

Chapter 3 Hazards, Disasters, and Threats Worksheet

Objective:

The objective of this activity is to understand the main hazards, disasters, and threats that the community should be concerned about.

Who?: Completed by one person or a small group

Where: individual work

Time needed: Four hours

Materials will you need: internet access to tools, copies of existing reports, template (below)

Data Sources

There are a number of data and information sources that can help you understand the natural hazards and climate change impacts you may experience.

- The [National Climate Assessment](#) has chapters for each region of the country which describes the climate change impacts that the region is currently experiencing or may experience in the future.
- FEMA's [National Risk Index](#) has county level scores for risk from 18 natural hazards as well as social vulnerability, community resilience, and expected annual loss.
- FEMA's [Resilience Analysis and Planning Tool](#) 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.
- NOAA's [Climate Explorer](#) has climate maps with past and future conditions and summarizes climate change projections such as temperature change and intense rainstorms for specific cities.

If you don't have a lot of experience with hazards data or these kinds of data tools, it may be helpful to reach out to someone from a university, an environmental education organization, or your state environmental protection office for help. They may even already have reports or resources you are not aware of.

Once you have found some sources of information, try to identify what the greatest threats and impacts to your community in the near and medium term may be.

Hazards Information Template

1. Based on the data you see, list the most significant climate change risks over the next 50 years, or whatever planning timelines are relevant for you.

For example:

Sea level is expected to rise 6 inches.

The number of days above 90 degrees is expected to increase by 20.

2. What other risks do you know of that are relevant for your community that you do not have information about?

For example:

We have a nuclear power plant that is located in a flood zone.

We have information systems vulnerable to cyber attack.

3. For each hazard, list the potential impacts on people, the built environment and natural environment

	Built environment	Natural environment	People
SLR	Flooded streets, crumbling sea walls,	Salt water intrusion, habitat loss	Property values, tourism, job loss, transportation interruption
Heat	Energy grid, roads	Fish kills, algae bloom, agriculture impacts	Heat stress, deaths, health conditions, recreation
Storms	Stress on bridges and roads		Power outages, evacuations, property damage, threat to life