

Available Data and Reason Tell Us

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Statistics from the United States government and the United Nations show us that we are bringing about dramatic changes in our Earth's environment. Projecting these changes into the future shows that unless they are stopped, or mitigated humanity will be in serious trouble as time moves on.

Our planet, and even our species, has been here for a long time, but for us, reality is "right here right now." Because we fail to see time and space on a larger scale everything in the scene before us seems just the same as it was yesterday. But it is not. Using the best data I could find in 2012 and converting annual changes into daily changes I came up with the following figures. We don't notice that today there are roughly 218,000 more people on our planet than yesterday, or that 15,000 children will die today as a result of malnutrition; 67,000 acres of arable land will be seriously degraded or abandoned to agriculture; 33,000 acres of forest will be obliterated; desertification will claim nearly 3.9 square miles more of land in China; and water tables around the world will continue to drop.^[1] While many Americans have heard such facts, few of us give them more than a fleeting thought, or grasp their significance. They just don't sink in.

¹ Most of these numbers from, or derived from: Brown, Lester R., *Full Planet, Empty Plates* (New York: W.W. Norton and Company, 2012).

Merely to maintain the status quo, which includes a huge number of people living in utter misery, the Global Footprint Network estimates it would take 1.5 planets like ours to renewably produce all the resources humanity demands and to absorb its CO₂ emissions today. Even if everyone lived like Europeans, who consume and pollute a lot less than Americans do, we would require the resources of almost 5 planets to reach sustainability today.² One can live off of the principal of a bank account for a while; likewise, we can get by with exploiting our planet and overlooking the plight of the unfortunate for a few more decades. And since we don't personally see or feel what is happening, we are bothered little. Projecting these changes out into the future shows that we are headed for terrible trouble.

This paper discusses some things we can expect in our future and suggest ways that we can modify them. When we think of the future, at most we think of 2050 or 2100. Humans have been living on our planet for a long time. The period of time between Aristotle, George Washington, and us is a mere smidgen of that period. Unless we continue to mess things up, hopefully humanity will be here for an even longer time. With the rapid change that is taking place, it will not be long before a much larger population is living on a hotter planet with less arable land, less water that is more polluted and with far fewer species. There will be massive migrations of people from places that become uninhabitable to places that are already overcrowded. Current human behavior clearly shows the ways we are likely to react. Acting as we now do, there will be wars and genocide. Putting all these things together and reckoning with their interactions is considerably worse than the sum of them taken individually.

If we feel any responsibility for the continuation of our species, and the lives of our followers, we have to change soon. This will not be easy. Here are some thoughts on that:

"... Most of our genes date from the Stone Age or before. They could help us to live in the jungles of nature, but not in the jungles of civilization." —The Club of Budapest's *Manifesto*, 1996.

"Our brain evolved to meet the needs of hunting-gathering societies, not the complex civilization we have developed. Today we are ill-suited for the challenges we face, and those who hold power too often lack the mind and integrity needed to use it wisely." —Peter Seidel, 2009.³

² http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint/

³ "Is It Inevitable That Evolution Self-Destruct?" *Futures*, Elsevier, Amsterdam, Vol. 41, No. 10, Dec. 2009, p. 754.

“We have created a Star Wars civilization with stone age emotions, medieval institutions, and godlike technology.” —Edward O. Wilson, 2012.⁴

We must understand that we have to move beyond our present behavior. Understanding and looking at the big picture will help. To understand the reasons behind what is happening and how we can change course, it will help to look at a formula developed in the 1970s by Paul Ehrlich and John Holdren called *IPAT* that explains a lot about our environmental problems.

IPAT stands for: $I = P \times A \times T$, where *I* = impact, *P* = population, *A* = affluence (consumption per capita), and *T* = technology. If, for example, everything stays the same but the world population, affluence, or the negative effects of technology doubles, humanity’s impact on the planet doubles.

These are difficulties that we must overcome. Unfortunately, most people respond to emotion more than reason, and our situation will become far worse before they are moved to take meaningful action. Discussing controlling population growth is taboo, and who will simplify their lifestyle? We put all our faith in technology such as solar energy and wind power. They and other conservation measures will help, however we must deal with all the IPAT factors to reduce our impact on the planet. Focusing on limited solutions, such as sustainable technology will not be enough. We must overcome these problems on all fronts. With our current thinking and the momentum of what is taking place today, the most serious consequences cannot be avoided. However, if we take our situation seriously and act as things get tighter, a smaller population may be able to survive on a planet that will be enjoyable to live on.

Since there have been nations the world’s people have been burdened with the leadership of many self-selected greedy egomaniacs. Today this is extremely dangerous, we are destroying the environment that supports us and in possession of massive numbers of weapons that dwarf the bomb used at Hiroshima.

While we cannot change the human mind, a group of wise, well known, internationally respected, broadly educated and concerned scholars, could join together to establish minimum standards in knowledge, mental stability, and ethical history, and demand that these factors are considered in the selection of important political leaders. Leadership should be an opportunity to help humanity, not to satisfy one’s ego or for self-enrichment. Creating common standards for leaders will allow society to, over time, do a better job in choosing its leaders.

What I have presented here is very grim. I welcome and look forward to hearing more positive conclusions for the situation I have described above, and I especially welcome ideas that can help steer us onto a constructive course.

⁴ Edward O. Wilson, *The Social Conquest of Earth*, 2012, New York: Liveright Publishing, a division of W.W. Norton, p. 7.

Peter Seidel was an architect at a Chicago architectural firm, famous for the most environmentally destructive all glass skyscrapers, when he read geochemist Harrison Brown's 1954 book "The Challenge of Man's Future." Reading Brown's book prompted Seidel to do an about-face and become an environmental architect and urban planner. When he realized this work would not have the impact he had hoped for, he started writing books about humanity's relationship to the environment. You can learn more about Peter and his publications [here](#).

The [MAHB Blog](#) is a venture of the Millennium Alliance for Humanity and the Biosphere. Questions should be directed to joan@mahbonline.org

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