

# COLLABORATIVE SCIENCE FOR ESTUARIES

WEBINAR SERIES



Moderator:

**Doug George**

*NOAA Office for Coastal Management*



**James Arnott**

*Aspen Global Change Institute*



**Jessica McIntosh**

*Rookery Bay NERR*



**Susi Moser**

*NERRS Science Collaborative*

## Collaborative Science in a Virtual World (Part 2): Collaborating Around Multiple Stressors

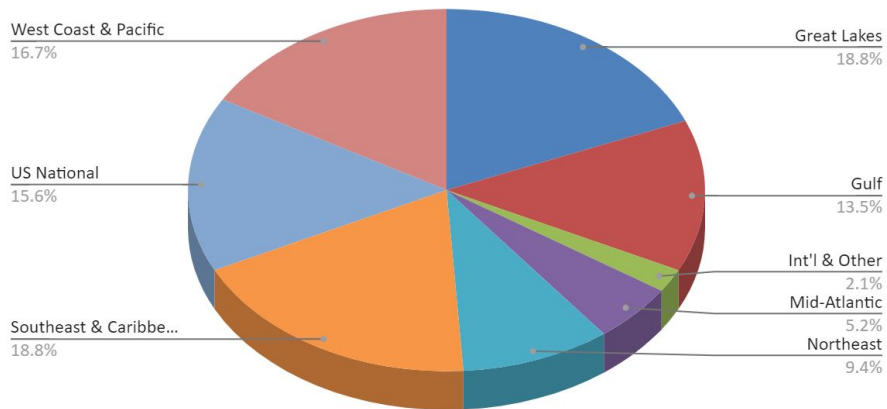


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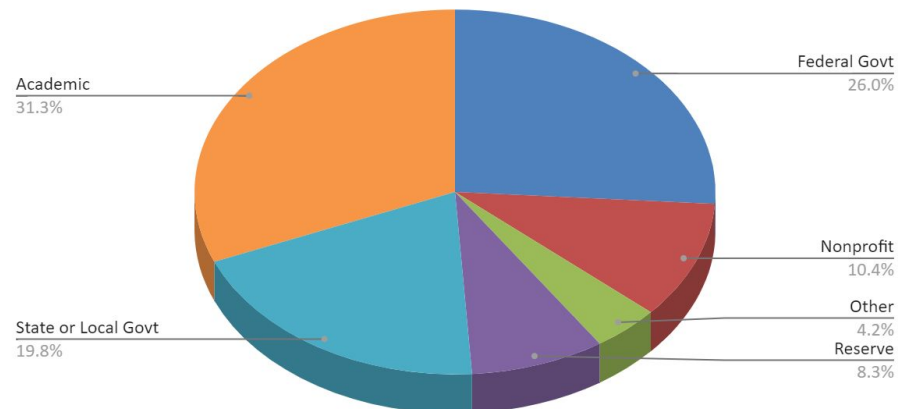
Date: Thursday, January 21, 2021

Time: 3:00-4:00 PM ET

# Who registered for today's webinar



By region



By organization type



## Webinar Agenda:

- 3:00 PM ET Housekeeping
- Introduction and framing (5 minutes)
- Panelist opening remarks (5 minutes each)
- Panel discussion (15 minutes)
- Q&A (15 minutes)
- 4:00 PM ET Adjourn



# Discussion

Can you address how technological and non-technological issues may impact collaborative efforts?

What kinds of topics would thrive with virtual collaboration?

Looking ahead to late 2021 or early 2022, what do you see sticking around and what do you see changing over the next year or two?

*Moderator*



**Doug George**

NOAA Office for Coastal  
Management



**James Arnott**

Aspen Global Change  
Institute



**Susi Moser**

NERRS Science  
Collaborative



**Jessica McIntosh**

Rookery Bay National  
Estuarine Research  
Reserve



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# Q&A

**Q: Have any of you found traction with art-based methods in the virtual space?**

- **A:** It's sometimes nice to play music at the beginning of meetings, or share video clips that have already been developed by filmmakers; e.g., Rookery Bay Reserve often shares clips from a documentary on mangroves that was made by a professional.
- **A:** I've also seen people use poems - something that fits the moment or the topic. Sometimes the art displayed in people's homes (children's drawings, or other visual art) can be openers/check-in prompts. If you have shared whiteboards, you can invite people to draw, but be mindful, public expression of one's artistic skills (or lack thereof) doesn't work for everyone. Can be touchy. So, use it only if you can make people really comfortable about participating or not.

**Q: What strategies have you used to engage and integrate new employees or collaborators to your teams when they can't meet in person?**

- **A:** James has brought on two new employees since the start of the pandemic, and has found great success by implementing some strategies used in improv comedy to get people to express spontaneity and leave their normal rhythm.

When you bring in new people, remember that introductions are still vital in a virtual environment. Create space for new people, and invite them into the new environment to get a sense for how people are.

If you're still fully virtual, take some time to have one-on-one conversations however you can (e.g., chats, phone calls, etc.) to get to know people. Encourage existing team members to reach out the new member on a one-on-one basis as well.

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**Q: What about strategies that build community or collaboration and have relied on having to be in one place (e.g. getting strangers to work through contentious topics), do you think such engagement is still possible or will it only take more time to build trust?**

- **A:** Building trust in relationships is always hard work, particularly if you're starting from a place of conflict. There's an opportunity to implement techniques from therapy, counseling, and mediation so people feel safe making their case and not necessarily being as reactive.
- **A:** In the [www.resiliencemetrics.org](https://resiliencemetrics.org/sites/default/files/files/Resilience-Metrics-Job-Aid-Identifying-and-Effectively-Engaging-Stake-and-Rights-holders.pdf) toolkit, we developed some facilitation tip sheets and guidance for finding shared agreements and dealing with conflicts. Not specific to virtual engagement, but hopefully still useful and adaptable. See:
  - **Identifying and Effectively Engaging Stake- and Rights-holders**  
<https://resiliencemetrics.org/sites/default/files/files/Resilience-Metrics-Job-Aid-Identifying-and-Effectively-Engaging-Stake-and-Rights-holders.pdf>
  - **Getting the Right People in the Room**  
<https://resiliencemetrics.org/sites/default/files/files/Resilience-Metrics-Job-Aid-Getting-the-Right-People-in-the-Room.pdf>
  - **How to Build Trust**  
<https://resiliencemetrics.org/sites/default/files/files/Resilience-Metrics-Job-Aid-How-to-Build-Trust.pdf>
  - **Common Principles of Good Governance**  
<https://resiliencemetrics.org/sites/default/files/files/Resilience-Metrics-Job-Aid-Principle-of-Good-Governance.pdf>
  - **Working Towards Shared Goals: Finding Agreement – Resolving Conflict**  
<https://resiliencemetrics.org/sites/default/files/files/Resilience-Metrics-Job-Aid-Finding-Agreement-Resolving-Conflict.pdf>
  - **Dealing with Trade-offs**  
<https://resiliencemetrics.org/sites/default/files/files/Resilience-Metrics-Job-Aid-Dealing-with-Trade-Offs-in-Adaptation.pdf>

# Q&A

**Q: Are you seeing more intra-team "care-giving" happening during the pandemic, despite being limited to virtual settings?**

- **A:** Susi has observed people moving in that direction, yes. Good bosses/team leads understand that their team members are stressed, juggling many responsibilities, and are facing losses and personal crises. One-on-one check-ins are used, as well as simply naming that these are tough times and we all need to not just take care of ourselves but of each other. One organization made one of their weekly check-ins per month a personal check-in time. Others include elements that bring joy (sharing something beautiful, dancing, movement), mindfulness and silence into meetings. Personal checks work well when a group has already built some trust. It helps if the one suggesting "caregiving" models for others. This may be a change in tone in a team/organization and modeling helps people gauge this new offering. Most are super grateful for it.

**Q: Have you seen an impact of the virtual collaboration on a team's ability to plan future collaborations, versus that which happens face-to-face?**

- **A:** No challenges observed in the virtual space for planning, especially since the advent of online whiteboards, padelets and other collaborative spaces. They seem to actually make planning very democratic and are great for brainstorming and getting equal input from all. Moreover, many teams check in with each other more frequently, and actually get greater participation from everyone on the team - so there are ways to make planning more efficient.

**Q: Love the perspective of keeping it simple, but can folks opine on using polls to engage participants and videos/photos to bring the visual of the place into the meeting?**

- **A:** Susi has observed many groups now include polling in their virtual meetings. As with all engagement, all different engagement ideas should be purpose driven. So if polling serves a useful purpose, use it; if it's done without much of a purpose, drop or rethink it. How can you use it to get meaningful input into the discussions?

**Q: What are the positive outcomes, if any, from the virtual meeting?**

- **A:** Some of the observed benefits include
  - Greater frequency and hence better communication; teams are more aware of what's going on;
  - Broader participation, so people can attend and voices are heard often not heard of in face-to-face meetings
  - Democratization/flattening of hierarchy in teams; can potentially improve buy-in and participation
  - Reduction of travel time and expenses
  - Lower carbon footprint and ability to participate in more meetings/conferences than would otherwise be possible
  - Often online meetings are more carefully planned/designed so they actually are better



# Comments

- *Can my holographic avatar be baby yoda?*
- *I can't help but wonder if the 40-hour work week is an unsustainable model given the mental, physical, and familial practicalities that come with working from home. I wonder if environmental organizations are beginning to consider a shift to more flexible work hours or even (a permanent shift towards) reduced work hours. Probably not a conversation we can, or need to have, today.*
- *Thanks all for your thoughtful insights! This was very thought provoking and helpful to hear ideas discussed that are not often given space in day-to-day work conversations.*

## From shared document: What do you see sticking around?

- *Better meeting planning that focuses on topics best taken on for the various types of meetings we are having (phone, video, in person) and not over doing meeting topics to focus on best use of people's time and attention.*
- *Fewer international and large meetings. The rate of vaccination worldwide will vary so it is unlikely that we will have large (2000+ people) conferences even by 2022.*
- *Prioritize face to face conversations once safe and recognize that looking someone directly in the eye builds trust (there is no peace treaty that I know of that was signed over a webinar)*



# Looking ahead

*Next month's webinar:*

**Understanding the Interconnectedness of Climate Change, Salt Marsh Resilience, and Nuisance Mosquitos**

Tuesday, February 23, 2021, 3 - 4 PM ET

**Speaker:** Richard Lathrop, Rutgers University



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Additional slides



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# Collaborative Research in a Virtual World:

The Implications of COVID-19 Social  
Distancing for the Co-Production of  
Environmental Knowledge & Solutions

[Watch James present these slides](#)

## Collaborative Science for Estuaries Webinar

James Arnott  
Aspen Global Change Institute

*December 16, 2020*

# Acknowledgements

- **Patrice Russell** (AGCI & U of Toronto)
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- **Cristina Echeverria** (CA Strategic Growth Council)
- ★ **Doug George** (NOAA, NERRS)
- ★ **Jennifer Read** (NERRS Science Collaborative)

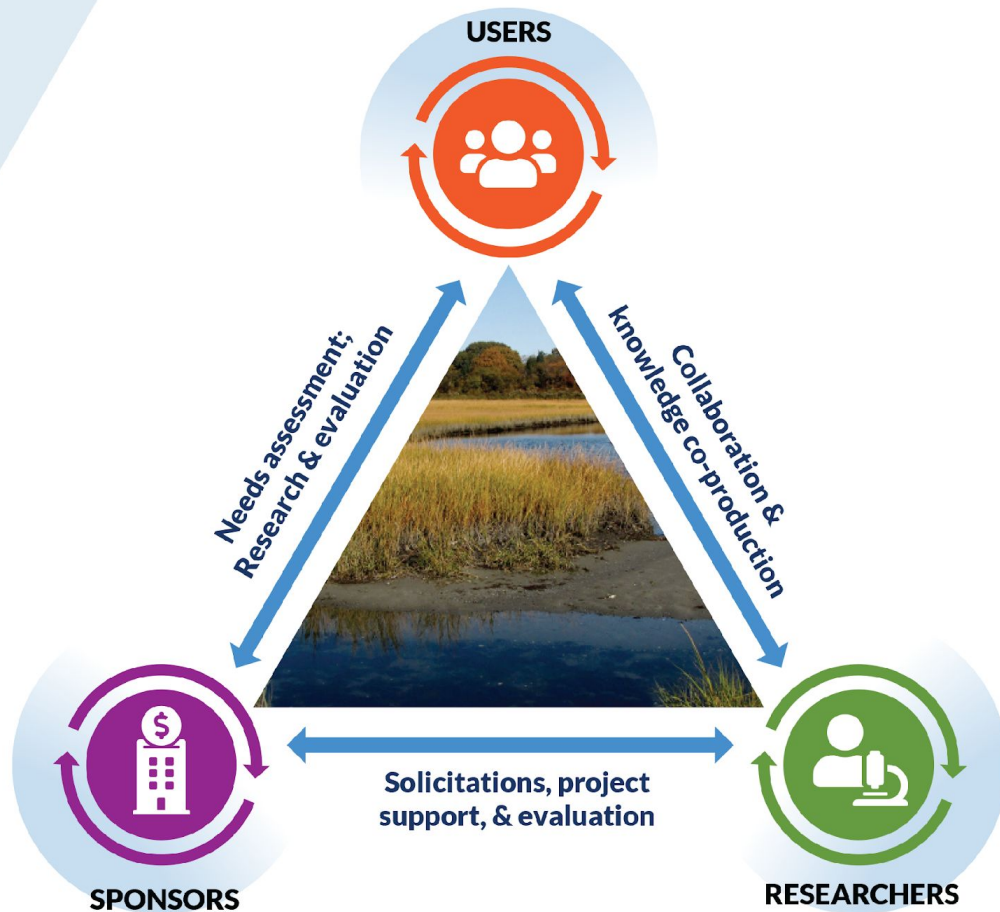
- **Nick Soberal** (NERRS Science Collaborative)
- **Lynn Vacarro** (NERRS Science Collaborative)
- **Maeghan Brass** (NERRS Science Collaborative)
- **Susanne Moser** (NERRS Science Collaborative & Independent Researcher)
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- **Chelsea Combast-Friedman** (NOAA RISA)
- **Sean Bath** (NOAA RISA)
- ★ **Ariela Zycherman** (NOAA RISA).

★ On today's webinar

## A. Traditional Funding Model

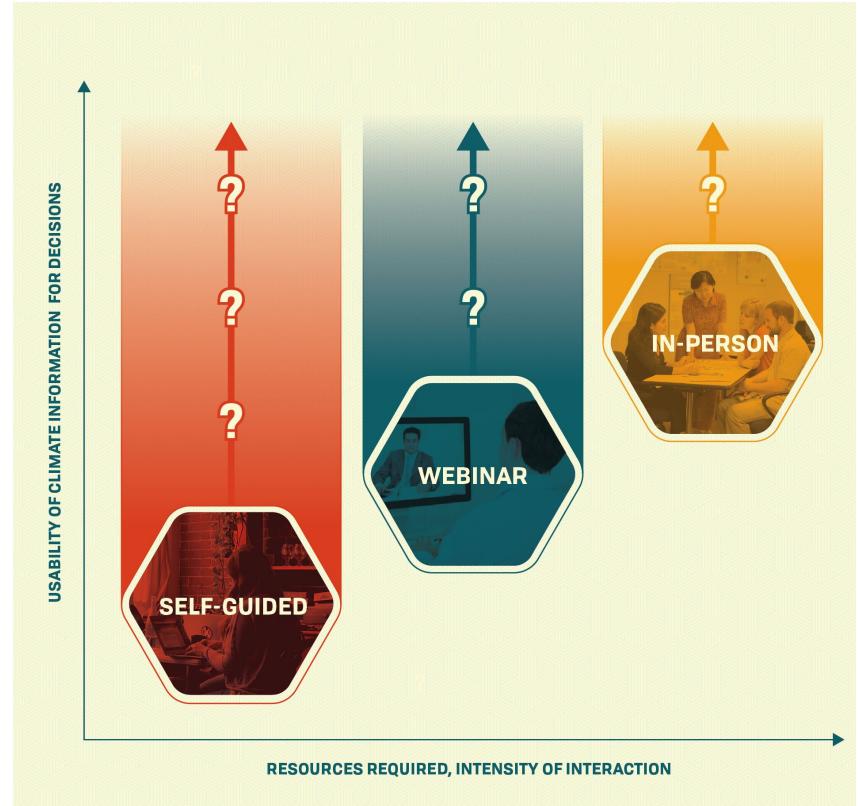


## B. Impact-oriented Funding Model



# Is closer always better?

Research prior to pandemic was already beginning to explore the impact of virtual interactions on collaboration and research use.







Credit: Fabrizio Villa,  
Getty



Credit: Lindsay Wasson, Reuters



Credit: Jason Redmond, Reuters



Credit: Yassar Al-Zayaat



# Study Objectives

Learn from the COVID-19 shock to research collaboration with practitioners/users/stakeholders...

- Compare modes and intensities of interaction pre/post pandemic onset
- Qualitatively assess benefits, constraints, and potential strategies
- Identify questions for future research & evaluation

# Methods

- **Rapid response partnership** between 5 funders + 1 boundary organization.
- Distributed co-designed survey to grantees performing collaborative research
  - *Projects w/ 6 months pre/post = 35*
  - *All responses = 45*
- Survey data analysis & qualitative content analysis



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**RISA**

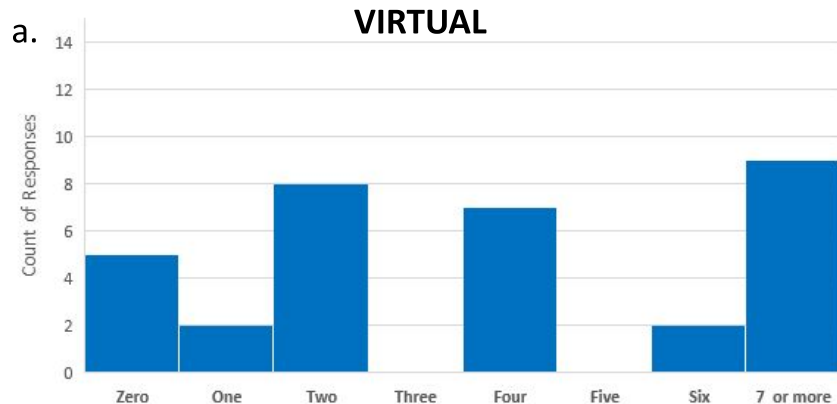
Regional Integrated  
Sciences and Assessments



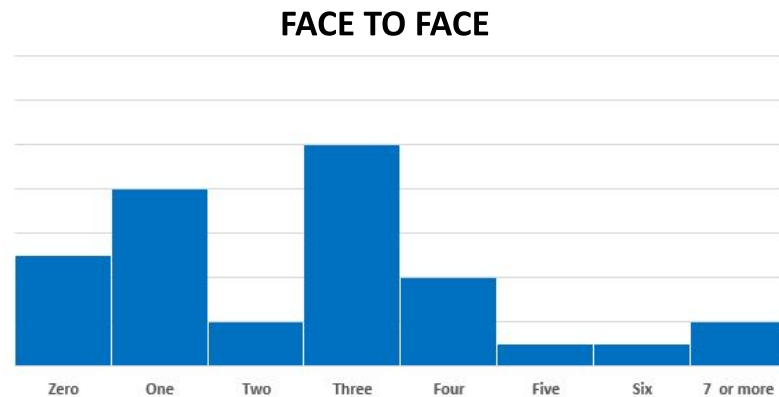
# Results (Preliminary)

# Nearly all interactions have gone virtual

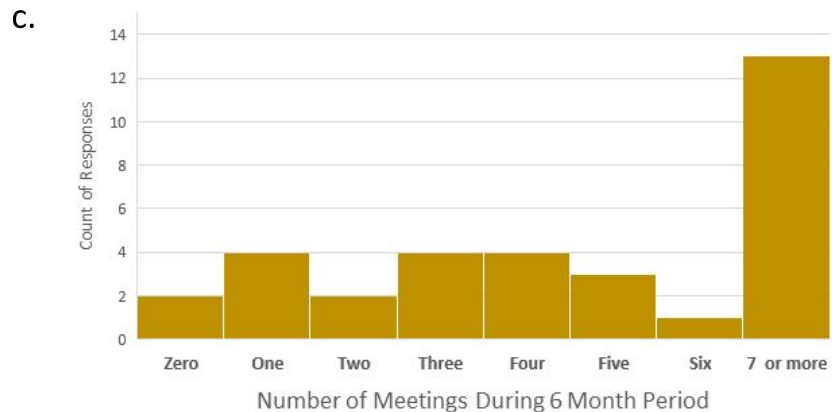
PRE-PANDEMIC



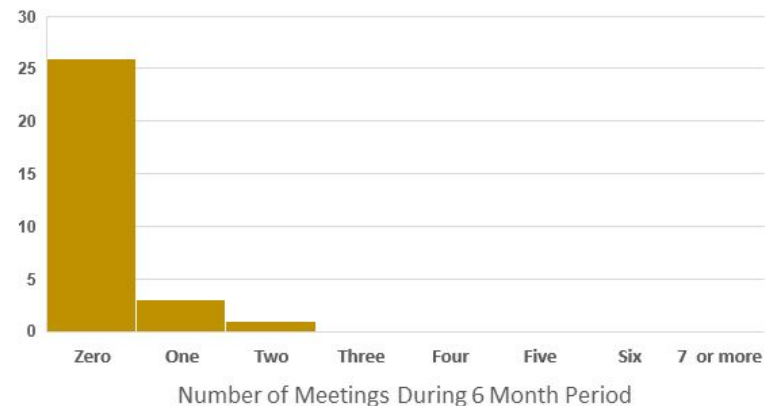
b.



POST PANDEMIC ONSET



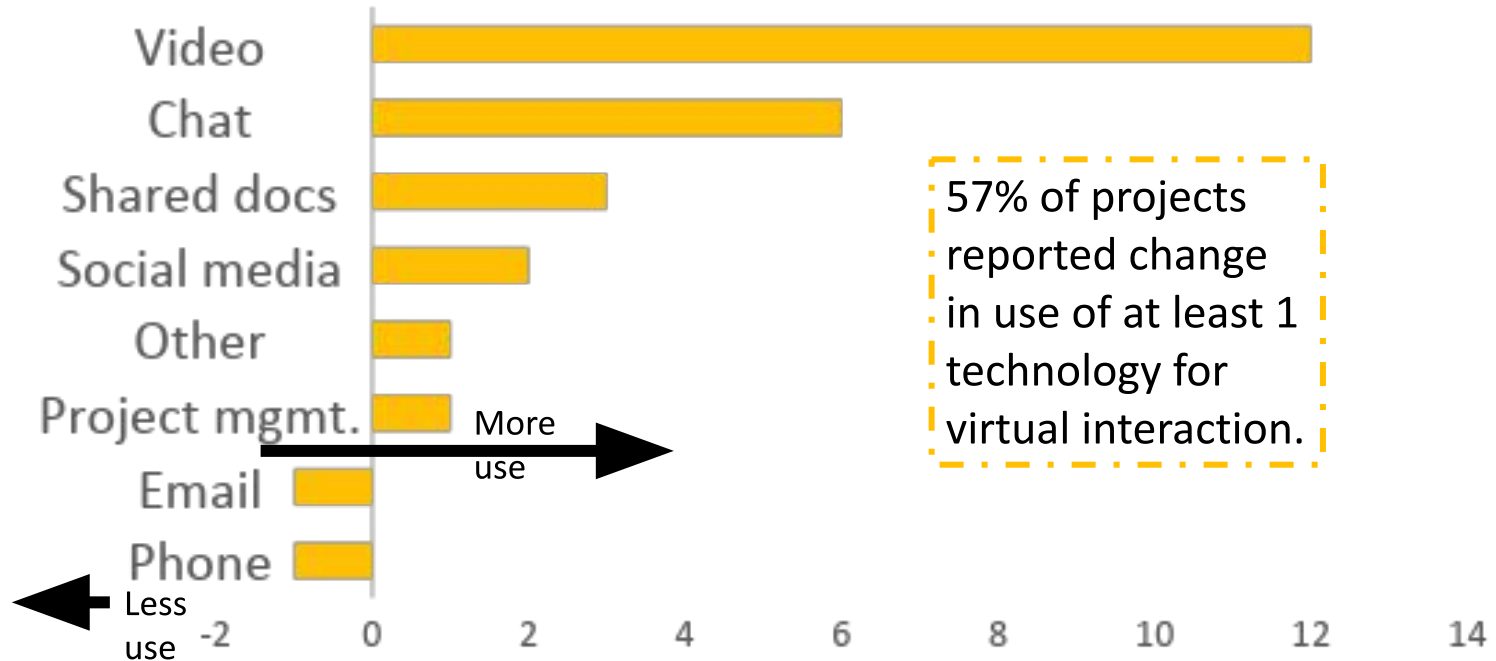
d.



$n = 35$




# Many projects are using new tools

Change in technology use Mar - Aug 2020, relative to Sep 2019 – Feb 2020





# Participation? It depends...

Typical Number of Participants (n=34)	Pre-Pandemic Sept. 2019 – Feb. 2020	Post Pandemic Onset Mar – Aug 2020
Average 	10.29	18.26
Median 	9	6.5
Standard Deviation 	7.26	46.16

*“People are more comfortable using online platforms since most are moving to virtual platforms to continue their work”*

*“[d]ifficulty in getting adequate attention from management, policy and wider stakeholder groups (e.g., fishers and NGOs). These people are dealing with wider virus issues.”*

# Challenging the essence of collaborative research

Ability to **cultivate trust**



Ability to build **new relationships**



Level of **productivity**



Level of **engagement**



■ Significantly decreased   ■ Moderately decreased   ■ No change   ■ Moderately increased   ■ Significantly increased

# Pandemic-related challenges dominate technical



# Constraints

*What constraints (if any) have you experienced in using modes of virtual engagement in your project?*

- “Less opportunity for spontaneous discussions. No opportunity for direct connection...”
- “Low-income community engagement is extremely hard to do through virtual tools.”
- “Distractions, both generally in the work day and specifically in virtual meetings, created challenges for group work.”
- “peoples’ schedules are becoming ever more filled with Zoom meetings.”

Theme	Frequency of mention
Barriers to social interaction & relationship building	19
Partner’s access & bandwidth	9
Technology challenges	9
Fatigue & distraction	8
Elimination of place-based work	7
Coordination challenges	5
Conceptual challenges	5
Reduced productivity	4
<i>Lack of constraints</i>	6

# Benefits

*What benefits (if any) have you experienced in using virtual modes of engagement in your project?*

- “It has made connecting with people across our large study area [...] easier because people are more willing to join virtually since that's all we're doing now.”
- “Greater accessibility to potential new partners”
- “presenting information in different ways...offering alternatives to engage stakeholders.”
- Pandemic “has made the [virtual] technology more accessible and commonplace.”

Theme	Frequency of mention
Increased convenience & efficiency	14
Broadening participation	10
Improved interaction & group dynamics	5
Learning opportunities	4
Increased frequency	3
Sustainability	1
<i>Skepticism, or none to report</i>	6



# Strategies

- Zoom dominates the lexicon
- Chat-style, “quick communication”
- “Shorter time blocks, much more active facilitation.”
- “...Accepting that work cannot continue business as usual.”
- “Repeated electronic connection.”
- “Still working on this... Not sure.”

Theme	Frequency of Mention
Use of specific tools	11
Changes to meeting duration, format, & facilitation	9
Being adaptive, flexible, or responsive	7
Project management and planning	5
None (yet)	4



# Conclusions

1. Collaborative research since pandemic has been **(nearly) all virtual**, with many projects adopting **new virtual tools**.
  2. **Virtual tools have helped collaborative projects continue**, but essential features of collaborative research are (often) hamstrung (e.g., relationship building, engagement)
  3. Pandemic and related distractions (childcare, etc.) feature more prominent than technology challenges. **We expect benefits/constraints to continue to evolve.**
  4. Uneven playing field apparent (e.g., partner access/knowledge/trust in virtual technologies). **We wonder about those not surveyed and the questions we didn't ask.**
  5. Virtual collaborative research amid a pandemic reminds us of **underlying factors that have long influenced who is able to participate and how.**
-

# Thank you!

**James Arnott**

Executive Director

Aspen Global Change Institute

[jamesa@agci.org](mailto:jamesa@agci.org)

@jcarnott