

Macro-Adaptation Resilience Toolkit (MART)

Facilitation Guide

Version 3.0

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I. OVERVIEW

Climate Change and the Prospects of Resilience

The impact of climate change already is being felt in communities and neighborhoods throughout the United States. Residents in these localities already have begun discussions and activities to promote climate resiliency, thereby enhancing the capacity to better withstand and recover more quickly from the effects of extreme weather events and chronic climate change-related conditions such as increased rates of sea level rise and coastal flooding and inundation. Discussion of greater community resiliency is coupled with concern for current and rapidly emerging risks and hazards as well as longer-term threats. Embedded in these are questions of how climate change might impact residents' quality of life and whether the requirements to maintain or enhance quality of life in the face of climate change will force incremental adjustments to everyday life or larger scale more profound transformative changes.

A demand exists for new models on how cities and communities can promote and achieve resilience. Current approaches to resilience often fail to address the core values of local populations, resulting in a 'climate adaptation gap' between climate change experts' prescriptions and local populations' needs. The Macro-Adaptation Resiliency Toolkit (MART)¹, presented here, is designed to support communities or other similar entities and organizations as they examine the interplay between climate change and local quality of life. Promoting resilience in a community entails strengthening the community's capacity to not only "bounce back" from extreme weather catastrophic events (such as Hurricane Sandy in the New York Metropolitan Region) but to also potentially "bounce forward" and define and implement new and innovative approaches that will simultaneously enhance quality of life and adaptation to climate change.

Many communities already have had significant debates regarding the climate risks they face, quality of life aspects, and requirements for adaptation and resilience. Part of the struggles around these debates has been that these three issues have been misaligned in the resiliency planning process. MART is designed to lessen the struggle around creating these plans between communities and municipalities. The MART process encourages a discussion and formulation of strategies that align quality of life issues, climate risk and adaptation and resilience actions. MART therefore can be integrated into ongoing programs and strategies within communities, and answer questions of how to affect change, instead of discussing potential conditions of change. A critical step in the preparation and running of the MART process will be an assessment of what the community members what they want to get from the discussions and an understanding of whether these goals are being meet. Potential clients for MART could include civic associations, block associations, community group/boards, and local organizations/agencies.

¹Embedded in the toolkit are two approaches to adaptation: 1. Small-scale strategies often associated with near term resiliency efforts (i.e., micro-adaptation) and 2. Large-scale strategies associated with broad longer-term transformational needs (i.e., macro-adaptation).

Purpose of MART and its Value for Communities

The Macro-Adaptation Resilience Toolkit (MART) aims to close the climate change adaptation gap by providing communities and climate change adaptation planners with a method for connecting adaptation planning to local needs. MART's primary innovation is to focus on how community members' quality of life could be impacted by disaster risk reduction and climate change adaptation planning. Quality of life indicators include factors such as housing conditions, safety, income and jobs, mobility, education and health. These elements reflect the core values of populations, which in turn shape and influence the goals of adaptation strategies. Paying attention to core values allows us to understand where adaptation strategies can fit within the relationships between communities and their everyday lived experiences. Values and climate risks are also dynamic across social scales, posing the need for adaptation strategies that take these differences into account.

The key goals of MART are to:

- 1) Help define the key quality of life conditions of a self-defined community
- 2) Connect climate change conditions and quality of life indicators
- 3) Engage climate change adaptation strategies and projects that can be employed to enhance quality of life indicators
- 4) Promote discussion on how the identified strategies and projects can be brought into action

Outline of this Document

This document describes how to facilitate a Macro-Adaptation Resilience Toolkit (MART) workshop. Accomplishing the goals of the toolkit is done through a minimum of 2.5hour workshop with community members. The results of the MART process can be used by community members to determine how to allocate funding and resources for resilience adaptations that best address local populations' quality of life challenges. We anticipate that this process can be fine-tuned to fit the specific needs of a particular community, and we encourage you to share with us your comments and feedback on this document and on the MART process itself (please send comments to William Solecki at wsolecki@hunter.cuny.edu).

Basic Steps and Timeline of MART

MART includes a series of basic stages, each with an associated time requirement. By design, MART is a flexible process and can be adjusted to meet the demands and interests of individual clients. The stages include the following:

- **STAGE 1: Pre-planning a MART Workshop – starting a minimum of four weeks before the workshop**
 - Initial consultation between client and MART team
 - Co-generation of MART implementation goals and objectives with framing document produced
 - Background review of community conditions and context
 - Invite community members to the workshop
- **STAGE 2: MART Workshop – 2.5 hours minimum** (MART workshops also can be done over longer times. These longer workshops provide opportunities for additional

interaction, i.e. for four or more hours on one day; or multiple interactions, i.e., over several sessions). The workshop will include four exercises central to the execution of MART. They include: A. Identification of key Quality of Life indicators; B. Specification of interactions between climate change and key quality of life indicators; C. Identification of how ongoing and proposed adaptation strategies and projects could produce quality of life shifts; D. Identification of strategies for ensuring that community proposals for adaptation strategies and project are translated into meaningful action.

- **STAGES 3: Post-workshop activities – up to six weeks following workshop**
 - Consult with MART team – immediately following the workshop to do initial assessment of workshop and results
 - Development of draft workshop report
 - Review of draft workshop report by client
 - Development and submission of final workshop report

The MART process is designed to be flexible and meet the current needs of the client and as a result is designed to be flexible. With the respect to workshop, it is understood the some clients might want to focus on all four exercises while others might want to focus on only one or two exercises. The pre-planning process will help the facilitators understand exercises the client wishes to focus attention on.

II. PRE-PLANNING A MART WORKSHOP (STAGE 1)

Although the MART process is community-driven, prior research on community engagement sessions indicates that participants prefer and benefit from having an outside facilitator leading the process. Outside facilitators' primary roles are to keep the meeting and discussion flowing in a timely fashion, to mediate between conflicting opinions, to stimulate dialogue between participants with complementary knowledge bases, and to 'define terms' for discussion such as briefing participants about the projected local impacts of climate change.

MART Facilitation Teams

The following describes the responsibilities for the five roles that members of a MART facilitation team must fill. Although it is certainly possible and, in many cases, desirable for a person to fill multiple roles (e.g. for the same person to be the facilitator, climate expert, and climate change adaptation expert), facilitation team members should be cautious about taking on too many roles. In deciding the appropriate size of the facilitation team, facilitators should be mindful of the number of participants they are expecting to attend the workshop. A workshop with 10 or fewer participants could potentially be run by as few as two people filling all of these roles, while facilitators expecting more than 35 participants might consider a facilitation team larger than five people (e.g. creating an 'assistant scribe' role.) (see Appendix 1 for a list of the MART facilitation team members and their specific responsibilities).

Planning the Workshop

The first step in planning a MART workshop is to meet with the client (i.e. key informant in the community). The facilitator will help the client identify local issues, potential participants,

avenues for recruiting participants, and can suggest local venues to host the workshop. The statements on the goals and objectives of the workshop will be developed via collaboration between the facilitation team and client(s). Research background information on the community will be developed and reviewed. The client(s) and others identified by the client will be consulted to help identify local issues, potential participants, and assess meeting logistics (including the venue, number of participants, printing of materials, and catering).

III. FACILITATING MART WORKSHOP (STAGE 2)

The MART workshop session is a community meeting (or set of meetings) where the facilitation team guides participants through identifying the quality of life indicators most important to the local population and understanding how those indicators might be impacted by climate change and climate change adaptation projects. A MART workshop includes **six steps** with three middle steps focused on discussion and debate of Exercise A, Exercise B, and Exercise C.

1. Introduction to MART and the facilitation team
2. Presentation and Exercise A: What QoL indicators are most important to this community?
3. Presentation and Exercise B: How climate change could impact the QoL indicators previously chosen
4. Presentation and Exercise C: How proposed climate change adaptation strategies and projects could impact the QoL indicators previously chosen.
5. Presentation and Exercise D: How can adaptation strategies and projects identified be translated into meaningful action.
6. Reflections and wrap-up: How can the community ensure action is taken on their adaptation priorities?

This section details how to facilitate each step in the workshop.

1. Introduction to MART and the facilitation team

The facilitator introduces the facilitation team and outlines the MART process. The facilitator might begin by noting the tendency of climate change adaptation proposals to fail to address the well-being of local residents and explain how MART aims to close this gap by bringing quality of life indicators into the conversation. Either passing out a schedule to participants or writing the schedule on a chalk/whiteboard/sign in the room is a good way to ensure participants understand the scope and context of the meeting. If participants were not directed to a sign-in sheet when they entered the workshop, this is a good time to pass around a sign-in sheet.

2. Presentation and Exercise A: What QoL indicators are most important to this community?

The facilitator kicks off the second portion of the workshop with a brief presentation on quality of life indicators. The facilitator might make use of the following graphic, emphasizing the tendency of different dimensions of quality of life to overlap with one another.



Figure 1. Quality of Life Indicators – source: OECD – www.oecd.org

After ensuring participants understand the concept of quality of life indicators (it may be helpful to ask a few questions from the audience to ensure everyone has a common understanding), post-it notes will be passed to participants and encourage them to brainstorm the quality of life conditions that most impact their community.

After giving participants 5-10 minutes to discuss, participants will be encouraged to place their post-its on the designated wall, chalkboard, or whiteboard. Members of the facilitation team, particularly the facilitator and scribe, should join participants at the board, engaging participants in discussions about which QoL indicators they chose, and grouping together any ‘duplicates.’ The facilitator will then lead a discussion of how these QoL indicators could be organized into the categories of 1) Environmental/ecological conditions; 2) social conditions; and 3) economic conditions. Do any indicators fall into multiple categories? As the facilitator leads the discussion, the scribe will make corresponding changes to the organization of the QoL indicators on the post-it wall. The facilitator will conclude the exercise by asking participants if they are satisfied with the categorization of the QoL indicators, including comments about the categories themselves and if this exercise correctly describes a majority of their local QoL themes. The below image provides an example of what the post-it wall should look like at the conclusion of this exercise.

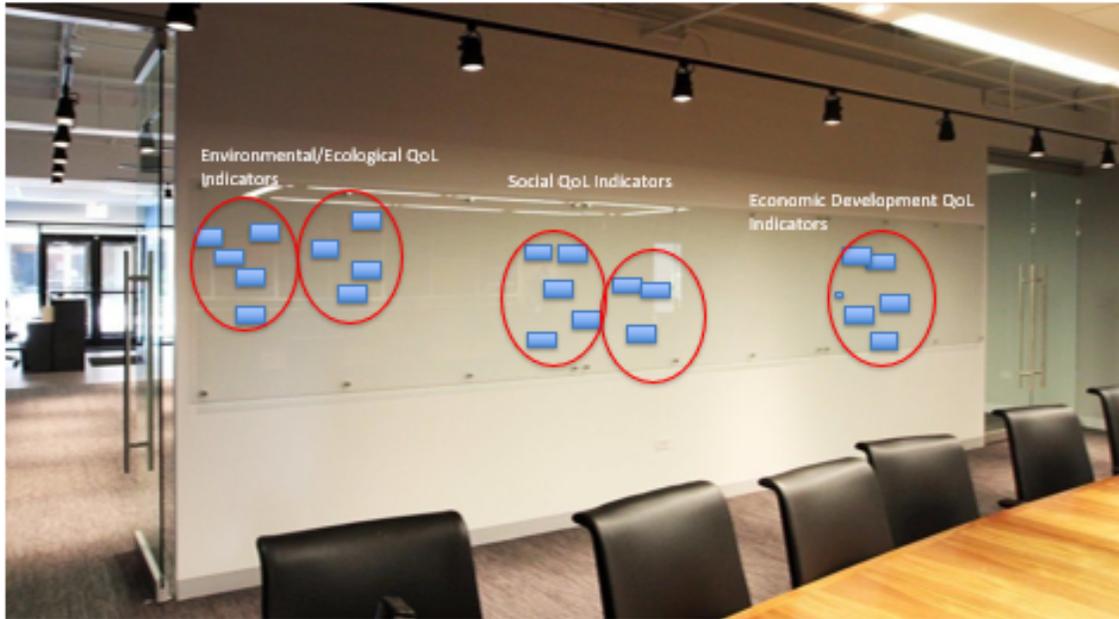


Figure 2. Hypothetical clustering of Quality of Life indicator post-its on workshop wall (Task 1)

3. Presentation and Exercise B: How Climate Change could impact the selected QoL indicators

The climate expert kicks off this section by giving a brief presentation on the projected local impacts of climate change. Because participants' knowledge of climate science is likely to vary, it is important for discussion to establish a baseline of knowledge amongst participants. Ideally this presentation should include an explanation of the distinction between weather and climate, and the difficulty of projecting local impacts.

Once the scribe has documented/photographed the results of the previous exercise, the QoL indicator post-its are shuffled and handed back to participants. The scribe reconfigures the wall/chalkboard/whiteboard to contain a large X-Y axis, with the X axis representing how climate change will impact that QoL indicator (e.g. positively or negatively) and the Y axis representing the overall distribution of the impact (e.g. widespread or limited), as shown in Figure 3. The facilitator should then ask participants to place their post-its on the X-Y axis in accordance with how they expect climate change to impact their QoL indicator. Facilitation team members should join participants at the wall/board to discuss placement with the participants. The below image provides an example of what the product of this exercise might look like:

Task 2 Product

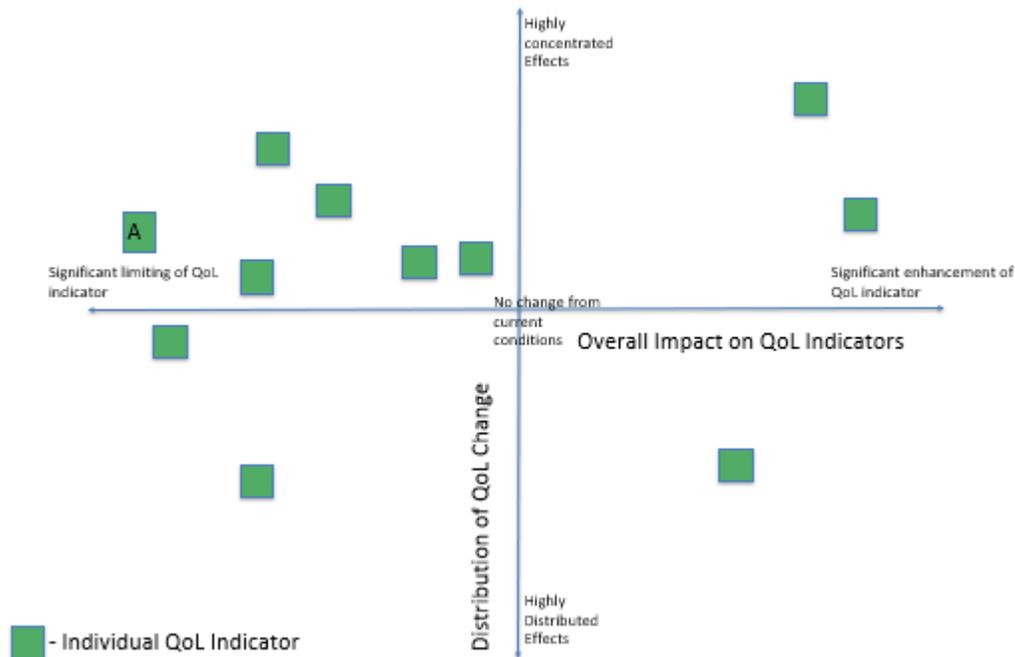


Figure 3. *Quadrant chart of Quality of Life indicator impact and effect distribution*

To conclude this exercise, the facilitator and climate change expert will lead a general discussion of the implications of the projected changes, and the scribe will make adjustments accordingly to the positioning of the QoL post-its on the X-Y graph. For example, over the course of the discussion participants might agree that the climate-related impacts on insurance costs, as a QoL indicator, might be more widespread than they had initially anticipated, leading the scribe to adjust the ‘insurance costs’ QoL indicator/post-it down the Y-axis. This exercise will help participants identify and visualize those QoL indicators most vulnerable to climate change impacts. Again, the results of this exercise should be recorded in pictorial form by the scribe.

4. Presentation and Exercise C: How proposed climate change adaptation projects could impact the QoL indicators previously chosen

The facilitator begins this exercise by asking participants how they would like to see the previously discussed QoL indicators impacted by climate change adaptation planning. The facilitator should continue using the X-Y axis to chart what is the desired state of each QoL indicator chosen in the previous tasks (see Figure 4). The group can choose to focus on any number of QoL indicators to examine. For example, the group can choose to prioritize a few indicators for discussions, look at a category of indicators together, or chose the whole sample—note that the more indicators are examined the greater the amount of time required. Generally, the desired state for each QoL indicator will be to be enhanced and more widely distributed throughout the community, as shown by the below image and the illustration of QoL A and its translation to QoL A’.

Task 3 Framing

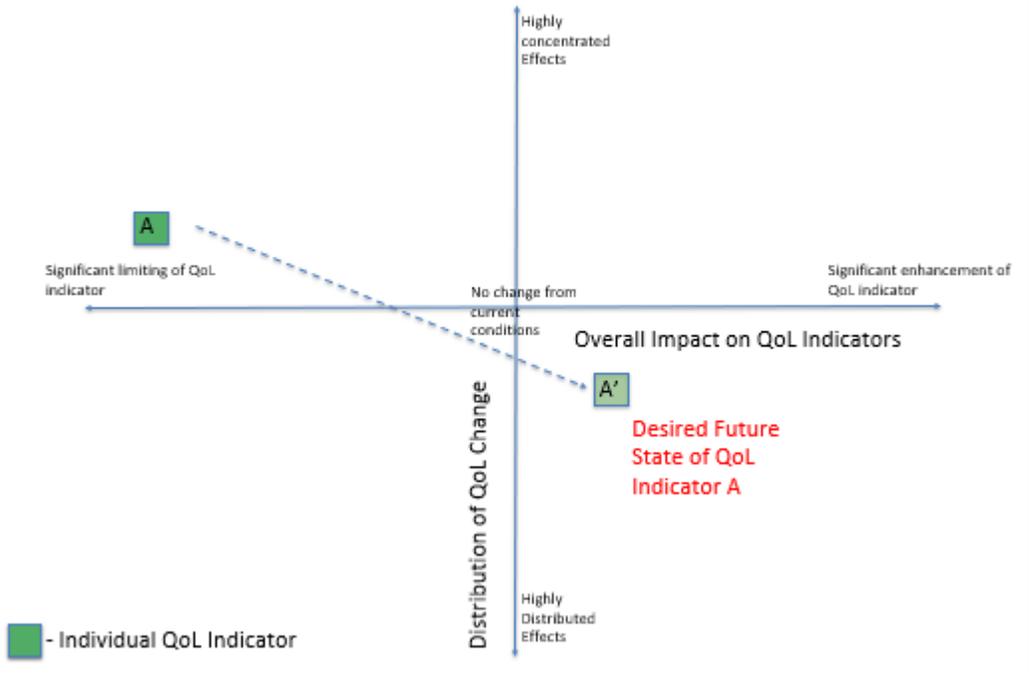


Figure 4. Quadrant chart showing desired trajectory of Quality of Life indicators

At this point, the climate change adaptation expert will give a brief presentation on adaptation initiatives that are proposed or ongoing in or near the community. Participants are frequently unaware of the proposed adaptation projects for their communities, so the expert's presentation is crucial to lay the groundwork for the final exercise. If time allows, the expert should field questions from audience members at the end of the presentation.

The expert and facilitator should then lead a discussion of how participants expect proposed and ongoing adaptation measures to impact the previously-chosen QoL indicators. The facilitator should continue using the X-Y axis to chart the expected impacts of adaptation measures on the chosen QoL indicators, as shown by the below image and the illustration of QoL A''. The resulting diagram (see Figure 5) will illustrate the existence and magnitude any 'climate adaptation gaps' between the desired and expected impacts of climate adaptation planning on residents' quality of life. The scribe should keep record of these gaps via note-taking and pictures.

Task 3: Identification of Adaptation Gaps

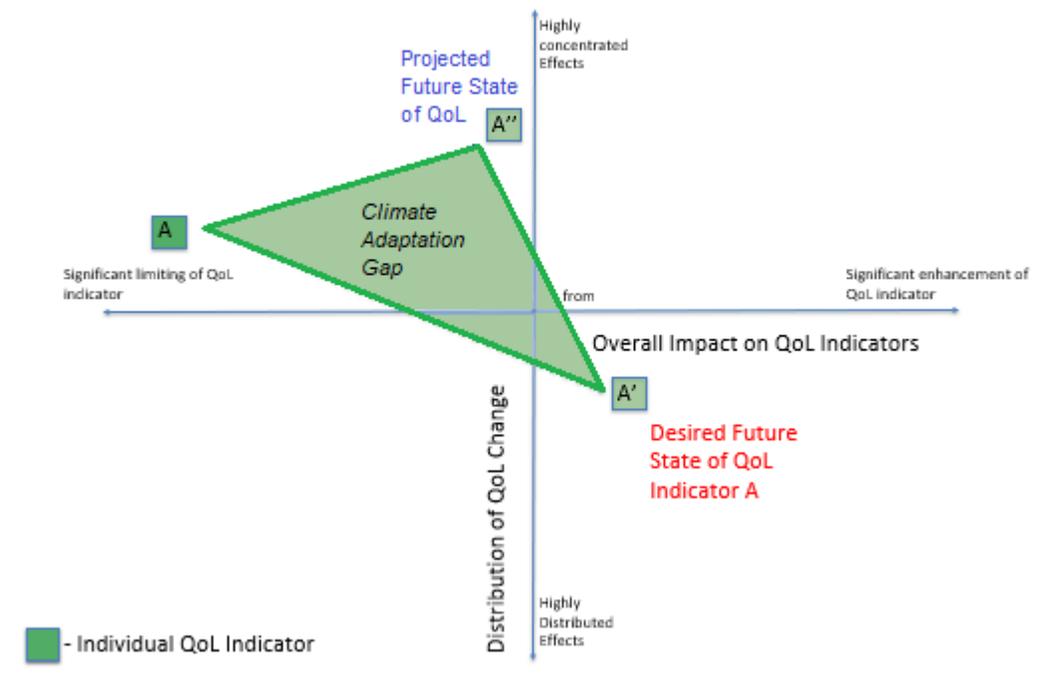


Figure 5. *Quadrant chart illustrating the Climate Adaptation Gap*

5. Reflections/wrap-up and Exercise D: how can the community ensure action is taken on their adaptation priorities?

The facilitator should conclude the workshop by leading an open discussion of how the community can ensure that action is taken to close the climate adaptation gaps identified in the previous exercise. The following broad questions may be useful for participants to reflect upon:

- Which adaptation gaps and QoL issues are most urgent to the community? The results of the previous exercises will be a useful reference for this conversation.
- What sorts of adaptation measures does the community believe would have the greatest positive impact on Quality of Life? How can the community advocate for these measures?
- Strategies for leveraging partnerships and collaborations with institutions, agencies, civil society groups, and other community-based organizations.
- Identification of community grants and other financial mechanisms that can be used to elevate quality of life aspects that lessen vulnerability to the adverse impacts of climate risk.

Before, concluding, it may be appropriate to discuss the next steps for the group. Do you want this to be a one-off meeting, or to potentially meet to discuss adaptation issues on an ongoing basis? This would also be a useful time to direct participants to upcoming relevant public meetings at which the participants could apply their enhanced knowledge of climate change, adaptation planning, and how these could impact quality of life indicators in their community.

IV. POST-WORKSHOP ACTIVITIES (STAGE 3)

After the workshop(s), a series of follow-on activities will take place. These activities will focus on the assessment of the workshop results and development of draft and final version of the workshop report. The MART team will work in close consultation with the clients to develop a product that accurately reflects the full context and structure of the discussions that took place at the workshop(s). The final report document shall include an executive summary, background statement, presentation of workshop discussion, list of results and recommendations. Appendices will include any significant background reports or documents, powerpoint presentations, a list of participants, and full transcript of the workshop(s) upon request if the workshop(s) were recorded.

Appendix 1

List and Responsibilities of MART Team Members

1. *Facilitator*: The facilitator is responsible for guiding the group through the session. This person introduces the facilitation team, sets ground rules, and outlines the MART process. The facilitator introduces and guides the quality of life exercise, helping participants to decide on the quality of life indicators most pressing to the community. The facilitator is broadly in charge of the pace and timing of the meeting and is responsible for ensuring a smooth transition between the different segments of the workshop and keeping the meeting on-schedule. Finally, the facilitator brings the workshop to a close by leading a short reflection on the workshop activities.
2. *Climate Expert*: Because participants' knowledge of climate science is likely to vary, it is important for discussion to establish a baseline of knowledge amongst participants. After the conclusion of the quality of life indicators exercise, the climate expert gives a brief presentation on the projected local impacts of climate change.
3. *Climate Change Adaptation Expert*: After the conclusion of the climate change impacts exercise, the climate change adaptation expert gives a brief presentation on adaptation initiatives that are proposed or in the works in or near the community. Participants are frequently unaware of the proposed adaptation projects for their communities, so the expert's presentation is crucial to lay the groundwork for the final exercise. If time allows, the expert should consider fielding a handful of questions from audience members at the end of the presentation. Frequently, although not always, roles (2) and (3) can be performed by the same person.
4. *Scribe*: The scribe is responsible for ensuring that ideas from discussion are represented in the MART exercises and QoL indicator graphs. During a typical workshop exercise, the scribe will be writing QoL indicators on post-it notes, organizing the placement of post-its on the wall based on group discussions, and ensuring the results of each exercise are documented (e.g. by taking a picture of the post-it note wall resulting from the quality of life indicators exercise.)
5. *Notetaker*: The notetaker documents the conversation as much as possible and helps the participants to recall previously discussed material as needed. Careful notes can be useful for the scribe to ensure they have not missed anything while organizing the post-it note wall.