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"Consensus Building and Value Conflicts: Lessons from CALFED."

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ABSTRACT

Much has been said about the need and benefits of consensus building for resolving disagreements about water and environmental management. Less has been said about how to better convene and facilitate those processes. This paper focuses on the latter, examining the challenges and breakthroughs encountered when decision-makers convene consensus building processes that seek an agreement among stakeholders who believe they have "apparently irreconcilable differences." The research described here analyzes two multi-stakeholder, collaborative processes convened by the CALFED Bay-Delta Program (CALFED) on the issue of agricultural water use efficiency in the Sacramento and San Joaquin river watersheds of California. The first process made very little progress; however, stakeholder representatives in the second were able to forge an agreement that included significant innovation and surprising risk taking by all sides. Analyzing the two processes, this paper shows that the stakeholders, conveners, and facilitators in these processes had to do much more than make the discrete trades across interests envisioned in consensus building theory or reframing as described in theories about conflict and frames. Looking at the data, this paper shows how several concepts from outside consensus building—including boundary objects and interlanguage—along with less well-known concepts and issues within the consensus building literature—bricolage and representation—can provide insights into how the Steering Committee accomplished what it did. This paper introduces these additional concepts, how they mattered in this CALFED process, and suggests a complex set of interrelated insights into how future collaborative and integrative environmental programs can approach the most difficult environmental policy and management conflicts.

1. A REMARKABLE ACHIEVEMENT

As the new millennium dawned, a rare, and to many stakeholders surprising, sight was seen in the US and California legislative halls—side by side, agricultural and environmental lobbyists worked together to promote a program for agricultural water use efficiency to be implemented in the Bay-Delta estuary and its watershed. Convened by the CALFED Bay Delta Program to participate in its Agricultural Water Use Efficiency Steering Committee (Steering Committee), and facilitated by professional mediators, agricultural, environmental, and government agency stakeholders forged a remarkable agreement among themselves for how to address some of the most contentious water management issues in California, and one of the largest in scale. The program the group crafted for agricultural water use efficiency, which included flow path analysis, quantified targets, and avenues for flexible responses by agriculture, was incorporated almost verbatim into CALFED's Record of Decision (ROD). Now it was up to federal and state legislatures to take the next steps.

Not everyone was happy with the agreement the Steering Committee reached, but stakeholder support, especially from the main combatants, was initially overwhelming. Ultimately, with the change in federal administration, the promised federal funding for the program did not emerge. However, this paper focuses not on evaluating the quality of the agreement. The strengths and disadvantages of consensus building processes have been debated elsewhere, and the jury is still out.[1] Instead of contributing to that evaluation debate, the paper takes the reaching of an

[1] See, for example, O'Leary and Bingham (2003) and Connick and Innes (2001).

agreement itself as an important and significant accomplishment and delves into the reasons why stakeholders were able to reach it in one consensus building process after failing to make significant progress in a similar, previous process (and in fact several others reaching back into the decades of conflict).

Why does this paper consider reaching the agreement as a significant achievement? Until the Steering Committee reached its agreement, agricultural and environmental groups in California had fought for three decades in courtrooms, legislative halls, the media, and other public advisory forums over whether and how to improve what was either termed water conservation or water use efficiency. A previous CALFED subcommittee that this paper will study, the Water Use Efficiency Work Group, (Work Group), failed to make any progress despite CALFED's integrated and collaborative model with its favorable funding and agency support. And when the Steering Committee was first convened, consensus was the farthest thing from everyone's mind. Given the decades of failure, seeking agreement seemed a futile prospect then. Against this backdrop, the agreement among the Steering Committee members, and the broad support for the program given by the stakeholder constituencies, was striking.[2]

This paper proceeds on the basis that decision-makers will continue experimenting with collaborative, interest-based processes, and then infers lessons from the cases described here about how to make these processes more effective and more likely, though not guaranteed, to develop an implementable solution. In other words, this paper probes what many other works describing consensus building and interest-based negotiations take for granted: the strategies, practices, and choices that parties make and employ. The intention to build consensus is not enough; consensus building must be done skillfully and strategically and there is much to be learned about how that is to be done.

So what can we learn from this dramatic instance of cooperation? Why were stakeholders in CALFED's second consensus building process, the Agricultural Water Use Efficiency Steering Committee (Steering Committee) able to reach consensus, defined here as either unanimity or near unanimity, when the first did not do so? How did agricultural and environmental stakeholders come to agree on a program for agricultural water use efficiency despite their long term distrust and differences in their values that seemed irreconcilable?

More importantly, what lessons can we learn about how future collaborative, adaptive, and integrated efforts at policy-making might seek agreement notwithstanding the deep divisions among its participants? Often such collaborative efforts are convened because decision-makers

[2] If the paper was an evaluative piece on this process, then it could point out the strength and duration of stakeholder support for the agreement. Against the charges that the agreement was only possible because of massive government subsidies, the paper would then show that were absolutely NO subsidies. Government grants were only to be given to projects judged to meet the following criteria: (a) the state-wide environmental (and other) benefits of the proposed project were determined to be greater than the costs to the government of supporting it and (b) it was not financially cost effective for the individual farmer to do the project.

The parties also worked hard on two follow-up consensus building processes as stipulated in the agreement, dedicating a lot of valuable time because they felt it worth the effort. Stakeholders also consistently noted how the agreement was instrumental in improving relationships among the parties (though CALFED as a whole obviously has to share much credit). Also, add that the issue had been deadlocked for approximately 30 years. The outcome when compared to the preceding stalemate is incredibly positive, though certainly not sufficient in this case.

recognize that stakeholders disagree not only about interests, but also about underlying values, methods of analysis, facts, problem definition, and many other aspects of the policy process. However, experience in this case and elsewhere show that simply convening a process is not enough to produce broadly supported agreements. This paper tries to shed light on questions of how stakeholders, facilitators, and conveners can do a better job of deliberating and seeking consensus together even when they feel some of the sides are separated by "apparently irreconcilable differences," where apparently irreconcilable indicates that stakeholders are convinced that their differences (a) make agreement among them difficult and (b) are likely to persist for the long term.

The conflict among stakeholders was, on paper, based about the technicalities of how and how much agricultural water use efficiency would be achieved. However, underlying these disputes was a deep-seated mistrust of each other's motivations, a sense of differing values that would never be bridged, and the belief that the other side simply did not understand the basic science of the problem. I will explore the specifics of the conflict later in the paper, after explaining briefly how the research was conducted.

1.1. ENGAGING MULTIPLE THEORIES

This paper is not about testing one theory, or any theory for that matter. Instead, it is the result of a conversation between the specific instances, strategies, and actions on the ground and a wide array of literatures—including consensus building, mediation, and negotiation theories on the one hand and theories of framing and reframing, organizational studies, cultural anthropology and science and technology studies on the other. The first set of theories around negotiation and their facilitation tends to focus on interests and pragmatic ways to meet them in groups seeking agreement. The second broad set of theories explore in different ways the dynamics of cooperation when multiple disciplines or subcultures work together on a project that requires knowledge from each group.

The research was not originally conceptualized under this complex array of theories. Instead, it proceeded with the author's understanding of consensus building theory and a grounded approach in which observations could spark theoretical discoveries. As the author discovered new things from studying the actions and experiences of the various parties involved, other theories were sought and brought in to help explain the findings. The paper is presented in much the same way, with the findings presented first and then the theoretical findings explanations following.

At the same time, it's useful to give some hints here of the how the pieces fit together. Let's start with consensus building theory. Consensus building requires clear communication, for which consensus building has a number of structural and practical recommendations. Consensus building suggests, for example, a set of steps or activities that any process should include, for example: establishing overarching shared principles, setting ground rules and using joint fact-finding to resolve factual disputes (Susskind 1999b; Susskind and Field 1996). However, consensus building theory often pays much less attention to the ways that different values, cultures, and identities might distort communication and thus lead to either poor agreements or no agreement at all (Schon and Rein 1994).

The literature on framing, which has drawn increasing attention from consensus building academics and practitioners recently, proposes that these cultural barriers are grounded in the different "frames" that each group carries. The concept of "frames" has been defined in multiple ways, but they can be generally understood as generic descriptive/prescriptive stories that are used by stakeholders to interpret information and phenomena (Schön and Rein 1994). When each side, the argument goes, has a different frame, they interpret the same words, concepts, and phenomena in very different ways, leading to misunderstanding, mistrust, and then conflict. The answer these theorists propose is to reframe the conflicts by getting the parties to meet, explore their different understandings, and find new ways of understanding the conflict that remove the misunderstanding.

In principle, this approach could work; however, in public conflicts problems emerge, including the problem of effective and ethical representation of constituencies by agents. Many negotiations, like those in CALFED, feature constituencies or clients being represented by one or more parties "at the table." If the representatives at the table are changing the way they understand the problem, can they continue to effectively and ethically represent their constituents back home, especially since those parties are not engaged in the learning process (Susskind 1999)?

And yet, if at least some kind of learning is needed, then what must be done to allow it while producing ideas that constituencies can support? Some answers may be provided by Galison's (1997) work studying cooperation among multiple scientific disciplines. Galison discovers that cooperating groups develop an "interlanguage," in which words and concepts are re-defined in application (e.g. designing and running an experiment) but always in ways that are grounded in the ongoing, unchanging, and separate disciplines of the participating members. Galison does not provide much explanation on how this redefinition process would balance learning and faithful representation nor how it would occur when the parties are in conflict, however. This works makes a start at doing so.

The problems posed by divergent frames and opportunities of reframing and interlanguage are not the only ideas pulling us away from consensus building's focus on interests and trades among them. Innes and Booher (1999) suggest that deliberating parties in consensus building processes do not regularly trade across interests. Instead, they build, then evaluate and modify holistic solutions rather than make piece-by-piece, interest-based trades. As we shall see, the experience in the cases described here seems to support this proposition and point us towards the importance of various objects—such as spreadsheets, maps, and policy documents—as a means towards this process of building and evaluating solutions.

The importance of these "boundary objects" in such work is captured by a related body of literature on cooperation across knowledge disciplines, which defines boundary objects as "artifacts that individuals work with—the numbers, blueprints, faxes, parts, tools, and machines that individuals create, measure, or manipulate" (Carlile 2002: 446) and that cross disciplinary or cultural barriers—e.g. a computer-aided design tool that is used by both aesthetic and aerodynamic designers for car production. This paper will provide some insights into how boundary objects were used effectively.

This paper does not attempt to tie all these perspectives into any kind of unified theory. That will be the work of another paper. Instead, its main purpose is to expose and explore the fascinating micro-moves and politics of consensus building in order to generate better practices for and ideas about participating in, designing, and facilitating these complex, multi-party consensus building processes when stakeholders have apparently irreconcilable differences.

1.2. THE RESEARCH

This paper analyzes two consensus building processes, the Steering Committee and the Work Group, convened by CALFED to formulate alternatives for agricultural water use efficiency to include in its overall water management program. The Steering Committee was convened soon after the Work Group after the latter had failed to make progress on issues of agricultural water use efficiency. By comparing the two processes, including their outcomes as well as the challenges faced by stakeholders and any breakthroughs accomplished, this paper infers lessons about how integrated and collaborative policy-making efforts like CALFED can help its stakeholders address and find agreement on issues that originally seemed irresolvable because of stakeholders' apparently irreconcilable differences. Methodologically, comparing the two processes is analytically useful because both: (a) were held under the auspices of the CALFED Water Use Efficiency Program including its institutional, regulatory and financial resources and included ; (b) included senior and informed members of the same government and non-government stakeholder constituencies; and (c) operated under the shadow of multi-decades long policy stalemate.

For its data, this paper relies heavily on a series of over 30 in-depth interviews conducted between 2002 and 2004 with non-government and government stakeholders who participated in one or both of the two collaborative processes. Each interview was semi-structured, built around a small set of open-ended questions that probed the main challenges the groups faced, the key breakthroughs each made, and the dynamics that hindered or helped their progress. The research also made extensive use of archival data, in part to refine interview questions and confirm information arising from the interview.

This paper continues by providing some more background about the agricultural water use efficiency conflict and CALFED's role in it. It then describes in detail the key reasons why the conflict could not be resolved in the Work Group and then shows how the Steering Committee was able to do move forward towards an unexpected agreement. Finally, it concludes by providing lessons that integrative and collaborative policy-making efforts like CALFED can use when tackling stakeholder conflicts founded on disagreements about values, beliefs, and other "apparently irreconcilable differences."

2. A SENSE OF URGENCY

To better understand the importance of the Steering Committee's[3] success, one needs to look at the conditions that existed at the time of its work. CALFED was certainly not the first effort that sought to address the question of how "efficiently" agricultural should be using its water. In the

[3] The paper will refer to the Steering Committee throughout this paper, but in fact the group was first convened as the Agricultural Water Use Efficiency Assurances Focus Group and then re-convened several months later as the Steering Committee.

three decades before CALFED, decision-makers sought and failed to find a politically and technically viable solution. While some decisions had been made, the conflict among stakeholders made these policies unstable and difficult to implement. The large scale of these programs didn't help either. Previous efforts had spanned the entire state and CALFED's program included almost half of the state by land area, 7 million acres of the world's most productive farmland, drinking water for 22 million Californians, and several vital ecosystems.

Tired of the policy stalemate, federal and state leaders decided to create the CALFED Bay Delta Program in 1996. Local Californian stakeholders were consulted in CALFED's creation and were given an official venue, the Bay Delta Advisory Council (BDAC), to deliberate about and give feedback on emerging programs.

To tackle some of the more controversial issues, BDAC decided to convene five subcommittees, one of which was the Water Use Efficiency Work Group (Work Group). The Work Group was tasked with providing advice to CALFED on water use efficiency matters, both urban and rural, and was convened and managed primarily by the CALFED staff. CALFED selected subcommittee members from both BDAC and the constituencies at large. Government agencies with related mandates also sent representatives. Each meeting also allotted time for public comment.

Despite the significant opportunities present, including an integrated program that looked at all aspects of water and the environment, the prospect of generous funding, and the participation of key stakeholders, the Work Group was terminated after only nine meetings.

3. UNDERSTANDING THE CONFLICT

The apparent irreconcilability of the conflict can be explained by how: (1) stakeholders' divergent values and beliefs made it impossible for scientists to resolve the dispute through technical analysis and made even simple communication among stakeholders problematic and often inflammatory, (2) the scrutiny of peers created situations where creative problem solving was severely limited because people feared being seen as "compromising" with the enemy; and (3) old and unproductive habits of deliberation meant that stakeholders lacked the means to be creative together even when they were willing.

3.1. BEYOND THE "FACTS"—DIVERGENT PERSPECTIVES

When CALFED released its estimates for agriculture's potential for water conservation, the methodology and results were contested hotly among stakeholders. The stakeholders were most divided by the estimates of how much water could be saved and the guidelines on what "efficient water management practices" (EWMPs)[4] were most appropriate and how they should be applied. For example, should recoverable flows be included in the estimates of "conservation potential" and how should varying field conditions be accounted for in the calculations and in choosing EWMPs? Despite the expertise that CALFED, other government agencies, and non-government

[4] EWMPs are a set of recommended actions and technologies for reducing the amount of water needed to grow a unit of crops.

stakeholders brought to the problem, no agreement could be reached on the assumptions and methodologies to be used in calculating the conservation potential.

The inability of scientists to solve contentious technical problems is not new. Recent experiences have shown that, while expert knowledge still plays a valuable role in decision-making, it often can not resolve disputes, especially when stakeholders disagree strongly (Oreskes 2004; Sarewitz 2004). Instead, stakeholders each bring their own scientists to policy-making efforts, and engage in what many call "adversarial science" (Ozawa 1991). By the end, the credibility of the various scientists has often been undermined enough so that none of them are able to significantly influence decision-making.

The disagreement about the calculations and methodologies, however, touched upon entrenched differences in stakeholders' systems of values and beliefs as well. Consider, for instance, the following quote by an agricultural stakeholder.

> *The fact of the matter is, we think we have sufficient data to show you that, number one, agriculture is quite efficient, and number two, efficiency doesn't make a whole lot of sense like in Northern California because the return flows are already returning to the river.* [5]

Why worry about water use efficiency in his part of California, the stakeholder asks, when the unused water will flow back into the watershed through surface or subsurface flows? Whether agriculture takes 100 or 1000 units of water, the unused portion will still be available use in the watershed. Furthermore, agricultural stakeholders are adamant against calls to reduce their annual water allocations, which are guaranteed by their water rights.[6] In theory, California's State Water Resources Control Board can reduce an agricultural operation's water rights if find that the rights holder is using water inefficiently, or "wasting" water. However, in practice this is rarely done and agriculture considers any option that impacts its water rights unfavorably unacceptable; keeping their guaranteed allotment of water each year was about the security, profitability, and independence.

In all of the above, the understanding of water use efficiency is that it is measured by the total crop growth, so when they talk about improved efficiency, they mean more crops produced from their water allotment. Why did the environmentalists find this definition problematic? In part, environmental beliefs are founded on their observations that deteriorating ecosystems downstream of dams go dry during parts of the year. Saving the ecosystems required water, which meant reducing agriculture's consumption of it. The problem was not the lack of proven technologies, as this environmentalist says, but the "irrational" resistance of agriculture:

> *[The concept] that if you use more water, you pay more was just completely unacceptable [to agriculture]. Even when [all the] empirical data showed that if you paid more, you would find more efficient ways of using your resources, even that simple fact had no bearing on some of the folks around the table. …so what do you do with that?* [7]

What was clear in talking to both environmental and agricultural stakeholders about this problem was their frustration. Each side found it difficult that the other side could not learn.

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[5] Interview with agricultural representative, Fall 2004.

[6] Water rights in their various forms give their holders the ability to withdraw water from local water sources. Often, like in this case, they set a fixed amount that can be used.

[7] Interview with environmental representative, Fall 2004.

The problem, however, was that their perspectives were different. Each side was focused on different parts of a larger and more complex system, and they were stuck in a definition of the problem that was unhelpful.[8] They rarely talked directly about the question of allocation and water rights because of the contentiousness of the issue.

And yet, by avoiding that underlying issue of water rights, the parties could not explore other ways to frame the problem that could lead to the exploration of possible solutions that might protect the environment without threatening water rights. Could such an approach be possible? Would recognizing the intractability of the water re-allocation issue have been enough for parties to find alternative solutions, or were there still other factors blocking their progress?

3.2. STYLES OF DELIBERATING

It would be a mistake to focus only on the words and interpretations of the technical language; in fact the problem of mismatched language and perspectives went further. A poignant example is described by this next stakeholder as he talks about situation in which an environmental stakeholder was trying to reach out to the agricultural side.

> *There was this [environmentalist] who said, "We support agriculture because they are green space. We want to preserve green space." Well, you could just see the agriculture getting angry. He just didn't understand. These were not some parks we were talking; these were our farms and livelihoods.*[9]

The moment described above is striking. An environmentalist tried to reach out to the agriculture community by pointing out what he thought was a common interest—stopping urbanization—but his gesture backfired, largely due to the divergent frames that agricultural and environmental stakeholders had about farms and their role. For many agricultural stakeholders, farms were the products of hard work and experience. They required skillful management, they were productive, and they had purpose besides being seen by visitors who admired the greenery (White 1995). This divergent interpretation around the concept of "green space" is a classic example of the framing problems, in which a word, concept, or phenomena is interpreted in divergent ways by different people or groups (Schön and Rein 1994).

Divergent frames, however, were not the only challenge within the different languages of the stakeholders. Another element that was sometimes problematic was the style of speaking, as this next stakeholder describes.

> *You can say something is "facile" or it's "egregious" or something. You can use terminology but the [agricultural] people are going to go 'yuck.' They are not going to listen to you, it's style. You don't send people with a whole lot of polish to go out to talk with them, they will be turned off.* [10]

Stakeholders and CALFED staff were often unaware of how their differing styles of communication were hampering the group's ability to deliberate. Environmentalists' ways of speaking irritated some agricultural stakeholders; and environmentalists mentioned the same about their agricultural counterparts.

[8] Such a problem is not uncommon. See Lewicki et al. (2003).
[9] Interview with agricultural stakeholder, Fall 2003.
[10] Interview with federal agency stakeholder, Spring 2003.

Issues of style[11] went beyond words and how they were uttered. During an agricultural and environmental stakeholder process convened before CALFED,[12] agricultural stakeholders requested that each meeting be held in a different region of California. Field visits are a common way by which agricultural stakeholders exchange information and learn among themselves and the agricultural stakeholders hoped that exposing environmentalists to the variety of field conditions would help the latter better understand agriculture's perspectives. While the environmentalists were willing to visit, the tactile and visual experience was not compelling to them. Environmentalists are concerned with different parts and aspects of the overall system of water, economy, and environment, and did not put as much value on knowledge gained through "working the land."

So far, this paper has outlined how stakeholders in the Work Group often misunderstood each other, sometimes angered or disgusted one another, and otherwise struggled to make sense of what they were trying to achieve together. However, while it might be easy to stop here, other barriers also challenged the group's ability to engage in problem-solving.

3.3. CHALLENGES OF REACHING OUT

> *I think there were folks on the [agricultural] side that really felt like the environmental community was really out to destroy them. …[T]hey were reacting to some very legitimate fears.*[13]

Some representatives from both the agricultural and environmental groups came into the process feeling that the other side was deliberately targeting their core values and even survival, as the quote above shows us. In such a hostile atmosphere, it is not surprising that members of the Work Group often found it difficult to listen to the other side and explore with them creative solutions.

One response to this problem is to select more open-minded people for the deliberative group, though at times even the most creative and accommodating people will often find it difficult to make overtures to the other side (Susskind and Field 1996; Forester 2005). For example, consider the words of this agricultural stakeholder, who is describing his peers' reaction after he proposed a way to bridge some of the differences among stakeholders during a pre-CALFED process.

> *During a break in that meeting, many of the [agricultural] representatives came up to me and they said, "What are you doing?" …It was not all of them, but some just didn't want to compromise on anything.*[14]

The resistance among communities towards reaching out the other side remained strong throughout the CALFED process. Reactions such as the one above often stifled efforts to share information and explore mutually acceptable options in public. The result of that intense peer

[11] Note that issues of style go right to the heart of another critique of consensus building and deliberative democracy by Sanders (1997). Sanders argues that the style of deliberation typically favoured by elites significantly disadvantages non-mainstream actors in deliberations.

[12] This incident occurred during the deliberations of the earlier AB3616 Advisory Committee, which met from 1991 to 1996. For more information, see Fuller (2005)

[13] Interview with environmental stakeholder, Spring 2003.

[14] Interview with agricultural stakeholder, Fall 2004.

pressure was that stakeholder representatives developed routines for safely, and unproductively, interacting with each other, as can be seen in this next stakeholders' comments.

> *When you actually listened and watched what they were doing, it was the same old story that had happened ten times already. …[Y]ou know that you have… a policy platform that your organization is trying to pursue. It is very important to you that you get some points. …They weren't being paid to stretch themselves.*[15]

Misunderstanding and mistrusting each other, separated not only by interests but by language and style, and lacking an authoritative science or even consolidated perspective that could steer a path through their differences, stakeholders made little progress in the Work Group. This failure made the success of the Steering Committee that followed that much more astonishing. How did stakeholders in the group craft an agreement that received the support of the different constituencies despite the challenges described above? The paper explores that question in the next section.

4. HOW THEY DID IT

The Steering Committee's original mission was to provide feedback and ideas to the CALFED Program Manager rather than seek consensus. However, the Babbitt-Dunn group, a high level federal-state policy group that was negotiating certain elements of the overall CALFED Program, offered the Steering Committee a challenge as it began deliberations: if the Steering Committee could craft and agree upon the outline of a agricultural water use efficiency program, the Babbitt-Dunn group would likely incorporate it into the *Revised Phase II Report* for CALFED. If not, the Babbitt-Dunn group would get someone else to do it. The Steering Committee's first instinct was to reject the offer; however, in the end that they couldn't pass up this rare opportunity to have direct input into the policy crafting, especially (as we shall see just below) once they discovered a new framework for moving forward. Despite the daunting challenges and failures of before, and their lack of mandate to seek consensus, the Steering Committee decided to try. In a few intense working days, they surprised themselves and others by crafting the outlines of a very different kind of agricultural water use efficiency program. Not only that, but over the next two years, they created an innovative and stakeholder supported Agricultural Water Use Efficiency Program (Program).

How did the Steering Committee do it? The answer is more than the trading across interests found in negotiation theory, more than learning and reframing found in theories of intractable conflicts, and more than in the joint fact-finding advocated by consensus building theory.

4.1. GETTING A NEW CONCEPTUAL MODEL FOR THE PROGRAM.

After the Work Group was disbanded, CALFED decided to convene what became the Independent Review Panel of Agricultural Water Conservation Potential (Panel) in the hopes that its findings would resolve the ongoing disagreements about the estimates of water conservation potential for agriculture and what efficient water management practices (EWMPs) were most appropriate.[16] CALFED started work on assembling this panel at the same time it was convening the Steering Committee.

[15] Interview with BDAC Water Use Efficiency Work Group member, Summer 2004.
[16] A more thorough description of the Panel and its design can be found in McCreary et al. (2001)

The stakeholders and facilitators played an active and key role in the Panel. For example, the Panel was designed to include "technical advisers" selected by agricultural and environmental stakeholders. The role of the technical advisers was to ask questions of the panelists, provide information as required, and to otherwise serve as the technical eyes of their constituency. In addition, at the request of the facilitators and non-government stakeholders, CALFED expanded the Panel deliberations to include a pre-deliberation Scoping Session. The Scoping Session was held one week before the first meeting of the Steering Committee.

The Scoping Session was convened to provide stakeholders and members of the public with information on the panel and CALFED's reasons for convening it as well as to provide input into the structure and preparation of the panel. However, its impact was much larger, in large part because the Panel provided an overarching framework that bridged the different interests and perspectives of the stakeholders (Susskind and Field 1996).

In the Scoping Session, the Panel proposed that, instead of focusing on EWMPs, CALFED should set downstream goals (e.g. the restoration of a particular habitat), identify specific quantifiable objectives (QOs) that would help achieve those goals (e.g. a maximum amount of salt entering that habitat), and then seek to identify on a case-by-case basis interventions upstream through which those QOs could best be met. This approach quickly became one of the key frameworks used by the Steering Committee and they used it to craft the outline of a Program for the *Revised Phase II Report* as requested by Babbitt-Dunn group.

The concepts suggested by the Panel integrated and provided leverage on several key sticking points between agricultural and environmental stakeholders. First, it recognized and specified environmental objectives as the key driver for the program, which the environmentalists had always wanted. Second, the Panel's suggestion of a case-by-case approach to meeting the QOs addressed two fundamental concerns of agricultural stakeholders: (1) that each water district be allowed to adopt water conservation methods suitable to its particular, local conditions (soil, water, climatic, economic, etc.); and (2) that before agriculture was asked to act, there must be some framework that clearly linked actions linked with downstream benefits, which in turn opened the door for the Steering Committee to explore more nuanced ways of allocating costs and benefits.

To appreciate the impact of the Panel's suggestions in the Scoping Session, it is important to understand the context. The Steering Committee had only two weeks, within which they organized four working days, to draft the Program description for the agricultural water use efficiency program. Though the Steering Committee worried that the text would be misused and that there was not be enough time to consult their constituencies, they also realized that this was a rare opportunity to directly influence CALFED's decision-making. What tipped the balance in the end was the new framework, which all sides found they could accept as a starting point for future policy work.

It would be a mistake, though, to say that the Panel's ideas were influential because they were new. In fact, individual agricultural and environment stakeholders had suggested similar ideas

during the Work Group sessions, though these ideas had little impact. So why did the Panel's suggestions become so influential?

From interviewing stakeholders, the answer lies at least partly in the character of the Panel. Overall, stakeholders perceived the Panel as *wise* (using the best information possible, and including both inside and outside experts) and *impartial* (the panelists were outsiders vetted by the constituencies and watched by the stakeholders' technical advisers).

However, there is another aspect here that would be easy to ignore. It is useful here to reverse the question above, namely: why did the same ideas not gain support in the Work Group? Part of the answer, as discussed earlier, was that stakeholders within the Work Group could and would not explore dangerous and unlikely cooperation.

4.2. CLOSING THE DOOR AND CREATING OPENINGS

> *They told us that, "Well, [this idea] just isn't going to fly. I wish it could but it's just won't."*
> *We had developed enough trust to know that they weren't just stonewalling; it really was a fact. If this method doesn't work, is there another method that would work? Why is this sensitive? What are the issues that these [stakeholders are] dealing with? Now that we have this, and now that we know why we're perceiving it this way, now… are there things that we can get to?* [17]

The quote above from one of the Steering Committee members highlights one of the key attributes of the Steering Committee: the openness of its members in expressing views and exploring ideas without fear of immediate retribution.

The first statement of the quote above truly stands out in this regard. Before, stakeholder representatives often were unable and unwilling to experiment. In contrast, one stakeholder quoted above agrees with an idea but claims that it will not be accepted by his constituency. Strikingly, his counterparts in the Steering Committee (a) seem to trust him; (b) are willing to work with him to understand the sources of resistance; and (c) come up with new ideas to address those concerns.

The willingness of stakeholder to trust one another in the Steering Committee is a remarkable change compared to the lack of sharing found in the Work Group. Why were stakeholders able to be more open and explore their disagreements and differences effectively? One important reason was their deliberations occurred without direct public observation after the facilitators and CALFED Program Manager decided to close the Steering Committee's meetings to outsiders. Away from the everyday observation of their colleagues, Steering Committee members were able to build relationships and explore innovative ideas that would not have been possible otherwise.

Legally, they were able to do so because of the existence of BDAC, which remained the final and official point of public participation and which would review whatever the Steering Committee produced. CALFED and the facilitators were also very careful in selecting

[17] Interview with Steering Committee member, Summer 2004.

participants, working with each side to identify well respected representatives that the constituencies felt could speak about their concerns effectively.[18]

The Steering Committee members earned that trust from their counterparts by their actions during the deliberations. It wasn't that the differences among stakeholders vanished, they said. Instead, trust building was iterative. Each overture built upon a preceding one, and as trust grew the representatives grew more willing to treat their differences as constraints within which problem-solving would take place, rather than insurmountable obstacles.

Like CALFED's decision above, choices about the purpose and transparency of a group are a growing concern in the consensus building literature. Closed door meetings provide breathing room for representatives, but questions of cooptation and accountability arise. Similar to CALFED's structure of BDAC and Steering Committee, Susskind et al. (2003) propose the separation of informal, brainstorming discussions from more formal, vetting and decision-making negotiations in order to create room for creativity in contentious negotiations.

These choices, however, were not the only factor in opening up problem-solving. Consider, the following words from the CALFED Program Manager who convened the Steering Committee.

> *[The facilitators] worked really hard to maintain some of the rules involving* **no ownership of ideas**. *That really becomes pervasive. Sometimes [the facilitators] synthesize [your idea] with stuff that other people have said, and this new direction starts to emerge. The group gets this feeling that they invented it--and they did, they honestly did… In some cases we literally invented* **new words, or new buzzwords** *I probably should say.* [19]

Recall how problematic words and style were before. In the Steering Committee, the process of exploring concerns and generating ideas and solutions occurred using a set of new or redefined words and concepts created and employed under a set of norms that became firmly entrenched in the group's behavior. Some words, concepts, and rules were formal; other informal ones emerged as well during the process—such as listening respectfully as well as no ownership of ideas. The creation by the group of this "interlanguage" (Galison, 1997)—including both words and concepts as well as rules and norms—provided accepted means that the Work Group had lacked previously for handling both everyday and difficult situations—for example, to describe the situation on the ground, to vent, or to identify and manage an impasse on a particular issue.

This interlanguage did not exist at first. Words and concepts had to be painstakingly created or re-defined through intensive discussion and then vetting with constituencies. The ground rules were created by the facilitators and modified and vetted by stakeholders at the beginning of the process. The informal norms and habits, on the other hand, were developed through experience during the Steering Committee's deliberations. Many Steering Committee members noted that the facilitators of the group modeled behaviors—e.g. giving respect—that the rest of the group adopted over time. In some other cases, Steering Committee members or CALFED staff were the initiators. Whatever their source, however, these norms and rules allowed the parties to deliberate more effectively and avoid escalating the conflict when discussions became difficult.

[18] Other criteria were used as well, included demonstrated open-mindedness and knowledge of the problem and governance context.

[19] Interview with the AgWUE Program Manager, Fall 2003.

4.3. CRAFTING SOLUTIONS FROM PIECES

Creating a safe space for deliberation can increase parties' willingness to talk, but it does not guarantee that the group will have the ability to effectively define, analyze and solve the difficult problems in front of them. Negotiation and consensus building theory (Susskind 1999) promote cooperation through the exploitation of trades across differently valued interests and pursuit of common interests. However, the economical trades envisioned in these theories seemed to less present in the Steering Committee deliberations, as the words of this next Steering Committee member helps us begin to explore:

> *The facilitators took pains to always make sure that this brainstorming was occurring within the context of, and was captured in, a conceptual framework which made sense and which was understood and approved by the participants. They would make sure that the relationship between the objectives of the programs and the tools …were always represented in a conceptual model. That the relationships between the different types of programs and the different types of funding were always part of an architecture. That the relationship between the participation of various entities in the Program and the institutional, legal, political implications of that participation—in terms of assurances and other issues—was always part of an architecture. That was extremely useful because, very often, groups like these will come up with some good concepts which don't necessarily survive as part of a coherent and congruent whole.* [20]

We get the sense from the quote above that Steering Committee members identified, analyzed, and reconfigured a large number of "pieces"—including not only ideas and interests, but also the political, legal, programmatic, and other elements—as part of constructing their Program. Second, that the facilitators helped stakeholders construct an "architecture" in which the various pieces could be seen in relationship to one another as part of a "coherent and congruent whole."

The quote misses another important part of the architecture, though. As the Steering Committee developed their Program, it also worked with CALFED to develop the scientific framework needed for calculating the quantifiable objectives and the links between them and upstream proposed projects. The science was also built piece by piece, with each element joined by a conceptual model of flow paths. Some pieces were in the form of new language, which was needed to make the new concepts understandable to people with little technical background. Spreadsheets and PowerPoint presentations also captured important pieces and relationships among them. For example, PowerPoint presentations provided diagrams and other concise ways of encapsulating the main ideas visually that stakeholders found key in building understanding and agreement. Spreadsheets, on the other hand, provided an architecture in which different elements were captured as variables and linked through equations. The architecture mentioned above and the spreadsheets were snapshots that portrayed the complex world in which CALFED worked and provided the means for them to be re-constructed into a more desirable outcome. Put simply, give someone Lego and they can often use it to model houses, cars, and other products they imagine they want, even if they do not share a common perspective. Innes and Booher (1999) have observed this process within other negotiations and called it "bricolage" and the pieces mentioned here are the "boundary objects" mentioned in Carlile (2002).

[20] Interview with environmental representative, Fall 2003.

It would be a mistake, however, to imagine the architectures described above as static. Consider the words of the CALFED AgWUE Program Manager, for example, as he describes how the science evolved.

> *[W]e literally had to invent the science behind this. Inventing that science and continuing to ask for review of that science in a group that was not technical—that was in essence a policy-level group that had a very wide spectrum of technical background, all the way from layperson to expert—was tough.*
>
> *…We continued to challenge ourselves to do the good work but present it in a way that was digestible by this policy group. …[W]e challenged the policy group to tell us, "Okay folks, you've got to keep grilling us until we're really sure we know why you don't like this." Then we would follow up with the challenge of, "Okay, now you've got to tell us the right way to present it."* [21]

The Steering Committee, CALFED, and several experts developed the scientific framework, and the other conceptual architecture too, as needed to support their deliberations about and design of the Program they were crafting. The experts, for example, continually presented the latest draft of the pieces—including spreadsheets, PowerPoint presentations, conceptual drawings, and more—to the Steering Committee for their approval and feedback, and the Steering Committee deliberated about and suggested modifications for those same pieces so that the science remained aligned with their array of interests.

Furthermore, the quote above also tells us about another dimension of interaction, that between the constituencies and the CALFED and Steering Committee collaborative effort. As the Program Manager mentions above, "Okay, now you've got to tell us the right way to present it." The Steering Committee decided that CALFED would present the final draft of the Program to the constituencies, in part because they were worried that both the agricultural and environmental constituencies might reject the ideas without reflection if they thought the ideas came from members of the opposite side. The Steering Committee knew that the message had to be precisely targeted to the interests and perspectives of each constituency to make it clear why its members should support it. To accomplish this, the Steering Committee and CALFED developed the presentation together. Terms were modified and clarified, diagrams designed and vetted to capture key concepts, and every other element was carefully planned to strengthen the message using the perspectives and language of the particular constituency.

4.4. CONNECTING TO CONSTITUENCIES

Communicating the final proposed Program to constituencies was only one of many efforts to communicate ideas to and get feedback from the different communities. Earlier, I argued that CALFED's decision to make the Steering Committee's meetings closed door was crucial for creating a safe space for exploration. The success of that decision can not be understood without looking at how the Steering Committee interacted with the different constituencies. Stakeholders agree that the Steering Committee would not have succeeded without the careful work it did to keep key members of each constituency, including both decision-makers and experts, engaged with the evolving solution and its surrounding architectures. And, as possible points of resistance were identified in one or more of the constituencies, the Steering Committee would find a way to make the Program acceptable by either packaging it correctly or finding another alternative to achieve their goals.

[21] Interview with the CALFED AgWUE Program Manager, Fall 2002.

The communication with constituencies was ongoing throughout the Steering Committee's deliberations. Each of its member were very active in using email and phone calls, their "hot lines," to get feedback on and ideas for the emerging Program from specific people in their constituencies. As the Program evolved, the links between the table and the constituencies became more and more varied. For example, as the group started working on the specific procedures and calculations for their Program, they convened a group of Regional Liaisons who provided regional-specific expertise as required. Strikingly, the members of this group were primarily from the agricultural community, a sign of the growing trust among the parties.

This careful work with constituencies also shows the limits of transforming and reframing approaches suggested Lewicki et al. (2003) and Schön and Rein (1994), which focus largely on the perceptions and understandings of individuals at the table and how these can be changed to encourage solutions. Recall a portion of an earlier quote,

> *They told us that, "Well, [this idea] just isn't going to fly. I wish it could but it's just won't."*

Changing minds isn't enough, or may not even be the right path when constituencies are being represented. Strategic thinking and communication is required, both in terms of vetting and refining ideas and also in mapping the limits of what solutions can be considered at all.

4.5. MORE THAN INCENTIVES

One could point to the presence of significant incentives, positive and negative, as the main factor that encouraged this particular agreement. CALFED certainly had significant funds available for programming, all of the relevant state and federal agencies were present and represented, and the stakeholders were certainly tired of the decades-long conflict. And yet, each of these incentives was also present during the Work Group deliberations. Even Secretary Babbitt's challenge to the Steering Committee, while certainly important, is hard to single out. The non-government stakeholders' first response was to reject it. That they eventually provided Babbitt the asked for text is largely due to the fact that the process described here helped them find an attractive way forward out of their painful stalemate.

Thus, while the potential availability of funding and the presence of the key agencies certainly encouraged the parties to meet and seek a solution, they can not explain by themselves why the Steering Committee reached an agreement, and the Work Group did not.

5. LESSONS

What can conveners, facilitators, participants, and constituencies involved in collaborative policy-making learn from the experiences of the Steering Committee? This paper shows that stakeholders can make progress on difficult and contentious policy issues despite the existence of apparently irreconcilable differences among stakeholders. Decision-makers often convene collaborative policy-making efforts when they recognize that stakeholders have pronounced differences about how the problem is defined and solved. The findings here are crucial for the design and facilitation of future efforts, especially those in which the disagreements about stakeholders seem irreconcilable.

The paper puts forward several key and related lessons. First and most broadly, the presence of the right stakeholders and the right incentives may not be enough. Work Group members had very similar incentives as the Steering Committee, but failed to make progress. Second, while it's clear that stakeholder representatives do learn more, and sometime reframe their personal ideas conceptions about the problem, its solutions, and about each other when they deliberate, they need to do more. What the Steering Committee did was to create an interlanguage (words and concepts), as well as the habits, rules, and procedures to use them effectively. Those helped the stakeholder representatives understand each other and solve problems.

Third, rather than making individual trades across their interests, Steering Committee members developed their solution by identifying, modifying, and organizing concepts (using boundary objects) until they found a combination that they thought looked acceptable from all perspectives. Strikingly, the creation of the words, boundary objects, and habits to support the solution and the crafting of the solution happened in parallel.

Fourth, boundary objects—such as spreadsheets, PowerPoint presentations, diagrams of concepts, and other material artifacts—can play an important role in bringing aspects of the world to the table and making them into puzzle pieces that can be manipulated and combined for solution crafting. These material objects support problem solving where the real phenomena being represented can not. Until rivers and ecosystems can be brought to the table as pieces of a larger puzzle, stakeholders have no common means of talking about them. The findings here raise interesting questions about the role of objects in enabling problem solving and negotiation when stakeholders have conflicting and divergent perspectives.

Fifth, and especially in situations of apparently irreconcilable conflict, conveners and facilitators need to strategically design how constituencies will be represented in consensus building groups. More specifically, they need to balance the transparency of the group as they seek to create safe spaces for problem solving, and yet keep the results grounded in the political realities of the situation. In this case, the Steering Committee kept observers away from the meetings, but kept constituencies engaged throughout the deliberations through informal and formal communications. As such, the products of the members' creativity and learning became the means and focal points for reaching out to constituencies, and these products were in turn constantly tested and re-grounded in the realities of each and every constituency. Practically, this means that the pieces, architecture, and eventual solution need to make sense to each and every constituency separately away from the table as well as jointly at the table. In this case, the complex coordination of different worldviews benefited largely from the use of material objects carefully crafted by stakeholders as a means to reach out to various constituencies.

Finally, a note of caution. Like any element of a long and difficult policy process, the agreements made in consensus building processes are not the final step. Much can change in implementation, as it did in CALFED, especially when an administration changes. Despite the strong stakeholder support for the Program, the incoming Bush administration and Congress never provided the financial support promised by their Clinton-era predecessors. This paper shows some ways to improve the ability of consensus building processes to reach agreement supported by stakeholders. It does not provide a full answer to the problems posed by changing administrations and faltering funding, which plague all policy-making efforts.

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