

# The CO<sub>2</sub> Solution

Brian Sanderson

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For decades we've known about: ozone depletion, groundwater pollution, acid rain, fish stock destruction, species extinction, habitat destruction, and deforestation. Now there is a 'new' kid on the block — global warming. But they are all 'environmental' problems and we have so many human problems to attend to: crime, injustice, summary-justice, super-bugs, pandemics, ethnic 'cleansing', terrorism, weapons of mass destruction, political instability, brutal dictators, dull politicians, people who are different from us, a little bit of obesity and a lot of starvation. And if that wasn't enough there are all the economic problems: stagnation, inflation, automation, labour productivity, redundancy, resource limitation, and demographic change. Of course technology can be blamed for most of these problems, and Richard Branson is offering \$25,000,000 for technology to scrub carbon dioxide from the atmosphere!

**Let's be honest.** There are no problems with the environment or with technology — the problem is US: human's, people (not just US as in USa, or rUSSia, or aUStralia). It's not that there is anything intrinsically wrong with humans. We are, after all, part of a long and complex evolutionary web. The most fundamental rule of evolution is that 'as long as it works, it stays'. We work, we stay — any problems?

But why are we such a problem? Well it's not you and me that are the problem. The two of us can drive all day, crank up a blazing bonfire in the evening, eat roast meat until we burst, flush our toilets into the ocean, and barely register a blip on the ecosystem Richter scale. Big ferocious

beasts, like lions and tigers, are rare so they are also easily accommodated within the natural order of things. There is a basic rule of nature that goes something like this: a hot-blooded predator is only one-tenth as abundant as its prey.

Is there anything humans don't eat? Surely we must be the top predator? But there are 6 billion of us and still counting! Six billion times a tiny problem (you, not me) is an ecological disaster. Indeed, it shouldn't even be possible — except for agriculture, good plumbing, mechanization, and a favourable inter-glacial interlude.

**Let's not fool ourselves.** The problem is that there are so many of us. Of course each of us could reduce our 'environmental footprint'. Producing the meat that we eat causes more greenhouse gas than the cars we drive. Let us eat beans. No, that won't work. (Or perhaps it would for the better half of us?)

Many people advocate efficiencies to offset environmental disasters. We could make more fuel-efficient cars, homes and communities. I applaud such efforts, but caution that increased efficiency is exactly what we have been doing for tens of thousands of years. Ever since someone made a better stone knife, humans have been using efficiencies to fuel growth.

Recently, the human population has been growing exponentially — doubling every 30 years or so. Four billion years of evolution has favoured species that have the capacity to grow exponentially. This capacity for growth is something you have in common with microbes, viruses, and economies. It doesn't make you bad — 'just natural'. Nothing grows faster than an exponential and human understanding is vastly improved by an appreciation of the marvelous-terrible exponential function. (Carl Sagan gives a beautiful introduction to exponentials in 'Billions and Billions'.)

Population growth cannot go on forever. Eventually starvation, competition, disease, or some other calamity will put an end to exponential growth — and that is a truly 'inconvenient truth'.

Humans are more clever than most animals, so we'll probably consume most everything around us before we come face-to-face with our own sticky end. Perhaps we will even consume the other us in the process — if the recent ill-fated scramble for middle-eastern oil is any indication of things

to come.

**Let's be optimistic.** George W has recognised that it might be a good idea for USA to not be quite so dependant upon fossil fuels — wow!

**Still need to be honest.** Every energy source, with the arguable exception of nuclear fission, is environmentally neutral provided it is not over exploited. Conversely, all energy sources have an environmental sting-in-the-tail if we are profligate. Here, in beautiful Nova Scotia, we could get all the energy we require from wind and tide — and have a handsome surplus for export. Honesty requires, however, that we admit such power generation would have environmental consequences and that not all consequences can be foreseen. If tidal power is used to replace fossil fuel and nuclear power plants then we expect the environmental benefit will handsomely outweigh the environmental cost. If tidal power simply becomes a crutch for further human population growth, then the exercise becomes futile, at best, or an unscrupulous betrayal of the environment, at worst.

**Let's be wise.** Do you see how unreasonable it is to burden a planet with so many of us? A foolproof template is available for stabilizing, or shrinking, human population. Nations where the birthrate has declined to acceptable levels share a common set of characteristics.

1. People are secure and expect that their offspring will not suffer premature death.
2. Women (and men) are empowered; socially, economically and politically.
3. Women (and men) have freedom to make their own choices, particularly with regards to careers, family commitments, and birth control.
4. Women (and men) are educated.

OK, no country scores ten-out-of-ten. It's not necessary to be perfect, 'good enough' will do.

**Let's be honest.** Generosity and cooperation are required to impliment each of the numbered items above. Train doctors instead of poaching them from needy countries. Train teachers so everyone on the planet has access to the sort of education that empowers them with practical knowledge and

the power of critical analysis and creative thought. It would be monstrous to do anything less. Canada needs a Prime Minister, not a Prime Monster!

**Religious leaders would be realistic.** Many religions evolved long ago, when humans had little mastery of disease and famine. Circumstances have changed. A rational Pope/Mullah/whatever would abandon environmentally unfriendly doctrines that forbid birth control, subjugate women, promote female apartheid, and repress free speech.