shows that expanded access to contraception can increase college graduation rates by 12%.

Sustainability Education

The majority of the climate plans included efforts to educate the campus community about sustainability through comprehensive outreach programs, student-led activities, and on-campus tours and activities.

Just over half the plans indicated that environmental and climate education is prioritized throughout their academic course curriculum. For example, Georgia Tech noted that it has been working to blend STEM disciplines with arts, humanities, and social sciences, enriching the curriculum in fields aligned with the UN

Sustainable Development Goals, and forging innovative multidisciplinary academic pathways.

Prioritizing environmental and sustainability education across campus and throughout academic courses sets students up for success on a rapidly changing planet. Cross-program sustainability education can also play an important role in making connections between on- and off-campus sustainability efforts, healthcare access (and other social support mechanisms) and environmental health outcomes.

Recommendations

Colleges and universities should take the following steps to support the inclusion of health and education in climate planning:

- **Create campus programs and policies that decrease greenhouse gas emissions and make connections to improving student, staff, and faculty health and well-being.**

  Transitioning from fossil fuels to renewable energy through rooftop solar and switching the campus fleet to electric vehicles are important first steps to decrease campus GHG emissions. These shifts, in addition to increasing campus reusables versus single-use plastic and moving from meat-based menus to serving more nutritious plant-based meals in dining halls, are not only good for the environment but also people's health.

  Decreasing the need for virgin raw material through more sustainable consumption throughout procurement and operations can additionally decrease embedded GHGs, reduce waste, and save money.

  Science departments can create a green lab program to lower energy, water, and material usage through freezer efficiency and best sustainable practices for fume hoods while maintaining a safe lab for effective scientific research.

  Steps to decrease campus GHGs can also improve the health and well-being of students, staff and faculty through lowered exposure to pollution, highlighting the importance of including health messaging within sustainability programs.

- **Work with campus health centers to provide sexual- and reproductive-health education and services, including period products, family planning, contraception, and abortion support as part of the climate planning process.**

  Promoting family planning and contraception is crucial for climate resilience and to address the disproportionate health impact of climate change on women. Addressing gender equity also means providing access to menstrual products to disrupt stigma and period poverty. Sex education empowers youth and ensures that students have access to the knowledge they need to make informed decisions about their bodies while on campus and during emergencies.

  Universities should establish policies that promote bodily autonomy and work to eliminate knowledge gaps that students arrive on campus with. Gender empowerment initiatives such as free period products, universal access to all family planning methods (e.g. the oral contraceptive pill, long-acting reversible contraception, condoms and emergency contraception), LGBTQIA+ inclusive, culturally responsive and medically accurate comprehensive sexual education, and affordable sexual and reproductive healthcare must be freely and widely available on campus.

  Additional gender empowerment solutions include supporting educational advancement opportunities for women and gender diverse people, building and/or protecting LGTBQIA+ and women's centers, creating equitable learning and employment opportunities for women and LGBTQIA+ individuals, and guaranteeing safety from harassment and violence. One study found that if family planning and gender empowerment strategies improved globally, annual GHG emissions would be 35% lower by 2100. Health, education, and climate planning go hand-in-hand.

- **Foster partnerships between campus health and environmental programs through the university climate planning process.**

  Improving communication and relationships between campus health and environmental programs can further highlight the intersections of public health and climate change, enriching the educational experience, supporting vulnerable populations, and creating breakthroughs in addressing these interconnected social issues.

  Partner with college-specific nonprofits like the Association for the Advancement of Sustainability in Higher Education to help educate students, staff and faculty on the inclusion of health and equity in climate plans. Ensuring equitable health outcomes requires integrating health considerations into climate strategies, addressing both environmental and healthcare disparities.

Case study: Center for Healthy Climate Solutions at University of California Los Angeles (Bruins)

UCLA's sustainability plan serves as a good approach to addressing environmental health concerns through a variety of initiatives. The university integrates planetary and human health into its sustainability efforts by reducing the environmental impact of UCLA Health's waste stream, expanding resiliency research, and promoting sustainable food systems with plant-forward menus. UCLA's Center for Healthy Climate Solutions works on mitigating health impacts related to climate change, such as assessing heat-related health risks in California. In part they achieve this through the creation of actionable policies. One is the development of wildfire recovery guidelines. These guidelines help communities safely reenter indoor spaces that may be contaminated by wildfire residue, addressing the health risks posed by exposure to harmful particles and chemicals after a wildfire. The guidelines are part of a broader effort to protect public health in the face of increasing climate-fueled wildfire incidents.

For more details, UCLA's sustainability plan can be found on their website.

Part III: Underlying Drivers of Climate Change

There are currently 8 billion people in the world, a number that has doubled in the past 50 years. The United Nations predicts that there will be 2 billion more people by 2050. This could grow even higher without efforts to expand reproductive rights and increase women's empowerment.

Every child born in the United States has an outsized impact on the planet. The country contains 5% of the world's population but uses 30% of all resources, creates 30% of all waste, and emits 15% of the world's carbon emissions.

The increase in global population has contributed to growth in per capita production and consumption and increased worldwide greenhouse gas emissions. The Intergovernmental Panel on Climate Change, says that most of the warming of the past 50 years is attributable to human activities, particularly emissions of GHGs from the extraction and burning of fossil fuels from high-income countries, and has identified population growth as an immediate driver of emissions.

It's estimated that there were 19 million U.S. college students in 2024. In 2022 the overall college enrollment rate for 18–24-year-olds was 39%. As host to these students, along with a large number of faculty and staff, campus emissions and resource demands mean that universities can have a significant influence in addressing the climate crisis.

> Population pressure should only be discussed through a human-rights lens based on principles of justice and equity. The Center for Biological Diversity strives to empower women, girls and families to make informed decisions about their reproductive health to achieve gender justice, improve resiliency and health outcomes, and reduce pressure on wildlife and the environment.

As noted above, the pressure of population growth on the climate is addressed through reproductive rights, education and equity, but this is a long-term mitigation strategy because demographic change takes time far beyond urgent emissions-reduction targets. However, these solutions are also important short-term adaptation strategies because they lead to improved healthcare, empowerment and other positive social outcomes.

Because endless growth — both population pressure and overconsumption — is a major driver of GHG emissions through burning fossil fuels, increased material extraction, deforestation, pollution from agriculture, and other manufacturing processes, it's important for colleges and universities to address endless growth in their climate plans.

These issues are complex and far-reaching, requiring the participation and collaboration of many people and organizations across sectors of society. Universities have a unique role to play, because — in addition to being responsible for so many young people who are just starting to face decisions about family planning and how to spend money — they sit at the crossroads of many related issues such as healthcare, city planning, and education.

Results

Table 3: Underlying driver keywords and strength of inclusion in climate plans.*

Keywords searched	Results
Population growth, environmental sustainability, population.	Nine of the 14 plans mentioned population/growth as a concern. Five plans included actions to address the impact of their growing campus population. None acknowledged global population growth.
Consumption, resources, GHGs, natural resources, plant-based food, food waste, food packaging, compost.	Thirteen of the 14 plans mentioned consumption and included actions to shift energy and food consumption.

*Merely mentioning the term doesn't indicate commitment or action, so we also assessed whether the issue is acknowledged, whether the college has plans to address it, or if the issue is already being addressed.

Population/Growth

While endless growth is unsustainable on a finite planet, many universities rely on growing their enrollment to remain operational. Growth usually translates into expanding the physical campus and total size of the student body. This can come at the expense of caring for the students, staff, faculty and wildlife who already share space on their campus.

The mention of growth in climate plans is often related to housing development and new infrastructure to support the expanding campus population. Recognition of this connection is important, as growth in population leads to more development and more GHGs, which continues to exacerbate climate change effects for both people and wildlife.

Some school climate plans committed to changes in how they manage their current infrastructure. Washington State University, for example, outlined innovative building management strategies aimed to curb material use amidst campus expansion. These include green practices like geothermal HVAC, natural lighting, habitat restoration, water-efficient landscaping, reflective roofing, educational signage, water-use efficiency, and waste management.

Consumption

Many of the climate plans outlined energy reduction efforts such as reducing campus fleet fossil fuel use, alternative lighting models and building design, and auditing water consumption to improve energy efficiency or reduce waste. For example, the University of Maryland's climate plan highlights behavior-change programs implemented to achieve a 3% decrease in electricity consumption from existing facilities between 2014 and 2020.

While several plans refer to composting programs, sustainable food packaging and food recovery efforts aimed at minimizing food waste sent to landfills and reducing associated emissions, few mention shifting procurement or dining hall practices to encourage plant-based eating. While addressing food waste and packaging are crucial steps, this is a vast oversight considering the outsized role that animal agriculture has on transforming wildlife habitats and driving the climate crisis.

Reducing consumption is widely recognized as a crucial aspect of combating climate change and almost all university climate plans incorporate strategies addressing it. However, there are notable differences in the strategies to address energy and food as two of the leading drivers of the climate crisis.

Recommendations

Colleges and universities should take the following steps to address growth in their climate planning:

- **Adopt policies that support sustainable land use on and around campus to increase community resilience while reducing the university's overall environmental footprint.**

  As campus communities grow and the number of people increases, universities should plan for compact development, mixed-use buildings, walkable and bike-friendly design, green infrastructure (including renewable energy, energy efficiency and water conservation), public transportation, open space preservation and ecosystem restoration. These considerations allow for campus expansion while minimizing environmental harm and improving quality of life for students, faculty, staff and wildlife. Plans can also set targets for sustainable practices that reduce demand like energy efficiency, water conservation, waste reduction, and public awareness campaigns among the campus community.

> Approximately 40% of global GHG emissions are attributed to buildings, encompassing both their construction and operation phases.

- **Adopt procurement policies to reduce consumption and increase access to sustainable options on campus to address Scope 3 emissions.**

  Addressing consumption not only reduces GHG emissions but can help prevent deforestation, conserve water, alleviate pollution, and protect biodiversity. University climate plans can help shift procurement policies to make lower-emission options the default on campus, such as reducing meat and dairy purchases through default plant-based menus in cafeterias.

  By prioritizing conscious consumption, universities can minimize their overall ecological harm. This includes requesting more cooperatively owned renewable energy, requiring the use of used surplus property before purchasing new, and switching from single-use plastics to reusables. Encouraging a culture of sustainability through initiatives that prioritize reuse, repair, and sharing over new purchases (e.g. campus move-out programs, libraries of things, and free or thrift stores on campus) will help reduce the environmental impact of university operations and foster a community committed to sustainable living.

Case study: CU Population Center at University of Colorado Boulder (Buffaloes)

The Population Program at University of Colorado Boulder is an interdisciplinary track that provides educational experiences and research opportunities for undergraduate and graduate students on population and demography. It houses the CU Population Center where research is conducted at the intersections of population, fertility, access to reproductive healthcare, climate change and the environment, and migration. With projects at the local, national, and international scale, this kind of research is critical to understanding how best to adapt to the changing climate and how healthcare interventions started today can contribute to well-being and stability decades down the road. The CU Population Center is partnering on the Colorado Fertility Project (CFP), which has been studying the impacts of state-level reproductive policy changes on the lives of women in Colorado and Texas since 2017, particularly how access to family planning programming relates to fertility, education and economic outcomes. For more details please visit the Population Program website.

How Climate Plans Can Challenge Endless Growth

Endless growth is the idea that we can and, in some cases, should grow indefinitely. It relies on the continued extraction of water, minerals, fossil fuels, or other energy sources to fuel the expansion of human development, production and consumption — including on college campuses. Ever-increasing pressures on the environment are exacerbated by the excessive overproduction and overconsumption patterns of wealthy countries that are out of step with the realities of the climate crisis. These pressures intensify food and water shortages, strain biodiversity, reduce resilience to climate change, and reproduce cycles of inequity and intergenerational poverty.

The connection between endless growth — more people, more consumption, more exploitation of land and water — and the decline of other species is well documented. Yet U.S. society celebrates economic growth over well-being, consumption over creativity, and humans over wildlife. There's a growing movement to address the environmental and social pitfalls of endless growth, especially among young people who will bear the consequences.

Climate and sustainability plans are an excellent place to highlight solutions that advance gender empowerment, decrease GHG emissions, support conscious consumption, improve well-being, and protect biodiversity. But it's important to recognize the societal and economic pressures for endless growth as underlying drivers of both climate change and the inequities that impede our ability to respond to it.

Truly moving away from endless growth in institutions of higher education will require larger-scale policy change outside the scope of any single university or college, including adopting new measures of economic success that emphasize well-being and fully funding public education. However, there are steps universities and colleges can take within climate planning to strengthen local community, build climate resilience and transition away from measuring success through endless economic growth.

Tackling each of these issues alone is a challenge. But climate planning presents an opportunity to address them together. For example, encouraging more ecological, place-based methods of food production through campus gardens and curriculum on agroecology brings together issues of health, food security and living within planetary boundaries. Ecological stewardship can be furthered by restoring native plants and wildlife habitats on all land owned by the university and by taking a clear stance to divest from oil, gas, and other extractive industries.

A resilient and sustainable campus further includes robust reuse, repair and sharing systems which can begin with switching to reusable serviceware for all campus events, building libraries of things, opening free stores and creating spaces dedicated to repair. These solutions don't just align with an economy that supports people and the planet but also help reduce waste and save money.

To address these issues long-term — not just during disasters — it's necessary to shift away from a system that runs on perpetual growth, fossil fuels, high consumption and industrial animal agriculture to an economy that reduces emissions, promotes a healthy environment and empowers workers across all fields including on university and college campuses. Clear plans to support employees through any changes in roles, training needs or relocation are essential. A just transition must engage workers and communities, especially those most affected by climate change and economic shifts, and ensure green jobs, equity and inclusion are central to climate action.

Conclusion

Universities play an important role in protecting their communities from the urgent threats posed by the climate crisis. Climate plans serve as an opportunity for universities to highlight their priorities through solutions that align with their values to build environmental stewardship as well as the education and well-being of students.

Addressing the climate crisis requires integrating environmental, social, and health factors into university climate plans.

Gender and racial equity must be central to this process because of the disproportionate impacts of climate change on vulnerable communities, including low-wealth populations, racial and ethnic minorities, and Indigenous peoples.

Inclusive university climate planning requires the integration of these communities' perspectives to ensure that their needs are addressed and that all community members contribute to and benefit from sustainable solutions. Including strategies focused on these key issues is crucial to developing solutions that will provide long-term benefits to people, wildlife and the planet.

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