Meeting the Challenge of Climate Change

How we can stabilize the climate and improve the human condition



Citizens' Climate Lobby https://CitizensClimateLobby.org/ John L Keller, PhD, CCM <u>wxchief@gmail.com</u> CCL Boston Metro West Chapter

Presentation to Rotary Club of Concord, MA 2020.06.04



An Action Team of Citizens' Climate Lobby

The Key to Eliminating Poverty

The human condition and energy availability are closely linked

Ave. American > 10 KW

Ave. European ~ 1/2 American

Ave. African < 1/10 American



A global "European standard" by 2050, power generation must increase from 17 TW to 32 TW

Can the future of the developing world be based on fossil energy?

An overwhelming scientific consensus

Fossil CO₂ emissions are disrupting the climate

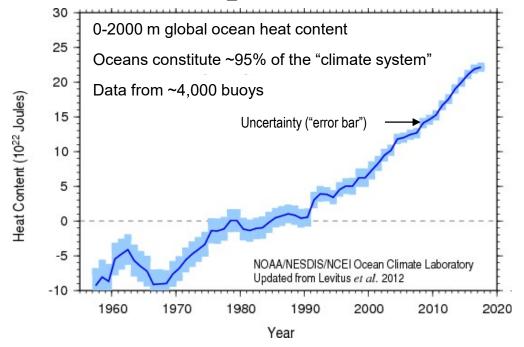


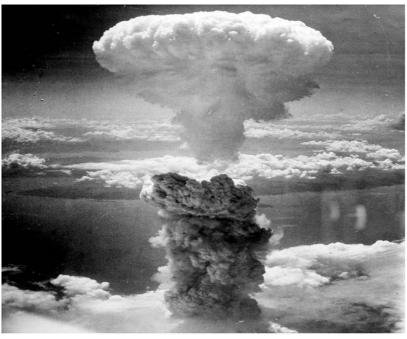
80 national academies of science accept human-caused climate change



Why is the Earth's Climate Changing?

CO₂ in the atmosphere acts like a blanket

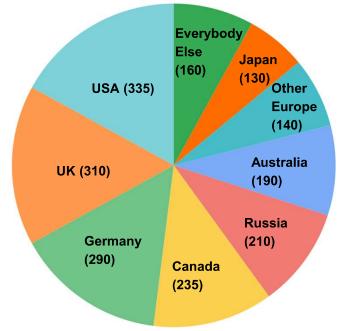




Equivalent to > 400,000 Hiroshima atomic bombs per day, 365 days per year

Who's Responsible for this CO₂?

The developed world has "eaten" most of the fossil energy pie



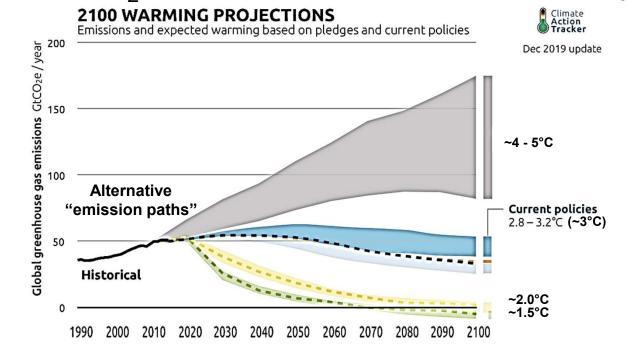
Developed countries are responsible for over 90% of per capita cumulative CO_2 emissions

Per capita cumulative emissions 1750-2018 (tons carbon)

Current warming is due to the >1,620GT CO_2 already in the climate system

The Effect of Future CO₂ Emissions

Most growth in CO₂ emissions *could* be in the developing world



The developed world has been and will be responsible for most climate change

The Impacts Are Just Beginning

Impacts expected from 3°C of warming

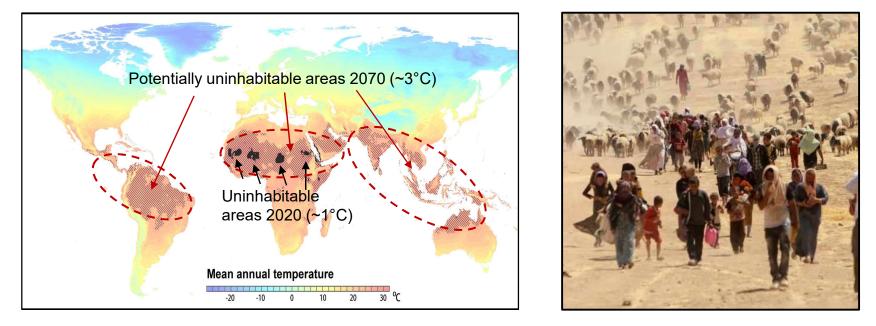
- More severe heat waves and droughts
- More intense storms and floods
- 2-6 feet sea level rise by 2100, several meters more by 2300
- Wildfires
- Declining forests
- Loss of coral reefs
- Mass extinctions on land and at sea
- Food and water scarcity
- Climate refugees

Some of these impacts are particularly troubling



The Worst Impacts Have Begun

With 3°C of warming, over 1.5 billion climate refugees



How can we stop this from happening?



Climate Change is a due to a Market Failure

Treat CO₂ as a waste disposal problem, *not* a moral failure



Pricing CO₂ pollution must be the foundation of any effective policy



Energy Innovation **AND** Carbon Dividend Act

CCL's Non-partisan and "technology agnostic" bill



Place a predictable, steadily rising fee on fossil fuels at the source (mine, well or port)



3

Return all of the revenue to households equally

A border adjustment on goods imported from or exported to countries without an equivalent price on carbon



Carbon pricing means energy innovation, not energy deprivation



Conservative Estimates of Benefits (US)

Regional Economic Modeling, Inc. (REMI) study highlights

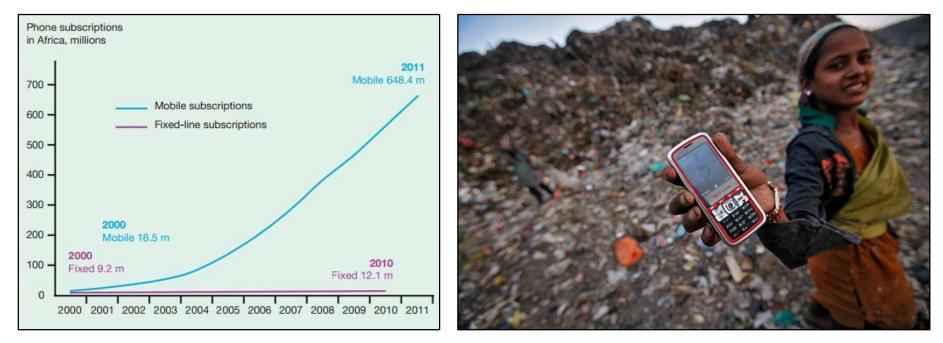
Employment	• 2 million more jobs
Climate	 Dramatically reduces CO₂ emissions
Fiscal	 Increases household incomes
Health	 Saves 295,000 lives over 10 years
Economic	• \$1.3 trillion more GDP

Results are similar for all economic models



Reaching the Developing World

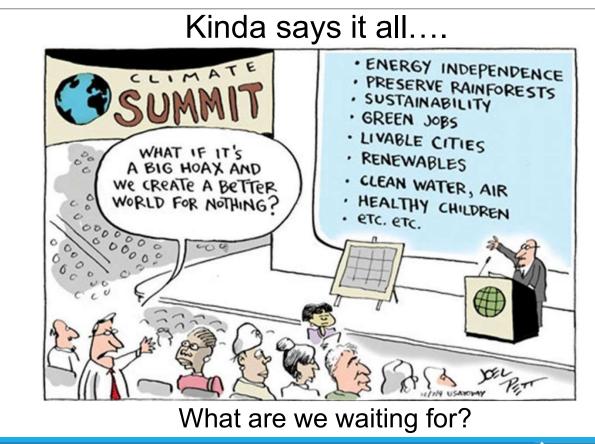
Cellular technology can provide a precedent



Most of the developing world is awash in accessible solar energy



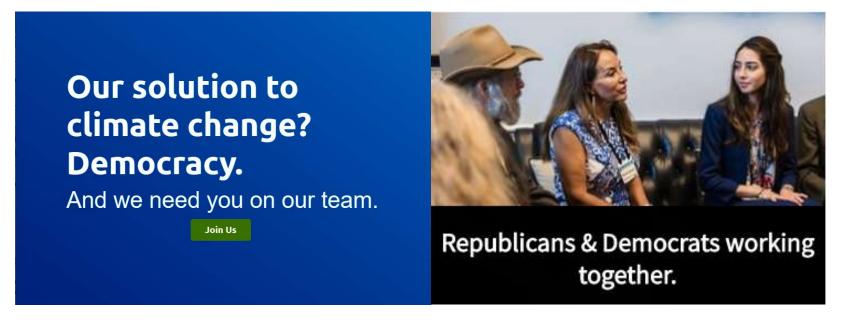
The Alternative "Risk"





Political Will

CCL: Respectfully building political will for a price on carbon



Join CCL's intro call every Wednesday 5 PM Pacific



Are You Ready to Take Action?

Learn how you can help – get training

Write Letters to the Editor & Opinion Pieces

Representatives and Ask Them to Support The Energy Innovation Act

Write Your Senators &

Become a CCL Presenter

Help arrange CCL presentations at another group that you belong

to (church, synagogue, professional association, etc.)

Represent CCL at a community event in your hometown

Learn about Climate Change & how to talk about it to anyone

Go to Washington and

visit members of

Congress or their staff

(we'll train you!)

Interested? https://citizensclimatelobby.org/