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Urgent Issues, Extraordinary Politics
Fromm Institute, USF
September 17, 2018

**California is Burning
(and by the way, so is the rest of the world):
Climate Change, Environmental Issues,
and the Existential Threat Posed by Inaction**

- I. Glimpsing the Future in the Present: Half the World Underwater, the Other Half on Fire?
- II. The Current California Fires, the Prolongation of the Fire Season, the Vast Increase in Megafires, Global Climate Change, and Other Factors
- III. Global Climate Change: A Primer on The Forces at Work
 - A. (1) Rising Admissions of (a) Carbon-dioxide, (b) Hyper-pollutants and (c) H₂O, Leads to (2) Increased (a) Temperature and (b) Atmospheric Energy and (3) Self-reinforcing Cycles of Climate Change
 - B. Melting Ice Caps
 - C. Rising Ocean Temperatures and Thermohaline Circulation (Oceanic Conveyor Belt) Disruption
 - D. Jet Stream Alteration and Changing of Local Climates
 - E. Deforestation and Desertification
 - F. The Grim Math of Climate Change: “Long-term disaster is now the best case scenario.” (James Hansen and Nathaniel Rich)
- IV. The Varying Scenarios for Climate Change and their Likely Consequences
 - A. Where We Are Now: Present Levels of GHG Concentration Will Produce at Least 1.5° Celsius Temperature Change
 - Heat Waves Hotter
 - Weather More Intense and Destructive
 - Droughts Longer and Drier
 - Wildfire Season Longer and More Destructive
 - Higher Sea Levels with Increased Flooding
 - Increase Frequency of Human Dislocation (Climate Refugee Crises), Civil War, Crime, Heat- and Weather- related Deaths, etc.
 - B. Current Trends: Energy Source Mix Barely Budging; Energy Use Increasing Rapidly; More Warming is “Baked In”
 - C. Scenario I: 2° Celsius: Long-Term Disaster (Unlikely Best-case). Above +:
 - Inundation of Low-lying nations and cities
 - Collapse of Ecosystems (e.g. coral reefs)

D. Scenario II: 3-4° Celsius: Short-Term Catastrophic Warming (Most likely).
Above +:

- Loss of Most Coastal Cities
- Complete Melting of Polar Caps
- Mass Extinction of Many Species
- Much of Africa, South America, Southeast and East Asia, and Significant Tracks of other Continents Uninhabitable

E. Scenario III: 5° Celsius: Unknown (Likely). Above +:

- Existential Threat to Most or All Human Populations
- End of Human Civilization
- Possible Runaway Greenhouse Effect

V. Recent Efforts to Contain Global Warming: The Paris Accords and Global Climate Change Mitigation

- A. Different Scenarios for Compliance and Different Loci of Action
- B. “Exponential Action:” GHGs peak by 2020, halve by 2030 and then halve again by 2040 and 2050
- C. A Deficient and Damaged Framework

VI. The Moonshot: Cleaning Up The Mess We’ve Made

- A. Carbon Capture and Sequestration (CCS): Possible But Lacking Inducements and Highly Inefficient
- B. Bio-energy with CCS (BCCS): Solving Two Problems at Once
- C. Carbon Removal: Currently Impossible at a Scale that Matters
- D. Geo-engineering?
- E. “Ultimate Insurance Policy or Ultimate Moral Hazard”? and the Problem of “Solution Bias” (E. Kolbert, 2017)

VII. Recent Changes in American Policy: Aggressive Deregulation or a War on the Climate?

- A. Withdrawal From the Paris Climate Accords
- B. Revision of Federal Clean Car Standards
- C. Proposed Repeal of Clean Power Plan
- D. Proposed Revision to Methane Performance Standards

VIII. What an Honest and Sober Global Climate Change Debate Might Look Like

- A. When and How Did Climate Change become a Culture War Issue? Did It Have to be This Way? Why Inaction Cannot be Blamed Exclusively on Climate Change Deniers

- B. Imagining a Different Discourse
 - 1. Mainstream Environmentalism (e.g. Al Gore)
 - 2. Radical Environmentalism (e.g. Naomi Klein, *This Changes Everything*)
 - 3. Post-modern Despondency (e.g. Amitav Ghosh, *The Great Derangement*)

- IX. The Competing Levels on Which Action Must Take Place
 - A. International
 - B. National
 - C. Subnational (Regional, State, Local)
 - D. Individual (What are You Doing? What Can You Do?)

- X. What Can We Learn from Our Inaction?
 - A. Learning the Lessons of “the Urgency of Now” or Descending Into the Politics of Blame and Self-preservation
 - B. The Limits of Democracy?
 - C. The Limits of Capitalism?
 - D. The Limits of Human Cognition?

Works referred to or drawn on:

- Erle C. Ellis, *Anthropocene: A Very Short Introduction*
- Exponential Climate Action Roadmap (<http://exponentialroadmap.futureearth.org/>)
- William Finnegan, “California is Burning,” *The New York Review of Books*, August 16, 2018.
- Tim Flannery, “The Big Melt,” *The New York Review of Books*, August 16, 2018.
- Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable*
- Paul Hawken, *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*
- Naomi Kline, *This Changes Everything: Capitalism vs. The Environment*
- Elizabeth Kolbert, *Field Notes from a Catastrophe: Man, Nature, and Climate Change* (2015 ed.)
- Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History*
- Elizabeth Kolbert, “Can Carbon-Dioxide Removal Save The World?,” *The New Yorker*, November 20, 2017
- Elizabeth Kolbert, “A Summer of Megafires and Trump’s Non-Rules on Climate Change” *The New Yorker*, November 20, 2017
- Bill McKibben, *Eaarth: Making Life on a Tough New Planet*
- Van R. Newkirk, “Cape Town is an Omen,” *The Atlantic*, September 11, 2018.
- Nathaniel Rich, “Loosing Earth: The Decade We Almost Stopped Climate Change,” *New York Times Sunday Magazine*, August 1, 2018.
- Zaval, L. & Cornwell, J.M. “Cognitive Biases, Non-Rational Judgments, and Public Perceptions of Climate Change” in Nisbet, M.C., Schafer, M., Markowitz, E., Ho, S., O’Neill, S. & Thaker, J. (Eds.), *The Oxford Encyclopedia of Climate Change Communication*, Oxford University Press, 2016