

THE WATER INSTITUTE  
GULF CENTER FOR EQUITABLE  
CLIMATE RESILIENCE

# GCECR KICK-OFF WORKSHOP REPORT

*Report of activities, methods, and results from the GCECR Kick-Off Workshop,  
November 8, 2023, Jedco Convention Center, 701A Churchill Parkway, Fairfield,  
LA 70094*

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## **ABOUT THE WATER INSTITUTE**

The Water Institute is an independent, non-profit, applied research institution advancing science and developing integrated methods to solve complex environmental and societal challenges. We believe in and strive for more resilient and equitable communities, sustainable environments, and thriving economies. For more information, visit [www.thewaterinstitute.org](http://www.thewaterinstitute.org).

## **ABOUT THE GULF CENTER FOR EQUITABLE CLIMATE RESILIENCE**

The Gulf Center for Equitable Climate Resilience (Center) works with a network of individuals and organizations to enhance and expand climate resilience equitably among individuals and communities in the Gulf of Mexico. We are working to move beyond assessment and study of risk towards an exploration of strategies that can be implemented across individual, neighborhood, municipal, state, and federal levels.

## **SUGGESTED CITATION**

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## PURPOSE AND PROCESS

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### PURPOSE

The GCECR Kick-off Workshop report was compiled to inform participants and other stakeholders about the topics discussed at the workshop.

### PROCESS

Laura Talbert, Christy Craig, Audrey Grismore, and Colleen McHugh compiled the report. Renee Collini conducted a content review. Charley Cameron edited the report to maintain technical editing standards.



## EXECUTIVE SUMMARY

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The Gulf Center for Equitable Climate Resilience (GCECR)<sup>1</sup> Kick-Off Workshop was held to expand individual's and organization's networks across the northern Gulf and review the preliminary assessment of equitable climate resilience gaps and needs statements. Participants then used the identified needs statements to set GCECR priorities.

The workshop outlined the GCECR's three pillars of work: increasing action, advancing literacy, and expanding research. Then participants learned how the pillars are connected using cross-cutting methods of convening, collaborating, and coordinating approaches.

To inform the discussion, a review of known work on equitable climate resilience was presented to workshop participants in the form of needs statements organized by topic area. Participants discussed and evaluated if there were any missing needs statements or if there were any revisions. Participants then ranked the needs statements to help identify the two additional focus areas of GCECR. Participants identified Flood Risk and Water Infrastructure and Migration as additional priority areas of interest for GCECR. The Insurance and Fundamentals focus areas had been previously identified by GCECR staff.

After deciding the additional two areas of interest, participants listed action, literacy, and research approaches for the Insurance, Fundamentals, Flood Risk and Water Infrastructure, and Migration focus areas.

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<sup>1</sup> GCECR is referred to throughout this report; however, since the time of writing it was determined, as a result of feedback from across the region, that the name of the Center be changed. There are many reasons for this including: 1) partners have pointed out that the name feels jargon heavy and difficult to say; 2) partners that the GCECR has been trying to connect with do not see themselves in the name. The new name is the ***Community Resilience Center at The Water Institute***; this was selected because a community center is a place within a neighborhood where people go to gather and find community and support. The addition of the word resilience helps make it clear that it is our mission – a place for people to gather and find community and support around resilience.





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## LIST OF ACRONYMS

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Acronym	Term
CBO	Community based organization
GCECR	Gulf Center for Equitable Climate Resilience
MDMR	Mississippi Department of Marine Resources
NAS-GRP	National Academies of Sciences - Gulf Research Program
NOAA	National Oceanic and Atmospheric Administration
NOLA	New Orleans, Louisiana
PLACE: SLR	Program for Local Adaptation to Climate Effects: Sea-Level Rise
SLA	South Louisiana
SBP	St. Bernard Project
SWLA	Southwest Louisiana



## WORKSHOP OVERVIEW

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### WORKSHOP OBJECTIVES

Objective 1: Build new and existing partnerships across the Gulf in equitable climate resilience.

Objective 2: Prioritize and identify equitable climate resilience focus areas and activities for the GCECR.

Objective 3: Refine the role of the GCECR in the broader Gulf climate resilience and environmental justice landscape.

### WORKSHOP ATTENDEES

Ali Rellinger, PLACE: SLR

Christy Craig, The Water Institute\*

Allison DeJong, The Water Institute^\*

Colleen McHugh, The Water Institute\*

Ana Acosta Forbes, Louisiana Division of Administration, Office of Planning

Dan Burger, NAS-GRP ^

Andreanecia Morris, Housing NOLA

Danny Patterson, Gulf States Health Policy Center^

Arthur Johnson, Center for Sustainable Engagement and Development

Dexter Ellis, The Water Institute\*

Asia Ognibene, Together New Orleans

Donta Council, Federal Reserve Bank of Atlanta^

Audrey Grismore, The Water Institute\*

Ebony Midcalf, Education, Economics, Environmental, Climate, and Health Organization

Austin Feldman, City of New Orleans

Elizabeth Daigle, SBP^

Beaux Jones, The Water Institute\*

Heidi Stiller, NOAA Office of Coastal Management^

Bridget Carle, Guy Carpenter

Jane Nguyen, Boat People SOS^

Broderick Bagert, Together New Orleans

Jenna Harper, Florida Department of Environmental Protection^

Carolyn Martin, City of Ocean Springs^

Jessica Duggan, United Houma Nation

Casi Calloway, City of Mobile

Jessica Simms, NAS-GRP

Charles Sutcliffe, Governor's Office of Coastal Activities

Jill Galmarini, Community Foundation of SWLA

Chief Deme (JR) Naquin, Jean Charles Choctaw Nation

Jonathan Green, Steps Coalition^

Chris Verlinde, Santa Rosa County^

Katya Wowk, The Water Institute^\*



Kelly Samek, NOAA ^

Kristin Ransom, NOAA Office for Coastal Management

LaKesha Hart, Louisiana Office of Planning and Budget

Lanor Curole, United Houma Nation

Laura Talbert, The Water Institute\*

Leslie Gahagan, City of Foley, Alabama

Liv Haselbach, Lamar University, Civil & Environmental Engineering

Liz Russell, Environmental Defense Fund

Maida Owens, Louisiana Folklife

Maitland Thull, City of Mobile

Marian Hanisko, NOAA Office for Coastal Management^

Melinda Gates, Walton County Board of County Commissioners^

Naisy Dolar, Santa Rosa County

Nastaran Tebyanian, The Water Institute^\*

Niki Pace, Louisiana Sea Grant

Peter Waggonner, Greater New Orleans, Inc.

Qiyamah Williams, PLACE: SLR

Renee Collini, The Water Institute\*

Rhonda Price, MDMR

Scott Hemmerling, The Water Institute\*

Sherrie Forrest, Gulf Research Program

Tisha Holmes, Florida State University^

Traci Goodhart, Walton County^

Tracie Sempier, Mississippi-Alabama Sea Grant Consortium^

\*Denotes affiliation with project team, ^Denotes virtual attendee



# INTRODUCTION

The Gulf Center for Equitable Climate Resilience (GCECR) Kick-off Workshop was held to engage and build networks with a wide range of individuals and organizations working in the northern Gulf of Mexico on equitable climate resilience. Participants also reviewed the GCECR’s preliminary assessment of gaps and needs in equitable climate resilience. Participants then used this assessment as a starting point to begin setting GCECR priorities.

The GCECR hosted 27 in-person participants at the Jedco Center, 701A Churchill Parkway, Fairfield, LA 70094, from 8:30–4:30 on November 8, 2023. 18 participants joined virtually via Teams.

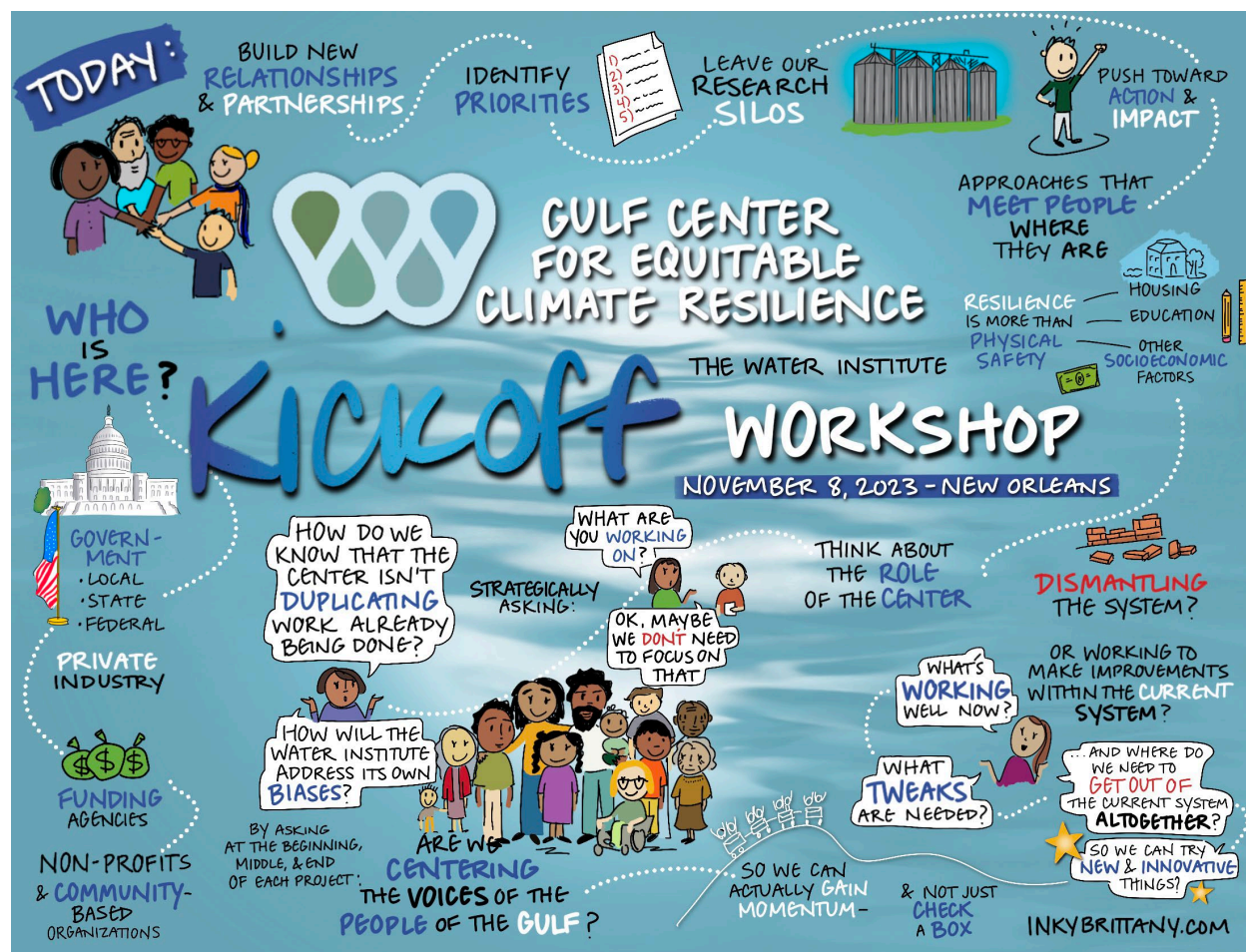


Figure 1. This graphic, created by Inky Brittany, summarizes the GCECR Kick-off workshop’s morning talks and discussions, the people involved, and strategic questions of the day.



## DESCRIPTION OF WORKSHOP ACTIVITIES AND CONTENT

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### WELCOME, INTRODUCTIONS, AND ICEBREAKER

Upon signing into the workshop, in-person participants received a folder with printed materials. Virtual participants received links to electronic materials and were mailed printed copies ahead of the workshop. GCECR staff encouraged all participants to take part in the welcome activity, which was a mapping activity to show the geographic range of participants. Beaux Jones, president and CEO of The Water Institute (the Institute), welcomed all participants and reviewed the digital map that showed the wide distribution of participants (Figure 3). Renee Collini, Director of GCECR, introduced the Institute staff who would be facilitating the workshop. Renee also introduced the workshop's graphic recorder, Brittany Curry with Inky Brittany. A graphic recorder was used to visually capture the day's themes and highlights through hand drawn imagery and descriptive text. Inky Brittany then converted the hand drawn images into digital products for GCECR to use in the future and use them into this report. Renee also reviewed the objectives, workshop norms, and agenda for the day. Beaux then led everyone in an icebreaker to help participants get to know each other better.



*Figure 2. Participants got to know one another through an icebreaker.*



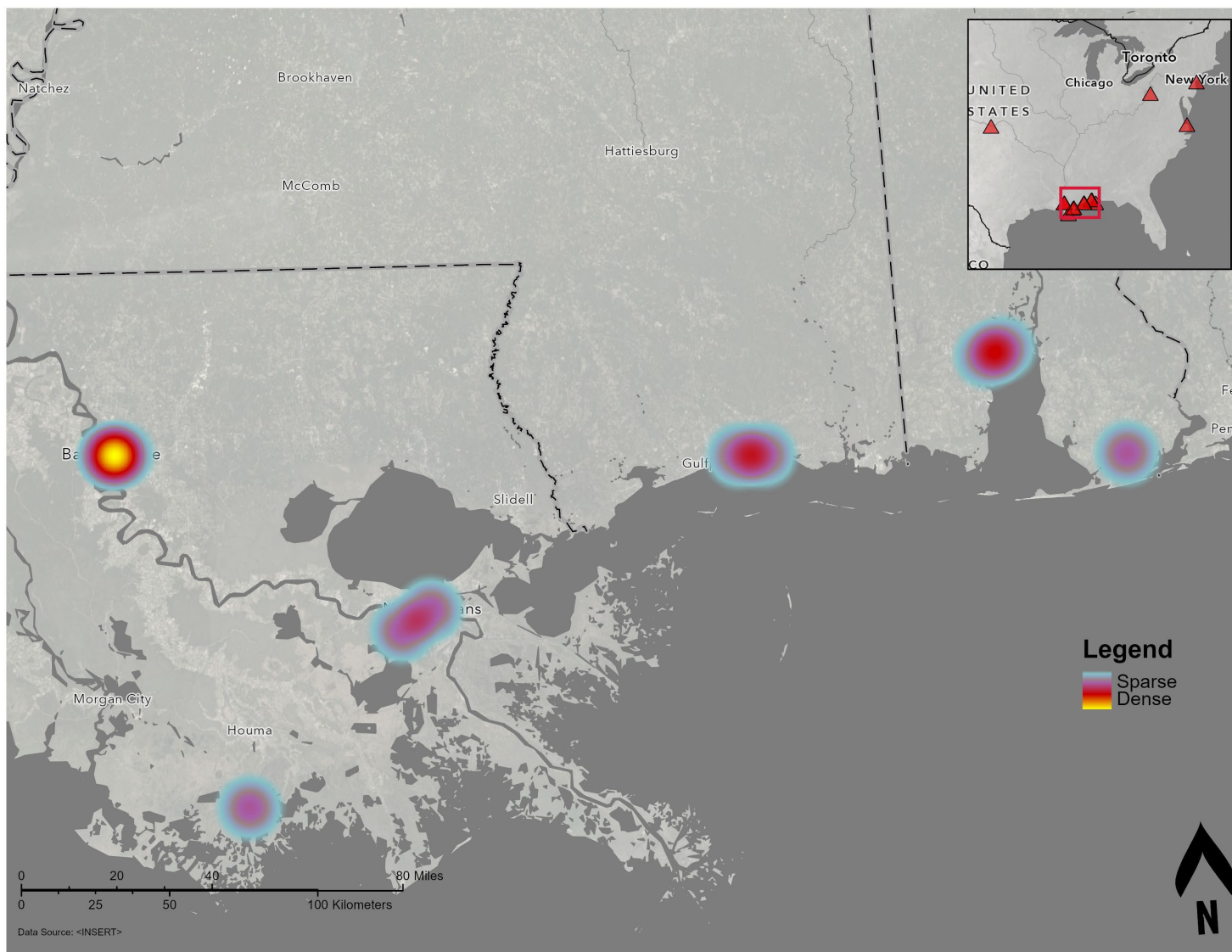


Figure 3. A heat map showing the concentrations of participants across the Gulf. The inset map shows the larger distribution of participants across the country.



Figure 4. Brittany Curry, of Inky Brittany, provided graphic facilitation for the day.

## GCECR OVERVIEW AND BACKGROUND

Renee began by defining GCECR key terms including equity, marginalized communities, and underserved communities. Next, Renee outlined the GCECR's three pillars of work: increasing action, advancing literacy, and expanding research, through the cross-cutting methods of convening, collaborating, and coordinating. To prepare for the workshop, the GCECR synthesized equitable climate resilience examples and efforts. The GCECR conducted this synthesis to ensure it does not replicate ongoing work and that the focus is on attainable priority needs for the Gulf. Prior to the workshop, GCECR staff selected Fundamentals and Insurance as two focus areas. Renee explained that an output would be for participants to identify two more focus areas. After deciding on the two new focus areas, participants would collaborate to list literacy, research, and action activities for all four focus areas.

## EXISTING KNOWLEDGE SYNTHESIS

Nastaran Tebyanian, Decision Scientist at the Institute, virtually presented the analysis of existing equitable climate resilience efforts in the Gulf. Nastaran summarized what research, literacy, and action needs were identified. First, Nastaran conducted a bibliometric analysis of peer-reviewed literature, which is a statistical analysis of books, articles, or other publications. The analysis found that the literature overwhelmingly focused on environmental aspects of climate resilience and overlooked the social or cultural aspects. Next, a targeted Google search was conducted for documents like strategic plans, assessments, or other documents that were related to the social determinants of health (SDOH). Based on this sample of documents, topic modelling identified 11 general topic areas with related action words (Figure 5). These 11 topic areas and related action words were used to develop equitable climate resilience needs statements based on GCECR staff knowledge (see Figure 6; Appendix A). Lastly to understand potential topic areas for GCECR to focus on, Nastaran executed another targeted internet search for programs, organizations, strategic plans, and activities in the Gulf guided by the SDOH terms. The identified programs, organizations, strategic plans, and activities were then connected back to the





previously identified 11 general topic areas to estimate which topics have a lot of activity and which do not (see Appendix A).



*Figure 5. The 11 topic areas identified by reviewing documents related to equitable climate resilience needs in the Gulf.*

After participants learned how GCECR staff developed and sorted the needs statements by topic area, Renee asked participants to independently review the needs statements. Renee asked participants if any topic areas were missing from the 11 identified topic areas (Figure 5). Participants raised several missing topic areas, including cultural networks, agriculture (i.e., fisheries), and the unique demographics of the Gulf’s population. People raised concerns about the effectiveness of bibliometric analysis and some organization’s work being excluded. It was noted that not all organizations have the resources to publish their work, and this method excluded their efforts. Renee emphasized that this analysis was just a sample of existing work in the Gulf, and that is why the discussion of missing topic areas was so critical.



## Water Infrastructure

*Action Words:* Develop, improve, invest, provide, support

### *Statements*

- There is a need to identify and address gaps in inclusive decision/policy-making processes around infrastructure investment and improvement programs/policies at multiple government scales.
- There is a need to understand and address how infrastructure is affected as climate changes and the impacts that has in marginalized and under resourced communities.

*Figure 6. An example of the Water Infrastructure topic area action words and needs statements.*

Renee then asked participants to give feedback on the needs statements individually and in a group discussion. In-person participants placed stickers onto large posters of the needs statements they felt needed further discussion or revision. If there were needs statements or topic areas they felt were missing, participants were able to write them onto a flip chart. Virtual participants used a Padlet site to complete the activity facilitated by Institute staff (see Appendix A). After a group discussion, no needs statements were removed. Participants jointly revised statements to include the importance of social cohesion, cultural preservation, and accountability. They also revised multiple needs statements to recognize the biases in our systems and ensure the statements reflected that biases do occur.



*Figure 7. Participants engaging in the needs statement discussion.*



## CASE STUDIES IN GULF EXCELLENCE

Three workshop participants presented their work as case studies to highlight Gulf excellence and celebrate ongoing successful work among colleagues. The case studies highlighted examples of existing efforts/activities to tackle climate resilience across literacy, research, and action. An additional goal of this portion of the workshop was to provide examples of activities that participants may not traditionally consider climate resilience efforts.

Maida Owens, Louisiana State Folklorist, presented as an example of cultural literacy and the incorporation of climate change into discussions on culture. Maida spoke about her work to preserve cultural heritage, support local knowledge bearers in passing on their practices, and to integrate climate change into those endeavors.

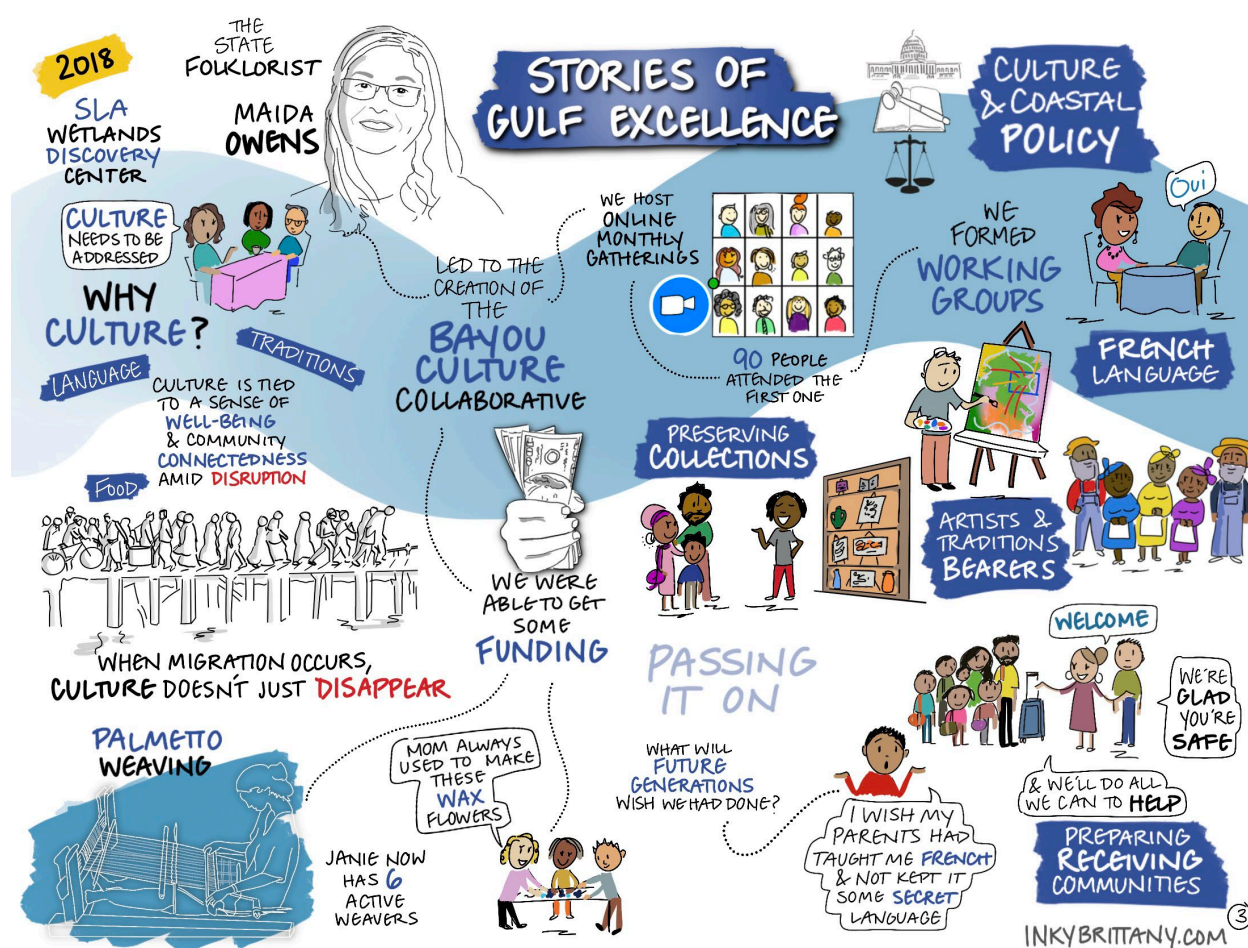


Figure 8. The above graphic, created by Inky Brittany, depicts Maida Owens' presentation on the conversations surrounding culture and coastal policy, funding, and preparing receiving communities.

Broderick Bagert and Asia Ognibene, with Together New Orleans, presented an example of action by creating community lighthouses. Broderick and Asia spoke about Together New Orleans' efforts to support communities in fighting the impacts of worsening heat from a health and fiscal perspective by installing solar panels coupled with battery banks.





Figure 9. The above graphic, created by Inky Brittany, depicts Asia Ognibene and Broderick Bagert's presentation on their efforts to set up resilience centers through their Community Lighthouse program.

Tisha Holmes, Associate Professor at Florida State University, presented virtually as an example of research on dynamics and potential for displacement. Tisha discussed her research to understand what factors make an area susceptible to climate gentrification and how this information is being operationalized by local organizations.



Figure 10. The graphic above summarizes Tisha Holmes' presentation on researching the specific factors putting communities at risk for climate gentrification.

After the examples, Renee asked participants to reflect on what they had heard and consider if they had learned about innovative approaches or issues. Participants discussed concerns and threats surrounding cultural elements that could eventually cease to exist due to climate migration.

## PRIORITIZING FOCUS AREAS

After participants heard about examples of equitable climate resilience, Renee transitioned the group back to reviewing the needs statements. She explained that the purpose of this exercise was to show which needs statements have little to no activity based on participants knowledge. This would help participants identify focus areas for GCECR. Participants independently reviewed the assessment of gaps in equitable climate resilience in the Gulf (see Appendix A for list of needs statements). Needs statements highlighted in red meant there was currently minimal work in this area. A yellow highlight meant there was some work occurring in this area. A green highlight meant there was a lot of work occurring in this area. To view preliminary gap levels, see Appendix A.

Online and in-person participants made suggestions to change the needs statements gap level colors that did not match their knowledge of the level of work being done. This activity was a brief review of the



needs statements overall. It also ensured the needs statements aligned with participant’s knowledge of local needs. Everyone was encouraged to ask follow-up questions and take part in the group discussion.

After everyone agreed on the level of ongoing effort for each statement, participants were asked to identify which statements should be the top two additional priorities for the GCECR. In-person participants received two star stickers to put next to their top choices for priority needs statements, and virtual participants used a Padlet site to thumbs-up their choices. As participants were making their selections, they were asked to consider areas that fit within the three pillars and scope of the GCECR. Participants also considered needs statements that would build capacity in the existing ecosystem of equitable climate resilience in the Gulf. Using the star stickers on the posters and thumbs up reaction in Padlet, participants indicated the top four needs statements as follows:

1. There is a need for development and implementation of flood risk management practices that acknowledge contextual discriminatory policies (e.g., redlining, traditional cost-benefit analyses) that put marginalized communities at higher flood risk.
2. There is a need to identify and address the gaps in inclusive decision/policy-making processes that guide climate migration coordination, planning, and implementation.
3. There is a need to improve and develop new mechanisms for affordable and accessible hazard and flood insurance for low- and moderate-income families.
4. There is a need to identify and address gaps in inclusive decision/policy making processes around infrastructure investment and improvement programs/policies at multiple government scales.

Statements one and four were combined into a single flood risk and infrastructure needs statement. They share common elements about the decision-making and management processes for infrastructure and communities associated with flood risk. Statement two was changed slightly based on the group discussions of the statements. Statement three aligned with the already decided Insurance focus area.

After revisions, the top two areas of interest were:

Flood Risk and Water Infrastructure: There needs to be development and implementation of flood risk management practices and inclusive policy making processes that acknowledge cultural connectedness and historical inequities (e.g., redlining, traditional cost-benefit analyses).

Migration: There is a need to identify and address the gaps in inclusive decision/policy making processes that guide climate migration coordination and planning, as well as implementation for migrating and receiving communities.

## IDENTIFYING ACTIONS

After successfully identifying the two additional focus areas, flood risk and water infrastructure and migration, in-person participants split up into small groups. At breakout stations, the groups brainstormed research, literacy, and action activities that could be undertaken by the GCECR in the four focus areas: Flood Risk and Water Infrastructure, Migration, Insurance, and Fundamentals. Participants also suggested potential collaboration partners for GCECR at each breakout station. The small groups spent 15 minutes





at each focus area station, rotating until they had worked at all four breakout stations. Virtual participants completed the activity as one group using a Padlet site for each focus area. GCECR team members facilitated discussion and took notes at each station and in the online group.



*Figure 11 and Figure 12. Participants split up into small groups to brainstorm ways GCECR could tackle research, literacy, and action in the four priority focus areas.*

## REPORT OUT ON IDENTIFYING ACTIONS ACTIVITY

The in-person and virtual participants came back together to hear facilitators summarize each focus area's main takeaways.

The Fundamentals focus area reported out first. At this station, suggestions centered around incorporating inclusivity and equity. This included that GCECR could research ways to pursue accountability in inclusive decision making and work to ensure demographic data is inclusive of the community's perspective. Another common theme was how to communicate about climate change. Multiple participants raised the possibility of GCECR acting as a translator of scientific research into common language. It was suggested that GCECR could provide a space to discuss next steps to actively combat climate change. Other participants pointed out that discussions need to frame climate resilience as a present issue rather than a future one. Most of the suggested actions revolved around building fiscal, planning, and implementation capacity.

For the Insurance focus area, participants suggested that GCECR focuses on increasing consumers, insurers, and communities' understanding of insurance policy types and included or excluded coverage. GCECR could provide communities, individuals, and local governments with a basic knowledge of insurance: what is covered, what is available, and how to stay insured. Risk reduction, risk collection, and resilient building standards were also discussed as areas that communities and individuals need more information on. Participants were also interested in piloting community based catastrophe insurance.

The climate migration coordination, planning, and implementation focus area was shortened by GCECR to Migration for ease. Participants suggested research into who is forced to relocate versus those who



decide to relocate. There is also a gap in research on how to avoid or ease migration decisions and stress. Participants discussed connected research and action concepts about how GCECR could research how to aid or inform the migration process and reduce the burden of migration. One idea was to conduct culturally competent research prior to a community relocating. This would help identify what community members value in their current community or have a connection to and what valued elements can be transferred or replicated at the relocation site. Again, participants raised the issue of equitable resource distribution for migration to communities. Concerns were raised that not all communities receive the same resources, and the data used to inform migration decisions is not representative of everyone in a community (e.g., people who rent their home, people without credit). Participants suggested GCECR research migration narratives from those migrating or displaced and the communities receiving climate migrants. Another research suggestion was for a migration communication strategy on the potential for and a timeline for action. Having a clear migration communication strategy would be helpful for both community members and local stakeholders to know how to talk about this difficult topic. Participants also suggested a need to find receiving communities through research and for choosing the migration location to be grounded in research.

The last focus area to report was flood risk management practices and water infrastructure. Multiple participants suggested the GCECR research land use policies. GCECR should research and apply policy models that address the historical context of land use and consider inherent inequities in the system that have increased flood risk. Participants raised the issue of communities overlooked or left behind by federal programs and suggested more research is needed to figure out how to connect federal programs with communities who need them. Another question posed was how to hold permit issuing agencies accountable for approving land development that increases flood risk for communities, particularly marginalized or underserved communities. Like the insurance focus area, participants said GCECR could help convey information to communities through trainings or workshops on flood risk, community rating system, and flood adaptation.

To wrap up this session, Renee asked participants for activities for the Health and Housing topic areas, which were the two runner ups in the vote for possible GCECR focus areas. Participants shared the need to understand the health impacts from urban heat and pollutants, communicate the best practices around heat, and develop a method to quantify the cost of extreme heat for individuals and communities. More broadly, participants highlighted the need for equity in all policy development and to implement best practices for government-community engagement.





### Recurrent Suggested Actions for GCECR

- Tackle literacy and research gaps around complex issues
- Provide better socioeconomic data to hold decision makers accountable, track equity metrics, and promote transparency
- Address policy options for community led climate migration, ensuring self-determination
- Develop a peer-to-peer network to support collaboration across the Gulf
- Develop pilots to serve as alternatives to traditional processes

## COMMUNICATIONS AND OTHER HOUSEKEEPING

In the second to last session of the day, GCECR staff asked for feedback on the mission and vision of the GCECR, the implementation committee, and participant's communication preferences. Staff encouraged participants to share opinions and feelings on these topics to facilitate an open dialogue.

### Mission and Vision Statements

Colleen McHugh, Senior Planner at the Institute, shared the first draft of the GCECR's Mission and Vision Statements with workshop participants for reactions, areas of concern, missing elements, and other feedback.

#### *Mission Statement*

Tackle systemic processes, challenges, and barriers to enhance and expand equitable climate resilience among individuals and communities in the northern Gulf of Mexico by:

*Convening, coordinating, and collaborating with an integrated network in the Gulf of Mexico operating at the intersection of equitable climate resilience.*

*Advancing literacy and improving knowledge sharing about the risks, needs, and opportunities for improving climate resilience in underserved, frontline communities.*

*Expanding research focused on understanding potential solutions to the policies, processes, and systemic barriers that generate and sustain inequity in climate resilience.*

*Increasing action by providing support so that a greater number of individuals and communities can pursue inclusive climate resilience planning and activities.*

#### *Vision Statement*

*Our vision is a shift in the paradigm of climate resilience, making it more inclusive, and directly confronting the systemic issues that have perpetuated disparities in power, knowledge, and resources along the Gulf Coast.*



Participants shared that the vision statement should focus more on goals for the community outcomes of GCECR work. The feedback also noted that the vision and mission statements should better connect to each other. It was also mentioned that the GCECR mission statement should relate to the Institute's mission more directly. Renee and Colleen will incorporate this feedback into revisions to the GCECR Mission and Vision Statements.

### **Main Takeaways from Mission and Vision Discussion**

- Define “equitable climate resilience” as part of vision/mission or framing problem statement.
- Avoid jargon terms like “paradigm shift.”
- Vision statement is missing some of the key terms and focus of the mission statement.
- Vision statement should include language about desired, attainable outcomes for communities themselves.
- Mission should acknowledge strengths of the Gulf Coast.
- Mission of the GCECR should tie to mission of the Institute.
- Mission could better include the goal of providing alternatives to current policies and processes (shifting the “Overton window”).

### **Implementation Committee**

Renee introduced what, who, and why GCECR formed an implementation committee to the participants. The implementation committee is a small group of individuals who meet quarterly to inform direction, track progress, and contribute to different projects and priorities moving the GCECR forward. Several committee members have already been identified. Renee explained that there is a need for topic representation in migration and health and geographically in Texas. Two people volunteered and more brainstorming will continue.

### **Different Ways of Connecting**

Both virtual and in-person participants agreed that the level of communication by the GCECR team prior to and leading up to the workshop was right and clear. There was a consensus that email is the preferred form of communication. An improvement mentioned is adding a Google calendar invitation in addition to the Microsoft Outlook calendar invitation. Additionally, participants would like targeted and focused communication that provides updates, grant opportunities, and/or engagement opportunities for them.

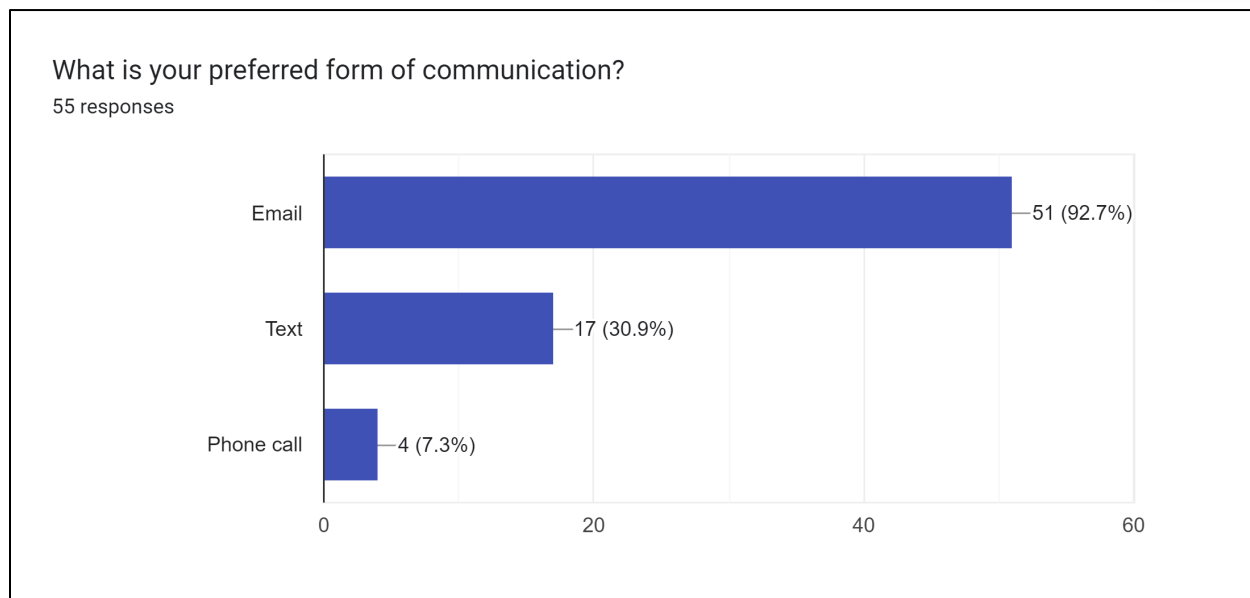


Figure 13. When completing the pre-workshop survey, participants, both online and in-person, shared their preference on preferred forms of communication.

### Overall Reflections

Colleen led an open-ended discussion for workshop participants to share other reflections on the day, the workshop process, the GCECR, or other feedback they had not yet shared. Participants appreciated the opportunity to gain experience from everyone in the room and online. Everyone was also happy with how well the online discussion was facilitated by the team.

### WRAP UP

Renee thanked everyone for their time and engagement throughout the day. All participants were encouraged to complete a workshop evaluation form, so the GCECR can incorporate the feedback into future events. In-person participants received a paper copy, and virtual attendees used a Google Form to record their responses (see Appendix A for a copy of the evaluation).



# WORKSHOP EVALUATION SURVEY RESULTS

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Total Workshop Participants: 46

Total Responses: 21

## SUMMARY OF METHOD

The printed workshop evaluation survey was provided to all participants at the beginning of the workshop and collected immediately at the end of the workshop. The survey instrument was both closed-ended and open-ended question formats. It was distributed only to GCECR workshop participants, but not to any of the Institute staff (See Appendix A for the evaluation survey instrument). Virtual participants received a link to a Google Form with the same questions in the same format. There were no follow up surveys sent post workshop. Participants did leave early, which caused a depressed response rate.

## QUANTITATIVE RESPONSES

Quantitative responses showed an overall positive experience and proved successful in achieving the workshop's objectives. On a Likert scale ranging from 1 (Very Dissatisfied) to 5 (Very Satisfied), participants agreed that they had feelings of satisfaction or higher (4, 5) with all aspects of the workshop. One participant expressed dissatisfaction (2) with the level of detail provided. Two participants expressed neutral feelings (3) about the workshop length. There was one neutral ranking of the workshop's pace. Additionally, one person voted neutral on the workshop's location.

## QUALITATIVE RESPONSES

Open-ended responses also provided insight into what participants thought GCECR could improve, and captured questions participants had. The comments also provided areas on how the workshop could have improved, one participant said, "*Curious how invitees were selected. Seems there were people missing (e.g., CBOs).*" Another indicated the following: "*I think more detail ahead of time on the problems you're trying to address and the tools/resources the center has to support would have allowed me to be a better participant here today.*" One participant disagreed that the workshop clearly explained the GCECR's definition of equitable climate resilience, and said that, "*I think this could be better described in the context of the goals of the Center.*"

Comments about what participants found most useful highlighted the discussions about identifying gaps and opportunities combined with collaborative work to be done. For example, in response to, "What aspect of this workshop was most useful to you? Please explain," one respondent said, "*The flip chart round robin activity helped clarify a lot of ideas and generate connections with participants,*" and another said, "*Breakout groups were great and workshop procedure was amazing.*" In response to, "What aspect of this workshop was least useful to you? Please explain," one respondent, said "*I didn't understand the exercise on the need statements, at first. It was confusing to me until about halfway through the exercise,*" but otherwise, there were comments that all parts were useful.

When asked about questions participants had because of taking part in the workshop, several questions were presented. Respondents heavily focused questions on how to support the GCECR efforts, what is next, and how to remain engaged after the workshop. Participants asked about how the GCECR plans to prioritize the work with staff, underserved communities, and engage with the new administration in



Louisiana. Additionally, participants asked how work will be scaled to fit the unique needs/areas of each state.

In polling here, “n” refers to the number of respondents. All participants ranked very likely (n=13) or likely (n=8) in the likelihood of using the information or partnership from the day’s workshop. The remaining comments about the workshop showed thanks for the invite, offered appreciation for inclusion for fishing and tribal communities, and complimented the facilitation process. Other comments included it was an early start and how industry fits into this conversation.

The following are age and racial demographics of the in-person and online participants that completed the survey:

Table 1. Table summarizes survey respondents by age.

What is your age?

21 responses

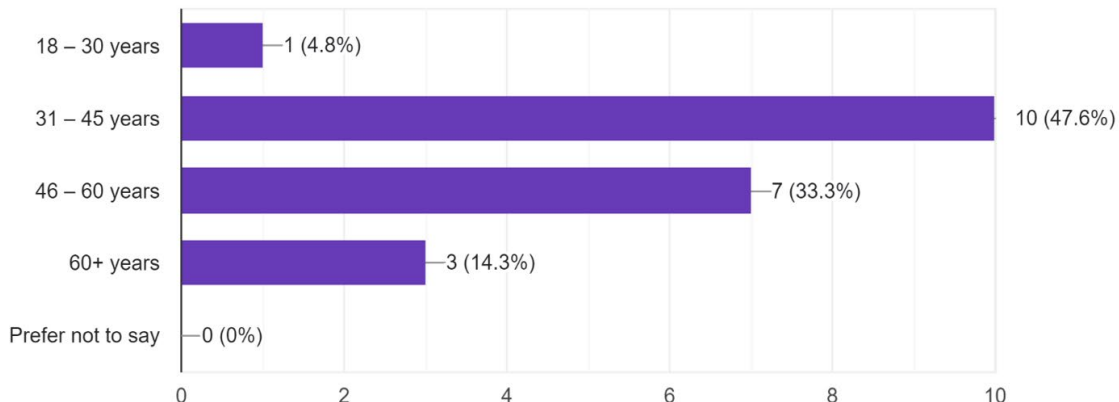
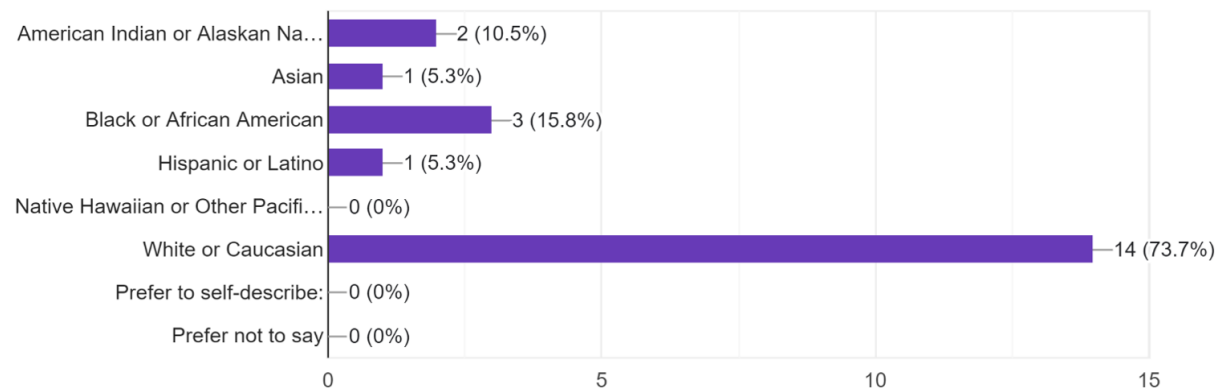


Table 2. Table summarizes survey respondents by race and ethnicity.

Which of the following best describe your race and ethnicity? (Select all that apply)

19 responses



## APPENDICES

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## APPENDIX A. WORKSHOP MATERIALS

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# GCECR KICK-OFF WORKSHOP

*Date: 11/8/2023, Wednesday, November the 8th*

*Location: JEDCO Conference Center 700 Churchill Parkway*

*Avondale, LA, 70094*

*Time: 8:30am-4:30pm*

## Workshop Objectives

- Build new and existing partnerships across Gulf equitable climate resilience.
- Prioritize and identify equitable climate resilience focus areas and activities for the GCECR.
- Refine the role of the GCECR in the broader Gulf climate resilience and environmental justice landscape.

## Agenda Items

Time	Topic
8:00 a.m.	Breakfast & Registration
8:30 a.m.	Welcome & Introductions
9:15 a.m.	CECR Overview & Background
9:35 a.m.	Existing Knowledge Synthesis
10:15 a.m.	10-minute Break
10:30 a.m.	Case Studies of Gulf Excellence
11:50 a.m.	Prioritizing Focus Areas
12:30 pm	Lunch
1:15 p.m.	Identifying & Prioritizing Gaps
2:30 p.m.	10-minute Break
2:45 p.m.	Report Out
3:20 p.m.	Communications and Other Housekeeping
4:10	Wrap Up and evaluation
4:30 p.m.	Adjourn!





## GCECR KICK-OFF WORKSHOP GLOSSARY

*Climate Resilience:* Vulnerability to climate change can be defined as a combination of exposure, sensitivity, and adaptability; therefore, we are defining resilience as activities that make progress towards reducing exposure or sensitivity and/or increasing adaptability among individuals and communities.

*Community:* Community can refer to a wide array of scales. For the purposes of this workshop, community includes parishes and counties, incorporated cities and towns, census-designated places, neighborhoods, and individuals that identify as a community, such as members of a marginalized group.

*Equitable Climate Resilience:* Equitable climate resilience refers to pursuit of climate resilience that explicitly considers socioeconomic inequities and the resulting differences in access to power, knowledge, and resources.

*Marginalized Community:* Groups of people that have been historically excluded from politics and decision-making.

*Resilient, Accessible, Affordable Housing:* Resilient housing refers to housing that will sustain in the face of changing climate including exacerbating hazards. Accessible housing refers to housing that has the requisite physical proximity to other services and needs (e.g., public transit, grocery, community) and that is functional for residents with cross-disabilities. Affordable housing in this workshop refers to an array of housing types ranging from traditional models for low-income residents to workforce affordable housing.

*Underserved Community:* Groups of people that have historically or currently received inadequate, disproportionately low, or inequitable levels of services and resources. Can include but is not always low-income groups, non-white racial and ethnic groups, rural communities with limited economic investment, or those with physical and mental disabilities.

*Water Infrastructure:* For the purposes of this workshop, water infrastructure includes stormwater, wastewater, and potable water and all the associated aspects of the systems that are used to move, store, treat, distribute, or dispose of water.

### **What did we miss?**

Are there other terms that you think should be defined in our glossary to facilitate dialogue about equitable climate resilience? Please write them below and turn them in. For remote participants please email Audrey Grismore [agrismore@thewaterinstitute.org](mailto:agrismore@thewaterinstitute.org) with your suggestions!

# METHODS FOR ESTABLISHING NEEDS & GAPS

With the goal of understanding the existing needs and efforts in resilience research and practice in the Gulf of Mexico, we investigated peer-reviewed articles and reports on climate resilience in the Gulf of Mexico.

We used computational social science tools to find patterns in the data.

## Identifying Themes of Topics in Peer-Reviewed Studies

**Methods:** We used bibliometric analysis methods to map the occurrence of keywords (Aria & Cuccurullo, 2017). In SCOPUS, a literature database, we searched “resilience” and “Gulf of Mexico” which resulted in 255 peer-reviewed documents. We examined the papers, identifying the number of publications in which keywords occur together in the title, abstract, or keyword list. From this information, we created and visualized topic clusters (Blondel et al., 2008, Fruchterman & Reingold, 1991).

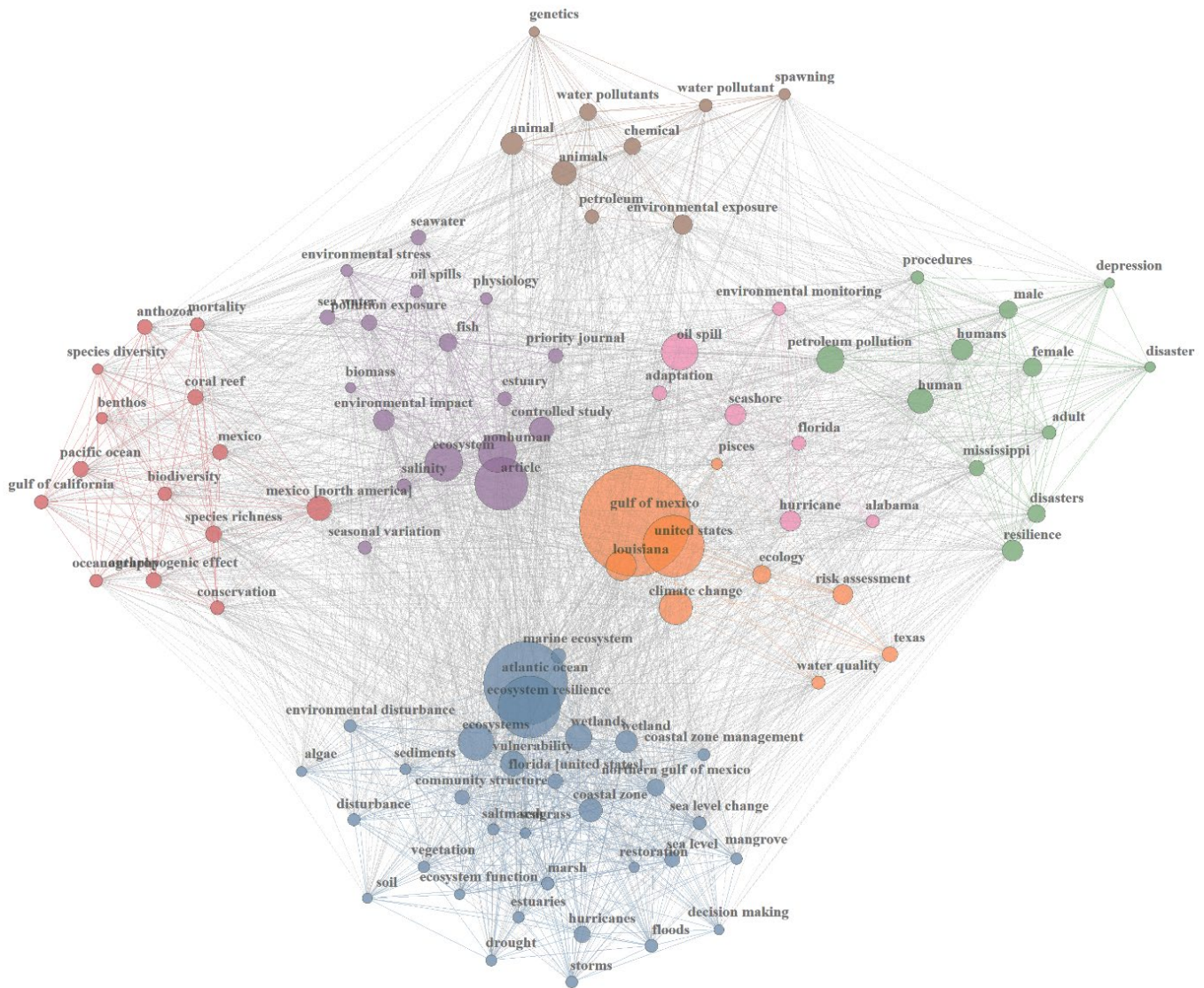


Figure 1: Keyword co-occurrence network

**Findings:** Of these 255 articles, 127 were associated with environmental sciences and only 40 in social sciences. Six out of 7 topic clusters identified in the keywords are focused on environmental resilience, mainly focused on oil spills, pollution as well as habitat and ecosystem resilience. Only one (green top-right) is focused on the human/social side of disasters and pollution.

### Understanding the Clusters of Existing Needs and Recommendations

**Methods:** We used topic modeling a Natural Language Processing technique. To guide the search for relevant reports, we used the five social determinants of health (SDoH) (*Social Determinants of Health - Healthy People 2030* | Health.Gov, n.d.), in addition to the natural environment. For a report to be included it needed to be 1) relevant to the Gulf of Mexico, 2) as recent as possible and no older than 2010, and 3) clearly represent one or multiple SDoH (see end of document for full list). The spatial scales of the reports are mixed, with most at the regional scale. It's important to emphasize that the report selection was not meant to be a comprehensive assessment, but a representative sampling to provide an initial understanding of what the needs/areas of focus are in the Gulf of Mexico.

**Findings:** We extracted text in each of the reports that reflected the needs or areas of focus identified and combined them in a dataset. Those were then analyzed using topic modeling methods which identified 7 clusters of topic areas (Grün & Hornik, 2011, Latent Dirichlet Allocation, Blei et al., 2003). The commonly repeated nouns identified topic focus areas and we were able to identify action words associated with each cluster. We used these topic clusters to identify 11 areas of focus and the action words inspired need statements from the equitable climate resilience lens in each. The need statements were refined based on Center expertise and will be further refined today by the workshop participants. For more information on the identified needs refer to [the Equitable Climate Resilience Need Statements document](#). For a more detailed methods description please reach out to Nastaran Tebyanian ([ntebyanian@thewaterinstitute.org](mailto:ntebyanian@thewaterinstitute.org)).

Table 1: Cluster of topics resulting from topic modeling

	Environment	Flood Risk	Energy, Equity	Economy, housing, education, infrastructure, transportation	Health	Capacity building, migration	Habitat, ecosystem, sediment, wind
<b>Noun/topic examples</b>	Deepwater, environment, project	elevation, flood, future, incentive, industrial, Louisiana, recreation, risk, stormwater,	Climate, community, decision, effort, focus, limit, goal, measure, EJ, equity	Economy, education, housing, infrastructure, local, region, quality, transportation, water	Health, healthcare, Mississippi, mental, dental, store, community, policy, program	Capacity, community, institution, network, migrant, migration, population, climate	Ecosystem, habitat, nature, sediment, wind, environment, land technology, Texas
<b>Action word examples</b>	Assess, identify, implement, monitor, restore	Connect, develop, manage, prioritize, promote, protect	Advance, build, recommend	Develop, improve, invest, provide, support	Expand, improve, plan, provide, increase	Coordinate, plan, support	Identify, understand, collaborate

## Identifying Current Activities

**Methods:** To understand potential gaps in equitable climate resilience efforts, we used a combination of targeted google searching for programs, organizations, strategic plans, and activities in the Gulf of Mexico that was again guided by the SDOH. We identified different types of programs/projects/actions and then connected those back to our 11 needs focus areas. Since flood risk, water infrastructure, and the natural environment are more frequently addressed, we have not included a search for actions in this round of our review.

*Table 2 Sampling of example activities under different focus areas.*

Area of Focus	Action	Example programs
Energy	Create resilient infrastructure: energy sector	<ul style="list-style-type: none"> <li>The Hive Fund for Climate and Gender Justice (energy sector focused)</li> </ul>
	Climate Action Plans	<ul style="list-style-type: none"> <li>Climate Initiatives Task Force (Louisiana Climate Action Plan)</li> </ul>
Housing	Increase access to affordable and resilient housing	<ul style="list-style-type: none"> <li>Housing for Louisiana</li> <li>Housing NOLA</li> <li>Steps Coalition</li> <li>MiCasita</li> </ul>
Transportation	Access to robust and equitable transportation	<ul style="list-style-type: none"> <li>LINK Houston</li> </ul>
Economy	Economics security during disasters	<ul style="list-style-type: none"> <li>Atlanta Federal Reserve Center for Workforce and Economic Opportunity</li> </ul>
	Increase sustainability of natural-resource dependent jobs	<ul style="list-style-type: none"> <li>The Shareholders' Alliance</li> </ul>
Education	Workforce training	<ul style="list-style-type: none"> <li>Foundation for Louisiana: LEAD the Coast</li> <li>The Clean Energy Fund of Texas (Green Workforce Development)</li> <li>The Deep South Center for Environmental Justice: Worker Health and Safety Training</li> <li>Texas Climate Jobs Project</li> <li>The Louisiana CleanTech Network</li> <li>The Organizers Institute South and West Industrial Areas Foundation (IAF)</li> </ul>
	Increasing diversity in college/university climate education	<ul style="list-style-type: none"> <li>The Deep South Center for Environmental Justice: HBCU Climate Change Consortium</li> </ul>
	Community education programs	<ul style="list-style-type: none"> <li>The CLEO Institute: Climate trainings, CLEO Speakers network, empowering resilient women, online webinars</li> </ul>
	Youth education programs	<ul style="list-style-type: none"> <li>The CLEO Institute: GENCLEO youth network, climate resilient schools, CLEO Teachers Network, House on Fire podcast</li> <li>The Deep South Center for Environmental Justice: Navigate NOLA, Let Black Girls Be (2022 Campaign), SEW NOLA – Social &amp; Emotional Wellness NOLA, Navigate Her Leadership Institute</li> </ul>

Health	Health and Safety training	<ul style="list-style-type: none"> <li>The Deep South Center for Environmental Justice: Worker Health and Safety Training</li> </ul>
	Environmental Pollution and Health Awareness	<ul style="list-style-type: none"> <li>Healthy Gulf; The Coalition for Environment, Equity and Resilience</li> <li>Air Alliance Houston: The Environmental Justice Leadership Lab (EJLL)</li> </ul>
	Facilitate healthcare access	<ul style="list-style-type: none"> <li>The Vessel Project of Louisiana</li> </ul>
	Legislative advocacy for health equity	<ul style="list-style-type: none"> <li>Air Alliance Houston</li> </ul>
	Research on health equity	<ul style="list-style-type: none"> <li>The Robert D. Bullard Center for Environmental and Climate Justice (Study of Systemic Racism on Health and Climate Vulnerability in Black Communities in the Gulf Coast Region)</li> </ul>
	Health Equity Community awareness/action	<ul style="list-style-type: none"> <li>Mississippi Roadmap to Health Equity, Inc</li> </ul>
	Post disaster recovery solutions, Food banks, healthy food in schools, innovating for Increased food access (e.g., comm gardens, co-ops)	<ul style="list-style-type: none"> <li>Examples exists but not included in the table</li> </ul>
	Increase Food access	<ul style="list-style-type: none"> <li><i>Feeding Louisiana</i></li> <li><i>The Bay Area Food Bank</i></li> </ul>
Migration		
Capacity Building	Post disaster recovery solutions	<ul style="list-style-type: none"> <li>Connective: Program Services</li> <li>Foundation for Louisiana?</li> </ul>
	Resilience funds	<ul style="list-style-type: none"> <li>Foundation for Louisiana (Coastal Resilience Leverage Fund)</li> <li>The Hive Fund for Climate <i>and Gender Justice</i> (energy sector focused)</li> </ul>
	Community Capacity Building	<ul style="list-style-type: none"> <li>The Deep South Center for Environmental Justice: Communiversities</li> <li>Foundation for Louisiana: LA SAFE process</li> <li>The Deep South Center for Environmental Justice: The SEW NOLA</li> </ul>
	Policy platforms	<ul style="list-style-type: none"> <li>Gulf South for a Green New Deal</li> <li>The Southeast Florida Regional Climate Change Compact: legislative principles and legislative priorities.</li> <li>The Gulf Coast Center for Law &amp; Policy (GCCLP)</li> </ul>
	Advocacy programs	<ul style="list-style-type: none"> <li>The Power Coalition for Equity and Justice</li> </ul>



## Appendices

### List of Reports Used in the Natural Language Processing

Report	SDoH	Year	Scale
<a href="#">2020-2024 Comprehensive Economic Development Strategy</a>	Economic stability	2020	Regional
<a href="#">Gulf of Mexico Regional Assessment National Shoreline Management Study</a>	Natural environment, Neighborhood and built environment	2022	Regional
<a href="#">Mississippi Primary Care Needs Assessment</a>	Healthcare and quality	2021	State
<a href="#">An Approach for Assessing U.S. Gulf Coast Ecosystem Restoration: A Gulf Research Program Environmental Monitoring Report</a>	Natural environment	2022	Regional
<a href="#">Gulf Coast Regionally Coordinated Transportation Plan: Assessment of Unmet Transportation Needs</a>	Neighborhood and built environment	2016	Multi-county
<a href="#">Survey and Assessment of the Ocean Renewable Energy Resources in the US Gulf of Mexico</a>	Economic stability, Neighborhood and built environment	2020	Regional
<a href="#">Building and Measuring Community Resilience Actions for Communities and the Gulf Research Program</a>	Social and community context	2019	Regional
<a href="#">Emerald Coast Regional Council Comprehensive Economic Development Strategy</a>	Economic stability	2021	Sub-state
<a href="#">Climate Migration and Receiving Community Institutional Capacity in the US Gulf Coast</a>	Social and community context	2023	Regional
<a href="#">Report on the NOAA Office of Education Environmental Literacy Program Community Resilience Education Theory of Change</a>	Education access and quality	2020	National
<a href="#">LA SAFE Our Land and Water A Regional Approach to Adaptation</a>	Neighborhood and built environment, Social and community context	2019	State
<a href="#">The National Wildlife Federation: Gulf Program Strategic Plan 2020–2025</a>	Natural environment	2020	Regional
<a href="#">East Biloxi Community Needs Assessment 2019</a>	Economic stability, Neighborhood and built environment, Healthcare and quality, Education access and quality, Social and community context	2019	Community
<a href="#">Lafourche Parish Adaptation Strategy</a>	Natural, Neighborhood and built environment	2019	County
<a href="#">Vulnerability and Adaptation to Climate Change: An Assessment for the Texas Mid-Coast</a>	Natural, Neighborhood and built environment	2021	Sub-state
<a href="#">WORKING TOGETHER: A Landscape Analysis to Inform Practical, Innovative, and Beneficial Use of NASA Earth Science Data to Advance Equity and Environmental Justice in the Gulf South Region</a>	Social and community context, Natural, Neighborhood and built environment	2023	Regional
<a href="#">Taking Steps Together on Equity &amp; Climate Change: A Report by and for New Orleanians</a>	Social and community context	2019	City
<a href="#">Pathways to Healthy, Affordable, Decarbonized Housing: A State Scorecard</a>	Natural, Neighborhood and built environment	2022	State
<a href="#">Southeast and Caribbean Climate Health Alliance Improving Health Equity and Climate Resilience A report to NOAA CAP/RISA program</a>	Social and community context, Natural environment, Neighborhood, and built environment	2023	Regional

## References

- Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, *11*(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Blei, D., Ng, A. Y., & Jordan, M. I. (2003). Latent Dirichlet Allocation. *Journal of Machine Learning Research*, *3*, 993–1022.
- Blondel, V. D., Guillaume, J.-L., Lambiotte, R., & Lefebvre, E. (2008). Fast unfolding of communities in large networks. *Journal of Statistical Mechanics: Theory and Experiment*, *2008*(10), P10008. <https://doi.org/10.1088/1742-5468/2008/10/P10008>
- Fruchterman, T. M. J., & Reingold, E. M. (1991). Graph drawing by force-directed placement. *Software: Practice and Experience*, *21*(11), 1129–1164. <https://doi.org/10.1002/spe.4380211102>
- Grün, B., & Hornik, K. (2011). topicmodels: An R Package for Fitting Topic Models. *Journal of Statistical Software*, *40*, 1–30. <https://doi.org/10.18637/jss.v040.i13>
- Social Determinants of Health—Healthy People 2030* | *health.gov*. (n.d.). Retrieved November 2, 2023, from <https://health.gov/healthypeople/priority-areas/social-determinants-health>

# EQUITABLE CLIMATE RESILIENCE NEED STATEMENTS

## Definition of Equitable Climate Resilience

Equitable climate resilience refers to pursuit of climate resilience that explicitly considers socioeconomic inequities and the resulting differences in power, knowledge, and resources.

## Cross Cutting Needs/Assumptions

- Addressing needs will be done in intentional, co-developed and/or community led approaches with equity centered in process and outcomes.
  - Diverse voices and perspectives need to be integrated into decision-making conversations and processes, including planning, prioritization, and implementation, across all identified needs.
- 

## Natural Environment

*Action Words:* Identify, understand, assess, implement, monitor, restore

### *Statements of Need*

- There is a need for understanding of how natural systems are currently and will be affected by climate change to be iteratively developed with marginalized and under resourced communities, residents, and groups.
- There is a need to develop understanding of existing environmental justice with affected community members.
- There is a need to integrate understanding of existing environmental justice inequities into decision-making.

## Flood Risk

*Action Words:* Connect, develop, manage, prioritize, promote, protect

### *Statements*

- There is a need to increase understanding of current and changing flood risk.
- There is a need to develop understanding of impacts of changing flood risk collaboratively with underserved and marginalized communities.
- There needs to be development and implementation of flood risk management practices that acknowledge contextual discriminatory policies (e.g., redlining, traditional cost-benefit analyses) that put marginalized communities at higher flood risk.





## Energy

*Action Words:* Advance, build, recommend

### *Statements*

- There is a need to identify and address gaps in fair access to affordable renewable energy programs including awareness and knowledge gaps.
- There is a need to understand and advance energy resilience among frontline, marginalized, and underserved communities.
- There is a need to understand and address discriminatory practices that reinforce systemic inequities in existing and emerging energy policies.

## Housing

*Action Words:* Develop, improve, invest, provide, support

### *Statements*

- There is a need to improve and expand resilient, accessible, affordable housing including the identification and support of novel approaches.
- There is a need to improve and develop new mechanisms for affordable and accessible hazard and flood insurance for low- and moderate-income families.
- There is a need to understand and address how existing policies around insurance, zoning and building codes, and affordable housing exacerbate inequities and/or risk to climate hazard exposure among marginalized and underserved residents.

## Water Infrastructure

*Action Words:* Develop, improve, invest, provide, support

### *Statements*

- There is a need to identify and address gaps in inclusive decision/policy-making processes around infrastructure investment and improvement programs/policies at multiple government scales.
- There is a need to understand and address how infrastructure is affected as climate changes and the impacts that has in marginalized and under resourced communities.
- There is a need for resident led and implemented infrastructure improvements through diverse and robust approaches based in understanding of changing vulnerability and culturally inclusive and contextualized planning.



## Transportation

*Action Words:* Develop, improve, invest, provide, support

### *Statements*

- There is a need to understand and address transportation impacts as climate changes and how that is likely to impact marginalized and underserved communities.
- There is a need to understand and address how to proactively enhance overall access and function of transportation systems.
- There is a need to understand and address the practices and policies that contribute to the lack of multimodal transportation access in normal conditions or during a disaster.

## Economy

*Action Words:* Develop, improve, invest, provide, support

### *Statements*

- There is a need to provide information and resources to small, mid-sized, and locally-owned businesses to become more robust to changing climate conditions.
- There is a need for economic diversification and development that is equitable and robust to changing supply line, market, energy, and climate drivers.

## Education

*Action Words:* Develop, improve, invest, provide, support

### *Statements*

- There is a need for inclusive and equitable workforce development that is responsive to growing opportunities related to climate change around energy, resilience, and justice.
- There is a need for culturally competent and accessible youth and adult education and mentorship around climate change and environmental justice that is actions focused.

## Health

*Action Words:* Expand, improve, plan, provide

### *Statements*

- There is a need for clearly defined and disseminated information on how inequities in affordable, quality healthcare will be exacerbated by climate change.



- There is a need for understanding and addressing impacts of increasing extreme heat in marginalized and underserved communities.
- There is a need to better understand and address how social determinants of health affect health outcomes in a changing climate.

## Migration

*Action Words:* Coordinate, plan, support

### *Statements*

- There is a need to identify and address the gaps in inclusive decision/policy-making processes that guide climate migration coordination, planning, and implementation.
- There is a need to understand and adjust how current policies and practices around climate migration, including flood buy-out programs, affect marginalized and underserved communities.
- There is a need to understand and acknowledge the contextual discriminatory practices that cause forced migration of marginalized and under resourced communities.

## Capacity Building

*Action Words:* Coordinate, plan, support

### *Statements*

- There is a need for building civic, leadership, climate science, and fiscal capacity among residents, municipal staff, and community-based organizations.

# PRELIMINARY GAPS OF EQUITABLE CLIMATE RESILIENCE NEEDS

## Definitions

- Red indicates that there is not currently much work occurring to address the gap or work is occurring in one area/state, it does not mean there is no work.
- Yellow indicates there is some work occurring such as different types of activities in one or two states.
- Green indicates that there is a lot of work occurring across the Gulf such as activities in all five states and/or with multiple activities on the need, but it is not to say that it is no longer a need.

## Cross Cutting Needs/Assumptions

- Addressing needs will be done in intentional, co-developed and/or community led approaches with equity centered in process and outcomes.
- Diverse voices and perspectives need to be integrated into decision-making conversations and processes, including planning, prioritization, and implementation, across all identified needs.

## Natural Environment

*Action Words:* Identify, understand, assess, implement, monitor, restore

### Statements

- There is a need for understanding of how natural systems are currently and will be affected by climate change to be iteratively developed with marginalized and under resourced communities, residents, and groups.
- There is a need to develop understanding of existing environmental justice with affected community members.
- There is a need to integrate understanding of existing environmental justice inequities into decision-making.

## Flood Risk

*Action Words:* Connect, develop, manage, prioritize, promote, protect

### Statements

- There is a need to increase understanding of current and changing flood risk.
- There is a need to develop understanding of impacts of changing flood risk collaboratively with underserved and marginalized communities.
- There needs to be development and implementation of flood risk management practices that acknowledge contextual discriminatory policies (e.g., redlining, traditional cost-benefit analyses) that put marginalized communities at higher flood risk.



## Energy

*Action Words:* Advance, build, recommend

### Statements

- There is a need to identify and address gaps in fair access to affordable renewable energy programs including awareness and knowledge gaps.
- There is a need to understand and advance energy resilience among frontline, marginalized, and underserved communities.
- There is a need to understand and address discriminatory practices that reinforce systemic inequities in existing and emerging energy policies.

## Housing

*Action Words:* Develop, improve, invest, provide, support

### Statements

- There is a need to improve and expand resilient, accessible, affordable housing including the identification and support of novel approaches.
- There is a need to improve and develop new mechanisms for affordable and accessible hazard and flood insurance for low- and moderate-income families.
- There is a need to understand and address how existing policies around insurance, zoning and building codes, and affordable housing exacerbate inequities and/or risk to climate hazard exposure among marginalized and underserved residents.

## Water Infrastructure

*Action Words:* Develop, improve, invest, provide, support

### Statements

- There is a need to identify and address gaps in inclusive decision/policy-making processes around infrastructure investment and improvement programs/policies at multiple government scales.
- There is a need to understand and address how infrastructure is affected as climate changes and the impacts that has in marginalized and under resourced communities.
- There is a need for resident led and implemented infrastructure improvements through diverse and robust approaches based in understanding of changing vulnerability and culturally inclusive and contextualized planning.



## Transportation

*Action Words:* Develop, improve, invest, provide, support

### Statements

- There is a need to understand and address transportation impacts as climate changes and how that is likely to impact marginalized and underserved communities.
- There is a need to understand and address how to proactively enhance overall access and function of transportation systems.
- There is a need to understand and address the practices and policies that contribute to the lack of multimodal transportation access in normal conditions or during a disaster.

## Economy

*Action Words:* Develop, improve, invest, provide, support

### Statements

- There is a need to provide information and resources to small, mid-sized, and locally-owned businesses to become more robust to changing climate conditions.
- There is a need for economic diversification and development that is equitable and robust to changing supply line, market, energy, and climate drivers.

## Education

*Action Words:* Develop, improve, invest, provide, support

### Statements

- There is a need for inclusive and equitable workforce development that is responsive to growing opportunities related to climate change around energy, resilience, and justice.
- There is a need for culturally competent and accessible youth and adult education and mentorship around climate change and environmental justice that is actions focused.

## Health

*Action Words:* Expand, improve, plan, provide

### Statements

- There is a need for clearly defined and disseminated information on how inequities in affordable, quality healthcare will be exacerbated by climate change.
- There is a need for understanding and addressing impacts of increasing extreme heat in marginalized and underserved communities.
- There is a need to better understand and address how social determinants of health affect health outcomes in a changing climate.





## Migration

*Action Words:* Coordinate, plan, support

### *Statements*

- There is a need to identify and address the gaps in inclusive decision/policy-making processes that guide climate migration coordination, planning, and implementation.
- There is a need to understand and adjust how current policies and practices around climate migration, including flood buy-out programs, affect marginalized and underserved communities.
- There is a need to understand and acknowledge the contextual discriminatory practices that cause forced migration of marginalized and under resourced communities.

## Capacity Building

*Action Words:* Coordinate, plan, support

### *Statements*

- There is a need for building civic, leadership, climate science, and fiscal capacity among residents, municipal staff, and community-based organizations.

Please provide any comments on the current **draft** mission & vision statements for the Center. We are **not** looking for wordsmithing. Please **focus on** red-flags or overall topics and issues that you think are missing or should not be present.

**Mission:**

Tackle systemic processes, challenges, and barriers to enhance and expand equitable climate resilience among individuals and communities in the northern Gulf of Mexico by:

- **Convening, coordinating, and collaborating** with an integrated network in the Gulf of Mexico operating at the intersection of equitable climate resilience.
- **Advancing literacy** and improving knowledge sharing about the risks, needs, and opportunities for improving climate resilience in underserved, frontline communities.
- **Expanding research** focused on understanding potential solutions to the policies, processes, and systemic barriers that generate and sustain inequity in climate resilience.
- **Increasing action** by providing support so that a greater number of individuals and communities can pursue inclusive climate resilience planning and activities.

**Vision:**

Our vision is a shift in the paradigm of climate resilience, making it more inclusive, and directly confronting the systemic issues that have perpetuated disparities in power, knowledge, and resources along the Gulf Coast.

**Comments:**

# GCECR KICK-OFF WORKSHOP *EVALUATION*

*Your feedback will help us provide effective trainings and events in the future.*

## 1. Please note your feelings about the following aspects of today's workshop:

	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
Workshop Content	1	2	3	4	5
Workshop Format	1	2	3	4	5
Workshop Pace	1	2	3	4	5
Workshop Time Length	1	2	3	4	5
Level of Detail	1	2	3	4	5
Workshop Location	1	2	3	4	5
Overall Workshop Experience	1	2	3	4	5

1a. If for any of these you selected a 1 or a 2, please let us know why or how we could have improved.

## 2. Please indicate how much you agree or disagree with each item.

	Strongly Disagree (SD)	Disagree (D)	Neither Agree nor Disagree (N)	Agree (A)	Strongly Agree (SA)	Don't Know (DK)
This workshop was a good use of my time	SD	D	N	A	SA	DK
This workshop increased my understanding of this effort	SD	D	N	A	SA	DK
This workshop clearly explained the Center definition of equitable climate resilience	SD	D	N	A	SA	DK
This workshop clearly explained existing knowledge on equitable climate resilience	SD	D	N	A	SA	DK
I was provided with opportunities to provide input on gaps in focus areas	SD	D	N	A	SA	DK
I was provided with opportunities to provide input on prioritizing focus areas	SD	D	N	A	SA	DK
I was provided with opportunities to provide input on activities for each focus area	SD	D	N	A	SA	DK
I would recommend working with the Center in the future	SD	D	N	A	SA	DK

2a. If for any of these you selected a SD or a D, please let us know why or how we could have improved.



**3. What questions, if any, do you have as a result of participating in this workshop?**

**4. What aspect of this workshop was most useful to you? Please explain.**

**5. What aspect of this workshop was least useful to you? Please explain.**

**6. How likely are you to use the information or partnerships from today in your work?**

**Very Likely**

**Likely**

**Not Likely**

**I Won't**

**I'm Not Sure**

**7. Please fill out the following information.**

<b>What gender do you identify as?</b>	<b>What is your age?</b>	<b>Which of the following best describe your race and ethnicity? (Select all that apply)</b>
<input type="radio"/> <b>Man</b> <input type="radio"/> <b>Woman</b> <input type="radio"/> <b>Non-binary</b> <input type="radio"/> <b>Prefer to self-describe:</b> _____ <input type="radio"/> <b>Prefer not to say</b>	<input type="radio"/> <b>18 – 30 years</b> <input type="radio"/> <b>31 – 45 years</b> <input type="radio"/> <b>46 – 60 years</b> <input type="radio"/> <b>60+ years</b> <input type="radio"/> <b>Prefer not to say</b>	<input type="radio"/> <b>American Indian or Alaskan Native</b> <input type="radio"/> <b>Asian</b> <input type="radio"/> <b>Black or African American</b> <input type="radio"/> <b>Hispanic or Latino</b> <input type="radio"/> <b>Native Hawaiian or Other Pacific Islander</b> <input type="radio"/> <b>White or Caucasian</b> <input type="radio"/> <b>Prefer to self-describe:</b> _____ <input type="radio"/> <b>Prefer not to say</b>

**8. Please share any remaining comments about today's event.**



## APPENDIX B. WORKSHOP PRESENTATIONS

---



Let us know  
where you are  
joining from!



## OVERALL WORKSHOP OBJECTIVES

Build new and  
existing  
partnerships  
across Gulf  
Equitable Climate  
Resilience

Prioritize and  
identify equitable  
climate resilience  
focus areas and  
activities for the  
Center

Refine the role of  
the Center in the  
broader Gulf  
climate resilience  
and environmental  
justice landscapes





## AGENDA - AFTERNOON

- Lunch!!
- Identifying Activities for Focus Areas
- Break!!!
- Report Out
- Communication and Other Housekeeping
- Evaluation
- Adjourn!!!!

3



## AGENDA - MORNING

- Welcome and Introductions
- Center Overview and Background
- Existing Knowledge Synthesis
- Break!
- Examples of Gulf Excellence
- Prioritizing Focus Areas

4



## MATERIALS



- Agenda
- Methods for Establishing Needs & Gaps
- Equitable Climate Resilience Need Statements
- Preliminary Gaps of Equitable Climate Resilience Needs
- Info Sheet on the Center
- Glossary
- Draft Vision and Mission Statement
- Evaluation



## NORMS FOR TODAY

Determine together how we will interact and explore these topics together.

These will be visible throughout the day.



## WARM-UP



## WARM UP INSTRUCTIONS

### In person

- Stand up behind your chair and take two steps back.
- When you hear a statement about you that is true – take two steps forward.

### Remote

- Turn your camera on
- Lean out of the camera frame if it is not true.

## WARM UP

- I had to cross state lines to get here.
- Online – I live outside of Louisiana.

9



## WARM UP

- I had to cross state lines to get here.
- I know everyone at my table.

10



## WARM UP

- I had to cross state lines to get here.
- I know everyone at my table.
- I know no one at my table.

11



## WARM UP

- I had to cross state lines to get here.
- I know everyone at my table.
- I know no one at my table.
- I have had dessert for breakfast before.

12



## WARM UP

- I had to cross state lines to get here.
- I know everyone at my table.
- I know no one at my table.
- I have had dessert for breakfast before.
- I prefer sour/fruity sweets over chocolate.

13



## MY WORK HAS A FOCUS ON...

- ... the natural environment.

14





**MY WORK  
HAS A FOCUS  
ON...**

- ... the natural environment.
- ... flood risk.

15



**MY WORK  
HAS A FOCUS  
ON...**

- ... the natural environment.
- ... flood risk.
- ... the energy sector.

16



**MY WORK  
HAS A FOCUS  
ON...**

- ... the natural environment.
- ... flood risk.
- ... the energy sector.
- ... housing.

17



**MY WORK  
HAS A FOCUS  
ON...**

- ... the natural environment.
- ... flood risk.
- ... the energy sector.
- ... housing.
- ... infrastructure (water, transportation, etc.)

18



**MY WORK  
HAS A FOCUS  
ON...**

- ... the natural environment.
- ... flood risk.
- ... the energy sector.
- ... housing.
- ... infrastructure (water, transportation, etc.)
- ... the economy.

19



**MY WORK  
HAS A FOCUS  
ON...**

- ... the natural environment.
- ... flood risk.
- ... the energy sector.
- ... housing.
- ... infrastructure (water, transportation, etc.)
- ... the economy.
- ... education.

20



**MY WORK  
HAS A FOCUS  
ON...**

- ... the natural environment.
- ... flood risk.
- ... the energy sector.
- ... housing.
- ... infrastructure (water, transportation, etc.)
- ... the economy.
- ... education.
- ... health.

21



**MY WORK  
HAS A FOCUS  
ON...**

- ... the natural environment.
- ... flood risk.
- ... the energy sector.
- ... housing.
- ... infrastructure (water, transportation, etc.)
- ... the economy.
- ... education.
- ... health.
- ... migration.

22



## MY WORK HAS A FOCUS ON...

- ... the natural environment.
- ... flood risk.
- ... the energy sector.
- ... housing.
- ... infrastructure (water, transportation, etc.)
- ... the economy.
- ... education.
- ... health.
- ... migration.
- ... capacity building.

23



## WARM UP

- What do you want to know about your tablemates?
- At your table, take turns making statements to see who steps forward.

24



## CENTER OVERVIEW & BACKGROUND

### Objective:

Understand the Center framing

25



Pursuit of climate resilience that explicitly considers socioeconomic inequities and the resulting differences in power, knowledge, and resources.

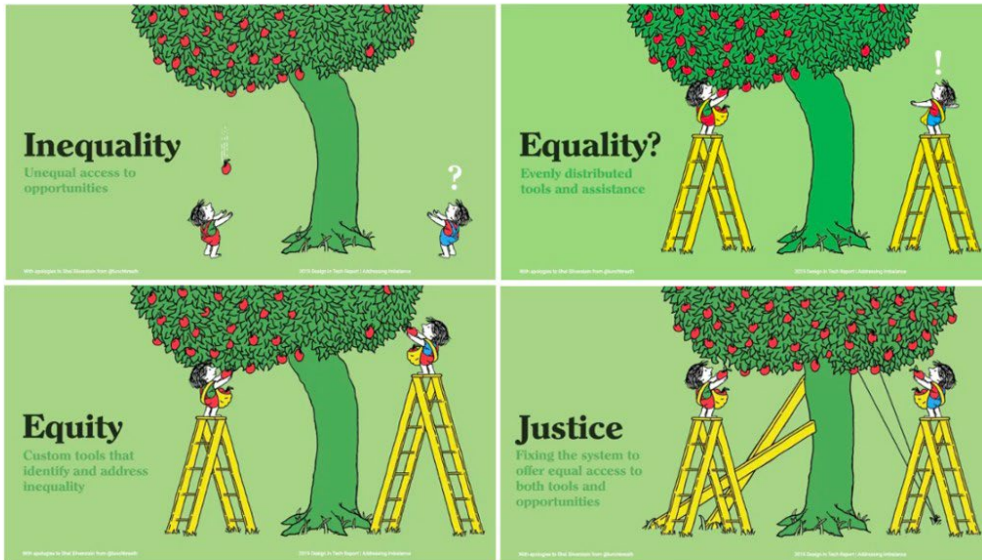
# EQUITABLE RESILIENCE IS MORE THAN PHYSICAL SAFETY

Includes issues like healthcare, community cohesion and development, insurance, affordable housing, education, and systemic process barriers.





# ACTIONS TO ENHANCE EQUITY



27



## EQUITY IS...

**PROCEDURAL**  
decision-making

Transparent and inclusive decision-making processes

**DISTRIBUTIONAL**  
distribution of  
resources

Equitable distribution of resources, benefits, and risks

**STRUCTURAL**  
pre-existing  
conditions

Structural/institutional systems do not generate differences in outcomes among different social groups

Adapted from Adaptation Clearinghouse

28



## MARGINALIZED & UNDERSERVED COMMUNITIES

- **What makes a community marginalized?**
  - Groups of people that have been historically excluded from politics and decision-making
- **What makes a community underserved?**
  - Groups of people that have currently or historically received inadequate, disproportionately low, or inequitable levels of service and resources
  - Often, but not always –
    - Low income
    - Non-white racial and ethnic groups
    - Immigrant groups
    - Rural communities with limited economic investment

29



## A BIT MORE...

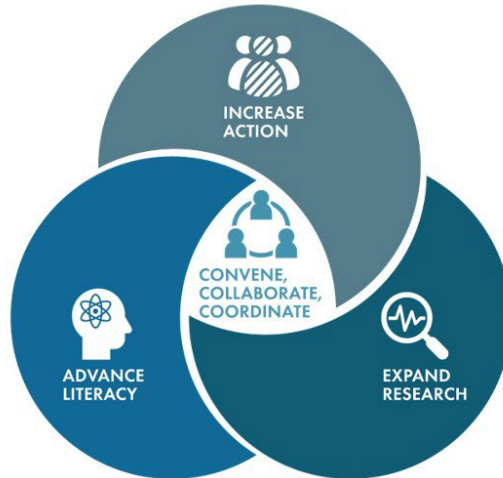
Addressing systemic processes, challenges, and barriers to enhance and expand climate resilience in the Gulf.

A place for creative risk taking and trying new things.

30



# GULF CENTER FOR EQUITABLE CLIMATE RESILIENCE (GCECR)



31



## PILLARS OF THE CENTER

### LITERACY



- Build awareness and understanding among residents and stewards of risks and options for action
- Build capacity and understanding among stewards and researchers of best practices for equitable resilience

### RESEARCH



- Inform, scope, and apply biogeophysical research
- Advance our understanding of processes, systems, and policies and their intersection with equitable resilience including adaptive learning from implementing novel approaches

### ACTION



- Conduct, support, or foster enhanced planning that is inclusive, comprehensive, and science-based
- Conduct, support, or foster actions to enhance resilience of individuals and communities



## CENTER FOCUS AREAS

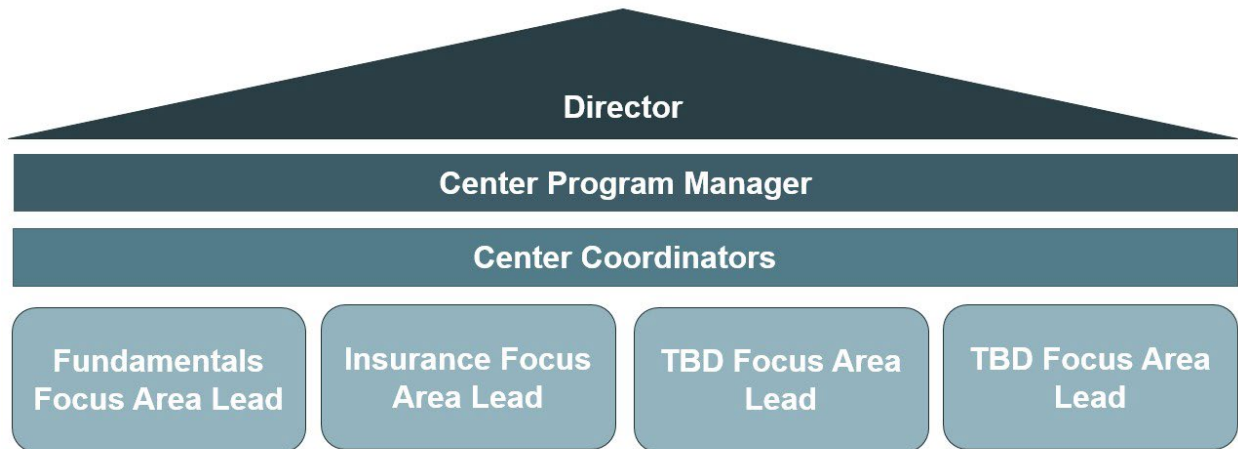
Synthesize existing knowledge (e.g., existing plans, needs assessments, research findings)

Convene a diverse array of partners for gut check, prioritizing, and action planning

Develop focus areas that are updated regularly to direct capacity



## CENTER STAFFING STRUCTURE



## BROAD OUTLOOK

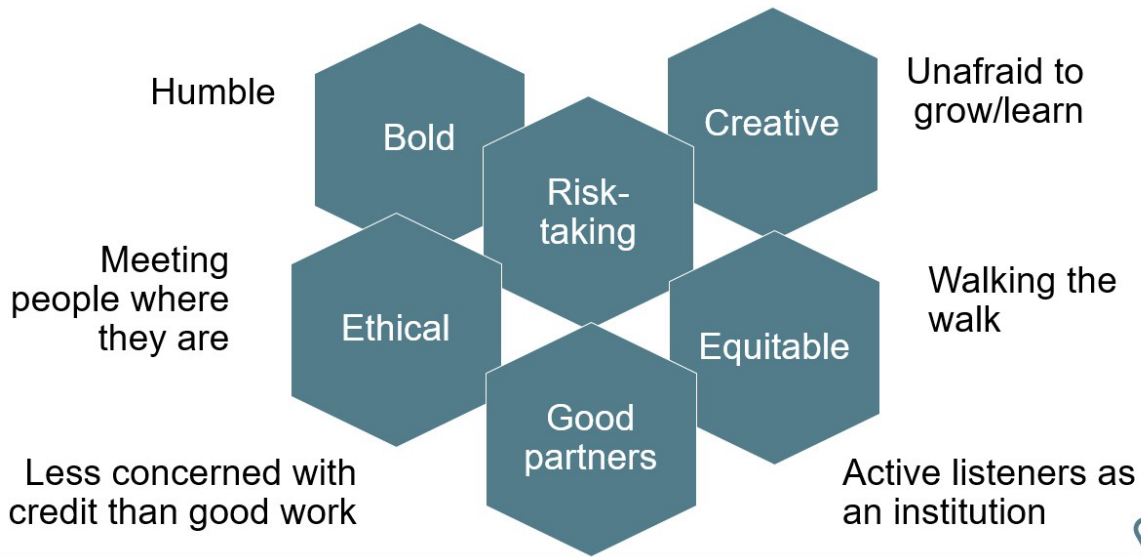


## ELEMENTS OF SUCCESS





# I WOULD LIKE THE CENTER TO BE SEEN AS:



## EQUITABLE ENGAGEMENT TRAINING

**COLLABORATIVE AND TRANSPARENT GOAL SETTING**

- Sounds easy...  
..... harder in practice
- Transparency and communication about limits and competing interests
- Intentionality in collecting feedback to defensible synthesis
- Set up that it's about compromise
- This is why trust is so important.

Would have loved this to have lasted longer

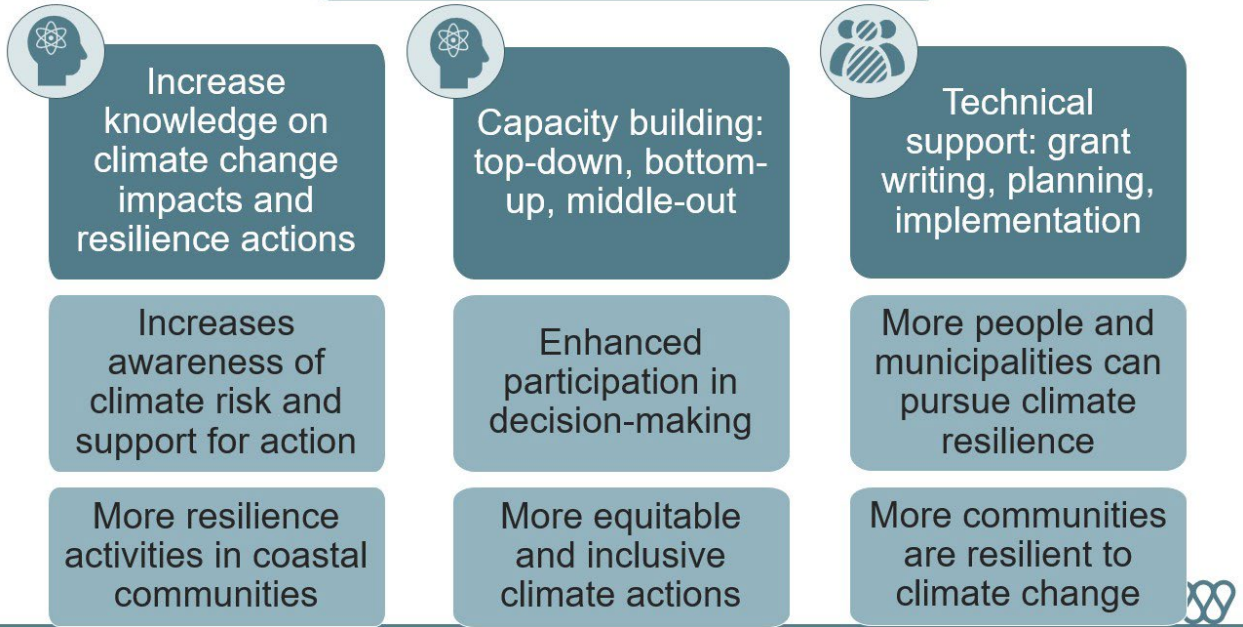
This was meaningful, educational, and engaging!!

The workshop content is awesome!

Thank-you!

★★★★★

## Fundamentals Focus Area



## FOCUS AREAS & TODAY

Fundamentals

Insurance

TBD

TBD





# QUESTIONS?



41



## EXISTING KNOWLEDGE SYNTHESIS

### Objectives:

- Understand the methodological approach
- Assess the identified need statements

### Materials:

- Methods Document
- Need Statements Document

42



## NEED AREAS: EXISTING REPORTS

- Relevant to the Gulf of Mexico
- As recent as possible and no older than 2010
- Represent one or multiple Social Determinants of Health
  - Economic Stability
  - Education Access and Quality
  - Health Care Access and Quality
  - Neighborhood and Built Environment
  - Social and Community Context
  - + Natural environment

Refer to page 5 of Methods document for the list of the reports

## TOPIC MODELING RESULTS

- Topic modeling shows 7 clusters of topics
- 7 clusters → 11 identified topic areas
- Action words inspired need statements from the equitable climate resilience lens in each

Page 2 of Methods document

	Environment	Flood Risk	Energy, Equity	Economy, housing, education, infrastructure, transportation	Health	Capacity building, migration	Habitat, ecosystem, sediment, wind
Noun/topic examples	Deepwater, environment, project	elevation, flood, future, incentive, industrial, Louisiana, recreation, risk, stormwater,	Climate, community, decision, effort, focus, limit, goal, measure, EJ, equity	Economy, education, housing, infrastructure, local, region, quality, transportation, water	Health, healthcare, Mississippi, mental, dental, store, community, policy, program	Capacity, community, institution, network, migrant, migration, population, climate	Ecosystem, habitat, nature, sediment, wind, environment, land technology, Texas
Action word examples	Assess, identify, implement, monitor, restore	Connect, develop, manage, prioritize, promote, protect	Advance, build, recommend	Develop, improve, invest, provide, support	Expand, improve, plan, provide, increase	Coordinate, plan, support	Identify, understand, collaborate

## TOPIC AREAS

- Natural Environment
- Flood Risk
- Energy
- Housing
- Water Infrastructure
- Transportation
- Economy
- Education
- Health
- Migration
- Capacity Building

45



Needs  
document  
in packet

## NEED STATEMENTS

- Developed based on topic area, action words, and professional expertise
- There are 29 need statements
- Intentionally broad/encompassing
- Identified cross cutting assumptions:
  - Addressing these needs will be done with intentionality and equity centered
  - Across all decision-making under each topic area there is a need for more diversity and inclusion

46



Page 5 of  
Methods  
document

Needs  
document  
in packet

## DISCUSSION

 15 minutes

- Are there any *topics* missing?
- Any high priority needs not represented?
  - Review independently
  - In-person: Sticker
    - Blue sticker = need clarification
    - Purple sticker = this is not a need
    - Facilitator = suggest additional needs
  - Remote: Padlet
    - Thumbs down = this is not a need
    - Comment = need clarification
    - Facilitator = suggest additional needs

47



10-MINUTE  
BREAK



48



## GULF EXCELLENCE

### Objectives

- Understand existing efforts around needs
- Showcase Gulf excellence
- Provide examples of literacy, research, and action

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## PRIORITIZING FOCUS AREAS

### Objectives

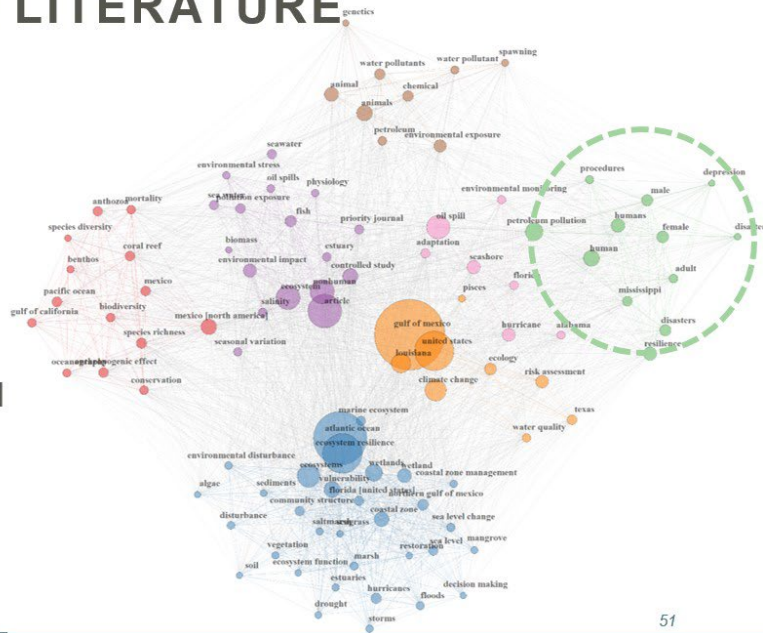
- Understand existing efforts around equitable climate resilience for research, literacy, and action
- Identify focus areas for the Center

50



# PEER-REVIEWED LITERATURE

- Keyword co-occurrence network shows the dominant themes in resilience research in Gulf of Mexico
- 6 out of 7 emerged research areas are focused on environmental issues and only one on human dimension



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## EXPLORING LITERACY AND ACTION

Methods document page 3 & 4

Gaps document in packet

- Targeted internet searching
  - Framed by the SDoH & expert knowledge
- Identified example programs/activities
- Not comprehensive – a sampling
- From this – identified levels of activity
  - Red – not much variety in activities or geography, not many programs
  - Yellow – some variety in activities or geography, some programs
  - Green – a lot of variety in activities or geography, many programs

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Gaps  
document  
in packet



10 minutes

## REVIEWING GAP ASSESSMENTS

- Purpose: quick view see where there is a lot, some, and a little work being done.
- Activity:
  - Independently review gap assessments – gut check – is it odd, do you have questions.
  - In-Person: Sticker
    - Purple sticker = not the right gap level
  - Remote: Padlet
    - Thumbs down = not the right gap level

53



Star  
stickers

## PRIORITIZE NEED STATEMENTS

- Purpose: identify focus areas for the Center
- Vote on top two choices for Center to focus
  - In-person: Star stickers
  - Remote: Heart on padlet

Go to lunch

54





**RETURN AT  
1:15**

Please take  
this time to get  
to know  
someone new!



55



## **IDENTIFYING ACTIVITIES**

### **Objectives**

- Provide example of activities
- Collaboratively identify activities and additional partners

56



## PRIORITY FOCUS AREAS

Fundamentals

Insurance

Combo – water infrastructure and flood risk

Migration

57



## HONORABLE MENTIONS

Health – inequities  
and climate

Housing – policy and  
admin

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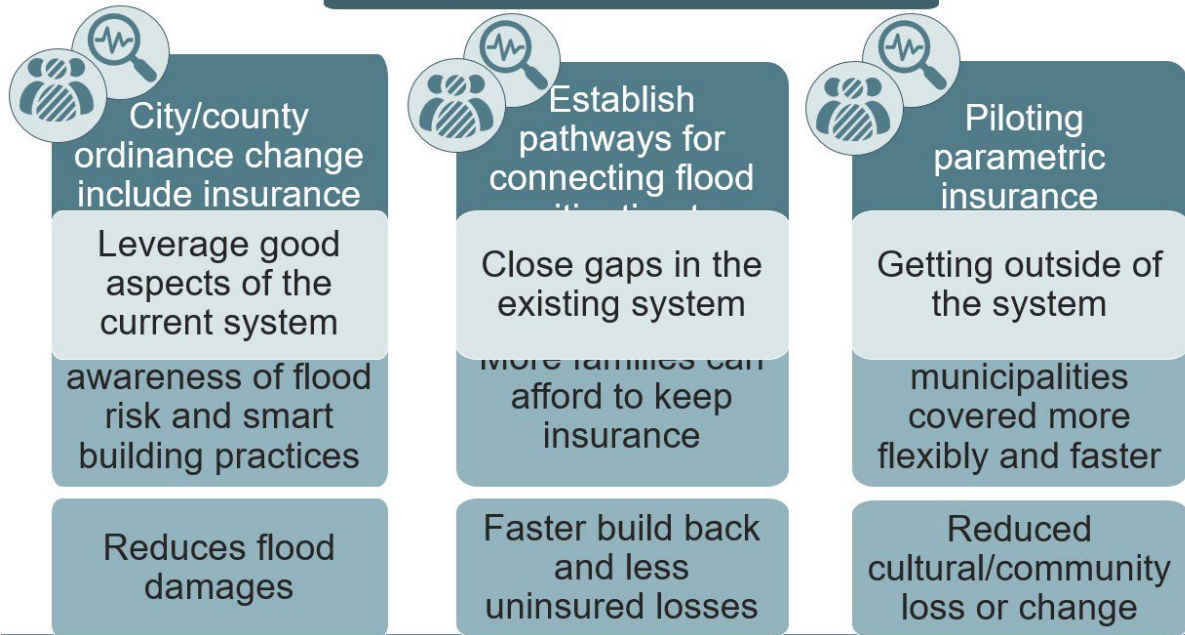
# ACTIVITY – IDENTIFY ACTIONS

## Goals

- Identify activities for research, literacy, action for each priority focus area
  - Do not have to have one in each area
  - Want to think about systematic implementability
  - Think broadly across multiple lines of science/needs
- Identify potential collaborators, or programs to connect with



## Flood Insurance Focus Area



## ACTIVITY – IDENTIFY ACTIONS

- In-Person: Flip Charts
  - Split into four groups – see name tag for where to start



Insurance



TBD



Fundamentals



TBD

- Rotate clockwise to next flip chart – will go to all topics
- Remote: Padlet and Breakout
  - Will be sent to a group automatically
  - Will switch between topic areas
- Around 15 minutes for each station/topic

61



## ACTIVITY – IDENTIFY ACTIONS

### Goals

- Identify activities for research, literacy, action for each priority focus area
  - Do not have to have one in each area
  - Want to think about systematic implementability
  - Think broadly across multiple lines of science/needs
- Identify potential collaborators, or programs to connect with

62



## 10-MINUTE BREAK



63



## REPORT OUT

- Each group will report out *briefly*
- Online input has already been integrated

64



## HONORABLE MENTIONS

- Are there other low-hanging fruit the Center should target focus on?
- Are there research needs that should be cataloged?
  - We ***do not want everything*** but we want priorities
  - This will be delivered to funders and researchers

65



## COMMUNICATIONS AND OTHER HOUSEKEEPING

### Objectives

- Understand how people want to connect
- Identify participants for the implementation committee
- Refine the mission and vision statement

66





Document  
in folder

## MISSION STATEMENT

Tackle systemic processes, challenges, and barriers to enhance and expand equitable climate resilience among individuals and communities in the northern Gulf of Mexico by:

- **Convening, coordinating, and collaborating** with an integrated network in the Gulf of Mexico operating at the intersection of equitable climate resilience.
- **Advancing literacy** and improving knowledge sharing about the risks, needs, and opportunities for improving climate resilience in underserved, frontline communities.
- **Expanding research** focused on understanding potential solutions to the policies, processes, and systemic barriers that generate and sustain inequity in climate resilience.
- **Increasing action** by providing support so that a greater number of individuals and communities can pursue inclusive climate resilience planning and activities.

Reactions? Red flags? Missing elements?

67



Document  
in folder

## VISION STATEMENT

Our vision is a shift in the paradigm of climate resilience, making it more inclusive, and directly confronting the systemic issues that have perpetuated disparities in power, knowledge, and resources along the Gulf Coast.

Reactions? Red flags? Missing elements?

68





## IMPLEMENTATION COMMITTEE

- Small group of folks
- Meet quarterly
- Voice of direction, track progress, and participate in moving different priorities forward
- Subject matter expertise in focus areas

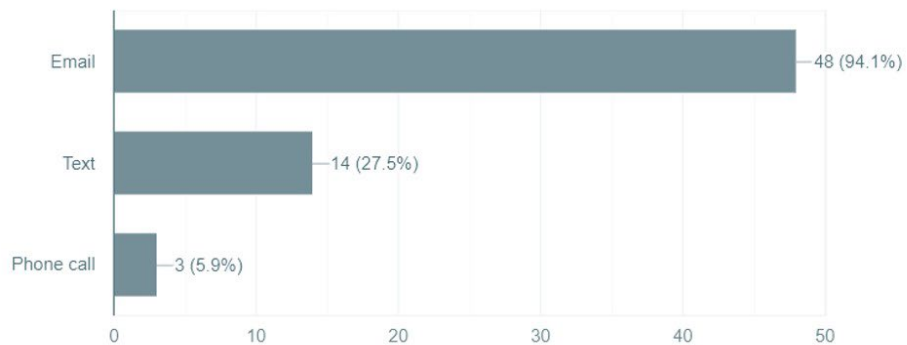
**Any volunteers?**

69



## EVENT AND SOCIAL UPDATES

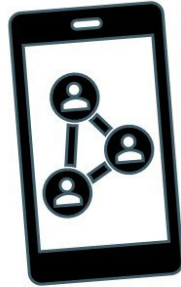
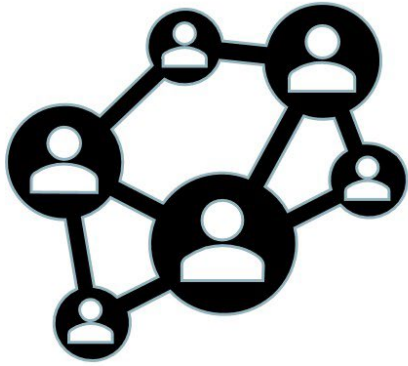
51 responses



70



## FORMS OF MEDIA



71



## REFLECTIONS



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