

CHAPTER 45

FOSSIL SUNLIGHT* VS RENEWABLE SUNLIGHT





*Fossil sunlight is sunlight captured by organisms and then turned into fossil fuel.



ANCIENT SUNLIGHT WAS CAPTURED BY EARTH'S PLANTS AND, AFTER MILLIONS OF YEARS, WAS TRANSFORMED INTO FOSSIL FUELS (i.e., COAL, PETROLEUM, METHANE).


- 🌐 **These fossil fuels were the energy source for the Industrial Revolution.**
- 🌐 **At present, the remaining fossil fuels are tough to acquire and are hazardous to use (i.e., resulting in greenhouse gases and toxic chemicals).**
- 🌐 **Why not use the abundant renewable sunlight that reaches Earth daily as an energy source?**

THE PRIMARY PROBLEM FOR THE BIOSPHERE IS THE INCREASING BUILD UP OF CARBON DIOXIDE FROM BURNING FOSSIL FUELS (COAL, PETROLEUM, NATURAL GAS).


-  Fossil fuels are finite on a finite planet, despite statements that they will last.
-  *“... in order to limit global warming to 2°C above pre-industrial levels — the generally accepted target to stabilize carbon emissions and avoid dangerous climate change — no more than one-third of the world’s remaining proven fossil fuel reserves can be burned, and massive global investments in energy efficiency and low-carbon energy technologies will be needed.”¹*
-  Humanity acquired temporary dominance over most other species because of cheap, abundant fossil fuel, which had hidden costs (e.g., climate change) that are just now beginning to be appreciated.²
-  The era of cheap, abundant energy is over.




“GLOBAL GREENHOUSE-GAS EMISSIONS FROM FOSSIL FUELS HAVE REACHED NEW RECORD LEVELS, YET THERE WILL BE NO NEW, GLOBALLY BINDING CLIMATE-PROTECTION AGREEMENT FOR ALL STATES BEFORE 2020.”³

 ***“The more serious the future climate changes turn out to be, the more expensive adjustment measures will become. It is not enough for politicians to set themselves targets. They must now also tackle implementation.”⁴***

 ***Because of the suicidal nature of humankind’s reckless use of fossil fuels, “Top International Energy Agency officials offered a bleak assessment . . . of the prospects for global progress on preventing big temperature increases.”⁵***

 ***“THE EXTREME WEATHER EVENTS
OF 2012 ARE WHAT WE [CLIMATE
SCIENTISTS] HAVE BEEN WARNING OF
FOR 25 YEARS, . . . ”⁶***


 ***“WILL OUR SHORT ATTENTION SPAN BE THE END OF US? JUST A MONTH AFTER THE SECOND “STORM OF A CENTURY” IN TWO YEARS, THE MEDIA MOVES ON TO THE LATEST SCANDAL WITH BARELY A RETROSPECTIVE GLANCE AT THE IMPLICATIONS OF THE EXTREME CLIMATE ANOMALIES WE HAVE SEEN.”⁶***




***“WE [HUMANS] LOADED THE
DICE. WE CHANGED OUR
CLIMATE.”⁶***



✚ THE COST OF THE TRANSITION TO ALTERNATIVE ENERGY SOURCES HAS RECEIVED MUCH DISCUSSION.⁷ HOWEVER, OMITTED FROM MOST OF THESE DISCUSSIONS IS A BASIC ETHICAL/MORAL QUESTION: HOW MUCH IS HUMANITY PREPARED TO PAY TO INCREASE THE PROBABILITY OF LEAVING A HABITABLE PLANET TO POSTERITY?

- 🌐 Twelve US government agencies decided in 2010 to “*use the same baseline of [US] \$21 per ton as the standard in monetizing the social costs of the seven-plus billion tons of carbon generated by American power plants, vehicles, and factories each year.*”⁷
- 🌐 If humankind does not act soon, runaway climate change could make the debate on costs of transition to non-carbon energy obsolete.
- 🌐 Extinction of *Homo sapiens* probably will move from possible to probable if “business as usual” continues with anthropogenic greenhouse gas emissions .

 **DESPITE LOOMING CLIMATE CHANGE CATASTROPHES, HUMANKIND'S CIRCUMSTANCES MAY WORSEN. FOR EXAMPLE, "THE HEARTLAND INSTITUTE, A LIBERTARIAN THINK TANK SKEPTICAL OF CLIMATE CHANGE SCIENCE, HAS JOINED WITH THE CONSERVATIVE AMERICAN LEGISLATIVE EXCHANGE COUNCIL TO WRITE MODEL LEGISLATION AIMED AT REVERSING STATE RENEWABLE ENERGY MANDATES ACROSS THE COUNTRY."**⁸

 ***"But, Gabe Elsner, co-director of the public watchdog group Checks and Balances Project, said the legislation and economic reports amount to a one-two punch against clean energy laws across the country by fossil-fuel interests."***⁸

SOME PRELIMINARY ESTIMATES OF THE COST OF A SLUGGISH TRANSITION TO NON-CARBON ENERGY SOURCES CAN BE DERIVED FROM THE DISASTER-PREPAREDNESS ECONOMY.

-  *“Driven of late by freakish storms, this [disaster preparedness] industry is growing fast, well beyond the fringe groups that first embraced it. And by some measures, it’s bigger than ever.”⁹*
-  Superstorm Sandy *“was a stark illustration of the power that climate change can deliver — today — to our doorsteps. Ask the homeowners along the New Jersey and New York shores still homeless. Ask the local governments struggling weeks later to turn on power to their cold, darkened towns and cities. Ask the entire [US] north-east coast, reeling from a catastrophe whose cost is estimated at \$50bn and rising.”⁶*



AN APOCALYPSE WILL BE CREATED BY DENIGRATING SCIENTIFIC EVIDENCE AND IGNORING REASON AND ETHICS.

- 🌍 **The collapse of the present Biosphere will result from passing a global tipping point, which will result in irreversible change.**
- 🌍 **Collapse of the present Biosphere will include a precipitous loss of renewable resources, including food.**
- 🌍 **Super storms, drought, spread of diseases, and other catastrophes will cause widespread generation of refugees, causing additional stress to “host” countries.**
- 🌍 **Social systems will collapse, resulting in a markedly ineffective social infrastructure for such needs as health care, electric service, and water and energy supplies.**
- 🌍 **Adaptation to new, alien conditions is problematic.**



**“THOSE WHO CAN MAKE YOU BELIEVE
ABSURDITIES, CAN MAKE YOU COMMIT
ATROCITIES.”**

Voltaire



**“INJUSTICE
ANYWHERE IS A
THREAT TO JUSTICE
EVERYWHERE.”**

MARTIN LUTHER KING, JR.



**“SOME THINGS YOU MUST
ALWAYS BE UNABLE TO BEAR.
SOME THINGS YOU MUST NEVER
STOP REFUSING TO BEAR.
INJUSTICE AND OUTRAGE AND
DISHONOR AND SHAME. NO
MATTER HOW YOUNG YOU ARE
OR HOW OLD YOU HAVE GOT.
NOT FOR KUDOS AND NOT FOR
CASH: YOUR PICTURE IN THE
PAPER NOR MONEY IN THE BANK
EITHER. JUST REFUSE TO BEAR
THEM.”**

William Faulkner

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