Functions & Values Mapping

ADAPTING TO RISING TIDES PROGRAM

Purpose

Early on in your adaptation planning project, learn about what your stakeholder working group members care about and find to be critical for the economy, public health and safety, community and environment in the project area. Within the ART Program, these are called functions and values. The process of identifying these functions and values as a group can help to clarify the purpose and focus of the project for all participants.

The functions and values themselves serve as the basis for the project's resilience goals, which provide a way to obtain agreement on the main objectives of the project, and will be help shape later project decisions about adaptation responses.

Approach

At an initial meeting of a project's working group, participants identify the functions and values within the project area (on a poster-sized map) that are important to consider when assessing current and future sea level rise and storm event impacts.

Outcomes

1. Early engagement of project working group members that helps build a shared understanding of the services, sectors and assets within the project area, and stakeholder's interests and concerns.

2. The confirmation of certain project elements, in particular, the project boundary and types of assets and services to be included, and other stakeholders, agencies, organizations or issue experts that should be represented in the project working group or subcommittees.

3. Information that can be used to draft resilience goals for the project that:

- Consider the four sustainability frames used in the ART Program:

Society & Equity	Economy	Environment	Governance
Effects on communities and services on which they rely, with specific attention to disproportionate impacts due to inequalities.	Economic values that may be affected such as costs of physical and infrastructure damages or lost revenues during periods of recovery.	Environmental values that may be affected, including ecosystem functions and services, and species biodiversity.	Factors such as organizational structure, ownership, management responsibilities, jurisdiction, mandates, and mechanisms of participation that affect vulnerability to impacts.

- Reflect a shared vision for the assets and services within the project area and an overall project approach while acknowledging differences among assets, services, agencies and organizations
- Reflect the goals and objectives, issues and priorities of the agencies, organizations, communities and others participating in the working group
- Inform the evaluation and selection of high priority adaptation responses for implementation and funding.

When to use this exercise…

This exercise is most appropriate during the project kick-off meeting, where the proposed project area, working group members and assets and issues are identified and confirmed by the attendees.

Logistics

This exercise requires at least 45 minutes:

- Allow 30 minutes for the introduction to the exercise and the participatory mapping. Another 15 to 20 minutes is needed for a quick, "lightning-round" debrief.

1. Prepare

This is a visual, hands-on exercise that requires a large format map of the proposed project area that stakeholders will use to identify the functions and values (important assets and services) within the project area by placing stickers or sticky notes on the map. Supplies for this exercise include:

- Simple map of the project area: using GIS or any digital mapping software, create a map that shows the project boundaries, labeling a few orienting features (roads, key assets, etc.). Plot or print a large format map (e.g., 36" wide). Alternatively, the map could be projected onto a wall at a large enough size for all participants to see.

- List of functions and values printed on stickers or written on sticky notes (good to use different colors for each if possible). The project team should think of different resilience building functions and values that address all aspects of sustainability. Other types of functions and values can be added that more specifically reflect the goals, objectives and priorities of the agencies, organizations and communities that participate in the exercise.

Examples of functions based on the four frames used in the ART Program

Society and Equity	Environment	Economy	Governance
people where they live	habitat	goods movement	multi-agency ownership or management
public health and safety	flood risk reduction	commuter movement	
people where they work	water quality	local jobs	public/ private/ NGO partnerships
people where they recreate	biodiversity	tax revenue	

- Blank stickers or sticky notes, pens and markers. Blank stickers allow for people to add their own functions and values or to make more of the ones listed above in case they run out.

- Participant guide that explains the purpose and expected outcomes of the exercise, and lists/describes the selected resilience building functions and values.

Prior to the meeting the project team should run through this exercise and make any adjustment or changes to customize it to the project goals, objectives, area or stakeholders.

2. Do

1st

Hand out participant guide and introduce the exercise

2nd

Explain the proposed functions and values selected by the project team and confirm these with the group. Add additional functions and values if necessary based on working group and stakeholder feedback and hand out stickers, also provide blank stickers for other "write-in" functions and values

3rd

Orient the group to the map and point out some of the key sectors, services, assets, e.g., homes and neighborhoods, schools, hospitals, fire and police stations, transit centers, commuter and goods movement corridors; employment sites, utility corridors, recreation areas, habitat and natural features, etc. Provide a quick example by placing a sticker in a location.

4th

Ask the group to place stickers on the map identifying where the different functions and values are provided. Have staff or a project team member at each station (if more than one) to provide assistance and answer questions during the exercise.
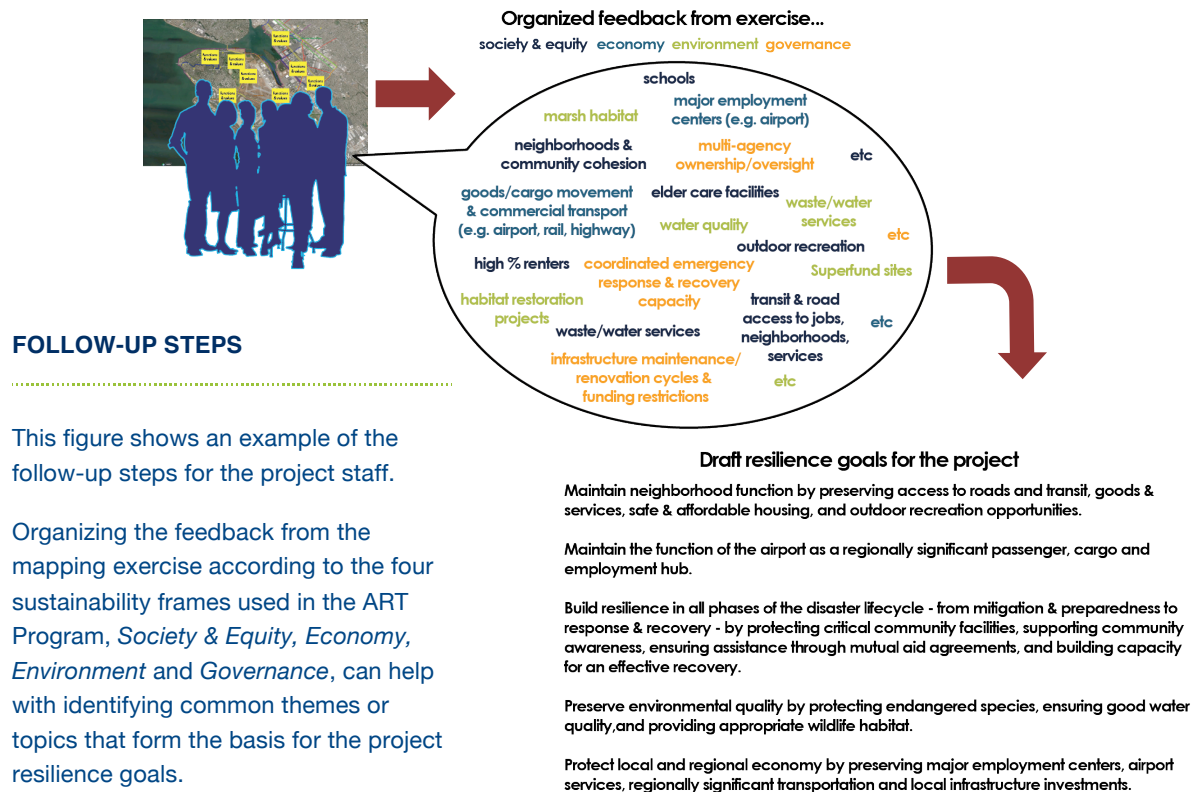
5th

Conduct a lightning-round debrief. Look at the maps and observe what functions and values are represented, ask for top-of-mind words, phrases or concepts that would be included in goals to either maintain or enhance resilience in the project area.

3. Follow-up

After the meeting, the project staff, using the mapped functions and values and the list of words, phrases and concepts from the lightning round, develops a set of draft resilience goals for the project area. See an example of draft resilience goals in Example Materials & Outcomes below.

Organized feedback from exercise...

society & equity economy environment governance

schools
major employment centers (e.g. airport)
marsh habitat
neighborhoods & community cohesion
multi-agency ownership/oversight
etc
goods/cargo movement & commercial transport (e.g. airport, rail, highway)
elder care facilities
water quality
waste/water services
etc
high % renters
coordinated emergency response & recovery capacity
outdoor recreation
Superfund sites
habitat restoration projects
transit & road access to jobs, neighborhoods, services
etc
waste/water services
infrastructure maintenance/ renovation cycles & funding restrictions
etc

FOLLOW-UP STEPS

This figure shows an example of the follow-up steps for the project staff.

Organizing the feedback from the mapping exercise according to the four sustainability frames used in the ART Program, *Society & Equity, Economy, Environment* and *Governance*, can help with identifying common themes or topics that form the basis for the project resilience goals.

Draft resilience goals for the project

Maintain neighborhood function by preserving access to roads and transit, goods & services, safe & affordable housing, and outdoor recreation opportunities.

Maintain the function of the airport as a regionally significant passenger, cargo and employment hub.

Build resilience in all phases of the disaster lifecycle - from mitigation & preparedness to response & recovery - by protecting critical community facilities, supporting community awareness, ensuring assistance through mutual aid agreements, and building capacity for an effective recovery.

Preserve environmental quality by protecting endangered species, ensuring good water quality, and providing appropriate wildlife habitat.

Protect local and regional economy by preserving major employment centers, airport services, regionally significant transportation and local infrastructure investments.

Either by email, a project share site or at the next meeting, share the draft resilience goals with the working group and other stakeholders to get their input and feedback. At this point, remind them of the purpose and importance of resilience goals (see above, under "Outcomes"). Give them time to reflect on their agency's goals or mission in relation to the draft resilience goals. Each working group member should see a reflection of their priorities in the project resilience goals although not all the goals may be relevant to all stakeholders. The resilience goals may be revisited and revised later in the project during the development of adaptation responses.

Share the revised resilience goals with stakeholders to get agreement and confirmation.

Example Materials & Outcomes

Map

EXAMPLE PROJECT AREA MAP

A simple map of the project area that shows the project boundaries, a few orienting features. The map should be printed in a large format (e.g., 36" wide) or projected onto a wall at a large enough size for all participants to see.

Lightning round

Examples of words, phrases and concepts from the lightning round exercise. These have been categorized within the four frames that were used in the ART assessment.

- Neighborhoods and community cohesion (Society & Equity)
- High percentage of renters (Society & Equity)
- Access to neighborhoods, jobs and services via transit and roads (Society & Equity, Economy)
- Waste/water services (Society & Equity, Environment)
- Coordinated emergency response and recovery capacity (Society & Equity, Governance)
- Multi-agency ownership/oversight (Governance)
- Joint powers authority of shoreline managers (Governance)
- Superfund site (Society & Equity, Environment)
- Coalition of community organizations to improve environmental health (Society & Equity, Governance)
- Water quality (Society & Equity, Environment)
- Outdoor recreation (Society & Equity)
- Schools (Society & Equity)
- Elder care facilities (Society & Equity)
- Major employment centers (e.g., airport) (Economy)

- Goods/cargo movement and commercial transport (e.g., airport, rail, highway) (Economy)

- Marsh habitat (Environment)

- Habitat restoration projects (Environment)

- Infrastructure maintenance/renovation cycles and funding restrictions; etc. (Governance)

Draft resilience goals

ART program staff drafted resilience goals based on the functions map, key words and phrases suggested by stakeholders, and their current understanding of the project area. Each of the four frames is addressed in at least one goal. As seen in the draft goals below, larger concepts like regional economy and environment were tailored to fit the Oakland/Alameda project area. The airport provides critical economic and social benefits in this area so its functions create a standalone goal. Society and equity resilience in this area includes housing, transportation and recreation benefits. In order to draft locally-appropriate resilience goals, staff will need to synthesize stakeholder input from this activity with existing knowledge of the focus area and project partners. Keep in mind; stakeholders will have a chance to review and revise these draft resilience goals at the next meeting.

Example of draft project resilience goals developed from the exercise.

Maintain neighborhood function by preserving access to roads and transit, goods and services, safe and affordable housing, and outdoor recreational opportunities.

Maintain the function of the airport as a regionally significant passenger, cargo, and employment hub.

Build resilience in all phases of the disaster lifecycle - from mitigation and preparedness to response and recovery - by protecting critical community facilities, supporting community awareness, ensuring assistance through mutual aid agreements, and building capacity for an effective recovery.

Preserve environmental quality by protecting endangered species, ensuring good water quality, and providing appropriate wildlife habitat.

Protect local and regional economy by preserving major employment centers, airport services, regionally significant transportation, and local infrastructure investments.