

The Intergovernmental Panel on Climate Change (IPCC) Report and Cities' Role in Climate Solutions

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IPCC: Intergovernmental Panel on Climate Change

- Established 1988 by World Meteorological Organization & United Nations
- Provides decision-makers with rigorous, balanced scientific information on climate change and its potential impacts
- Thousands of scientists worldwide contribute; 195 member countries participate



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Latest IPCC Report: Fifth Assessment

Climate Science: Summary for Policymakers-
released Sept. 2013

- Last version published 2007
- 800 scientists contributed



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Key Point 1: *Confidence*

Warming of the climate system is
unequivocal.

There is **>95%** likelihood that
human influence is the dominant
cause of warming since 1950.

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Key Point 2: *Unprecedented*

Many of the observed changes since the 1950s are **unprecedented** over decades to millennia.

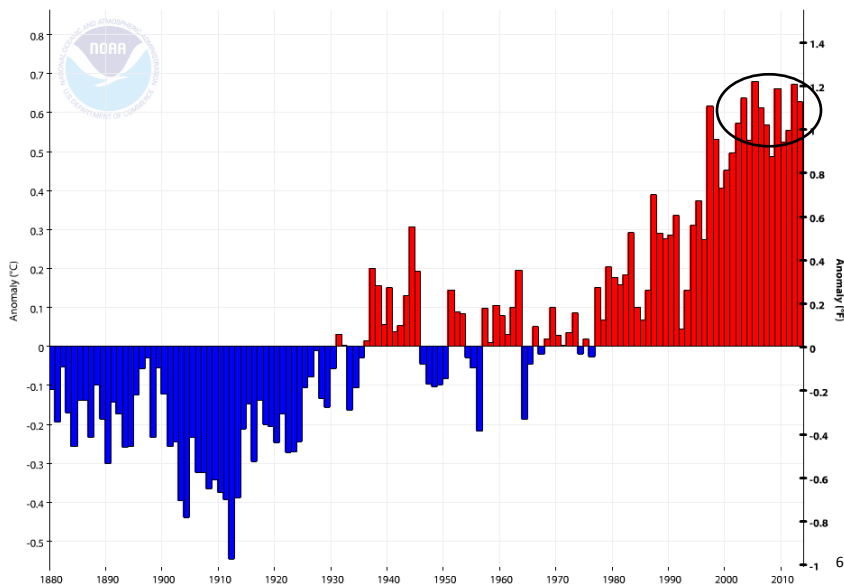
- 1) Atmospheric and ocean warming
- 2) Diminished snow and ice
- 3) Sea level rise

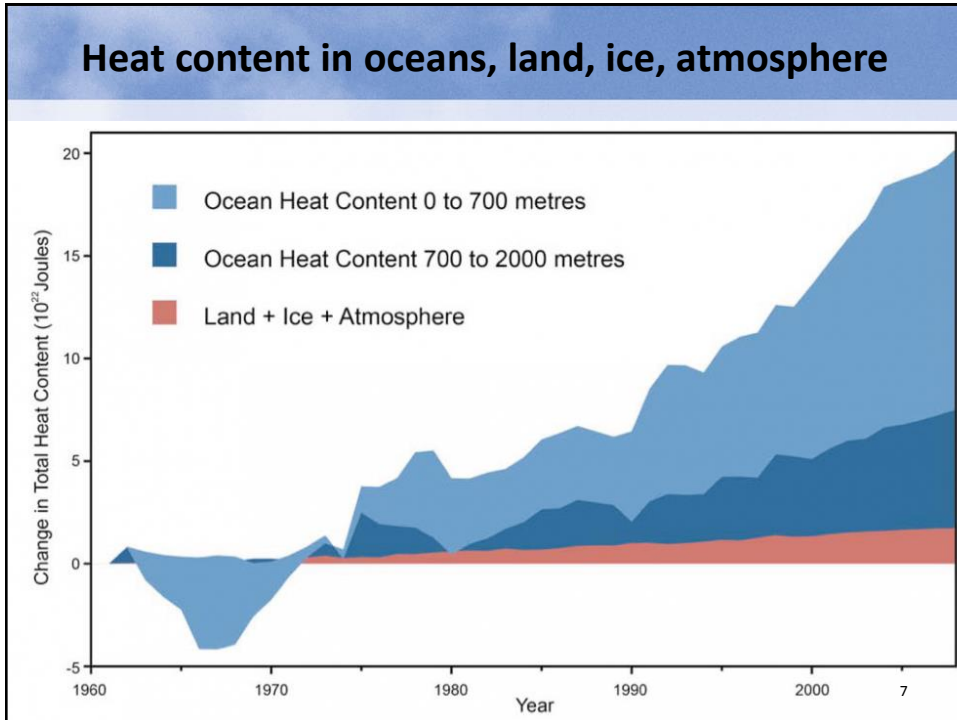
Many impacts are happening **more quickly** than previously predicted.

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Recent 'pause' in warming

Global Land and Ocean Temperature Anomalies, September





Key Point 3: *Intense weather*

Climate change is creating more frequent and more intense weather events

- Heat Waves
- Drought
- Intense tropical cyclones
- Heavy precipitation
- High sea level



1. [DC Flood Aug. 2001](#) 2. [Haiyan 2013](#) 3. [Summer 2012](#)

Key Point 4: *Carbon budget*

The UN Framework Convention on Climate Change agreed that 2°C of warming is the necessary maximum to prevent the most dangerous impacts.

Business as usual will lead far beyond 2°C of warming

- At this rate, the world will exhaust its 'carbon budget' in **30 years**

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Key Point 5: *Emissions*

To avoid more than 2°C of warming, global emissions must fall to 50% below 1990 levels by 2050.

- COG goal is aligned: 80% below 2005 levels by 2050

CEEPC's work is important

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Next Steps

- UN Climate Change Conference
 - Warsaw Nov 11-22, 2013
 - Paris 2015



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Scientific American: Can Cities Solve Climate Change?



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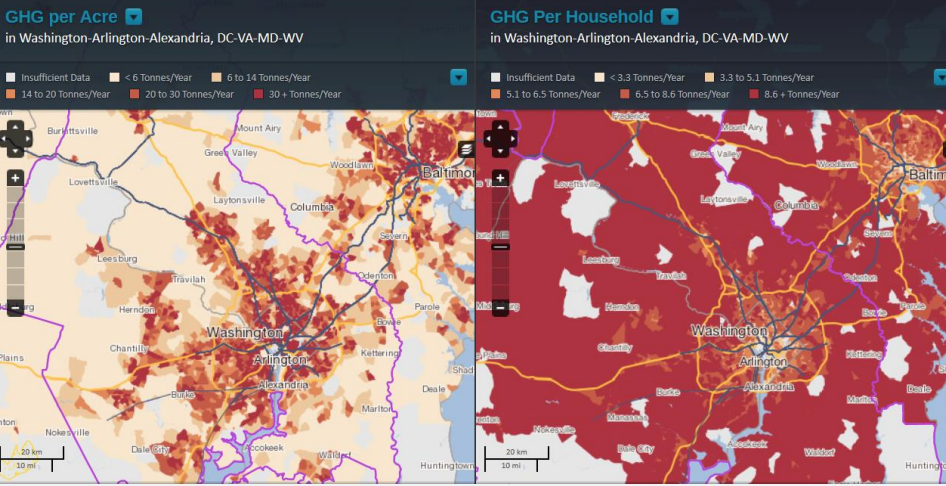
Cities and Climate Change

- Cities are responsible for 2/3 of worldwide greenhouse gases
- Emissions from buildings, land use, transportation, solid waste, water utilities, and electricity are at least partially under city government control



Cities are efficient

GHG Emissions from Gasoline



<http://htaindex.cnt.org/map/>

Cities are the Right Scale for Action

- Cities can respond faster than National and International groups
- Cities add 65 million people annually worldwide
- Cities experience climate impacts;

Cities are the appropriate scale at which to prepare for climate change



New York City during Hurricane Sandy; Creative Commons, 2012

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How Cities Combat Climate Change

- Attract people & businesses with **transit oriented development**, housing diversity, and mixed use urban design
- Provide **transportation choices**
- Promote **efficient buildings**
- Increase **renewable energy**
- Protect tree canopy; mitigate floods; capture rainwater



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More information...

- World Resources Institute: [5 Major Takeaways from the IPCC Report on Global Climate Change](#)
- Scientific American: [Can Cities Solve Climate Change?](#)
- The Economist: [The IPCC Climate-Change Report](#)
- IPCC Fifth Assessment Report - Climate Change 2013: The Physical Science Basis - [Summary for Policymakers](#)