

# Climate change adaptation

## What is climate change adaptation?

Adaptation refers to changes we make in response to the new realities that climate change has created. MCC supports communities worldwide that are adapting to new weather in their area. Unfortunately, it is largely lower-wealth communities and those least responsible for climate change who are most affected.

*Above photo: As drought and flooding due to climate change cut into farmers' harvest in Mwenzezi District, Zimbabwe, MCC responds with distributions of monthly food rations for vulnerable families.*



MCC photo/Meghan Mast

## Why is adaptation necessary?

### Global temperatures are rising<sup>1</sup>

- The six warmest years on record are 2020, 2016, 2019, 2017, 2015 and 2022. The past nine years have been the nine warmest on record, peaking at 1.02°C / 1.8°F above pre-industrial levels so far.<sup>2</sup>

### Sea level rise

- **21–24 cm (8–9 inches)** – Global average sea level rise since 1880.
- **9.7 cm (3.8 inches) above 1993 levels** – In 2021, global sea level set a new record high.<sup>3</sup>

### Biodiversity loss and extinction

- The World Wildlife Fund reports an average **68% drop** in mammal, bird, fish, reptile, and amphibian populations since 1970 due to habitat destruction and climate change. In Latin America and the Caribbean, that number is **94%**.<sup>4</sup>

### More frequent disasters

- Simulations project the number of major tropical cyclones (category 3, 4, and 5) to increase by **20%** globally and **29%** in the Atlantic by 2081–2100.<sup>5</sup>
- According to the Intergovernmental Panel on Climate Change (IPCC), we are increasingly likely to see multiple climate hazards occur at the same time. For example, sea level rise and heavy rainfall, leading to compounding risk for vulnerable communities.<sup>6</sup>

1. [data.giss.nasa.gov/gistemp/graphs\\_v4/](https://data.giss.nasa.gov/gistemp/graphs_v4/)  
2. [nasa.gov/press-release/nasa-says-2022-fifth-warmest-year-on-record-warming-trend-continues](https://www.nasa.gov/press-release/nasa-says-2022-fifth-warmest-year-on-record-warming-trend-continues)  
3. [climate.gov/news-features/understanding-climate/climate-change-global-sea-level#:~:text=Global%20average%20sea%20level%20has,3.8%20inches\)%20above%201993%20levels](https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level#:~:text=Global%20average%20sea%20level%20has,3.8%20inches)%20above%201993%20levels)  
4. [worldwildlife.org/magazine/issues/summer-2021/articles/a-warning-sign-where-biodiversity-loss-is-happening-around-the-world](https://www.worldwildlife.org/magazine/issues/summer-2021/articles/a-warning-sign-where-biodiversity-loss-is-happening-around-the-world)  
5. [yaleclimateconnections.org/2019/07/how-climate-change-is-making-hurricanes-more-dangerous/](https://yaleclimateconnections.org/2019/07/how-climate-change-is-making-hurricanes-more-dangerous/)  
6. [ipcc.ch/report/ar6/wg2/downloads/report/IPCC\\_AR6\\_WGII\\_SummaryForPolicymakers.pdf](https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf)

## Climate change drives humanitarian crises

Increasing incidence of severe weather, droughts, flooding and forest fires is leading to internal displacement, economic losses, and the loss of lives. This is especially the case in Least Developed Countries (LDCs) and Small Island Developing States (SIDS).

Climate change contributes to food shortages, migration, conflict and the increased spread of disease. Complex crises require a comprehensive response. Failure to recognize and address climate change as a factor leaves policies that do not fully address the root causes of humanitarian crises.

### Displacement

- Of **59.1 million people** internally displaced in 2021 across the world, more than 23.7 million were displaced as a result of extreme weather events like floods, droughts and storms.<sup>7</sup>
- If things continue as they are, the United Nations High Commission for Refugees predicts that by 2050, over 216 million people could be displaced within their countries due to climate-related disasters.<sup>8</sup>

### Financial cost

- Domestic: **\$165 billion U.S. dollars** – Total financial cost of extreme weather and climate disaster events caused damages in the United States in 2022.<sup>9</sup>
- Global: **\$313 billion U.S. dollars** – the estimated economic loss of natural disasters worldwide in 2021.<sup>10</sup>

### Human cost: Food security

- **345.2 million** people are projected to be food insecure in 2023 – more than double the number in 2020. **900,000+** people worldwide are struggling to survive in famine-like conditions.<sup>11</sup>

## Commitments

- Climate change is impacting so many people now. That is why the Paris Agreement called for at least 50% of all climate financing be directed at adaptation efforts<sup>12</sup>
- Canada has pledged \$5.3 billion CAD for international climate financing over 5 years (2021–2026), 40% directed at adaptation, up from 30% under the previous action plan.<sup>13</sup>
- The U.S. has pledged to increase annual international climate financing to \$11.4 billion USD by 2024 including \$3 billion in adaptation finance annually.<sup>14</sup>
- In FY23, U.S. Congress appropriated \$270 million USD for adaptation funds.<sup>15</sup>

ClimateActionForPeace.com



7. [unhcr.org/62a9d1494/global-trends-report-2021](https://unhcr.org/62a9d1494/global-trends-report-2021)

8. Ibid.

9. [noaa.gov/news/record-drought-gripped-much-of-us-in-2022](https://noaa.gov/news/record-drought-gripped-much-of-us-in-2022)

10. [aon.com/getmedia/f34ec133-3175-406c-9e0b-25cea768c5cf/20230125-weather-climate-catastrophe-insight.pdf](https://aon.com/getmedia/f34ec133-3175-406c-9e0b-25cea768c5cf/20230125-weather-climate-catastrophe-insight.pdf)

11. [wfp.org/global-hunger-crisis](https://wfp.org/global-hunger-crisis)

12. [unfccc.int/process-and-meetings/the-paris-agreement](https://unfccc.int/process-and-meetings/the-paris-agreement)

13. [climatechangeanddev.ca/wp-content/uploads/2021/10/2021-Final-Canada-Climate-Paper.pdf](https://climatechangeanddev.ca/wp-content/uploads/2021/10/2021-Final-Canada-Climate-Paper.pdf)

14. [whitehouse.gov/wp-content/uploads/2021/10/Full-PREPARE-Plan.pdf](https://whitehouse.gov/wp-content/uploads/2021/10/Full-PREPARE-Plan.pdf)

15. <https://www.congress.gov/bill/117th-congress/house-bill/2617/text>