



Environmental Justice CSU Justice Roundtable Series

EJCSU Roundtable Brief #1

“Just Water?: Streaming Justice into Water”

Event Date: 1/12/2015

Authors: Environmental Justice Working Group (Melinda Laituri, Stephanie Malin, Tara O’Connor Shelley, Dimitris Stevis, Stacia Ryder, Kathryn Powlen)

Editorial and Transcription Assistance: Stacia Ryder and Kathryn Powlen

This brief is based on the Environmental Justice Roundtable Series hosted by the Environmental Justice Working Group (formerly EJCSU), which is supported by CSU’s School of Global Environmental Sustainability’s (SoGES) as one of its Global Challenges Research Teams (GCRT). The series began on February 12, 2015. For more information about EJCSU, please visit their website at: (<http://environmentaljustice.colostate.edu/>)

This document is part of a series of roundtable briefs highlighting how environmental justice is conceptualized, discussed, researched, and put into practice locally, regionally, and globally. The purpose of these briefs is to highlight the variety of contexts within which environmental equity and justice (EEJ) frameworks are imperative. In particular, the goal is to emphasize the transdisciplinary nature of EEJ, highlighting common themes and differences of interpretation and application that emerge in the EJ community at Colorado State University and among additional colleagues in our network. This particular roundtable brief is focused on issues of EEJ in water research and policy.

Table of Contents

Title Page	1
Table of Contents	2
Event Announcement.....	3
Executive Summary.....	4
Event and Panelist Introduction	5
Open Discussion	9

Just Water?: Streaming Justice into Water

EJ CSU (SoGES GCRT)

Justice Roundtable Series

February 12th from 3:30-5:00 in the Montreal Room (Johnson Hall)

Water quantity, quality, and rights raise a host of environmental equity and justice issues across the globe. This roundtable event is an opportunity for scholars and practitioners

alike to informally discuss questions and issues associated with “water justice.”

- ✓ Human Rights & Water
- ✓ Social Justice, Environmental Justice & Water
- ✓ Water & the Law
- ✓ Water Justice & Global & Trans-boundary Issues.
- ✓ Water Justice & Conflicting Scale
- ✓ Water Justice: Moving Beyond People
- ✓ Water Justice & Sustainability
- ✓ Defining Water Justice

- What is a human right and why has water been designated as one? What does this mean, who has responsibility, does it reach far enough?
- Does social justice equal environmental justice?
- Should access to water be enshrined in the law, such as Paul Simon’s Water for the World Act?
- How does water justice differ across countries, particularly across the global North and the global South?
- What kinds of environmental equity and justice issues are raised by trans-boundary waters?
- Can water justice at one scale produce injustice at another?
- What is the extent of water justice for ecological needs?
- Why is water justice important for sustainability?
- What is water justice?

Please join our distinguished roundtable members that include: **Dr. Rebecca Gruby** from Human Dimensions of Natural Resources, **Dr. Neil Grigg** from Civil and Environmental Engineering, **Dr.**

Melinda Laituri from Ecosystem Science and Sustainability, and **Dr. Stephen Mumme** from Political Science as they briefly address these questions and outline how their work relates to water justice. These CSU scholars have conducted water research and informed policy at the local and global levels.



Melinda Laituri



Neil Grigg



Rebecca Gruby



Stephen Mumme



The Water Justice Roundtable is the first of several forthcoming justice roundtables that will be hosted by Environmental Justice CSU, a SoGES Global Challenge Research Team (GCRT). Future roundtables will explore environmental equity and justice across a range of issue areas including the built environment, climate and energy, food, biodiversity and ecosystems, institutions and governance, and health. These informal roundtables are intended to facilitate the formation of transdisciplinary teams that can produce innovative research and teaching on environmental equity and justice.

Executive Summary

“Just Water?: Streaming Justice into Water” was the first roundtable event in the Environmental Justice CSU’s ongoing environmental justice roundtable series. Professors Neil Grigg (Civil and Environmental Engineering), Rebecca Gruby (Human Dimensions of Natural Resources) Melinda Laituri (Ecosystem Science and Sustainability) and Stephen Mumme (Political Science) led the roundtable with comments about the place of equity and environmental justice in their research. Dimitris Stevis (Political Science) introduced the group and facilitated the roundtable.

Panelists’ initial comments tied water to a host of other social issues and challenged participants to think about how to address water needs in terms of both physical and human systems around the world. For example, Neil discussed links between water and poverty, water quality, and water usage. He suggested a need for integrated water resource management to address the complicated water needs across different systems. Melinda expanded on the topic of water quality, noting that her mapping research pointed to racial and socioeconomic divides in water quality in Tucson, Arizona. Furthermore, Stephen pointed out that his work in Mexico demonstrated that establishing water justice for some may inadvertently lead to water injustice for others, demonstrating that environmental justice issues are often multiscalar. Finally, Rebecca pushed participants to think about water distribution, access, and inclusion—in the context of both freshwater and saltwater.

A common theme throughout the roundtable discussion was the importance of policy and governance in issues of water equity and justice. This was particularly relevant for exploring the relationship between indigenous communities and natural resources, particularly water. Within this context the roundtable discussed three critical water justice issues (1) the relationship between water and culture, (2) water sustainability, and (3) individual vs. communal water rights. Several key questions were raised and discussed:

- Where is the balance between science and advocacy?
- Is environmental justice enough?
- Who speaks for ecosystems, such as streams, headwaters, and species?
- What about issues of ecological justice?
- What are the needs of the environment, if our health and success is predicated on the health of our environment? On the other hand, does the environment displace social values and priorities? Could we benefit from better accounting for resources (i.e. accounting for their worth in GDP) and would this allow us to allocate rights better?

Over the course of the roundtable, the question of whether or not water is a human right was prominent. Governance, access, and distribution of water proved to be of importance across several field research contexts and disciplines. Panelists and participants drew on their particular areas of knowledge, including examples from Mexico, Arizona, Colorado, Latin America, Tanzania, Southeast Asia, and the Pacific Islands.

Event and Panelist Introduction

The first EJCSU roundtable took place on Thursday, February 12, 2015 in the Montreal Room at SoGES. Professors Neil Grigg (Civil and Environmental Engineering), Rebecca Gruby (Human Dimensions of Natural Resources) Melinda Laituri (Ecosystem Science and Sustainability) and Stephen Mumme (Political Science) led the roundtable with comments about the place of equity and environmental justice in their research followed by general discussion with roundtable participants. The roundtable was attended by an additional thirteen people, including faculty, graduate students and undergraduate students. Attendance was quite diverse in terms of disciplines, including individuals from Architecture, Engineering, Geography, Human Dimensions of Natural Resources, Political Science, Sociology, and Soil and Crop Sciences.

Neil Grigg—Civil and Environmental Engineering, CSU

Neil started the roundtable by discussing his thoughts on access to water, particularly how those with access tend not see water access as a problem for others. He pointed out that water justice is tied to and spans across many other issues. For example, access to water is linked to poverty as well as safe drinking water, sanitation, clean streams, exposure to harm and use of water for food. Thus, what tools can be devised to regulate access to water? What do we actually do in practical terms and in a manner that is equitable? How can we accomplish just and equitable integrated water management? In short, how can we address the needs of ‘physical’ and human systems? Neil pointed to global discussions of integrated water management as part of a way forward on water justice issues: *“Around the world, people are talking a lot about integrated water resources management that would address the needs of people as well as would address the needs of these physical and economic systems.”* Water can be considered as a sector of needs and a connector of various needs. Worldviews are the driving force behind access to water. As such, Neil suggested that water management,

“Get into fundamental issues like the difference between Marxism and capitalism and responsibility that we have to meet these common societal issues at a human level. When you translate those into the kind of things that I do, in water

management you find some real issues on the table, such as, how do you charge for water? If somebody can't pay for water, what do you do about that? There's some practical problems like that that we need to give more attention to from a philosophical and a societal basis as well as an engineering basis like that."

At the end of Neil's presentation we had a short but very interesting exchange on research methods and how those of the social sciences can provide a more holistic and systemic view than those of the natural sciences. This was motivated by some analysis of the methodologies of social sciences that Karie Boone prepared during one of the I-Water core courses.

To see more about Neil's work, check out his profile on the Engineering Department's page [here](#), or click [here](#) to see his CSU Water Faculty page.

Melinda Laituri—Ecosystem Science and Sustainability, CSU

Melinda talked about her dissertation research on water and environmental justice in Tucson, Arizona where she used GIS mapping (see <http://gis.colostate.edu/>) to better understand water (in) justice. Her study revealed the extent to which water quality within the city was tied to both racial and social divides. That is, poorer communities of color frequently had lower quality of water than their wealthier and white counterparts. Her committee criticized her interest in justice, indicating that it compromised her science. She spoke to her committee's reaction: *"My committee said to me, 'You started out as an analyst, and suddenly it seems like you're at these meetings and you've become an advocate. And in fact, we might even say that you've become an activist. What does that mean for your science?'* She asked us, then, to contemplate whether commitment to justice does compromise science any more than implicit or explicit commitments to anything else, (e.g., commitment to efficiency).

She then posed the questions: *"In this [environmental justice] setting, what does it [EJ] mean for science? What does it mean for how we practice science? What does it mean for our methods? How does it influence how we look at things?"* Essentially, she asked us to consider: why does environmental justice research automatically imply that a bias is present in our science? She described her response to her committee: *"My response to them was, 'If we're going to talk about justice, how can you not be for justice? Why is that a biased view, if I go into something and say that I have an environmental justice perspective?'"* Melinda suggested these were key issues that we as EJ scholars need to unpack and understand for our own work. For example, when reporting research findings one might need to consider the potential harm they could cause to disadvantaged communities. In her own work, Melinda discovered that water

pipelines on the US side were tapped from the Mexican side. She chose not to reveal this finding in her research knowing it could harm an already disadvantaged community.

Melinda draws on those lessons to drive her approach to research via participatory mapping today. She has conducted participatory mapping with indigenous groups around the world focusing on natural resources and in many cases, specifically on water. Participatory mapping gives “voice” to marginalized groups where they can document resource use and needs based upon their perspectives. Products from participatory mapping can be used by communities for planning, policy making, and substantiating their claims to resources. Central to participatory mapping, she argued, is the building of trust and the need to use maps to talk to power – not only to facilitate its exercise. Furthermore, she advocates for the use of mapping to make cultural information spatial. These cultural maps reflect alternative ways of knowing as well as a method to inform other stakeholders, policy makers, and researchers how local communities understand their landscapes.

To see more about Melinda’s work visit her [webpage](#) or her [Water Faculty page](#).

Stephen Mumme—Political Science Department, CSU

Steve has done most of his work in Mexico and along the US-Mexico border, studying water diplomacy between the two nations. He shared his take on environmental justice, stating that *“When I think about environmental justice, I think first about equity. I see justice as a driver, a tool, for advancing equity, justice as an institutional mechanism for advancing equity. Equity is the larger issue.”* For him if we define justice as fairness, then equity becomes the major issue EJ scholars should prioritize. He suggested that there are ‘traditions’ of justice with that of the US being more adversarial and litigious while Mexico uses a more administrative approach to settling environmental justice claims and considers water as a human right in the UN sense of the term (see http://www.un.org/waterforlifedecade/human_right_to_water.shtml). International differences in the framing and organization of environmental and water justice cannot be wished away.

He also pointed out the differences that scale can make as justice at one level may cause injustice at another. To demonstrate this point he used the example of Ocotillo, a small Mexican community that is reliant upon groundwater, but was having their groundwater turned into bottled water for Mexicali. This was tied to a larger cross-border issue of water quality. Stephen notes:

“There was this little issue in this little poor community, just south of interstate 8 near the Jacumba Mountains called Ocotillo. It’s a little trailer park community mainly of retirees. They rely on groundwater. At the time, the U.S.—these folks were really worried about an issue that was affecting their property rights and their access to water, and that was that a big water developer had come in and started pumping water. This person had bought the rights to previous practice, so there was an international water trade going on. Five-thousand-gallon tankers, 30 or 40 of them a day, were going to Mexicali. Virtually all the bottled water in Mexicali was groundwater from Ocotillo...The first environmental justice issue is the salinity dispute over the quality of water going to Mexico. One of the most important agreements we have on the Colorado River is Amendment 242, which settles the salinity crisis... But the solution to that required not responding to the problems in Ocotillo. The State Department viewed the environmental justice problem in Ocotillo as a complicating factor. It does have I think a modestly adverse effect on this little community. But interestingly enough, eventually they do get justice after they take their case to the Supreme Court a couple of times, and it’s really a fascinating little story about the interplay between environmental justice issues and how a solution at one level, if you’re trying to solve a water problem in the same area, the same place, may not be the solution to another kind of problem that’s connected and part of that larger panorama of issues that’s playing into a solution at this other level.”

To see more about Stephen’s work, click [here](#) or visit his Water Faculty page [here](#).

Rebecca Gruby—Human Dimensions of Natural Resources, CSU

Rebecca pushed participants to think about what we mean by ‘water justice’. Does it include ocean water, or do we tend to forget about the ‘salty kind’ when we talk water justice? While she does not engage with justice at a theoretical level in her work, she does explore issues of distribution, access and inclusion. She spends a lot of her time thinking about *“the politics of control in new and emerging conservation governance policies and projects and the distributional impacts of those projects and policies in terms of who gains or loses access and control to resources.”*

Rebecca’s research focuses on fisheries and marine protected areas, and she has been looking at the distributional impacts of projects and policies implemented in the Pacific Islands. She is interested in the question of who gains or loses access and control of natural resources in shifts

to rights-based fisheries governance and large marine protected areas. She has noted the tension between property rights and human rights approaches. Currently, one project is a case study of the Republic of Palau, (a small Pacific Island nation in the tropical Western Pacific) and California, “to think about how different types of rights-based approaches might be appropriate in these contexts and how they might interact with human rights.” She discussed the role of justice in this project as she spoke to the ways local people can be marginalized or empowered in these processes:

“We’re trying to map out the informal and formal rules that are in place right now that affect the governance of these fisheries, trying to understand and think through what different rights-based approaches, what different property rights systems or other policies changes, what kinds of effects those might have on those systems in terms of broad human rights and broad-scale distributional impacts? One example I can think of is, right now, if you are from this particular community that we’re working in but you live in another state, you’re allowed to come and fish there, so long as you contribute to the community. You come and do community work. You attend funerals, which in the Palau case is kind of a Social Security system, you pay money when you go to a funeral. If you were to cut off access of people who aren’t living in those communities, which is kind of what one operating idea is, you would disrupt that entire social welfare system. What our research is trying to do is explore those potential impacts before a policy change is done.”

To learn more about Rebecca’s work, visit her lab website [here](#).

Open Discussion

On the basis of these self-reflective introductory comments we moved on to an open discussion. The first topic discussed involved a point raised by Rebecca in her opening remarks about how we define water in the context of EJ. In other words, what types of water and how are subject to environmental justice? Much depends on what value one assigns to water. As one looks at the various uses of captured and saline water it becomes apparent that the boundary is both grey and shifting. Consider, for instance, desalination plants but also the migration of various species, off shore energy and so on. Essentially, there is an indivisibility of discussions of water and water justice from conversations about other resources. There was further discussion of the relationship between water as part of cultural identity, and the difficulty some indigenous

communities have keeping up with the capitalization of their resources. This latter point was brought about by [Marcela Velasco](#), who pointed out that:

“There’s this intractable debate in many Third World countries about the indivisibility of water from other resources and the differences of knowledge. We have this capacity of seeing water as something you can transport, sell, it has properties, it belongs to this or that group of people. But for some of the communities, that’s not something they can even conceive. So a lot of water conflicts, at least in Latin America, which is what I’m looking at, stem from that basic difference. Not to mention how the governments are just recently coming into these territories and determining who owns what and what part of budget that belongs to and then in communities, especially the indigenous and peasant communities and even urban communities, are having a very difficult time dealing with this and accepting this and catching up with these capitalist ideas about resources and how to manage them. That’s one of the biggest governance bottlenecks that I’m seeing in what I do...And not to mention the connection between water and culture. People—this is part of what identifies a lot of cultures.”

The discussion then moved in a more philosophical direction and considered an array of topics:

- Is environmental justice enough?
- Who speaks for ecosystems, such as streams, headwaters, and species?
- What about issues of ecological justice?
- What are the needs of the environment, if our health and success is predicated on the health of our environment? On the other hand, does the environment displace social values and priorities? Could we benefit from better accounting for resources (i.e. accounting for their worth in GDP) and would this allow us to allocate rights better?

[Dick Tinsley](#), a soil scientist with extensive work abroad talked about the justice implications of his work in Tanzania and Southeast Asia. In Tanzania, for example,

“The water access is declining every year. The streams are drying up more and more. I was a little bit upstream of that working on a 3,000-hectare rice-based irrigation system, which takes a lot of water. And a hunting survey team out of the UK came in there and they estimated that there was about 10,000 acres of irrigated rice in this upper estuary. They finally got up on top of it, took another look, and there was 40,000 hectares of irrigated rice. There was 11,000 that was

put in by the government and the other 30,000 was put in by little small individual streams. But these were all going to very small farmers. Even if it was physically possible, who's going to go out and tell this small farmer that he has to give up his rice production and go back to some type of dry land production in order for some Europeans to come out and enjoy the wildlife in the game reserve?

A student attendee asked whether water injustice is due to too much or too little governance. This question raises the importance of partnering with Environmental Governance Working Group (EGWG) as Governance and Environmental Justice (or injustice) often overlap (see <http://egwg.colostate.edu/> and our roundtable summary on this topic at the recent Front Range Conference on Environmental Governance Research). Stephen Mumme addressed the complexity of water governance and scale in an attempt to explore the question of too much or too little governance:

“All of the above. That’s the right answer. The one thing I think is true when you’re dealing with water justice issues, it’s a good idea to start from the place where the problem resides, and then I think try and reason back up from that. Because you could really go afoul of understanding the issues if you start from the top, if you start from, say millennium development goals or national policy, and try to apply those as a template on local communities. So every place has a story, every place has some types of institutions or localized social practices that affect how the resource is being utilized and interpreted, and I think trying to figure that out is the place to begin. And then you just start dealing with layers and scale and institutions and see how these are articulated.”

Sustainability and Water as Individual vs. Communal Rights

Politics related to water rights and water law are complicated, yet speak directly to how water issues are framed by governments and power brokers. At the international scale there has been much discussion on Water as a Human Right. Should water be a guaranteed right? Despite efforts to address access to clean, assured water supplies, nearly 1 billion people remain without water. The role of culture is essential in unpacking how water is allocated and used particularly as water issues cross international boundaries and policy must address sharing and management strategies.

Finally, Stacia raised the question of gender and water – a question that received additional weight given the fact that attendee Karie Boone had recently attended a “Women and Water” event, and Melinda was coming from a meeting on water (which involved administrators and

stakeholders) that was overwhelmingly male. The takeaway is that ownership and control of water, as well as the research field of water, is male-dominated. The gendered dynamics of water, as such, is an important dimension of environmental justice worthy of further exploration.