

THE PROBLEM OF GLOBAL WARMING

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The issue of global warming can seem overwhelming and complex, but the scientific explanation for the phenomenon is relatively simple.

Earth has a built-in system for temperature control made up of gasses in the planet's atmosphere. When the sun's rays strike and warm the Earth, these gasses operate like a blanket, trapping some of the sun's warmth inside and allowing some of the heat to be released into space. This process warms the Earth enough to make it hospitable for living organisms.

Human destruction of forests and other natural areas and our use of fossil fuels such as oil and coal have caused an unnatural accumulation of gasses like carbon dioxide (CO₂) and other heat-trapping gasses in the atmosphere.

This accumulation of excess gasses has caused rapid warming the likes of which the Earth has never seen before. It is as if we have added a second blanket under which the Earth and its inhabitants are now being stifled. It is the impacts of this human-caused global warming that Defenders is concerned with.

Among the causes of global warming and its impacts we are ready to identify the next ones:

1. *Power Plant Emissions*

More than two-thirds of our nation's supply of electricity still comes from fossil fuels. It is the burning of these fuels that releases heat-trapping gasses. And as long as the amount of heat-trapping gasses continues to rise, global warming will continue to bring about disruptive changes in the environment.

2. *Vehicle Emissions*

Vehicle emissions are second only to power plant emissions as a contributor of greenhouse gasses. According to a report released in June 2006 by the U.S. Public Interest Research Group titled *The Carbon Boom: National and State Trends in Global Warming Pollution since 1960*, in 2001 alone our cars, trucks and other forms of transportation emitted over 2 billion tons of CO₂.

3. *Forest Destruction*

Forests absorb CO₂ that naturally exists in the atmosphere, but they cannot work fast enough to counteract the tons of greenhouse gasses that we produce each day. Unfortunately, we are also losing our CO₂-absorbing forests at a dangerous rate due to clear cutting, conversion to agriculture and other development. Without this natural filter we face a much harder uphill battle against global warming.

4. *Household Products*

The everyday household items that you might use in your home could be indirectly contributing to global warming. Buying products that are made in an environmentally harmful manner could result in the loss of resources and further increase the threat of global warming. For example, buying non-recycled paper products results in the need to cut even more of our CO₂-absorbing forests.

When talking about the possible solutions to global warming problem we are ready to make an accent on the next points:

1. We have the technology and ingenuity to reduce the treat of global warming today. Solutions are already available that will stimulate the world economy by creating jobs, saving consumers money, and protecting our world security. By investing in renewable energy and energy efficiency, and increasing the efficiency of cars we drive, we can take essential steps towards reducing our dependence on oil and other fossil fuels that cause global warming.
2. Using energy more efficiently and moving to renewable energy (wind, solar, geothermal, and bioenergy) would significantly reduce our emissions of heat-trapping gases. Most of the world currently produces 70 percent of its electricity from fossil fuels such as coal, natural gas, and oil, but only two percent from renewable sources. Since the burning of fossil fuel releases large amount of carbon dioxide-the leading cause of global warming, but renewable energy does not, increasing the share our electricity generated from renewable resources is one of the most effective way to reduce global warming emissions.
3. Cars and trucks are another significant source (25 percent) of the world carbon dioxide emissions. A serious effort to address global warming must therefore reduce emission from cars and trucks. Many technologies already exist that can do this, while also creating new jobs in the worlds automotive sector and other industries throughout the world. In addition, consumers would save billions of money on gasoline.
4. By putting energy efficiency, renewable energy, and vehicle technology solutions in place at national laws, we can reduce our contribution to global warming while creating a stronger, healthier, and more nations.