

Ogmios

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This issue of Ogmios describes several new and ongoing initiatives at CSTPR including our recently created Radford Byerly, Jr. Award in Science and Technology Policy. It features articles by our two new writing interns, Abigail Ahlert and Alison Gilchrist. Feedback welcome! info@sciencepolicy.colorado.edu



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2017 Radford Byerly, Jr. Award in Science and Technology Policy

In 2002, testifying before the Committee on Science in the U.S. House of Representatives in a hearing on 'New Directions for Climate Research and Technology Initiatives', Rad Byerly quipped "Politics is not a dirty word. In a democracy it is how we resolve conflicts of values." This articulate and insightful comment pierced the mood, and illustrated Rad's keen ability to step up and confront vexing U.S. science-policy challenges.

Rad passed away last January after an impressive career that included a postdoctoral fellowship at the Joint Institute for Laboratory Astrophysics (JILA) at CU Boulder, and more than twenty years as staff on and ultimately Director of the Science Committee of the U.S. House of Representatives. He also was Director of the Center for Space and Geosciences Policy at CU Boulder. Rad spent the last years of his career with the Center for Science and Technology Policy Research (CSTPR) at CU Boulder, where he was known as a mentor, adviser and friend with a wicked sense of humor.

In recognition of Rad's contributions to and impact on the CSTPR community, CSTPR has established the *Radford Byerly, Jr. Award in Science and Technology Policy*. Through this program CSTPR will present a monetary award in 2017 to a CU Boulder graduate student with a demonstrated commitment to making a significant contribution to science and technology policy in his or her work.

Please consider making a donation to the award either by

Writing a check to the University of Colorado Foundation (reference # 0125500 on the subject line of the check - essential for the donation to be applied to the Rad Byerly award!). Send the check to: Center for Science and Technology Policy Research, 1333 Grandview Ave., Campus Box 488, Boulder, CO 80309-0488, Attention Robin

OR

Donating online via this link: <https://giving.cu.edu/fund/radford-byerly-jr-award-science-and-technology-policy>

Any amount is helpful. Thank you for your support!

Subscribers to Ogmios will be notified by email when a new edition is available, and may access it either in pdf or html format. The newsletter is also available online at:

<http://sciencepolicy.colorado.edu/ogmios>

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OGMIUS EXCHANGE

Prometheus, Past and Present

by Abigail Ahlert, CSTPR Writing Intern



In 2004, blogging was in its infancy. According to Google Trends, online interest in blogs (<https://www.google.com/trends/explore?date=all&q=blog>) was at a mere 16% of its eventual peak in 2009. Social networks that help people share their blogs today were years away from popularity. It was at this time that Shep Ryen, a student at the University of Colorado's Center for Science and Technology Policy Research (CSTPR), created the blog "Prometheus" (http://sciencepolicy.colorado.edu/pro_archive/prometheus).

Ryen, who now holds a position at the Government Accountability Office (GAO) on the Natural Resources and Environment Team, started Prometheus as a term project for one of his graduate courses in science policy offered by CSTPR. Prometheus was—and is today—designed as an informal outlet for news, information, and opinion on science and technology policy. Inspired by this novel outlet for information, Roger Pielke, Jr., then the director of CSTPR, took it upon himself to support Ryen's project and provide material for the blog.

By 2006, Prometheus had garnered significant attention. It was featured in multiple articles praising the role of scientists in the "blogosphere", including one in National Geographic News (http://news.nationalgeographic.com/news/2006/04/0420_060420_science_blogs.html) and another in Science Policy Forum (<http://science.sciencemag.org/content/312/5771/201.e-letters>). It was

named as one of the 50 most popular science blogs in Nature News (<http://www.nature.com/nature/journal/v442/n7098/full/442009a.html>).

As blogging gained popularity and public interest in climate change grew, Prometheus readership expanded. In 2010 the CSTPR website was one of the most heavily trafficked websites on the CU Boulder campus, in large part due to Prometheus. But when the blog required more upkeep than Pielke and CSTPR were able to provide, Pielke retired Prometheus (http://sciencepolicy.colorado.edu/pro_archive/prometheus/indexbe04.html?p=5561) and continued blogging on his personal site.

Prometheus lay dormant until 2013, when it was revived mostly as a source for CSTPR news. Today, there are big plans for its future (see below). Prometheus 2.0 has begun to regularly feature content from CSTPR core faculty, research associates, postdocs, visitors, students and affiliates to serve as a resource for science and technology decision makers. This new dynamism will reflect the new energies and pursuits taking place in and around CSTPR. The blog will now span a broader range of news, research updates and opinion writing. Prometheus is being revamped to improve how science and technology policies address societal needs, through research and education.

OGMIUS EXCHANGE

Prometheus 2.0 and Our Common Future

by Max Boykoff, CSTPR Director

We here in the Center for Science and Technology Policy Research (CSTPR) recognize that we are in both urgent and opportune times. Science, technology, and policy issues are as pressing, dynamically changing and important as ever.

As evidence of this, former White House Office of Science and Technology Policy (OSTP) Director and Science Advisor (1998-2001) Neal Lane recently issued a strong call to the next U.S. President to place 'laser focus' on science and technology policy.

In making five clear recommendations for both the next U.S. president and the next U.S. president's science advisor, Lane appealed to the successor to Obama. He said, "considering the many policy challenges that relate to science and technology and the accelerating pace of scientific discovery and technology innovation across the globe, it is critically important that the president move quickly to appoint the science adviser and organize a capable OSTP that can begin to engage the many executive departments and agencies that support R&D and rely on advances in science and technology to carry out their missions."

This is a critical juncture in our history. More now than ever there is tremendous need for honest brokers like CSTPR

at the University of Colorado Boulder who can develop, maintain and continue active collaborations so that scientific work finds traction in political, cultural and social arenas.

While intertwined challenges proliferate, we in CSTPR press ahead through our collective capacity to pursue research, teaching and service projects to confront the urgent needs to improve our understandings of how the quality of decision-making can catalyze and enhance webs of interaction between science, technology, politics, policy and society.

Going forward, through this re-energized Prometheus blog (call it 'Prometheus 2.0' if you will), we will profile a number of these research endeavors, initiatives and commitments as we work to help a range of audiences, stakeholders and user groups make sense of the dimensions of science and technology policy that course through the veins of our shared social body.

Contemporary demands are such that science-technology-policy research is vital to understanding and improving how scientific ways of knowing can be more readily 'usable' for wider communities of researchers, practitioners and everyday people. Watch this space: <http://ciresblogs.colorado.edu/prometheus>.

RECENT PROMETHEUS BLOG POSTS

The 'Get On With It' Conference of Parties Meeting in Marrakech

<http://ciresblogs.colorado.edu/prometheus/2016/11/17/the-get-on-with-it-conference-of-parties-meeting-in-marrakech>
by CSTPR Director Max Boykoff

Co-Producing Actionable Science for Water Utilities

<http://ciresblogs.colorado.edu/prometheus/2016/09/29/co-producing-actionable-science-for-water-utilities>
by CSTPR Alumni Jason Vogel, CSTPR Research Affiliate Elizabeth McNie, and David Behar

Mountains of Possibilities

<http://ciresblogs.colorado.edu/prometheus/2016/10/12/mountains-of-possibilities>
by CSTPR Faculty Affiliate Beth Osnes

BOBW 2016: Recent Trends in Environmental Education and Education for Sustainable Development

<http://ciresblogs.colorado.edu/prometheus/2016/10/21/bobw-2016-environmental-education-and-education-for-sustainable-development>
by CSTPR Graduate Student Lee Frankel-Goldwater

Drilling Narratives, Self-Government, and The Rights of Nature

<http://ciresblogs.colorado.edu/prometheus/2016/10/27/drilling-narratives-self-government-and-the-rights-of-nature>
by CIRES/CSTPR Postdoctoral Research Associate Jessica Rich

OGMIUS EXCHANGE

How Do Science and Technology Affect Policymaking? How Does Policymaking Affect Science and Technology? by Abigail Ahlert, CSTPR Writing Intern



For the past 12 years, the Graduate Certificate in Science and Technology Policy program has been helping people explore these questions and more. The goal of the program is to prepare graduate students for careers at the interface of science, technology, and decision making. Certificate program students strive to understand the broad societal context of science and technology, as well as gain insight to the methodologies of policy analysis. The program has graduated 27 students and has 27 currently enrolled. Courses that satisfy the program's 18-credit requirement span environmental science, economics, law and philosophy.

Recently, an informal survey of current and former students was conducted to gauge satisfaction with the certificate program. The survey spans the perspectives of students who have participated in the program as early as 2004 and as recently as this year. One wrote, "While I have only completed one core and one elective course so far, I already feel that the program has broadened my exposure to possible roles for people with scientific and technical backgrounds to influence policy. I have also learned much about the ways in which data is gathered to assess public opinion of scientific research and science policy."

Another student said, "The certificate program introduced me to new perspectives about the role of science that did not come with my research training. I left the program with the ability to think broadly about the implications of research on the policy process, as well as the impact of policy on the scientific community. Importantly, when I applied for fellowship programs and awards, the certificate was documented proof of my interest and commitment to science policy."

The survey results indicate that the Graduate Certificate has been crucial for many students' professional development and very helpful for job entry. One student said that the course "Science, Technology and Society" (STS) was "one of the most important classes I have ever taken".

I sat down with Dr. Alexander Lee, a lecturer for CSTPR and CU's Environmental Studies program, who this semester is teaching

STS—one of the required courses for the Graduate Certificate. Dr. Lee's curriculum for the course centers around seminal science and technology policy texts (such as Thomas Kuhn's *The Structure of Scientific Revolutions*) and, admittedly, topics that he finds interesting. Though he specializes in environmental ethics, he likes to keep the course broad. "It wouldn't be unusual for a class like this [in an ENVS program] to focus on just issues like climate change or ecological degradation, whereas I think it's very important to understand those issues in the broader context of science and society," says Dr. Lee.

He says that the idea of providing scientists with policy and communication skills is not new, but the formalization of it into a certificate program is relatively uncommon. "Often scientists—and when I worked as a glaciologist I found this—are required to use technical language and put technical constraints on how you present things, and that's not always the most effective way science can be communicated and works in the world as a tool," says Dr. Lee. He thinks that scientists should be able to effectively write and talk about science in a general way.

So why is it important to engage scientists in policymaking? Dr. Lee noted that scientists are often acknowledged as "experts" in their field and believes that it's important for scientists to understand this responsibility and what it means in a social context.

In terms of the future of science policy, he says, "We're hitting a lot of really novel issues in science policy...we are facing what I think are truly new types of problems as a global community, whether it be climate change or the technological revolution that we're currently in. It seems like these are global in scale, exponential in growth, and not well analogous to problems in the past."

All in all, programs like CSTPR's Graduate Certificate help to bridge disciplines and effectively utilize new information and diverse skill sets. For more information on the Graduate Certificate in Science and Technology, please visit <http://sciencepolicy.colorado.edu/students> and contact Ami Nacu-Schmidt at ami.nacu-schmidt@colorado.edu.

PERSONNEL NEWS

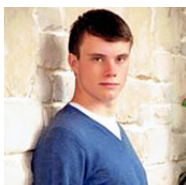
The Center welcomed four new interns this fall.

Celeste Moldanado



One of our new office interns, Celeste is a sophomore Integrative Physiology major with aspirations of becoming an emergency room doctor.

Curtis Gile



Our other new office intern, Curtis is a junior in Economics and Mechanical Engineering with interests in the economics of globalization, the role of engineering in developing communities, public policy, and energy development.

Alison Gilchrest



One of our new writing interns, Alison is a graduate student in Molecular, Cellular, and Developmental Biology.

Abby Ahlert



Our other new writing intern, Abby is a graduate student in Atmospheric and Oceanic Sciences.

Celeste and Curtis assist with research projects and office tasks. Alison and Abby are contributing to our blog and newsletter, doing write-ups of upcoming CSTPR events, and helping with other miscellaneous writing projects to promote research, education and outreach activities at CSTPR. Welcome to Celeste, Curtis, Alison and Abby!

VISITOR HIGHLIGHT

Augusto González on EU Space Policy by Alison Gilchrist, CSTPR Writing Intern

Augusto González has worked for the European Union (EU) for almost 30 years. He started on a temporary contract and in 1991 he became an official in the European Commission (the executive body of the European Union) where he has worked ever since.

Since 1991, González has been involved in numerous aspects of the European Commission's policy. He has worked in education policy, program design and legislation, finance of space programs, and in human resources. Along the way he became most interested in space policy and programs. Now, he works as Adviser to the Director for EU Satellite Navigation Programmes in the Directorate-General for Internal Market, Industry, Entrepreneurship and Small and Medium Enterprises.

The EU gives fellowships for officials to take a visitor position at participating universities, where they can conduct research as well as give seminars about EU organization, objectives and priorities. González chose to come to Colorado to study commercial activities in space. Besides being a beautiful place to spend a year, Colorado has a rich history in space commercialization and research. While he is here, he is giving a number of seminars on EU policy and space commercialization and regulation.

González's October 12 seminar (available via webcast at <http://cirescolorado.adobeconnect.com/p2jv8o9iaiz/>) at the Center for Science and Technology Policy Research (CSTPR) focused on three areas: the reasons that the EU is interested in space policy, its present programs and current reflections on future objectives.



As González says, "the EU is not a space agency. Why are we involved in space?" His talk discussed why the EU has defined objectives for space policy and what it is doing to achieve these objectives.

"I want students to understand how the EU works and what we do in space."

The talk was a fascinating look at regulation of a quickly changing and ever expanding field as well as an opportunity to gain a deeper understanding of how EU policy-making proceeds.

ALUMNI HIGHLIGHT

by Abigail Ahlert, CSTPR Writing Intern

This issue of Ogmius features a new section in which we will highlight CSTPR alumni.

Prior to joining NOAA in April of 2015, Shali Mohleji was a Senior Policy Fellow in the AMS Policy Program. She has a Master's degree in atmospheric sciences with a focus in boundary layer meteorology from Purdue University and a PhD from the University of Colorado Boulder's Environmental Studies Program. Mohleji did much of her work at CU through the Center for Science and Technology Policy Research (CSTPR). While sitting in a conference room in CSTPR, she noted, "My understanding of science policy started here."

Mohleji graduated with a degree from the Environmental Studies program in 2011. She's taken an active role in supporting the Center's activities and says she'll always vouch for the positive impact that it's had on her career. Mohleji believes that a lot of her success is due to the CSTPR Graduate Certificate in Science and Technology Policy program and how it trained her, noting that alumni are prepared with highly sought-after skills



and are typically very well received in the workforce.

Mohleji's advice to current students is to recognize the unique opportunity that CSTPR provides in learning science policy's best practices. "Everyone can do science policy, but you can do it well or you can do it poorly," she says. Mohleji maintains that CSTPR offers a robust and thoughtful way to approaching science policy and that this is truly "something special!"

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AAAS CASE Workshop Student Competition Early Heads Up

For the fourth year CSTPR plans to sponsor a campus-wide competition to select two students to attend (all expenses paid!) the AAAS Catalyzing Advocacy in Science and Engineering (CASE) workshop in Washington, DC. More information here: http://sciencepolicy.colorado.edu/stcert/aaas_competition.html. Past competition winners have described the workshop as "well-organized, thought-provoking, and a lot of fun."

To receive notification when the competition opens sometime this winter, please contact ami.nacu-schmidt@colorado.edu.

Red Cross Red Crescent Internship Program

Application Deadline: Thursday December 15, 2016
Submit your application to redcross@colorado.edu

CU Boulder has partnered with the Red Cross Red Crescent Climate Centre (RCRCCC) to place graduate students in locations in eastern and southern Africa each summer. This collaborative program targets improvements in environmental communication and adaptation decision-making as well as disaster prevention and preparedness in the humanitarian sector. It connects humanitarian practitioners from the Red Cross/Red Crescent Climate Centre – an affiliate of the International Federation of Red Cross and Red Crescent Societies – with graduate student researchers at the University of Colorado who are interested in science-policy issues. Through this program we strive to accomplish three key objectives:



AAAS Case Workshop Winners Sarah Welsh-Huggins and Angela Boag.

1. To improve the capacity of humanitarian practitioners within International Federation of Red Cross and Red Crescent Societies network at the interface of science, policy and practice.
2. To help meet needs and gaps as well as work as a research clearing house in environmental communication and adaptation decision-making in response to climate variability and change, as identified through Red Cross/Red Crescent Climate Centre priorities and projects.
3. To benefit graduate students by complementing

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the classes and research that they undertake in their graduate program with real-world experience in climate applications and development work.

This internship program will place 1-2 PhD and/or Master's degree students in an IFRC regional field office, a National Society branch office, or with a partner organization for a period of approximately 3 months. Interns will be provided \$5,000 to offset expenses.

For more information see <http://sciencepolicy.colorado.edu/students/redcross>. Application information is at <http://sciencepolicy.colorado.edu/students/redcross/apply.html>.

Contact information: Max Boykoff (boykoff@colorado.edu) or Arielle Tozier de la Poterie (arielle.tozierdelapoterie@colorado.edu)

CENTER TALKS AND EVENTS

The Center's fall noontime seminar series has been completed. Most of the talks can be viewed here: <http://sciencepolicy.colorado.edu/news/webinars>.

September 7

Collaborating for System Change: Learning Networks for City Resilience, Wildfire Protection, Climate Adaptation, and Impactful Science, Bruce Goldstein and the Collaborative Learning Networks

September 28

AAAS "Catalyzing Advocacy in Science and Engineering" Workshop Student Competition Panel Discussion, with Abby Benson, University of Colorado AeroSpace Ventures, and past competition winners Angela Boag, Nicholas Valcourt, and Sarah Welsh-Huggins (Cosponsored by the Forum on Science Ethics and Policy)

October 12

EU Space Policy, by Augusto González, European Commission

October 19

Student Expertise and the Legislative Process, by Jeffrey Zax, University of Colorado Department of Economics

October 26

Collaboration in Energy and Materials Sustainability, by Alan Hurd, Los Alamos National Laboratory

The Spring 2017 schedule (with tentative dates) will feature talks by:

- Jessica M. Smith, Assistant Professor, Liberal Arts and International Studies, Colorado School of Mines (CSTPR

Faculty Affiliate) - January 25

- Elizabeth McNie, Western Water Assessment (CSTPR Alumni and current CSTPR Research Affiliate) - February 8
- Deserai Crow, Associate Professor, School of Public Affairs, University of Colorado Denver (former CSTPR Core Faculty member and current CSTPR Faculty Affiliate) - February 15
- Julia Schubert, Research Associate, the Forum Internationale Wissenschaft, Bonn, Germany (currently visiting CSTPR on a PhD Fulbright Fellowship) - February 22
- Jason Delborne, Associate Professor of Science, Policy, and Society, North Carolina State (CSTPR Faculty Affiliate) - March 8
- Justin Farrell, Assistant Professor of Sociology, Yale University (current CIRES Sabbatical Visitor sitting at CSTPR) - March 15
- Jack Stilgoe, Senior Lecturer, Department of Science and Technology Studies, University College London (spending his sabbatical at CSTPR) - March 22
- Kathleen Hancock, Associate Professor, Colorado School of Mines - April 12
- Sierra Gladfelter, MA Student, Geography Department, University of Colorado Boulder (recent Red Cross/Red Crescent Internship Program intern) - April 26

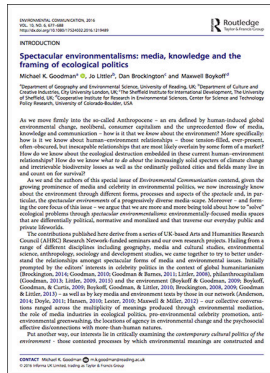
Check back at http://sciencepolicy.colorado.edu/news/seminars_spring2017.html for the full schedule including titles, abstracts, bios, and webcast information.

CENTER PUBLICATIONS

Below is a sample of recent publications by CSTPR faculty (Center personnel highlighted):

Spectacular Environmentalisms: Media, Knowledge and the Framing of Ecological Politics
by M.K. Goodman, J. Littler, D. Brockington, and **M. Boykoff**
Environmental Communication, 10, 6, 677-688 (2016).

Excerpt: As we move firmly into the so-called Anthropocene – an era defined by human-induced global environmental change, neoliberal, consumer capitalism and the unprecedented flow of media, knowledge and communication – how is it that we know about the environment? More specifically: how is it we know about human-environment relationships – those tension-filled, ever-present, often-obscured, but inescapable relationships that are most likely overlain by some form of a market? How do we know about the ecological destruction embedded in these current human-environment relationships? How do we know what to do about the increasingly solid specters of climate change and irretrievable biodiversity losses as well as the ordinarily polluted cities and fields many live in and count on for survival? Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2016.21.pdf.



Navigating Scales of Knowledge and Decision-Making in the Intermountain West: Implications for Science Policy
by E. Gordon, **L. Dilling**, E. McNie, and A. Ray
Climate in Context: Science and Society Partnering for Adaptation, Ed. A. Parris and G. Garfin, 235-254, Wiley and Sons (2016).

Assessment of Cookstove Stacking in Northern Ghana Using Surveys and Stove Use Monitors
by R. Piedrahita, **K.L. Dickinson**, E. Kanyomse, E. Coffey, R. Alirigia, Y. Hagar, I. Rivera, A. Oduro, V. Dukic, C. Wiedinmyer, and M. Hannigan
Energy for Sustainable Development, 34, 67-76 (2016).

Abstract: Biomass burning for home energy use is a major health and environmental concern. While transitioning to cleaner cooking technologies has the potential to generate significant health and environmental benefits, prior efforts to introduce improved cookstoves have encountered many hurdles. Here, we focus on the increased stove use hurdle; households tend to use improved stoves alongside their traditional stoves rather than replacing them entirely, a phenomenon

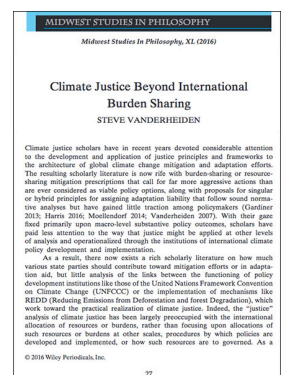


called cookstove “stacking.” This work provides a systematic, multi-method assessment of households’ cooking behaviors and cookstove stacking in the context of a 200-home randomized cookstove intervention study in Northern Ghana. Two stoves were selected for the intervention, a locally made rocket stove (Gyapa) and the Philips HD4012 LS gasifier stove. There were four intervention groups: a control group, a group given two Gyapa stoves, a group given two Philips stoves, and a group given one of each. Two stoves were distributed to each home in an attempt to induce more substitution away from traditional stoves. Adoption and usage patterns were quantified using temperature loggers at a subset of homes, as well as quarterly surveying in all households. We find that using multiple stoves each day is common practice within each intervention group, and that the two groups given at least one Gyapa had the largest reductions in traditional stove use relative to the control group, though use of traditional stoves remained high in all groups. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2016.16.pdf.

Assessing Needs and Decision Contexts: RISA Approaches to Engagement Research
by C. Simpson, **L. Dilling**, K. Dow, K. Lackstrom, M.C. Lemos, and R. Riley
Climate in Context: Science and Society Partnering for Adaptation, Ed. A. Parris and G. Garfin, 3-26, Wiley and Sons (2016).

Climate Justice Beyond International Burden Sharing
by **S. Vanderheiden**
Midwest Studies In Philosophy, XL, (2016).

Excerpt: Climate justice scholars have in recent years devoted considerable attention to the development and application of justice principles and frameworks to the architecture of global climate change mitigation and adaptation efforts. The resulting scholarly literature is now rife with burden-sharing or resource sharing mitigation prescriptions that call for far more aggressive actions than are ever considered as viable policy options, along with proposals for singular or hybrid principles for assigning adaptation liability that follow sound normative analyses but have gained little traction among policymakers (Gardiner 2013; Harris 2016; Moellendorf 2014; Vanderheiden 2007). With their gaze fixed primarily upon macro-level substantive policy outcomes, scholars have paid less attention to the way that justice might be applied at other levels of analysis and operationalized through the institutions of international climate policy development and implementation. As a result, there now exists a rich scholarly literature on how much various state parties should contribute toward mitigation efforts or in adaptation aid, but little analysis of the links between the functioning of policy development institutions like those of the United Nations Framework Convention on Climate Change (UNFCCC) or the implementation of mechanisms like REDD (Reducing Emissions from Deforestation and Forest Degradation), which work toward the practical realization of climate justice. Indeed, the “justice” analysis of climate justice has been largely preoccupied with the international allocation of resources or burdens, rather than focusing upon allocations of such resources or burdens at other scales, procedures by which policies are developed and implemented, or how such resources are to be generated. As a

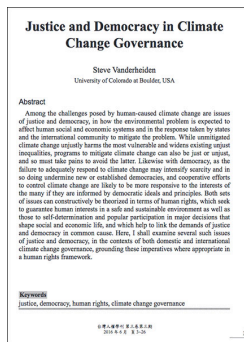


CENTER PUBLICATIONS

Justice and Democracy in Climate Change Governance by S. Vanderheiden

Taiwan Human Rights Journal, 6, 3-26 (2016).

Abstract: Among the challenges posed by human-caused climate change are issues of justice and democracy, in how the environmental problem is expected to affect human social and economic systems and in the response taken by states and the international community to mitigate the problem. While unmitigated climate change unjustly harms the most vulnerable and widens existing unjust inequalities, programs to mitigate climate change can also be just or unjust, and so must take pains to avoid the latter. Likewise with democracy,



as the failure to adequately respond to climate change may intensify scarcity and in so doing undermine new or established democracies, and cooperative efforts to control climate change are likely to be more responsive to the interests of the many if they are informed by democratic ideals and principles. Both sets of issues can constructively be theorized in terms of human rights, which seek to guarantee human interests in a safe and sustainable environment as well as those to self-determination and popular participation in major decisions that shape social and economic life, and which help to link the demands of justice and democracy in common cause. Here, I shall examine several such issues of justice and democracy, in the contexts of both domestic and international climate change governance, grounding these imperatives where appropriate in a human rights framework. Read more: http://sciencepolicy.colorado.edu/admin/publication_files/2016.17.pdf.

S&T NEWS

CU and the Boulder Climate Commitment by Abigail Ahlert, CSTPR Writing Intern



While Americans come to terms with divisive national politics, there's still a lot of hope in city-scale climate action (<http://www.c40.org/ending-climate-change-begins-in-the-city>). This December, the Boulder City Council is expected to formally adopt the Boulder Climate Commitment (BCC), and leveraging local knowledge and engagement from the University of Colorado will be an important factor in its success.

The main goal of the climate plan is to reduce Boulder's greenhouse gas emissions to at least 80% below 2005 levels by 2050. The BCC energy objective is to ensure that 100% of Boulder's energy comes from renewable sources by 2030, with 50% or more of that created locally.

Through conservation programs that focus on outdoor irrigation and recycling efforts, the BCC aims to reduce

emissions from waste management by 2% and reduce water usage by almost 20%. The BCC also plans for the planting of 1,500 trees per year by 2050 in order to protect Boulder's urban ecosystem.

The University of Colorado Boulder (CU) is taking advantage of multiple opportunities to coordinate with the BCC, including the implementation of energy efficient facility upgrades. For example, the athletic facility completed in April 2016 has 2,604 solar panels which generate about 1,200 MWh of power per year. CU is also continuing its support of public transit resources and student "Energy Green Teams" that outreach to the University community about sustainability (<http://www.colorado.edu/center/greenteams>).

In addition to these projects, the City of Boulder hopes to utilize CU's academic resources for climate planning. During the week of October 10, Brett KenCairn, Senior Environmental

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Planner for the City of Boulder, and Dr. Sarah Thomas met with CU faculty and students to discuss the BCC.

Students and faculty agree that their engagement in the BCC is productive, considering the important role that the University plays in Boulder's culture. "CU is a large part of the Boulder community and as academics we like to solve problems. It's a natural fit to bring in the tremendous talent from all parts of campus to the issue of climate change and starting with our local government makes a huge amount of good sense," says Dr. Rebecca Jo Safran, Associate Professor in CU's Department of Ecology and Evolutionary Biology.

However, the BCC also brings to light some of Boulder's most pressing problems. A leading concern among members of the University is the relationship between greenhouse gas emissions from commuters and Boulder's relentlessly climbing housing costs. In 2012, 17% of Boulder's transportation-related greenhouse gas emissions came from non-resident employees. While this is still less than what was emitted by Boulder residents, there is worry that emissions from non-residents will continue to climb. Dr. Shelly Miller, Professor of Mechanical Engineering in CU's Environmental Engineering Program, says, "I think it will be difficult to do anything meaningful with housing and transportation. People cannot afford to live in Boulder and so commute and people like their cars and don't want to be inconvenienced by increasing bus and bike ridership initiatives...just look at what happened when they changed the bike lanes on Folsom earlier this year," referring to the recent backlash to bike lane expansion designed by Boulder's Living Lab (http://www.dailycamera.com/news/boulder/ci_29394312/boulder-reconsiders-some-protected-bike-lanes).

The issues of housing and transportation also raise crucial questions of justice. "In terms of challenges, I think the questions are how to do this in an equitable way, one that doesn't further marginalize and push out the non-wealthy. This is not an impossibility—as some might argue—but rather requires us to rethink what implicit or explicit biases might be smuggled into ideas of 'our values,' 'our way of life,' 'our quality of life' in Boulder," says Dr. Emily Yeh, Chair of CU's Geography Department. The City of Boulder recently introduced the Just Transition Collaborative to address these issues (<http://outreach.colorado.edu/programs/details/id/764>).

Despite concerns, there is hope among faculty and students that Boulder can become a success story and example of climate action. The sentiment seems to be that Boulder has the resources to limit its greenhouse gas emissions, and thus the obligation to do so. Michael Rush, a graduate research assistant in CU's Civil, Environmental and Architectural Engineering Department, says, "Boulder must be an example of climate action for other cities...This country has a proud tradition of 'laboratories of democracy' wherein individual states or communities test new and innovative policies before they are

enacted on the national level. Boulder can show the world that it is possible to reverse antiquated housing laws, eliminate unsustainable transit habits, and update energy policy to lay the foundation for long-term ecological sustainability."

Rush is particularly excited about the Boulder Energy Challenge—grant money that the City of Boulder has offered to fund sustainability projects (<https://bouldercolorado.gov/lead/boulder-energy-challenge>). These grants were last offered in 2014, and an application period for a new round of grants will open at the end of November. The City also hopes to host an "Energy Futures" summit in 2017.

The October BCC meetings made it clear that Boulder is a small city uniquely equipped to limit its greenhouse gas emissions, but that it will also face new and complex challenges in the process.

MULTIMEDIA HIGHLIGHT



More Than Scientists Campaign The World's Best Dad by Waleed Abdalati

The conversation about climate starts with "We all care about our kids. How do we ensure the best future?" To Waleed, former NASA Chief Scientist, it doesn't start with what you should do. And his daughter assures us he's the Best Dad Ever!

In this Inside the Greenhouse project, Fall semester 'Climate and Film' (ATLS 3519/EBIO 4460) students and Spring semester 'Creative Climate Communication' (ENVS3173/THTR4173) students, along with the More than Scientists campaign, create and produce a short video based on an interview of a climate scientist in the local Boulder area, depicting human/personal dimensions of their work.

These scientists work at NCAR, NOAA, CIRES, INSTAAR, WWA, NSIDC, LASP and various other units at CU-Boulder.

Video [1:53]: <http://morethanscientists.org/#/video/1170>



To view more videos from the More Than Scientists Campaign see: <http://www.insidethegreenhouse.org/project/inside-greenhouse-more-scientists-collaboration>

Job Opportunities



Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado Boulder CIRES Visiting Fellows Program

CIRES sponsors a prestigious Visiting Fellows Program, inviting scientists to join the thriving community of research scientists in Boulder, Colorado. CIRES Visiting Fellowships are intended to stimulate interdisciplinary research across the institute through engagement with CIRES researchers on campus and in Boulder's NOAA Laboratories. Visiting Fellows work with CIRES researchers on a wide range of environmental science topics. The CIRES Visiting Fellows Program has attracted more than 325 scientists from around the world over the past 45 years; many have gone on to lasting careers in CIRES and NOAA.

Two-year Visiting Fellowships are available for postdoctoral researchers (\$62,000 per year); terms between 3 months and 12 months are available for senior scientists on leave or sabbatical.

Visit the CIRES website for more information about the Institute (<http://cires.colorado.edu>), and go to the Visiting Fellows page to apply: <http://cires.colorado.edu/about/institutional-programs/visiting-fellows-program>. The deadline for applications is 11:59pm, January 9, 2017.

AAAS Mass Media Science & Engineering Fellows program

The American Association for the Advancement of Science (AAAS) is seeking applicants for its Mass Media Science & Engineering Fellows program. The program places science, engineering, and mathematics students and postdocs at media organizations nationwide and provides a great opportunity for students to sharpen their abilities to communicate complex scientific issues to the public. Fellows have worked with the Los Angeles Times, WIRED, National Geographical Society and National Public Radio as reporters, editors, production assistants, and researchers. Interested students should visit AAAS for more information: https://www.aaas.org/page/apply?et_rid=35065476&et_cid=971066. The deadline to apply is January 15.

Union of Concerned Scientists, Center for Science and Democracy Kendall Fellowship: Voting Rights

Are you a scientist who wants to explore the intersection of voting rights and public policy? Do you think research can help remove barriers to enfranchisement? The Center for Science and Democracy at the Union of Concerned Scientists is inviting applications from qualified social scientists and related experts for a Voting Rights Fellowship to begin September 2017. The fellowship is part of the UCS Kendall fellows program. Successful applicants will develop a proposal for a two-year project to identify gaps in research related to voting rights, assess the impact of voter disenfranchisement on our ability to meet science-based policy challenges, and feed that analysis into efforts to increase voter participation in U.S. elections. More information: <http://www.ucsus.org/about/jobs-ucs#kendallvoting>.

Please see the Center's Jobs Page to learn about other opportunities in the S&T field:
<http://sciencepolicy.colorado.edu/students/jobs>

ABOUT US

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