

Advancing Environmental Justice and Environmental Human Rights at Stanford: A plan for achieving Stanford’s Long-Range Plan and presidential initiatives

Synopsis: The recently announced presidential initiatives provide an inspiring vision for Stanford’s future as a purposeful university, producing scholarship for the benefit of humanity, in our region and around the world. Here we propose a path of action that will enable our university to make bold strides toward achieving its ambitions by advancing environmental human rights and environmental justice at Stanford. This plan involves hiring a cohort of environmental justice scholars skilled in applying methodologies and intellectual approaches across a range of disciplines. This plan envisions incorporating environmental justice as a necessary dimension of social-environmental scholarship and policy solutions, an interdisciplinary domain in which Stanford has substantive, but as of yet, incomplete expertise. It also presents a pathway for bridging the gap between local and global approaches to environmental human rights. The proposed faculty cohort will bring knowledge, approaches, methods and tools that address disparities in human and environmental well-being as a core value for achieving social-environmental sustainability. This will provide a critical scholarly complement to Stanford’s existing strengths in the natural and social sciences, business, and law. By expanding the expertise of our faculty in this direction, we will be vaulting Stanford to a leadership position in creating the knowledge we need to imagine and create more just, ethical, and resilient solutions for sustainability to the world’s most challenging social-environmental problems.

I. Introduction

Last May President Tessier-Lavigne announced the much anticipated results of the university’s long-range planning process: three visionary initiatives that will shape Stanford’s future for the next decade and beyond. These presidential initiatives, distilled from thousands of proposals, now require detailed, action-oriented plans, as well as dedicated groups of people committed to carrying out a bold presidential vision. Here we present a plan for advancing environmental human rights and environmental justice at Stanford—a promising pathway for increasing diversity and equity (initiative #1), building ethical leadership at the intersection of society and technology (initiative #2), and achieving sustainability for our region and world (initiative #3).

This plan brings together environmental human rights and environmental justice frameworks to advocate for an EJ faculty cluster hire at Stanford. Environmental justice (EJ) advances a positive vision for policies and actions that ensure equitable access to environmental benefits, and prevent or mitigate the disproportionate impacts of environmental harms for all communities—regardless of gender, class, race, ethnicity, or other social positions. An environmental justice approach centers the voices, knowledge, and leadership of marginalized communities in social-environmental problem-solving. As such, EJ follows fundamental tenets of human rights.¹

¹ See Mohai, Paul, David Pellow, and J. Timmons Roberts. (2009). “Environmental Justice.” *Annual Review of Environment and Resources* 34: 405–30. <https://doi.org/10.1146/annurev-environ-082508-094348>. Also see <https://www.unfpa.org/resources/human-rights-principles>):

To achieve a thriving human society, human rights and sustainable development scholars have recognized the importance of environmental protection for achieving well-being for all people. Importantly, environmental human rights theories raise important questions about how we can achieve local and global sustainability goals under current conditions of social inequity. How do we move forward on a trajectory of intergenerational well-being and a thriving biosphere, given the complexities of inequitable distribution of environmental harms and benefits in coupled human-natural systems? Environmental justice provides a strategic approach to research and social-ecological problem solving that seeks to achieve social equity as a necessary component of environmental sustainability.

To examine the unique research and community engagement approach that environmental justice offers, we unpack four key components of our working definition of EJ, as follows.

(1) **Environment.** EJ focuses on *policies and actions determining the location of environmental harms and benefits*, and resulting impacts on specific marginalized communities. EJ issues can encompass the physical environment; the built environment; and the social environment.²

(2) **Justice.** EJ scholars are particularly concerned about equity, i.e. dealing fairly and equally with all concerned. EJ approaches are often based on *frameworks of distributive justice and procedural justice* that are concerned with the unfair distribution of environmental benefits and harms, and meaningful community participation in decision-making. This approach departs from utilitarian justice frameworks, which emphasize “the greatest good for the greatest number,” a framework that can enable sacrifice zones for marginalized communities.³

(3) **Community.** EJ research questions are born out of the *knowledge and lived experience of particular marginalized communities*, and their vision for how to best solve environmental and social problems. EJ is strongly concerned with community agency and self-representation, i.e. doing *research with*, as opposed to *research for* marginalized communities. Although community-based participatory research methodologies are often part of EJ research, EJ scholarship can also be historical and archival in nature.

(4) **Intersectionality.** EJ frameworks often emphasize intersectionality, or the idea that *various forms of social stratification, e.g. class, race, sexual orientation, age, religion, creed, disability, and gender, are interwoven*, and do not exist separately from one other. Overlapping forms of marginalization can produce synergistic effects that intensify negative social-environmental outcomes, but they can also create opportunities for working across social movements to solve social and environmental problems.

Environmental justice also relates to fundamental principles of environmental human rights. Multiple legal instruments discuss the interconnection between human rights and the environment, i.e. multilateral environmental agreements, international human rights treaties, and

² Morello-Frosch, R., & Shenassa, E. D. (2006). The environmental “riskycape” and social inequality: implications for explaining maternal and child health disparities. *Environmental health perspectives*, 114(8), 1150.

³ Gary C. Bryner. (2002) “Assessing claims of environmental justice: conceptual frameworks” In Mutz, Kathryn, Gary Bryner, and Douglas Kenney, eds. *Justice and natural resources: concepts, strategies, and applications*. Island Press,

international resolutions and declarations.⁴ Such agreements recognize the importance of the environment as a pre-requisite for the enjoyment of human rights. They also emphasize the fulfillment of certain human rights as necessary components of good environmental policies, e.g. access to information, the ability to participate in decision-making, and access to justice. Some agreements also discuss the right to a safe, healthy and ecologically balanced environment as a human right in itself.⁵ More recently, climate change has been recognized as a human rights issue, presenting “a serious risk to the fundamental rights to life, health, food and an adequate standard of living of individuals and communities across the world.”⁶

Bringing environmental justice to Stanford means connecting the university’s existing strength in sustainability science and international human rights doctrines with critical environmental justice scholarship—thereby contributing to the powerful set of new ideas coming out of Stanford’s long range planning outcomes. To achieve this, we propose bringing a new cohort of scholars into the university who are best positioned to collaboratively address the social and political processes producing the disproportionate distribution of environmental burdens and environmental benefits. In the following section we explain in more detail 1) why the proposed cohort of environmental justice scholars is needed at Stanford; 2) how environmental justice scholarship capacities of Stanford’s peer institutions are proceeding apace; and 3) how the proposed faculty cohort will accelerate the realization of the 2018 presidential initiatives.

II. Why environmental justice at Stanford?

Broadening the interests and representation of our faculty in environmental justice will help Stanford become a more effective problem-solver in the sustainability space, and to address the growing polarization in our society. By more explicitly connecting social equity with Stanford’s research and environmental protection efforts, we will achieve more resilient sustainability solutions and greater environmental health for all.⁷ Part of this work involves diversifying our faculty, establishing community research partnerships, and learning from the perspectives of marginalized communities. EJ approaches are important for building trust with large segments of society that are currently excluded from most environmental decision-making and academic knowledge production. To truly achieve a thriving biosphere and thriving human well-being, we can build social equity into our research questions and policy strategies from the beginning, rather than assuming we can first solve environmental problems, and then redistribute benefits and harms after the fact.

⁴ See UNEP Compendium on Human Rights and the Environment: Selected international legal materials and cases (UNEP/CIEL) March 2014 for instruments e.g., ILO 169; UNDRIP; Convention on Biodiversity; Basel Convention; Kyoto/Paris Accords. https://www.ciel.org/wpcontent/uploads/2015/03/UNEP_Compndium_HRE_Mar2014.pdf

⁵ United Nations Environment Program. The Environment and Human Rights. <http://web.unep.org/divisions/delc/human-rights-and-environment>.

⁶ United Nations Environment Program. 2015. Climate Change and Human Rights. https://web.law.columbia.edu/sites/default/files/microsites/climate-change/climate_change_and_human_rights.pdf

⁷ Cushing, Lara, Rachel Morello-Frosch, Madeline Wander, and Manuel Pastor. “The Haves, the Have-Nots, and the Health of Everyone: The Relationship Between Social Inequality and Environmental Quality.” *Annual Review of Public Health* 36, no. 1 (March 18, 2015): 193–209.

A theory of change with EJ

(1) *Inclusivity for better science:* A more **inclusive** community partnership approach to research based on EJ frameworks will generate novel research teams within and beyond the academy. By working alongside marginalized communities and **learning** from their experiences, interdisciplinary scientists will be better positioned to look past the highly limiting set of blinders that result from working primarily with privileged groups. Such partnerships will lead us to the next level of **innovation** in interdisciplinary research and help us to produce better science.⁸

(2) *Increasing the relevance of social-environmental problem solving:* By including the concerns and insights of marginalized communities at Stanford, we will increase the **social relevance** of Stanford research and teaching to real-world sustainability problems, and **build greater trust** in knowledge production occurring within the academy. By ensuring that our research and teaching are informed by the lived experience of a larger cross-section of society, we will increase our ability to solve social-environmental problems together with diverse communities. In this way, we will increase the **uptake** of the knowledge we produce by a multi-cultural global society.

(3) *Appropriate scaling, from local to global:* Bringing environmental justice scholars to Stanford, we will position our university as a **bridging** institution to address the gap between global commitments to human rights and sustainability, and the meaningful implementation of those commitments with diverse local and regional communities. By engaging with transnational environmental justice movements, Stanford will facilitate emerging forms of **global citizenship** that can ultimately lead to greater democratization of our global society. And by critically examining global initiatives through local community partnerships, we will remain attuned to **appropriate scaling** for social-environmental problem-solving.

For example, bringing environmental justice perspectives to Stanford will enable deeper thinking and debate among interdisciplinary research teams about how we approach and analyze climate policy, including cap and trade programs that have generated local and regional opposition due to “hot spot” impacts on marginalized communities at the local level (i.e. specific census tracts). Applying environmental justice research approaches will also support Stanford research on clean water and clean energy infrastructure, so that our policy and engineering “solutions” do not inadvertently create sacrifice zones for the most vulnerable communities. In addition, with Stanford research on greenhouse gas emissions, EJ approaches will encourage interdisciplinary teams to examine global climate negotiations alongside the local, lived experiences of service workers grappling with the affordable housing crisis, thereby pursuing a more holistic research and social problem-solving agenda.

EJ Research opportunities at Stanford

Social inequity has long been researched as a justice problem. More recently, however, it has also been identified as a sustainability problem, and perhaps one of the most critical barriers to achieving a global sustainability transition. For example, research by Wilkinson and Pickett

⁸ Puritty et al. (2017.) “Without Inclusion, Diversity Initiatives May Not Be Enough.” *Science* 357, 6356: 1101–2. <https://doi.org/10.1126/science.aai9054>.

(2009) demonstrates that countries with greater income inequality consistently underperform across a broad range of indicators of social and environmental well-being, from carbon footprint to mental and physical illness burdens. Furthermore, this study demonstrates that even wealthy elites in these high income countries are worse off than the richest members of societies with greater wealth equity. By understanding links between sustainability and social equity, solutions to these problems are beginning to emerge from interdisciplinary research rooted in environmental justice.

Environmental justice provides an opportunity to engage in a wide array of research questions. These questions explore the causes of social and environmental inequity (e.g., economic causes, sociopolitical causes, combinations thereof, racial discrimination), and how communities/social movements are responding to such problems. Key areas for innovative EJ research include:

Epidemiology, Data Science, and Environmental Change:

EJ asks hard questions about risk and vulnerability analysis. For example, how can we quantitatively measure and document environmental injustice, especially given complex problems with different data types and scales (e.g., zip codes, census tracts, or concentric circles around polluting facilities or exposed populations). How do we understand the cumulative effects of racial and socioeconomic disparities in the distribution of environmental hazards and health outcomes through epidemiological studies? How do we understand the human dimensions of environmental change, as they relate to problems of social equity?

Public Health & Participatory Research Methods:

Community-based participatory research methods are a fundamental component of much of the public health-oriented EJ research. This process involves equitable collaboration between academic and communities and/or community-based researchers around the specific research questions and, in some work, design and implementation of the research itself (e.g. community-based air monitoring and health surveys).

Ethics & Legal Theory:

A foundational part of EJ research includes its ethical foundations and implications, including theories of justice. EJ also addresses jurisdictional challenges of global environmental problems, which includes legal scholarship on internationalization of risks that arises with international and domestic law (legislation and treaties) regulating the waste trade, for instance.

Sociology, Social Movements, and Education:

Studying environmental protest movements is an important part of EJ research. When do environmental justice movements arise and under what conditions do they succeed or fail? How do we effectively teach EJ histories and perspectives in the classroom? This includes environmental histories on social justice and environmental sustainability movements, which are not always aligned in their origins, goals, or methodologies.

Humanities & Critical Theory:

EJ research involves using perspectives from critical race theory and ethnic studies to understand contemporary environmental movements as social and environmental phenomena. As environmental justice and human rights movements join forces, how do we understand the globalization of the environmental justice movement (e.g. international dimensions of inequity and the flow of resources between states that a climate treaty might require)? This work includes research on decolonizing methodologies and critical feminist theory.

These research opportunities align with multiple departments at Stanford, including Earth System Science (e.g., climate justice, participatory GIS, food justice, sustainability science); Education (e.g., social learning and education for sustainability and equity); Medicine (environmental health disparities and community-engaged research methodologies); Engineering (e.g., engineering for social good, potable water reuse, and co-design methodologies), and others.

They also align with a number of interdisciplinary centers and institutes at Stanford, including the Center for Comparative Studies in Race and Ethnicity, WSD Handa Center for Human Rights and International Justice, Earth Systems Program, Emmett Interdisciplinary Program in Environment and Resources, McCoy Family Center for Ethics in Society, Stanford Law and Policy Lab, Stanford Center for Innovation in Global Health, Stanford Woods Institute for the Environment, Freeman Spogli Institute for International Studies, Hasso Plattner Institute of Design at Stanford (d.school), Precourt Institute for Energy, and the O'Donohue Family Stanford Educational Farm.

Environmental justice problems, local to global

The global community is grappling with numerous and overwhelming social-environmental problems, including devastating climate change impacts, growing energy consumption and resource extraction, and decreased access to food and clean water. Moreover, the environmental harms and benefits that are associated with development decisions and technological innovation are not distributed equally among the world's population. Too often, communities of color and other disadvantaged groups bear the brunt of negative environmental impacts, and receive the least benefits.

For example, in our own backyard, early technology innovations in Silicon Valley that have brought incredible wealth and opportunity to many, also led to groundwater contamination near high-tech manufacturing facilities. In the 1960s and 70s, 100,000 homes in South San Jose were exposed to toxic solvents (from a Fairchild semiconductor factory) that became associated with elevated birth defects. Workers in these facilities, who were predominantly female and often from minority ethnic groups, were exposed to hazardous chemicals on the job, with significant health effects.⁹

⁹ See <http://svtc.org/>. Also see Pellow, David N., and Lisa Sun-Hee Park. *The Silicon Valley of dreams: Environmental injustice, immigrant workers, and the high-tech global economy*. NYU Press, 2002.

A more current example in California relates to the deleterious impacts of the state's cap-and-trade program on vulnerable communities living near oil refineries, such as those in the cities of Benicia, Martinez, and Richmond, just across the bay from Stanford. Since going into effect in 2012, the cap-and-trade program, which aimed to reduce the state's greenhouse gas (GHG) emissions, has disproportionately increased GHG and co-pollutant emissions from facilities regulated under the program in "neighborhoods with higher proportions of people of color and poor, less educated, and linguistically isolated residents,"¹⁰ relative to neighborhoods in which GHG emissions decreased.

At the global scale, international flows of electronic waste (e-waste) have turned former farming villages in countries like Vietnam, China, and Nigeria into e-waste dumps. Shipping e-waste from the most to the least affluent communities means that processing is done by those with the least resources to ensure safe "recycling," which often means burning circuit boards, soaking microchips in acid, and burning plastics to sort them by order.¹¹

Similarly, the environmental and social burdens associated with the large-scale resource extraction fall inequitably on the least affluent communities around the world. Rare earth metal extraction, oil production, and other mining operations have substantial negative environmental, health and socioeconomic impacts on communities surrounding production sites. Yet these industries benefit from more lax regulations than other sectors, and distribute most of their beneficial output to affluent urban centers like Silicon Valley. This creates added responsibilities for those in more affluent positions in our society to acknowledge prior harms, prevent ongoing or new environmental and social inequities from occurring, and identify opportunities for reparations.

The examples cited above only hint at the enormity of impacts on vulnerable communities when economic and sustainability goals are pursued without explicit inclusion of equity concerns. The particular environmental and social history of Stanford and Silicon Valley points to the importance for our institution taking a more proactive role to address some of the environmental and social harms that we have played a role in creating. By including environmental justice in our sustainability work and following the lead of local community leaders, Stanford and Silicon Valley can take an important step towards achieving greater environmental and social in our immediate community and our region. By adopting EJ approaches in our research and institutions, Stanford can move beyond sustainability approaches that merely shift burdens, toward more root-cause solutions that address problems at the local and global scales and across supply chains.

Social problem-solving and the promise of EJ

The power of environmental justice scholarship is its capacity to transform research to social problem-solving, activating paths to more equitable and resilient social-environmental solutions. For example, environmental justice scholars Bina Agarwal (University of Manchester) and Gurdip Singh Aurora (Central University, Hyderabad) collaborated with the grassroots Deccan

¹⁰ Cushing et al. (2018)

¹¹ See <http://www.ban.org/>

Development Society to design a more effective and sustainable food security strategy for the Indian state of Andhra Pradesh, previously known as the “pesticide capital of the world” and for its epidemic of farmer suicides spurred by widespread and crippling debt. Recognizing that gender disparities in access to land, credit, and technical support were hampering the productivity of women-led farms, the Deccan Development Society assisted all-women farming collectives in designing and developing farms for household food security, with the goal of increasing dietary diversity and reducing reliance on expensive external inputs. This collaborative effort has succeeded in improving productivity and family diets. Moreover, the effort empowered women’s groups to institute community grain bins to buffer against production disruptions and distributional strategies that target the most food insecure families in their communities. The movement has spread to over 8,000 villages, covering almost three million acres.¹²

As another recent example, here in California, environmental justice scholar Bob Gottlieb (Occidental College) helped found the Los Angeles Food Policy Council. This Council, a multi-stakeholder group dedicated to a just and sustainable food system for greater Los Angeles, is explicitly rooted in the experiences and expertise of low-income communities of color, and was eventually housed within the mayor’s office. Among the most salient achievements of this council is the Good Food Purchasing Policy (GFFP), a set of guidelines for public procurement that prioritizes co-benefits among environmental sustainability, nutrition, and community economic development across the supply chain. The GFPP was adopted by the City of LA and the LA Unified School District in 2012, applying the guidelines to 750,000 meals per day. The policy has since spread to San Francisco, Chicago, and school districts from Austin to Boulder to Oakland. Environmental justice researchers evaluated the Oakland program, finding that the Oakland Unified School District’s adaptation of the GFPP guidelines reduced its carbon footprint by 14 percent, reduced its water use by nearly 6 percent, spent 1 percent less per meal, and saved \$42,000 in the process.¹³

Student voices: the call for environmental justice teaching at Stanford

Another factor motivating this proposal is the need for an environmental justice lens in Stanford’s teaching related to social-environmental challenges, a need that has been strongly voiced by Stanford students for some time. In the experience of instructors teaching environmental sustainability, it is both Stanford undergraduates from communities impacted by environmental injustices and undergraduates from more affluent backgrounds who are asking for an environmental justice approach to learning, sustainability research, and community engagement at Stanford. These students maintain that intersectional approaches to our environmental problems, such as the environmental justice framework discussed here, are key to solving the challenges of the 21st century.

In focus groups, surveys, and advising conversations, students in the Earth Systems Program have frequently identified environmental justice as a critical, but largely missing component of

¹² Schipanski, M. et al. 2016. Realizing resilient food systems. *Bioscience* 66(7): 600-610.

Agarwal, B. and R. Herring. 2013. *Food security, productivity, and gender inequality*. Oxford: Oxford University Press.

¹³ <https://goodfoodpurchasing.org/>

<https://civileats.com/2017/03/09/less-meat-better-food-happier-kids-oakland-unified-reinvents-its-school-lunch/>

their educational experience. This finding is confirmed by a 2018 survey of a diverse body of students (n=357), designed to identify the needs and interests of students considering a new environmental justice course. A considerable majority (85% of respondents) indicated a personal interest in taking the environmental justice class. Students most commonly identified equitable access to resources as a key factor motivating their interest in the topic. Yet little more than half of respondents reported that they had previously engaged with the topic of environmental justice at least once in the context of a Stanford class, and many of these students indicated a lack of knowledge about environmental justice at the most basic level.

These survey findings point to an educational gap at Stanford, one that left unaddressed will continue to hamper the intellectual formation of students who are aspiring to join the next generation of social-environmental problem solvers. Currently, students at Stanford typically engage in environmental justice through activism alone. Lacking exposure to critical environmental justice scholarship, these students are missing out on key opportunities for critical analysis, reflection, and mentorship that experienced faculty can provide in the classroom.

There are deeper issues at stake, as well. Many students come to Stanford from communities that are disproportionately impacted by environmental harms. They are ready to engage in their coursework with a nuanced understanding of environmental justice. They understand, intimately and directly, that communities who live near fenceline zones or toxic dumps—their communities—are more likely to be Black, Latino, poor, asthmatic, and die from cancer. These are the selfsame students who are less likely than their more affluent peers to see national parks and environmental spaces on campus as places they can call their own. Although these students may want to engage in Stanford’s environmental communities, they are deterred by the fact that the faculty and students who comprise these communities rarely look like them. Given our current demographics, Stanford’s current environmental science faculty are unlikely to share their students’ understanding of environmental justice—not just as a theoretical issue—but as a matter of survival. These students viscerally understand the interconnections between environmental impacts and family legacies of trauma. They want to interrogate these connections and relationships, research them, and change the world through their work. These students need faculty who can create rigorous intellectual spaces that encourage students to pursue inquiry that is grounded in and reflective of their own depth of experience. This requires research and teaching in environmental justice that can push, support, and validate the next generation of Stanford students. As a recent study confirms, incorporation of environmental justice into the curricula of interdisciplinary environmental and sustainability degree programs increases the racial and ethnic diversity of students in these programs.¹⁴

Points of light, elsewhere

Within the field of environmental science, including at Stanford’s peer institutions, there is increasing recognition that expertise in environmental justice is critical to meeting the global sustainability challenge—and that fostering expertise in environmental justice requires integrating race, class, and gender into the ways in which we study and teach about human and environmental systems. The University of Michigan has been a leader in this respect,

¹⁴ Garibay and Vincent, 2018

establishing the first environmental justice curriculum in the U.S., with graduate and undergraduate certificate programs.

Among Ivy League Universities, the Yale School of Forestry & Environmental Studies has recruited numerous faculty members with expertise in environmental justice, who have built curricula, community partnerships, and event series in this field.¹⁵ The Princeton Environmental Institute recently launched a Global Perspectives on Environmental Justice event series,¹⁶ and Brown University offers an Environmental Justice track within its Environmental Studies and Science concentration. Harvard has been building its capacity in this area, through the work of Professor Gary Adamkiewicz in the School of Public Health and a number of scholars in the social sciences and humanities, as well as collaborations with Professor Julian Agyeman's Just Sustainabilities work at Tufts University. At Duke University, the Nicholas Institute for Environmental Policy Solutions leads an Environmental Justice program focused on community-based research, and the Environmental Law and Policy Clinic recently launched an annual Environmental Justice symposium.

Among our peers in the University of California system, UC Berkeley has deep experience with environmental justice teaching and research, drawing on interdisciplinary collaborations among the College of Natural Resources, School of Public Health, and Department of City and Regional Planning. Leaders of this work include Professors Rachel Morello-Frosch and Jason Corburn. More recently, UC Davis has established its leadership in this area, through the work of the John Muir Institute for the Environment's Environmental Justice Project and the Center for Regional Change. UC Santa Barbara integrates teaching, research, and community partnerships in this field through its Global Environmental Justice Project.¹⁷

At all these institutions, however, there remains a sense that the resources devoted to the synergistic objectives of teaching, research, and community partnerships focused on environmental justice are still below the "critical mass" necessary to effectively develop and scale up environmental justice approaches to local and global challenges in human and environmental systems. Thus, while Stanford is currently falling behind in this area, we have an opportunity to provide leadership by taking a bold, purposeful approach.

By building environmental justice into its hiring strategies, curricula, research, and community engagement, Stanford will be well-positioned to serve and lead as a social-environmental problem-solving accelerator, pushing on the frontiers of interdisciplinary scholarship to craft solutions and policies for a set of particularly challenging issues. Taking an environmental justice approach means that these solutions will address the structural inequities impacting communities in our region, the uneven distribution of economic opportunity in cities across the U.S., and the disproportionate impact of environmental harms on vulnerable communities worldwide.

Fertile ground at Stanford

¹⁵ <https://environment.yale.edu/profiles/expertise/environmental-justice>

¹⁶ <https://environment.princeton.edu/events/gpej>

¹⁷ <http://www.es.ucsb.edu/gejp/>

The presidential initiatives orient the university on a path toward improved sustainability and problem-solving for our region and world. In many ways the university is already well positioned to engage in this bold mission, given its expertise in the fields of environmental sciences, energy resources, and environmental engineering, as well as many other sustainability-relevant fields existing at the university.

There are a few, isolated examples of current efforts and research at Stanford that contain elements of environmental justice including the First Nations Futures Institute; Program on Water, Health and Development (WHD); Global Freshwater Initiative; the Osa and Golfito Initiative; Program for Disease Ecology, Health and the Environment; Center for Global Health; and Stanford Law School initiatives. Postdoctoral fellows, graduate students, and selected faculty are exploring human-centered fields of inquiry in tandem with natural and physical sciences to understand and further scholarship in justice and equity within environment and resources. For example:

- [Michelle Wilde Anderson](#), a law professor, has been working with cities in distress across the United States, including most recently in Puerto Rico. She is researching how places like Stockton, Detroit, and Flint can change course from their declining population and struggling economies into more equitable, vibrant, and healthy communities.
- [Deland Chan](#), lecturer and director of community-engaged learning in Urban Studies teaches project-based courses. She takes a community-based approach to urban planning and researching sustainability transitions. For example, her work in San Francisco has included developing a Chinatown pedestrian master plan with local residents and community-based urban planning youth training program
- [Josh Dimon](#), a postdoctoral scholar at the Bill Lane Center for the American West, is leading an international collaboration to study the disproportionate effects of air pollution on fenceline communities on both sides of the U.S.-Mexico border, and the possibilities for reversing this trend through California's climate policies.
- [Sibyl Diver](#), a research scientist in Earth System Science (ESS), is conducting environmental governance research in partnership with Indigenous communities to understand how these communities are self-organizing their own water science programs, thereby shifting multi-jurisdictional water governance negotiations on the Klamath River in California.
- [José Fragoso](#), a lecturer in the Center for Latin American Studies and researcher at the California Academy of Sciences, along with Biology professor Rodolfo Dirzo, has conducted research in collaboration with the indigenous Makushi, Wapishana and Waiwai nations to understand the relationship between animal diversity and carbon sequestration in the Amazon, research that relates to the threats of deforestation to Indigenous cultures, territories, and subsistence strategies.
- [Gabriel Garcia](#), a professor of medicine and health policy research directs a year-long undergraduate patient advocacy service-learning course at Stanford University and has developed a international service learning program entitled Community Health in Oaxaca to address immigrant health issues. This project has recently included community-led research initiatives that are linked to the surrounding environment. He has supervised an alternative spring break that examines the lives of California farm workers.

- [Derek Ouyang](#), a lecturer in Stanford’s Sustainable Urban Systems Initiative has co-founded the City Systems initiative. To address the affordable housing crisis in the Bay Area, he has worked with Rebuilding Together Peninsula and the City of East Palo Alto to streamline the garage conversion process, with the goal of increasing the number of safe and affordable second units in the community. He is also working with diverse communities and local government in South Stockton to reenvision vibrant economic development in the area.
- [Lisa Goldman Rosas](#), an assistant professor of medicine and health policy research works on the multi-level determinants of obesity and chronic disease with the purpose of informing policies that will address health equity. She also does community-engaged and policy-relevant behavioral intervention research to identify strategies to promote healthy lifestyles and reduce disparities. Recent work includes a family-based approach to promoting healthy lifestyles among Latino adolescents and their parents.
- [Debbie Sivas](#), a law professor, runs the Environmental Law Clinic that has worked on multiple environmental justice cases. These cases range from protecting ancestral Pit River Indian Tribal land from geothermal mining, to fighting to enforce water quality standards in the central valley of California where a disproportionate percentage of those impacted are low-income and people of color.

While a few scholars listed above are adding important ethical dimensions to sustainability scholarship at Stanford, there is still a lack of tenure-track faculty focused on environmental justice. To accelerate engagement with the presidential initiatives, Stanford needs an injection of diverse faculty, who by applying the lens of environmental justice, can catalyze the university’s transformation into a center for the development of innovative knowledge and tools for achieving intergenerational social-environmental sustainability in our region and in our world. This cohort of faculty will possess scholarly expertise and methods—grounded in collaboration with the communities their work aims to benefit—needed to interrogate the social and political processes through which environmental injustices occur and are mitigated.

III. A visionary cohort of environmental justice scholars

To position Stanford as a leader in environmental justice, we propose a cluster hire of five new Environmental Justice faculty members, whose responsibilities would include launching a Environmental Justice Clinic.

1) Environmental Justice cluster hire

This cluster hire will recruit five new tenure-track faculty members with an environmental justice focus to pursue innovative research in environmental justice-related fields, teach on a wider range of topics that encourage an ethical approach to social-environmental sustainability, lead the Environmental Justice Clinic, and create a robust intellectual community spearheading interdisciplinary collaborations at Stanford.

As demonstrated by this list, faculty hires may draw from a number of fields, including public health, education, urban studies, business, law, public policy, environmental studies, ethnic studies, sociology, and international development. Relevant areas for research might include

climate mitigation and adaptation for vulnerable communities, environmental health, food security, access to clean water, and international environmental policy and human rights, among others.

We view this strategic cluster hire as advancing Solutions for Our Region and World. This hire will significantly advance Stanford's goal to become a leader on "Sustainability in the Bay Area and the World" by developing model sustainability solutions at home that can apply more broadly at regional, national, and international scales. New environmental justice faculty who have developed research partnerships with communities in the Bay Area and beyond will play a critical role in supporting Stanford's existing sustainability work, as well as critically expanding this work by leading a new Environmental Justice Clinic.

Who are these scholars? We see as ideal candidates individuals who 1) possess disciplinary expertise in their respective fields; 2) employ approaches such as participatory methodologies, action research, intersectional intellectual and applied histories of community engagement, and quantitative and qualitative social science methods; and 3) represent a diverse set of professional and personal backgrounds that allow these individuals to effectively engage with the intersection of gender, class, and race that are at the center of environmental justice research and teaching. They are scholars will mobilize interdisciplinary approaches to transform how the university and the broader global community conceptualize, approach, and mobilize to solve complex social-environmental challenges.

How will they transform our community and the way we approach sustainability challenges? These scholars will bring knowledge, methodologies, frameworks, and approaches—as well as relationships—that will foster effective communication with frontline environmental justice communities and engagement of these communities in the collaborative design and implementation of solution-oriented research. They will also greatly extend the reach of Stanford's public environmental engagement by diversifying the ranks of the public intellectuals who represent Stanford in the media and public eye. By recruiting diverse scholars with training in developing effective community partnerships based on trust and mutual respect, Stanford can engage a much larger public in efforts to address critical environmental problems such as climate change. By forging novel community partnerships and highlighting socioeconomic equity in sustainability science, new EJ faculty will enhance the existing problem-solving capabilities of Stanford science and engineering. Lastly, through teaching and mentoring students in research, these faculty will equip students with knowledge, skills, approaches, and methodologies needed for the intellectual labor of environmental justice scholarship.

Beyond filling disciplinary gaps, this cohort of scholars will add interdisciplinary connective tissue to the university, enabling links and understanding that can unleash potent academic capacity across the university to address urgent societal need. Critically, we envision that a majority of the faculty hired as part of this initiative would be individuals from marginalized groups who have been both disproportionately impacted by environmental injustices and underrepresented in Stanford's faculty.

2) Environmental Justice Clinic

A new Environmental Justice Clinic will focus on conducting Stanford-based research, education, and outreach together with marginalized communities, specifically to address environmental issues. We also envision developing a postdoctoral fellowship to support this research, and leveraging the innovative work of this clinic to continue building a pipeline for bringing a more diverse group of faculty to Stanford. In addition, the clinic will provide a central space for convening and building on the existing environmental justice knowledge community at Stanford.

The clinic will provide a critical space for promoting cutting edge, applied research that directly engages with and benefits marginalized communities. The clinic will equip undergraduates, graduate students, postdocs, and Stanford faculty with the thinking and the partnerships they need to support one another and succeed in doing research together *with* marginalized communities. In practice, this means promoting leadership skills in communicating not just with the most affluent and powerful, but also with more racially and economically diverse groups of people.

The clinic will also provide a meaningful step towards building partnerships with diverse communities around the Bay Area. This effort will enable Stanford to help create more equitable relationships with neighboring communities. Community partnerships through the clinic will also enable Stanford researchers benefit from local and regional innovations in social problem-solving occurring outside of the academy. These efforts can contribute to building better relationships with our neighbors beyond the academy, and increasing the relevance of our research to the most pressing social and environmental problems, both in our immediate community and our region.

Work conducted will include:

- Sustaining meaningful, long-term collaborations with communities outside of Stanford. Such collaborations might include Community Engaged Learning (CEL) classes that benefit partners; workshops and trainings for community organizers, activists and leaders; opportunities for community members to design workshops for the Stanford community. (We seek to explore opportunities to replicate models like the Housing Justice Research Lab, Sustainable Urban Systems (year-long program in CEE), and collaborate and partner with Law School Clinics, the Haas Center, and the Stanford Educational Farm.)
- Providing opportunities for community leadership training that would benefit environmental justice organizations and facilitate the development of skills and recognition for environmental justice leaders.
- Offering course grants with specific criteria for faculty who want to center environmental justice in their work.
- Providing opportunities to support relevant faculty, graduate, and undergraduate research projects focused on environmental justice through research grants, mentoring and advising, internship opportunities, and other resources. Current models from which we draw inspiration: EVP and REIT at Woods, TomKat Internships, TomKat Innovation Grants, StartX.

- Developing an environmental justice faculty/advocate/organizer/scholar in residence program that would support participants' work and provide opportunities to engage with the Stanford community and its resources. This program would be particularly valuable for supporting the work and development of leaders rooted in environmental justice communities, which would support communities' efforts to advocate for themselves, rather than perpetuate dependency on outside expertise. (Consider using a similar model to SEERS (Social Entrepreneurs in Residence year-long program.)
- Support teaching and training on participatory and community-engaged research methodologies.
- Serving as an intellectual hub that can incubate and pilot ideas with a range of partners both on and off campus; and which can connect researchers to each other across all departments and programs at Stanford.
- Serving as an incubator for EJ project ideas generated from the community. (Model: "Science Shop")

We view this plan as an initial step to strengthen Stanford's leadership in interdisciplinary sustainability scholarship that will address urgent social-environmental problems on a broad scale. By bringing a cohort of critical environmental justice scholars to Stanford, we hope to address the unexplored societal and ethical consequences of past, present and future environmental degradation from scientific and economic development; and ensure students are equipped to address societal and ethical impacts of new technologies. In addition, this new set of scholars will bring a strong emphasis on community-based participatory research to bear on interdisciplinary collaborations at Stanford, thereby connecting academic scholarship to larger societal concerns in new ways. In conclusion, we see environmental justice as bringing an innovative and multi-pronged approach to deepen the scientific understanding of social-environmental issues and orient academic scholarship towards realizing both useful and contextualized real world solutions.

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Authors:

Dr. Sibyl Diver, Researcher, Earth Systems Science (comments to sdiver@stanford.edu)

Dr. Liz Carlisle, School of Earth, Energy, and Environmental Sciences, Lecturer and Field Instructor

Dr. Emily Polk, School of Earth, Energy and Environmental Sciences Writing Specialist and Environmental Justice scholar

Dr. Richard Nevle, Director of Earth Systems Program

Anjana Richards, Program Manager at the Emmett Interdisciplinary Program in Environment and Resources

Dr. Josh Dimon, Bill Lane Center for the American West, Postdoctoral Scholar

Patrick Archie, Director of the Stanford Educational Farm Program in the School of Earth Sciences