



University of California

Agriculture and Natural Resources | California Institute for Water Resources

Assessing Environmental Justice Impacts and Social Learning of Integrated Regional Water Management Planning

Principal Investigators:

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Project Summary

Context for and importance of the project

Throughout California, the provision of unsafe and unaffordable water is an everyday reality in many disadvantaged communities (DACs). Given that many water quality problems are concentrated in small, rural communities that lack economies of scale to solve their drinking water problems, California policy makers have acknowledged the need to address challenges on a regional basis. Here, the framework of Integrated Regional Water Management (IRWM) holds much promise. But, until recently, IRWM venues have been inaccessible to residents and leaders from DACs. To remedy these problems, the California Department of Water Resources (DWR) funded 7 pilot projects to develop models for improving participation and addressing the water needs of DACs. Our study has assessed how well these IRWM planning efforts address the needs of DACs through an evaluation of the seven pilots. This project is important because it assesses one of the first and few water planning projects that explicitly aimed to incorporate DACs in regional water planning. As such, lessons learned regarding the effectiveness of these pilots lays an important foundation for future policy work, as well as theoretical discussions in the literature.

Research and outreach findings over life of the project

We applied a social learning framework alongside theoretical issues of water justice and the 'waterscape'. Our results highlight the important role that bridging organizations (i.e. those organizations that work across spatial and temporal boundaries) play, especially environmental justice non-profit organizations (NGOs), in catalyzing regional and statewide change. In pilot regions where there was a stronger existing network of NGOs, NGOs were able to catalyze institutional changes within IRWM to better accommodate the needs and demands of disadvantaged communities. These same organizations have played a pivotal role in influencing changes to statewide governance and policy platforms. At the same time, we found that a deep consideration of the historical context of each region (including the economic and political forces that shaped the inequities in access to resources such as drinking water) is necessary to understand the successes and failures of each pilot project. Our study is important because the literature on social learning and integrated water management has not sufficiently engaged with these concepts and therefore has not provided an adequate empirical to inform public policy.

The project has had a strong public outreach component (described below.) Based on these experiences, we have identified the importance of bringing together state actors (e.g. Department of Water Resources) alongside NGOs and community residents was critical for creating a space for reflection and collaboration.

Project outcomes, impacts and benefits [results, unusual findings, use of results, images]

Our project resulted in several outcomes. In the applied/outreach realm, we helped develop a 3-day workshop that included state agency representatives (e.g. from the Dept. of Water Resources, the State Water Resources Control Board), academics, community groups and members from Integrated Regional Water Management (IRWM) Groups. This workshop provided very rich observational data for our fieldwork, but helped create a unique and valuable opportunity for collaboration and networking across sectors. We were able to present

preliminary results from our research and analysis to this group and obtain input. In addition, the material we analyzed and presented became a bedrock for discussion at this workshop. We are currently in the process of finalizing a manuscript for submission to a Water Policy/Planning journal where our results will be highlighted. In the interim, DWR has asked that we present results from this research and use it to inform their future planning for IRWM. This emphasizes the unique nature of our research—that it has/seek to impact both the academic literature, as well as the water planning sphere in California. As a whole, the findings of this research will not only help IRWM more adequately address DAC needs.



Photo of DAC Visioning Workshop. December, 2014. Balazs (First row, center) London (Back row, second from left).

Research Program

Problem

Existing regional water planning efforts in California have seldom included adequate attention to the drinking water infrastructure needs of disadvantaged communities. To address this gap, the DWR implemented 7 pilot projects from 2011-2013. While these pilots offered the potential for providing crucial feedback to DWR, without an independent analysis such as ours, the successes, challenges, and lessons learned from this policy experiment would not have been documented and shared with policy and advocacy leaders.

Objectives

Our study sought to assess of how well these IRWM planning efforts addressed the needs of DACs through an assessment of the seven pilots. We asked:

- 1) How effective were the seven pilot projects in achieving (a) improved participation of DACs, and (b) IRWM plans that include provisions to ensure improved access to drinking water in DACs?, and

- 2) Did the IRWM plans demonstrate evidence of social learning, and in what ways did this learning lead to improved inclusion?

Methodology

We used and extended a social learning framework to track lessons learned and impacts of the pilots. Data was collected through semi-structured interviews with IRWM group members, community groups, pilot project team members, state representatives working on IRWM and pilot project participants. We conducted participant observation at IRWM meetings, as well as regional workshops and IRWM conferences. Interviews were analyzed using nVivo software. We used a social learning framework developed in the field of Integrated Water Management and adapted by Balazs and Lubell (2014) to an environmental justice context was used to help track and assess findings and impacts.

Key Findings

We found that “bridging organizations” (i.e. those organizations that work across spatial and temporal boundaries), especially environmental justice NGOs, play a key role in catalyzing regional and statewide change in IRWM. In pilot regions where there was a stronger fabric of these NGOs, NGOs were able to catalyze institutional changes within existing IRWM to better accommodate the needs and demands of disadvantaged communities and address long-standing environmental justice issues. These same organizations have played a pivotal role in influencing changes to statewide governance and policy platforms. At the same time, we found that a deep consideration of the historical context of each region (including the economic and political forces that shaped the inequities in access to resources such as drinking water) is necessary to understand the successes and failures of each pilot project. Our study is important because the literature on social learning and integrated water management has not sufficiently engaged with these concepts and therefore has not provided an adequate empirical to inform public policy.

Significance for our project

The findings of this work are significant for several reasons. First, our findings will contribute to the emergent literature on social learning and integrated water management by synthesizing these two fields and adding a key under-emphasized dimension—environmental justice (Sze and London 2008; Balazs and Ray 2014; Pahl-Wostl 2009; Pahl-Wostl et al. 2007). In addition, by drawing on literature and theories from political ecology (i.e. ‘the waterscape’ as articulated by (Perreault, Wraight, and Perreault 2012) we hope to further expand notions of how to conceptualize and analyze water justice in a water planning context. Second, our work made a significant impact in the policy and advocacy realm. The workshop/convening we helped support and convene and the dialogue with key stakeholders in the development, implementation and dissemination of the research led to key collaborations and learning. Important relationships, both for us as researchers, and for participants attended emerged as a result.

Information Transfer/Outreach Program

Information transfer and outreach in relation to our project occurred at the following venues:

- A panel organized by Dr. Balazs on DACs, environmental justice and IRWM at an IRWM conference sponsored by the American Water Works Association
- The 3-Day Disadvantaged Communities Visioning Workshop was co-led and co-organized by Dr. Balazs and attended by both Dr. Balazs and Dr. London
- De-brief meetings with water justice NGOs and agency representatives from the Dept of Water Resources

Notable Achievements

As discussed above, the major collaboration that resulted from this work was a multi-party collaboration between water justice NGOs, IRWM group leaders of the 7 pilot projects, the two investigators from this project and state agency representatives at the 3-Day Workshop. To implement this workshop we leveraged this funding, and used it to help obtain additional funding (\$5,000 from the Grassroots Exchange Fund, \$12,500 from the Robert and Patricia Switzer Foundation, and \$1500 from The California Wellness Foundation) to support the workshop and related expenses. Media coverage included a blogpost by ANR staff as well as coverage of the workshop results in California Water News and the list-serve for the California Water Plan Update. Results from the DAC Visioning Workshop were incorporated in discussions and planning documents of the IRWM Draft Strategic Plan.

Student Support table

	Students Funded Through This Project		Supplemental Awards	Total
	Federal Funding	State Funding		
Professional Researchers	0	0	0	0
Masters Students	0	0	0	0
PhD. Students	0	0	0	0
Acad. Coordinator	0	0	0	0
Other Acad./Researchers	0	0	0	1
Professor/summer	0	0	0	1
Total	0	0	0	2

Publications from prior projects

Balazs C, Lubell M, London J. Social learning and environmental justice in the ‘waterscape’ of Integrated Regional Water Management. In Preparation. Journal TBD.

Lubell M and Balazs C. 2017. Adaptive Governance and Integrated Water Resources Management, in Ken Conca and Erika Weintal, editors, Oxford Handbook of Water Politics and Policy, Oxford U. Press. [this book chapter references this research project]

Information about and links to products generated by the project, including policy briefs, curricula, fact sheets, blogs, websites, data, tools, workshops:

July 2014: AWRA conference panel: Dr. Balazs convened and led a panel focused on environmental justice and IWRM, focusing on the 7 pilot projects. Four of the seven pilot regions participated in this panel. Networking from this event led to the development of the 3-Day Workshop focused on debriefing the pilot projects. Information on the conference can be found at: <http://www.awra.org/meetings/Reno2014/>

Balazs, C. Environmental justice in Integrated Regional Water Management: The Case of Upper Kings. American Water Resources Association Summer Specialty Conference in IWRM, July, 2014. This is the presentation given at the AWRA conference.

Balazs, C. December 2014. Common Themes in DAC Outreach Project Recommendations: A Preliminary Compilation of Recommendations from the Coachella, Greater Los Angeles County, Imperial, Inyo-Mono, Kings, North Coast and Santa Cruz Regions. A synthesis of the 7 pilot project's lessons learned was compiled by Dr. Balazs and used as a guiding document at the December workshop. This document is on-file with the investigators, if desired.

Balazs, C. Applying a Social Learning Framework to DWR's 7 Pilot Projects. DAC Visioning Workshop, Calistoga, CA. Presentation of the social learning framework and initial results for feedback at the 3-Day Workshop. This document is on-file with the investigators, if desired.

DAC Visioning Workshop Recommendations. January 2015. Calistoga, CA. This document consists of the recommendations coming out of the DAC Visioning Workshop. This document was circulated to Water Plan Update 2013 EJ/DAC Caucus. This final set of recommendations can be found at: http://inyo-monowater.org/wpcontent/uploads/2014/06/2014_DAC_Workshop_Recommendations_2015_0202_final.pdf

Balazs C and Antos, M. April 2015. Blog Post for DAC Visioning Workshop. <http://www.switzernetwork.org/grant-outcomes/disadvantaged-communities-visioning-workshop>

February 2016: UC ANR wrote a blog on the research project: <http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=20228>