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## ENVIRONMENTAL PROBLEMS IN OUR WORLD

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In the last 100 years, the planet has gone through dramatic and detrimental environmental changes due to industrialization and urbanization. Population growth and modern living standards have increased energy demand, driving widespread environmental degradation as we still rely on fossil fuel to meet the vast majority of energy needs. Also, due to the increase in populations, there was a need for houses. And many homes are heated with coal, and this is also one of the big environmental problems.

Emissions from vehicles, industry, and power plants are what come to mind when most people think of air pollution, but methane and other gases from landfills and animal agriculture are significant contributors as well. The release of heat-trapping air pollution perpetuates a positive feedback loop that further increases the concentration of greenhouse gases in our atmosphere. Beyond climate change, these air pollutants endanger our health, but children and the economically disadvantaged often face the most serious health consequences.

But it's not just large companies that release these harmful gases into the atmosphere—your taste in consumer products also contributes. Even small things like cleaning products, cigarettes, and air fresheners release toxic gases called volatile organic compounds, more commonly called VOCs, that have been linked to cancer in humans and hormone disruption in wildlife. Natural disasters like dust storms from new desertification, wildfires, and volcanoes all compromise the air quality even thousands of miles away.

According to the internet, since 1950, the human population rose from 5.3 billion to 7.3 billion people worldwide. By 2050, it's expected to grow to 9.7 billion people. This population growth is due to the increase in survival rates for mothers and their children, increased availability in life-saving medicines and vaccines, longer life spans, and greater access to nutritious food. A growing population puts a greater strain on our natural resources to produce more to keep a greater number of people healthy and productive.

Water pollution is any kind of pollutant found in lakes, streams, rivers, oceans, and human water systems that contain harmful compounds. This pollution is caused by human sewage, improperly disposed of toxic waste, accidental oil spills, and even sediment from soil erosion. Water pollution presents a clear danger

to marine life, but it affects all life. Sewage and agricultural runoff encourage the growth of algal blooms that rob the water of dissolved oxygen. Synthetic hormones, antibiotics, and other medications often end up in water, leading to unfortunate side effects for animals that are exposed.

We are encouraged to create a lot of waste with little insight into how it affects the world at large. We produce and consume at an incredible rate, stripping natural resources from the environment. Hyper consumption leaves trash no biodegradable trash in the form of plastic packaging, toxic e-waste, and harmful chemicals that leach into our waterways. When making new purchases, think about the life cycle of the product—from its manufacture to the end of its useful life. Many of the things in our homes will one day end up in a landfill that takes dozens of years if not centuries to degrade. Minimalism and zero waste are becoming more mainstream since modern technology allows us to have significantly fewer things today. With our lives lived increasingly in digital environments, belongings like books, music collections, art, and even what need to work and study can all fit neatly in the cloud. Consider your purchases carefully before making them and buy things that serve multiple purposes and last for years.

Natural disasters include hurricanes, flooding, wildfires, and drought. The economic costs of these disasters are staggering. These disasters also affect the survival of entire ecosystems and the plants and animals that rely on them. As the world continues to warm, scientists expect the effects and costs to worsen if global warming continues unabated.

Another crucial current environmental problem is the depletion of Natural resources. We, humans, use so many natural resources that it would need almost 1.5 Earths to cover all our needs. This will further increase in the future due to massive industrialization in Asian countries like India and China. Increased use of natural resources leads to a number of other environmental issues, such as industrialization, population growth and air pollution. Over time, natural resource depletion will lead to an energy crisis. The chemicals emitted from many natural resources contribute to climate change. Fossil fuel consumption results in the emission of greenhouse gases, which is primarily responsible for global warming and climate change. Globally, people are making efforts to shift to renewable sources of energy like solar, wind, biogas and geothermal energy. As such, the cost of installing the infrastructure and maintaining these sources has plummeted in recent years.

We often ignore the effects of the use of nitrogen by humans. Nitrogen is a crucial component of all life. Problems occur when the nitrogen cycle is not balanced. A process through which it is converted or 'fixed' to a more usable form is called fixation. The fixation happens biologically and through lightning, or it can be done Industrially. People have learned to convert nitrogen gas to ammonia (NH<sub>3</sub>) and fertilizers that are nitrogen-rich to supplement the amount of nitrogen fixed naturally. It is estimated that agriculture may be responsible for about 50% of the nitrogen fixation on earth through the cultivation of nitrogen-fixing crops and the production of human-made fertilizers. When nitrogen is used more than plant demand, it can leach from soils into waterways and contributes to eutrophication.

Excess levels of nitrogen in water can hamper marine ecosystems, through overstimulation of plant and algae growth. This blocks the light from getting into deeper waters, thus damaging the rest of the marine population. The problem can also occur during nitrification and denitrification. Nitrous oxide (N<sub>2</sub>O) can be formed when the chemical process is not completed. N<sub>2</sub>O is a potent greenhouse gas contributing to global warming. [1]

Genetic modification of food using biotechnology is called genetic engineering. Genetic modification of food results in increased toxins and diseases as genes from an allergic plant can transfer to the target plant. Genetically modified crops can cause serious environmental problems as an engineered gene may prove toxic to wildlife. Another drawback is that increased use of toxins to make insect resistant plants can cause resultant organisms to become resistant to antibiotics. The need for change in our daily lives and the movements of our government is growing. Since so many different factors come into play, such as voting, governmental issues, the desire to stick to a routine, many people don't consider that what they do will affect future generations. If humans continue moving forward in such a harmful way towards the future, then there will be no future to consider. Although it's a fact that we cannot physically stop our ozone layer from thinning (and scientists are still having trouble figuring out what is causing it exactly), there are still so many things we can do to try and put a dent in what we already know. By raising awareness in your local community and within your families about these issues, you can help contribute to a more environmentally conscious and friendly place for you and your future generations to live.

In conclusion, I want to write you some tips on how to? how to improve our ecology. Here are some of the practices that will help you reduce your overall impact.

- Consume less overall: commit to buying fewer things and trying to make your belongings last.
- Declutter: find new homes for the items you don't use.
- Compost: set up a vermicomposting bin or drop your organic waste off to be composted.
- Invest in renewable resources: buy recycled products or offset your energy usage with a green energy plan.
- Turn off the AC: open the windows when it's nice out and reduce your energy consumption.
- Spend more time walking, biking or using public transportation when you can.
- Avoid single-use items: skip the take-out and dine in.
- Buy mindfully: support sustainable and environmentally-conscious businesses or buy used items.
- Get informed and vote: support green initiatives, especially those concerning waste disposal and renewable energy.
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References

- 1 FAO. 2021. The impact of disasters and crises on agriculture and food security: 2021. Rome. <https://doi.org/10.4060/cb3673en>