FOOTHILL COLLEGE SUSTAINABILITY COMMITTEE

FALL 2017 NEWSLETTER

EDITOR: UNCHITTA KANJANASARATOOL

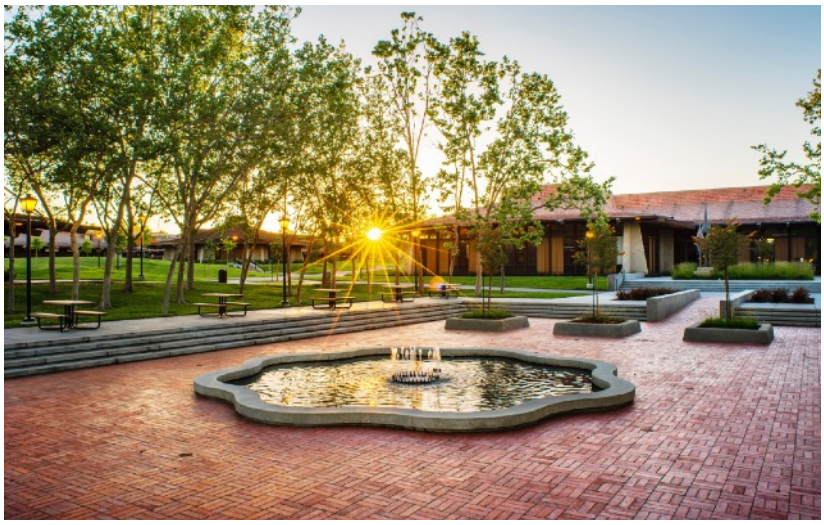
We're Back!

- [Introduction to the Center and the Committee here]

Committee Highlights

- Sustainability Committee to propose a formal Tri-Chair structure
- FHDA District hires new district energy manager

In This Newsletter



Sustainability Committee In Retrospect

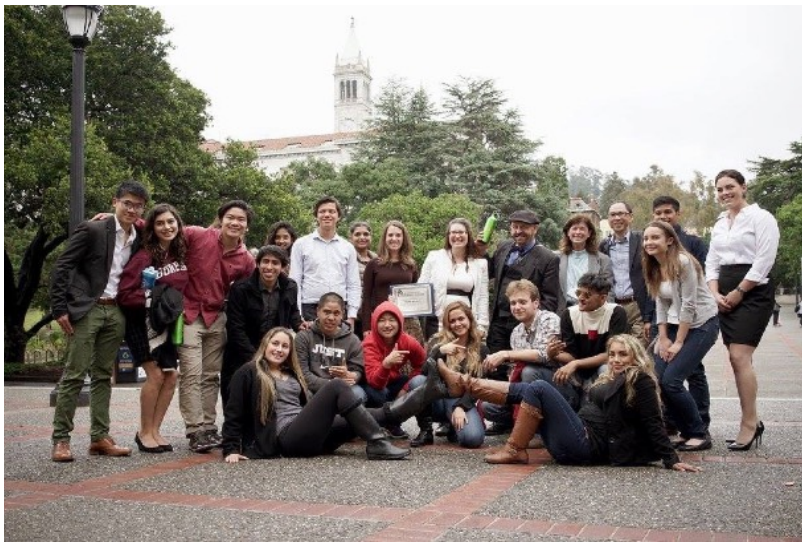
Since 2008, the Sustainability Committee has set out to push for campus-wide programs emphasizing on environmental and sustainability impacts. At the core of Committee, we believe that these efforts require involvement from all constituents of Foothill College. Therefore, we have been bringing students, staff, faculty, and other entities that serve or are served by the college together through initiatives such as environmental-centric curriculum, faculty-hosted climate change teach-in events, and through collaboration with the construction department and formal meetings with FHDA administrators including President Thuy Nguyen. Some of our successes include the FHDA Faculty Association's vote to support divestment from fossil fuel producing corporations, free public transportation program (Eco-Pass), solar array installation in Parking Lot 2, and numerous other student achievements.

NULEAF TECH

SPOTLIGHT: NULEAF TECH

Eco-Citizens of Foothill: Student Engagement Stories

Six Honors Students Presented at the Annual Northern California Community College Honors Symposium at Stanford University in May 2017



The Bay Honors Consortium and Stanford University invited six Foothill College Honors Students to present their original research at the 10th Annual Honors Research Symposium. Many of the papers written by our scholars were centered on challenges surrounding climate change; some of them include

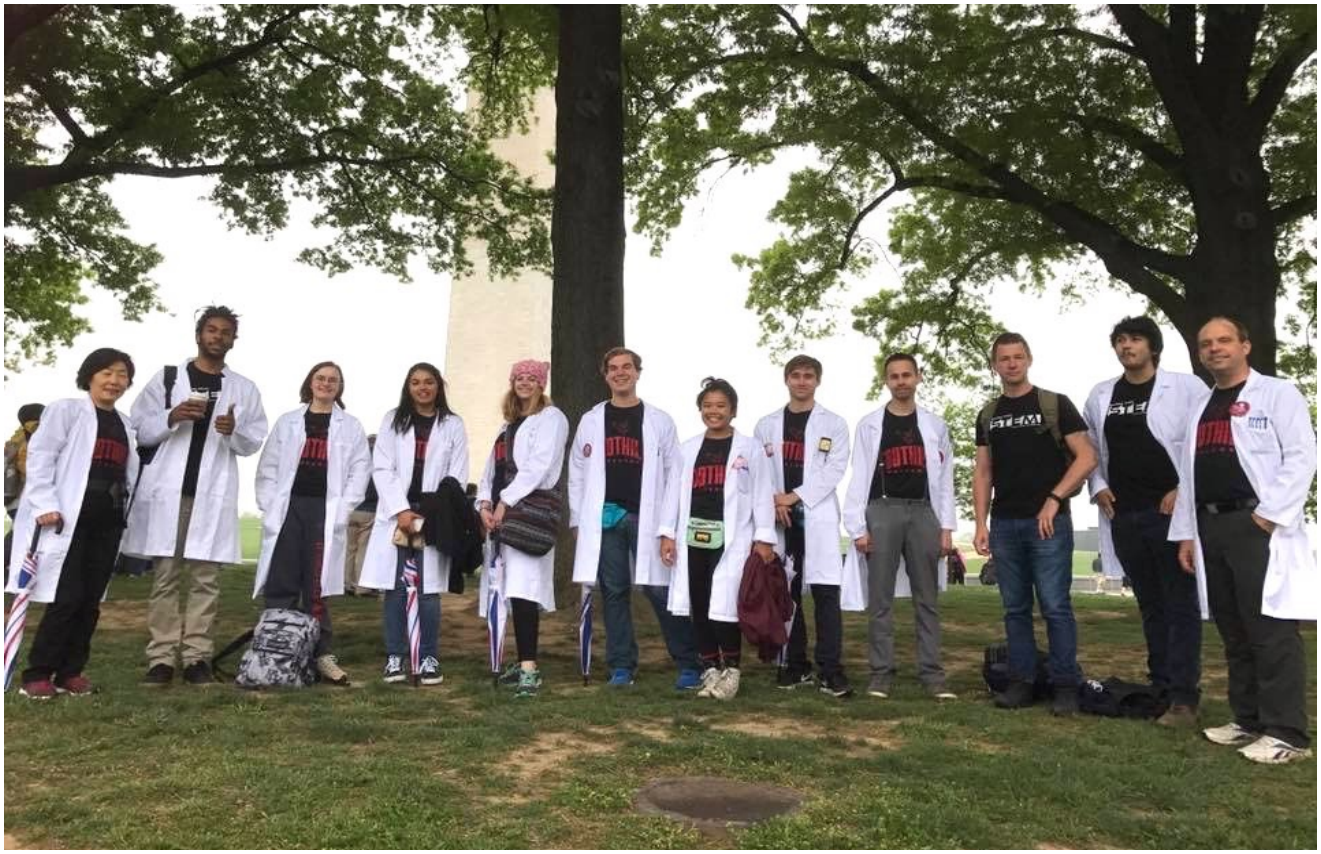
• *Pills of Post-Truth: Updating Rachel Carson's 1962 Silent Spring in an Era of Anthropogenic Climate Change*, Ji Yuen Lee

• *A Blackened Truth: Modern Slavery, Ecocide, and Amazonian Coal Production*, Nicole Ronnie Miller

• *China's Emerging Global Leadership in Combating Climate Change: Hoax or Hope?*, Shouwei Li

• *Melting Harbingers: Avoiding Climate Disaster by Understanding Glacial Feedbacks*, Aldin Verkler

and many more.



President Thuy Nguyen Sponsored Ten Foothill Students to March For Science in Washington, D.C.

Watch Foothill Students' March for Science DC 2017 Recap Video here:

bit.ly/2sGnpum

In April 2017, Foothill College sent nine students and three faculty advisors to attend March for Science in Washington, D.C. On this Earth Day, the students and faculty advisors not only marched but participated in different events, learned about current climate science and ecological research. Best of all, they started an inspiring dance party and got the whole march dancing.

Science, not hate, makes America great!

Less Water, More Crops: Bernadette Antariksa's Success Story

What if you—as a Foothill student—suddenly discovered a way to grow 80% more food using 50% less water (enough to help the world survive the onrushing climate crisis)?

Bernadette Diandra Antariksa, a Foothill College Honors student who goes by "Indra," has been working intensively on the Systems of Crop Intensification (SCI) project since eighth grade. If her data is correct, this is precisely the "miracle crop" solution she has discovered. So far her work has attracted the attention of professors at both Cornell and Stanford—and helped her to apply for a Genius Grant from National Geographic. Yet it was her lonely encounter with a hungry Indonesian farmer six years ago which first led her to dedicate her education and energies to "develop projects

aimed at guaranteeing our basic necessities: food, water, shelter and energy," says Indra.

Throughout her teen years she began experimenting, both in her high school chemistry lab and out on the rice paddies working side-by-side with neighboring farmer back in Bali, Indonesia her home country, to see if she could increase rice yields with less water. This was the beginning of her work on the System of Rice Intensification project, now known as SCI (System of Crop Intensification) —since her methods seem to work for a range of staple crops, from rice to potatoes.

Motivated to fix her neighboring farmers' diminishing yields and profits, and believing that the growth potential for rice is hindered by our current cultivation practices, she worked hard to find ways to optimize crop production and with minimum water inputs. All sorts of factors were taken into consideration: land preparation, seedling, irrigation, spacing, weeding, and fertilization.

After years of experimentation and collaboration with indigenous Balinese rice farmers, Indra was able to, on average, increase rice yields by 80% while reducing water consumption by 50%. Farmers profits rose by up to 55%.

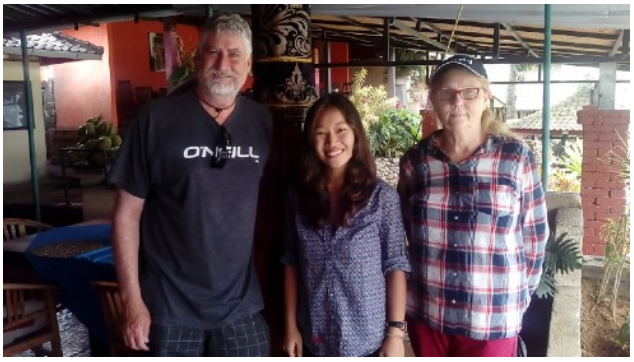
Others have implemented her model and "reported yield increases by up to threefold (300%) with half the amount of water.

Indra has recently submitted her SCI project proposal to the National Geographic Chasing Genius competition, hoping to receive support to further expand her solutions to reach more farmers and cover more issues.

But Indra's achievements did not end there: In August 2017, she was visited by Cornell's SRI-Rice Associate Director of Communications, Lucy Fisher—and corresponded another prominent Cornell professor, Dr. Norman Uphoff, about what the New York Times already describes as a "less is more approach" to intensive rice cultivation.

During the 2016-17 academic year, Indra also conferred with Professor Sayed Shariq, Stanford's Kozmetsky Global Collaboratory Co-Founder and Senior Research Scholar, and also the Director of the Research Program on Knowledge, Beliefs and Institution. With Professor Shariq's help, Indra (still a shy Foothill student at heart) is working to polish her own personal story of cutting-edge science and personal discovery to help "get the word out" on her breakthrough agricultural research more effectively.

Whenever she feels "too shy" or "too scared" to take the next step, Indra confides, she thinks of those starving and impoverished rice farmers who first inspired her, as a teenager in Bali, to begin her research collaboration years ago. Then she redoubles her efforts to explain to the world what she and these ancient, artisanal Balinese farmers, working together for years in the shadows, have finally discovered.



Climate Efforts Around The Campus

Four Foothill Faculty Members Presented a Climate Change Teach-In Event "Global Warning" in April 2017

On March 8, 2017, Engineering Professor Rob Cormia, Geospatial Professor Allison Meezan, Biology Professor Gillian Schultz, and Psychology Professor Benjamin Stefonik hosted a climate change teach-in event titled "Global Warning" in April 2017. Being from diverse backgrounds, the professors discussed varying viewpoints on issues around climate change, including an overview of the science of climate change and climate change models, the implications for ecosystems, and the psychological framework that shapes and guides society's discussions.

Robert Cormia, a prominent member of the Foothill College Sustainability Committee made a presentation focusing the relationship between environmental impact, human population, affluence, and technology, addressing the IPAT (Impact = Population * Affluence * Technology) model.

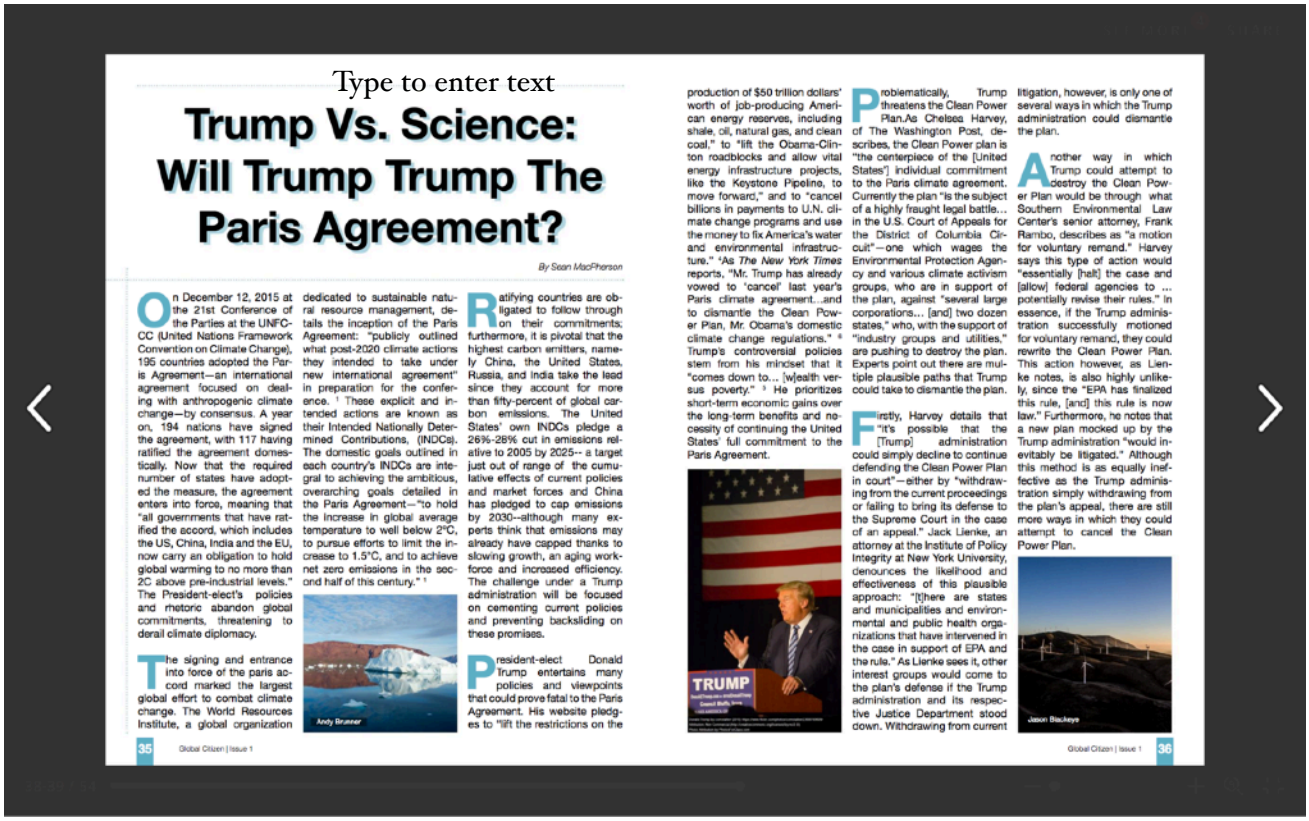
In his presentation, Cormia addressed the strong positive correlation between the wealth of a demographic group and the amount of energy they will continue to use. Furthermore, he clarified the misconception that the greenhouse gases are bad, explaining that their existence in actuality help normalize Earth surface temperature. Rather, it is the amount of concentration that is causing global warming.

Engineering Department to Host the Second Sustainability and Climate Change Design Showcase

In the Spring quarter of 2017, Foothill College Engineering Department in collaboration with Engineering Professor Sarah Parikh and fellow Foothill students, hosted their first design competition to raise awareness on the issue of climate change. Engineering 10 students had the opportunity to showcase their skills in designing a practical solution or technology that makes our campus as well as our society more sustainable. Some examples of projects being prototyped include a Foothill-exclusive ride-sharing app, pavements that can convert pressure from foot traffic to energy, and a platform to educate women and solve the alarming overpopulation issue.

This year, in the fall of 2017, another showcase is set to take place on December 7th, where new students in Engineering 10 will be presenting their prototypes of a wide range of exciting projects, ranging from traffic and parking solutions to composting, to electric vehicle charging and much more.

* * *



Type to enter text

Trump Vs. Science: Will Trump Trump The Paris Agreement?

By Sean MacPherson

On December 12, 2015 at the 21st Conference of the Parties at the UNFCCC (United Nations Framework Convention on Climate Change), 195 countries adopted the Paris Agreement—an international agreement focused on dealing with anthropogenic climate change—by consensus. A year on, 194 nations have signed the agreement, with 117 having ratified the agreement domestically. Now that the required number of states have adopted the measure, the agreement enters into force, meaning that "all governments that have ratified the accord, which includes the US, China, India and the EU, now carry an obligation to hold global warming to no more than 2C above pre-industrial levels." The President-elect's policies and rhetoric abandon global commitments, threatening to derail climate diplomacy.

The signing and entrance into force of the paris accord marked the largest global effort to combat climate change. The World Resources Institute, a global organization dedicated to sustainable natural resource management, details the inception of the Paris Agreement: "publicly outlined what post-2020 climate actions they intended to take under new international agreement" in preparation for the conference. [1] These explicit and intended actions are known as their Intended Nationally Determined Contributions, (INDCs). The domestic goals outlined in each country's INDCs are integral to achieving the ambitious, overarching goals detailed in the Paris Agreement—"to hold the increase in global average temperature to well below 2°C, to pursue efforts to limit the increase to 1.5°C, and to achieve net zero emissions in the second half of this century." [1]

Andy Brunner

Ratifying countries are obligated to follow through on their commitments; furthermore, it is pivotal that the highest carbon emitters, namely China, the United States, Russia, and India take the lead since they account for more than fifty-percent of global carbon emissions. The United States' own INDCs pledge a 26%-28% cut in emissions relative to 2005 by 2025-- a target just out of range of the cumulative effects of current policies and market forces and China has pledged to cap emissions by 2030--although many experts think that emissions may already have capped thanks to slowing growth, an aging workforce and increased efficiency. The challenge under a Trump administration will be focused on cementing current policies and preventing backsliding on these promises.

President-elect Donald Trump entertains many policies and viewpoints that could prove fatal to the Paris Agreement. His website pledges to "lift the restrictions on the production of $50 trillion dollars' worth of job-producing American energy reserves, including shale, oil, natural gas, and clean coal," to "lift the Obama-Clinton roadblocks and allow vital energy infrastructure projects, like the Keystone Pipeline, to move forward," and to "cancel billions in payments to U.N. climate change programs and use the money to fix America's water and environmental infrastructure." As *The New York Times* reports, "Mr. Trump has already vowed to 'cancel' last year's Paris climate agreement...and to dismantle the Clean Power Plan, Mr. Obama's domestic climate change regulations." [2] Trump's controversial policies stem from his mindset that it "comes down to... [w]ealth versus poverty." [3] He prioritizes short-term economic gains over the long-term benefits and necessity of continuing the United States' full commitment to the Paris Agreement.

Problematically, Trump threatens the Clean Power Plan.As Chelsea Harvey, of The Washington Post, describes, the Clean Power plan is "the centerpiece of the [United States'] individual commitment to the Paris climate agreement. Currently the plan "is the subject of a highly fraught legal battle... in the U.S. Court of Appeals for the District of Columbia Circuit"—one which wages the Environmental Protection Agency and various climate activism groups, who are in support of the plan, against "several large corporations... [and] two dozen states," who, with the support of "industry groups and utilities," are pushing to destroy the plan. Experts point out there are multiple plausible paths that Trump could take to dismantle the plan.

Firstly, Harvey details that "it's possible that the [Trump] administration could simply decline to continue defending the Clean Power Plan in court"—either by "withdrawing from the current proceedings or failing to bring its defense to the Supreme Court in the case of an appeal." Jack Lienke, an attorney at the Institute of Policy Integrity at New York University, denounces the likelihood and effectiveness of this plausible approach: "[t]here are states and municipalities and environmental and public health organizations that have intervened in the case in support of EPA and the rule." As Lienke sees it, other interest groups would come to the plan's defense if the Trump administration and its respective Justice Department stood down. Withdrawing from current litigation, however, is only one of several ways in which the Trump administration could dismantle the plan.

Another way in which Trump could attempt to destroy the Clean Power Plan would be through what Southern Environmental Law Center's senior attorney, Frank Rambo, describes as "a motion for voluntary remand." Harvey says this type of action would "essentially [halt] the case and [allow] federal agencies to ... potentially revise their rules." In essence, if the Trump administration successfully motioned for voluntary remand, they could rewrite the Clean Power Plan. This action however, as Lienke notes, is also highly unlikely, since the "EPA has finalized this rule, [and] this rule is now law." Furthermore, he notes that a new plan mocked up by the Trump administration "would inevitably be litigated." Although this method is as equally ineffective as the Trump administration simply withdrawing from the plan's appeal, there are still more ways in which they could attempt to cancel the Clean Power Plan.

Jason Bacheye

35 Global Citizen | Issue 1

Global Citizen | Issue 1 36

Students find their voice on climate change on Global Citizen and The Script

Eco-friendly campus, a dedicated Sustainability Committee, faculty members incorporating climate change into their curriculum and initiating climate change competitions to raise awareness, constant funding for students to attend conferences and field trips…efforts around climate change at Foothill College are far from dying. And thanks to these, students at Foothill are now more active than ever about the issue. Apart from attending conferences (like the National Bioneers Conference, the Honors Research Symposium, and the March for Science in D.C.), students also produce their own climate change-centric magazine—the Global Citizen.

Started by a group of Honors Students in 2017, the Global Citizen is a climate-focused magazine run entirely by students. In the spring of 2017, thirteen students who care deeply about the state of our Mother Nature came together to design, write well-written articles, and publish the inaugural issue of the Global Citizen. They are "dedicated to building a resilient, stable global community committed to becoming the first generation in history to leave the next one an environmentally wealthier, healthier planet than the one we inherited," wrote Will Robertson, one of the two editors of the magazine, regarding the goal of all of this wonderful work.

In this issue, four main areas were discussed: Global Arena, Technology, Climate Watch, Student Voices. In each of the areas, students demonstrated global knowledge and presented in-depth research and thoughtful writing related to the area. For example, in the Climate Watch topic which concerns things to look out for around the world in

the near future concerning climate change, a student wrote an article titled "Trump Vs. Science: Will Trump Trump the Paris Agreement?" Sean MacPherson, the author, gave readers his analysis based on historical facts and recent news on actions and stances made by politicians and the President himself. MacPherson offered insights into some of the consequences that may happen if President Trump withdrew the United States from the Paris Agreement and anticipated that he will likely proceed, as he wrote, "The basis of the agreement—voluntary contributions—is greatly undermined if the largest historical contributor fails to contribute. What led to the worldwide approval and consensus of the Paris Agreement, however, also potentially gives Trump the necessary leeway to effectively pull the United States out of the agreement. While Trump's views are fairly enigmatic, we can be sure that the United States' strength in the Paris Agreement—and global standing—will suffer." A few months after his piece and the magazine were published, the United States submitted a formal notice of withdrawal from the Paris Agreement.

With high quality writing comes a long production time—the Global Citizen is currently publishing annually, albeit the editors are hoping to make it quarterly. The students behind the magazine gladly welcomes opinions and writing submissions. If a student is interested in writing for the magazine, the student should contact faculty advisor Scott Lankford at lankfordscott@fhda.edu. They are also hoping that faculty from a wide range of disciplines will consider including Global Citizen articles as part of their courses in future.

If the Global Citizen still leaves a reader hungry for more quality climate-focused writing, we are pleased to introduce a section on The Script, another student-run newspaper-plus-news-site of Foothill College, dedicated entirely to climate change. Since the start of The Script in April 2017, sixteen articles have been contributed to the newspaper contributed by both students and faculty. These articles come in a variety of flavors—politics, scientific analysis, "agroecology," sociology—showing off Foothill College students' awareness of climate change and ability to integrate it into their fields of interest, as well as their sharp writing skills. Moreover, as this awareness movement starts gain traction, we are also begin to see the effectiveness of climate-centric curriculum many professors at Foothill College have begun to adopt in these past few years. The Foothill College Sustainability Committee would like to extend our appreciation to all students and faculty who through their dedication have contributed to mobilizing young-generation climate action.

* * *

What's Going Inside The Sustainability Committee?

For the past academic year, Foothill College Sustainability Committee has been busy working to complete numerous sustainability-related initiatives and going through exciting infrastructural changes. This quick list will let you take a peak into what has happened and what is happening inside our committee:

- Received Planning & Resource Council (PaRC)'s approval for a more organized and expanded tri-chairs structure
- Completed the latest Sustainability Master Plan report and preparing to present to PaRC in December
- Began meeting with the new FHDA Energy Manager to explore possible collaborations
- Met formally with Foothill College President Thuy Nguyen and VP of Student Services Denise Swett in the Spring of 2017, and will be meeting VP of Instruction Kristy Lisle
- Expanded public outreach via signage and publications (such as this newsletter!)
- Welcomed new student representatives and exploring possible collaborations with the ASFC

Did You Know? (Foothill Sustainability Facts)