

# **Achieving a Zero Emissions Global Economy through a Global Green New Deal**

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**PRESENTATION TO:**

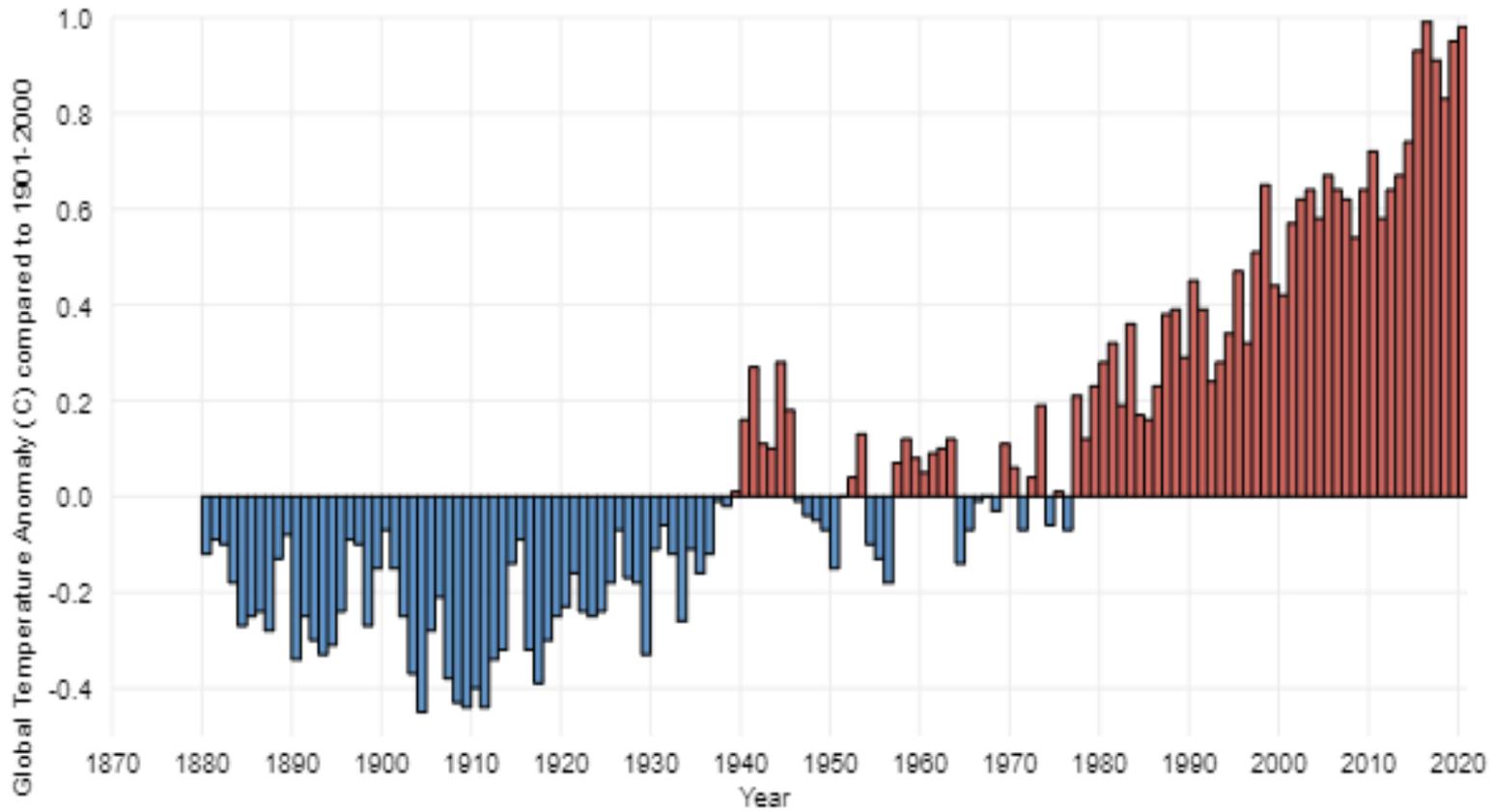
**GERHART CENTER, AMERICAN UNIVERSITY IN CAIRO**

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# How We Are Courting Ecological Disaster: 1

- **Intergovernmental Panel on Climate Change (IPCC) 6<sup>th</sup> Assessment Report—August 2021**
  - Need to stabilize global mean temperature at 1.5<sup>0</sup>C by 2100
    - Previous target had been 2<sup>0</sup>C
  - Failure to do so:
    - ***Intensifying risks:*** heat extremes, heavy precipitation, droughts, sea level rise, and biodiversity losses,
    - ***Impacts on:*** health, livelihoods, food security, water supply, and human security.
- **IPCC's Climate Stabilization requirements:**
  - Cut CO2 emissions by:
    - ~ 50% as of 2030
    - Zero emissions by ~ 2050
  - Biden Administration has set these as U.S. goals

# How We are Courting Ecological Disaster 2: *Global Warming, 1870 - 2020*



# How We Are Courting Ecological Disaster 3: *UN Report—from February 2021*

- ***Synthesis Report* by the United Nations Framework Convention on Climate Change (UNFCCC), 2/26/21**
- **UN Secretary-General António Guterres summarized the findings of this new report as follows:**

*“2021 is a make-or-break year to confront the global climate emergency. The science is clear, to limit global temperature rise to 1.5C, we must cut global emissions by 45% by 2030 from 2010 levels. Today’s interim report from the UNFCCC is a red alert for our planet. It shows governments are nowhere close to the level of ambition needed to limit climate change to 1.5 degrees and meet the goals of the Paris Agreement. The major emitters must step up with much more ambitious emissions reductions targets for 2030 in their Nationally Determined Contributions well before the November UN Climate Conference in Glasgow.”*

# What To Do: 1

## *Global Energy System Transformation*

- **Burning fossil fuels to produce energy responsible for ~70 percent of all greenhouse emissions**
  - **Stop burning fossil fuels**
  - Total elimination in 30 years
    - 3.3% average absolute cut per year
  - **Investments in:**
    - **Energy Efficiency**
    - Buildings, transportation industrial production
    - **Renewable Energy as Primary Low-Carbon Energy Source**
    - Solar, wind, geothermal, small-scale hydro, low-emissions bioenergy
  - 2.5% of total global spending (GDP) per year in clean energy investments
  - Now at ~0.4 – 0.6% of global spending

# Why Energy Efficiency and Renewables over Nuclear and Carbon Capture for Low-Carbon Energy ?

- **Efficiency and clean renewables are:**
  - Proven, safe and cheap, with costs falling
- **U.S. Energy Department's estimated average costs of electricity (per kilowatt hour) in 2026 (2/21):**
  - Coal with carbon capture: 7.3 cents
  - Advanced nuclear: 6.9 cents
  - Solar PV: 3.3 cents
  - Onshore wind: 3.7 cents
  - Geothermal: 3.6 cents
- **International Renewable Energy Agency (IRENA—in Abu Dhabi)**
  - 6/21: 62% of newly installed renewables cheaper than *cheapest* fossil fuel alternative

# What to Do: 2

## ***Global Agricultural System Transformation***

**– Corporate/industrial agricultural practices responsible for ~ 30% of all greenhouse gas emissions**

- Deforestation → afforestation
- Industrial → organic farming
- *Afforestation and organic farming natural sources of carbon capture*
- Contract cattle farming
- Stop wasting food and land

# Why “Global Green New Deal”?

- **Climate stabilization program fully compatible with raising living standards for working people and poor**
  - Expansion of job opportunities globally
    - Roughly 160 million jobs/year through clean energy investments
      - Much greater employment than retaining fossil fuel infrastructure
  - Improves public health by reducing pollution
  - Creates opportunities for alternative ownership forms
    - Small-scale cooperate and community ownership
  - Lowers energy costs

# Job Creation through Clean Energy vs. Fossil Fuels

**Table 6.1** Jobs Generated through Spending \$1 Million on Clean Energy versus Fossil Fuel Production

## Large-scale Fossil Fuel Producing Countries

	Clean Energy Jobs per \$1 million	Fossil Fuel Jobs per \$1 million	Job Increase through Clean Energy Spending relative to Fossil Fuels
Brazil	37.1	21.2	+75%
China	133.1	74.4	+79%
India	261.9	129.1	+103%
Indonesia	99.1	22.0	+350%
South Africa	70.6	33.1	+113%
United States	8.7	3.7	+135%

## Large-scale Fossil-Fuel Importing Countries

	Clean Energy Jobs per \$1 million
Germany	9.7
South Korea	14.6
Spain	13.4

# Just Transition for Fossil Fuel-Dependent Workers and Communities

- **For workers:**
  - Guarantee pensions
  - Guarantee jobs at equal pay
  - Retraining and relocation support as needed
- **For communities:**
  - Clean up damaged land
  - Repurpose the land
    - For example, solar or hydro installations in former coal mines

# Green New Deal Can Work Now

- ***Short term:*** Can expand job opportunities coming out of COVID-based recession
- ***Long-term:*** Climate stabilization fully consistent with expanding decent work opportunities, raising mass living standards and fighting poverty