

A digital illustration of the Earth as a globe, centered on the African continent. The globe is surrounded by a thick, glowing ring of fire, with flames extending outwards, set against a black background. The text "The Environment" is overlaid in the center of the globe.

The Environment

The Status Quo

The Climate Emergency is Already Here (and is going to get worse)

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- Landmark 2018 IPCC report suggests climate catastrophe imminent by 2040
 - 1.5°C increase (as stipulated in Paris) still possible, but very very unlikely
 - Would require exorbitant carbon taxes (\$27,000 per ton)
 - And the difference between 0°C, 1.5°C, and 2°C is TANGIBLE
 - In order to reach Paris, cutting emissions to zero isn't enough—we have to contribute net negative carbon
 - Current “carbon capture” tech not nearly enough, would require two to three times the size of India
 - In other words, we need to reverse course immediately
 - But only 7 of the 195 Paris signatories are “on course”



Don't we still have time?



350 ppm

The “safe” amount of CO₂
in the atmosphere



407.4 ppm

The world passed the 400
threshold in 2017

| ENVIRONMENT |

Arctic permafrost is thawing fast. That affects us all.

As the frozen ground warms much faster than expected, it's reshaping the landscape—and releasing carbon gases that fuel global warming.



How have we gotten to this point?

In the 1970s and 1980s, prominent U.S. scientists started sounding the alarm bells on climate change—in 1989, a binding treaty was proposed

A coordinated effort by U.S. industry and H.W. Bush's administration stymied the global efforts

Without a binding treaty, continued industrialization of countries like China, and continued reliance on fossil fuels drove carbon increases

Essentially, disinformation and lobbying have infiltrated all major nations and the largest producers of energy

We aren't scientists. What are the practical impacts?

The fallout of climate change is akin to a rich arsonist getting off free: the impacts are **disproportionately felt** by the **poorest** and most **vulnerable** worldwide.

Climate change **directly** contributes to:

- Widening social and racial inequality
- Ocean acidification (food source)
- Natural disasters
- Refugees
- Wars

There's a reason why climate change is called a "threat multiplier"

Climate Change, Racism, and Inequality



When floods strike cities, the rich have easier outlets; the poor primarily live in slums and lower areas. Furthermore, around 3/10 people live in arid, dry areas, with disproportionately more poor people and POC living there. See Hurricane Katrina and Maria.

Rich countries pollute the air, poorer countries suffer. Tuvalu may be underwater within decades. They contribute virtually nothing to global carbon emissions.

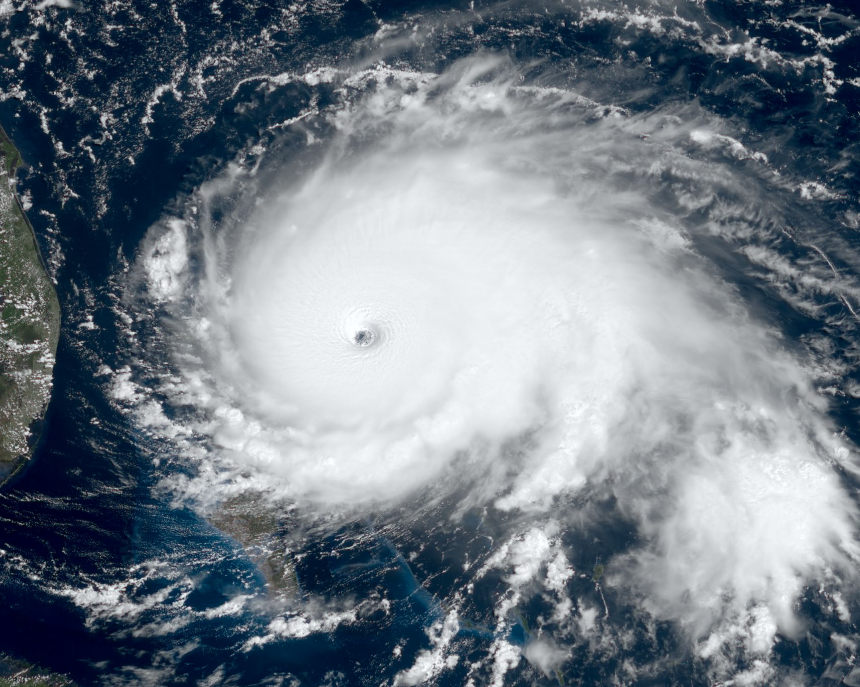
POC often breathe the worst air, are subject to the worst environmental quality, and often have the worst natural resources and necessities. See Flint, Michigan.

**This
contributes
immediately to
the climate
refugee
problem**

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- What happens when Miami goes underwater (perhaps by 2100)?
 - What happens when large swaths of the Middle East become uninhabitable?
 - “Since 2008, an average of 24 million people” per year are displaced due to natural disasters (NPR)
 - This number will only increase
 - By 2050, over 140 million could be displaced from the most arid regions—sub-Saharan Africa, Latin America, South Asia
 - How can the world deal with this, considering the problems we have with our current refugee levels?
 - Currently no international designation for climate refugees, no protections or recognition; UNHCR should amend accordingly



Climate change catalyzes catastrophe



Climate change
sparks wars and
will contribute to
future ones





What can we do?

Some Key Tenets



Individual action IS NOT and WILL NOT be enough. We had a forced experiment with COVID-19 this year; still not within projections. Dropped 5.5% this year, need to drop 7.6% per year for the next decade.

There are technologies out there, that developed far enough, could theoretically save us on the spot (SRM and carbon capture). It would be foolish to hope that they do.

Thus, the brunt of the legwork on this issue needs to revolve around policy. We have the tools to solve the crisis now. We lack the political will.



The Green New Deal is simply a framework. It sets the goal.

How do we get there?

The Energy Revolution

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- Renewables are growing and rolling out at their fastest pace ever—projected to grow by 50% within the next half decade
 - Couple this with the fact that wind and solar are on track to be cheaper than coal worldwide, and this leads nicely into a **market-based** progression into an energy revamp
 - However, we still **do not** have a viable solution for replacing oil at the moment: too valuable for transportation and its density is too convenient
 - Right now, oil is far superior for carrying loads on vehicles when compared to electricity
 - Renewables are great for generating **electricity**—we use our energy for more things than electricity
 - Thus, it is true that **technological advances** are needed, in part, to either find a way to make oil obsolete, or counteract its effect on carbon emissions

What About Nuclear?

Nuclear is clean. No carbon emissions.

Public interest largely suspicious after disasters in the late 1900s and in Japan earlier this century.

New advances in tech have given us molten salt reactors, which are safer, smaller, and could be a key factor in a greener economy.

Faces political pressure.

**The Takeaway:
Renewables are one
part of the solution**

The Moonshot Solutions

Carbon Capture

- The aforementioned IPCC report states that carbon capture is **NECESSARY** to avoid catastrophe
- However, it is still a gamble
 - It takes a large investment, a lot of space, and has very little commercial payoff (doesn't generate profits, it only helps save the world)
 - Where is the demand?
- In essence, it needs regulatory support
- While it is required to stay below the 1.5 degree threshold, it doesn't need to be huge to avoid utter catastrophe
 - We'll just deal with a relatively mitigated catastrophe (still terrible)
- Thus, technologically, it makes sense to invest and research
 - Financially, maybe not

Solar Radiation Management

- Much more controversial
 - Essentially geoengineering on a large scale
- Ideas include cloud thinning, solar mirrors in the sky, aerosol injection
 - All ideas have side effects (aerosol injections, for example, could cause acid rain as it mimics a volcanic effect)
- Most promising idea is some form of aerosol injection
- Many climate advocates dismiss this
- Should we?

ipcc

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