

METANOIA

*Metanoia: a transformative change of heart; especially: a spiritual conversion.
Repudiation, change of mind, repentance, and atonement*

- OONA GOODMAN -

The Atmosphere consists of the gases *Nitrogen, Oxygen, Argon, and Carbon Dioxide (CO₂)* in trace amounts. It helps insulate and protect the earth and its inhabitants.

The primary **Greenhouse Gases** in earth's atmosphere are *Water Vapor, Carbon Dioxide, Methane, Nitrous Oxide, and Ozone*. Without them, the earth's average temperature would be very cold (0°F), rather than the present 59°F. They serve as an insulating blanket for the world!

BUT

When they are out of balance, they cause devastating change. Since the Industrial Revolution, **human activity** has produced a 40% increase in the atmospheric concentration of carbon dioxide. Emissions produced by human activities come mostly from the combustion of fossil fuels, principally from coal, oil, and natural gas, with additional contributions coming from deforestation, industrial agriculture, and soil erosion (Topsoil Loss is the biggest US Export). Healthy ecosystems are essential for maintaining precipitation. A major part of climate change is shifting rainfall patterns like droughts and flooding.

If greenhouse gas emissions continue at their current rate, Earth's temperature will continue to rise and cause harmful effects on weather patterns, ecosystems, biodiversity and human livelihoods.

Luckily, Nature is our ally!

When we protect nature, we protect ourselves. Nature traps carbon in its wood, slowing global warming. 37% of emissions reductions needed to stabilize warming can be trapped by nature. Nature cools cities and cleans the air. Carbon dioxide is food for trees. Tropical forests alone reabsorb and trap a quarter (1/4th) of human-related carbon emissions. Worldwide, forests and other land ecosystems capture over a third (1/3rd) of carbon emissions every year! Since the industrial revolution, 29% of **all** emissions were re-absorbed by forests and 28% by oceans, meaning that less than half of what we emitted remains in the atmosphere.

Thanks Nature!

Terrestrial (land) ecosystems store almost 3x the amount of carbon found in the atmosphere, so we need to be careful with them. Halting deforestation and restoring degraded land could cut carbon pollution equivalent to the yearly emissions of all the cars in world! Plant more forests, trap more carbon in living trees.

Oceans absorb over a quarter (1/4th) of our annual carbon dioxide, but overburdening them has its own risks: *Ocean Warming, Ocean Acidification, and Coral Bleaching*, which leads to marine life extinction and less resiliency in aquatic ecosystems, which humans rely upon for food as well as protection. . Natural ecosystems protect against climate-related disasters. 97% of wave force can be reduced by coral reefs.

This delicate balance is easily disrupted however, *which is why trapping carbon in forests is really the only safe place for all this extra carbon.*

Grasses sequester lots carbon into the soil too!

Climate change is our biggest challenge. It compromises our food and water security, affects our health, risks our economic and social well-being, and undermines the ecosystems on which we depend, threatening our very existence. On the other hand, it's a huge chance to come together and create a more sustainable, equitable, peaceful, and beautiful world!

Inequalities in society make people more vulnerable to climate change. When people don't have access to resources or a say in the decision-making processes, they are more at risk. The risks for people, societies, economies, and the environment increase w/ further warming. Mitigation **can** reduce these risks. Adaptation and Mitigation are complementary. Climate change is upon us, so we have to begin adapting, but investing in mitigation in the short term will lead to more climate options in the future. There is a cost in taking climate action, but taking no action will cost a great deal more in the long term. *We will need local, national, and international cooperation.*

Essentially, by addressing climate change, you solve all your problems.

In order to combat climate change effectively, we would be left with no choice but to counter CORRUPTION & INEQUALITY. The Co-benefits (all the extra good things you get for dealing with an issue) of climate action would be more Transparency, Income & Gender Equality, Cleaner Water, Better Health, Food Security, and Biodiversity Conservation, to name a few!

What Do We Do Now?

Individual Actions

-**Insulate Your Home**

-**Switch to Renewable Energy Whenever Possible**

-**Transportation**- Use Public Transportation or walk/cycle whenever you can

-**Reduce, Reuse, Recycle**

-**Consume Less STUFF** and enjoy your friends and world more - but seek and/or demand a low-carbon option when you do

-**Divest from Fossil Fuels**-If you are fortunate enough to have extra income or savings and wish to invest it, choose to put it towards sustainable choices

-**Eat Less Meat**, particularly beef. This is the single biggest way to reduce your personal environmental impact. Because the demand for meat is so high, there are more large animals burping and farting (methane). Less demand will create fewer opportunities for industrial-sized operations to grow.

-**VOTE**-Make certain that your government works for and represents YOU by making your voice heard through your voting power.

Collective Action

-People coming together to **form movements or joining existing groups** that can push for changes big enough to matter from city-wide renewable energy programs, to larger scale divestment from fossil fuels can help a great deal.

Although individual choices and actions are *important*, experts say people need to **unite** if the scale of this challenge is to be met, making space for politicians and big businesses to make the necessary changes. Greed, short-sightedness, political corruption, and misinformation are the main obstacles to making the sweeping change we need. Because this is a **global issue**, we will need cooperation on every tier. We will need qualified representatives at local, national and international levels. Which is why **voting** for ecological change and people that support it could be *the most important collective action*.

Things to Look Forward to

- Positive change in your personal life and community
- Caring about stuff makes for a more enriched and fulfilling life!
- A lot of these changes might actually make you feel good and enjoy life/the world more!

If You Find Yourself Despairing

Remember these things:

- Think about addressing climate change as a *GOOD OPPORTUNITY* to reassess how we do things
- The future hasn't already been decided. That is, climate change is an inescapable present and future reality, but the point of the IPCC report is that there is still a chance to seize the best-case scenario rather than surrender to the worst. Natan Sharansky, who spent nine years in a gulag for his work with Soviet dissident Andrei Sakharov, recalls his mentor saying: ***“They want us to believe there’s no chance of success. But whether or not there’s hope for change is not the question. If you want to be a free person, you don’t stand up for human rights because it will work, but because it is right. We must continue living as decent people.”*** Right now living as decent people means every one of us with resources taking serious climate action, or stepping up what we’re already doing. —*Don’t despair: the climate fight is only over if you think it is* by Rebecca Solnit | *The Guardian*
- You can still vote when you’re sad

A Few Final Thoughts That Need Their Own Special Heading

END CAPITALISM - SHIFT TOWARD ECO-SOCIALISM!

&

The word is in: More women in power would help immensely, *obviously*.

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See more from Oona Goodman at her website:
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