

# \* Understanding Climate Change

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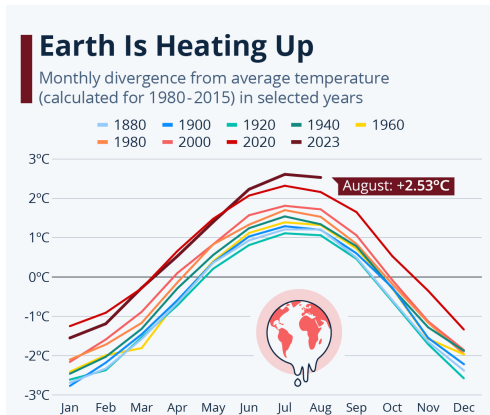
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# Overview of Climate Change

- **Definition:** Climate change refers to significant changes in global temperatures and weather patterns over time.
- **Causes:**
  - Greenhouse gas emissions (CO<sub>2</sub>, CH<sub>4</sub>, etc.)
  - Deforestation
  - Industrial activities
- **Impact Areas:**
  - Global temperature rise
  - Melting ice caps
  - Sea level rise
  - Extreme weather events

# Key Statistics and Data

- Global temperature rise: **1.1°C** above pre-industrial levels (as of 2024).
- Arctic sea ice extent has declined by **13%** per decade since 1980.
- Sea levels have risen by approximately **20 cm** since 1900.



# Case Studies

## Case Study 1: The Maldives

- The Maldives is experiencing severe sea level rise.
- Increased risk of flooding and loss of land.
- Government efforts: Building sea walls and promoting climate resilience.

## Case Study 2: Australia

- Frequent and intense bushfires.
- Impact on biodiversity and air quality.
- Government and community response: Fire management strategies and climate adaptation plans.

# Potential Solutions and Actions

- **Mitigation:**

- Reducing greenhouse gas emissions through renewable energy sources.
- Enhancing energy efficiency in industries and homes.
- Promoting sustainable land use and conservation.

- **Adaptation:**

- Developing infrastructure to withstand extreme weather.
- Implementing water management strategies.
- Supporting climate-resilient agriculture.

- **International Agreements:**

- Paris Agreement: A global effort to limit global warming to well below 2°C.
- Nationally Determined Contributions (NDCs): Targets set by countries to reduce emissions.

# Conclusion

- Climate change is a critical global issue with wide-ranging impacts.
- Addressing it requires a multifaceted approach involving mitigation, adaptation, and international cooperation.
- Everyone has a role to play in tackling climate change.

**THANK YOU**