

## LOOKING AHEAD

An NPG Forum Paper  
by Peter Seidel

If you are driving down a road at 60 miles an hour and suddenly notice that you are headed straight for a tree, it is good to know this so that you can do something about it. Information about the future we are headed for as a planet is readily available, and makes it clear that it is filled with dangers we can do something about. What we are doing now will affect the lives of our grandchildren and those who will follow them. What kind of a world are we going to leave them as a result of the way we live today? A caring person would quickly change direction for their sake. One would think that responsible, rational governments would be concerned about future generations and look into this, but they limit their thinking to the next few years, and then primarily to economics.

In 2006 I was asked to write a scenario on the possibility of the extinction of the human race for a journal called *Futures*. I had never given that any thought, however the idea was intriguing. I wrote a piece entitled, “*Is It Inevitable That Evolution Self-Destruct?*”<sup>1</sup> Since then this possibility has been becoming ever more likely.

What I write here are not the words of an expert in any specific field of study, but rather those of a thinking person who looks at available information, analyzes what it means, and considers where it will take us as time moves on. What I present here is not opinion, but rather authoritative data on changes taking place and how they project into the future.

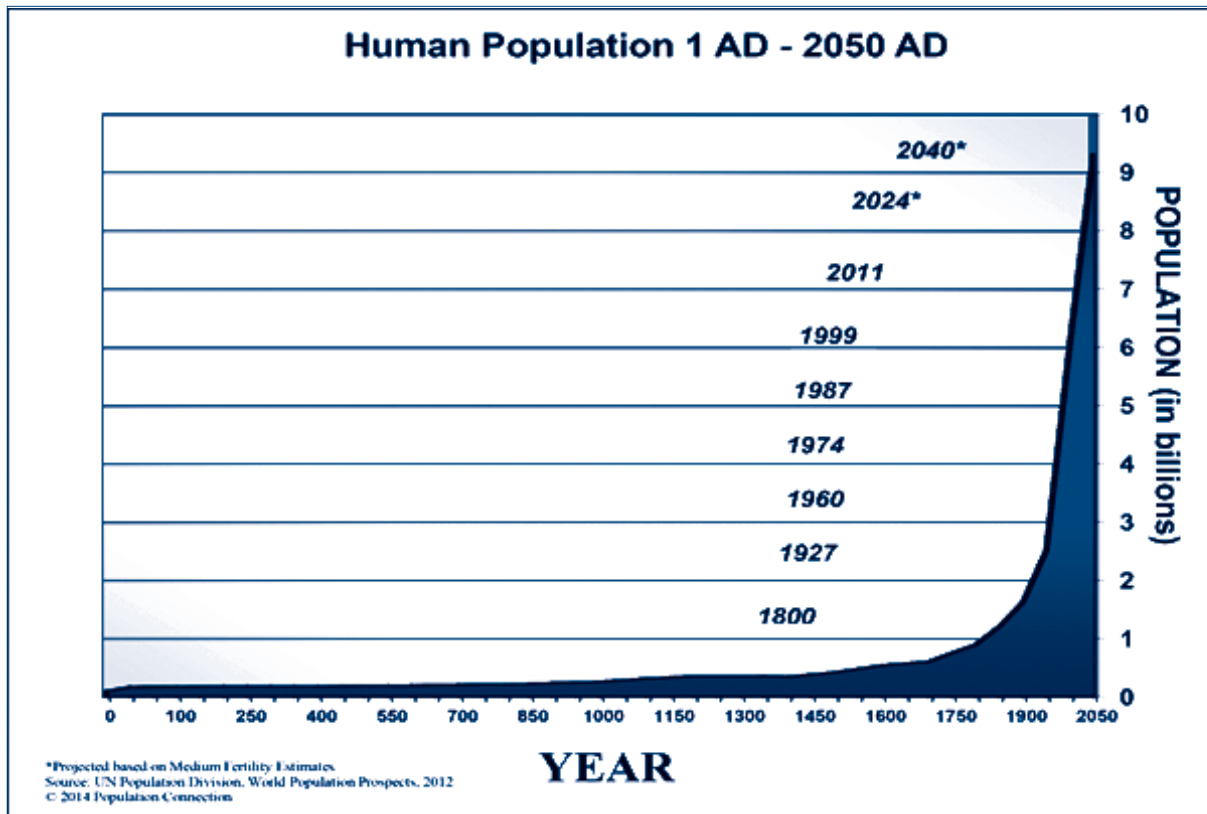
As humans we tend to believe what we want, often going against rational thinking and scientific facts and findings, unidentified flying objects and a refusal to accept that humans are contributing to climate change, for example. Although evidence clearly shows they are inevitable, most of us avoid thinking about future food and water shortages. The information that follows has not been made up, nor do I find pleasure in relating it. It has been taken or derived from reliable sources such as U.S. government agencies, and the United Nations. To make things easier to grasp, I sometimes have turned annual figures into daily numbers by dividing by 365. For the sake of your grandchildren, please read on and take these findings seriously.

### BURSTING OUT OF OUR ECOLOGICAL NICHE

Our species, *homo sapiens*, may have been living on our planet for about 200,000 years. For nearly all of this time we filled a stable ecological niche. As with other species, a number of factors like starvation, disease, parasites, and in the case of humans, a long lactation period kept us in balance with other forms of life. As our brain developed over time, we managed to mitigate unpleasant restraints on our numbers. About 10,000 years ago humans discovered the plow and

started planting and harvesting crops to expand and stabilize their food supply. With this, their population increased and their niche expanded at the expense of other species. After James Watt patented the steam engine in 1769, the Industrial Revolution was upon us and human impact on the planet expanded at an accelerating rate.

We here are now living in a minute instant of time in a tiny segment of our galaxy, not to mention the universe, yet for most of us “*Here-Now*” (right here right now) is everything and the rest is of little



interest. We have some interest in the past, which we cannot change, but virtually none in the future, which is what we are making right now.

While we eliminated constraints on our niche, we made no effort to replace them with controls devised by ourselves. This has resulted in an increasing, and in the last century, an unsustainable impact we are having on the planet.

## **BURGEONING POPULATION AND RESOURCE USE**

The U.S. Census Bureau estimates that 10,000 years ago, when some humans started to herd and domesticate plants and animals, the Earth's human population was between 1 and 10 million.

When Christ was born, it had risen to between 170 and 400 million.

In 1712, when Watt invented the steam engine, there were between 610–660 million people.

In 1950 between 2,400 and 2,600 million.

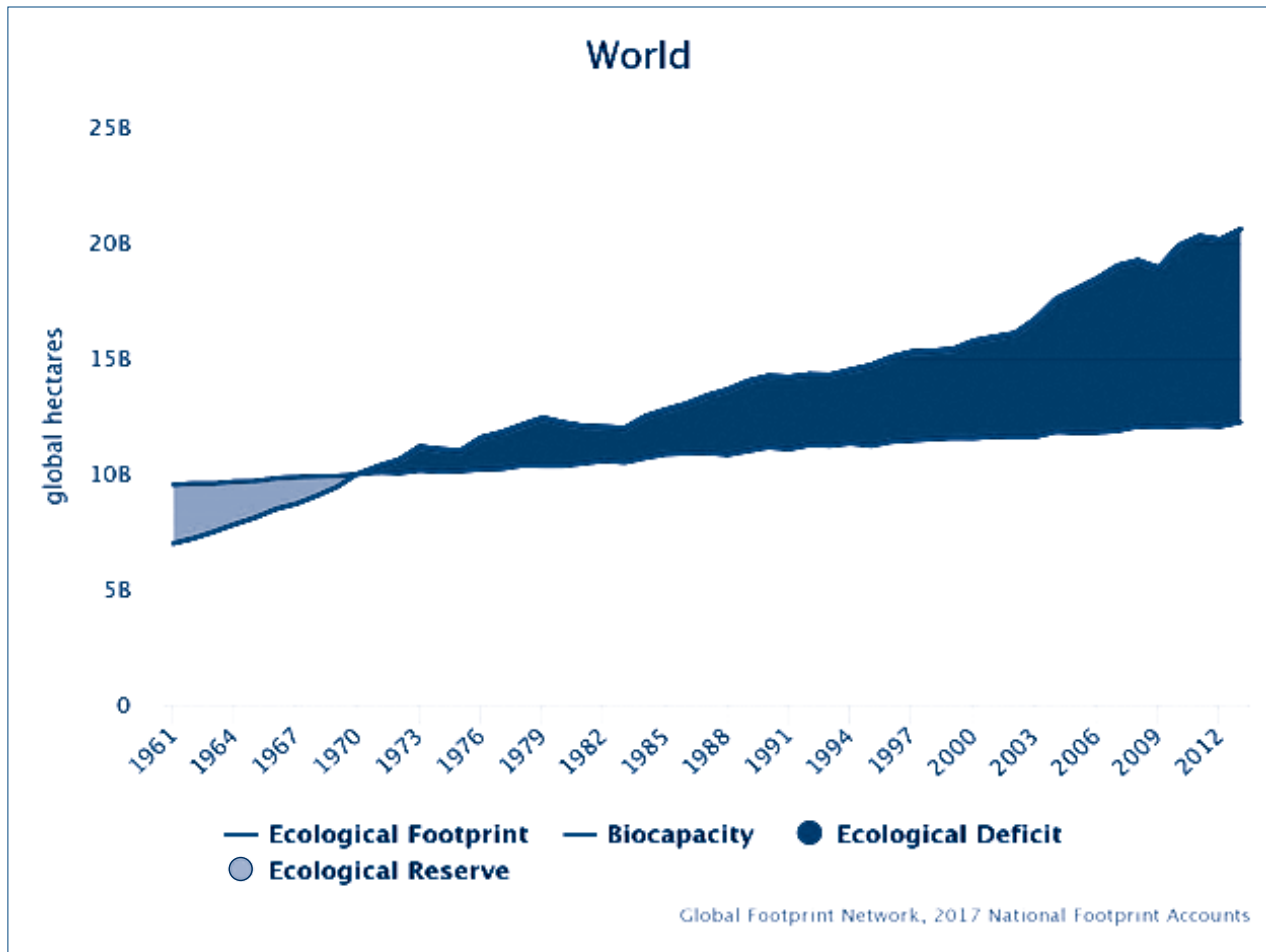
In 2000 about 6,090 million.

And at the end of 2017 about 7,600 million.

There are almost four times as many people on Earth today than when I was born in 1926.

As per-capita levels of consumption, extraction, and pollution have been rising at higher rates than population, humanity's impact on the earth today would be represented by a considerably more abrupt curve than the one on the graph above. A report produced by the International Resource Panel (IRP), part of the UN Environment Programme, says rising consumption, driven by a growing middle class, caused resource extraction to more than triple between 1970 and 2010. Today, with more people in many countries consuming more, extraction is undoubtedly continuing at a markedly higher rate. If you wish to see a video on human population growth, go to: [www.youtube.com/watch?v=PUwmA3Q0](http://www.youtube.com/watch?v=PUwmA3Q0)

For us alive today, reality is here-now. We give some thought to the past, although, as historical examples have shown, we learn too little from it, and give virtually no serious thought to the future beyond the next 10 years. Because we fail to see time on a larger scale, everything in the scene before us seems about the same as it was yesterday. But it is not. We don't notice that today there are 232,000<sup>2</sup> *more people on our planet than yesterday*; 68,000 *more acres of arable land*<sup>3</sup> *have been seriously degraded or*



abandoned to agriculture; 35,000 more acres of forest have been obliterated<sup>4</sup>; desertification has claimed over 2.5 square miles of land in China<sup>5</sup>; and water tables around the world have dropped further. 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 and move us.

According to the Global Footprint Network, [www.footprintnetwork.org](http://www.footprintnetwork.org), humans lived on the earth sustainably until sometime in the 1970s. Since then we have increasingly exceeded the earth's ability to maintain our population and lifestyle sustainably. We don't seem to notice this in spite of the rapidity with which the change is taking place today.

Merely to maintain the status quo, which includes a huge number of hungry people living in utter misery today, the Global Footprint Network estimates it would take 1.7 planets like ours to renewably produce all the resources humanity currently consumes and to absorb its CO<sub>2</sub> emissions. If everyone lived like Americans do, we would require the resources of almost 5.1 planets to live sustainably<sup>6</sup>. 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 fortunate individuals don't personally see or feel what is happening, we are bothered little, if at all.

This graph of the Ecological Footprint Network maps out the gap between human demands on nature (Ecological Footprint) and nature's capacity to meet that demand (biological capacity) for nearly 150 countries from 1961 to 2013. A country is running an ecological deficit if its Ecological Footprint exceeds its biocapacity. It has an ecological reserve if its biocapacity exceeds its Footprint.

Available information shows us what's currently happening; where it will take us, and often what we can do about it. Yet we ignore most of this. In spite of this, failing to see the big picture, we live in a world that for us is simply here-now. What lies beyond is hard for us to perceive and of little interest to us.

## EVERY DAY APPEARS THE SAME

We are like the story about the frog in a pot of slowly warming water that fails to jump out before it boils. We don't see the significant changes that are taking place around us, which for us are very slow, but for Earth and even civilization's history are incredibly swift. For us every day seems much like the one before. So thinking short range we call for economic growth, or even population growth. This is an oxymoron; one cannot have perpetual growth in a limited space. However, as a society we don't grasp this.

Actually many dramatic changes related to global warming are already becoming visible. Glaciers around the world are melting, the Arctic ice is disappearing, coral reefs are bleaching and dying as a result of ocean warming and acidification. Sea levels are rising along the US coasts and are threatening the existence of the Solomons, Tuvalu, and the Carteret Islands by rapid erosion, higher tides, storm surges, and inundation of wells with seawater. There is an increase in the number and size of extreme weather events such as heat waves, droughts, and hurricanes in the United States and around the globe. Although most of us may not notice it, in some places and for some people the consequences of global warming are already all too real.

Ever since we escaped the confines of our ecological niche change has been thrusting us into the future at an ever-increasing rate. It is clear that our species is now out of control. Few of us, particularly our political leaders, are doing anything about understanding this and managing our place on our planet. There is no clear mind or logical thinking that is guiding this process—it is purely on its own driven by emotion, such as wanting a newer or bigger car and ever more lush golf courses, for example. By standing back and looking at the history of our species over the time we have been here, it is clear that in this minute blip of time we are changing our relationship to the planet at an explosive rate. This can only lead to catastrophe unless we rapidly turn to reason and exercise restraint. The Paris Agreement is a step in the right direction, but scientists tell us it is far from adequate to address the problems resulting from global warming.

## WHERE ARE WE HEADED?

The future is not a place we choose to go, it's a place we are taken, like it or not. Looking at statistics and projecting them into the future, it's clear to see where we are headed.

Our world already has too large a population for all its inhabitants to live comfortably in a sustainable way. The Global Footprint Network tells us that we would need 5.1 planets for everyone to live as comfortably as Americans do. If everyone lived like Americans do today, our planet could sustainably support only something like 1.5 billion people. In 2006, when personal consumption and pollution levels were lower, David and Marcia Pimentel of Cornell University estimated about 2 billion.<sup>7</sup> While some people point out that the rate of population growth has decreased and is even negative in some countries, the annual population growth in actual numbers is significantly greater today than at the time of the greatest rate of growth, the late 1960s, because today there are so many more people on the planet. An honest look at numbers and figures shows that we cannot avoid more massive malnutrition<sup>8</sup> and starvation than we have today, as our footprint increases.

Our population, growing as projected, will need increasing quantities of food, and this is tragic when there are already malnourished people living among us on the planet today. According to the World Food Program 8,500 children under the age of five die every day, many from causes related to malnutrition. Apologists say that there's plenty of food—it's just not distributed properly. Looking at our behavior today, it's hard to believe that we will do any better as things get tighter. We are losing arable soil as a consequence of erosion, global warming, desertification, and the expansion of cities, highways, airports, and the like. What is left is being degraded by erosion and modern farming fertilizers, which among other problems are also causing extensive dead areas in the Gulf of Mexico and Lake Erie, for example. Effectively dealing with this on a sustainable level will result in reduced food production unless another miracle like the green revolution comes along. Is it wise to hope for and depend on miracles? That seems to be what we are doing.

There are costs connected to population growth that are affecting our climate and the resources upon which we depend. Agriculture, humans, and industry need water. Aquifers and surface water are growing scarce or being depleted, and much of what is accessible is unpalatable, and sometimes even toxic. Dealing with water problems is one of the greatest challenges we face in the very near future.

Our oceans are warming and rising and will continue to do so as long as there is carbon dioxide in the atmosphere and the globe continues to warm. Low-lying areas such as the coastal regions of Florida, Bangladesh, and the Marshall Islands will be in danger of rising sea levels and very likely will have to be abandoned. As sea levels rise, they will cover coastal cities like Miami, New York City, Mumbai, and Bangkok. As oceans become warmer and more acidic, coral reefs are damaged or destroyed, and the fauna and flora in oceans are affected, causing their populations to move north or die. Many of the worst pollutants and plastics, both large and micro, are filling the oceans and some have been incorporated into the bodies of aquatic life. Fish production has already decreased greatly and faces a troublesome future. Other areas face water shortages or desertification. All of these factors will lead to massive human migrations overwhelming other regions of the planet with their own problems, often with different religions and cultural backgrounds, resulting in conflicts.

Our growing numbers and global warming are significantly affecting land-based species as well. Much of the space needed for territorial and migrating animals is being consumed by humans. Great efforts are being made to preserve the remaining primates. How can they survive as humans desperate for land invade their territories, and hungry people kill them for bush meat? All of these factors are leading to species extinctions, which now, according to Edward O. Wilson, are occurring at a rate 100 to 1,000 times higher than before the spread of humanity. This is decreasing our planet's biodiversity and increasing its vulnerability to disasters.

Our rapid extraction of mineral and organic resources, turning part of them into waste after use, and then disposing of those wastes, is creating a growing list of problems. Concentrated deposits of pure minerals and high-grade ores, which made it possible for humans to advance out of the Stone

Age and build industry, have already or are now disappearing. Extraction of increasingly lower-grade ores requires the use of ever more energy and the destruction of more land. Some of what we use is recycled, however a significant amount of it goes into dumps or is dispersed to become a plague upon our planet. Dumps will keep growing in number and size. Much waste, some of it toxic, is scattered around the planet, finding its way into fresh water, the oceans, and living creatures—some in the form of lead, mercury, micro plastics, and radioactive material which we don't yet know how to deal with. These things are not going to go away for a long time, if ever.

Our growing demand for fossil fuels has required us to use more energy-consuming and damaging methods for extraction, such as deep water drilling, fracking, and the mining of tar sands. These sources are not endless. How will people fly airplanes without petroleum? We will soon either use up our fossil fuels or have to stop using them because of resulting global warming and pollution.

Our demand for wood, paper, beef, grains, and palm oil is increasingly consuming much-needed, oxygen-producing forests.

Modern medicine has conquered many diseases and kept others under control, however threats lie just over the horizon. Bacteria that have been successfully controlled by antibiotics are becoming immune to them. In areas where permafrost is thawing diseases that have not appeared in modern times may come out and infect us, and we will have no immunity to them. And of course, there are always diseases that sometimes come from other species to infect human populations.

While we have found solutions for some of our environmental problems, we often have not applied them effectively. Unfortunately, many environmental problems are turning out to be worse than we thought, and unexpected new ones continue to appear.

We humans tend to look at problems one at a time, as if looking through a tube and only noting what's right in front of us and then focusing on resolving it while overlooking the rest. By doing this, we only see and act on just part of reality. The sum of all of our environmental problems is worse than when they are seen and dealt with one at a time. They interact with and affect one other, increasing their impact on our

earth. As time moves on we become aware of more and more problems that didn't seem to be there before. The growing complexity of the human-made world makes this even more difficult to deal with.

If we continue along the path we are on, we may pass a tipping point where a self-reinforcing positive feedback loop takes over. For example, as permafrost in the northern hemisphere melts it releases methane, a greenhouse gas which is twenty times more powerful than carbon dioxide. This will speed global warming, releasing still more methane. This could create a process that cannot be stopped before terrible consequences take hold, such as leading to an earth devoid of life.

## HOW WILL PEOPLE DEAL WITH THIS?

How will humans relate to each other in a worsening world? Water and food shortages, arable land lost by flooding and desertification, fishing rights, and vanishing natural resources will create friction between people. As noted earlier, massive migrations forcing people with different ethnic and religious backgrounds to move into already overcrowded areas with well-established customs and practices will inevitably create strain and conflict. Experience has shown that rats allowed to breed in a cage reach a point of crowding where they start to attack each other. Are we any different? We already fight wars for other reasons. Aggressors have an advantage here; they are usually people who don't hesitate to do what's needed to win, while fair-minded people don't and can be taken advantage of.

Conflicts over water are not new, however with the world population growing rapidly and changing weather patterns, they will increase rapidly in number and severity as time moves on. These conflicts already exist between states, within countries, and on a particularly dangerous level between countries like Egypt and Sudan sharing the same water resource, the Nile in this case. While these conflicts generally involve surface water, there are an increasing number of cases that involve depleted or contaminated aquifers.

As ocean levels rise in low-lying areas making them uninhabitable, as droughts and deserts expand, as freshwater disappears from some areas, and as political, ethnic and religious conflicts drive people from their homes to other inhabited areas, conflicts

and misery will prevail. The problems we have today with people fleeing their homes in the Middle East, and with dismal futures in Latin America and Africa will be minuscule compared with what will take place in years to come as the climate warms and conflicts proliferate.

We have an economic system modeled to work in a world where population and access to resources are unlimited. How will the system work as demands increase, access to resources shrinks, and when there are already millions of malnourished people on our planet? As noted earlier, though most people are oblivious to this, our extractions are already far beyond sustainability.

During times of stress sometimes people work together and are noble. At other times it's every person or country for itself. A lot of characteristics of human nature enter in here—greed, caring, shortsightedness, concern for others, fear, etc. Another facet of our behavior, corruption, seems to be the norm and upright individuals, with varying success, have fought against it for centuries everywhere. With pressures bearing in on us from all directions, dealing with it in the future will present new challenges.

Every great civilization of the past has collapsed. Are we any different? Our civilization is far more complex, and therefore more vulnerable. There are people who think about this; however, those who have power are for the most part too busy pursuing their own interests to give this any thought. Joseph A. Tainter wrote an important book on this, *The Collapse of Complex Societies*. A collapsing society will have serious difficulties with the challenges we face today. What is happening in the United States since the last election gives one a lot to worry about.

## WHAT WILL HAPPEN EVEN IF WE CHANGE AS FAST AS WE CAN?

In order to reach a level of sustainability there are a daunting number of problems that have to be overcome. We also have to deal with momentum and a fixed infrastructure. Because of the huge number of young people in the world today, the world's already unsustainable population will continue to grow for some time to come in spite of what we may do to try to reduce it. The world today is highly dependent on

fossil fuels for generating electricity and transportation, and they will continue to pump climate-warming gases into the atmosphere for years to come. Urban sprawl, which keeps expanding, is totally dependent on automobiles for people to get to work, shop, entertainment, etc. Many houses and apartments built without cross-ventilation and protection from east-west sun will become uninhabitable without air conditioning which will demand increasing amounts of fossil fuel as the planet warms. Rapidly reducing the use of fossil fuels would result in chaos. We will be forced to find substitutes for petroleum and natural gas; however, this will be difficult considering the mobility that is needed for moving vehicles. Farms dependent upon the use of fossil fuels, chemical fertilizers, pesticides, and herbicides would suddenly be unable to produce what is needed to keep the world's growing population adequately nourished—in fact, they can't even do that today. Some of this is already making the lives of the poor more miserable and precarious.

In spite of what we do, the environmental problems that will affect most of us soonest will be shortages of freshwater for agriculture and personal use as water levels in aquifers drop and surface water becomes scarce and more polluted. Our oceans are warming and rising and will continue to do so as long as an excessive amount of carbon dioxide is still in the atmosphere. Low-lying areas such as the coastal regions of Florida and Bangladesh will be in danger of rising sea levels and very likely will have to be abandoned. Many of the worst pollutants and plastics, both large and micro, will fill the oceans and some will be incorporated into the bodies of aquatic life.

Considering what and who we are, what needs to be done to reach sustainability? A small number of us see the dangers ahead and are moved to do something about it. We want to change direction, and are willing to do what is needed to accomplish that. A larger number recognizes that there are problems ahead, but are not willing to meaningfully change their ways. An even bigger portion of the population is largely ignorant and/or apathetic to what they hear. On the far end of the scale there are irrational resisters who fight any change to their lifestyle or assets. While we are already doing some things to change direction, unfortunately we don't do what is necessary to bring about a sustainable world that is more modest but just as pleasant to live in.

We will have to face up to getting from where we are to where we need to be, from an overpopulated planet with declining agricultural productivity and water supply, to where we can live sustainably. This will not be pleasant. It will be extremely difficult to reduce our population to a sustainable level, convince people that they can get along happily with less stuff, and to change an economic system that depends upon continual expansion on a finite globe with shrinking resources. Doing this without a careful plan, which will be essential although widely resisted by business and a public that sees growth as essential, would be chaotic. We simply do not give thought to how this could be handled, and what would be the best possible world we could have as we reach a point of sustainability. I have not heard of any government planning for this desperately needed inevitable change.

## LOOKING FARTHER INTO THE FUTURE

Emotionally we live and think within the milieu of here-now. Nonetheless, history is a continuum and our lives are but a minuscule fragment of it. We have a future bias, inherently thinking that the future will be much like the present. Simply by looking at statistics of what's happening today, it's clear the future can only be very different, even by 2050 when most of those who are 20 years old and younger now will still be alive.

Let's look at a bit of this continuum. We see Pythagoras, 2,500 years ago—Aristotle, 2,300 years ago—and Galileo, 400 years ago, as contributors to our thinking and culture today and recognize our connection to them and what they have given us. However, we see or feel no connection to those who will follow us, say 200 or 2,000 years from now, or even 100. They lack a voice because they don't exist in our minds.

Large numbers of us are greatly moved when we see on TV a puppy being hurt by an automobile. Yet we show little concern for those real human beings who someday will follow us, or even for today's people who are geographically remote from us, or for that matter even for ourselves should we still be around thirty or more years from now. We should consider all of this in what we do and how we live

today. Nevertheless, unless we really mess things up, there will be humans just like us far out into the future. We have a moral responsibility for the kind of world we will leave them. I have not come across a simple discussion of this. Looking at the statistics I have noted above, it does not look good for our descendants. After having received this wonderful world from our predecessors, is it right for us to leave our malnourished descendants an overpopulated, depleted, polluted planet?

While it's impossible to accurately describe what the world will be like 200 or 2,000 years from now, there are some things we can say about it. Even though much of surface and ground water may have come back, non-replenishing aquifers like the Ogallala cannot. Much of the planet's topsoil will be deteriorated or simply gone, and chemical fertilizers, essential for highly productive agriculture, will not be available, or will be prohibited because of algae blooms in water bodies and toxins in aquifers. Considering that we would need 5.1 planets like we have today to live sustainably like Americans do, there will have to be far fewer people on the planet than there are today. It is unsettling to think about how we get from here to there. Refining low-grade ores will require huge amounts of energy. While some minerals can be recycled, others will be dispersed and extremely difficult to recover. And some of the most toxic will reside in people's bodies and contaminate their food. Many species we value today will have vanished, most obviously amphibians, large carnivores, and primates. The world will be a notably depleted one.

Rising sea levels will mean that substantial areas around the world will become uninhabitable and unsuitable for agriculture, causing migrations from these places. Where will the people go? Overpopulated places won't welcome them. There will be horrendous human misery and resulting violence as we pass from where we are to where humans can live sustainably.

## **HARMING EACH OTHER AS WELL**

I have been describing our relationship to our planet, and our misuse of it. Many of us treat each other badly as well. All we have to do is look back at our history or read or listen to the news of the day. We lie, we cheat, we steal, we rape, we torture, do "ethnic cleansing," and

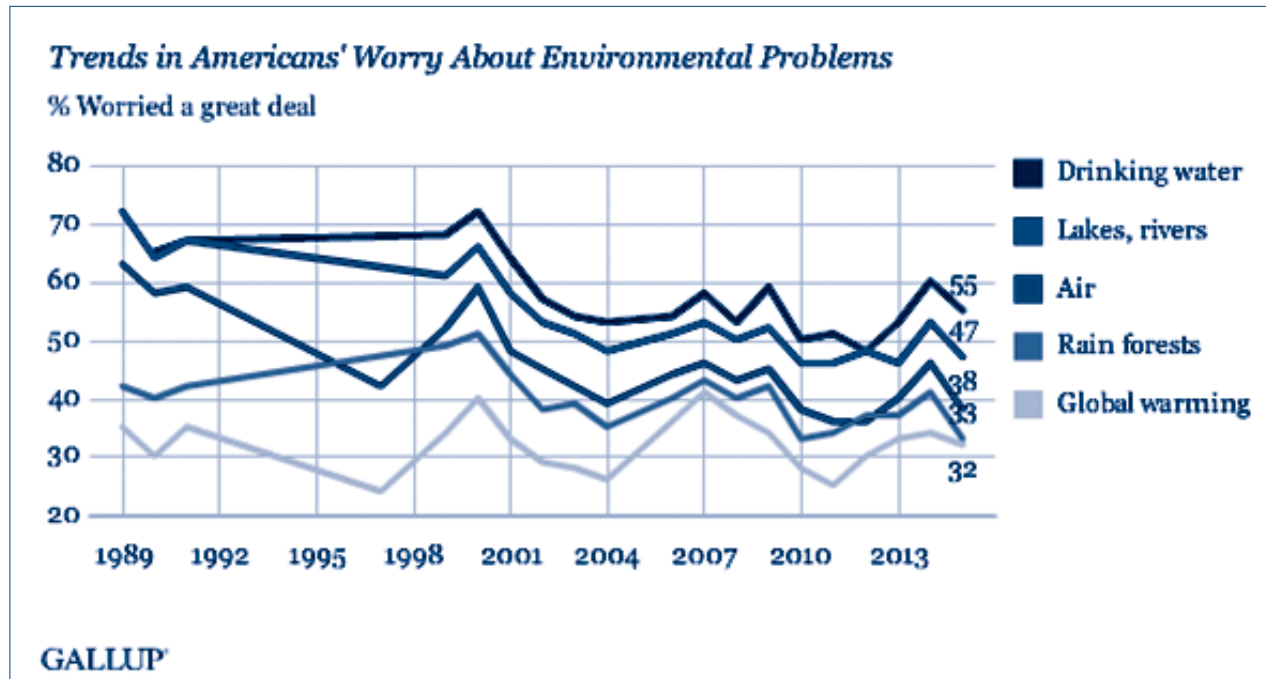
nations battle each other to the point of ruin. By bonding together to attack and often killing other groups of their own species, humans and chimpanzees share a unique pattern of aggression, with no other known species<sup>9</sup>. While we have managed to get along so far, continuing as we are becomes more dangerous as we rapidly increase the burdens we are putting on our planet, become more dependent on unreliable supplies of water and food, and more vulnerable to disruptions. And although we have weapons that could wipe out life on this planet, we are unable to come together to get them under control or eliminate them. In primitive societies where people lived close to nature, and did not have the powerful tools, toxins, and weapons we do today, humanity could get by. However, with runaway global warming or a major conflict involving nuclear weapons we could bring about the extinction of our species.

## **CAVEMAN BRAINS**

Our way of thinking has not caught up with the milieu within which we live. Information about environmental problems and global warming has been out there for a long time, however few people have taken it seriously. Around 1800 Alexander von Humboldt warned that humanity had the power to destroy the environment and the consequences could be catastrophic. In 1896 Swedish chemist Svante Arrhenius, and in 1899 American geologist T. C. Chamberlain, unbeknownst to each other, suggested that the burning of fossil fuels might increase global temperatures by increasing the level of carbon dioxide in the atmosphere. In 1965 a White House report devoted 23 of its 291 pages to this topic<sup>10</sup>. It warned that by the year 2000 atmospheric carbon dioxide "may be sufficient to produce measurable and perhaps marked changes in climate, and will almost certainly cause significant changes in temperature ...." This and the earlier reports should have aroused the concern of thinking people, but it did not seem to with the people who make important decisions. In spite of increasing evidence that global warming is happening, nearly all Republican senators and congresspersons supported by undisclosed super wealthy donors deny that global warming is happening, and we have a president who says it's a hoax without explaining why he says that.

In 1948 Clifton Fadiman, an American intellectual, author, editor, radio and television personality, wrote on the back cover of *Road to Survival*, by ornithologist William Vogt: "*Road to Survival* should – and I think





will –arouse all Americans to a consciousness of how we are ruining the very soil beneath our feet and thereby committing suicide, not too slowly either. Let us hope it will energize a rescue squad of 140 million strong.” It was a book of the month club selection and should have had a broad audience. As we can see, the “rescue squad” fell far short.

We have another widely used technique called *Information Avoidance* that keeps us comfortably ignorant when confronting disquieting facts. We simply ignore or deny facts that run counter to what we want to believe or hold dear. There are unlimited uses for this technique as we can observe when we follow the news. Our president depends on it as when he calls climate change a hoax while he understands little about it.

Time does not improve concern among the populace for what is happening around us. Gallup polls made in 1989 and 2014 showed that the percentage of Americans concerned about environmental problems has not increased.

In many ways our way of thinking is ill-suited for the world we now live in where future generations depend on what we do today. Our hunter-gatherer minds have not evolved to deal with the world as we have reshaped it. When I first realized this I felt like the little boy who pointed out that the emperor was naked, but I knew it couldn’t be just me who saw this all-too-obvious fact. There had to be others. Here

are comments by two brilliant people and a notable organization. And surprise, I even came across one of my own on this subject that I had forgotten about.

“... 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<sup>11</sup>.

“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<sup>12</sup>.

“We have created a Star Wars civilization with stone age emotions, medieval institutions, and godlike technology.” —Edward O. Wilson, 2012<sup>13</sup>.

“Have we as animals changed much from our hunting-gathering ancestors? The anthropologists, who have examined groups of humans living in environments as diverse as the Arctic, the inner-city, and the tropical forests of New Guinea, do not seem to think so.” —James Lovelock, 2014<sup>14</sup>.

## GOVERNANCE AND SOCIETY

In these difficult, dangerous times nations should have the most intelligent, informed, competent, ethical individuals available to lead them—and these leaders should understand and do their very best to deal with

the problems before them. This is hardly the case. Sadly, many of those in power have spent their lives and energy on politicking and gaining and holding power, and have little interest in or understanding of subjects important for sustainability like science. Their judgments are largely based on their personal agenda, psychological needs, pressure from interest groups, their limited concerns for what they see as important, and expediency. Unfortunately, those who pursue power or wealth are often successful at gaining them. Subsequently, the world is largely run by people focused on politicking and personal gain with little understanding or interest in the environmental problems bearing down on us. They focus on “here-now-and-me.” They surround themselves with luxury and isolate themselves from the difficult realities most people face. When they seek advice, instead of going to the wisest, most knowledgeable individuals, they turn to those who share their agenda and narrow concerns. Fortunately, there are other leaders, but they are overwhelmed by the activities of the selfish.

Superior individuals who have the qualities that should make them good leaders in our current complex world are not likely to run for or gain office. We thus have a mechanism that fills positions of power with people who can effectively deal with each other in their dog-eat-dog world, but are poorly equipped to understand, and have little interest in, the complexity of many matters affecting our future. For some, the campaign, beating an opponent, and holding power override their interest in the job itself.

“Adlai Stevenson, an unsuccessful candidate for president, when interviewed by Bill Moyers commented: ‘By the time a man is elected president he is no longer worthy of the office.’ The late economist Kenneth Boulding, who was interested in the selection process, held a similar opinion. ‘There is indeed a principle which I have called the ‘dismal theorem of political science’—that most of the skills which lead to the rise to power unfit people to exercise it.’ It is tragic that at a crucial time like this, such people are in control.”<sup>15</sup>

In a speech in the House of Commons on November 11, 1947, Winston Churchill said: “...No one pretends that democracy is perfect or all-wise. Indeed, it has been said that democracy is the worst form of government except all those other forms that have been tried from time to time....”

## ANOTHER PEARL HARBOR?

History shows that societies, unless strongly pressed, resist change. It took the Japanese attack at Pearl Harbor to get the United States to wake up and rapidly take up arms against the ruthless Axis nations which were committing horrendous atrocities and winning ground in Europe and the Pacific. The bombing of Pearl Harbor was fast, but environmental damage takes place slowly and we like the frog in the pot of boiling water fail to notice it. If we wait for a dramatic environmental event to move the world’s people, we may be well on the way to an irreversible path of environmental damage. We must investigate the reasons for our followers delay and devise ways to get society and governments to act before terrible consequences take place. The sooner we act, the less misery humanity will have to deal with in the future.

## SO, WHAT CAN WE DO?

We have two choices, neither of them “perfect.” (It’s too late for that.) If we are cautious and do what we can to protect humanity’s future, we will not live the lifestyle that many of us would like. But mankind will have a future. Alternatively, we can ignore environmental problems, act as if climate change is a hoax, and live it up. That’s great for us, our children, and maybe even our grandchildren. But ultimately our descendants will have a miserable future, perhaps none at all. It may sound simple, but making the right choice is crucial. With all the information that’s out there about what’s happening and what we can do to head us in the right direction, to ignore reality is either ignorant, or immoral.

We are currently charging ahead driven by powerful emotions with no overall goal or plan for where we are headed. We are fighting each other and exploiting life on this planet. If instead we would think about what is good for all of us and where our actions are taking us, we could by cooperating with each other lead much more satisfying lives, achieve happiness, and be followed by many generations of people who will thank us for it. We also need to look at our beliefs, some of which drive us apart and sometimes cause us to kill each other and distract us from dealing with reality in a rational way, as when we ignore scientific evidence. People need to overcome *Future Bias*, *Information Avoidance*, become *aroused* by information about threats to our future, and follow reason rather than emotion and crowd think.

Every population contains a number of sociopaths, and corruption can easily become endemic. We must continually work hard to isolate damage done by sociopaths and expose their activities. I have lived in both clean and corrupt societies and have seen how concerned, active citizens can significantly minimize corruption. We must do this.

We need to stop fighting each other, open our eyes, and see where the real danger to our future lies. It is a polluted world no longer able to provide adequate food and water in a healthy environment. We must stop destroying the life on this planet that supports us. If we don't protect it, this may well be our demise and nothing else will matter for us. To do this we must have wise, moral, stable leaders. We should put our best minds to work to develop a system to find those best suited for the job.

It would help if the many members of environmental organizations would keep promoting the idea that extravagant living and ostentatiousness are hurting us all and are not to be admired. And, that happiness does not come from having more stuff or power over others, but from having good health, positive contacts with other people, and finding satisfaction in what one does.

Governments have a meager record of planning for the future beyond the next 5 or 10 years<sup>16</sup>. Someday we will run out of fossil fuels, if we haven't fried ourselves first through global warming. They are essential for long-range transportation, particularly by air. I am not aware of any government that has looked into this certainty, not to mention many other problems that we will face in the future. People must demand that their governments plan for the inevitable. Our situation is so serious that we need to look at the best information and research we have, and from this plot a rational strategy to safely move forward through a dangerous future and then beyond to sustainability. Doing otherwise is irresponsible and stupid.

Organizations currently working to resolve environmental problems should take an overview and look at the big picture, work together, and find things that will work and move others to act. While it's important for organizations such as the Sierra Club to keep doing what they are doing now, they must also see the big picture, recognize the root causes of environmental problems, and work together with other concerned organizations to remedy them.

To better understand the reasons behind what is happening and how and where we should change course, it will help to keep a simple formula in mind. In the 1970s Paul Ehrlich and John Holdren developed a formula 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 everything stays the same but the world population doubles, humanity's impact on the planet doubles. Similarly, if everything stays the same but personal consumption and pollution are cut in half, our impact on the planet is reduced to half.

If we succeed in stepping beyond ourselves and our limited here-now mentality, base our judgments on evidence, protect our planet, and live harmoniously with each other, our descendants will have reason to thank us for what we have passed on to them, rather than curse us for the chaotic, depleted, polluted world they have to contend with. If we don't preserve our planet as a viable place to live, what else matters?



To, see your own impact on the planet (ecological footprint) click here:

[www.footprintcalculator.org](http://www.footprintcalculator.org)

## WORKS CITED

1. Seidel, Peter, "Is It Inevitable That Evolution Self-Destruct?" *Futures*, Elsevier, Amsterdam, Vol. 41, No. 10, Dec. 2009, pp. 754-759.
2. <https://esa.un.org/unpd/wpp/Download/Standard/Population>
3. [http://wwf.panda.org/what\\_we\\_do/footprint/agriculture/impacts/soil\\_erosion](http://wwf.panda.org/what_we_do/footprint/agriculture/impacts/soil_erosion)
4. Global Forest Resources Assessment 2015
5. <http://factsanddetails.com/china/cat10/sub66/item389.html>
6. [http://www.footprintnetwork.org/en/index.php/GFN/page/world\\_footprint](http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint)
7. [http://wwf.panda.org/what\\_we\\_do/footprint/agriculture/impacts/soil\\_erosion](http://wwf.panda.org/what_we_do/footprint/agriculture/impacts/soil_erosion)
8. <https://www.wfp.org/stories/10-facts-about-hunger>
9. Wrangham, R. W., & Peterson, D., *Demonic Males*, 1996, Boston, Houghton Mifflin.
10. The Environmental Pollution Panel of the President's Science Advisory Committee, *Restoring the Quality of Our Environment*, (Nov. 1965), The White House, Washington, D.C., pp. 111-133.
11. <https://www.slideshare.net/exopolitika/the-manifesto-on-planetary-consciousness-club-of-budapest-ervin-laszlo-52429645?fbclid=IwAR3v6OsheUIdecFOkBR6lC7jTdapV8elrjFJuxKve-cWdYJv2pAeFq0Rq20>
12. "Is It Inevitable That Evolution Self-Destruct?" *Futures*, Elsevier, Amsterdam, Vol. 41, No. 10, Dec. 2009, p. 754.
13. Edward O. Wilson, *The Social Conquest of Earth*, 2012, New York: Liveright Publishing, a division of W.W. Norton, p. 7.
14. James Lovelock, *A Rough Ride to the Future*, 2014, New York, The Overlook Press, p. 142.
15. <https://mahb.stanford.edu/blog/available-data-reason-tell-us/>
16. 2006, "Sustainability and Governmental Foresight" by Lindsey Grant, *Global Survival: The Challenge and Its Implications for Thinking and Acting*, Ervin Laszlo and Peter Seidel, editors, pp. 221-237.

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**NOTE:** The views expressed in this article are those of the author and do not necessarily represent the views of NPG, Inc.



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