

Impacts of Climate Change on Communities



2023 DOTAC Assembly
Minneapolis, MN | August 14-18, 2023

Food Security

- Unpredictable timing for planting, tending, and harvesting crops
- Reduced crop production and crop failures
- Collapse of fisheries
- Decrease in livestock fertility and meat/milk/egg production
- Increased malnutrition
- Migration of people from rural to urban areas in search of food
- Increase in crop pests due to warmer winters
- Food losses due to difficulty storing in extreme heat and weather events

Drinking Water

- Loss of mountain snowpack and glaciers that supply drinking water
- Drop in groundwater levels leading to dry wells and decreased river flow
- Water contaminated by weather events
- Flooding and storm damage of water infrastructure
- Women and girls spending more time collecting water
- Lower lake levels and dry lakes
- Salt-water contamination of groundwater due to sea level rise
- Water scarcity

Health

- Heat exposure of people who work outside and live without air conditioning
- Heat stress causing increase in incidents of respiratory and heart issues
- Expanding range of vector-borne diseases
- Longer, more intense allergy seasons
- Mental health crises due to stress of climate related impacts
- Increase in water borne disease
- Increased vulnerability of children and elderly
- Exposure to sewage caused by weather events that damage infrastructure
- Mold in housing due to flooding

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Weather Events

More frequent and higher levels of river flooding
Higher tides
Flooding of low-lying areas
Sea level rise flooding coastal communities
Higher sea levels causing rise in water surface of rivers and Great Lakes
Increased and more frequent hurricanes
Damage / loss of housing due to more extreme weather events
Erosion and land degradation cause by weather events
More extreme hot/cold and wet/dry weather cycles
Drought
Wildfires

Violence

Increased poverty leading to social unrest
Competition for limited resources
Gender-based violence as family resources and options decrease
Migration of displaced people