CHANGING CLIMATE

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OVERVIEW

- Acknowledgement
- Introductions
- How is the climate changing?
- What are its impact on our environment and human health?
  - Local connections
- Continuing the conversations
Phoenix may not survive climate change

The arid city is akin to an oven, and its power grid faces an even bigger test as people seek to stay cool. The city's utilities are already under strain. In 2021, it had to import power for the first time in its history due to a severe drought that depleted water supplies for hydroelectric generation. The city is now considering more aggressive measures to reduce consumption, such as installing more efficient appliances and educating residents about conservation.

Typical Phoenix Home Energy Usage

- Cooling: 50%
- Water Heating: 20%
- Space Heating: 16%
- Lighting: 8%
- Refrigerator: 5%
- Miscellaneous: 5%

The city has a peak demand for electricity of 1,200 megawatts, and its energy mix is dominated by coal and natural gas. The utility company is considering renewable sources, such as solar and wind, to meet growing demand. However, the city is still grappling with the long-term implications of a hotter climate.
Explaining the Greenhouse Effect
King County Greenhouse Gas Emissions, 2012
OECDNAC

Global Fish Prices Leap to All-Time High

Global fish prices have leaped to all-time highs as China’s growing appetite for high-end species — from tuna to oysters — runs up against lower stocks.

The UN Food and Agriculture Organization notes that stocks of wild fish in many parts of the world are at record lows due to overfishing and pollution.

Could climate change take oysters off the menu?

A study published Monday in Nature Climate Change reveals that ocean acidification caused by higher carbon dioxide levels could make oysters unpalatable. Oysters are a $1 billion industry in the United States, and climate change could be the first major threat to the industry.

Ocean water is becoming more acidic due to human activities, particularly the burning of fossil fuels. The increased acidity makes it harder for oysters to form shells.

Where is global warming going?

Ocean 93.4%

Atmosphere 2.3%

Continents 2.1%

Glaciers and ice caps 0.9%

Arctic sea ice 0.6%

Greenland Ice Sheet 0.2%

Antarctic Ice Sheet 0.2%

Data from IPCC 2007
Environmental Racism Is Nothing New

Race is the most significant predictor of a person living near contaminated air, water, or soil.

56% of the population near toxic waste sites are people of color.

People of color:

Have seen 95% of their claims against polluters denied by the EPA.

Have 38% higher nitrogen-dioxide exposure.

Are 2x more likely to live without potable water and modern sanitation.
Physical and Mental Health Impacts

- Food Access
- Anxiety
- Extreme heat and extreme weather events
- Outdoor air quality
- Flooding
- Diseases and infections
Continuing the conversations

• Community efforts

- What initiatives, organizations, community leaders, are already working on making Kent a healthier and stronger community?

- What else is needed to make Kent a healthier and stronger community?
Thank you!