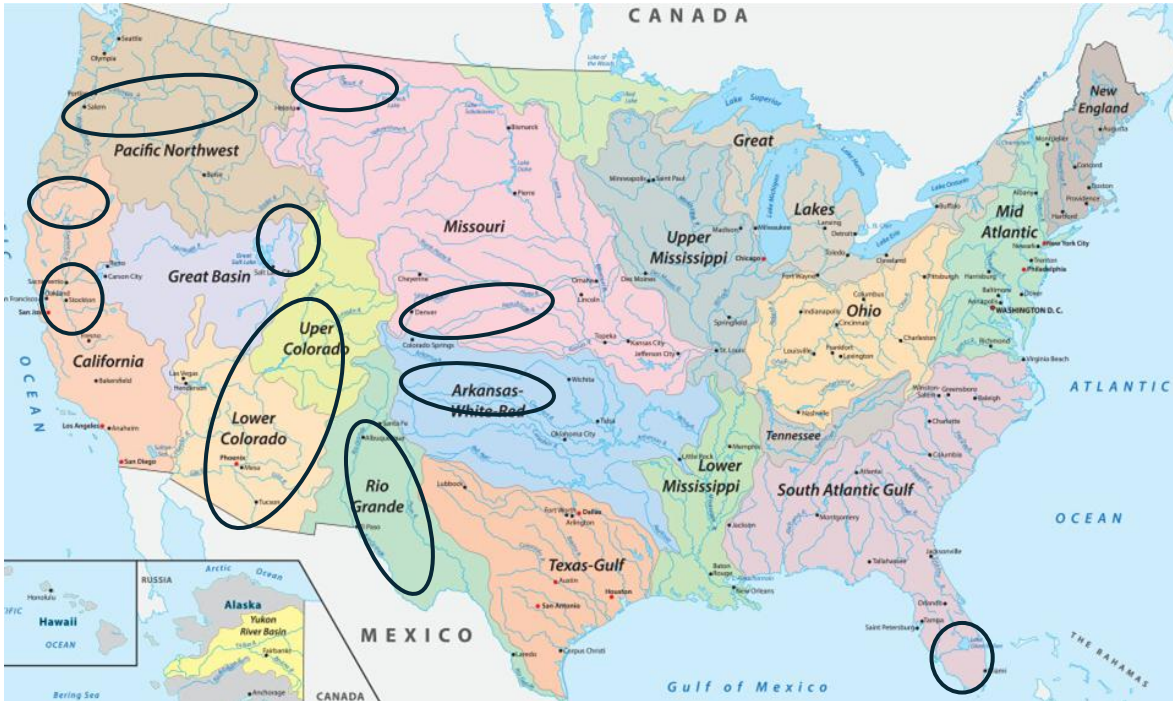


Tanya Heikkila: A Bit About My Research



Explores how governance institutions (**rules, structures, processes**) are designed and perform

- Often in the context of transboundary watersheds
- With a focus learning, adaptation, and conflict resolution

Uses diverse social science methods

- Surveys, interviews, comparative case studies, document analyses



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Governance Rules

Who is allowed, what positions, what actions can be taken, how is information shared, who pays the costs and who benefits, how decisions are made

What does research say?

- Rules need to be aligned with the context, designed by the people affected, and nested across scales
- Decision rules are often imperfect
 - e.g., consensus rules build legitimacy, but can be slow or enable tacit consent

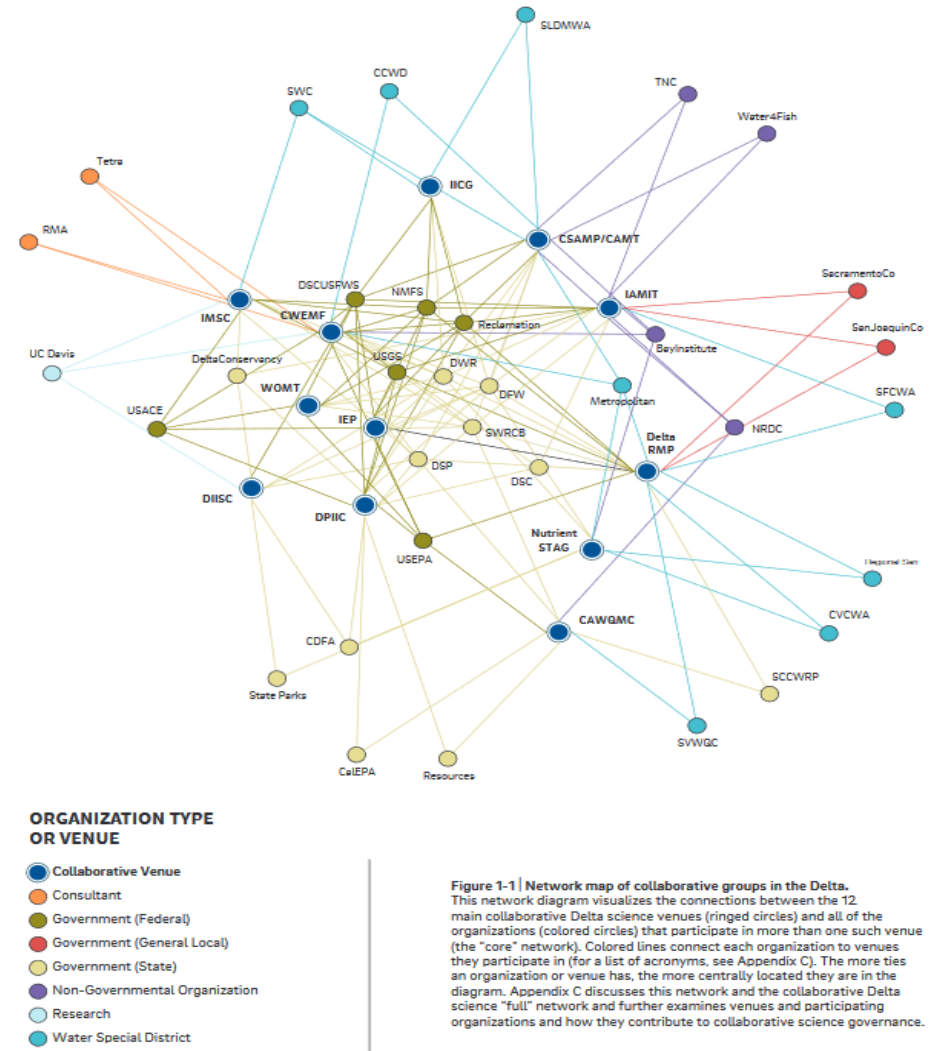


Governance Structures

Provides the arenas/venues for shared decision-making, shaped by rules

What does research say?

- Governance of social-ecological systems is typically “polycentric”
- Design needs to be tailored to the scale and scope of problems – “institutional fit”
- Diverse knowledge sources need to be built into the structure (experiential, system-focused, forward looking)
- **Connectivity is key** – e.g., boundary spanners

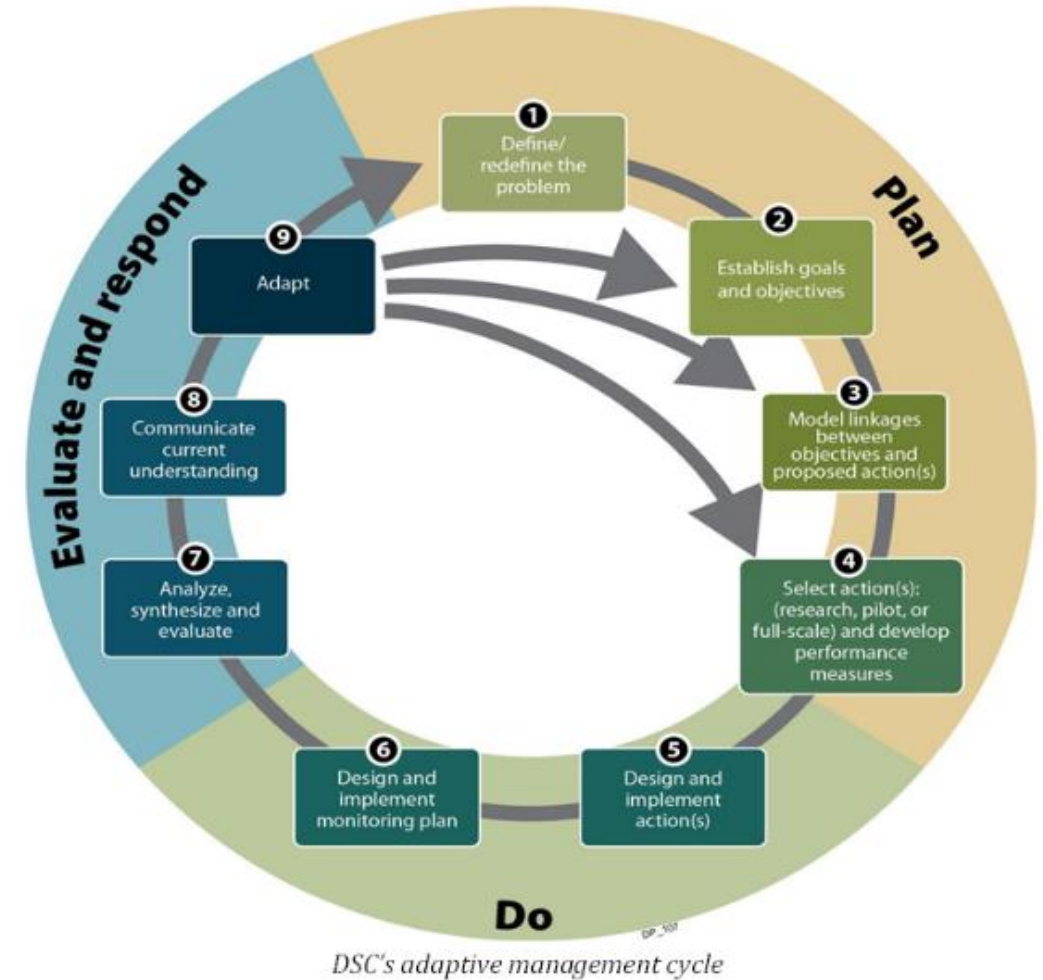


Governance Processes

The social dynamics and interactions and within structure

What does the research say?

- ***Trust is essential***
- Conflict isn't bad – it needs to be managed
- Facilitative leaders smooth the way
- Adaptive and learning-focused processes build resilience
- Adaptive processes require good structure and well-designed rules
 - But don't assume bad process can be fixed with a new structure



A Structure and Process Designed for Learning and Adaptation in the CA Delta?

Is it working? If so, how?

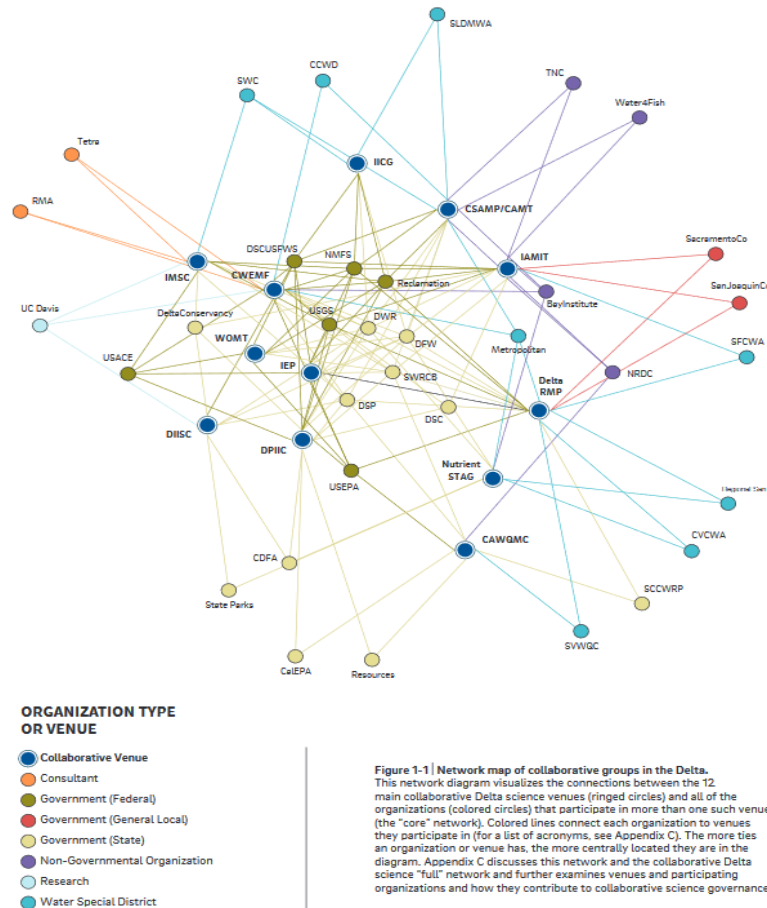
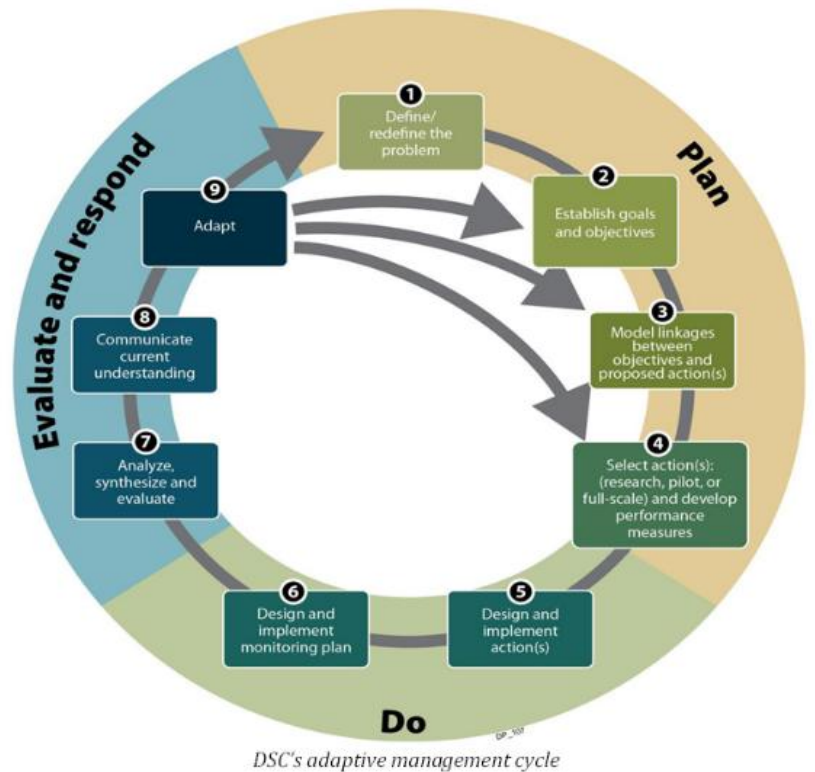


Figure 1-1 | Network map of collaborative groups in the Delta.
This network diagram visualizes the connections between the 12 main collaborative Delta science venues (ringed circles) and all of the organizations (colored circles) that participate in more than one such venue (the "core" network). Colored lines connect each organization to venues they participate in (for a list of acronyms, see Appendix C). The more ties an organization or venue has, the more centrally located they are in the diagram. Appendix C discusses this network and the collaborative Delta science "full" network and further examines venues and participating organizations and how they contribute to collaborative science governance.

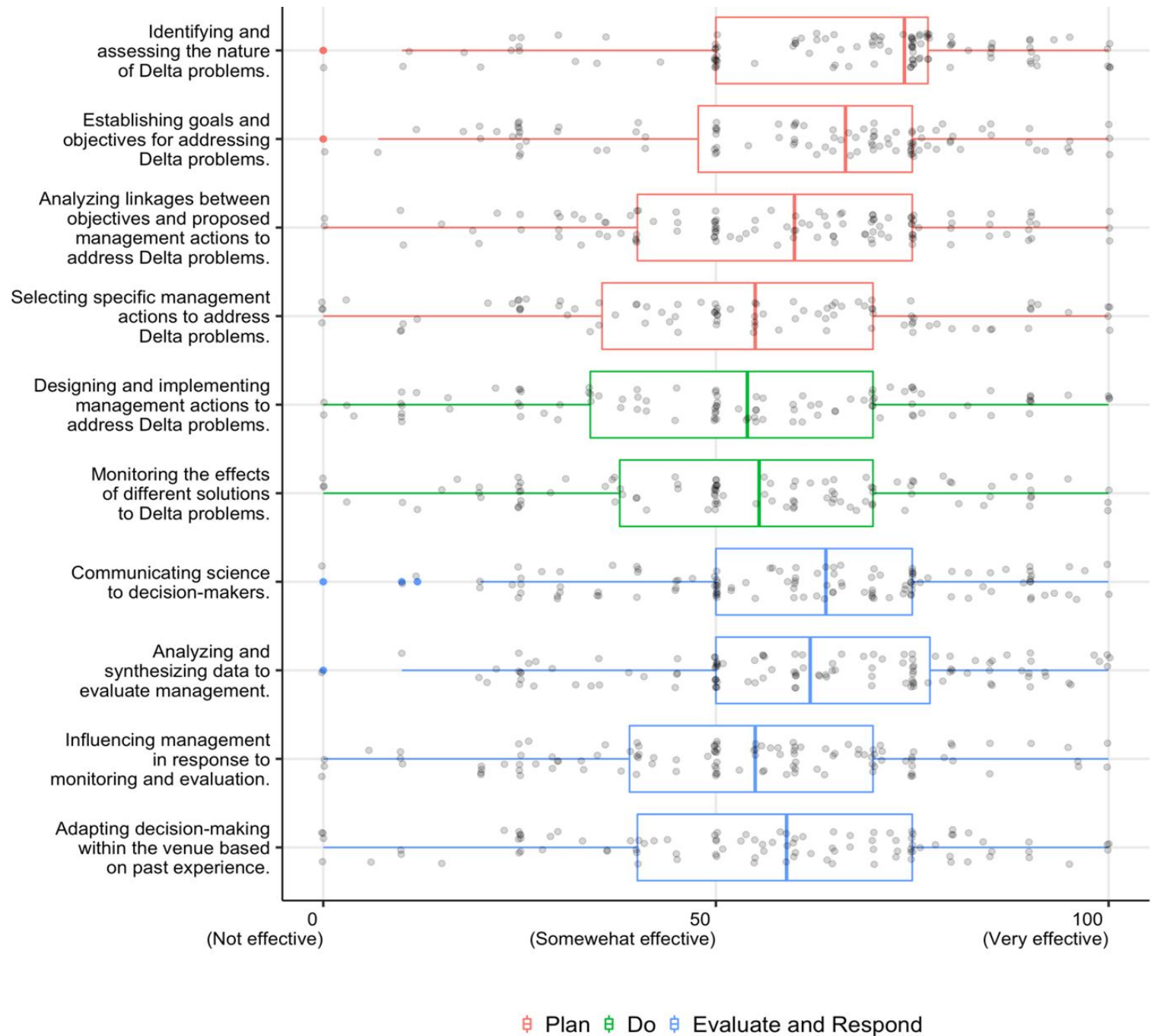


Is Learning and Adaptation Happening In the California Delta?

Yes, but more around planning and a little less on “doing”

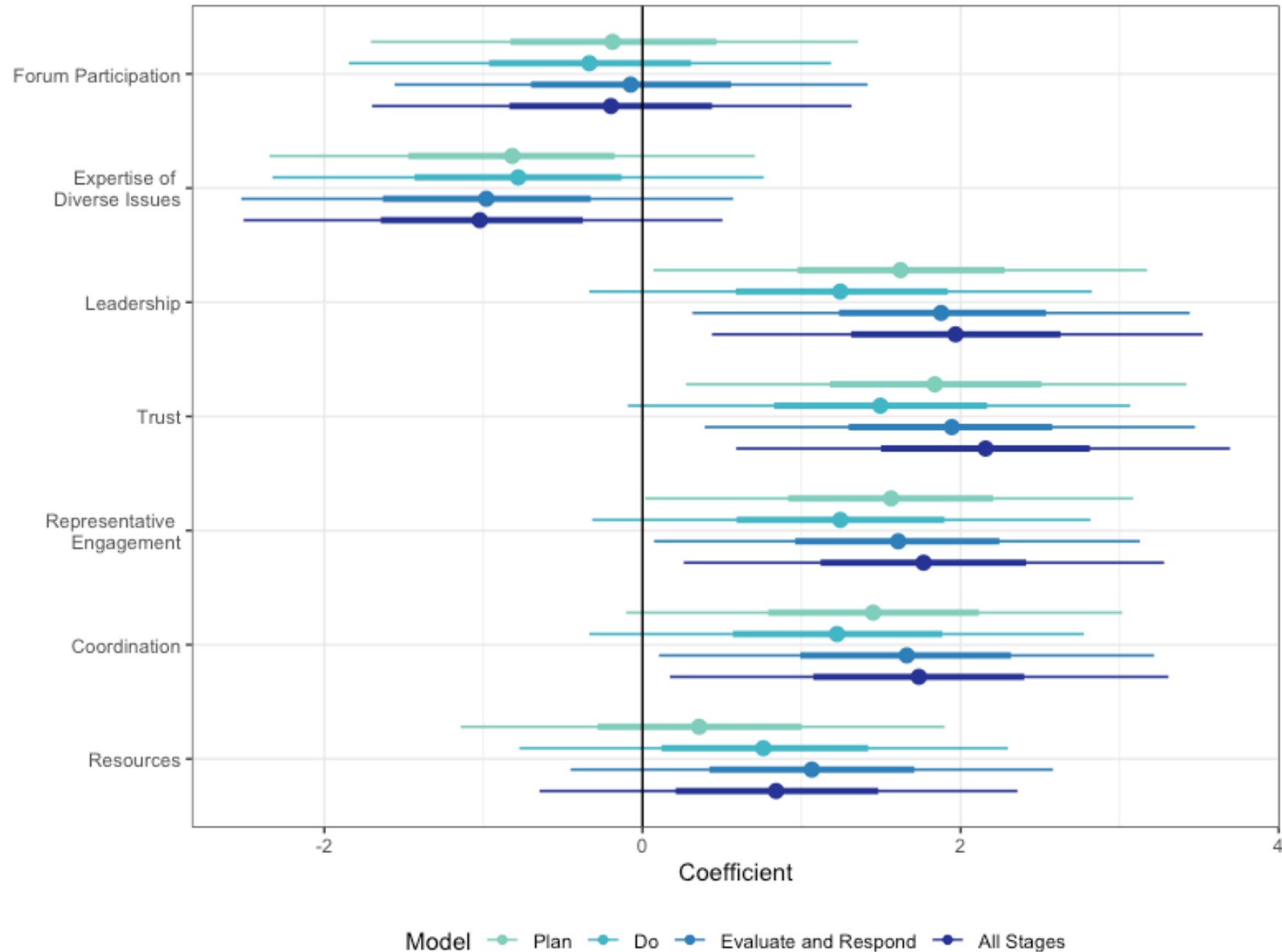
Survey responses from Delta Science Enterprise Actors

Source: Lubell, Pozzi, Heikkila, Gerlak (2025) *Policy Studies Journal*



What explains
perceived
differences in
learning in the
Delta?

Process and
structure matter-
but process might
be more
important



Thank You!

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Diagnostic Questions

Rules: A Few Diagnostic Questions

Do the full suite of key actors have decision-making authority?

Are rules adaptable to changing contexts?

Are rules misaligned with interrelated governing systems?

- Is there rotating leadership?
- Are there rules to overcome stalemates?

Structure: A Few Diagnostic Questions

Are the right actors at the right tables for the problems at hand?

- Do they enable access to diverse knowledge?
- Do they go beyond the usual suspects?

Can structure adapt?

- When structures are no longer useful, can they end?
- When new structures are needed, how easy are they to form?

Is coordination happening?

- Is the right information getting to the right people?
- Who are the boundary spanners?
- Are resources dedicated to the right priorities?

Process: A Few Diagnostic Questions

Are deliberation and dialogue enabling trust and shared understanding ?

- Is it face-to-face and iterative?
- Are power differentials mitigated?

Is conflict addressed?

- Are hard conversations on the table?
- Do participants have access to mediation or facilitation?

How is learning enabled?

- Are feedback loops from monitoring formalized?
- Are experimentation and futures thinking encouraged?
- Are failures diagnosed via reflections, audits, etc.?