**Climate Readiness Training Module Outline**

**Module Name: Climate Justice**

**Total run time:**

In-Person Session: 120 minutes

**Module Objectives:**

1. Develop a shared understanding of climate justice topics, terms, and history in Cambridge.
2. Build confidence in communicating with each other and the Cambridge community around this topic.
3. Foster a common interest in climate and community climate readiness work.

**Key Concepts and Themes:**

Climate Justice; Climate Change; Story Telling; Vulnerability & Resilience.

**In-Person Session Agenda:**

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| **Section** | **Details** | **Facilitator/ Materials** | **Timing** |
| **Welcome** | Allow 5 minutes for people to settle in.  Provide a formal welcome and review the goals of the day.  **Ask C3 members to share:**   * Name * How long they have been with C3 * What does climate change mean to you?   Briefly describe the agenda for the day. Pause for questions/clarifications. | Facilitator leads | **20 mins** |
| **What is the story: Environmental Justice Edition** | The facilitator explains we are going to break into 2 groups.  Each group will have a selection of images and will be working together to figure out “what’s the story” that connects these images.  [Note that all these images are of Cambridge and that they are invited to bring their knowledge as residents and C3 members into telling the story.]  Each group will have a note-taker and a facilitator. After a 15-minute discussion, we will come back together and have the facilitator share the story you all wrote.  Break into groups with ~5 images per group.  **Facilitator prompts:**   * What do you see in this picture? * What does it say about the environment? * What does it say about equity?   After the activity, the facilitator gives some history on these locations.  Close by noting that, as we saw in these stories, the communities who have least contributed to the climate crises are disproportionally burdened by its impact and that this is not accidental but the result of decision-making and policies. Talk about this connects to the concept of EJ (Environmental Justice).   * **Evidence Files:**  1. ***Jerry’s Pit/Pond*** (history sources [1](https://historycambridge.org/articles/the-downside-of-progress/), [2](https://www.tbf.org/blog/2022/july/reclaiming-jerrys-pond), [3),](https://historycambridge.org/events/history-cafe-walking-tour-clay-bricks-dump-park-a-walking-tour-talk-of-north-cambridge/) [4:](https://globalboston.bc.edu/index.php/cambridge/)   In the 19th century this was a clay pit.   * At the time when Jerrys Pond was a pit, Irish immigrants lived and worked in North Cambridge, crowded into workers cottages and boarding houses. It remains home to immigrant communities today. * The pit was abandoned once exhausted. Water filled it in, and it was used as a neighborhood swimming hole despite pollution and drowning concerns. * It was closed in 1961 because of toxic dumping by neighboring chemical and construction manufacturer, WR Grace. This stripped the residents of their summertime recreation. * The federally subsidized Fresh Pond Apartments were built nearby in 1968. In this industrial neighborhood, next to a busy roadway, near railroad tracks, and close to the city dump.  1. ***The Port flooding*** (historic source [1](https://globalboston.bc.edu/index.php/cambridge/))  * With the opening of the bridge into Boston in 1793, the Port got direct access to Boston and its flow of people and goods. The neighborhood became a commercial center for Cambridge. * Manufacturers produced musical instruments, rubber, soap, and candy. The confectionary industry flourished, and by the 1930s and 1940s, there were 25 or more candy companies in Cambridge, mostly in Cambridge port. * With these manufacturing jobs came immigrants and migrant groups, where they found housing in addition to jobs. * By 1990, the Port was the most racially diverse neighborhood in Cambridge and was chronically underfunded. * As the historical source shows, the Port has long been prone to flooding and the problem is expected to worsen with the effects of climate change. * Note that once was a port & salt marsh. Mud flats were filled in to allow for development, yet rain still drains through this neighborhood from higher neighborhoods on its way to Charles. |  | **30 mins** |
| **Climate Change 101** | Provide refresh/introduction to “what is climate change?”   * Describe current anticipated climate impacts in Cambridge. Focus on Heat, Flooding, and severe storms. Note that we will have follow-up sessions on each.   Massachusetts has a wet, seasonal climate with hot, humid summers and cold, snowy winters and lots of rain throughout the year. Weather and language are the same in some languages. If we do nothing to stop climate change, in 60 years, Boston will have the same climate as Baltimore, Maryland.   * Share impacts of *warmer, wetter, and weirder* weather. Note disproportionate impacts of climate change.   Warmer:  -Baseline: ~10 days above 90F, 1 day above 100F  -2030: ~29 days above 90F, 2 days above 100F  -2070: 41-46 days above 90F, 6-16 days above 100F.  Wetter:  - SLR AND heavy precipitation:  - The U.S. National Climate Assessment2 reports that between 1958 and 2010, the Northeast saw more than a 70% increase in the amount of precipitation falling in very heavy events (defined as the heaviest 1% of all daily events).  -City infrastructure built to handle a lot of rain but not in a brief time span.  -Massachusetts' Sea Level Rise - Sea Level Rise  Weirder:  - Local ex: record cold snap (-36F wind chill) followed by 50-degree temps. US example: Winter storm in Feb 2021, pipes frozen/bursting, 3 million ppl lost power (& heat).  All of these changes have impacts. Some of these impacts can be felt directly, for example, when it's really hot more people suffer from heat related illnesses. But others are indirect. These might not obviously be connected to a climate event because they occur after or are not felt at the time of the climate event, but they occur because of climate change.  Like hotter, longer summers and milder winters leading to more ticks surviving in a larger area – increasing the risk for Lyme disease. Or heat causing more people to run their ACs (Air Conditioning) and facing higher energy bills during the summer that may force them to make difficult decisions later.  Warmer weather in general can lead to water shortages which can impact food availability and compromise water quality.  Wetter weather also has its direct consequences – floods are dangerous to people and can lead to significant damage to our homes and transportation networks. They also make it really hard to get around, which can lead to businesses suffering financial losses or for you to miss a day of work, or for your elderly neighbor to not be able to get the medical services they need.  There are also indirect impacts, like flooding leading to mold outbreaks or water quality issues.  I’ll note here that all of these impacts can either directly or indirectly impact mental health.  Local example of Weirder: record cold snap (-36F wind chill) followed by 50-degree temps – feels-like temperature swings of 60 to 70 degrees in 24 hours. I personally heard many stories of burst pipes that weekend, as well as weird occurrences like trees “popping” and “frost quakes”  From outside of Boston, we saw years of drought in CA shift to heavy rain and snow fall this winter, leading to flooding and mudslides and lots of folks displaced.  In Texas – a weird winter storm in Feb 2021, caused immense amount of damage to people and property in a region not prepared for that kind of cold weather. Pipes frozen/bursting, 3 million ppl lost power (& heat).   * [What has California's flooding (and drought) got to do with climate change? (edf.org)](https://www.edf.org/article/what-has-californias-flooding-and-drought-got-do-climate-change) * [Ice hangs off ceiling fan in Texas, one of many surreal winter photos (usatoday.com)](https://www.usatoday.com/story/news/nation/2021/02/17/ice-hangs-off-ceiling-fan-texas-one-many-surreal-winter-photos/6781681002/)   Vulnerability: Warmer: people on medication, no air conditioning, elderly/children, pregnant people, chronic disease, outdoor workers, unhoused population etc.  Wetter: people in flood-risk areas, those living in basement apartments, etc.  Weirder: unable to evacuate, outdoor workers/unhoused population, etc.   * **Activity** Ask participants:  1. How have you seen Cambridge (or your hometown) getting WARMER, WETTER, and WEIRDER weather?  2. Which health impacts do you think will have the greatest impact in your neighborhood? |  | **15 mins** |
| **Break** | Take a break! |  | **10 mins** |
| **Climate Change in Cambridge** | Introduce and watch the first 7 minutes of the CPHD (Cambridge Public Health Department) video on climate change in Cambridge.   * **Activity**   **Ask participants:** 1.Did you relate to the concerns and/or experiences of anyone in the video? 2. How did thinking about these events make you feel? 3. What questions do you still have? |  | **20 mins** |
| **Climate Justice** | * Definition of Climate Justice.   Climate justice acknowledges how privilege, power, and oppression are integral to our understanding of how we are impacted by climate change and our environment.   * Share Hurricane Harvey example, focus on systems.   - Hurricane Harvey (2017): biggest rainstorm on record  - 156,000 homes destroyed  - Racial minority & low-income populations had less access to resources for disaster preparedness, compared to white higher income households.  - Flooding greater in Black and Hispanic communities and low-income neighborhoods. Elderly, ppl w/ disabilities or limited mobility, can’t easily evacuate  - Because of climate change, storms with more than 20in of rain are 6 times more likely than in 2000.  Research has shown that the populations most vulnerable to flooding are disproportionately poor and ethnic or racial minorities. In urban areas, [communities of color are often segregated and confined](https://www.scientificamerican.com/article/flooding-disproportionately-harms-black-neighborhoods/) to areas within floodplains or poor infrastructure ill-designed to withstand the effects of severe flooding.  In addition to being particularly vulnerable to flooding, these populations are most likely to lack the resources and capacity to respond and recover in the event of a flood.  More recently, when Hurricane Harvey hit the Texas coast in 2017, the [worst flood damage was concentrated in southwest Houston](https://www.scientificamerican.com/article/flooding-disproportionately-harms-black-neighborhoods/), where 49 percent of residents are nonwhite.  While many wealthier Texans had the means to evacuate their homes, many [poor and disabled residents were forced to brave the storm](https://www.scientificamerican.com/article/flooding-disproportionately-harms-black-neighborhoods/) for lack of available funds and resources. [Undocumented immigrants were similarly pressured to stay put](https://www.theatlantic.com/news/archive/2017/08/a-catastrophe-for-houstons-most-vulnerable-people/538155/) for fear of being brought into the custody of Border Patrol, who declined to suspend its checkpoints during Harvey.  One year after Harvey, more black and [Hispanic Houstonians remained displaced or forced to dwell in unrepaired, flood-damaged homes](https://www.colorlines.com/articles/race-class-impact-houston-resisdents-recovery-hurricane-harvey). Moreover, as of 2018, [27 percent of Hispanic Texans and 20 percent of black Texans](https://www.colorlines.com/articles/race-class-impact-houston-resisdents-recovery-hurricane-harvey) whose homes were affected by severe flood damage had been unable to reinhabit their homes. This was in stark contrast to the [11 percent of white residents](https://www.colorlines.com/articles/race-class-impact-houston-resisdents-recovery-hurricane-harvey) that were unable to reinhabit their homes.  This reality is rooted in [centuries of racist law and policy](https://time.com/5851855/systemic-racism-america/) resulting in the disempowerment and disenfranchisement of black people and people of color in the United States.  **Positive**: 26 orgs came together - their commitment to flooding equity by working with the Harris County Commissioners Court to pass the [Harris Thrives Resolution](https://bayoucitywaterkeeper.org/harris-thrives-resolution/), which calls for prioritizing the needs of vulnerable communities through the equitable distribution of funds for flood bond projects. Local grassroots organizations have organized to advocate for improved drainage for their neighborhood and increased community engagement in the flood bond process.  Sources:  Picture: [Hurricane Harvey - Climate Justice Alliance](https://climatejusticealliance.org/harvey/) & [Hurricane Harvey: The week in photos - CNN.com](https://www.cnn.com/interactive/2017/08/us/hurricane-harvey-week-in-photos/)  \*[Flooding Disproportionately Impacts People of Color - Bayou City Waterkeeper](https://bayoucitywaterkeeper.org/flooding-disproportionately-impacts-people-of-color/)  [Exploring the Environmental Justice Implications of Hurricane Harvey Flooding in Greater Houston, Texas - PMC (nih.gov)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6336065/)  [Environmental Injustice in the Disaster Cycle: Hurricane Harvey and the Texas Gulf Coast | Environmental Justice (liebertpub.com)](https://www.liebertpub.com/doi/10.1089/env.2020.0039)   * Share LBJ example, focus on systems. * **Activity Pair & Share:** Think about the Port flooding and Jerry’s Pond examples:   1. How are these events connected to climate justice?  2. How would you talk about these events to your friends, family, neighbors? |  | **20 mins** |
| **Closing** | Debrief on next steps, training modules, and future meetings.   * **Meeting Evaluation:** Ask people to fill out an evaluation form. * **Homework:** look for examples of climate change, and resilience or vulnerability. Make notes, take a picture/video, or audio notes. |  | **5 mins** |