EDUCATIONAL TECHNIQUES TO FACILITATE INVOLVEMENT

DEVELOPED FOR THE COMMUNITY RESILIENCY ADAPTATION PROCESS

CM501, Deliverable 3.5

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Contents

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This mini-suite of resources is intended to assist planners implementing the adaptation process to understand approaches for the participatory elements of the undertaking. This guide answers questions about what the planning team and local representative's options are for facilitating community involvement during decision-making points. It will do this in the following order:

- **Saliency:** Presents the issue, in its immediacy, to the public[1].
- **Goals**: Sets motivations that will inform what is analyzed in terms of sea-level rise.
- **Projection**: Which scenario(s) will the community choose? At which point(s) in the future will they plan for?
- **Focus Areas**: Where do community preferences intersect with impact findings?
- **Adaptation Strategies**: Can creative strategies be elicited from stakeholder groups?
- **Prioritization of needs**: Which strategies are the most cost effective, and most preferred?
- **Monitoring & Feedback**: Participatory project monitoring, and ongoing feedback mechanisms.

This guide will briefly touch upon the recommended components of an adaptation plan before offering participation techniques for each of the above events. The components directly inform the participatory opportunities and approaches that are recommended, and so it is important to understand that often, stakeholder input propels the advancement of the entire adaptation planning process. The Appendices also useful information on specific media for participatory interaction and facilitation techniques. An accompanying PowerPoint will also assist planners and representatives to build upon community outreach for the duration of the adaptation process.

In their guide on stakeholder participation, NOAA (2007) writes that *complex situations with far-reaching impacts…generally warrant stakeholder involvement…[and that] stakeholder participation done proactively , rather than in response to a problem can help to avoid problems in the future.* This resource builds upon the theme of pro-active planning for a complex issue, providing guidance on how different stages of adaptation planning may be enhanced by participatory methods.

[1] Note: 'Saliency' and 'Identify Opportunities for public participation' are combined within this guide. Saliency, however, continues to play a role throughout all adaptation steps in which participation is recommended, because it serves to invigorate the process with public interest.

The Community Resiliency Initiative Adaptation Planning Process

There are four (4) essential components in the adaptation planning process: Context, Vulnerability Assessment, Adaptation Strategies, and Implementation Strategies (*see* Figure 1). Within each of these four main components are a number of supporting tasks (i.e., sub-components) that will assist each community with adaptation planning. It is important to note that these components are not intended to be approached linearly, and communities are likely to take many different planning approaches to meet their individual adaptation needs.[2]

Figure 1: Adaptation Plan Overview

Sea-Level Rise Adaptation Plans

Main and Supporting Components

1. Context
   - 1.1. Assemble a Steering Committee
   - 1.2. Identify Opportunities for Community Participation
   - 1.3. Set Guiding Principles + Motivations
   - 1.4. Describe the Planning Context
2. Vulnerability Assessment
   - 2.1. Conduct an Exposure Analysis
   - 2.2. Conduct an Impact Analysis
   - 2.3. Assess Adaptive Capacities
3. Adaptation Strategies
   - 3.1. Assign Focus Areas
   - 3.2. Identified Adaptation Strategies
   - 3.3. Prioritize Adaptive Needs
4. Implementation Strategies
   - 4.1. Survey Funding Options
   - 4.2. Integrate into Existing Plans
   - 4.3. Create a Schedule of Activities
   - 4.4. Monitor and Evaluate

1. Context. For the first part of an adaptation planning process, communities are encouraged to consider factors typical of all planning exercises, with a focus on how each factor relates to sea-level rise adaptation. This includes a survey of existing geographic, social, infrastructural, and environmental conditions. It also entails the creation of principles (e.g., goals, objectives and policies) to guide the planning process, which are distinct from prioritized needs set during the Adaptation Strategies Analysis phase.

Context refers to the preparatory activities taken by the planning team and the community to increase their understanding of the planning issue at hand, and to unite and fortify their efforts addressing the issue.

1.1 Assemble a Steering Committee. In order to write a sea-level rise adaptation plan that reflects the expertise and interests of the community's local stakeholders, a steering committee can be assembled. Steering committees have the ability to enhance all ensuing activities in the adaptation planning process.

1.2 Identify Opportunities for Community Participation. Within this sub-component, the planning team is encouraged to identify opportunities for community participation to inform the resources created during the Vulnerability Assessment, Adaptation Strategies, and Implementation Strategies components.

1.3 Set Guiding Principles and Motivations. By deciding on guiding principles and motivations, the community can establish its compass for navigating through the following components. The principles and motivations are one of the plan's most inter-active sub-

[2] Note: the underlined sub-components in figure 1 correspond to the participatory opportunities described in this guide.

components, and may be recalled to assist decision-making activities in the second, third, and fourth components.

1.4 Describe the Planning Context. Describing the planning context offers an opportunity to analyze prior adaptation planning efforts that may have occurred within or near the community, information gaps related to adaptation planning, the available human capacity (such as coastal scientists and land-use planners), and the outside resources needed to conduct the locally desired planning effort. Essentially, this sub-component provides a chance to assess the scope of work and the resources applicable to the adaptation planning process.

2. Vulnerability Assessment. The Vulnerability Assessment represents the second component in the sea-level rise adaptation planning process, and consists of measuring the impact of sea-level rise and identifying the people, infrastructure, and land uses that may be affected. Vulnerability is often used interchangeably with risk when measuring hazard impacts.

The **Vulnerability Assessment** draws from the Risk Assessment framework described in the Code of Federal Regulations (Title 44 CFR 201.6 (c)(2)), which measures the hazard exposures a community is likely to experience, and the sensitivities – e.g., populations and land uses – that may be exposed to the identified hazards.

2.1 Conduct an Exposure Analysis. An exposure analysis utilizes a sea-level rise projection to answer the question "where" based on two choices – when (what horizon) and how much (which scenario). The "where" will depend on which computer model is used (e.g., SLAMM, SLOSH, ADCIRC etc.) to produce the sea-level rise projection. The analysis can depict which areas in the community are likely to be susceptible to the chosen sea-level rise scenario on a map.

2.2 Conduct an Impact Analysis. Conducting an impact analysis helps the community to identify the potential economic impairment to different assets entities located in areas that are at risk to the sea-level rise scenario projected during the Exposure Analysis.

2.3 Assess Adaptive Capacities. This sub-component encourages the community to measure two forms of capacity: system-wide, and asset-specific. System wide refers to the degree to which the community is equipped to adapt to sea-level rise, through the existence of policies, structures, finances, and human resources that can assist or already are assisting to adapt to potential changes. Asset-specific refers to characteristics of an individual asset to accommodate or adjust to the effects of coastal flooding.

3. Adaptation Strategies. Adaptation Strategies represent the third component in the adaptation planning process, and are in effect a set of responses to the findings from the Vulnerability Assessment. Adaptation strategies are often classified according to their status as Protection, Accommodation, and Retreat (PAR) strategies. There are also a set of supporting activities that assist the development of the strategies themselves, which are described in this component. This component also identifies how adaptation strategies can be prioritized for each focus area, then applied through PAR and No Regrets interventions.

Adaptation Strategies refers to the toolkit of responses that communities can take to adapt to sea-level rise, as well as the steps taken to decide which adaptation strategies are the best fit based on the needs of individual communities.

3.1 Assign Focus Areas. With the assistance of the steering committee and community stakeholders, the planning team may assign focus areas. This sub-component responds to the sensitive entities and community capacity identified in the previous step and assigns community preferences to areas that will become the priority for adaptation strategy attention.

3.2 Identify Adaptation Strategies. Sub-component 3.3 contains the "bricks and mortar" of the adaptation strategies, or what is actually proposed to be done for each adaptation focus area. The strategies do not need to be physical. They can conform to Protection, Accommodation, or Managed Retreat as official policies

3.3. Prioritize Adaptation Needs. This sub-component recommends that the community develop a way – through cost-benefit, or other priority ranking – to decide which adaptation strategies will confer the greatest benefit in relation to their "cost" for each individual focus area.

4. Implementation Strategies. Once a set of adaptation strategies has been developed and analyzed, it is recommended that communities prepare for the supporting activities that can facilitate adaptation activities to be successfully undertaken. This includes locating, preparing for, and applying for potential funding opportunities; creating a schedule of adaptation actions for the future, and addressing monitoring and evaluation needs.

Implementation Strategies encourage communities to look into available funding for adaptation activities, describe which groups will complete which tasks, and create mechanisms to evaluate how the adaptation plan strategies are being accomplished.

4.1 Survey Funding Options. A systematic review of all known funding sources, as well as inquiry into new funding opportunities that may facilitate a successful implementation strategy.

4.2 Integrate into Existing Plans. In order to integrate the components of the sea-level rise adaptation plan into other plans, the planning team is encouraged to: identify all relevant documents, assess documents for potential inclusion points, and (if applicable) initiate collaboration with the responsible party to ensure that the applicable sea-level rise objective can be included at the time of the next update.

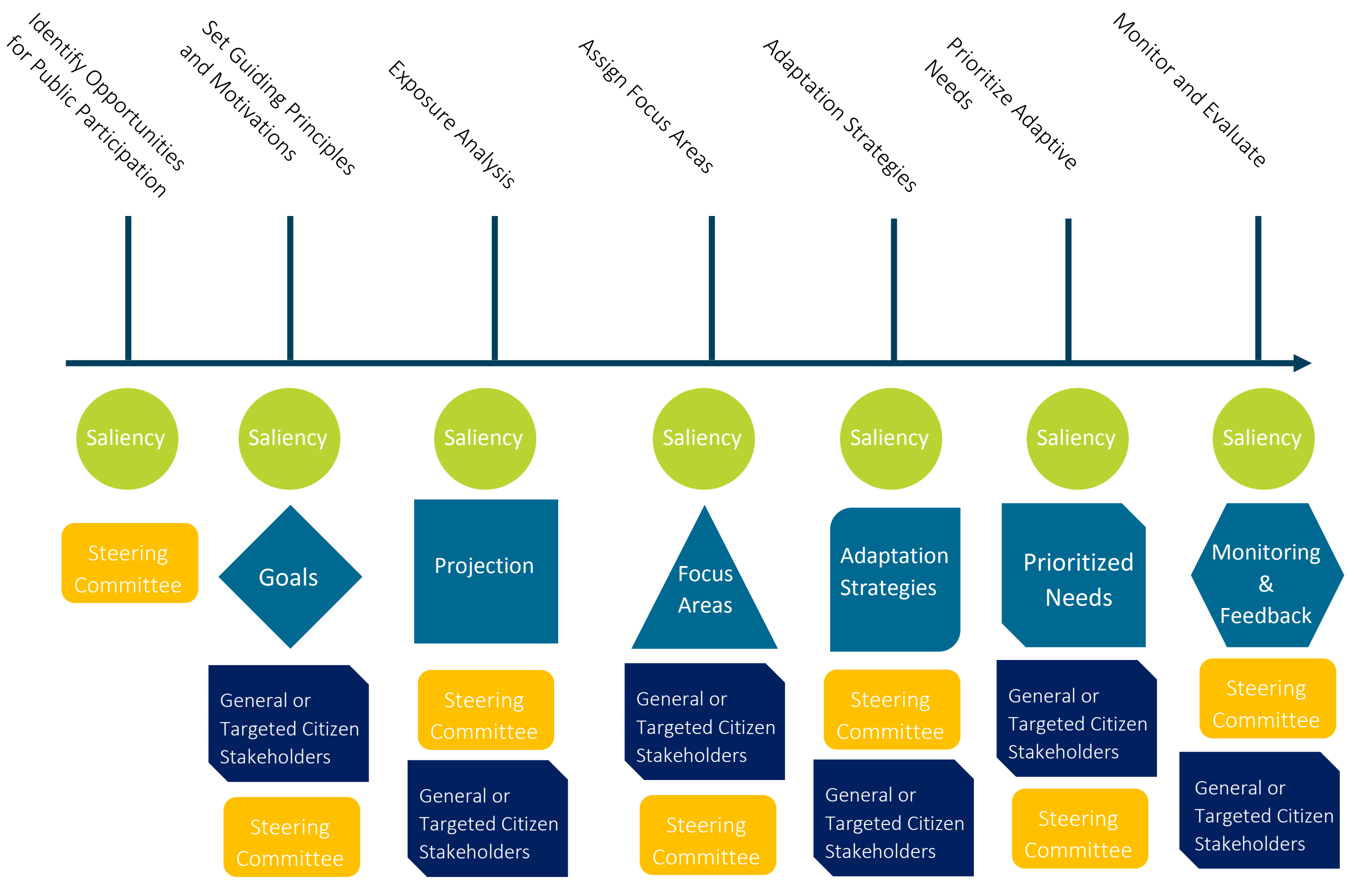
4.3 Create a Schedule of Adaptation Activities and Actors. Provide an impetus for the actions to be completed and the staff responsible for each action. This sub-component can serve to program different types of adaptation activities according to their prioritized need (see sub-component 3.2 above), and in pairing with funding opportunities, generate a concise and easy-to-follow plan.

4.4 Monitor and Evaluate. Monitoring and Evaluation extends throughout the horizon of the plan's implementation, which could extend decades. The ability to communicate the guiding goals of the plan across generations of implementing actors is essential. This is done through a Monitoring and Evaluation plan that uses consistent language, such as "indicators" that can be tracked throughout the implementation horizon and rated by different implementing actors.

Participatory Points in the Adaptation Process

Seven points during the adaptation planning process have been highlighted for stakeholder engagement. Figure 2 details those points of participation within the adaptation process. It also details the participatory functions involved, and the lead and secondary participants within each step.

Figure 2: The Adaptation Planning process with participatory moments assigned



Readers may refer to Appendix 3: Facilitation Roles and Tips, for insight on the role of the facilitator for the person-to-person interactive features of stakeholder participation events. The following sections provide greater detail on each section, including a meeting template for each step.

Identify Opportunities for Public Participation

Identifying Opportunities for Public Participation is recommended as the second step in adaptation planning. This guide addresses that step, and the ways in which opportunities for involvement pervade other steps in the process, *but it does* not *take the place* of performing some participation assessment activities locally, as part of the second step. In addition to mapping out participation points (as this guide has done), the following paragraphs provide suggestions for planners to consider in their assessment of local participation opportunities.

The planning team is encouraged to address the social side of the participation process by assessing its community members' prevailing ***attitudinal valence*** and ***issue involvement***. Attitudinal valence refers to stakeholders' position on the Six America's spectrum (see page 24). Often as a consequence of attitudinal valence, issue involvement refers to the activities that different community stakeholders are undertaking in relation to sea-level rise adaptation (both supporting and blocking). Thus, for all groups besides the 'Alarmed', the planning team may need to discuss messaging and communication strategies designed to increase the salience of adaptation planning to community constituents.

Saliency refers to ***the level of meaningfulness that a subject brings to bear upon an issue, or to the general values of a stakeholder group[3].*** In the context of adaptation planning outreach, saliency refers to the level of significance which stakeholders feel that sea-level rise holds in their lives and decision-making.

For stakeholder outreach activities involving saliency, education and awareness building are central. Community members need to know about the potential threat of coastal flooding, *and* they need to know concrete information about the planning being done to confront it. For these reasons, during early outreach it may be useful to incorporate a chart of the recorded sea-levels for the nearest NOAA tide gauge – representing the historic sea-level rise trend. In addition, sea-level rise projections can be exported from a publicly accessible sea-level rise visualization tool – to show the possible acceleration in rise rates over the coming decades. These tools indicate the great level of detail that scientists have already committed to projecting and mapping future change, and can be very tangibly felt when shown in a specific community. The tools also provide stakeholders with an introduction to the tools to explore sea-level rise possibilities on their own.

Another helpful contributor to saliency may be integrating testimonial of those who have "perceived experience with sea-level rise"[4]. Long-time residents of an area may contribute testimonial of lost barrier islands or coastal areas whereat they once recreated or performed business activities. An example of this is the Levy Coast Oral History Project, in which residents were interviewed about the disappearance of coastal landforms they had once known. Some long-time residents may not report witnessing any coastal changes, so it may be important to weigh the option to conduct an oral history based upon a quick survey

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[3] Note: this guide treats Salience as the importance and immediacy of sea-level rise in stakeholder's lives such that they feel motivated to plan for, and adapt to it; ***not*** to block adaptation.
[4] From http://environment.yale.edu/climate-communication/article/mapping-the-shadow-of-extreme-weather-experience/

of long term residents who have intimate experience with the coast, to determine whether change has been perceived.

Saliency is, nonetheless, a concept that persists throughout the planning process. The planning team may thus find it prudent to consider ways in which to maintain saliency in future coastal flood planning beyond the initial outreach event by utilizing a variety of techniques listed in Appendix 1: Stakeholder Participation Techniques.

Activity Template: Identify Opportunities for Public Participation

Activity Description: Awareness Building Outreach

Format: Open House

Preparation, Pre Activity:

- General Public – None
- Representative – Choose a sea-level rise visualizer and database of resources to present, and peruse it (1 hr)
- Meeting facilitators – Prepare salient visualizations of the community available through the visualizer, and "talking points" about the upcoming process.

Length: 2 – 4 hours

Approaches: In this activity, community members will be solicited by the project team to attend an informational meeting in which issues will be presented and attitudes gauged. Per best practices developed by Fort Lauderdale, the theme should be: "This is happening, let's do something about it", and avoid causes or speculation on reality of coastal changes.

Outcome: To engage a segment of the public, in person, to spread word about the process, and to attend future decision meetings.

Barriers to Desired Outcome: Poor attendance of physical event, "Position" attendees who want to debate existence and causes of sea-level rise, lack of participant buy-in to proposed planning effort.

How to Overcome Barriers:

- Ensure that event advertising is widespread, and occurs in advance, to the scheduled Open House. Hold the Open house in a prime community location. Have a Facebook event with RSVP tracking (i.e., "going", "not going", "maybe")
- Avoid "position", focus on "interest" – ask participants to clarify their values, rather than their position. This will help reach an explanation that is satisfying to all parties.
- "Bridge and pivot" – acknowledge comments posed by disruptive attendees, and re-orient the dialogue by segueing back to the topic at hand.

- Techniques to engage buy-in:
    - *Co-benefits of adaptation planning* – making assets and populations more equipped to deal with flooding will make them more productive and healthier, today.
    - *Sustainability principles* **–** satisfy the needs of the present without compromising the ability of future generations to meet their needs.
    - *Cutting edge planning* – helping the community to leverage the best planning mechanisms available to improve quality of life.
    - *Hazard Planning* – communities already plan for hazards; this set of activities represents an elaboration of flood-based resiliency planning.

Goals

Setting goals through a participatory process, early on, means ***identifying assets or community functions related to sea-level rise for which community stakeholders would like to increase resiliency***. This participatory step may determine the community assets that are analyzed for vulnerability, and different flooding phenomena, such as storm surge, which planning teams examine during the Vulnerability Assessment phase. Major questions within this stakeholder participation point include:

What do we want to get out of this?

Why are we doing this?

What aspects of adaptation do we want to focus on?

Outcomes may include goal statements ranging from sustainability, to more direct commitments to particular assets within the community (e.g., infrastructure, environment, historic structures, etc.).

Activity Template: Set Motivations and Guiding Principles

Activity Description: Citizen Empowerment via goal-setting process

Format: Large group/ small group meeting

Participant Preparation, Pre Activity:

- General Public – Visit a selection of sea-level rise related resources, and consider local impacts (1 hr)
- Representative – Review local regulatory documents, and assess gaps in goals related to coastal flood planning. (2 hrs)
- Meeting facilitators – Review local regulatory documents, and assess gaps in goals related to coastal flood planning. Create sample goal templates for Infrastructure, Real Estate, Environmental, and Social issues related to coastal flood planning.

Length: 2 – 4 hours

Approaches: Through this activity, community stakeholders, steering committee members, and representatives will work to create new motivations for undertaking adaptation planning. These will guide the planning process and possibly even future policy language. From a general assembly, small groups will break out and create their own sets of goals for various topic areas. Smaller groups should also include steering committee members and representatives.

Outcome: Increased stakeholder buy-in. Coastal Flooding Adaptation Plan Goals.

Barriers to Desired Outcome: Poorly understood meeting objective, belief that planning effort lacks importance, contradictory goals, and lack of diversity in stakeholder participant opinion in goals.

How to Overcome Barriers:

- Publicize the meeting through proven methods.
- Target multiple different demographics for invitation to the meeting.
- Clarify, during the invitation phase, the meeting objective.
- Include links to information about saliency of adaptation planning before meeting, and briefly address saliency at beginning of meeting.
- Plan for multiple large group / small group meetings in different locations.

Projection

For public decision-making facilitation related to a sea-level rise projection, participants must achieve ***some consensus on the sea-level rise scenario(s)[5], and horizon year(s)[6] that will be projected***. These decisions will inform the extent to which sea-level and other coastal flooding cause erosion, inundation, habitat loss or migration, and other community impacts.

It may be important during this point of participation to buttress citizen stakeholder input with that of experts. For the Southeast Florida unified sea-level rise projection, an expert panel worked with a "Technical Ad hoc Work Group" to discuss and decide upon the projections adopted by Miami-Dade, Broward, Palm Beach, and Monroe County.

Activity Template: Choose Projection Tools and Method

Activity Description: Stakeholder input and plan-guiding process

Format: Focus group with stakeholder representatives from a diverse group of community interests (i.e. chamber of commerce, conservation groups, HOA groups, utilities representatives, other major group representatives) and Steering Committee members

Participant Preparation, Pre Activity:

- Stakeholder representatives: study a selection of sea-level rise projection visualizers and tools, and various information about the local sea-level rise context (2 hrs)
- Community Representatives: same as above, and additionally: review future land use maps and tide gauge data for the nearest location, ipcc sea-level rise and emissions scenario information, and historic tidal flooding records in the community (3 hrs).
- Meeting Facilitators: same as above, and additionally: prepare 3 model and scenario options for participants to choose from, that include horizon year, amount of rise based on scenario, and other coastal flooding effects and model outputs.

Length: 4 hrs.

Approaches: Through the focus group selection exercise, a variety of interests may inform the projection and model selection. By involving diverse groups in a more intensive activity, it is likely that more issues may arise concerning a final solution. However, through good facilitation techniques (see Appendix 3: Facilitation Roles and Tips), decisions can be made that will ripple back into the respective areas of the community from where focus group members came. In turn, greater buy in from community groups may result.

[5] More than one scenario equates to different amounts of vertical sea-level rise, and by consequence, inundation and other land cover changes, for each 'horizon year'.

[6] More than one horizon year equates to inundation and land cover changes at different years (e.g. 2060, 2100, etc.). With multiple scenarios ***and*** multiple horizon years, several possible futures can be projected for multiple points in the future.

Outcome: A projection method, and model through which to project future impacts. Model output will affect decisions related to strategies, which will in turn affect regulatory mechanisms such as the future land use map, or current zoning maps, in addition to other documents.

Barriers to Desired Outcome: Non-participation of stakeholder representatives from diverse community backgrounds, disagreement over projection method and tool selection, excessive discussion prohibits decision making, participant confusion or non-comprehension of topic

How to Overcome Barriers:

- Ensure diverse stakeholders are approached and RSVP for the event
- Assist participants to obtain the information recommended in "pre-activity", above.
- Pro-actively ensure that stakeholders comprehend some of the material before the event.
- Apply good meeting facilitation techniques (See Appendix 3).

Focus Areas

With a detailed description of impacts in hand, the planning team may turn to community stakeholders to ***inform where and what, specifically, will receive attention for adaptation strategy generation***. Whereas goals may have indicated a community preference for natural areas and historic properties, it is within this step of participatory engagement that specific areas, assets, or habitats would be selected to target for adaptation strategies that will be in place by the horizon year at which point the effects are shown.

Activity Template: Focus Area Assignment Based on Projection

Activity Description: Information sharing, and empowerment through focus area choice.

Format: Large Group / Small Group Meeting

Participant Preparation, Pre Activity:
- General Participant: Familiarize with project and model being utilized. (1 hr)
- Community Representative: Consider projection output as it relates to land uses, assets, and other community features (3 hrs)
- Facilitators: prepare all model outputs into large and medium-sized maps. (6 hrs)

Length: 2 – 4 hrs.

Approaches: Through a large group / small group meeting, the planning team may build off of focus group participation in the prior community engagement. More stakeholders may attend, and smaller groups may be partitioned to include a mix of different stakeholder backgrounds. By examining the model outputs, groups may then collaboratively vote on where they would like to see adaptation efforts focused.

Outcome: Categorical and Spatial descriptions of key community assets on which adaptation strategy creation will be focused. Community anticipation and interest in development of adaptation strategies, and the role of resilience, in planning the future for the community.

Barriers: Belief that personal / business rights may be infringed upon (e.g., eminent domain), anxiety to promote something as a focus area because of perceived changes to the current state in which the area, or asset exists, disagreement over location / categories of focus areas.

How to Overcome Barriers:
- Include strong evidence within the presentation to indicate co-benefits of adaptation planning.
- Develop a plan to show that ‘property rights infringement’ is not an adaptation strategy.
- Practice good facilitation techniques (see Appendix 3).

Adaptation Strategies

The creation of adaptation strategies may be a complex and technical process, involving engineers, community zoning and code experts, and legal experts, among others. ***By providing a creative feedback mechanism, however, excellent mitigation and preparedness projects may surface that would not have otherwise have come to light.*** HUD's *Rebuild by Design* is one successful example of this type of collaboration at the national level. During this phase, representatives and the planning team may put out a call for proposals from local architectural, planning, and engineering firms for resiliency projects directed at one or more of the focus areas.

Design competitions involve stakeholder outreach that is independent of the adaptation planning process. Due to the human time and capital required to complete these requests for proposal, the timeline may have to exist in parallel to traditional, in-house adaptation strategy planning efforts. The planning team is encouraged to think of the timelines and resource requirements before reaching the adaptation strategies step in the planning process if they wish to solicit creative feedback for adaptation strategies.

Activity Template: Adaptation Strategy RFP and Feedback

Activity Description: Call for proposals from qualified firms, and general suggestion repository

Format: Request for Proposals (RFP), Hotline, and Town Meeting

Participant Preparation, Pre Activity:

- Participants (general community): familiarize with adaptation planning project. Brainstorm solutions based upon focus areas and guidelines. Submit project ideas (simple). (3 hrs).
- Participants (RFP respondents): familiarize with total project to date, and with resilient strategies such as rebuild by design; create a proposal for community based upon community representative interaction (40 hrs)
- Community Representatives: Decide upon major adaptation strategy areas for which an RFP may be appropriate, help design rfp, and help to publicize hotline (8 hrs).
- Facilitators: Create a call for proposals template, establish the hotline, and (subsequently) prepare presentation materials for town meeting. (40 hrs)

Length: Multiple

- RFP: 2 – 3 weeks
- Hotline: 2 -3 weeks
- Town Meeting: 2 – 4 hours

Approaches: Adaptation strategies consist of protection, accommodation, and retreat (includes avoidance) options that multiple different creative processes can stimulate. For more complex solutions, an RFP may be ideal. For simple filling out of the idea pool, a hotline (e.g. telephone or website-based comment page) can generate community-proposed ideas. Finally, the town-hall meeting represents the forum for dialogue about the entire spectrum of proposed techniques.

Outcome: A final shortlist of adaptation strategy projects (can be planning, regulatory, structural, informational, etc.). Community buy-in for different strategies.

Barriers: Lack of creative solutions proposed, Lack of local capacity for an RFP, disagreement over RFP solutions.

How to Overcome Barriers:

- Have steering committee and local experts prepare a list of projects in parallel to these participatory efforts.
- An RFP may not be plausible if planning, engineering, and design firms don't exist in the local area. The community may choose to solicit from the outside, or look to its local human capacity.
- In the even that RFP solutions are submitted, facilitate the town-hall meeting *in such a manner that wouldn't lock the community into a choice*. There should be a no-build option.
- Based on the above bullet, ensure that RFP's are flexible, and communicate that *only a draft proposal is necessary*. This will avoid resentment on behalf of contractors for committing excessive resources.

Prioritization of Needs

Prioritization through stakeholder feedback ***seeks to incorporate preferences and values related to adaptation strategies, either by directly relating the strategies or by prioritizing characteristics of an ideal strategy***. Participants may be shown a portfolio of actual projects, by focus area, that they may "rate" according to characteristics such as perceived aesthetics, environmental impacts, and efficacy. Or, they may leave the number-crunching to the planning team by registering their preferences for one kind of strategy over another (e.g. environmental conservation easement strategies preferred to hard structural strategies).

Activity Template: Poll Community-Preferred Adaptation Strategies

Activity Description: Community member consultation for desired adaptation strategies, which will integrate preferences expressed according to costs and benefits. Costs and benefits may include dollar values and/or other non-monetized preferences.

Format: Survey (e.g., online poll or mail-out)

Participant Preparation, Pre Activity:

- Participants: None
- Community Representatives: Identify ways to communicate the proposed strategies (1 hr)
- Facilitators: Develop the survey format and questions. Create the survey in the desired medium (e.g., printed, surveymonkey.com, etc.) (8 hrs)

Length: Open response period – 1 week; time to complete 15-30 min.

Approaches: A survey will allow a great number of experience the pro-active planning effort, perceive co-benefits, and express their preferences for interventions that represent the main outcomes of adaptation planning.

Outcome: To have a solid foundation of community opinion registered, in an "informal referendum" format, to fold into the implementation step of the process.

Barriers: Lack of response participation, mis-understanding of survey goals, lack of response diversity.

How to Overcome Barriers:

- Assess which survey medium will garner the most results (e.g., online, paper).
- Target community stakeholders and assist them in answering the survey.
- Clearly define the process steps taken to date, and the current task at the beginning of the survey.

Monitoring and Feedback

Participatory monitoring efforts can ***help the community to observe unanticipated coastal flooding impacts and effects of adaptation strategies***. Stakeholder feedback can gauge community satisfaction with existing projects, and provide a forum for addressing new concerns as they arise. Together, these two participatory activities will long outlast the planning effort, and may be integrated with other ongoing M&E mechanisms to ensure that continued attention is paid to them.

Activity Template: Ongoing stakeholder feedback and volunteerism

Activity Description: Communities are encouraged to establish a long-term, simple feedback mechanism whereby individuals may express new concerns or developments about the selected adaptation projects. In addition, some adaptation projects (usually environmental), involve a degree of monitoring. Community members usually volunteer their time willingly to observe if the desired effects are occurring, and may even be able to provide maintenance and upkeep labor.

Format: Social Media

Participant Preparation, Pre Activity:

- General Participant: some familiarity with the adaptation process (1 hr)
- Community Representative: familiarity with all projects and stakeholders (3 hrs)
- Facilitators: creation of the initial social media landing pages for feedback and adaptation strategies. (8 hrs)

Length: *Ongoing*

Approaches: By coordinating feedback and monitoring efforts through social media, community representatives will have a simple source for managing these efforts after the planning effort has ended. Stakeholders may find contact information for feedback and volunteer opportunities on a facebook page. In addition, ongoing events will be easy to locate.

Outcome: Successfully monitored adaptation projects; Feedback that will assist in determining whether adjustments need to be made to specific projects.

Barriers: Taper-off in community participation. High volume of feedback that is difficult to process. Difficulty to maintain.

How to Overcome Barriers:

- Establish recurrent events for monitoring activities, and post those regularly to the social media outlets. Don't feel obligated to continually post.

- Network through existing volunteers. Ask them to recruit additional volunteers via word of mouth.
- Discuss staff schedules (among community representatives) to determine where time can be created to regularly address feedback.
- Meetings can also be held to address feedback if a hot topic issue arises.

Conclusion

Stakeholder input throughout the adaptation planning process may yield excellent results: higher citizen awareness and level of education concerning the issue, greater buy-in, creative participation, and even empowerment over issues affecting the development and destiny of the community. In order to guarantee an open process in which adaptation planning engages local stakeholders, communities are encouraged to utilize this resource as a springboard to program stakeholder participation into their adaptation efforts.

Photo credit: Bill Koptlitz, https://www.fema.gov/media-library/assets/images/44299

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Appendix 1: Stakeholder Participation Techniques

General Best Practices

Best practices in stakeholder participation refer to the principles and aims that underlie the chosen participatory strategy. Although each of these elements of stakeholder involvement may not be possible or even optimal for each of the following input stages in the adaptation process, they are still important factors by which community involvement may be designed[7].

Active Participant Involvement

- **Opportunity for Input**
- **Early Involvement**
- **Motivated Participants**
- **Influence over the Final Decision**

Optimal Decision Making

- **Exchange of Best Available Information**
- **Constructive Dialogue**
- **Adequate Analysis**

Fair Decision Making

- **Transparency**
- **Representative Participation**

Efficient Administration

- **Cost-effective**
- **Accessible**
- **Limited Influence of Sponsor**

Positive Participant Interaction

- **Positive Social Conditions**
- **Constructive Individual Behavior**
- **Social Learning**

Considerations related to each best-practice are informed by the medium of communication used (e.g., in-person meeting, mail-out, electronic message) and by the stakeholder group involved (e.g., general public, specific population).

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[7] List originally appears in (NOAA, 2007). For definitions of terms visit this link: http://www.coast.noaa.gov/publications/stakeholder_participation.pdf#page=11

The Six Americas

The Six Americas refers to an exploration by Yale University (2009) on the different stakeholder views in relation to future weather patterns. For the purpose of this guide, we have applied the *Six Americas* to views on potential future coastal flooding. Regardless of the participatory action involved, understanding possible stakeholder views will likely assist in facilitating constructive planning activities. The six possible stakeholder views, adapted from Six Americas, are:

1. **The Alarmed** – Have high confidence in likelihood of future flooding; are most concerned, and most motivated to act to mitigate or adapt to possible future scenarios.
2. **The Concerned** – Have confidence in likelihood of future coastal flooding; somewhat motivated to act to mitigate or adapt to possible future scenarios.
3. **The Cautious** – Feel less certain about the likelihood of future coastal flooding; feel little motivation to act to mitigate or adapt to possible future scenarios.
4. **The Disengaged** – Have not thought about the issue of future coastal flooding; have no current motivation to act, but are open to developing a new opinion.
5. **The Doubtful** – Are split between individuals characterized by some level of certainty, the dismissive, and those who don't know whether future coastal flooding is likely; feel little motivation to act to mitigate or adapt to future scenarios.
6. **The Dismissive** – Have high confidence that changes in coastal flooding are not going to happen; feel no motivation to act to mitigate or adapt to future scenarios.

Communities wherein a large population of the dismissive live may need to adjust their pre-adaptation planning time frame to incorporate public awareness campaigns, and even "pre-plan" focus groups to determine whether or not the time is conducive to such an endeavor.

The following table details a spectrum of stakeholder participation methods, from in-person to internet communication. The planning team is encouraged to weight the benefits of a specific application of each technique during each of the seven points during the adaptation process.

Method	Description
Advisory group / task force	Small group of people representing various interests set up to give advice on programs or actions.
App	A program that operates on a smartphone. Could be used to poll, disseminate information, or provide services.
Charrette	Intense, multi-day effort to design something or solve a problem.
Field trip	Trip to specific location organized so that participants can match mental images to real conditions.
Focus group	Small discussion group led by a facilitator who draws out in-depth stakeholder input on specific questions.
Hotline	Widely advertised telephone number that directs callers to someone who can answer questions and collect input.

Interview	Face-to-face or telephone interaction with stakeholders conducted by the agency or by a third-party representative.
Large group / small group meeting	Opening presentation, then division into smaller groups to discuss an issue or complete a task.
Open house	Event in which the public is invited to visit a location with staffed booths or stations.
Poll or Survey	Written or oral lists of questions to solicit community impressions / facts about issues at a specific moment in time.
Public hearing	Formal, single meeting where stakeholders present official statements and positions that are recorded.
Public meeting	Large public comment meeting where comments are made to entire audience.
Referendum	A direct vote by the whole electorate on its support of specific proposals.
Retreat	Concentrated, informal meeting that emphasizes social interaction as well as issue discussion.
Social media	Information and interactive event and issue marketing carried out through web and app platforms such as Facebook, Twitter, and Instagram.
Town Hall meeting	Less formal public hearing where all stakeholders have the opportunity to speak and vote.
Website	An online resource center that may provide (on the front end) information, interactive data, feedback mechanisms, and (on the back-end) analytics to administrators.
Workshop	Small stakeholder gathering, typically fewer than 25 people, designed to complete a specific assignment in a short time period.

Adapted from (NOAA, 2007)

Appendix 2: Participatory Technique Ranking Table

This table may be utilized by the planning team and community representatives to weigh the usefulness of different techniques for each of the seven stages. ***For each proposed technique (rows), the team may choose a ranking of high, medium, or low, as the probable capacity of each technique to fulfill the best-practice aim (column)***. Planning teams are encouraged to reflect on the merits and weaknesses of as many options as possible.

	Active Participant Involvement				**Optimal Decision Making**			**Fair Decision Making**		**Efficient Administration**			**Positive Participant Interaction**		
Desired Technique	Opportunity for Input	Early Involvement	Motivated Partici-pants	Influence over final decision	Best available information exchange	Constructive Dialogue	Adequate Analysis	Transparency	Representative participation	Cost Effective	Accessible	Limited influence of Sponsor	Positive social conditions	Constructive personal behavior	Social learning

Appendix 3: Facilitation Roles and Tips

The third appendix draws from NOAA's short guide to facilitating meetings (2010) in order to offer best practices for facilitators in in-person settings[8]. It also elaborates on the emergent role of the "electronic media facilitator", or the role of the planning team and community representatives in outreach efforts through apps, websites, and social media.

Within all of these media the planning team is encouraged to refrain from political statements about the issue. Rather, drawing from the Fort Lauderdale Adaptation Action Area pilot, here are some do's when projecting information and interacting online:

Do interact with residents as neighbors; grab their attention with a story. Brand your key objectives in a way that keeps a compelling theme.

Do communicate gradually progressing from short-term solutions to long-term solutions over time.

Do ask for concerns, ideas, and preferred solutions. Give people the space to look at things different in their own time.

Do use the incentive approach.

Do communicate risk carefully and effectively – soften language (may, could, etc.).

In-Person Meetings

For all outreach for which the planning team feels that in-person interaction will comprise the best-suited form of participation, they are encouraged to plan with the following principles in mind: Stages of a Discussion, Positions versus Interests, and Facilitation Techniques.

The Stages of Discussion consists of three phases – ***opening, narrowing,*** and ***closing.*** Within these three phases, "Opening" consists of the idea generation and clarification phase. Examples are brainstorming, general discussion, and question and answer sessions. These activities are *not* common to all in-person outreach (such as public hearings). In the second phase, "Narrowing", information is combed and pruned to eliminate duplication. It is also organized. Finally, a "Closing" consists of decision-making and priority selection. Depending upon the participation technique, all three or a lesser number of these phases will be employed.

Positions are ***opinions about how a problem should be solved, or how a group should accomplish an objective.***

Interests are ***underlying values or areas of importance for individuals or groups***[9].

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[8] For the entire NOAA resource on facilitation, see this link: http://www.coast.noaa.gov/publications/Intro_to_Planning_and_Facilitating_Effective_Meetings.pdf#page=16

[9] From (NOAA, 2010).

Facilitators are encouraged to think about group problem-solving in-terms of defining interactions in terms of interests, and by overcoming positions.

Finally, there are facilitation techniques. NOAA lists fifteen such in-person techniques:

Facilitation Technique	Description
Breakout Groups	Small sub-groups of 5-20 people who report back to the larger group about the results of their discussion or other activity.
Active Listening	Eye contact, attentive body language, and other cues to signal that speaker is heard. Convey neither approval nor disapproval.
Asking Questions	Ask open-ended questions to encourage discussion.
Paraphrasing	Repeat what has been said to clarify the comment or issue at hand.
Summarizing	Concisely sum up details of a series of input, or the meeting as a whole.
Synthesizing	Commenting on, and building together of ideas in a constructive fashion, through record keeping on something visible to the whole audience.
Negative Polling	Ask the group, or sub-group, about their hesitations or other concerns in order to reveal deviations from consensus.
Boomeranging	Rather than focusing on "content expert" (a direct response to the question), facilitator re-directs queries back to the person posing the question, or general group.
Restating the Purpose	Reels meeting activities back to their intended focus.
3-Step Intervention to deal with Disruptive Behaviors	Step 1 – Describe problematic behavior. Step 2 – Make impact statement about how disruption is affecting the presentation. Step 3 – Redirect disrupter's behavior (e.g. open ended question to person).
Labeling Sidetracks	Making participants aware that meeting activity is sidetracked in its current state.
Parking Lot	A recording of feedback on a device visible to all participants. Issues in the lot may be addressed later in the event, or at a future event.

Mirroring	Description of participants’ behavior, comments, and expressions in order to draw attention or resolve indirect barriers to successful events.
Remaining Neutral	Avoid opinions. If a viewpoint needs to be expressed that is non-neutral, alert participants that you are doing it outside of the facilitator role.
Flip Chart Note Taking	Records decisions, focuses attention, and assists in efforts to ensure that agreement is being achieved.

Digital Media

Online media often involves comment forums, miniature comment posts (tweets), polling, and passive data (called “digital breadcrumbs”, or the innocuous information that can be registered from activity at a given website or on an app). These resources require active facilitation as well. Often, the issue of saliency figures highly into these media. Issues and digital media retain saliency when they are regularly updated with content that is meaningful to stakeholders. Some digital facilitation strategies are detailed below:

- **Twitter** – The planning team may engage an audience through Twitter by issuing regular 140 character comments about the planning process, including info about upcoming events.
- **Facebook pages** – A project page can regularly be updated with news and information about the process, including events. Photos and video may also be posted in order to increase transparency of past events.
- **Websites** – A website for the planning process may serve as the main repository for information about the project.
- **Flickr / Instagram** – These photo pages may be utilized to post images of areas being planned for (in order to strengthen saliency) or of past events (in order to increase transparency).
- **Survey Monkey** – this website and others like it allow for vast, inexpensive dissemination of questionnaires to email lists. This may augment mail-outs, or replace them.

In situations around the world, new demographics have been encouraged to voice their preferences, and even to assume a more involved participatory role, through the use of these media.