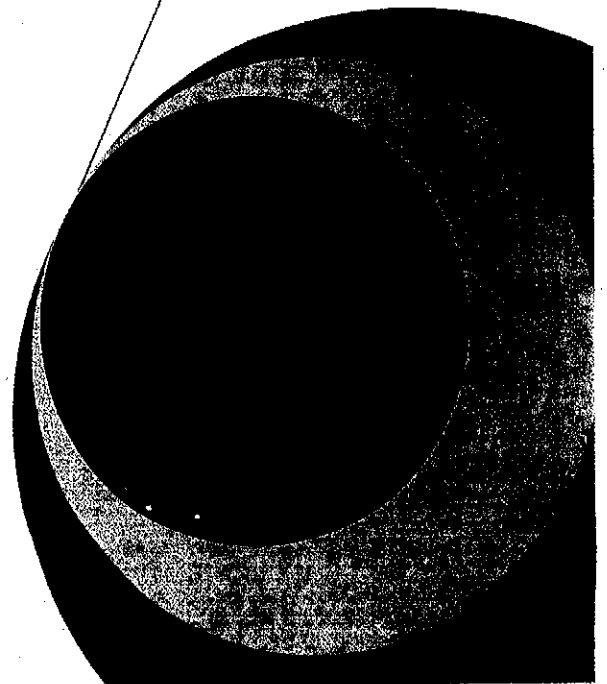
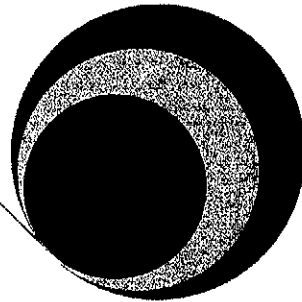
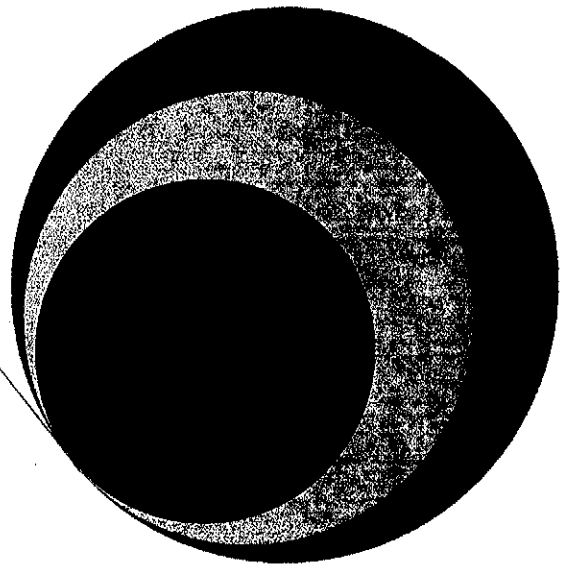


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Do Humans Contribute to CO2 Emissions?

By: Hallie Westgard



Introduction

There are different views on whether or not human activities are increasing the total amount of carbon dioxide in the atmosphere. Some feel human caused (anthropogenic) carbon dioxide is a major contributor to the amount of CO₂ released into the atmosphere, while others say humans are not a huge contributor to the high levels of CO₂. There are reasons supporting both sides of this argument making it even harder to decide what side to agree with.

Anthropogenic causes of CO₂

Humans do contribute to the total amount of CO₂ in the atmosphere. The main factor comes from the burning of fossil fuels, which is releasing one of the greenhouse gases, carbon dioxide. "In 2002 about 40% of U.S. carbon dioxide emissions stem from the burning of fossil fuels for the purpose of electricity generation" (Causes of Global Warming). There are four main greenhouse gases emitted from the burning of fossil fuels. They are carbon dioxide, methane, nitrous oxide, and halocarbons. "A greenhouse gas is a gas that traps heat in the earth's atmosphere" (Causes). The main one, carbon dioxide, has increased due to building heating and cooling systems, increasing transportation, and manufacturing products. "About 33% of U.S. Carbon dioxide emissions come from the burning of gasoline internal-combustion engines of cars and light trucks" (Causes of Global Warming). Methane has increased from activities such as agriculture, natural gas distribution, and landfills. Fertilizer use is an additional human activity that emits another greenhouse gas, nitrous oxide. The last main greenhouse gas released from burning fossil fuels is halocarbons. Halocarbons are mainly used as refrigerator agents and in other industrial processes, and they have played a major role in the destruction of the ozone layer (The IPCC). Surface mining and industrial processes have also increased dust in the atmosphere,

causing carbon dioxide emissions. In conclusion, the overall effect of human activities on climate has been a warming influence (The IPCC).

Natural Causes of CO₂

The other side of this debate states that anthropogenic CO₂ is not a major contributor to the total amount of CO₂ in the atmosphere. This is saying that the carbon dioxide is formed from natural causes and released into the atmosphere. Some natural causes include volcano eruptions and solar irradiance changes (Spencer). The yearly study of human caused CO₂ emissions do not look like the yearly rate of natural CO₂ emissions (Spencer). The increase in CO₂ from nature has a huge effect on the total amount of CO₂ released in the atmosphere. "In fact, it turns out that these large year-to-year fluctuations in the rate of atmospheric accumulation are tied to temperature changes, which are in turn due mostly to El Nino, La Nina, and volcanic eruptions, and the CO₂ changes tend to follow the temperature changes, by an average of 9 months" (Spencer). Another natural cause of carbon dioxide in the atmosphere is the release of the greenhouse gas, methane, from the arctic tundra and wetlands (Causes). Therefore, according to some experts, the natural causes of the emission of carbon dioxide in the atmosphere do have large affect on the overall amount of CO₂ emitted than anthropogenic causes.

My Opinion

After researching the topic about whether or not humans are a contributor to the amount of carbon dioxide in the atmosphere, I agree that humans do contribute greatly to the amount of CO₂ in the atmosphere. There may be natural causes that result in an output of carbon dioxide, but human activities contribute much more to the cause. Just from the burning of fossil fuels, four major greenhouse gases are emitted. The main one, carbon dioxide is not only released from

one activity, but several, including building and transportation. Now days it seems like people drive everywhere, and the majority of people own a vehicle. With the number of people owning vehicles increasing, of course the amount of carbon dioxide released into the air is also going to increase. This is contributing greatly to the total amount of CO₂ in the atmosphere. To add to this, another greenhouse gas, methane, is also being released from agricultural activities, natural gas distribution, and landfills.

Conclusion

Therefore, I feel the amount of CO₂ that human activities emit into the atmosphere adds up to more than the natural causes of CO₂ in the atmosphere. We need to start decreasing the amount of carbon dioxide we put in the air by not using our vehicles as much and by finding alternatives to burning fossil fuels. This will help decrease the high concentration of CO₂ in the atmosphere that we are dealing with today.

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