



THE GOVERNANCE GAP: CLIMATE ADAPTATION AND SEA-LEVEL RISE IN THE SAN FRANCISCO BAY AREA

Mark Lubell and Francesca Vantaggiato, UC Davis

[Center for Environmental Policy and Behavior](#)

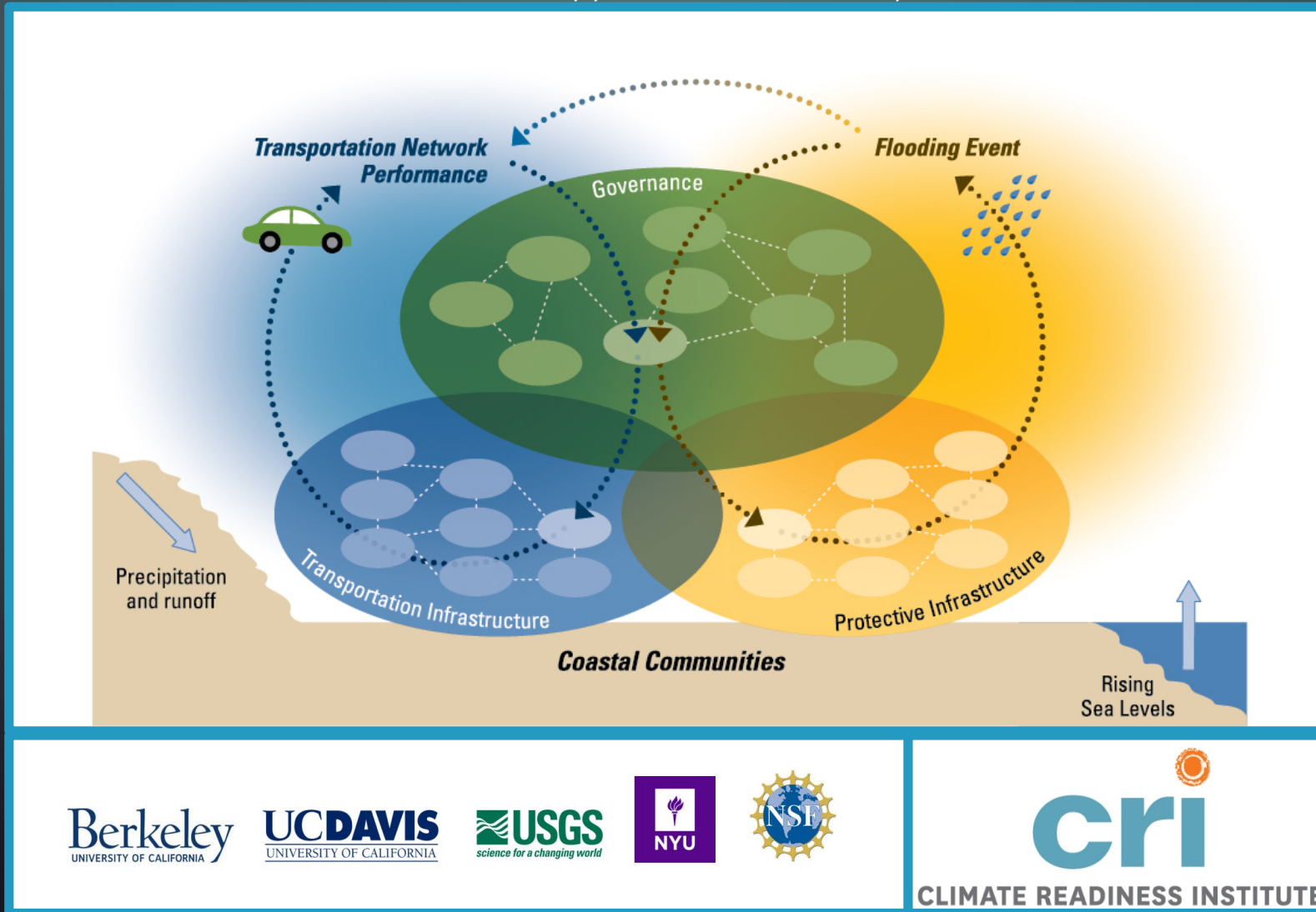
mdlubell@ucdavis.edu

environmentalpolicy.ucdavis.edu

[@envpolicycenter](#)

RESILIENT INFRASTRUCTURE AS SEAS RISE (RISER SF BAY)

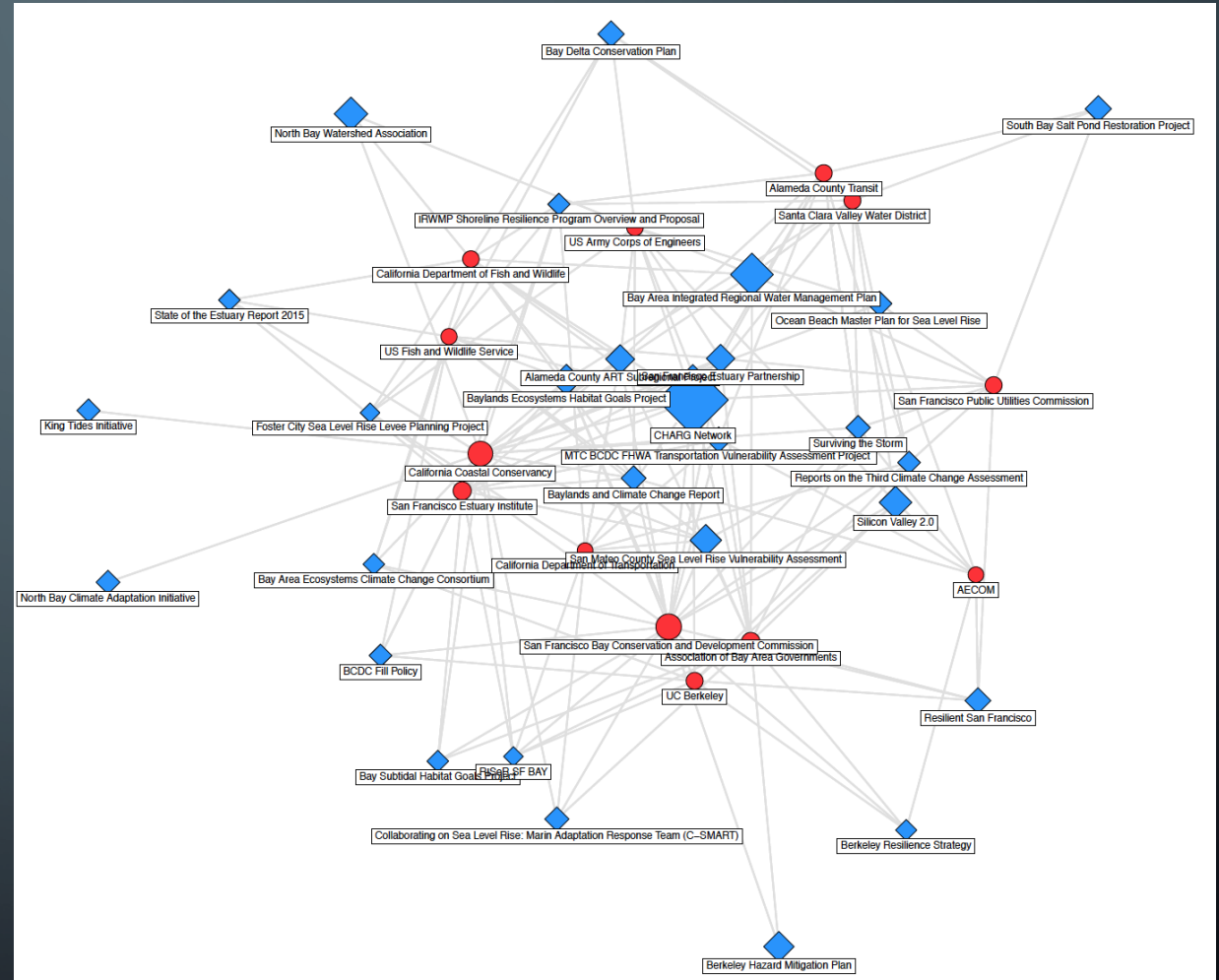
<http://riser.berkeley.edu/>



THE GOVERNANCE GAP: COOPERATION AND LEARNING IN COMPLEX SYSTEMS

Public policy is almost always a mess. Let's acknowledge the inevitable and figure out how to manage a messy situation. Trying to define a policy "problem" is hard enough. Trying to find a solution is even harder. Trying to do either in a policy-making structure in which everyone is involved, but nobody is in charge, is nearly impossible.

Phil Isenberg, 2016



GOVERNANCE RESEARCH APPROACH

- Multi-level interviews from regional to local, government and non-governmental stakeholders
- 43 individuals interviewed at average of 1 hour each.
- Governance Solutions focus groups: North Bay, South Bay, Central Bay
- Report 2017: “The Governance Gap: Climate Adaptation and Sea-Level Rise in the San Francisco Bay Area”
- Governance Gap Survey: June 25-Sept 10, 2018. 722 respondents.

Bay Area Climate Adaptation Governance Challenges	Proposed Solution Concepts
Institutions for Multi-Level Cooperation	<ol style="list-style-type: none"> Shared governance (“stay in your own lane”) Lead agency (BCDC or other existing agency) New “network” administrative agency (e.g.; Delta Stewardship Council) Climate Adaptation Vision or Commission (e.g. Delta Vision, Governor's Commission for a Sustainable South Florida, Western Water Commission) Institutional consolidation: special districts, regional governing boards
Climate Adaptation Planning	<ol style="list-style-type: none"> Update existing regional (SB375, Plan Bay Area, SF Bay Plan, other) and local plans (general plans, congestion management plans, local climate adaptation plans) Overall regional climate adaptation plan Separate but linked new plans for specific issues—sea level rise, temperature, drought Vision Plan and next step recommendations
Funding Portfolio	<ol style="list-style-type: none"> Federal: special legislation, WRDA, transportation funding State: Transportation and bond money, special legislation Regional/Local: parcel taxes, increases in fees, special taxation districts Public-private partnerships
Integrated Permitting	<ol style="list-style-type: none"> Expand scope of Long Term Management Strategy for Dredging and associated Dredged Materials Management Office Create new integrated permitting strategy for green infrastructure Habitat Conservation/Natural Communities Conservation Plan Programmatic CWA Section 404, ESA Section 7, and other permits
Climate Science Enterprise	<ol style="list-style-type: none"> Create centralized web portal for all climate science information Climate science services center (data and assistance/guidance) hosted at agency, university, NGO, or consortium Internal independent science review board External National Academy of Science review panel (e.g. Committee on Independent Scientific Review of Everglades Restoration Progress)
Civic Engagement	<ol style="list-style-type: none"> Community-based adaptation meetings (e.g. Southern Marin Pilot Project) Collaborate with cultural institutions (e.g.; museums, schools, NGOs) Digital, alternative, and traditional media marketing Citizen science and in situ visualizations Climate Leadership Training Academy
Political Leadership	<ol style="list-style-type: none"> Create state and federal legislative caucus groups focused on climate adaptation Governor-sponsored regional climate adaptation dialog sessions Legislative staff outreach task force

RECOMMENDATIONS

- Institutions: Climate Adaptation Vision or Commission (e.g. Delta Vision, Governor's Commission for a Sustainable South Florida, Western Water Commission)
- Planning: Vision Plan and next step recommendations
- Funding: “Local first” funding portfolio: parcel taxes, increases in fees, special taxation districts
- Permitting: Create new integrated permitting strategy for green infrastructure
- Science/Policy: Climate science services center (possible legislative target)
- Civic engagement: Integrated strategy from in-person to digital
- Political leadership: Create state and federal legislative caucus groups focused on climate adaptation (legislative relations staff)

A governance survey of involved stakeholders

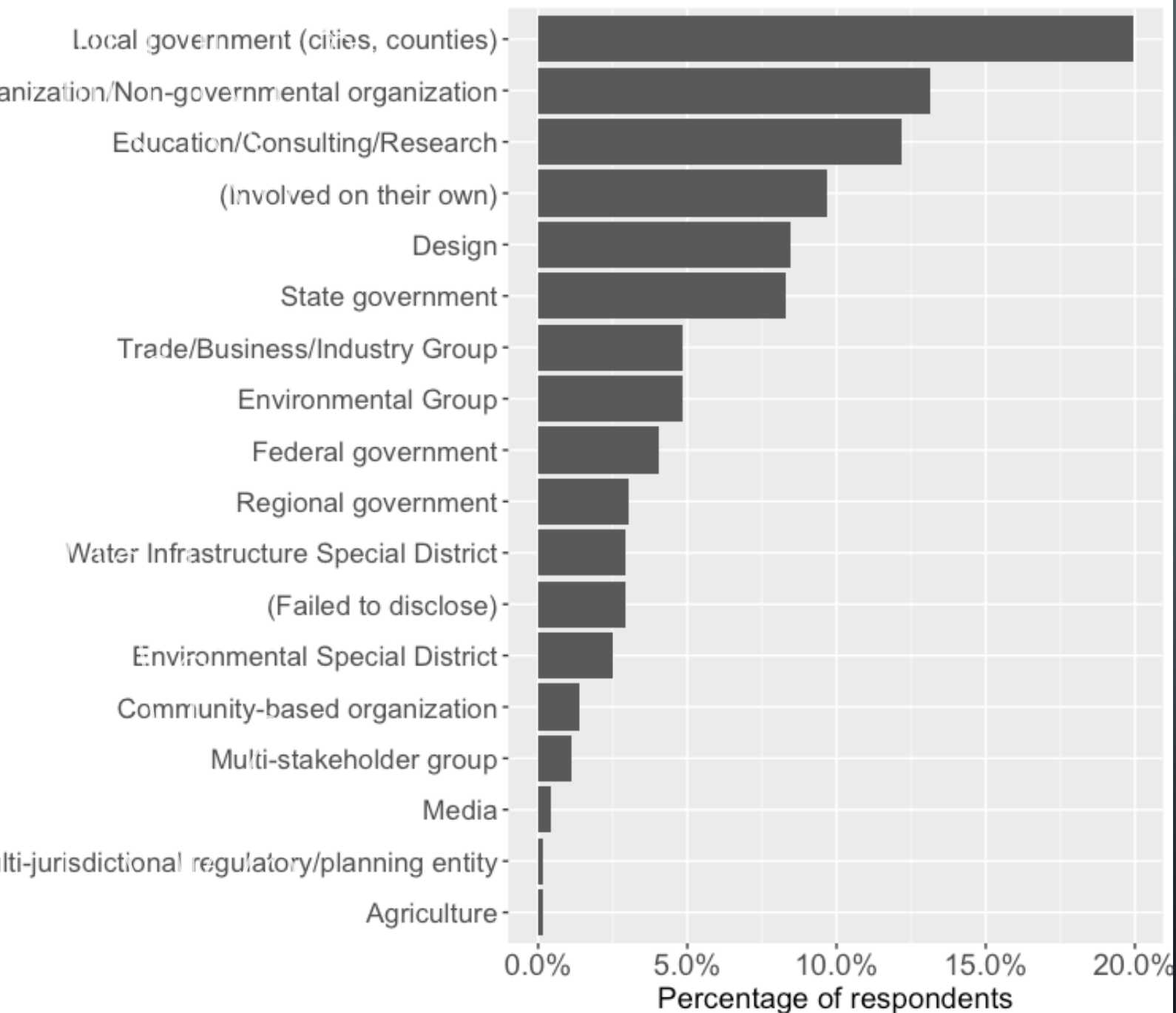
We launched the survey on July 1st, 2018 and closed it on August 31st, 2018.

The survey comprised three main parts:

- stakeholders' perceptions of the problem;
- stakeholders' preferences concerning the actions;
- stakeholders' collaborative activities, within forums and bilaterally with other organizations.

We obtained 722 replies (22% response rate). Respondents represent 385 organizations (65 are involved in an individual capacity; 38 failed to disclose).

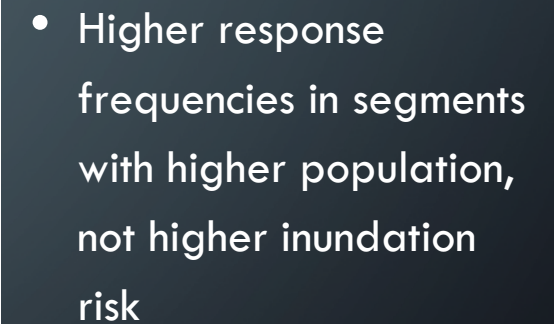
Respondents by type of organization



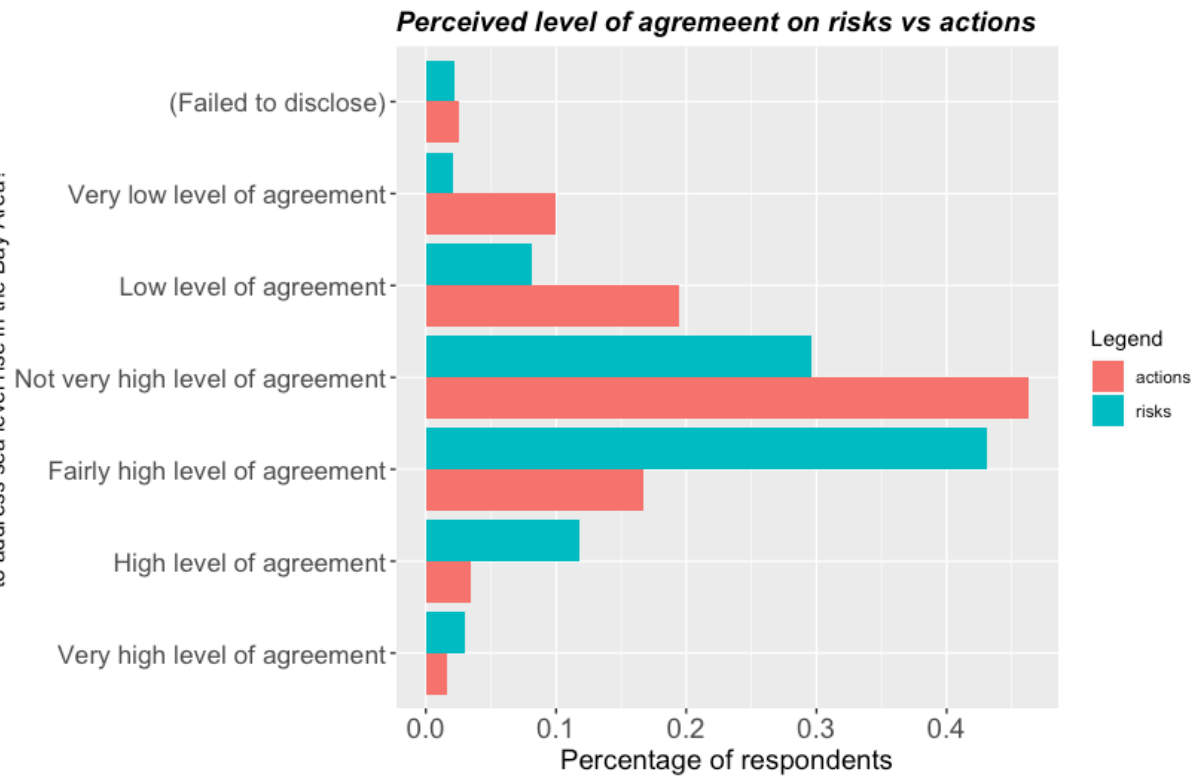
**MANY TYPES OF
ORGANIZATIONS
INVOLVED IN SEA
LEVEL RISE**

**MOST HAVE SEA LEVEL RISE
AS PART OF THEIR WORK,
AND INVOLVED ON BEHALF
OF ONE ORGANIZATION**

Shoreline Segments Respondents Focus On

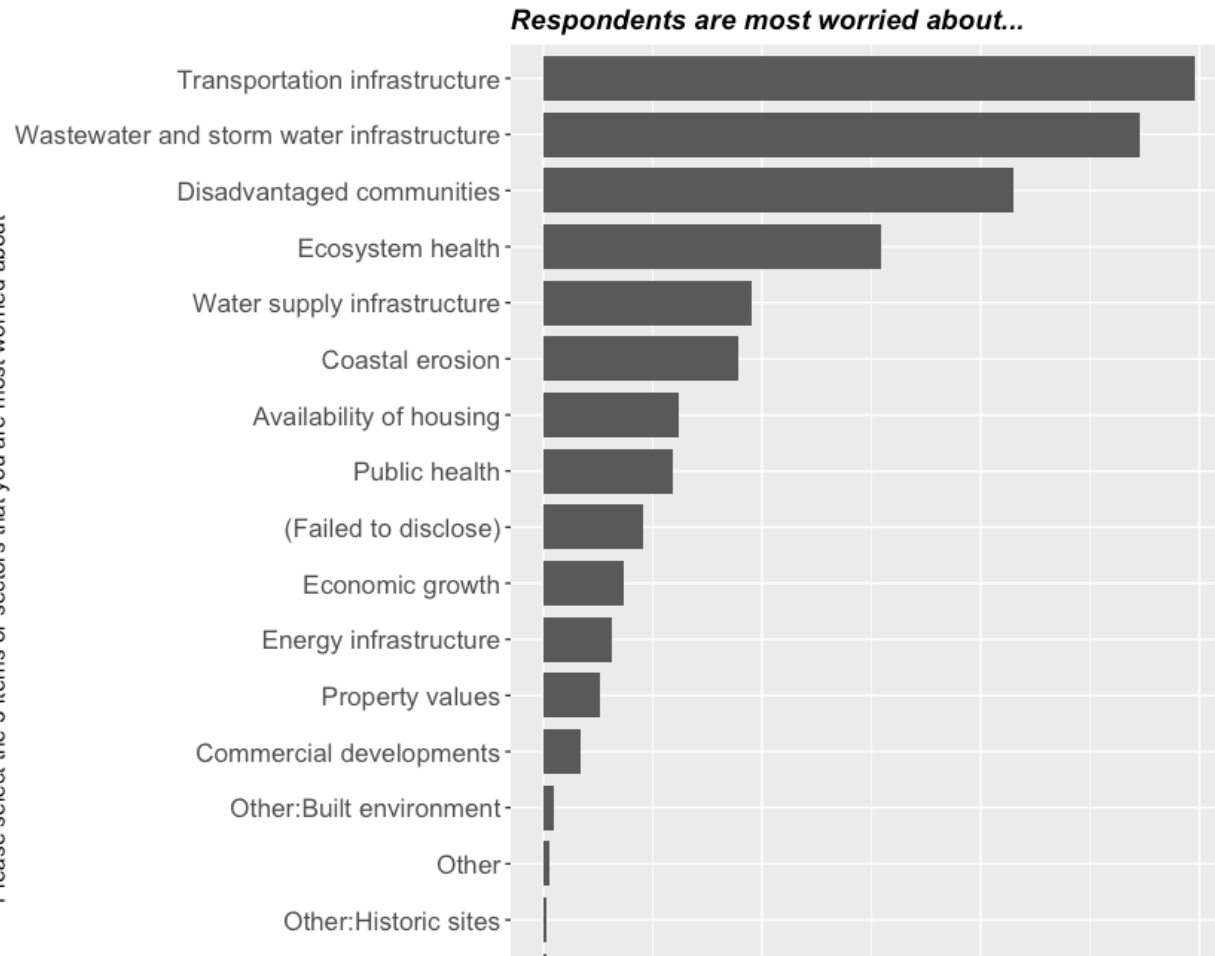


Question: Based on your experience, how would you characterize the level of agreement among stakeholders concerning the risks/actions needed to address sea level rise in the Bay Area?



MORE AGREEMENT
ON EXISTENCE OF
PROBLEM, THAN
WHAT TO DO
ABOUT IT

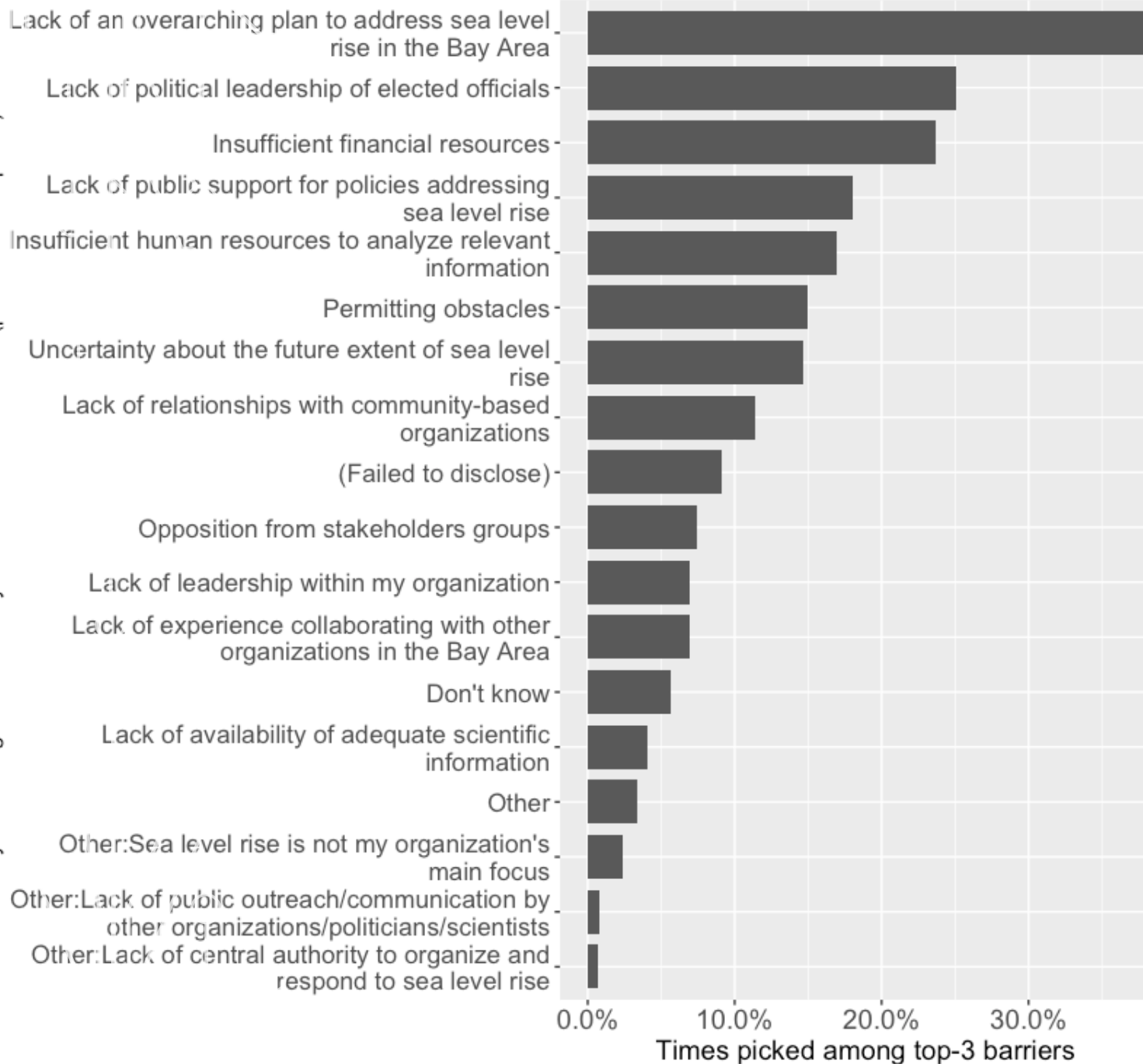
Question: Sea level rise may affect infrastructure and communities.
Please select the 3 items or sectors that you are most worried about



**INFRASTRUCTURE AND
DISADVANTAGED
COMMUNITIES ARE
MAIN CONCERNS**

Question: In the past year, which of the following have represented the highest barriers for you working collaboratively with other stakeholders? (please select up to 3)

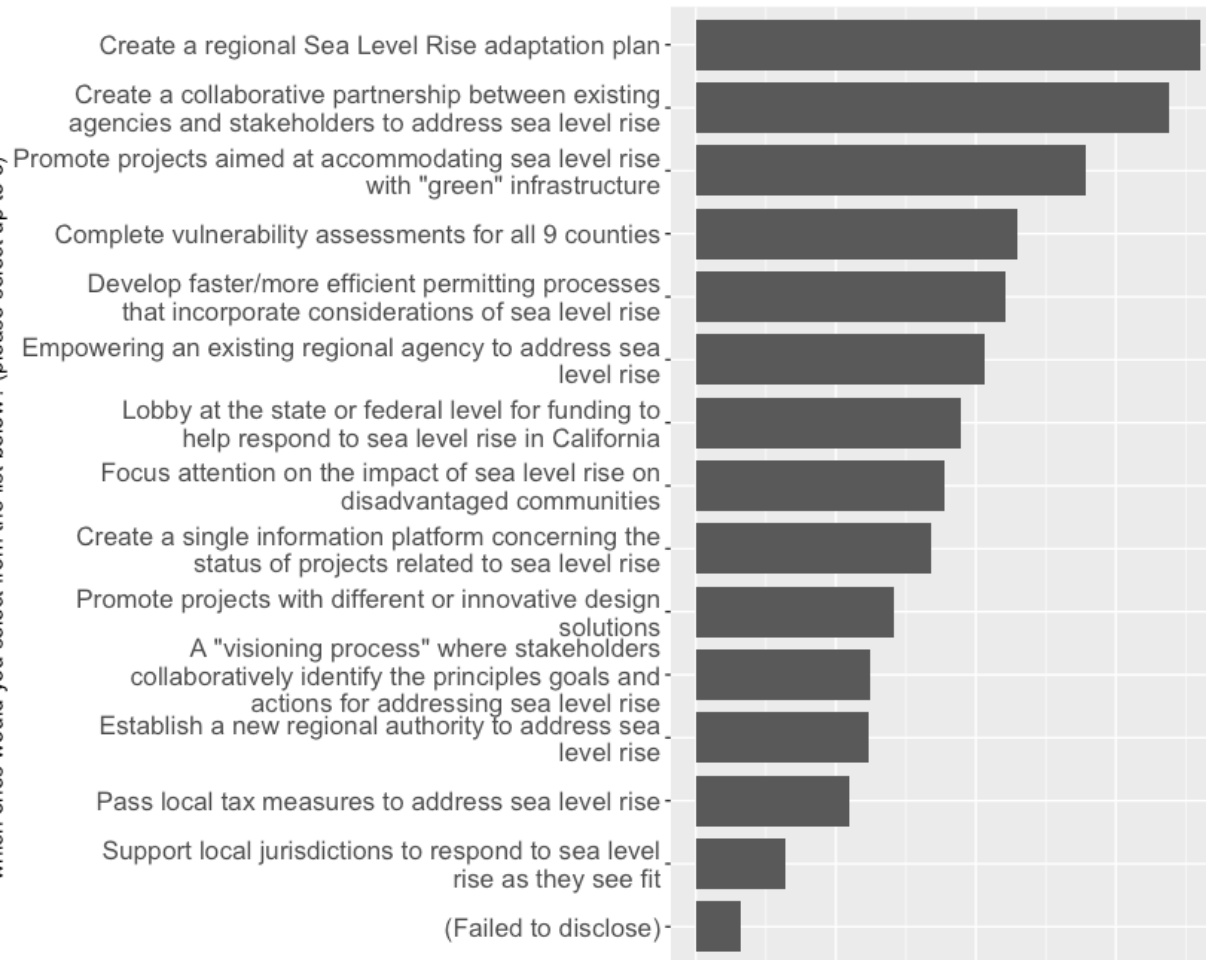
Barriers to collaboration



PLANNING, LEADERSHIP,
AND MONEY ARE MAJOR
BARRIERS

SCIENCE IS NOT A
BARRIER

Question: If you had to decide what sea level rise policies should be prioritized in the Bay Area, which ones would you select from the list below? (please select up to 3)



EVERYBODY WANTS A PLAN ...BUT WHO WILL MAKE IT?

NOBODY WANTS A NEW AUTHORITY!

“VISIONING” PROCESS AS UNDERAPPRECIATED PATH FORWARD

WHO COLLABORATES?

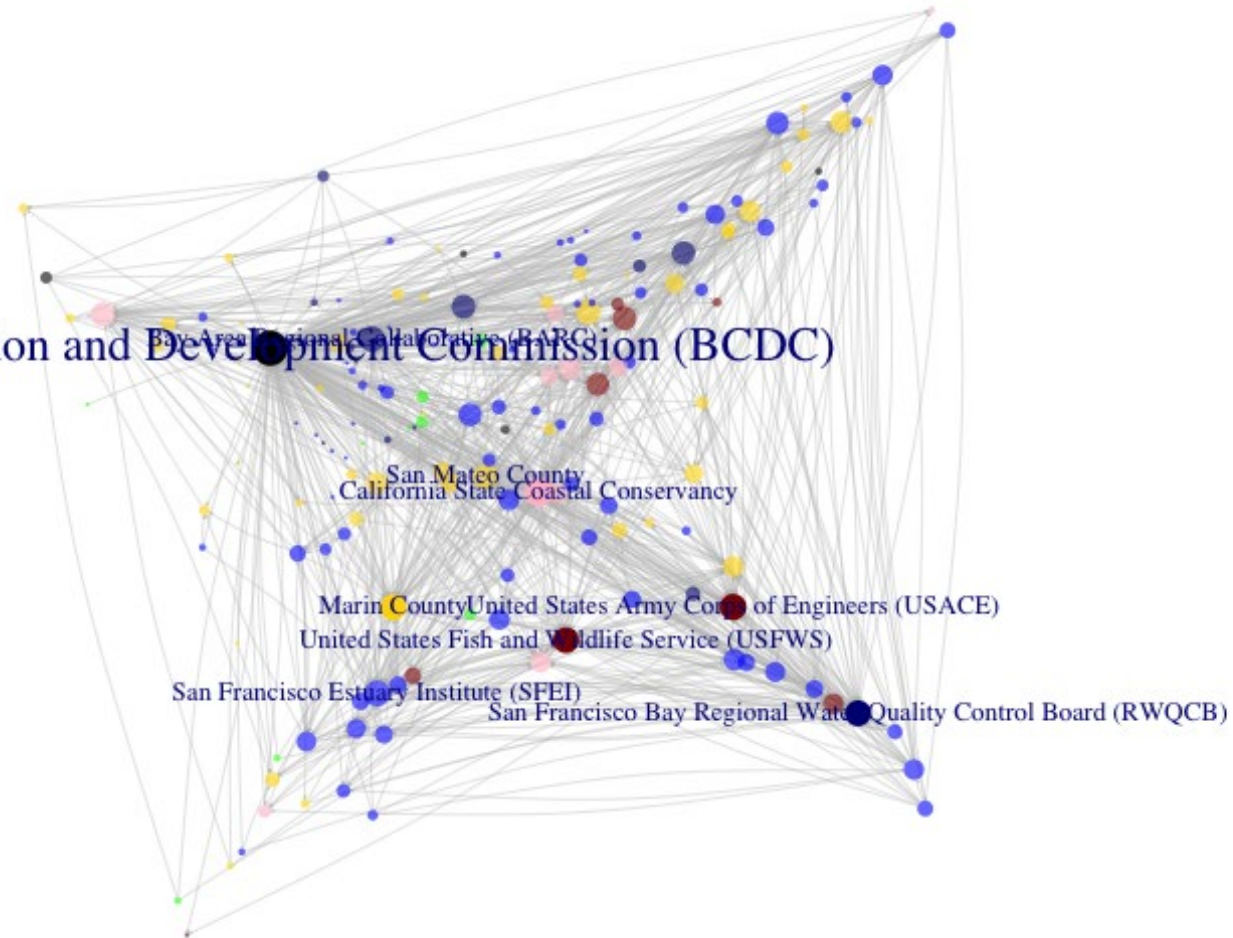
	Actor	Number of Connections
1	Bay Conservation and Development Commission (BCDC)	204
2	California State Coastal Conservancy	126
3	Marin County	97
4	San Mateo County	76
5	United States Fish and Wildlife Service (USFWS)	75
6	San Francisco Bay Regional Water Quality Control Board (RWQCB)	69
7	United States Army Corps of Engineers (USACE)	67
8	Bay Area Regional Collaborative (BARC)	63
9	San Francisco Estuary Institute (SFEI)	63
10	California Department of Transportation (Caltrans)	57
11	Association of Bay Area Governments (ABAG)	54
12	Resilient by Design	53
13	Metropolitan Transportation Commission (MTC)	53

- Top 4 most important factors for choosing collaborators are reputation, information, decision-making authority, and interest overlap

BCDC - Full Ego-network (to and from)
Nodes with more than 40 ties are labelled

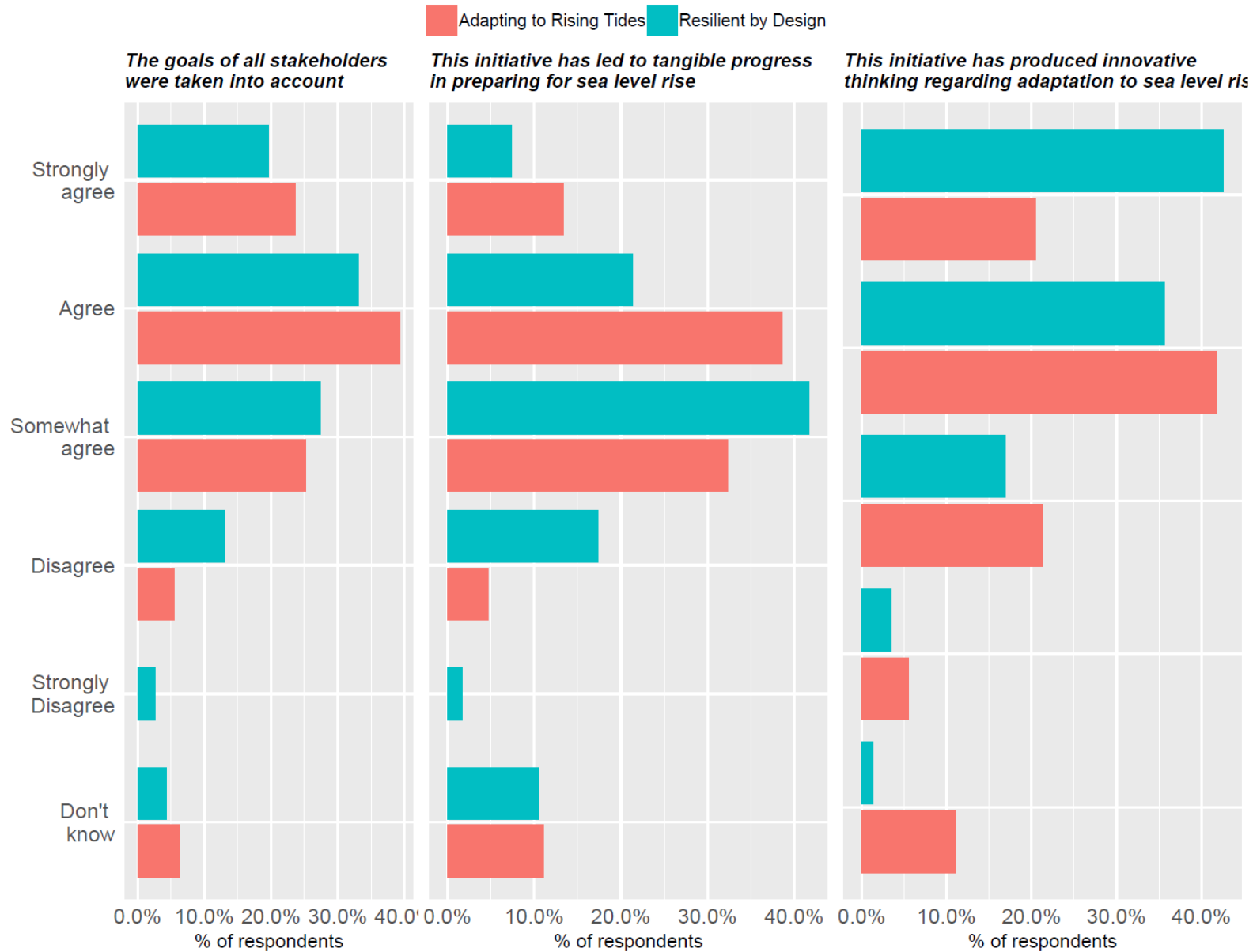
Federal
State
Regional
Local
Non-governmental
Own involvement
Unknown

Bay Conservation and Development Commission (BCDC)



Most clicked collaborative initiatives in the survey

Collaborative initiative	Participating respondents
Resilient by Design	256
Adapting to Rising Tides	140
SeaChange San Mateo County	35
BAYWAVE Marin County	33
SR37	31
Bay Area Climate Adaptation Network (BayCAN)	26
San Francisco Bay Restoration Authority	26
CHARG	24
San Francisco Seawall Project	20
C-SMART Marin	15

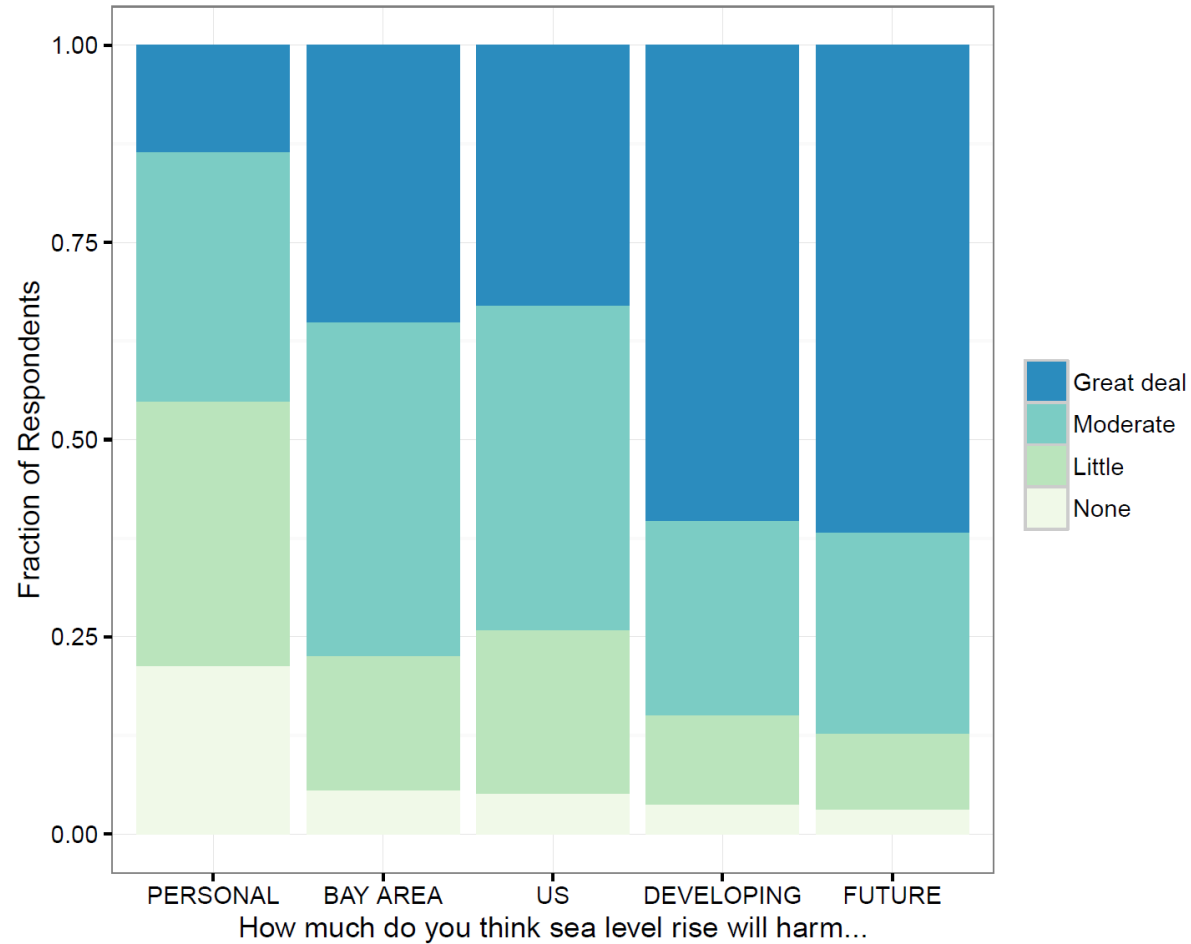


PROJECT PERFORMANCE: ART VS RBD

HORNS OF A GOVERNANCE DILEMMA: BCDC LESSONS

- Central in network, but not alone—many other players
- Regional visioning process should go beyond BCDC
- Convening role in development of regional plan/visioning process
- Amount and availability of science is not a problem; “sense” making and usability is the challenge
- ART Project is performing well in many metrics—innovation becomes more controversial





NEXT STEPS

- Continued Outreach and Engagement on Basis of Current Results
- Comparative study of transportation projects in San Diego, Los Angeles, and Bay Area
- Household surveys in multiple regions
- Replication of governance study in other regions



THANKS!

QUESTIONS?

(Clockwise from top): Mark Lubell,
Mark Stacey, Bruce Riordan, Samer
Madanat, Francesca Vantaggiatto