

**UC-CSU Knowledge Action Network**  
**For Transformative Climate and Sustainability Education and Action**

**KAN Final Report<sup>1</sup>**

*November 17, 2017*

*Introduction*

The UC-CSU Knowledge Action Network (KAN) for Transformative Climate and Sustainability Education and Action is a collaborative effort of UC and CSU educators to scale and intensify California students' literacy in climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and sustainability. Reaching the UC's carbon neutrality goal and comparable CSU climate targets requires more than physical infrastructure alone. Dense networks of active and knowledgeable faculty and students at each UC and CSU campus, bound together with easy networking facilities, are foundational to accomplishing the communications, redirecting administrations and management, and generating the educational and engagement changes needed to drive forward our campuses' climate and sustainability transformations.

Beyond this, the knowledge gained by interacting with our peers throughout the California public higher education system contains the potential for multiplying our impact as educators at every level, from kindergarten through college.

Both the University of California (UC) system and California State University (CSU) system have placed great emphasis on sustainability education, community engaged scholarship, and carbon neutrality in recent years, and this project has sought to merge those efforts for the mutual advantage of the students and all the inhabitants – both human and more-than-human – of California. The KAN connects educators from across the UC and CSU who are engaged in questions and practices related to the

---

<sup>1</sup> This report was drafted by John Foran, drawing heavily on the contributions of Theo LeQuesne and Sarah Ray for the workshop reports, the ideas expressed by KAN members at our conference, Kim Serrano's thoughtful input, and text written by Abby Reyes from the original project proposal and various documents produced throughout the year. It was edited and agreed on by the entire project team, then circulated to all members of the KAN for comments and feedback.

educational aspects of these transformations and who are interested in the rapid diffusion of climate and sustainability education to broader California audiences.

A key principle of our effort has been to affirm the essential roles that social scientists, humanists, educators, the arts, and culture in all its forms can play alongside the STEM fields in advancing transformative climate action. We hope to expand and develop the roles of California college faculty and K-12 teachers in supporting their students to act on climate and in reaching beyond the campus to engage various publics to accelerate the shifts we must make for a livable and just future.

We take as a starting point the United Nations 2030 Sustainable Development Goal 4.7: “To ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.”<sup>2</sup> And we have based our approach to confronting the pressing social and existential challenges of the climate crisis on the foundational perspective of climate justice,<sup>3</sup> seen as a global issue and a universal right of humanity and of nature generally.

### *Purpose*

The KAN is designed to provide California educators a collaborative framework to facilitate interdisciplinary sustainability and climate education and impactful action. The KAN hopes to accelerate California educators’ abilities to offer climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and sustainability education to all Californian students in ways that are culturally contextualized, responsive and sustaining, as well as actionable and relevant to their futures. Going forward, we hope that the network will also enable California educators

---

<sup>2</sup> See the web platform <https://sustainabledevelopment.un.org/>, and in particular the document “Transforming Our World: The 2030 Agenda For Sustainable Development: Sustainable Development Knowledge Platform” (2016), <https://sustainabledevelopment.un.org/post2015/transformingourworld>

<sup>3</sup> “Climate justice” refers to a set of insights and practices that center the effects of climate change on the stakeholders and communities most affected by it yet least responsible for it and often possessing the fewest resources to adapt to it. These tend to be people who live on the “frontlines” of the climate problem, from low-lying island nations to populations in the Global South, to communities of color and low-income areas in the United States. Due to the broad and growing diversity of California’s population, we believe this is the most effective approach to climate change in the educational field.

to engage across and beyond our educational institutions for transformative climate action over time.

### *Overview*

This knowledge action network (KAN) is a work in progress. The strategy design informing the network's process has been and remains emergent and dependent upon the active collaboration of both UC and CSU faculty. The KAN has aimed to bring together four teams divided by geographic region and UC/CSU balance – called area teams – to collaborate virtually, in addition to meeting once at different campuses across the state. During these in-person workshops, each area team learned about existing sustainability and climate education activities at the host campus, worked together to identify common challenges and opportunities, shared visions for achieving a just future, assessed what is needed to operationalize these visions, and identified and prioritized actions for their area team, through the lens of faculty engagement in transforming the education of all California students in climate change issues.

All area teams joined in a culminating virtual conference, discussed later in this report. A primary purpose of this KAN summary report is to synthesize our conversations, track our work so far, and mobilize the network into collaborative action into the short, medium, and long-term future.

### *Desired Outcomes*

With respect to climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and sustainability education, we have worked toward a set of the following outcomes by fall 2017, such that CSU and UC network participants:

- have a shared understanding of where their goals intersect across institutions,
- have begun to create the mechanisms, systems, and relationships needed to leverage each other's resources, knowledge, and networks to achieve those shared goals (including the eventual establishment of an open access digital platform and network),
- have assessed what elements of their shared goals may benefit from coordinated state-level educational policy advocacy or resource allocation requests,
- would feel more supported in developing or furthering their own education initiatives in the local context of their own campuses' existing sustainability educational and operational strategies, and
- would have developed robust understandings of what culturally contextualized, responsive and sustaining, actionable and transformative climate and sustainability education means for California's diverse student populations.

With respect to California educators' engagement across and beyond our educational institutions for transformative climate action, our goal was that by fall 2017, CSU and UC network participants would have:

- begun to consider how to increase institutional visibility in Sacramento on these issues,
- laid the foundations for a P-20 (pre-K to grade 20) project, initiative, or set of resources for California teachers, and
- gained or expanded individual and collective public engagement skills.

### *Planning Team*

The KAN emerged out of the Faculty Engagement and Education Working Group of the [UC President's Global Climate Leadership Council](#). The KAN planning team is comprised of UC faculty project lead [Dr. John Foran](#), UC Santa Barbara graduate student [Theo LeQuesne](#), UC Irvine Sustainability Initiative team member [Kimberly Serrano](#), and [Dr. Sarah Jaquette Ray](#), who leads the Environmental Studies BA program at Humboldt State University, and represents the CSU on the planning team.

The project also benefited greatly from the assistance of Abby Reyes, the Director of the UCI Sustainability Initiative, who worked closely with us, and who co-chairs, with Tom Peterson, Provost of UC Merced, the UC Faculty Education and Engagement working group (FEE) as well as co-sponsors the UC-CSU KAN.

## **What We Did**

### *KAN Selection and Composition*

In the fall of 2016, the project team worked hard to create and distribute as widely as we could a call for applications to both UC and CSU instructors to form the network. We had twenty-eight applications from the UC for thirteen spots, and fifty-eight applications in the CSU for seventeen spots (this disparity in the degree of interest in the two systems is worth noting; we do not try to explain it here). From those applicants who expressed an interest, we designated a CSU-based area coordinator for each workshop, with co-coordinators in the case of CSU Fullerton.

The thirty applicants who were chosen to constitute the KAN come from a very diverse set of backgrounds representing twenty-four distinct disciplines. In addition there was gender, ethnic, and intergenerational diversity: the group consists of nineteen women and eleven men, of whom about one-third are scholars of color, and a roughly equal

mix of senior, mid-career, and junior scholars, including post-docs and non-tenure track lecturers. Seven UC campuses and eleven CSU campuses are represented.

Appendix One contains the full roster and a brief bio of each member of the KAN.

### *Workshops*

In the winter quarter of 2017, the project team worked closely with the area team coordinators [Nicole Seymour and Gabriela Nuñez at CSU Fullerton, Stevie Ruiz at CSU Northridge, Daniel Fernandez at CSU Monterey Bay, and KAN team member Sarah Ray at Humboldt State] to organize the workshops at these four CSU campuses. We held two workshops in late March in southern California, and two in April in central and northern California.

All workshops took place over one and a half days, with a half day devoted to team-building and interaction with significant administrators, faculty, students, and community members organized by the CSU area coordinator at each location, and a full day of structured sessions expertly facilitated by Abby Reyes at the first three workshops and Sarah Ray and Kim Serrano at the last, to identify where each group was starting from, and ending with what potential projects we could envision taking forward.

One of the resources we came to draw on in this process is adrienne maree brown's book, *Emergent Strategy: Shaping Change, Changing Worlds* (Oakland: AK Press, 2017). The "emergent strategy" approach works from the bottom up in an inclusive way to generate a group analysis of the topic at hand and enable the group to focus on the common desired outcomes of all involved. Each workshop was organized by first assessing the *current state* of relevant issues at our own institutions and in California education generally. The second phase of each workshop was a *vision exercise* during which we identified our ideal outcome state. Each workshop then moved to a *change analysis* stage, during which we outlined what would need to change in order to achieve those visions. Finally, each workshop ended with an *action* section where we identified actions that each group member is most passionate about, with the potential to be put into motion beyond the first year of the KAN.

Below we provide, in outline form, a short sketch of the work of each area team's workshops.

#### *Highlights: CSU Fullerton (March 24-25, 2017)*

The most salient challenges noted during the "current state analysis" section included:

- Avoiding burn-out amongst committed but far too small groups of individuals.
- The barriers to institutional/structural support for teaching interdisciplinary classes and co-teaching classes, as well as for integrating a justice-based understanding of sustainability into curricula and syllabi across disciplines.
- Convincing students in the humanities that environmental and natural sciences are important and convincing students in environmental studies and sciences that the humanities are important.
- The failure of the sciences to innovate an inclusive pedagogy that speaks to the lived experiences of students and integrates justice into classes might risk losing students to other disciplines.
- Also at stake is failing to bridge the often already stark divide between campuses and the communities in which they are located.

Important conclusions from this first section were that structural funding and support is what we have to make happen to keep this group going, along with institutional support for interdisciplinary climate justice pedagogy. It was also noted that K-12 education lies outside the expertise and focus of most of us.

We went on to elaborate the core elements of shared vision among the group, which we realized included: funding and incentives for continuation of our work together, a sharing of resources among us, a common desire to overcome institutional and disciplinary barriers to interdisciplinary climate justice, and the need to rethink retention/tenure/promotion and the way faculty teaching and service work is valued by administrators and others.

Thus, in sharing ideas about what needs to be changed,

- One important conclusion was the need to define climate justice, given that many people in the biophysical sciences are already discussing it but not calling it climate justice; we may also need to explain how it fits into the existing priorities and helps solve existing problems that face university administrations.
- An emphasis on how the framing of what we want means ensuring that intersectional climate justice is a concept that connects to existing priorities within the university or campus, so that we can begin building relationships, both across the faculty and among students, faculty, staff, and administrators.

As we deliberated on the actions that followed from the above analyses, members of the workshop organized themselves into several important clusters around key action items: to change how we frame justice as part of existing priorities and disciplines; to change how we can make the connection between sustainability and existing priorities and initiatives to make the case that we may have solutions to the some of

the administration's most pressing problems; and to increase cross-campus conversations in ways that influence our peers and generate leadership on these issues.

*Highlights: CSU Northridge (March 27-28, 2017)*

The following challenges and opportunities emerged from the Northridge "current state analysis":

- We need to acknowledge a cultural divide between the natural sciences and other disciplines.
- We also need to engage students with more diverse interests, not just in the sciences but students with different career aspirations and students coming in not already with interest in sustainability/environmentalism. We need training for educators for those settings/students, and agriculture/industry students.
- In the hard sciences, there is sometimes not enough support for lower income students and those coming from communities of color. Leaving the science major isn't the solution. There is awareness of the need for people of color to get into STEM fields, but not particularly from a social justice point of view.
- There are resource and structural barriers to implement vision and co-teaching.
- The relevance of the connections between climate change teaching and tangible knowledge. Global interconnections are another real curriculum hole that can be filled to relate the global to the local.
- There is a disconnect between all educational levels, and community colleges are a vital link between K-12 and higher education. There is also a lack of understanding of K-12 systems and how they work at the college level. There are a lot of models from K-12 about "integrated instruction" that can be used by higher education, one example being arts integration.
- There is a need to communicate and work with educators, students, and community members in order to lay the groundwork for pre-K through 12<sup>th</sup> grade teachers, students, and families to be part of the climate justice movement.
- CA does have a climate action plan, but it is not curriculum focused. We need more conversation about community engagement and putting this into the curriculum.

In our visions of a desirable future, one large question we asked was how can the academy be more meaningful to communities? We could take a practical action-oriented approach to instruction with more emphasis on community engagement, field trips, or internships. Or tap the knowledge of students, families, and communities into sustainability and environmental courses, for example, by drawing on indigenous world views and values, students' ancestral ties and knowledge about environment, and integrating these with sustainability. Another is the importance of providing students with access to outdoor activities like camping and hiking.

We also took up teaching and curriculum development: there was enthusiasm for co-teaching across the humanities/science divide, and the importance of self-care for students and ourselves (thinking of sustainability as a pedagogy, not just a content area).

To achieve these goals, our shared analysis was that some of the things that would need to change include:

- Gain institutional support for our vision of intersectional courses, for team teaching, and for a pedagogy that is revitalizing and sustaining,
- Provide more opportunities and incentives for faculty to support each other like the KAN workshop, and
- Have undergrad courses taught by instructors who are supported and not exploited part-timers.

In our final session, “action” groups explored two possible initiatives:

Eco-villages as broad, cross-disciplinary large service learning projects that serve communities adjacent to campuses and engage in applied interdisciplinarity collaboration for students and faculty. John Foran, Amanda Baugh, Rosa RiVera Furumoto, and Stevie Ruiz started planning a follow-up meeting at UCSB.

The development of a White Paper regarding interdisciplinarity, in order to change the way we talk across paradigms and disciplines by creating ways to pair justice and science. Sarah Ray, Valerie Wong, and Allison Mattheis have already created and shared an outline.

*Highlights: CSU Monterey Bay (April 14-15, 2017)*

The “current state analysis” at this workshop surfaced the following challenges and opportunities:

- The emphasis on increasing the role of students in KAN visioning and projects.
- The great potential for cross-institution collaboration on the CSU sustainability minor and a future UC sustainability GE requirement.
- Each KAN individual’s need to put resources up on Nuclino [the online Knowledge Sharing Platform that KAN members are currently using to connect and communicate virtually] and using Nuclino effectively.
- The reality that many of California’s teachers don’t have knowledge of ecosystems science or systems thinking.
- That teaching better is harder and is not rewarded.
- Our need for greater coordination and networking.

- The fact that analysis of the root causes of the environmental and climate crises are rarely taught, and that greater attention and analysis need to be given to why interdisciplinarity and intersectionality are essential for inclusive pedagogy.
- The intensified assault on science, inseparable from the assault on the most marginalized members of society, and our need to communicate this.
- That both students and faculty are overwhelmed by the enormity of dealing with the climate crisis and integrating it with social justice, in the face of an impending environmental catastrophe.

Our effort to identify and articulate the core elements of a shared vision brought out the importance of placing emphasis on students' skills, psyches, and empowerment to create social change; realizing the potential for student learning in the community and partnerships between the university and the communities that neighbor with it; the goal of ensuring that students are ready and able to get jobs that help create positive social change. Keys to achieving these goals involved the understanding that process and outcome must be inclusive; the value of collaboration in curriculum building and co-teaching; and the integration of a justice orientation into all courses, regardless of discipline.

To achieve these goals, our shared analysis was that some of the things that would need to change include:

- faculty evaluation criteria,
- a greater presence of faculty (and the university more generally) in the local community,
- shifting resources towards transformative education,
- developing and sharing co-teaching models,
- providing more examples of how these teaching methods work and how they've helped empower students to make change in their communities, and
- challenging the established hierarchy of knowledge and culture of fear within all levels of education.

Individual next steps cohered around three themes: getting students involved with the community, creating a culture of respect for multiple knowledges in our own projects, and increasing awareness of the interdependence and interconnectedness of diversity and environment.

Clusters of interest formed around exchanging site visits to each other's campuses after the KAN (Jessica Pratt, Ryan Alaniz, David Shaw, Daniel Fernandez, and Chelsea Arnold), developing summer programs for faculty and students (Victoria Derr, Summer Gray, David Pellow, Eugene Cordero, and Corin Slown), and finding ways to establish a web-based platform for members to tell each other more about

themselves and how they can get connected (Sarah Ray, Kim Serrano, John Foran, and Theo LeQuesne).

*Highlights: Humboldt State University (April 28-29, 2017)*

Our current state analysis revealed that:

- Several members are interested in working with K-12 teachers, families, and students.
- More institutional support is needed to do this work.
- Not enough is being done on UC-CSU collaboration.
- A systemwide sustainability minor is coming to CSU, and the UC could build one too.
- Lots of the sustainability courses we're talking about could be done online.
- Students and faculty need to be able to talk to each other across disciplines.
- Communication and framing are important.
- More attention needs to be paid to the psychological and emotional well-being of students and faculty working on these issues.
- Students need to feel empowered.

The core elements of our shared vision revolved around two broad agreements: 1) that sweeping administrative changes are necessary, from reward structures to culture to attitudes towards student activism; and 2) we need greater emphasis on preparing students with practical skills to engage in community-based activism and thus should develop curricula that give students some of the best available practical tools and skill sets to make change in their community. Members were also enthusiastic about making student-driven and student-centered classes a priority and making student activism easier, more rewarding, and less penalized.

Accomplishing this could involve:

- a written report and/or manifesto to be given to administrators,
- revising the rewards structure within educational institutions,
- placing emphasis on the need for a shared resources center (likely online)

The team was also excited by the idea of instigating a shift in administrative culture and attitudes towards interdisciplinarity, activism, and community engagement.

The “action” groups we formed discussed two possible initiatives:

The writing of a “manifesto” based on the KAN’s activities (Theo LeQuesne, Helene Margolis, Sarah Ray, and Stephen Wheeler). After some differences of opinion as to whether this would be the project team or KAN members’ responsibility and whether

the KAN report and such a manifesto were the same thing, the majority of the group preferred that a manifesto be different from the report, with the manifesto under the purview of interested KAN members and the report written by the KAN project team, and that such a manifesto's purpose would be to articulate a vision that synthesizes the specific changes we wish to make and ways to achieve those changes in an inspiring and accessible way.

A second group (John Foran, Mark Stemen, Sarah Ray, and Sahar Nouredine) discussed how the KAN could create tools for educators. Though this could start with our existing use of Nuclino, we realized that Nuclino was not suitable as a public-facing platform, and that perhaps CSERL (the UC Center for Sustainability Education and Learning) might be a good host for the platform. The platform would need to have a curator and to be interactive, with publicity, visibility, and purpose.

One ultimate goal might be the creation of a “virtual institute” for climate/sustainability education.

### **The KAN's Spring 2017 Nearly Carbon-Neutral Conference**

Our nearly carbon-neutral [NCN] conference was made possible through the work of KAN member Ken Hiltner, the person behind this concept, which has already resulted in two very successful previous NCN conferences.<sup>4</sup>

Each KAN member video-recorded a talk of approximately fifteen minutes on any topic close to their heart that was broadly within the purview of the KAN's mission and goals. Two options were offered to frame the talks:

*Option 1:* What is one of your best practices in teaching climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and/or sustainability in a culturally responsive and sustaining way? What makes it work? How does/can it scale? What obstacles and barriers have you encountered? [if appropriate] Where are you stuck? What would you need to go forward?

---

<sup>4</sup> “Climate Change: Views from the Humanities” [[http://ehc.english.ucsb.edu/?page\\_id=12687](http://ehc.english.ucsb.edu/?page_id=12687)] in Spring 2016 and “The World in 2050: Imagining/Creating Just Climate Futures” [<http://ehc.english.ucsb.edu/?p=15197>] in fall 2016. A third conference, “Activists, Artists, and Academics: Building Just Climate Futures Together” [[http://ehc.english.ucsb.edu/?page\\_id=17106](http://ehc.english.ucsb.edu/?page_id=17106)] took place in August 2017.

*Option 2:* What vision, proposal, or idea do you have for achieving the goals of the KAN in teaching climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and/or sustainability in a culturally responsive and sustaining way? What is exciting about it? How does/can it scale? What obstacles and barriers have you already or might you encounter? [if appropriate] Where are you stuck? What would you need or what would need to happen to make it a reality?

The titles and short descriptions of the talks can be found in Appendix Three, and the talks themselves can be viewed at [http://ehc.english.ucsb.edu/?page\\_id=16797](http://ehc.english.ucsb.edu/?page_id=16797).

This was followed by four weeks of comments and Q and A in on-line discussions of each other's ideas, lasting from Monday, June 12 through Friday, July 14. The audience for our on-line conference, conceived initially to be the thirty members of the KAN, grew during this period as we extended invitations to other interested parties to join in (our longer-term intention is for these talks to be freely available to anyone as part of the resources that come out of the project). These additional attendees included members of the UC Carbon Neutrality Initiative (CNI), the UC Faculty Education and Engagement (FEE) working group, attendees at three KAN presentations from CHESC [the California Higher Education Sustainability Conference, held at UC Santa Barbara at the end of June], and a group of students from Missoula, Montana's Big Sky High School who themselves hosted a weeklong symposium in June that KAN member John Foran attended.

The most common challenging feature of the conference was for participants to find the time to dedicate themselves to "attending" [viewing] each other's talks and contribute to the discussions, given all the obligations we face throughout the year and the overlap of the Q and A period with the end of the spring term and beginning of the summer.

Despite this, the amount of discussion and the number of KAN members who participated in it were substantial: 2,207 words on the two opening remarks; 2,283 words on the five Northridge talks; 4,565 words on the eight Fullerton talks; 6,209 on the nine Monterey Bay talks; and 1,935 words on the three Humboldt State talks. In all, twenty-three members participated in the discussion. The total text of these discussions comes to around 17,000 words, about 20-25 percent of a fair-sized book, or three to four scholarly articles!

The opportunity for rich interactions and mutual creation of productive new ideas was much more pronounced in the workshop structure, but these only introduced a quarter of the network to each other at each of the four events. This desire for more extensive face-to-face work surfaces in the final recommendations we offer below.

## Outcomes

The following projects and issues were identified in the course of our work:

### *A Permanent Digital Platform for the KAN*

First and above all, KAN aims to build a dynamic, growing network platform with effective communication tools as a permanent home for the resources we have co-developed so far, and a place to add new resources in the coming year. Interest in this outcome was expressed at all four workshops and in the general discussion at the conference. *California is ripe for a discussion about further incorporating climate justice/sustainability into teacher training and preparation across disciplines. With sufficient funding, this could become a substantial living archive and repository of sustainability/climate change/climate justice-based teaching and research projects, and a conduit for new relationships and collaborations between California K-16 instructors and students alike.*

For the moment, we can direct interested parties to the conference website at [http://ehc.english.ucsb.edu/?page\\_id=16797](http://ehc.english.ucsb.edu/?page_id=16797), our UC-CSU KAN project page [<http://climatechampions.ucop.edu/uc-csu-knowledge-action-network-for-transformative-climate-and-sustainability-education-and-action/>], and we have the UC Office of the President Climate Champions website [<http://climatechampions.ucop.edu/>]. We also have a members' only database on the Nuclino platform containing resources, such as syllabi and other materials.

During the 2017-2018 academic year, KAN is exploring various possibilities for this digital platform, in consultation with stakeholders at the UC Office of the President and members of the Faculty Engagement and Education work group of the Carbon Neutrality Initiative, among others. Once stakeholder engagement is complete, we propose to build, launch, and grow a CSERL-KAN Digital Platform if we can get broad UC and CU support for it. It is our intention to propose to build a CSERL-KAN Digital Platform with sufficient and broad UC and CSU support.

### *An Administrative Structure to Ensure the Continued Existence of the KAN*

The formal duties of the KAN end with the delivery of this report.

In order to facilitate the transition to an as yet unfunded ongoing KAN, we are in discussions about the possibility of forming a KAN coordinating team for the 2017-18 academic year. John Foran, Sarah Ray, and Mark Stemen have already agreed to serve, and we are inviting all interested members of the KAN to join us. This is necessary to ensure the continued existence and vitality of the KAN project beyond this first, funded year of activity.

This ongoing coordinating committee will explore ways and means of maintaining and consolidating the web presence of the KAN, building the KAN network outward, and assessing and obtaining any resources we find are needed to do this.

## **Two Other Key Outcomes of the KAN**

In addition to the near-universal desire for a digital platform to build and sustain the network, the workshops surfaced at least two other areas for possible future collaboration based on identified shared goals.

### *Building New Interdisciplinary and Inter-campus Relationships*

This was a focus of the Fullerton workshop, and it was a thread running through the others as well. In part, a web platform could facilitate this. So might the project of writing a KAN Manifesto. But it will need volunteers to make it happen.

### *Creating New Programs to Engage a Wider Range of Students in Community Sustainability, Climate Justice, and Service Learning Opportunities*

This emerged clearly at the Northridge workshop, where a group consisting of Stevie Ruiz, Rosa DeRivera Furumoto, and John Foran agreed to convene a meeting in Santa Barbara, ideally in the 2017-18 academic year, to work on it with interested others.

Other common themes of the workshops included:

- the importance of the psychological and emotional well-being of students; their empowerment; and the centering of students in addressing the issues generally,
- the potential of the CSU-wide sustainability minor to come to fruition within the CSU and to link up with similar efforts across the UC to establish sustainability and related minors [such as the Environmental Humanities minor and the Environmental and Climate Justice Studies minor that are in preparation at UC Santa Barbara],
- revising the reward structures in *both* California higher education systems for faculty who teach and do sustainability-related environmental and climate-oriented work and service in communities, this being part of a larger desire to influence the administrative and campus-wide cultures at our institutions to value and support these efforts.

We acknowledge that the realization of any of these worthy goals will be determined by the interested KAN members who gravitate to them and the time and commitment they possess to carry them forward, with or without funding and institutional support.

## Moving Forward: Conclusions, Challenges, and Recommendations

In this concluding section of the Report, we briefly consider the degree to which we achieved some of our initial desired outcomes and stated objectives. Based on the emergent action-oriented results of the project outlined above, we also offer some final conclusions and recommendations.

### *Assessment of the Year's Work*

If we return to the initial objectives of the KAN, as stated on page four, we may briefly assess the results as follows:

With respect to education on climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and sustainability, we have worked toward the above described desired outcomes in the following ways. By fall 2017, CSU and UC network participants will:

- Have a shared understanding of where their goals intersect across institutions [*this took place at every workshop and has been addressed overall in this report*],
- Have begun to create the mechanisms, systems, and relationships needed to leverage each other's resources, knowledge, and networks to achieve those shared goals (including the eventual, establishment of an open access digital platform and network) [*this was fully addressed during the workshops and is the major recommendation of this report going forward*],
- Have assessed what elements of their shared goals may benefit from coordinated state-level educational policy advocacy or resource allocation requests [*the workshops rarely got to the public advocacy issue, although each began with summary reports on the California K-12 science standards and other relevant state-level policy, legislative, and educational initiative, and each workshop generated an assessment of resource allocation requests that are needed*],
- would feel more supported in developing or furthering their own education initiatives in the local context of their own campuses' existing sustainability educational and operational strategies [*our exit survey demonstrates that this happened, and it is our feeling, as conveners, that this was one of the main, if subjective and sometimes intangible results of the workshops and some of the conference interactions on-line*], and
- would have developed robust understandings of what culturally contextualized, responsive and sustaining, actionable and transformative climate and sustainability education means for California's diverse student populations [*this was a major issue at every workshop, addressed both explicitly and implicitly constituting a guiding thread of our deliberations*].

With respect to California educators' engagement across and beyond our educational institutions for transformative climate action, our goal was that by fall 2017, CSU and UC network participants would have:

- begun to consider how to increase institutional visibility in Sacramento on these issues [*this is unfinished business to be taken up in future discussions involving some of us with other stakeholders, such as the UC Global Climate Leadership Council, and perhaps with counterparts in the CSU, if possible*],
- laid the foundations for a P-20 project, initiative, or set of resources for California teachers [*the main fruit of our work is the digital platform we are committed to build from the materials we have generated in our work this year, hopefully to be launched and made more widely available in the course of the 2017-18 academic year*], and
- gained or expanded individual and collective public engagement skills [*our exit surveys speak to this question, and suggest that this was a widely shared outcome the thirty members of the KAN*].

Other potential impacts/outcomes of KAN participation include:

- exposure to new teaching materials/resources to use in the classroom,
- exposure to new pedagogies to use in the classroom,
- new curricular ideas to apply on campus,
- new strategies and approaches to working with administrators,
- new relationships with colleagues from other campuses, both within and across the UC and CSU systems,
- the opportunity to share our own pedagogical and curricular innovations,
- the relationship-building that can lead to new collaborations, and
- the establishment of a shared vision and collective will for future action.

### *The Future*

The key challenge moving forward is to nurture and build the UC-CSU Knowledge Action Network we have established this year. In the first instance, this means solidifying the relationships and collaborations we have already started among the thirty instructors, and building the KAN outward to other UC and CSU participants so that the network can both deepen and broaden its activity. In particular, we would like to establish new relationships with faculty, staff, and administration in the schools of education and teacher training throughout the two systems.

Based on the feedback we have received so far – especially at the CHESC [California Higher Education Sustainability Conference] gathering in June 2017 – we would also like to expand the network at the college level beyond the UC and CSU, creating

relationships with instructors throughout California, from community colleges to private colleges and universities.

Additionally it makes sense to include K-12 teachers in our network, as the resources we have created are partly designed with them in mind, and they will have many contributions of their own to make to our common project of transformative knowledge and action on climate change, sustainability, climate justice, and carbon neutrality.

We could also work with other interested stakeholders from elected officials, school administrators, parent and teacher associations, and nongovernmental organizations such as the Oakland-based Breakthrough Communities project [<http://breakthroughcommunities.info/>] and the Portland, Oregon-based Rethinking Schools initiative [<https://www.rethinkingschools.org/>], who are engaged already in pathbreaking work at the K-12 level. We have made contacts with both that could be pursued and deepened.

Finally, many KAN members would like to see a face-to-face gathering in the coming year of original KAN participants and perhaps kindred others as a way to solidify relationships across the whole network and to generate future collaborations among the emergent interest clusters represented in the network. A relatively modest amount of additional funding to host such a gathering could build a very positive momentum to our efforts moving forward.

*Thus, a certain amount of further funding is key to realizing these goals and the promise of our initiative.* The challenge is to incentivize further work, given how busy all KAN members are. These projects exist outside of workloads as they are currently defined for most faculty, and even more so for non-tenure-track faculty, and so, in the absence of funding, will only be achieved to the extent that members commit to overloads. Each workshop acknowledged this challenge and noted the importance of financial, reduced workload, or release-time incentives to carry out these projects.

We end the year on the optimistic note that this network will continue to grow and thrive in the coming year to actualize more fully the considerable potential inherent in it from the start, and realized to a remarkable degree in the course of our work together this year.

Together We KAN!/*Conjuntos Podemos!*

## **Appendixes**

**Appendix One: Composition of the KAN with Brief Bios of the Members**

**Appendix Two: Workshop Agendas**

**Appendix Three: NCN Conference with Titles and Descriptions of the Presentations**

**Appendix Four: Slides Developed for Use in Presentations on the KAN**

**Appendix Five: Exit Surveys of KAN Members**

## Appendix One: Composition of the KAN with Brief Bios of the Members

### FULLERTON AREA TEAM

#### *Julie Ferguson (UC) Irvine*

Julie Ferguson is a lecturer in the Earth System Science Department at UC Irvine. Her research interests include paleoclimate – analyzing stable isotope and elemental composition of biogenic calcium carbonate e.g. coral, to reconstruct sea surface temperatures, salinities, upwelling and ocean current for the past. She is now trying to move into carrying out geoscience education research. She is interested in the role that large general education geoscience classes can play changing student attitudes to societally relevant geoscience topics such as climate change, sustainable fisheries. Julie is also interested in studying how the adoption of the new generation science standards affects the background geoscience knowledge of non –science majors.

#### *Gabriela Nuñez (CSU) Fullerton [co-coordinator]*

Gabriela Nuñez is an Assistant Professor of Chicana and Chicano Studies at CSU Fullerton. Her areas on academic research and interests include contemporary Chicana/o/Latina/o literature and culture, ethnic U.S. literatures, genre fiction, ecocriticism, food studies, transnational American studies, and cultural studies in the Americas.

#### *Lily House Peters (CSU) Long Beach*

Lily House-Peters is Assistant Professor of Sustainability Science in the Department of Geography. She serves on CSULB's Sustainability Task Force and leads the Resilience Working Group commitment to the Second Nature Climate Resilience Commitment in April 2016. Her research focuses on water governance, specifically the nexus between water security, climate change, environmental justice, and conservation. She has also researched rural community resilience along the US-Mexico border, compared urban water demand and adaptive capacity planning in the cities of Portland, Oregon and Phoenix, Arizona, and explored effective interdisciplinary and transdisciplinary team collaboration for sustainability across the Americas. She is excited to develop innovative curriculum for sustainability, including plans to develop a capstone course for students in the Environmental Science & Policy (ES&P) major and minor, and in the future to develop curriculum for the Sustainability minor, if that program becomes a reality.

#### *Jessica Pratt (UC) Irvine*

Jessica Pratt is a community ecologist broadly interested in research and education in the applied fields of conservation biology and restoration ecology. Currently, I am a lecturer in Ecology & Evolutionary Biology at UC-Irvine and teach courses in the campus-wide minor in Global Sustainability! She has been a dedicated researcher and educator in the fields of ecology and conservation since 2003 and have been working and living in Southern California since 2005. Jessica has conducted research on animal behavior, tropical bird foraging ecology, the conservation value of tropical agricultural ecosystems, the dynamics of butterfly species range shifts in response to climate change, and most recently for her Ph.D., the effects of plant species responses to environmental change on associated animal communities. Her teaching experience spans middle school up to the university level and she has taught courses ranging from genetics to conservation biology.

*Jade Sasser (UC) Riverside*

Jade Sasser is an assistant professor in the Department of Gender and Sexuality Studies at UC Riverside. Her research and teaching explore the relationships between environmental problems and women's health. Her interests include population, environmental activism, global public health, and feminist approaches to political ecology and science studies. She is currently working on a book manuscript titled "Making Sexual Stewards: Population, Climate Activism, and Social Justice in the New Millennium", which analyzes the role of young activists in transforming population stabilization advocacy into a movement for social and reproductive justice.

*Nicole Seymour (CSU) Fullerton [co-coordinator]*

Nicole Seymour is an assistant professor in the Department of English, Comparative Literature, and Linguistics at CSU Fullerton. Her research and teaching areas include contemporary American literature, culture, and film; environmental humanities/ecocriticism; and gender and sexuality studies. Her first book, *Strange Natures: Futurity, Empathy, and the Queer Ecological Imagination*, won the 2015 Book Award from the Association for the Study of Literature and Environment. She is currently working on her second book, *Bad Environmentalism*, which considers irreverent and anti-sentimental expressions of environment concern in contemporary literature, film, TV and performance art.

*Kristina Shull (UC) Irvine*

Kristina Shull is a lecturer in the History Department at UC Irvine. Her research interests include immigration, immigration enforcement and detention, foreign policy, US and the world, climate change, race, gender, media culture. As a Soros Justice Fellow, Shull is currently working with non-profit Community Initiatives for Visiting Immigrants in Confinement (CIVIC) to dismantle the immigration detention system

from the “inside” by challenging censorship practices, exposing abuses, and lifting up migrant voices in popular media and public discourse.

*Lucy HG Solomon (CSU) San Marcos*

Lucy HG Solomon lives and works in the hybrid world of art and science. Co-founder and artist with The League of Imaginary Scientists, HG Solomon is an assistant professor of Media Design at California State University, San Marcos. She teaches art across STEAM curriculum. Her work has exhibited globally, including throughout North America, Europe, Asia, Australia, and Latin America. In Bogotá, Colombia, her artwork was featured in the country’s celebration of the World Year of Physics. An internationally exhibiting artist whose subjects range from microbiological landscapes to manmade glaciers, her work layers science with narrative. Lucy HG Solomon received an MFA in Art from Claremont Graduate University, after which she co-founded and directed the Institute of Arts and Multimedia at Los Angeles Mission College. She is a founding member of the art and science collective, The League of Imaginary Scientists, whose creative output has been anthologized in a book by the Museum of Contemporary Art in Los Angeles: *Social Practice at MOCA 2008-2012*.

## **NORTHRIDGE AREA TEAM**

*Amanda Baugh (CSU) Northridge*

Amanda Baugh is Assistant Professor of Religious Studies at California State University, Northridge, where she is also Director of the Program in Civic and Community Engagement. Baugh specializes in the study of American religion and environmental values with special attention to issues of race, ethnicity and class. She is the author of *God and the Green Divide: Religious Environmentalism in Black and White*.

*David Cleveland (UC) Santa Barbara*

David Cleveland is a human ecologist who has done research and development project work on sustainable agrifood systems with small-scale farmers and gardeners around the world, including in Bawku District, Upper East Region (Ghana), Oaxaca (Mexico), Zuni and Hopi (southwest USA), Peshawar Basin, Khyber Pakhtunkhwa Province (Pakistan) and Santa Barbara County (California, USA). He is a Research Professor in the Environmental Studies Program and the Department of Geography University of California, Santa Barbara (UCSB). He is also co-director of the Center for People, Food and Environment in Tucson, Arizona. Cleveland’s research and teaching have focused on sustainable, small-scale agrifood systems, including plant breeding and

conservation of crop genetic diversity, local and scientific knowledge and collaboration between farmers and scientists, and on the role of local food systems in climate change, nutrition, and food sovereignty.

*Ken Hiltner (UC) Santa Barbara*

Ken Hiltner is a professor of the environmental humanities at the University of California at Santa Barbara (UCSB). The Director of the Environmental Humanities Initiative, Hiltner has appointments in the English and Environmental Studies Departments. This site was originally created to house a variety of materials supporting his courses, though now also aggregates resources relating to research and professional service. Although earlier versions of this website contained dozens of pages, this incarnation contains just three, which serve as gateway (principally via the curriculum vitae) to a range of online material, such as course descriptions, recent talks, research, teaching philosophy, and more.

*Allison Mattheis (CSU) Los Angeles*

Allison Mattheis joined the CCOE faculty in 2013, and teaches in the Ed.D. in Educational Leadership, M.A. in Educational Foundations, and B.A. in Urban Learning degree programs. She is a former secondary school science teacher and holds a K-12 Principal's License (administrative credential) from the state of Minnesota. Her research interests include sociocultural analysis of policy and the exploration of educational cultures and climates, using critical ethnographic qualitative approaches as well as interdisciplinary mixed methods. Her work as an educator is driven by a commitment to creating inclusive learning environments that value diversity and promote equity for all students.

*Rosa RiVera Furumoto (CSU) Northridge*

Rosa RiVera Furumoto is a Professor in the Chicano/a Studies Department at CSUN. Her research interests include: Chican@/Latin@ Parents' Critical Consciousness, Cultural Capital, School Involvement, Use of Chican@/Latin@ Children's Literature with Families for Purposes of Humanization, and Urban School Militarization.

*Stevie Ruiz (CSU) Northridge [coordinator]*

Stevie Ruiz is an Assistant Professor in the Chicano/a Studies Department at CSUN. His areas of research and teaching interests include critical social geography, Chicana/o Studies, U.S.-Mexico Border Studies, and comparative race and ethnicity. He is an interdisciplinary scholar and attends conferences that include the Association

of American Geographers, Organization for American Historians, American Society for Environmental History, and/or Law & Society.

*Valerie Wong (CSU) Los Angeles*

Valerie Wong is a lecturer in Biology at CSULA, Fullerton College, and UCLAX. She was a Postdoctoral Associate at the University of Minnesota from 2011-14, where she worked in the Scientific Teaching Program on active learning techniques, developing exercises for scientific concepts, and museum exhibition for elementary school children. She also volunteers at the LA County Natural History Museum and as a University of California Master Gardener, working on public outreach about plant use in California, citizen science, and biodiversity. Her research is in plant and fungal biology, including on the impacts of global temperature increases on plants.

## **MONTEREY BAY AREA TEAM**

*Ryan Alaniz (CSU) Cal Poly San Luis Obispo*

Ryan Alaniz is currently an assistant professor in sociology at Cal Poly State University, San Luis Obispo and collaborates with various academic institutions including: United Nations University-Institute for Human and Environment Security, International Social Science Council, and the Fulbright program. Ryan also volunteers with Engineers Without Borders, The Futbol Project, and Restorative Partners. His fields of interest include Post-disaster recovery, resettlement, and community development, community social health, non-governmental organizations, international development, inequality and social change, California drought, water scarcity resilience, and Latin America.

*Chelsea Arnold (UC) Merced*

Chelsea Arnold is currently an Assistant Project Scientist-Environmental Soil Physics and the CalTeach Program Director at UC Merced. In addition to her research interests in how climate impacts soil processes, she is an advocate for environmental and outdoor education in K-12. She manages a variety of initiatives including various STEM outreach programs for teachers and students and the new Research in Action program. This program works directly with faculty and K-12 teachers to bring research into the classroom.

*Eugene Cordero (CSU) San Jose*

Eugene Cordero is a Professor in the Department of Meteorology and Climate Science at SJSU. His research interests include climate change and atmospheric dynamics (detection and attribution of climate change, wave-ozone feedbacks and the solar cycle), climate change education, and food climate connections. Eugene is also the Director and Climate Specialist of the Green Ninja Project, an educational initiative to inspire interest in the science and solutions associated with our changing climate. Green Ninja curriculum is used to support teachers in the classroom and promote hands-on learning experiences that are designed to meet the Next Generation Science Standards.

*Victoria Derr (CSU) Monterey Bay*

Victoria Derr is an Assistant Professor in the School of Natural Sciences at CSUMB. She engages communities in participatory research for the design, planning, and restoration of natural and built communities. Her published research includes topics of participatory planning with children and youth; environmental education; sense of place; and sustainable, resilient and socially just communities.

*Daniel Fernandez (CSU) Monterey Bay [coordinator]*

Dr. Daniel M. Fernandez is a Professor in the School of Natural Sciences at CSUMB. He teaches classes in first-year physics, Sustainability Systems, Environmental Studies Capstone, and Infrastructure Systems. He also co-coordinates the Environmental Studies program at CSUMB. Dr. Fernandez research focuses on the collection of water from fog, studying techniques to assess the presence of fog and to maximize the collection of fog water. Dr. Fernandez is also engaged with campus-wide sustainability initiatives, and he manages the incipient Sustainable City Year Program.

*Summer Gray (UC) Santa Cruz*

Summer Gray is a University of California President's Postdoctoral Fellow in the Social Sciences at UC Santa Cruz. Her current areas of interest include global inequality and sea change, climate and environmental justice, and the sociology of development. She has written about the Maldives, and is currently working on a book that addresses questions of climate and environmental justice through the interrelated case of Guyana, the Maldives, the Netherlands, and Japan.

*David Shaw (UC) Santa Cruz*

David Shaw is a Continuing Lecturer at Kresge College, Coordinator of the Program in Community and Agroecology (PICA), and Coordinator of the USCS Right Livelihood College (known as the 'Alternative Nobel Prize'). His courses focus on

ecological sustainability, collaborative learning, social justice, and economic prosperity. David has been teaching at UC Santa Cruz since 2004, and in 2012 founded the Kresge College Common Ground Center, offering suite of programs for social justice, economic resilience, and ecological sustainability. He is the Program Coordinator for the Program in Community & Agroecology and coordinates Environmental Studies internships in coordination with the UCSC college gardens and Center for Agroecology & Sustainable Food Systems. David is also a Permaculture designer and educator with his company, Santa Cruz Permaculture, and the Regenerative Design Institute.

*David Pellow (UC) Santa Barbara*

Professor David N. Pellow is the Dehlsen Chair and Professor of Environmental Studies and Director of the Global Environmental Justice Project at the University of California, Santa Barbara where he teaches courses on environmental and social justice, race/class/gender and environmental conflict, human-animal conflicts, sustainability, and social change movements that confront our socioenvironmental crises and social inequality. He has volunteered for and served on the Boards of Directors of several community-based, national, and international organizations that are dedicated to improving the living and working environments for people of color, immigrants, indigenous peoples, and working class communities, including the Global Action Research Center, the Center for Urban Transformation, the Santa Clara Center for Occupational Safety and Health, Global Response, Greenpeace USA, and International Rivers.

*Corin Slown (CSU) Monterey Bay*

Corin Slown is an Assistant Professor in the School of Natural Sciences at CSUMB. She teaches Organic Chemistry for Biologists, the Environmental Science Capstone Seminar and Physics.

## **HUMBOLDT AREA TEAM**

*Helene Margolis (UC) Davis*

Helen Margolis is an Associate Adjunct Professor in the Department of Internal Medicine at UC Davis. Dr. Margolis has extensive research and public policy experience and expertise related to the health impacts of climate change and environmental factors, most notably heat and air pollution, on vulnerable populations, especially children and older adults. Her 20 years of experience as a California state scientist and program lead, and academic training in epidemiology (PhD),

immunology (MA), and marine sciences (oceanography)/ biology (B.A.) gives her a unique knowledge-base and perspective on issues related to climate change.

*Sahar Nouredini (CSU) East Bay*

Sahar Nouredini is an Assistant Professor in the Department of Nursing and Health Sciences at California State University – East Bay. She is a clinical nurse specialist with over 10 years of experience in clinical and public health nursing and education, and a strong background in occupational/environmental health, outreach, education and research.

*Sarah Ray (CSU) Humboldt [coordinator]*

Dr. Ray works on environmental justice theory, intersections of identity, power, and place, and the environmental humanities. She has published on disability, immigration, motherhood, transnational environmental justice, and teaching environmental justice literature. Her most recent book, *The Ecological Other: Environmental Exclusion in American Culture*, explores the ways in which the dominant US environmental movement, despite being progressive in many ways, often reinforces social hierarchies along lines of gender, class, race, and, particularly, bodily “ability.” She leads the Environmental Studies BA program at HSU.

*Enrique Salmón (CSU) East Bay*

Salmón (pronounced sahl-móhn), is a Rarámuri (Tarahumara). He feels indigenous; cultural concepts of the natural world are only part of a complex and sophisticated understanding of landscapes and biocultural diversity, and he has dedicated his studies to Ethnobiology and Traditional Ecological Knowledge in order to better understand his own and other cultural perceptions of culture, landscapes, and place. Dr. Salmon’s recent studies have led him to seriously consider the connections between Climate Change and Indigenous traditional food ways. Dr. Salmon is currently completing a book focused on small-scale Native farmer of the Greater Southwest and their role in maintaining biocultural diversity.

*Mark Stemen (CSU) Chico*

Mark Stemen is a Professor at CSU, Chico in the Department of Geography and Planning. His expertise is environmental studies, applied geography, and sustainability. Mark is recognized on the campus for his inspiring work with students and the community on issues of sustainability. He has overseen greenhouse gas inventories for Chico State, Butte College and the City of Chico. He is currently working on climate change adaptation plans for the City of Chico and Butte County. Mark has served on the Board of Directors for the Butte Environmental Council since

2010, and has been board president since 2011. Mark is also Chair of the City of Chico's Sustainability Task Force.

*Stephen Wheeler (UC) Davis*

Steve Wheeler is a Professor in the Landscape Architecture Program of the Department of Human Ecology at U.C. Davis. Prof. Wheeler teaches courses related to urban and regional planning, urban design, and sustainable development. He is interested in how many different planning and design strategies can work together to produce more sustainable communities. His research focuses on 1) theory and practice of sustainable development; 2) climate change planning; and 3) urban morphology and the evolution of built landscapes in metropolitan regions.

## **Project Team Members**

*John Foran (UC) Santa Barbara*

John Foran is a Professor of Sociology with affiliation in Environmental Studies, Global Studies, the BREN School, and Latin American and Iberian Studies at UCSB. He teaches classes on Climate Justice, Earth in Crisis, The World in 2050: Sustainable Development and Its Alternatives, Activism, and Radical Social Change. His research and activism are centered on the global climate justice movement. He is also involved with Santa Barbara 350, the Green Party of California, and System Change not Climate Change. He co-founded and is active in the International Institute of Climate Action and Theory [[www.iicat.org](http://www.iicat.org)] and the Climate Justice Project [[www.climatejusticeproject.org](http://www.climatejusticeproject.org)].

*Theo LeQuesne (UC) Santa Barbara*

Theo LeQuesne is a PhD student in the Global Studies department. He studies the Climate Justice Movement's tactics and strategies, and the growing campaign to keep fossil fuels in the ground in the US. He is also a member of the Fossil Free UC campaign and the Climate Justice Project. He is working with the KAN project team and will be bottom-lining the documentation of these workshops.

*Sarah Ray (CSU) Humboldt*

Dr. Ray works on environmental justice theory, intersections of identity, power, and place, and the environmental humanities. She has published on disability, immigration, motherhood, transnational environmental justice, and teaching environmental justice literature. Her most recent book, *The Ecological Other:*

*Environmental Exclusion in American Culture*, explores the ways in which the dominant US environmental movement, despite being progressive in many ways, often reinforces social hierarchies along lines of gender, class, race, and, particularly, bodily “ability.” She leads the Environmental Studies BA program at HSU.

*Abby Reyes (UC) Irvine*

Abby Reyes directs community resilience projects in the Office of Sustainability at UC Irvine & co-chairs the board of EarthRights International. At Irvine, Reyes oversees the Global Sustainability Resource Center & the Regional Climate Resilience Project, & co-chairs Faculty Engagement and Education in the UC Global Climate Leadership Council. Reyes received UC Irvine’s 2015 Excellence in Leadership Award & a 2016 California Higher Education Sustainability Best Practices Award. She has a TEDx talk on How to Come Home.

*Kimberly Serrano (UC) Irvine*

Kim Serrano is an academic coordinator with the UC Irvine Sustainability Initiative specializing in data analysis, visual communication, and community engagement. She currently serves as the Project Manager and Newport Beach Site Coordinator for FloodRISE (Flood Resilient Infrastructure and Sustainable Environments), an NSF-funded study of flood risk and community resilience.

## Appendix Two: Workshop Agendas

### CSU Fullerton Workshop Agenda

Date: Friday, March 24 and Saturday, March 25, 2017

Location: Steven G

CSUF Campus Organizers: Gabriela Nuñez (818) 531-1858 & Nicole Seymour (310) 293-6729

✚ KAN Project Team: John Foran (UC Santa Barbara), Theo Lequesne (UC Santa Barbara), Sarah Ray (Humboldt State), Abby Reyes (UC Irvine), Kim Serrano (UC Irvine)

✚ KAN Participants: David Cleveland (UC Santa Barbara), Julie Ferguson (UC Irvine), Lily House Peters (CSU Long Beach), Jade Sasser (UC Riverside), Kristina Shull (UC Irvine), Lucy HG Solomon (CSU San Marcos)

### Day 1: Friday, March 24, 11am-3:30pm

- *Morning: Travel time and breakfast on your own*
- 11:00am-11:45am Introduction – Meet and Greet
  - *Purpose: To get acquainted and begin building group trust and community*
- 11:45am-1:15pm: Lunch at the Fullerton Arboretum for Lunch (boxed lunch provided)
- 1:15pm-3:15pm: Invited Speakers
  - *Purpose: To learn about the current state of climate/sustainability education at CSU Fullerton*
- 1:15pm-1:45pm: John Bock (director of Center for Sustainability) and Kimberly Gibson
- 2:00pm-2:30pm: Sara Johnson (director of UACRE)
- 2:30pm-2:45pm: Break (snacks provided)
- 2:45pm-3:15pm: Aaron Flora (Renewable Aquaponics)
- 3:15pm-3:30pm: Transition and closing remarks
- 3:30pm-5:30pm: Free time
- 5:30pm-7:00pm: Dinner (optional) Location: Rutabegorz Restaurant; 211 N Pomona Ave., Fullerton, CA 92832 <https://www.yelp.com/biz/rutabegorz-fullerton>

### Day 2: Saturday March 25, 2017, 8:30am-5:30pm

- 8:30am-9:00am: Arrival/Breakfast (continental breakfast provided)
- 9:00am-9:30am: Introduction
  - *Purpose: to set the tone, orient and give direction, and begin building group trust and community*
- 9:30am-11:00am: Focus/Current State Analysis

- *Purpose: To characterize the “current state” of climate/sustainability education in each area’s Cross-campus/Cross-institution Collaboration,*
- *State Level Engagement, P-20 Engagement, and other pertinent matters to the area*
- 11:00am-11:15am: Break
- 11:15am-12:00pm: Vision Analysis Part I
  - *Purpose: To characterize a desired “future state” of climate/sustainability education in California and prioritize the top 3-5 characteristics of that shared vision*
- 12:00pm-1:00pm: Lunch (provided)
- 1:00pm-1:45pm: Vision Analysis Part II
  - *Purpose: To characterize a desired “future state” of climate/sustainability education in California and prioritize the top 3-5 characteristics of that shared vision*
- 1:45pm-1:50pm: Mini-Break
- 1:50pm-3:20pm: Change Analysis
  - *Purpose: To enable dynamic thinking about the range of possible shifts that could be needed to move from current state to optimal state (with special emphasis on faculty engagement)*
- 3:20pm-3:30pm: Break
- 3:30pm-5:00pm: Action/Identifying Next Steps
  - *Purpose: To commit to actionable, manageable steps in pursuit of the vision*
- 5:00pm-5:30pm: Closing

**Campus Visit Agenda**  
**CSU Northridge, March 27-28, 2017**

**Day 1: Monday, March 27, 8 am-5:45 pm** Location: JR153

**Anticipated Attendees (alphabetical, by first name)**

Abby Reyes, UC Irvine

Allison Mattheis, CSU Los Angeles

Amanda Baugh, CSU Northridge

John Foran, UC Santa Barbara (Project Team)

Ken Hiltner, UC Santa Barbara

Kim Serrano, UC Irvine (Project Team)

Rosa RiVera Furumoto, CSU Northridge

Sarah Ray, Humboldt State University (Project Team)

Stevie Ruiz, CSU Northridge (Area Team Coordinator)

Theo Lequesne, UC Santa Barbara (Project Team)

Valerie Wong, CSU Los Angeles

\*Possible Virtual Participation: David Cleveland, UC Santa Barbara (available 1-4pm)

**Arrival**

8:00-8:30am

**Welcome**

8:30-9:00am: Welcome and introductions by Stevie Ruiz, Rosa RiVera Furumoto, and Chair Gabriel Gutierrez

Breakfast available

9:00-9:15am: Introduction by President Harrison

9:15-9:30am: Dean Elizabeth Say provides comments about Sustainability in COH

### **Workshop Introduction (30 mins)**

*Purpose: to set the tone, orient and give direction, and begin building group trust and community*

9:30am-10:00am, Facilitation Lead: Abby

- Framing
  - Agenda review
  - Re-state meeting purpose and desired outcomes
  - Housekeeping
  - Note about special guests who may flow in and out during day (Stevie + Rosa)
- Introductions/check in/go around
- Appreciative Interview

### **Mini-Break (5 mins)**

10:00am-10:05am

### **Focus/Current State Analysis (95 mins)**

*Purpose: To characterize the “current state” of climate/sustainability education in each area’s Cross-campus/Cross-institution Collaboration, State Level Engagement, P-20 Engagement, and other pertinent matters to the area*

10:05am-11:40am, Facilitation Lead: Abby

- Briefing of current state of climate/sustainability structured around:
  - Cross-campus/Cross-Institution Collaboration
  - State level engagement
  - P-20 engagement
  - Additional climate/sustainability matters pertinent to the area
- Facilitated discussion
  - Observations, challenges, opportunities, etc.

### **Break and Transition to Lunch (30 mins)**

11:40am-12:10pm

Walk through Orange Groves and duck pond (Orange Grove Bistro will begin set up while we are walking)

**Lunch (60 mins)**

12:10pm-1:10pm (lunch catered by Orange Grove Bistro)

Location: JR 153

**Break and Transition to Meeting (10 mins)**

1:10pm-1:20pm

**Vision Analysis (90 mins)**

*Purpose: To characterize a desired “future state” of climate/sustainability education in California and prioritize the top 3-5 characteristics of that shared vision*

1:20pm-2:50pm, Facilitation Lead: Abby

**Break and Transition to Tour (10 mins)**

2:50pm-3:00pm

Walk to Geography Map Library

**Tour of Geography Map Library (30 mins)**

3:00pm-3:30pm

Tour led by Chris Salvano

**Group Activity Part 2 (15 mins)**

3:35pm-3:45pm

Led by Abby

**Change Analysis (100 mins)**

*Purpose: To enable dynamic thinking about the range of possible shifts that could be needed to move from current state to optimal state (with special emphasis on faculty engagement)*

3:45pm-5:25pm, Facilitation Lead: Abby

- Brainstorm

**Wrap up/Catch up (5 mins)**

5:25-5:30pm

**Break, Drinks, and Transition to Dinner (15 mins)**

5:30pm-6:00pm

**Dinner**

6:00-8:00: Dinner and drinks on campus

Location: JR153

**Day 2: Tuesday, March 28, 9 am-2 pm****Arrival/Breakfast (30 mins)**

9:00am-9:30am: Light Breakfast at picnic tables

Location: Descanso Gardens, La Canada Flintridge

Picnic Tables

**Action/Identifying Next Steps (90 mins)**

*Purpose: To commit to actionable, manageable steps in pursuit of the vision*

Facilitation Lead: Abby

9:30-11:00am

Location: Descanso Gardens, La Canada Flintridge

Picnic tables

**Snack and transition to Garden Walk (15 mins)**

11:00-11:15am

**Garden Walk (75 mins)**

11:15-12:30pm

**Walk to Lunch Café in Descanso Gardens (15 mins)**

12:30pm-12:45pm, Lunch 12:45pm-2:00pm:

**Campus Visit Agenda**

**CSU Monterey Bay, April 13-14, 2017**

**Anticipated Attendees (alphabetical,  
by first name)**

Abby Reyes, UC Irvine  
Chelsea Arnold, UC  
Merced  
Corin Slown, CSU Monterey Bay  
Daniel Fernandez, CSU Monterey Bay  
(Area Team Coordinator)  
David Pellow, UC Santa  
Barbara David Shaw,  
UC Santa Cruz  
Eugene Cordero, San Jose State University

J

eJessica Pratt, UC Irvine  
JJohn Foran, UC Santa Barbara  
(Project Team) Kim Serrano,  
UC Irvine (Project Team)  
Ryan Alaniz, Cal Poly San Luis Obispo  
S Sarah Ray, Humboldt State University  
(Project Team) Summer Gray, UC  
Santa Cruz  
Theo Lequesne, UC Santa Barbara  
(Project Team) Victoria Derr,  
CSU Monterey Bay

**Day 1: Thursday, April 13, 1:00pm-  
6:00pm Chapman Science  
Building, Room E127 Morning:**  
*Travel time and lunch on your own*

**Introduction**

1:00pm-1:45pm: Introductions and

Context 1:45pm-3:00pm:

Focus/Current State Analysis

3:00pm-4:00pm: Snack and Guest

Speakers

4:00pm-5:00pm: Visit to Watershed Institute (including wood chip bioreactor) and solar farm (including fog collector) en route to back country hike

5:00pm-6:00pm: Brief back

country hike 6:00pm-7:30pm:

Dinner (off campus)

Location: TBD

**Day 2: Friday, April 14, 8:30am-5:00pm****Heron Hall, Room 124****Arrival/Breakfast**

8:30-9:00am

Welcome and Day 2 Orientation (30  
mins) 9:00am-9:30amFocus/Current State Analysis, continued (30  
mins) 9:30am-10:00am**Break (15 mins)**

10:00am-10:15am

Vision Analysis (90  
mins) 10:15am-  
11:45amChange Analysis, Part I (45  
mins) 11:45am-12:30pm**Lunch (60 mins)**

12:30pm-1:30pm (lunch provided)

Change Analysis, Part II (60  
mins) 1:30pm-2:30pm**Break (15 mins)**

2:30pm-2:45pm

Action/Identifying Next Steps (105  
mins) 2:45pm-4:30pmWrap-up (30 mins)  
4:30pm-5:00pm

**Campus Visit Agenda**  
**Humboldt State University, April 28-29, 2017**

**Day 1: Friday, April 28, 8:00am-5:30pm**

**University Banquet Room**

**Anticipated Attendees (alphabetical, by first name)**

George Roderick, UC Berkeley	8:30am-9:20am: <i>Introductions and Welcome from HSU President Lisa Rossbacher</i>
Helene Margolis, UC Davis School of Medicine	

John Foran, UC Santa Barbara  
(Project Team)

**Workshop Overview**

Kim Serrano, UC Irvine (Project Team)

9:20am-9:45am

Mark Stemen, CSU Chico

**Focus/Current State Analysis (Part I)**

Sahar Nouredini, CSU East Bay

Sarah Ray, Humboldt State University  
(Project Team/Area Team Coordinator)

9:45am-10:30am

Stephen Wheeler, UC Davis

**Break**

Theo Lequesne, UC Santa Barbara  
(Project Team)

10:30am-10:45am

\*Ken Hiltner, UC Santa Barbara to join virtually as available

**Introduction**

8:00am-8:30am: Breakfast and Arrival

**Best Practice Sharing**

10:45am-11:15am

**Focus/Current State Analysis (Part II)**

11:15am-11:50am

**Vision Analysis (Part I)**

11:50am-12:30pm

**Lunch**

12:30pm-1:30pm

**Guest Speakers**

1:30-3:00

Carlrey Delcastillo, ENST Senior & climate justice warrior

Morgan King, HSU Sustainability Coordinator, Climate Action Plan

Kelsey Summers, HSU ENST senior, and co-director, Campus Center for Appropriate Technology (CCAT)

**Break**

3:00pm-3:15pm

**Vision Analysis (Part II)**

3:15pm-4:45pm

**Break**

4:45-5:00pm

**Guest Speaker**

5:00pm-5:20pm

Madi Whaley, ENST Senior & HSU Sustainability Champion 2017

**Wrap Up**

5:20pm-5:30pm

**Break and Transition to Dinner**

5:30pm-6:00pm

**Dinner Together, as Possible**

6:00pm-8:00pm: Mazotti's on the Plaza

**Day 2: Saturday, April 29, 8:30am-12:30pm****Nelson Hall 106****Breakfast/Arrival**

8:30am-9:00am: Gather for full breakfast

**Agenda Review**

9:00am-9:10am

**Change Analysis**

9:10am-10:35am

**Break**

10:35am-10:55am

**Action/Identifying Next Steps**

10:55am-12:20pm

**Wrap-up**

12:20pm-12:30pm

**Optional No-Host Lunch in Town**

## **Appendix Three: NCN Conference with Titles and Descriptions of the Presentations**

### **BUILDING A UC/CSU CLIMATE KNOWLEDGE ACTION NETWORK**

#### [A NEARLY CARBON-NEUTRAL CONFERENCE](#)

The UC-CSU Knowledge Action Network for

Transformative Climate and Sustainability Education and Action

*Spring 2017*

[http://ehc.english.ucsb.edu/?page\\_id=16797](http://ehc.english.ucsb.edu/?page_id=16797)

*Jump to panels: [Opening](#), [Fullerton](#), [Northridge](#), [Monterey Bay](#), [Humboldt](#)*

#### **Welcome!**

We are delighted to host this virtual space and welcome you to our community – We’re all in for an adventure, if this goes as we hope! This conference opened on Monday, June 12, 2017, and we now invite all participants to please view and comment on the talks for the next three weeks! On Monday, July 3, the conference and the Q&A will close. After that, the website will remain open to the public and continue to invite participation in the building of this Knowledge Action Network.

#### **Guiding Principles**

We affirm the essential roles social scientists, humanists, educators, and arts and culture play in advancing transformative climate action. We affirm the roles of California faculty in supporting younger generations to act on climate and in reaching beyond the campus to engage various publics to accelerate the shifts. We affirm the United Nations 2030 Sustainable Development Goal 4.7: “To ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of

a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.”

## **Purpose**

Over the course of the 2016-17 academic year, a network of 32 University of California and California State University teachers has been building a Knowledge Action Network (KAN) around issues of teaching sustainability, climate change, climate justice, and climate neutrality to all California students, from kindergarten to the graduate university level.

The purpose of this knowledge action network is to begin to take the steps necessary to provide California educators a collaborative framework to facilitate highly integrative sustainability and climate education and action. The KAN will accelerate California educators' abilities to offer climate neutrality, climate change, climate justice, and sustainability education to all Californian students in ways that are culturally contextualized, responsive and sustaining, as well as actionable and relevant to their futures. The network will also enable California educators to engage across and beyond our educational institutions for transformative climate action over time.

## **Process**

In the spring of 2017, we came together in four regional workshops, and spent one and a half days together at each site getting to know each other, identifying the current state of climate change and climate justice education in California, envisioning what we hope to see in the future, and then beginning to identify ways to get there. In doing so, we explored the facilitation process of “emergent strategy,” based on the book by Adrienne Maree Brown, [\*Emergent Strategy: Shaping Change, Changing Worlds\*](#).

The present “nearly carbon-neutral conference” is the next step in that process. Each participant was asked to make a video of approximately fifteen minutes on one of the following themes:

### *Option 1:*

What is one of your best practices in teaching climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and/or sustainability in a culturally responsive and sustaining way?

### *Option 2:*

What vision, proposal, or idea do you have for achieving the goals of the KAN in teaching climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and/or sustainability in a culturally responsive and sustaining way?

## **Format**

This conference was unusual because of its format, as we took a digital approach. Because the conference talks and Q&A sessions reside on this website (the talks are prerecorded; the Q&As interactive), travel was unnecessary. By 2050, the aviation sector could consume as much as 27% of the global carbon budget ([more](#)). We need to immediately take steps to keep this from happening. This conference approach, which completely eschews flying, is one such effort ([more](#)).

## **Website**

UCSB's Environmental Humanities Initiative (EHI) is hosting this conference on the EHI website. While here, please feel free to explore the EHI site, perhaps starting with our [Intro](#) and [Home](#) pages.

Together We KAN!

¡Conjuntos Podemos!

## OPENING TALKS ([visit panel](#))

*What is a Knowledge Action Network?*

John Foran (UC) UC Santa Barbara

Drawing on two experiences with knowledge action networks to do with enhancing movements for climate justice, I will try to give some shape to the problems, possibilities, and prospects of organizing networks of scholar activists and teachers to address the biggest existential question of the twenty-first century: can humanity survive the unprecedented set of interlocking crises in which we find ourselves? The cases are the UCSB-based Climate Justice Project [[www.climatejusticiaproject.org](http://www.climatejusticiaproject.org)] and our UC-CSU KAN project itself!

*NCN Conference Format*

Ken Hiltner (UC) UC Santa Barbara

This conference was unusual because of its format, as we took a digital approach. Because the conference talks and Q&A sessions reside on this website (the talks are prerecorded; the Q&As interactive), travel was unnecessary. By 2050, the aviation sector could consume as much as 27% of the global carbon budget ([more](#)). We need to immediately take steps to keep this from happening. This conference approach, which completely eschews flying, is one such effort ([more](#)).

## PANELS

### 1. FULLERTON AREA TEAM ([visit panel](#))

*Engaging American Indian students in Earth System Science through a Residential Summer Camp*

Julie Ferguson (UC) UC Irvine

Native Americans are one of the most under-represented groups in geoscience despite a critical need for qualified environmental professionals within tribal communities who can help in managing resources and planning for the changes expected as a result of climate change. This talk will describe a 5-year NSF-funded project which brought American Indian high school students to UC Irvine for a 2-week Earth System Science summer camp (AISI ESS). Students spend the first week camping at the La Jolla Band of Luiseño Indians reservation where they participate in hands-on scientific activities with academic staff and the tribal environmental professionals. The second week is spent at UC Irvine where students complete Native Studies classes and work on individual projects related to environmental issues specific to their tribal community. I will describe the aspects of the camp that we felt had the most impact on students, and our ideas for continuing to increase the participation of American Indian students in geoscience and other STEM fields.

*Latina Environmentalist Activism in Los Angeles: the Ovarian Psycos Bicycle Brigade*

Gabriela Nuñez (CSU) CSUF

I build on the work of scholars of the humanities who argue that “the humanities provide an imaginative space and set of critical tools for grappling with issues of power, representation, and materiality. Historical knowledge and interpretive skills help us untangle the oftentimes invisible connections between ordinary structures of feeling, habit, and the political facts of the modern carbon economy that fuels climate change” [Teaching Climate Change in the Environmental Humanities, edited by Stephen Siperstein, Shane Hall, & Stephanie LeMenager (New York: Routledge, 2017), 4]. What role can Chicana cultural production have in the teaching of climate change and sustainability? My presentation speaks to this question to consider how we can use Chicana cultural texts in the classroom to teach the vital connections between social justice, feminism, climate change and sustainable ways of living. By focusing on the Ovarian Psycos Bicycle Brigade I discuss how this group co-opts the language of fear and history of colonialism to assert themselves as cyclists and activists.

*Can the Resilience Commitment be an Effective Step in Transforming our Curriculums, Campuses, and Communities for Climate Justice?*

Lily House Peters (CSU) Long Beach

This talk will draw on my firsthand experience implementing the Second Nature Resilience Commitment at California State University, Long Beach (CSULB). The Resilience Commitment is a comprehensive 3-year campus planning and community engagement process that aims to reduce vulnerability and enhance resilience to future climate impacts. The concept of resilience has been troubled in the academic scholarship, receiving critique from multiple disciplines for its lack of attention to power relations, politics, and social/environmental justice. However, the process of operationalizing the Resilience Commitment at CSULB has sought to thoughtfully engage these critiques and move forward with issues of diversity, power imbalances, and climate justice as core organizing themes. Thus, I will attempt to tackle the question of whether the Resilience Commitment can function as an effective step in transforming our curriculums, campuses, and communities to achieve climate justice goals. I will share our experience with the process, including opportunities and obstacles, and discuss how we are working to infuse resilience into a broad range of campus and community activities.

*Teaching professional and leadership skills, sustainability awareness, and self-efficacy through collaborations between university and high school classes*

Jessica Pratt (UC) Irvine

Communication and collaboration across disciplinary boundaries and between communities of learning and practice are essential to addressing the myriad conservation and sustainability issues facing our society. One step in achieving this is to foster mutually beneficial relationships between the university and the community to promote positive social and environmental change. A learning objective that educators often have for students is effective communication of course content to broad audiences. Assignments relating to this learning objective typically only require students to interact directly with other students in their classes; where students conduct and present research projects on relevant issues this often means they are “preaching to the choir.” Integrating student-public interactions into courses through community-engaged scholarship and presentation of course projects to audiences outside of the university setting provides students with a more empowering experience that teaches essential professional and leadership skills. In particular, collaborations between university and high school classes on such projects can increase sustainability awareness and self-efficacy for all students. Interaction in such settings allows students to increase the impact of their research, network with important community groups, form mentoring relationships, and contribute to a shared vision for sustainability locally.

*Student Experts and Partners: Engaging Student Strengths in the Climate Justice Classroom*

Jade Sasser (UC) Riverside

Students today have access to a broad range of digital platforms, many of which they engage with daily. Drawing on student knowledge and expertise in digital communications and social media platforms repositions them as partners in the classroom and offers strong opportunities for pedagogical innovation. In this talk, I review examples of how I have partnered with students to develop lesson plans, interactive assignments, data repositories, and opportunities for creative advocacy and other engagement on gender, justice, and climate change.

*“Feeling Funny about Environmental Crisis: How and Why to Teach beyond Gloom and Doom”*

Nicole Seymour (CSU) Fullerton

I will explain how I teach texts that model a broad range of affective responses to climate change — that is, that move beyond “gloom and doom” to showcase irony, irreverence, and other “inappropriate” feelings. These texts do multifaceted work: first, they identify climate change as an affective (and not just scientific, or even political) issue, they open up discussions with students around their own feelings, and they demonstrate the political contributions of traditions such as parody and satire.

*Doing History is Climate Action? Collaborating with Non-Profits on Storytelling and Public Education Projects*

Kristina Shull (UC) Irvine

I will discuss how a “Climate Refugees” History methods and writing course I taught in the Winter of 2017 at UCI has become a springboard for producing a collaborative multi-media project that features the stories of migrants in US immigration detention and refugee camps abroad. Collaborators on the project include the non-profit Community Initiatives for Visiting Immigrants in Confinement (CIVIC), undergraduate and graduate students, UC and CSU professors, and UCI’s Office of Sustainability.

*Undergraduate Research: Design as an Umbrella for Examining Sustainability and Addressing the Human-Animal Equation*

Lucy HG Solomon (CSU) San Marcos  
with Samia Carrillo-Percastegui, Mathias Tobler, Kodie Gerritsen, Sarai Silva Carvajal

The Jaguar Umbrella Project is a collaborative and community-engaged research project pairing jaguar conservation with interactive media. Undergraduate research is the linchpin in this interdisciplinary art endeavor, which brings conservation biology to K-12 education and the public through art and design. The Jaguar Umbrella Project partners with conservation biologists, Samia Carrillo-Percastegui and Mathias Tobler, who study jaguars in the Amazon with the San Diego Zoo Institute for Conservation Research in Peru. The project relies on the design innovations of CSUSM undergraduate researchers, Kodie Gerritsen and Sarai Silva Carvajal. We discuss an integrated arts and science approach to teaching K-12 students about complex ecosystems and personal responsibility. Through this lens we ponder the role of human beings as planetary actors in the Anthropocene.

## 2. NORTHRIDGE AREA TEAM ([visit panel](#))

*Pedagogies of Empowerment: Teaching Climate Change without Hopeless Despair*

Amanda Baugh (CSU) Northridge

When we teach students about climate change and other environmental problems, how can we convey the enormity and urgency of the situation without leaving students in a state of hopeless despair? In this presentation I discuss some strategies I have employed to achieve that goal.

*We need to change our diets to save our climate, our health, and our communities*

David Cleveland (UC) Santa Barbara

Our food system, including on our college and university campuses, is dominated by private corporate profit with huge externalized costs – it contributes 25% or more of anthropogenic greenhouse gas emissions driving climate change, and fuels an epidemic of noncommunicable diseases like diabetes, heart disease and cancers, with low income communities and POC bearing a disproportionate level of the costs. Diet change is required to successfully tackle the climate-health-justice problem, but is challenged by the political power of the food industry, the institutions it has co-opted, and behavioral inertia. Policies to promote diet change include top down regulation and price adjustments, and activation of values like autonomy and fairness.

*Call to Action: Building a Movement for Climate Justice and Sustainable Economies*

Rosa RiVera Furumoto (CSU) Northridge

1. Preservation and revitalization of the language, culture, values, and traditions of Chicana/o/Latina/o and Native American community members;
2. Involvement and engagement of multiple generations in the teaching and learning processes including children, parents, grandparents, and other kin and community members;

3. Critical pedagogical practices to promote critical thinking, reflection and action regarding climate change, sustainability, and other social justice issues and;

4. Promoting connection, love, and respect for nature and the environment via outdoors exploration and the establishment of urban gardens and forests.

### *Digital Environmental Humanities in Chicana/o Communities*

Stevie Ruiz (CSU) Northridge

In this talk, I talk about my experience with teaching and research pertaining to the involvement of Chicana/o communities in the great outdoors. I provide some techniques and student driven teaching to engage students using the digital humanities in environmental justice research. I argue that there are significant implications for democratizing the dialogue about climate resilience that takes into consideration Chicana/o engagement with the great outdoors and the types of knowledge that immigrant communities provide that will save our planet from ecological catastrophe.

### *Epistemological Differences*

Valerie Wong (CSU) Los Angeles and Allison Mattheis (CSU) Los Angeles

This talk brings together a scholar from the humanities, a social scientist, and a natural scientist to explore our understandings of research approaches and ontological assumptions about data and objectivity. We first present the beliefs that underlie particular modes of inquiry and communication in our distinct fields, and then engage in a collective presentation of how these points of view can expand, rather than create conflict, in discussions of climate change. By uncovering points of difference we also explore areas of convergence in order to advocate for sustainable future practices in our communities.

## **3. MONTEREY BAY AREA TEAM ([visit panel](#))**

*Nosce Te Ipsum: Bridging our values and actions in addressing climate change*

Ryan Alaniz (CSU) Cal Poly San Luis Obispo

Scholarship on anthropogenic causes of climate change has expanded exponentially in the last three decades. Academics are well-versed on the challenges political economy, social values (consumption), and “development” pose to the future of our planet. However, the lens has rarely been flipped. This short presentation discusses how our pontification in research and the classroom may not correlate with our own lifestyles. By developing a self-reflexive approach in our own lives, I argue we will be better suited to not only discuss climatic impacts and the interaction between the micro- and macro-levels, but also positively exemplify concrete strategies in reducing our ecological footprint.

*Food waste and Sustainability: Modeling how to bring university initiatives to life in a K-12 setting*

Chelsea Arnold (UC) Merced

In this talk we will showcase the Zero Waste initiative on the UC Merced campus and how we are working with local K-12 teachers and students to increase awareness of how much trash that goes to landfills can actually be composted, recycled and/or reused. We dive into what it means to go “Zero” waste and some of the challenges of going zero waste on a college campus through a series of hands on activities led by undergraduate students in the CalTeach program. Students investigate the ins and outs of recycling bins, signage and what it really takes to change behavior when it comes to throwing out the trash.

*Reducing Carbon Emissions through Middle School Science Curriculum*

Eugene Cordero (CSU) San Jose

Strategies to mitigate climate change often center on clean technologies such as electric vehicles and solar panels, while the mitigation potential of a quality educational experience is rarely discussed. In 2011, I started working with artists and educators to create learning materials that would inspire young people to take action in response to climate change. This work centered around the character and storyline of Green Ninja, a climate-action superhero who helps kids understand what they can do to make a difference. Today we are building on Green Ninja media to create formal middle school science curriculum that satisfies the new standards and inspires youth-action on climate change. This work leverages a number of

successful programs that demonstrated reductions in carbon emissions through school-based programs. In this talk, I'll describe the work we've been doing and our plans for integrating technology into our curriculum to monitor and track carbon emissions. I'll also discuss the important role that collaboration across disciplines has played in the success of Green Ninja, and how important future collaborations will be in demonstrating the environmental benefit of quality education.

*Resilience, Justice, and Hope: Foundations and Inspiration for Young People's Meaningful Involvement in Climate Change*

Victoria Derr (CSU) Monterey Bay

A recent report from the American Psychological Association identifies children's mental health impacts due to climate change and environmental uncertainty. These impacts extend from Inuit and Aboriginal populations to urban children in the U.S. who are profoundly concerned about our planet's future but do not feel empowered to act. In this presentation, I will explore the foundations that support young people's meaningful participation, ideas of resilience and constructive hope, and inspiring examples that show a variety of ways positive action can occur.

*The Sustainable City Year Program – Enhancing Sustainable Ideas and Practices through Partnerships Between Campuses and Regional Governing Bodies*

Daniel Fernandez (CSU) Monterey Bay

A program to enhance sustainable practices established at the University of Oregon is spreading throughout dozens of campuses nationally and internationally. This program involves formalized yearly partnerships between campuses and regional governing bodies, typically city governments.

Traditionally, city governments and campuses function quite independently from each other. Campuses offer cutting-edge educational opportunities for their students that typically do not address or integrate the needs of their partner cities. Conversely, city governments have enormous responsibilities for maintaining and improving the environment of their residents and often do not have sufficient resources, capital, or access to new and innovative ideas that may enhance policies, practices, procedures and projects that they are responsible for.

Furthermore, city governments, while often theoretically supportive of projects that enhance regional sustainability, often lack the necessary bandwidth to pursue such projects that extend beyond the status quo of regular operations.

Enter the Sustainable City Year Program, a partnership between a campus, such as CSU Monterey Bay, and a partner city, which was the City of Salinas from 2015-2017 and will be the City of Seaside from 2017-2018. Through this program during the 2016-2017 school year, 11 classes across campus participated in the program from disciplines as diverse as teacher education, business, journalism, environmental studies, and statistics. The instructor for each course integrated a sustainability-based project within her/his curriculum based upon the stated needs of the city partner and students within each class generated and followed through on the associated projects. The City provided funding to support each instructor in their efforts.

This program's benefits are multi-faceted. One clear benefit is that it provides students with relevant learning experiences that directly benefit the regional community/city in some aspect that works toward enhanced sustainability and livability. Another is that it provides the City with support to promote enhanced sustainability within the scope of their operations. It enhances the often rather limited connections between regional governing entities and their neighboring universities. It also opens opportunities for employment for university students and sets up a pipeline of potential hires for the governing bodies, which tend to have an aging workforce. Finally, and perhaps most relevant, it opens the door to sustainable ideas that the city can pursue in its operations that it may not have even considered prior.

### *Envisioning Sustainable Futures and Other Tools of Reflection*

Summer Gray (UC) Santa Cruz

In the digital age of corporate capitalism, the tools of representation are no longer monopolized by corporate media, but are at the fingertips of our students. This talk puts forth the concept of “cinematic sociology” and explores some of the creative and emergent ways in which issues of climate change, climate crisis, and climate justice can be infused into a variety of learning environments. The goal of this method is to foster a relational and intersectional understanding of social problems as they relate to the future of the planet.

*We Are Wiser Together: Intergenerational Collaboration for the Common Good*

David Shaw (UC) Santa Cruz

How can we work intergenerationally to usher in “The Great Turning” from the industrial growth society towards a life sustaining society? In this presentation I discuss principles for working together across generations, and share examples of intergenerational dialogues I have hosted at UC Santa Cruz, the California Student Sustainability Coalition, and the national Bioneers Conference using the World Cafe methodology. Let’s collaborate across the cycle of life to shape our shared future.

*Working for Environmental and Climate Justice: Faculty, Students, and NGOs*

David Pellow (UC) Santa Barbara

The continuing scourge of environmental and climate injustice in communities across the globe requires urgent action and creative solutions. Environmental and climate justice scholarship and movements reveal that communities marginalized by our political, economic, and social systems tend to also face greater threats and challenges associated with environmental and climate disruption. In this talk, I describe cases where university scholars, students, and NGOs came together to address some of these challenges to produce new knowledge in the service of socioenvironmental change.

*Climate and Context: Looking at Climate Data in Monterey and across the U.S. High School and Undergraduate Curriculum*

Corin Slown (CSU) Monterey Bay Students use two tools:

1) U.S. Climate Explorer for the Climate Resilience Toolkit – A resource for visualizing and downloading data on climate change for the US. <https://toolkit.climate.gov/climate-explorer2/>

2) NOAA Sea Level Rise Map Viewer <https://coast.noaa.gov/slr/>

Using the two resources above students evaluate future changes to temperature, precipitation, and sea level for a location in Monterey County. Students then repeat this analysis for another city in the U.S. (for example, Houston, TX, Miami, FL,

Lincoln, NE, or New York, NY). Helping students construct knowledge to discover climate change is only one piece of learning. Creating opportunities to empower students to make positive changes to address climate change is a second, pivotal piece.

#### 4. HUMBOLDT AREA TEAM ([visit panel](#))

##### *Conducting an Environmental Assessment in the Classroom*

Sahar Nouredini (CSU) East Bay

Conducting environmental assessments in the classroom can help facilitate discussions about climate change, environmental health and environmental justice. This presentation reviews 5 online tools that allow teachers to integrate an interactive in-class exercise and discussion of environmental health issues/ policies in their curriculum. All resources shared are very easy to use but have more advanced applications that can be utilized depending on the audience.

##### *Emergent Strategy and the KAN: A Love Letter to the Network”*

Sarah Ray (CSU) Humboldt [coordinator]

This presentation will describe the impact of participating in the KAN on my thinking and various aspects of my work – including research, service, teaching, but also the immeasurable and uncategorizable stuff – which I now see as all “frontlines” and “fractals” of change, thanks to our time together. As a KAN planning team member, I had the privilege of participating in all four workshops, and gained an enormous amount of knowledge about best practices, learned solutions to commonly-shared problems, cultivated “the muscle of radical imagination” with you all, and built relationships and my own network. The experience emboldened me to more urgently work on projects I suspected were valuable, such as integrating both service learning & community-based education and professionalization into environmental studies curriculum, changing institutional incentives around what “counts” as research in my role as program leader, building courses that serve students’ lives as social change agents, and investing in relationships with my colleagues in other disciplines, units, and institutions.

However, the most valuable lesson for me was what I gained by immersing myself in a book that shaped our workshop process, *Emergent Strategy*, by Adrienne Maree Brown. Some of you may remember Abby Reyes discussing the book in her facilitation process. This book has helped me acknowledge the value of all those other efforts, rather than feel burnt out or paralyzed in the face of the scale of the world's problems and institutional barriers to our goals. In this presentation, then, I want discuss how this book helped me see the work of the KAN and the work I do in my daily life in radically new ways. From *Emergent Strategy*, I propose we approach our work in terms of:

- cultivating community and relations (committing ourselves to span an inch wide and a mile deep rather than the other way around)
- valuing conversation over deliverables
- expanding our notion of what counts as “action,” based on Brown’s nonlinear and iterative view of social change
- shifting toward resilience as a priority over “problem-solving,” in both pedagogy and curriculum development
- increasing appreciation for the theory of the fractal for understanding how change happens and for grasping the power we each all hold
- emphasizing the importance of self-care for ourselves and our students
- shifting curriculum toward affective resilience and emergent strategy as opposed to just content or “marketable skills”
- paying attention to what we want to grow, rather than all the things that are wrong (in life, pedagogy, how we spend our time and attention, in committees and other collaborations, etc.)
- doing work that fuels us.

In what ways might the KAN manifest emergent strategies for the network’s stated goals? How can principles of emergent strategy help us understand our work, both in and outside the KAN?

*The Chico 2030 Project: Climate Forecasting for Everyone*

Mark Stemen (CSU) Chico

For most Californians, the climate issue remains geographically distant, so they can easily dismiss it. Faculty reinforce this distance in our classrooms when we describe potential climate impacts that are hundreds if not thousands of miles away. Cal-Adapt has the potential to change that classroom dynamic. The new climate-modeling tool developed by the California Energy Commission (CEC) now allows anyone to model climate in California by zip code.

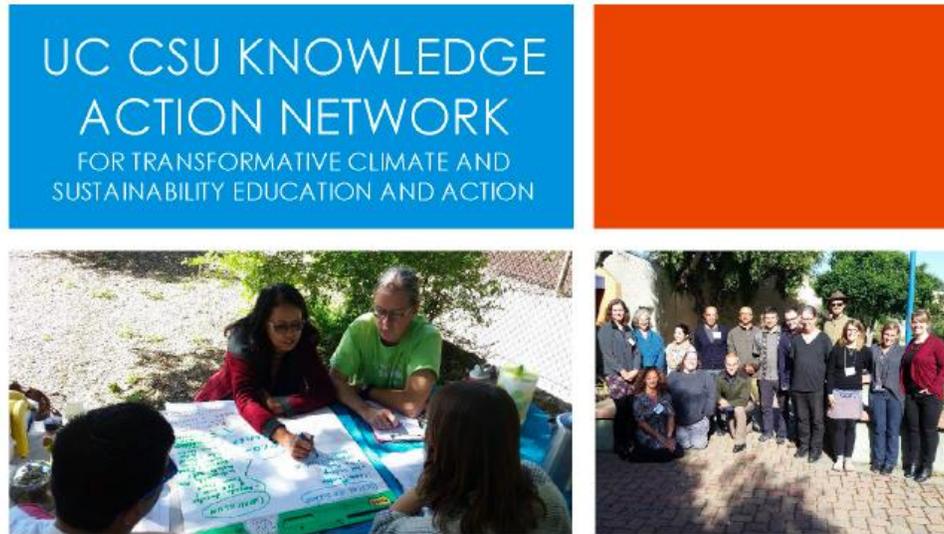
My presentation will describe how students in GEOG 506: Community Service in Geography used the Cal-Adapt climate tools to forecast the climate in Chico, CA for the period 2030-2050. Students then met, data in hand, with key staff at the City of Chico to catalog potential impacts to the community and City services. Their findings and all research materials were placed on the web to allow others to continue the project.

The CEC developed Cal-Adapt primarily for use by public planners. In my class, however, we discovered the tool is also useful in the fields of public health, criminology and creative writing. Some students used the tool to explore past connections between heat waves and hospital visits and crime rates, while others wrote fictional accounts of the near future using the forecasts available with Cal-Adapt. This presentation will demonstrate how faculty from across the campus can use Cal-Adapt to improve the teaching of climate change in their classes.

## Appendix Four: Slides Developed for Use in Presentations on the KAN

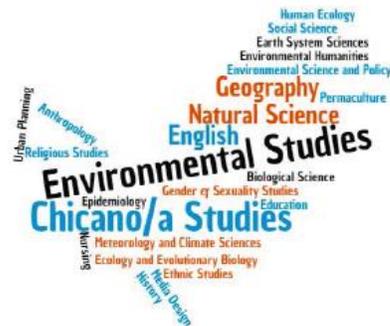


### UC-CSU Faculty Network



### Network Composition

- 33 UC and CSU faculty network members
  - 58 CSU applicants; **19 selected**
  - 28 UC applicants; **14 selected**
- 18 campuses
- 24+ academic disciplines



## Network Composition

- Campuses
  - CSU: Chico, East Bay, Fullerton, Humboldt State University, Long Beach, Los Angeles, Monterey Bay, Northridge, San Jose State University, San Luis Obispo, San Marcos
  - UC: Berkeley, Davis (incl. School of Medicine), Irvine, Merced, Riverside, Santa Barbara, Santa Cruz



## Completed Activities

- Four 1.5-day workshops
  - CSU Fullerton, March 24-25
  - CSU Northridge, March 27-28
  - CSU Monterey Bay, April 13-14
  - Humboldt State, April 28-29

*"This has been an illuminating workshop and I am invigorated by all of the new ideas and inspired to take action on my campus." (Fullerton workshop participant)*



## Workshop Themes



- As educators, faculty are ready to collaborate to:
  - Reduce barriers to interdisciplinary work (specifically STEM + non-STEM)
  - Revise retention and tenure policies to reward more diverse teaching activities
  - Increase faculty training to create robust out-of-the-classroom and K-12 student learning opportunities that work to reverse the climate crisis
  - Empower students and faculty to act, including developing their skills as policy advocates

## Forthcoming Activities

- Workshop Summaries
- Virtual Conference
- Session and Workshop at California Higher Education Sustainability Conference
- Project & funding proposals



*"I'm so in awe. I really feel like this was actually worth my time in a huge way--so grateful all these people sat down with each for so long and were so productively guided through the purpose and goals." (Fullerton workshop participant)*

# UC GCLC Faculty Engagement and Education

## About the UC-CSU KAN

### UC-CSU KNOWLEDGE ACTION NETWORK FOR TRANSFORMATIVE CLIMATE AND SUSTAINABILITY EDUCATION AND ACTION



**What is the KAN?**  
The UC-CSU Knowledge Action Network is a collaborative effort of UC and CSU educators to scale and intensify California students' literacy in climate change, climate justice, carbon neutrality/greenhouse gas emissions reductions, and sustainability in ways that are culturally contextualized, responsive and existing, actionable, and transformative.

**2016-17 Desired Outcomes**  
By Fall 2017, members of the KAN will have:

- A shared understanding of best practices and intersecting goals.
- Begun to create mechanisms, systems, and relationships to leverage each other's resources, knowledge, and networks as needed to achieve shared goals.
- Assessed what elements of shared goals need coordinated state-level policy advocacy or funding.

**2016-17 Key Activities**  
In the KAN's first year members:

- Participated in one of four 1.5-day workshops of CSU campuses across the state (executive summary forthcoming)
- Participated in a virtual conference
- Had opportunity to present at and attend CA Higher Education Sustainability Conference

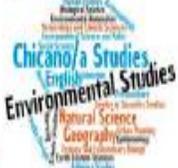
KAN members are presently forming 2017-18 network activities.

**Area Teams**  
The UC-CSU Knowledge Action Network is comprised of 33 faculty from 18 UC and CSU campuses and a range of academic disciplines.

**Campuses**

Cal Poly San Luis Obispo	San Jose State University
CSU Chico	UC Berkeley
CSU East Bay	UC Davis (including School of Medicine)
CSU Fullerton	UC Irvine
CSU Long Beach	UC Merced
CSU Los Angeles	UC Riverside
CSU Monterey Bay	UC Santa Barbara
CSU Northridge	UC Santa Cruz
CSU San Marcos	
Humboldt State University	

**Disciplines**



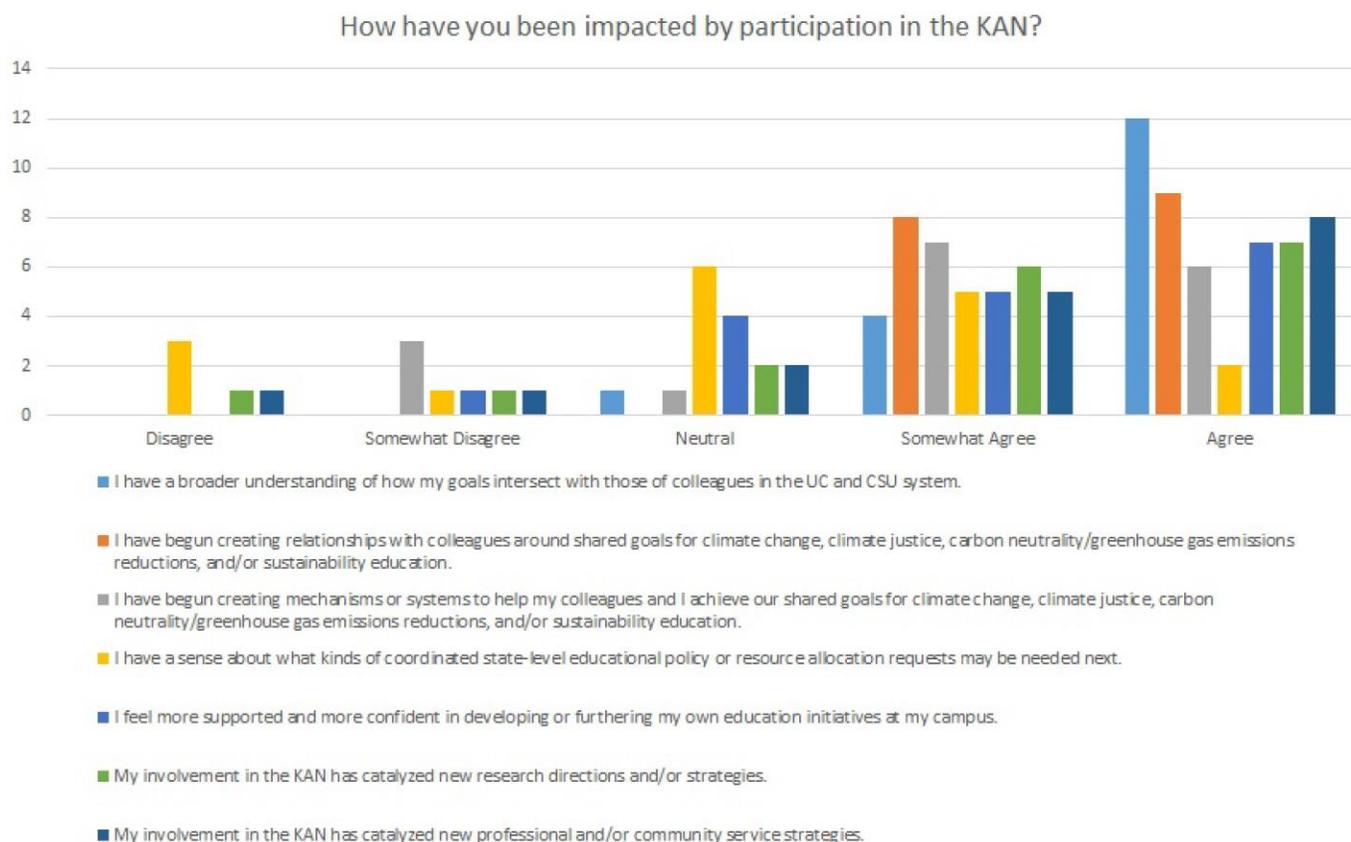
One-page PDF  
summary available



<https://travel.com/sustainable>

The UC-CSU KAN is a project of the Faculty Education and Engagement Task Group of the UC President's Climate Change Leadership Council.

## Appendix Five: Exit Surveys of KAN Members



**1. How has your participation in the UC-CSU KAN influenced your teaching, scholarship, and/or activism? Please be as specific as possible (e.g. integrated new resources into instruction, began new collaborations with other KAN members, developed new research projects, applied new strategies to minimize barriers to cross-campus collaboration, etc.). (200 words or less)**

I've integrated new teaching strategies (in class activities), as well as new sources to list on my syllabi. I'm exploring the possibility of new collaborations with community organizations for future classes, particularly around issues of food justice and food security. The KAN is also helping me think through the possibility of team taught courses with colleagues in the natural and geophysical sciences.

I was inspired and motivated to apply for a grant from my university to support my students' participation in a project called Climate Change Theatre Action (<https://www.thearcticcycle.org/ccta-2017/>). I plan to design a symposium of some kind and/or stage public performances, and to invite 2 KAN participants as guest speakers. Even if I don't secure the grant, I will still incorporate the project into my syllabus. Also, I was a guest speaker for a KAN member's class this semester, and the students offered helpful feedback that I incorporated into my research. Finally, I have been more engaged lately in my local activism efforts because I now have a local buddy whom I met through the KAN! For example, we attended a recent local health care rally (not directly related to climate change, of course, but ...).

Participation in the KAN has had a significant influence on how I am envisioning my pedagogy moving forward, on integrating campus-community based activism into my university service, and on my scholarship/research agenda. In regard to teaching, I am enthusiastic and motivated to revise my curriculum in the fall semester at the undergraduate and graduate level to frame climate change deliberately through a climate justice lens, to better integrate interdisciplinary sources of information (hard sciences, social sciences, and humanities), and to try new activities I learned through the NCN conference, CHESC, and the KAN workshop. I am also designing an interdisciplinary, service-learning capstone course "Environmental Sustainability and Social Justice" that will create opportunities for undergraduate students to work with community organizations and city government agencies in meaningful ways around climate justice issues. I am also working with the coordinators of the EPA-EPIC program and Strategic Energy Innovations (SEI) to bring additional financial and administrative support for student internships and experiential learning opportunities to the CSULB campus. A fellow KAN member, Dr. Nicole Seymour and I are collaborating to find funding sources to invite each other to participate in panels and act as guest speakers in courses on our campuses (CSU Long Beach and CSU Northridge). I am working to organize a "Climate Resilience and Social Justice" lab that would bring together graduate and undergraduate students interested in community-engaged research projects, including opportunities to collaborate with projects in the local K-12 school district.

This remains to be seen.

I have initiated a new research project into plastic and styrofoam use in a local community. We have designed a questionnaire with input from the local community and will collect and analyze data in the fall 2017 semester.

I am working with John on the virtual teachers lounge.

oh, let me count the ways! I wrote about this in a blog post (<https://writingattheendoftheworld.blogspot.com/2017/08/scaling-up-california-climate-justice.html>), but yes to all those things listed there. New resources in instruction, new collaborations with KAN members and more incentive to collaborate with staff/faculty/students on my campus, it has inspired my next book concept, and I'm sure there will be even more ramifications as it all sinks in over time too!

During the KAN face-to-face workshop, the dialogue and interactions were great, but once everyone goes back to their overly busy lives, it becomes harder to collaborate. I've reached out and had some contact, but given I have a project I'm working on, I have no intention of making any changes right now.

I've reached out to colleagues on my own campus in other disciplines for consult on incorporating new materials into my sustainability courses that aren't in my own discipline (e.g. environmental psychology, environmental economics, social justice); I've developed a research prospectus to study learning outcomes of some of my community-engaged teaching strategies with encouragement from fellow KAN members; I've read more broadly about how sustainability education is happening in what I would consider "non-traditional" departments for teaching sustainability.

KAN has solidified and strengthened my knowledge of and commitment to climate justice studies, and has contributed to my efforts to work with colleagues to contribute to building the field of climate justice studies. KAN has also given me great ideas for how to better engage students on these critical issues inside and outside the classroom, and has made it clear to me that I have a whole new world of colleagues and resources that I can call on for support.

I have begun collaborations with other KAN members, networked across the UC and CSU, as well as I will incorporate some of the workshop methods into my teaching.

It hasn't really changed anything specific. I enjoyed meeting everyone and learning what others are doing. There may be intersections down the road that are more tangible, but I don't have any now. For me, the benefit of the workshop was less in shifting my teaching or practices but in meeting others. Because some of the people who I had most in common with are in other regions, it is hard to coordinate and find meaningful ways to intersect. And relationship building and collaboration takes time, far longer than the amount we have had since the regional workshops and conference.

My participation in UC-CSU KAN inspired me to contact and start working more closely with other colleagues on my campus. I have also started revamping my syllabi to incorporate more strategic readings and methods of analysis to help the class more specifically think about climate change and the environment.

Finding ways to collaborate with professors outside of my department

Inspired and equipped for more hands on learning

It has provided valuable new connections that are helping to propel both my activist work (affiliated with immigration detention non-profit, and allying with environmental justice work/workers), and my academic work. The workshop has resulted in resource sharing and being invited to visit classrooms beyond the Humanities at UCI, and campuses beyond UCI.

**2. Have you taken any actions post-workshop as a result of your KAN participation? If so, what are they? (200 words or less)**

See above; I've added new readings to my syllabi, new in-class interactive activities, and am developing new partnerships with food justice orgs and connecting with natural science colleagues across campus to explore the possibility of co-teaching.

See above. Also, I completed the action step I had created for myself at the end of the workshop, which was to introduce myself to a faculty member working on climate change in the sciences at my university.

The post-workshop actions that I have taken as a result of my KAN participation include: attending the Sustainability Across the Curriculum workshop at the CHESC conference with KAN members John Foran and Mark Stemen; participating in the KAN presentation at the CHESC conference with KAN members John Foran, Mark Stemen, and Ken Hiltner; revising my undergraduate and graduate curriculum based on new resources and pedagogical tools I learned from participating in the KAN workshop and the KAN NCN conference; becoming the faculty advisor to the student organization "Sustainable Student Coalition" which is committed to approaching sustainability from a social justice perspective; attending the AASHE Sustainability, Diversity, Equity, and Inclusion workshop at University of Minnesota; and collaborating with KAN member Mark Stemen to plan a APCG (Association of Pacific Coast Geographers) conference

workshop echoing KAN themes, especially climate justice pedagogy and experiential/service-learning, at CSU Chico in fall 2017.

No

Yes, deepened partnerships in the local immigrant Latina/o community, planted 56 trees at a local school, wrote two environmental grants, developing curriculum, writing books, and creating a game focused on educating children and families about plastic and styrofoam pollution. We will implement and refine this curriculum fall 2017. Also, along with one of our community partners, the US Forest Service, we have invited the head of a federal agency to come to campus to discuss the challenges for funding the humanities to do climate change work. The KAN has been such an inspiration to give voice to our concerns and challenges. Thank you!

I brought John Foran and KAN into my faculty development workshop at CHESC. I have shared my “talk” with a dozen colleagues, a 1000% increase over previous conference talks. I have proposed a virtual track for next year’s CHESC.

YES. I have integrated emergent strategy in my work in some ways. I am collaborating with more natural scientists in small but relationship-building ways, I attended another conference and shared KAN insights with a wider audience, I have laid some groundwork for integrating a self-care GE in our curriculum, I am more actively seeking ways to build co-teaching into curricula.

Developing a research prospectus and pilot study (mentioned above); engaged more with professional societies and their educational offerings outside of the natural sciences; participated more boldly in activism in my own community and sought camaraderie with others doing the same; hosted informal “social” gatherings with student sustainability communities outside of the typical learning environment to promote community-building

I have publicly supported the Fossil Free UC campaign and integrated their goals and ideas into my teaching, and I have written two papers (including a conference presentation) around this topic.

I have co-authored a paper with my students about our experience with the environmental digital humanities.

Not specifically or different from what I was already doing.

I have not taken actions outside of my classrooms since the workshop. However, my end of the year responsibilities were already planned, which left little to no time for new projects. I am feeling excited as the Fall semester begins to continue the work of collaborating on my campus and hopefully with the KAN group.

Joined a few more committees, met with Dean about developing new course

I Incorporated new resources into my class

Participated in “Activists, Artists, and Academics: Building Just Climate Futures Together”

Propose and obtain a grant for a “Climate Refugees” stories project in collaboration with UCI’s Office of Sustainability, that I hope to engage KAN members in the production and dissemination of, and development of curriculum for K-20; made plans with Jade Sasser to hold an event on campus at Riverside this fall to discuss my non-profit work, engagement with the humanities, and “Climate Refugees.”

**3. What has been the most valuable part of your participation in the UC-CSU KAN over the past year? (200 words or less)**

Having a network of people whose teaching strategies and community engagement have sparked new ideas and creative possibilities for me.

Making personal connections! I now have people I can directly email or even call to say, “I want your advice,” or “can we collaborate,” etc.

The most valuable and transformative part of my participation has been: network building and meeting new faculty across the CSU and UC campuses who are engaged in this work; the sharing of resources, tools, research projects, and pedagogical strategies through the KAN workshop, the NCN conference, and the CHESC events associated with the KAN; the emotional support of feeling like part of a team of people with similar motivations, struggles/frustrations, and goals to transform our campuses, pedagogies, and larger educational institutions; the awakening to the importance of working with K-12 educators and strategies to begin to do this in my own teaching, research, and service; and the collaboration of such a diverse group of people from across the humanities, social sciences, and natural sciences - it is so rare to attend “sustainability” or “climate” workshops/events that are envisioned by and led by our colleagues in the humanities, which is so completely necessary and transformative in its own right.

The relationships I have developed with other KAN members.

Sometimes it seems so simple that we should be able to figure things out on our own. However, my experience is that a unique synergy is created when people from different campuses, areas, and disciplines come together to share and discuss our dreams and challenges around climate change, sustainability, and environmental justice. It seems that the sum is much greater than the individual parts. This is the power of the KAN. Also, strangely, it took the KAN for me to “discover” other faculty on my own campus that are engaged in climate change work. What a gift! I’m looking forward to continued collaboration with my wonderful colleagues on campus and across the KAN network.

Meeting John and working with him in Santa Barbara.

the relationships, the sense of “scaling out” these specific conversations and concerns to people in CA on the same page, the feeling of not being alone in the work, the feeling of having a new network of resources to draw on for support in future work, the feeling of being emboldened about what our priorities are so I can say “No” to things that aren’t in support of those values.

I really enjoyed meeting the diverse group of people. To be honest, I wonder if it’s possible to expect people to establish the type of networks we envision with limited face to face time. If I saw these people more than once, if our paths crossed more often, I believe we would start to work together. I just reflect on my strongest colleagues here at my university, and these matured over time. Thus, my suggestion would be to find ways to keep this group collaborating by putting people together again, maybe once or twice a year. I would go, as I consider this group amazing and potentially transformative. Thanks to the project team for starting this off - I hope it will continue!

Actually meeting fellow KAN members in person and learning about their work and pedagogy around climate and sustainability has been invaluable in giving me ideas to improve the curriculum in my own courses. The greatest value I found was through in-person interactions and conversations. I feel more empowered to make meaningful changes in my classroom and outreach/research activities and feel like I have a network of colleagues to turn to for ideas and support, which I didn't necessarily find on my own campus.

Finding new colleagues and realizing that I am a small part of a huge network of scholars across the state who are committed to teaching, research, and service around one of the most important issues of our time.

The networks that were built were tremendously appreciative. I look forward to keeping the conversations going.

See answer to Q2

The most valuable part of my participation is meeting my colleagues in different institutions and learning about their innovative work in climate change.

Being inspired by what my colleagues have accomplished

Building a network of colleagues to support my teaching and learning from their best practices

Added insights from the workshop as well as creating and watching the videos produced. Will make some of the videos relevant to my students available to them.

Making connections with colleagues and being made aware of the specific work being done across UC-CSU campuses, and of collaborating entities and community organizations. I greatly enjoyed participating in the nearly-carbon neutral conference and it will serve as a great resource for my projects going forward. The development of a platform/archive for sharing materials (Nuclino) is also incredibly exciting to me!

#### **4. Is there anything else you would like the project team to know?**

No. Joining the KAN was an invaluable experience!

I think it would have been helpful to have had more targeted projects or problems to work on in the KAN workshops (though of course this is something that could take place in the future). I'm imagining people coming in with their specific problem or what have you, and then workshoping it with the rest of the KAN. So, for example, I still personally feel adrift on the project mentioned above in my answer to Question 1; I really don't know how to organize an event of that kind because I don't have the experience. I don't think any of us need help on how to do research in our own fields; what we need is advice, support, and inspiration about larger-scale, institutional, collaborative, innovative, and/or more creative projects. In sum, I don't feel like I've really gotten that yet, but maybe this is just the tip of the iceberg! (<-- sorry)

I would like to thank the project team for their vision and hard work to bring the KAN into existence, to organize the workshops, and to facilitate this valuable and transformative network. After reading the workshop report draft, I would like to express interest in participating in the writing of a KAN Manifesto. I am also excited to continue the KAN beyond the first year and to help with brainstorming and organizing to facilitate its expansion.

I found the KAN team to be very adept at facilitating the sessions and creating a safe space and community for us to do our work. Thank you!

I LOVE the idea of the NCN conference but found it very challenging to take the time to watch and comment on many of the videos. Some of this was timing with it being the end of the quarter but I feel like this was very much a missed opportunity for me. If there could be an in-person symposium or skills-sharing workshop, I feel I would get much more out of it. I don't know how to reconcile this with the increased carbon footprint but I do feel like I didn't get much out of that experience, either in terms of feedback on my own talk and ideas (compared to what I've experienced at conferences) or in terms of interaction and discussion with colleagues online. (Yes, I realize I can still go watch these but when I'm in my work/home environment there is always something more pressing.)

You all are amazing. Thank you for launching this project and for bringing us together!

Thank you.

I appreciate the opportunity to participate. I think stronger relationships would have been formed if there was some product that we needed to collaboratively produce rather than having that done just by KAN reps and leaders. We went from a generative form of participation to a somewhat top-down form of institutionalizing our work. It feels out of sync.

Thank you to the project team for all of their patience and hard work with so many moving pieces!

It was great! Let's continue!

I enjoyed working with the Team!

A huge THANK YOU for initiating and building this network! It being guided by emergent strategy and the unique contributions of each member have been so inspiring to me and fill me with hope. :)