

CARBON EMISSIONS ARE LIKE CHOLESTEROL

“They Sneak up on You”

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BACKGROUND

In seminars around the world, I have talked about how carbon emissions are analogous to “fat” in a diet... *It is something we don't want, but is often an unavoidable part of our daily lives.* We can accumulate fat on our bodies in many ways, but mostly through “bad” habits. Although challenging, we can change our habits and slowly get rid of the fat. The same is true with carbon emissions... fossil fuels have been our “bad” habit. We can consciously wean ourselves off in a planned manner, or we may have to hastily quit due to supply shortages, energy and/or carbon price spikes, climate impacts, wars or any number of other reasons which we cannot yet see.

THE UNITED STATES IS “FAT” (PART OF THE PROBLEM):

The US society is significantly dependant on fossil fuels. Due to our habits and our infrastructure (water, transportation and energy systems), the US carbon emissions per person is **about double** that of other countries with the same quality of life and geography. So, the US citizen is relatively “carbon fat” when compared to other modern cultures like Japan or Germany. We are “obese” when compared to China and India whose carbon emissions are only 1/4th and 1/20th respectively. Considering that there are 4 times as many people in China (and roughly same for India), if they emitted as much carbon/person, the world would need far more resources than are available on this planet.

THE MATH:

The US produces about 20 metric tons/ person and the Chinese produce about 5 mt/person. Considering there are about 4 times as many people in China, if each Chinese person consumed as much as the US citizen, the “growth” in world-wide emissions would be HUGE. For example, if each Chinese person added 15 metric tons (to equal the US person's emissions), the relative difference would be about $4 \times 15 = 60\text{mt}$. This is a three-fold increase over current US emissions! Adding India in a similar fashion would mean an additional four-fold increase over current US emissions. So the net emissions growth would be equal to the impact of **adding 7 more USAs to the planet... and this calculation does not consider population growth!** *Does anyone in the world still believe that planet Earth could sustain the pollution of 7 more carbon-intense USAs? Considering our “limited bodies”, is it plausible that an already “obese” person could add 7 times more fat and still survive?*

BUT I DIGRESS...

Carbon Emissions are really more like cholesterol (or even cancer). Reducing something you can't directly see/feel/understand on a daily basis is very difficult. It is also difficult to improve something today when you won't see the benefits until much later... even decades. You don't really feel the effects until it is too late.

THE POINT & CALL TO ACTION

We are dealing with a problem that is hardly understood and results from improvements may not be “felt” until much later. On the bright side, due to population differences, **the impacts from improvements are also multiples of the effort...** that is to say- if the industrialized countries can become “leaders” and develop technologies/methods/philosophies that reduce emissions, for each improvement, there could be a result that is 7 times the effort (and that is just counting China and India)... So it is either “win big” or “lose big”- so the stakes are “high”. BIG changes are needed and if the US doesn’t “lead”, who will?

One more analogy...

If all countries were in a lifeboat, an observer could say that the US has become an expert at drilling big holes in the bottom. Now, other countries have learned how to make holes and the boat is sinking... *and there are 7 more people making big holes.* If we don’t teach/lead how to patch holes (or not make more), the boat is doomed. The past does not matter... only how fast we can fill those holes.

CONCLUSION

The US must change its “bad” habits and teach others the “good habits” quickly... or we will be dealing with a much larger climate problem and scarcity of resources. We must lead and there is value in leading. Carbon emissions are like cholesterol... difficult to see/control, but there is value in doing so.

ABOUT THE AUTHOR:

Eric A. Woodroof, Ph.D., is the Chairman of the Certification Board for the Carbon Reduction Manager program and he has been a Board Member of the Certified Energy Manager Program since 1999. During the past 15 years, he has helped over 400 organizations improve profits with energy-environmental solutions. He has written over 25 professional journal publications and his work has appeared in hundreds of articles. Dr. Woodroof has advised clients such as the U.S. Public Health Service, IBM, Pepsi, Ford, GM, Verizon, Hertz, Visteon, JPMorgan-Chase, Universities, Airports, Utilities, Cities and Foreign Governments. He is friends with many of the top minds in energy, environment, finance and marketing. He is a corporate trainer, keynote speaker and founder of www.ProfitableGreenSolutions.com.

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