Headline: Only humans are capable of changing the climate

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It is both comforting and terrifying to know that humans are the only beings on this planet who can truly do something about climate change. Our modern way of life has caused abnormal warming beyond historical patterns. Imagine this: The amount of greenhouse gases in the atmosphere, the main culprit of global warming, is higher than it has ever been in the last 800,000 years!

“Human influence on the climate is clear,” the Intergovernmental Panel on Climate Change (IPCC) announced in its latest report. The IPCC is perhaps the most overly cautious organization. It has to get the consensus of thousands of scientists worldwide before putting anything in print. (Read IPCC report at https://www.climatechange2013.org/images/uploads/WGIAR5-SPM_Approved27Sep2013.pdf)

How could humans have altered nature?

Most of us have heard of the term “carbon footprint.” It’s the amount of carbon dioxide, the most notorious greenhouse gas, we contribute to global warming. As we proceed in our day-to-day life, almost everything we do ends up emitting carbon dioxide into the atmosphere. A big chunk of this comes from our cars that use petroleum, and from the electricity that powers our homes, largely from coal.

So what’s the big deal? Driving a car (safely), or turning on a home appliance, was never an offense. The problem is not the fact that conventional cars do emit carbon dioxide. This technology has been around for over a century. It is also not because the atmosphere is incapable of absorbing carbon dioxide. It is considered a major natural carbon sink. The real issue is a matter of capacity.

Once upon a time, each family had only one car, and its members had to share a ride. Back then, the atmosphere had ample capacity to absorb greenhouse gases. After all, carbon dioxide comprised only less than 0.03 percent of the air that envelops the earth. For all intents, carbon emissions were less than minuscule compared to the expanse of the atmosphere.

Let’s crank up some comparative figures to illustrate. In the United States, there were 26 million cars in 1929. This figure had ballooned tenfold by 2010. This is not only due to the escalation in population through the decades. Increasing affluence, coupled with economies of scale, just made buying cars easier. This explanation is not only true for vehicles but for most consumer products as well.

However, there is another wild-card factor. The past 20 years have seen an increase in wealth in large developing countries such as China, India and Brazil. Now we suddenly find ourselves packed with more people who can afford carbon-intensive lifestyles!

So, with more cars and houses, more food to produce, and just generally more economic activity (mostly powered by fossil fuels), humans have managed to throw off Earth’s carbon balance. And this comes with astronomical costs: torrential rains, violent storms, deadly floods, water scarcity, droughts, and more. We are only more familiar with these outcomes because they are regular visitors in our country.

We know that billions of baby carbon footprints gather enough momentum to change a planet. The IPCC reported that even if we stop emissions now, the effects of carbon dioxide already in the atmosphere can extend for many centuries. Carbon dioxide reduction is imperative. So what actions can we take?

The world population is projected to reach 10 billion by 2050. This certainly makes the number of footprints difficult to control. What we can influence, however, is the carbon intensity of each footprint. In a World Bank report, a person in Qatar was responsible for 40.3 metric tons (mt) of carbon dioxide in 2010, while a person in Switzerland was accountable for only 5 mt. For each Filipino, it was only 0.9 mt.

The disparity in per-capita emissions lies in lifestyle and technology choices. Notably, emissions from developing countries are glaringly small compared to those of affluent countries. The logic is simple. Taking from the vehicle example, if they can't afford cars, there will be less greenhouse gas from cars. Within the group of rich countries, per-capita European emissions are just one-third of US emissions. This is a matter of lifestyle realities. For one, most Americans drive large vehicles, and their cities are widely dispersed. In contrast, Europe is compact and is better connected via rail. On a totally different scale, the per-capita carbon dioxide from fossil-fuel-producing countries is just incomparable. Perhaps they just have a lot to burn.

In the end, it all comes down to choosing to tread the world lightly. It is highly possible to live low carbon lives. But many of these decisions cannot be made unilaterally by consumers and the public at large. For example, modern homes need electricity to function. If the only available energy source from the grid is coal, no amount of good intentions can avoid carbon emissions from coal. The most consumers can do is energy conservation. The decision on energy sources mostly rests on governments and energy producers. Similarly, if nonpetroleum cars are not made and sold at reasonable prices, they are simply not an alternative.

The difference made by the IPCC's fifth report is that we are now certain that we are the only ones who can do something about the climate.

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