

2.4.3

SERIES 2

Understanding
Vulnerability & Risk



Activity 2.4.3

Exploring Climate Change and Climate Risk

Climate change will change the severity and duration of current climate hazards and will cause new climate hazards in your city. In this activity, you will explore how climate change could alter existing climate hazards or create new hazards.

IN THIS ACTIVITY YOU WILL:

- ✓ Explore how climate change could intensify or reduce current climate hazards;
- ✓ Discuss recent climate events that seem to be different from past climate events and the problems or benefits these changes are posing to your city and citizens;
- ✓ Discuss new hazards that climate change may pose for your city; and
- ✓ Brainstorm ways that future problems related to climate change could be reduced or future benefits leveraged.

ACTIVITY 2.4.3: EXPLORING CLIMATE CHANGE AND CLIMATE RISK

INSTRUCTIONS

PART 1: “CLIMATE IDOL”

This activity will begin with a game, “Climate Idol”. Divide the trainee group into smaller groups of 4–5 people each. Each group should select a climate hazard from the table you created in Activity 2.4.1. You are unlikely to be able to address all the climate hazards listed; try to work with a range of hazard types and severities.

Each team will refer to the information presented on climate change and the types of changes we expect to see. Using this information, decide how you think your climate hazard will change in the next 30 to 50 years. Will your hazard become more severe or less severe? If your future hazard impacted your city today, would it affect a larger portion of the city or a smaller portion? Which groups of people or systems will be most impacted?

Once you have a clear picture of your future hazard, brainstorm actions that could be taken that would make the city or its inhabitants more resilient to that future hazard. Pick the action that you think could be most effective and also the most realistic to implement.

When all groups are ready, groups take turns presenting your hazard, what you think it will look like in the future, and potential resilience action to address that hazard. Members from other groups can ask questions or point out aspects of the hazard that might have been missed, ways that impacts might be different from those presented, and ways that the proposed action might not work or could be improved upon. Once all the groups have presented, all participants vote on which group they think did the best job of identifying: a) their future hazard; b) the potential impacts of that future hazard; and, 3) potential resilience actions.

PART 2: IS CLIMATE CHANGE ALREADY HAPPENING?

For this section of the activity, rearrange into slightly larger groups of 6–8 people. In each group, discuss the following questions and note down your answers. Once all the groups have explored the questions, briefly report back to the plenary the key indicators you see that climate change is already happening in your city.

1. When you think about climate events that have occurred in the past several years, are there things that seem to be different from past climate events?

For this discussion, consider not just the major climate events you explored in Activity 2.4.1 but also smaller scale climate events like heat waves, wet periods that have led to disease outbreaks, intense rainfalls that have caused localized flooding, wet season rains arriving early or late, etc.

2. What new problems are these changes causing?
 - Who or what is impacted?
 - How are they impacted?
 - How long do impacts last?
 - What could be done to make these events less of a problem?
3. Are there recent shifts in climate that are primarily beneficial? For example, fewer periods of deep cold during the winter, and milder winters in general, so there are fewer cold-related winter deaths and winter heating demand is lower city-wide.
 - If so, how do these events benefit people or systems?
 - Who is benefitting? Everyone? Specific communities or people? Are there people who are not benefitting or are even being harmed?
 - Are there ways to make better or wider use of these benefits?

4. Are the impacts of these events entirely due to climate or climate change (e.g. your city has always had trouble with flooding, or, the monsoon seems to be arriving later) or they are a combination of climate and development (e.g. flood patterns are changing, both because rainfall seems to be changing and because how floodwaters move through the city has been changed by building dikes and roads and other structures)? Often events such as floods can be intensified by development in low-lying areas or lack of city-wide drainage networks. Could the “climate” events you identify be caused by development rather than changes in climate?

PART 3: NEW HAZARDS

Finally, reconvene as one large group and discuss what new hazards climate change might pose to your city. For example:

- Vietnam is currently a net exporter of rice. However, much of that rice is grown in the Mekong Delta, which is projected to be heavily impacted by sea level rise. Will national food security increasingly become an issue in Vietnam?
- In many developing countries, there is a growing lower-middle class that is highly dependent on physical assets for their livelihoods, such as a motorcycle, which supports working as a delivery person, or a sewing machine for a tailoring business.

Could this create a generally secure segment of the population that is nonetheless highly vulnerable to disasters that could damage their physical assets, such as a large flood or severe typhoon?