Resilience Dialogues: Conflict and Negotiations in Collaborative Science

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8am to 5pm

ATTENDEES

Ann Weaver, NOAA Office for Coastal Management

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Julia Wondolleck, University of Michigan and NERRS Science Collaborative

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Kirsten Howard, Coastal Resilience Coordinator, NH DES Coastal Program

Kristen Grant, Maine Sea Grant ME Cooperative Extension

Nik Charov, President of Laudholm Trust

Paul Dest, Director, Wells NERR

Pete Wiley, NOAA Office for Coastal Management

Sasha Land, Chesapeake Bay Virginia NERR

Steve Miller, Great Bay NERR

Steve Yaffee, University of Michigan

Tonna Marie Rogers, Waquoit Bay NERR

Whitney Jenkins, North Carolina NERR

WORKSHOP OBJECTIVES

8:30am – 9am

Everyone has their idea of resilience. What do we mean in this context? What are the resilience dialogues? Dialogues that support resilience. “The single biggest problem in communication is the illusion that his has taken place,” George Bernard Shaw. Resilience is the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events. Evolving perspectives in ecosystem resilience. The dialogue of resilience started in the field of ecology. We do not talk a lot about the NERRS system. People tend to think that scientists and CTP coordinators are separate and do not share ecosystem… Resilience thinking is systems thinking.

The Resilience Alliance based in Sweden, there are three tenants:

1) We live in (social-ecological systems) SESs that are inextricably linked. Shifts in social or ecological conditions creates feedback in the other.

2) These systems are constantly adapting and can be in more than one regime. These changes cannot be predicted based on studying individual components due to the complexity of the system.

3) Resilience is the capacity of the system to absorb shocks.

Resilience thinking deals with complex adaptive system dynamics and uncertainty and how to learn to live with change and make use of it (*Folke, 2016*).

The six traits of **sustainability science** project at UNE through an EPSCoR (Experimental Program for Competitive Research) Grant:

1) Knowledge is created collaboratively.

2) Considers linked SES.

3) Motivated by a sense of urgency.

4) Engages non-scientists and local knowledge.

5) Integrates natural and social science.

6) Cares about knowledge to action.

Are we learning how to have Resilience Dialogues through Collaborative Science? The NERRS has been engaged in this process for a decade. The Science Collaborative, the process is on an annual budget in the NERRS. At NOAA compete that out to an external entity to manage the program. That program then as part of their proposal, this is how we want to compete resources to external entities involving collaborative science. Then each entity has slightly different emphases on collaborative research. To summarize the character of a good collaborative science project, it is end-user driven, the tools help solve the problem with science, then there is communication of making sure that the end-user are happy with what they get.

The purpose of today, think about pure collaborative projects. There is nothing about what we are doing that doesn’t connect with collaborative in the broader sense.

CONFLICT IN COLLABORATIVE SCIENCE: RESULTS OF A NEEDS ASSESSMENT

9am to 10am

* Language barriers
* Internal team conflict
* Conflict related to end user expectations: making sure that we remain connected with our end users and delivering to them what they want
* Conflict between goals and motivations of academic researchers and CTP concerns for end user or stakeholder readiness, involvement and expectations
* Team member not meeting project management expectations, deliverables, timeliness
* Perceptions of two-way communication from end users to researchers, not viewed as important by researchers as they are by CTP
* Researchers have no sense of social capital
* Conflict arising from the Collaborative Lead role on a project, budgeting, knowledge, commitment
* Concern for Reserve’s reputation when a project does not meet objectives and end users are disappointed
* Role of P.I. (principle investigator) is not Project Management
* Exhaustion and burnout of Collaborative Lead
* Lack of accountability to stakeholders
* Mismatch in timing between a university research calendar and the realities of time commitment required for stakeholder engagement
* Over-promising what can be realistically achieved

Other sources of conflict from participants:

* Conflicts where the basis is in different types of values and interests. Lack of attention in the process to take the time to appreciate those. Being very clear about the values.
* Person who is the vision lead, that person’s background might not match those of the other collaborators. Ex. An economist coming from an economist point of view, making sure that doesn’t dominate.
* Process conflicts in science versus the engagement process and marrying the two. The timing of the engagement can be critical.
* The researchers being so close to and wedded to their research techniques and processes. The end users are sometimes not scientists. What they propose, the scientists will say, no that process won’t work. More flexibility in the research process. As a researcher, your job is to serve the end user.
* Is the goal with the dialogues to focus on challenges of NERRS science collaborative projects, or is it to make our communities better at being resilient? Those are different things. The NERRS science collaborative projects are specialized that serve lots of masters, which is what we are hearing, sometimes there is disagreement about the master that is being used. It’s important to be clear about that. My piece is to position this as the broader discussion around resilience and then build a bridge back to the ENRRS SC as a tool. One is very big, and one is super specialized.
* If we start general and pare down, there will be a lot of stuff irrelevant to where you want to be. Start with some specific application in the dialogue, and then you can be a bit more general.
* That is how the transfer research grants have been handled.
* There is a clash of cultures between researchers and end users. Getting the researchers to think differently about how the research can be better used.
* When the process is not designed well to allow those deep values and positions so that the conservation can really happen. It goes back to how well you design the process.
* Some projects are embedded in the communities. There are conflicts where there is research science and where it is put up. Or demonstration science where those not involved, are fronted and get angry.

NEGOTIATION AS A NECESSARY ELEMENT OF COLLABORATION

10am to 12pm

The RD and interest-based negotiation process came about independently. There was a conversation that occurred that was similar to the conversation that we are having today. The conflicts that PIs were talking about and their relationships with end users, and how do we interact with the end users. We came up with a series of exercises that is on interest-based negotiation, and then on collaborative process design. We developed this exercise and piloted it with a network of collaborators. We have three objectives for today. One is to learn from you and provide an introduction to IBN, the principles and frameworks of it. We will do an IBN debrief based in collaborative science. The second one is to pilot test this exercise. The third, is to come back to the science collaborative and RD in the application of this tool.

Negotiation: the process of jointly making decisions in the fall of divergent human interests. There are different needs from management and many other differences in play related to decision making. In a pluralistic society, you have to have mechanisms to deal with conflict. Effective IBN can produce agreements that will resolve conflicts, and will help make parties better off. Mutual gains and the mythical win-win. Enables parties to come to the table and create a situation that is better for everyone.

INTRODUCTION TO THE ARCADIA BAY NERR EXERCISE

* 4 parties
* Multiple issues that need to be resolved
* Scoreable game: can define priority outcomes, but you can’t invent options. It becomes a point-trading scheme ultimately. They are supposed to capture the substantive issues.
* Your goal is to pursue your own interests, and not necessarily pursuing the end goal in the name of collaboration.
* Process-wise, each of you will be should have two pieces of information.

DEBRIEF OR ARCADIA BAY SIMULATION

1pm – 3pm

Four groups negotiating all *thought* they came to a four-way agreement. Of 16 there were 6 with arithmetic errors. Stressed brains do math worse. **Should have a cooling off period after an agreement**. One group: Group A, had a 3-way agreement.

(Your outcomes slide)

*Discussion:* With everything constant (information, time), had four really different packages negotiated. What accounts for the difference?

* Process: facilitation, setting ground rules, persuasive negotiators. Everyone that got 4 agreements “wins”.
* Sasha: stuff fell apart, when they focused on points.
* Betsy: Group D, complex negotiation, winning was all 4 agreed and made minimum negotiation numbers. Wasn’t pushing to win, but got to bottom line
* Yaffee: BATNA (best alt. to negotiated agreement) is what you walked to. If you go in neg. trying to do better than the bottom line, that’s what your get, but if you aspire for more, generally get more
* Steve: We all know each other, enjoy this process. If you did this with folks that don’t know each other as well . . . how’s it turn out?
* Yaffee: mix of competitive and cooperation . . . with strangers you will be more competitive
* Pete: had BATNA in mind and had 1-2 things that wouldn’t budge on. Getting minimum points, and picking your battles. When there are real consequences vs. a game, anything different in the psychology/results?
* Yaffee: more escalatory behavior with real life. Pain experiments. Sure, leads to different behaviors.
* Tonne-Marie: everyone wanted all 4 with an option. For group A, it was a math error.
* Ann: Already decided on road (large pts)
* Dwight: scores on the back, want to maximize willing to trade off on small subtractions. Renegotiated a few things b/c of that. Always thinking what was I willing to trade?
* Jen: started off talking about preferred alternative, and quickly gets into the points thing. Start with least contentious. Ultimately it’s a numbers game.
* Yaffee: use as a proxy for issues. At core it’s a point trading program
* Jen: in an actual scenario who would come up with the point system?
* Ann: it’s a proxy
* Pete: students ever come up with maximum surplus? Did they do the math, rig the system?
* Yaffee: optimum . . . everything gets reallocated all across. Real world, assign level of values to issues. Absolutely the case. Locks you out of invention. A lotof space for agreement. Competitive and cooperative . gets heated, name calling. This had 338 packages. 150 were 4-way agreements.
* Dwight: do the game w/o scores and then reveal scores?
* Yaffee: do non-scored games in class; behavior changes, inventive solutions. Students have a mastery of negotiation.

*Discussion:* Difference in scores for each BAG player.

* Kalle: Nik showed video of cottontails being released. Went Trumpy.
* Kalle: one way to think about winning, which group did the DOT do worse? How class numbers are from the average.
* Yaffee: Durability of the agreement. BAG just scrapping by isn’t good, they’ll be aloud advocate. More durable if everything moderate.
* Betsy: which of these was best for the environment?
* Kirsten: uncertainty in habitat patches
* T-M: thinking about public safety. My intent was looking at those community options.
* Yaffee: Parties come with multiple interests.
* (Time Triangle. Armadillo process.)
* Getting started phase, opening process🡪ID & exploring interests, issues, options; opening process🡪packaging and trade off process, closing process🡪deciding; closure process. Bulk of work happens in ID & exploring interest.
* Ground rules, initial interests, motivations, purpose, common ground.

**What worked?**

* Chris: told people thank you for coming, voices are important, tone setting.

**Challenges**?

* 1x1 vs. package. Needed to consider it all as a package. Then look to a scenario. A package we can play with. That was where the DOT engineer lost it. Why so strong for the bridge? Points.
* Kirsten: who spoke first? Pete made us pick a number to speak. DOT no bridge.
* Nik: anchoring idea, really expensive thing is off the table
* Pete: “this bridge could be a model for the future . . .”
* YAFFEE: strategic aspect. Process design. Want to talk about interests and issues before packaging. Want a rich conversation.
* Nik: trust falls . . . more time.
* Yaffee: do relationship-building before collaboration. Dinner party. Work forward from there.
* Whitney: hard to be a facilitator and stakeholder.
* YAFFEE: try to avoid that when can. Get lost. Strategic facilitation or spectrum facilitation.

**Negotiation behavior**: 2 diff models. 1) Presume you’re interested and opponents are opposed. Win lose situation. In your interest to do everything you can to win. Unyielding. 2) Presume both have sets of interests. Have different preferences might be satisfied by trading. Also in your interest for your opponent get some ground. Win-win. Looking for joint gains. Both parties get more value = collaboration.

**Joint gains come from exchanges**

* Where do joint games come from? More people involved? Issues, parties. Trading on marginal. Using differences in preferences makes joint gains

. . .

* 3rd party coming in, trying to craft an agreement.
* Marginal gain. Among these issues what do you care about or the lowest cost, to get an agreement make exchanges.
* Peas and avocados. Half/ half split; but what if they don’t prefer peas?
* Collaboration: using diff preferences to find joint gains.

Real world joint gains.

* Divide things by preference.
* Arizona Navajo generating station and air quality. Thru negotiated settlement got joint gains. By averaging emissions on monthly basis and didn’t have to put in backup scrubbers.
* Malpai Borderland Area: Negotiation as an effective problem solving process.

**Road to Arcadia Bay**

* Joint problem: cross-boundary, cross-jurisdiction, hard to accomplish individual goals on own.
* Interdependence
* Problem solving is occluded by: diff among parties, lack of opportunity, competitive environment, hard stances on single issues, Timing, Funding, access. Relationships, political. Gubernatorial, community. Perspectives of science. Had the science done well, quality, theoretical. Pitting ecology vs human community. Whose interest matter (haves and have-not) having to protect the rich peoples’ stuff. Shadow issue. Trust/relationship issues. Bureaucratic

Need to:

* Understand the differences
* Use the differences to craft solutions
* Need to understand and deal with differences
* Focus on interests; don’t lock into positions (handout)
* Facilitator needs to work ahead with parties to unpack their interests. So they know their interests.
* Teddy Roosevelt, running for reelection. Print speech on paper, and distribute. Confessions of faith. Put picture on cover. Picture was copyrighted by studio in Chicago, 3M? disturb. Campaign manager puts self in shoes of the other party. Wired back, for $200, we’ll give you credit. Perspective taking ability. Strong scores concede but get further.

Why so difficult?

* Sometimes not joint gains
* Lack of trust (past experience)
* Predisposed to wanting to win.
* Uncertainty; hard to put value on that, different risk scenarios. Tool: contingent
* Opposing stance is against core values; fundamental values
* Not having a neutral facilitator (regulators facilitating regulations)
* Our brain is hard wired for zero sum. Approach negotiations with that perspective and hold to it for a long time.
* Bias in our decision-makers and political institutions toward win-lose outcomes.
* Competition and cooperation occur simultaneously. Actions taken to creating and claiming go on simultaneously.
* The negotiator’s dilemma. Similar to prisoner’s dilemma. Rationale choices lead us to irrational practices.
* Claiming is pushing power. Creating is sharing information; creating value on the table.

How to deal with this dilemma?

* Wait on committing until everything is on the table.
* Structure a process that enables sharing
* Penalty for not sharing. (no cooperative behavior)
* How to test for misrepresentation. Need to go ground truth. What would convince you? Through preparation bring information to test (trip wires). “we’re not profitable. . . .” “well here’s your SCC files . . .”
* Contingent agreement: Idk ydk, nobody knows. Go in for 3 years and reconvene. I can’t understand, can you explain it to me?
* Pete: all based on the assumption of good faith.
* YAFFEE: no, assume with zero sum. Misrepresentation by not revealing or lying.
* Kristen: counter point to penalty; talk about incentives, clarify. If this doesn’t work . . .
* Kalle: clarifying peoples’ risk profiles. What is the threshold you will protect against? Eel grass going away, EPA will do anything. Other ppl, want to avoid spending $90M on treatment plant that won’t bring eel grass back.
* Yaffee: Culturally? Generally not in an interest to lie. Transparency. Joint protocols, adaptive management. Bob Axelrod converts negotiators dilemma into numbers and number theorists, strats for joint games. Conditionally open strategies. Open cooperatively. Weren’t first to claim. They responded to defections (claiming behavior). Forgiving. If other side turned around. Not too clever. Highest joint gains, tit for tat, provocable. Translation: have multiple rounds. Observe how other side is doing. Break it up into different sessions.
* Betsy: public setting, not possible to respond in kind, not socially acceptable for a public servant.
* YAFFEE: maybe not a negotiation. Setting matters hugely.

Key goals of collaborative process design is to :

Create the conditions for effective interest-based negotiation to occur. Overcome neg. dilemma.

**Summary**

1. Collaboration involves negotiation
2. Negotiation requires an understanding of party interests
3. Negotiation involves competition and cooperation
4. Negotiators can find joint gains by being cooperative, but run the risk of being exploited
5. Therefore, negotiators must learn how to manage this tension
6. Collaborative processes must also manage this dynamic—to get to win-win and durable decisions

**Resources**

* <http://seas.umich.edu/ecomgt/mlpavideo/>
* Book coming out, unpacking stakeholder process.

CONFLICT CASE STUDY

3pm – 3:15pm

Kalle Matso’s story about his experience with timing and collaboration after his PhD program.

STRATEGIES FOR MANAGING CONFLICT IN COLLABOARTIVE SCIENCE

3:30pm – 4:30pm

What strategies have you been using to prevent, reduce and manage conflict?

* Building more relationships with/against the process, understanding and learning values.
* Training the municipal folks and getting them to the table, four sessions (active listening and practicing it) on how to talk to people and do interviews. Get real with the fact that municipal people need to have engagement with community members. Transferring skills to the municipal folks. We talk about how important it is to have stakeholders in the process, but it’s different to have the municipal folks talking with the community members that they interact with every day.
* Avoiding conflict all together, via active listening, staying a step ahead of conflict before it even happens. It’s a relationship thing again, talking with them to figure out what is going on. Resolving it before it becomes a conflict.
* Talking with people one-on-one to see how they can figure out their problems.
* Timing is everything as well. Sometimes we don’t have time to go the extra mile when it isn’t in your job description.
* Less about knowing how to solve the problem and more about learning how much people are willing to risk.
* Work on mutual respect for the different perspectives.
* Learning about people’s realities. People’s experiences are different related to resilience. What gets people to pay attention to resilience in the first place.
* The recovery process is essential to resilience. The purpose of it is to react differently than you did before. Unfortunately after disasters, that is when communities and governments pay attention.
* Provide what people want, identify the emotional cores that people have. (How do you feel?)
* In our efforts to reach out to communities and negotiate well, it feels as though in many situations, there have been people for whom don’t take yes for an answer, negotiation and collaboration doesn’t matter to them. People know what they want. Negative publicity will drive political decision making. It seems to be a default response to people who don’t get their way.