**Chapter 3 Mapping Activity Instructions**

**Objective:**

The objective of this activity is to identify the locations where impacts are happening or may happen, as well as potential cascading impacts.

**Who?:**Core team and other stakeholders and community members

**Where:** in person or virtual workshop

**Time needed**: two hours

**Materials will you need:** maps, interactive platform

1. Print a large map from one of the data sources you explored in Step 1 that is appropriate for the scale of your project. For example if you are interested in looking at how different neighborhoods may be affected by hazards, choose a map that provides Census tract or block group level information, such as FEMA's [Resilience Analysis and Planning Tool](https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool) ​which has data on hazards such as historical tornado tracks, wildfire incidents and storm surge, demographics (county and census tract level), and infrastructure such as hospitals, wastewater treatment plants, and power plants.
2. Based on what you learned in the storytelling activity, on the map mark the locations of current or existing hazards and impacts e.g. locations particularly prone to flooding. Use small sticky notes of different colors for hazards and impacts.
3. Based on what you found in the hazards data, mark the locations of potential future hazards, e.g. flooding due to sea level rise, or an oil spill from train derailment into the creek.
4. Discuss whether any of these impacts may be "cascading impacts", that is, if an impact in one location could cause impacts in other locations. For example, a power plant failure may cause interruption of the water supply. Draw lines to connect these impacts.

Optional- Draw a graphic or systems map type diagram of cascading effects. Or have a pre-fabricated graphic/systems map the group can use as a starting point.

Transportation --> food --> health impacts

Energy --> water treatment --> water supply --> health

Discuss the impacts mentioned in the data and storytelling with workshop participants. Mark locations on the map, and take notes on a flip chart.

* What kinds of hazards and impacts are we already seeing?
* How are these hazards and impacts affecting people and who is being affected most?
* What are the biggest threats or concerns we need to deal with?
* How are these hazards and threats connected? What are the "cascading impacts"?

Example:

- Flooding in Belleview and Adams neighborhoods is getting worse.

- During the last big storm 12 houses were flooded, and some people still haven’t moved back in.

- Adams neighborhood is better protected than other neighborhoods, and people are starting to move into Adams, adding to gentrification pressure.

- Belleview has a large Central American population and many small businesses which had to close for a day during the last storm.

- The water treatment plant is in the flood plain and also needs upgrades. Sometimes it goes offline during flood events. This is problematic especially for the hospital and the nuclear energy plant.