



# Sustainability Without Race?: Disrupting Whiteness at the Introductory Level

By Delia Byrnes and Brittany Y. Davis



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## Abstract

This essay advocates for the importance of racial equity and social justice in sustainability curricula at the introductory level. Focusing on ubiquitous concepts in the environmental classroom, we discuss the critical absences which emerge when sustainability concepts, methods, and practices are detached from their racial, economic, and geopolitical contexts.

To illuminate these absences and move toward alternative possibilities, we discuss a conventional sustainability course taught from a Western, white, perspective that centers the natural sciences and technology to illustrate the exclusion by design of non-Western voices and perspectives. The implicit assumption in classroom discussions of “what we can do” (which typically focus on individual behavior--reducing ecological footprints, recycling, consumer choices, etc.) implies that we all have equal autonomy over our environmental impacts. Discussing the limits of individual sustainability provides an opportunity to reflect on systems of exclusion, from food and transportation apartheid to broader patterns of organized abandonment that target Black, Brown, Indigenous, Melanated Peoples (hereafter, BBIMP, a term coined by [Louiza “Weeze” Doran](#)) globally while also harming folks with disabilities. By failing to center questions of equity, justice, and power in environmental curricula, we argue that sustainability educators not only reproduce the invisibility of marginalized communities; they also neglect to prepare students for the urgent world-making work that needs to be done.

## How We Talk About Sustainability at the Introductory Level

As students enter the college classroom with an increasingly acute awareness of the climate crisis, disciplines related to environmental science, environmental studies, and sustainability studies (hereafter, ESS) gain in popularity. Students bring a range of backgrounds and interests to the classroom, and one of our foremost responsibilities as educators at the introductory level is to provide a comprehensive overview of the interlocking fields, methodologies, and subjects that come together under the interdisciplinary banner of ESS. While ESS programs are as diverse as the instructors and students who comprise them, the typical ESS curriculum closely aligns with Western scientific practices and approaches to understanding the different scales and relationships between and among humans and the environment. Because the traditional Western approach obscures other understandings of the environment, we argue that in order to disrupt whiteness within the ESS curricula, introductory ESS courses must include critical engagement with how environmental knowledge is produced and used, and intentionally introduce alternatives to traditional Western thought throughout the course. This, in turn, can empower students to take action beyond the neoliberal framework of individualist choice (consumer and otherwise) and instead imagine new coalitions and collectivities centered on racial and environmental justice.

The “wicked,” complex nature of environmental problems can be overwhelming for students, especially those in introductory courses. When faced with pressing and difficult-to-solve challenges like climate change mitigation and adaptation, sea level rise and coastal flooding, or ending the production and use of single-use plastics, students find themselves wondering what they can do to make a difference.

Environmental educators often focus on practical problem-solving approaches to the environment, with sustainability taking center stage as an analytic for thinking through ecosystem conservation, people and the environment, agriculture, energy systems, and a range of other topics. Indeed, by the time students enter college classrooms, they’re often familiar with the term sustainability, which carries an aura of objective value and common sense evident in both its ubiquity and vagueness—it appears across a vast range of contexts yet is rarely defined concretely. Like many concepts that assume the mantle of objective common sense, sustainability is freighted with unspoken values, assumptions, and power hierarchies. Moreover, the widespread branding of sustainability as techno-scientific—and thus seemingly apolitical—has been remarkably effective at excluding the everyday (non-credentialed) experts whose firsthand knowledge of environmental problems illuminates what is often willfully overlooked by credentialed researchers, including issues such as lead contamination, food apartheid, and urban heat islands, all of which disproportionately impact BBIMP and low-income communities (Alaimo, 2012). It is therefore the responsibility of ESS educators to provide students with the tools to critically interpret and evaluate sustainability discourses in both the ESS curriculum and the complex, overwhelmingly white worlds they’re enmeshed in. This means teaching students to think critically about the politics of environmental knowledge production: Whose voices, perspectives, and knowledge traditions assume the authority of objective truth, and whose are devalued, dismissed, or absent? Teaching these histories and ongoing legacies has been viewed by some as “politicizing” the ESS curriculum. However, as further suggested in the accompanying essay, “Pedagogies for cultivating critical consciousness,” the ESS curriculum is already political. The overarching politics of the ESS curriculum are closely aligned with Western science, colonialism, systemic racism, and white supremacy. As ESS educators, scholars, and practitioners, it is our duty to deepen our understanding and provide a more complete picture, in all of the spaces in which we work, of the relationships between environment and power that we all inhabit.

ESS educators can start to address the challenges of a Western science-focused curriculum by posing different kinds of questions to students: What are we sustaining, and for whom (Alaimo, 2012)? This question implicitly disrupts the problematic discourse that often surrounds discussions of global climate change and other environmental crises in dominant (i.e., white middle-class) US culture. The mainstream discourse of sustainability, which appears everywhere from greenwashed ad campaigns to global NGOs, implicitly assumes that a “sustainable future” means sustaining our increasingly-threatened present in a way that doesn’t perpetuate environmental harm—in other words, an “environmentally-friendly” status quo. But this neglects to consider the ways that our present is built on systemic injustice, including racial capitalism, settler colonialism, uneven and unequal relations, and other inequities. Technological advancements related to solar, wind, and hydropower won’t fix this. As ESS teachers and practitioners, the question of what we’re sustaining, and for whom, is one which is rarely discussed. Thus, it’s unsurprising that students are ill-prepared to answer this question for themselves. By posing this simple question, students can begin to untangle the invisible power structures that perpetuate environmental harm for specific communities while excluding these same communities from meaningful participation in environmental redress.

## The Individual Above All?: Interconnectedness in Social and Political Contexts

First and second-year students often have a general awareness of the vast scales of climate change, but this may come freighted with universalizing language: “Humans are ruining the planet.” “We’re all responsible for climate change.” “We all need to pitch in to solve the problem.” According to sustainability orthodoxy, these student-directed messages are right. But this universalizing frame, which suggests that all humans are equally responsible (and equally in jeopardy), conceals the ongoing systems of injustice that overburden marginalized communities with the collateral damages of unfettered economic growth. While viewing climate change and its solutions as shared responsibilities (“We’re all in this together”) can facilitate collective calls to action, it can also shore up long-standing Euro-American values of individualism: “we all need to pull ourselves up by our bootstraps to save the planet.” The emphasis on acting on our shared responsibility by buying green or voting with your dollar results in consumers who feel they have done their part without lending any real, material support to marginalized communities. Our contemporary neoliberal capitalist economic system is dependent on individuals while simultaneously constraining their choices. It cannot function without individual actors who uphold its values, pursuing limitless economic growth in an effort to better their own lives. That economic wealth is the priority—rather than living in a symbiotic or harmonious relationship with the more-than-human world—leads to the overexploitation of resources and the shifting of ecological burdens from one place and people to another.



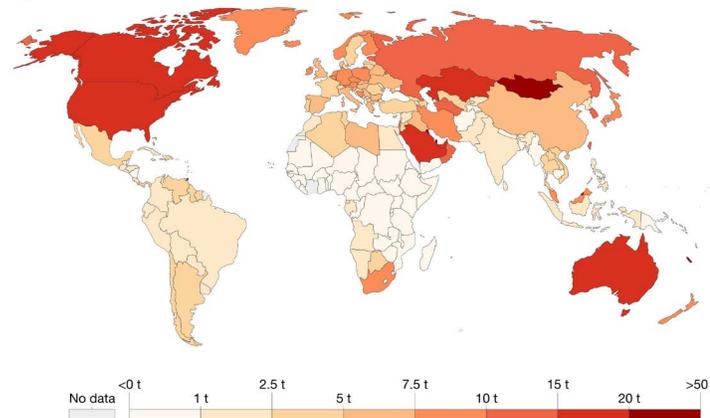
A global view of carbon footprints illustrates the problems of sustainability orthodoxy and its universalizing frames. If, for example, everyone is equally complicit in “ruining the planet” and thus equally responsible for climate change, why do Australia, the United States, and Canada have average per capita CO<sub>2</sub> emissions that are more than three times the world average (Ritchie and Roser, 2017)? Countries like Bangladesh, Vietnam, and the Maldives will be greatly affected by sea level rise despite having per capita CO<sub>2</sub> emissions below the global average. Why, then, should they be burdened with remediating the effects of CO<sub>2</sub> emissions produced elsewhere? Assuming that everyone bears equal responsibility and burden hides the ways in which goods produced or consumed in one place rely on the natural resources and exploitation of other places around the world, thus obscuring the interconnections, flows, and movements of underlying environmental problems. This heightens the focus on the individual’s rights, roles, and responsibilities, without considering the systems they are enmeshed in.

Individuals are embedded in social, cultural, political, and economic systems which constrain and shape their choices. While some have the privilege of autonomy over their choices, most people’s “choices” are profoundly shaped by their racial, economic, and geopolitical contexts. For example, the lives of those living in southern Louisiana are shaped by the fishing and fossil fuel industries, the threat and reality of hurricanes, and the legacy of regional disinvestment. Much of the infrastructure of the modern petrochemical industry in Louisiana stands on former plantation grounds, testifying to the exploitative geographies that continue to define the region. These challenges are further exacerbated by legacies of white supremacy that see white employees over-represented in the local oil & gas industry. At the same time, following sustainability orthodoxy, many students recommend that people simply change jobs to something less overtly harmful to the environment or move away from the area, not recognizing the sheer impossibility of this for many.

As with the example above, students frequently suggest individual changes as a way to “fix” the system: “Recycle everything possible,” “Turn off all the lights when you leave the room,” or “Adopt meatless Mondays.” This emphasis on the individual is already freighted with assumptions about one’s autonomy over their home and lifestyle. What about those living in places without recycling collection, or who already eat little meat because of their religion, income, or lack of access to refrigeration? These questions typically go unasked—and thus unanswered. If we ask and seek to answer these questions, we necessarily connect social, political, and ecological contexts and begin addressing environmental inequities at multiple scales, allowing us to have more robust conversations with students about sustainability beginning in our introductory courses.

Per capita CO<sub>2</sub> emissions

Carbon dioxide (CO<sub>2</sub>) emissions from the burning of fossil fuels for energy and cement production. Land use change is not included.



Source: Our World in Data based on the Global Carbon Project; Gapminder & UN  
 Note: CO<sub>2</sub> emissions are measured on a production basis, meaning they do not correct for emissions embedded in traded goods.  
 OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY

Source: Our World in Data - [ourworldindata.org](https://ourworldindata.org), 2021.

## What's Missing?: Making the Invisible Visible

The order in which instructors teach the introductory ESS concepts itself reflects individual values and politics: who and what are our “entry points” into understanding the environment? What information is prerequisite for other knowledge about environmental issues? The constellation of these concepts builds a narrative for our students about our relationships as humans with the more-than-human world. Yet as instructors, we rarely talk about how we subjectively and individually understand the environment and communicate that understanding through our syllabi. To demonstrate the stakes of how we as educators build an environmental narrative for introductory students, we walk through key concepts in the ESS curricula below.

Teaching students about ecosystems often begins with biological, chemical, and physical mechanisms—how sunlight is converted into energy and cycled through the food web. These lessons are grounded in the Western earth sciences and provide a disinterested overview of the complex workings of an ecosystem, while also universalizing these processes into a single and definitive way for ecosystems to function. This approach invisibilizes, however, Indigenous scientific approaches to the environment (including traditional ecological knowledge), (Dudgeon and Berkes, 2003), which emphasize place-based knowledge cultivated over time, with careful attention to the specifics of each individual environment and the relations it sustains. By foregrounding Western scientific approaches in the classroom, we reify the dominance of Western and colonial perspectives at the expense of marginalized peoples and land relations.

When ESS educators teach about food systems and the relationship between human population growth and the rise of agriculture, we often focus on the twentieth-century transition to large-scale industrial systems and their environmental harms. Monocultures deplete soil, perpetuate a pesticide treadmill, and require increasing amounts of additional inputs like fertilizer. It's undeniably valuable for students to understand the relationship between the food on their plates and the broader environmental and industrial systems that sustain it. But when we teach agriculture as an apolitical world-system, we do not give students the full picture, such as the ways that agriculture is intimately connected to ongoing legacies of racial and social injustice right here in the United States. For example, what if all students understood the US's rise to unparalleled imperial and economic power as a direct result of plantation agriculture, a brutal system dependent on chattel slavery and the stolen labor of African peoples? What if all students understood that the American colonial fantasy of the wilderness frontier (the basis of the National Parks system) is built on the genocide of Indigenous peoples? What if they learned about how the US government deliberately disenfranchised and discriminated against Black farmers, a recent effort to address this, and the discrimination lawsuit filed by white farmers to stop payments to Black farmers approved as part of the March 2021 coronavirus relief bill (Jordan, 2021)?



Similar absences emerge in other ESS introductory subjects, such as energy and climate change. While there's value in teaching students about the chemical reactions that produce the greenhouse effect (especially in an era of climate denialism), focusing only on distant and often abstract consequences such as melting polar ice caps obscures the environmental injustices happening in our homes and communities. As environmental educator Sahar Arbab (2021) entreats, "When did images of sea turtles start motivating us more than images of brown tap water?" (para. 1). Contaminated tap water is disproportionately found in BBIMP and lower income communities throughout the globe, making it a prominent environmental justice issue. Yet the relationship between disinvestment in municipal services, redlining, racism, and climate change often remains underdeveloped in ESS curricula, or is relegated to niche upper-level courses that only a handful of students may take. By introducing environmental justice as a framework for understanding connections between environmental, social, political, and economic realities, rather than simply as one topic among many, we demonstrate that the lived experiences of BBIMP and other marginalized communities are core--not elective--concerns in the ESS curriculum.

## Reimagining the Intro Course: Toward Inclusive Knowledges

ESS has long been celebrated as an interdisciplinary venture, a testament to the strength of varied methodologies for addressing some of the world's most wicked problems. Nevertheless, it remains a norm across ESS programs for the natural sciences to form the nucleus, while humanistic, social-scientific, artistic, activist, and community-science methodologies hover at the periphery as supplements to the scientific curriculum. Students must be taught about the historic and ongoing environmental injustices experienced by marginalized and disadvantaged communities, many of whom are BBIMP. As a society, how do we make their voices, perspectives, and views visible? We must begin by listening to and centering their stories. For example, discussions of climate change should also address climate justice and climate equity. When talking about how individuals can reduce their energy demand and greenhouse gas emissions by making home improvements, it's important to discuss why homes are in need of rehabilitation. This brings redlining, white flight, the wage gap, and discrimination into the conversation. Thus, the conversation becomes one about how home improvements can reduce greenhouse gas emissions and the structural constraints and systemic barriers which keep people from making such improvements. For instructors, integrating these stories can be intimidating because they are often absent from introductory textbooks. Turning to online news and magazine sources can help.



For example, a recently highlighted story about the above convergence of individual action, home rehabilitation, and climate equity (Charles, 2021) could be a welcome addition to an introductory ESS course. Another example that can be incorporated into ESS curricula is a curated Earth Day reading list that centers BIPOC voices from Wear Your Voice, a digital magazine by and for LGBTQIA+ and BIPOC in the US (2020). Educators may be interested in exploring other strategies and examples found in an [instructor resource](#) on Creating a Culturally Inclusive Course, part of AASHE's Campus Sustainability Hub (Cagle, 2021).

Interdisciplinarity can't address the inequities that are built into the structure of the academic disciplines. ESS educators need to work beyond the cloisters of academia. Christina Sharpe (2016), a Black studies scholar, advocates for researchers and teachers to "become undisciplined" (p. 13). This means unsettling the authority of Western and colonial knowledge traditions and encouraging students to think critically about not only what they know, but how they know. Whose voices are included, and whose are silenced? Part of the work of becoming "undisciplined" means decentering the presumed authority of natural and quantitative social sciences and instead centering additional ways of knowing. These marginalized forms of knowledge include storytelling, art, music, oral narrative, community organizing, activism, and social media, which are often seen as "supplements" to environmental studies curricula, but not as rigorous, nuanced, and dynamic forms of knowledge in their own right. When educators teach humanistic methods such as textual analysis, students are quick to observe that cultural works (novels, short stories, poetry, visual art, music) can translate scientific abstractions into meaningful knowledge for a broader public. It also opens the door for questions like, "how does environmental art produce its own alternative knowledges?" which introduce students to the politics of environmental knowledge production by asking what other forms of expertise emerge beyond the bounds of academic (inter)disciplinarity.

For example, Thomas RaShad Easley (2020) explains that engaging with hip-hop music, a traditionally Black form of art deeply rooted in social protest, opens up conversations with BBIMP students on environmental issues that face their communities, such as lead contamination, toxic waste dumping, and food apartheid; and the exclusion of those communities from discussions about environmental policy. Educators can assign Dr. Easley's writing alongside his own lyrics, show video clips from community-led events featuring environmentally-themed hip-hop or spoken word performances, or invite students to collaborate on their own playlist of environmental hip-hop songs. In this way, learning from hip-hop about environmental concerns offers not only a way to connect with a more diverse range of students; it also recognizes African-American expressive culture as a vital form of environmental knowledge-making.

The re-centering of beyond-academic forms of environmental knowledge invites students to think critically about the politics of knowledge. This works in tandem with centering the environmental expertise of marginalized groups, such as BBIMP, and disabled, immigrant, and LGBTQIA+ communities. Imagine that students walk into their upper-level research methods class prepared to engage in epistemological discussions about how and why we conduct ESS research, or that they come to their conservation biology course ready to discuss how and why Lakota, Chicanx, and Western conservation practices differ. This requires inclusion in the ESS classroom to go beyond adding one or two "diverse" scholars to the syllabus. Instead, ESS educators must require students to think critically about how we collectively and individually define "environmental expertise" in the first place. This shift can ultimately be transformative as the lessons will extend well beyond the introductory course. A more inclusive ESS curriculum can empower students to imagine and cultivate more liberatory environmental practices.

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