

Heading for a World Apocalypse?

By DONALD A. COLLINS

ABSTRACT

Conditions that could lead to a planetary apocalypse are developing in many categories that are seen by experts from many disciplines as requiring urgent improvement. Population growth is outpacing planetary resources, affecting global health and stability. Governance of many countries has failed, resulting in civil unrest, the desperate migrations of many populations, and brushfire wars. Environmental damage caused by the appetites not only of the U.S. and developed nations but by emerging giants such as China and India will have a global impact on air, water, basic sanitation, food security, and desertification. The current world population of 6.75 billion is predicted to grow to between 9 and 10 billion by the year 2050. As population density grows, the failure of governments to bring decent living conditions to the massively increased populations of many areas contributes to anger and unrest. The possibility also grows daily of a human apocalypse initiated by nuclear bombs in the hands of dangerously aberrant forces.

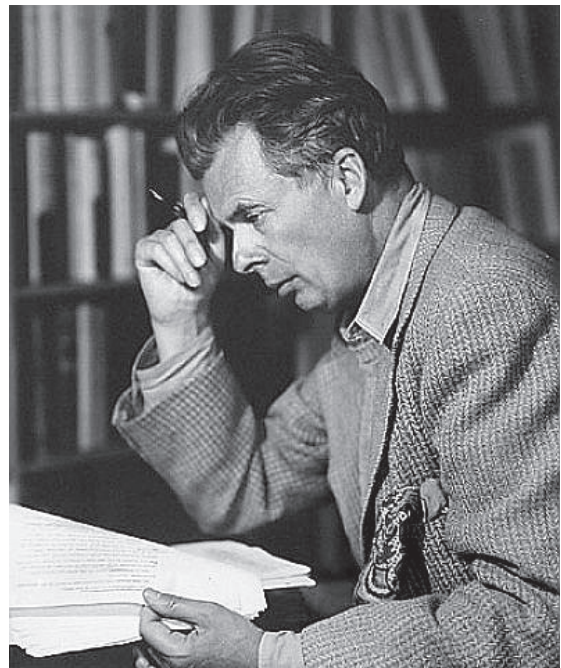
Key Words: Population, Environment, Civil Strife, Starvation, Massive Worldwide Immigration, Energy Shortages, Wars, Nuclear Terrorism, Failed States.

Is it possible that our planet is heading for a worldwide apocalypse that will ravage humankind? Some of the best minds on the subject of nuclear holocaust have recently met to outline their plans for curtailing that realistic possibility. Meeting in October 2007 at the Hoover Institution at Stanford, former U.S. Secretaries of State George Schultz and Henry Kissinger, along with former Defense Secretary William Perry and former Senator Sam Nunn, advanced their vision for a nuclear-free world and suggested steps to achieve that goal. Countless others join in

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concern over the pending abyss of nuclear wars, something that has been feared since the dawn of the Nuclear Age in 1945.¹

In 1931, when Aldous Huxley wrote his classic book, *Brave New World* (1932), he felt (as he later wrote in his 1958 essay “Brave New World Revisited”) that population was not a key issue—a view he radically changed



Aldous Huxley

in that 1958 essay. In 1800, world population was still slightly under 1 billion, and in the 1930s it seemed that the planet still offered some “stretch” room: the total population in 1931 was still only slightly over 2 billion. But by 2008 it had increased to 6.75 billion, and the U.S. population had risen from 122 million to over 300 million, en route (thanks to massive immigration) to an estimated 500 million by 2050, and 1 billion by 2100. According to the UN Population Division, by 2050 world population is projected to reach 9.5 billion.

During the euphoria of post-World War II prosperity and the Cold War build-up of U.S. defenses against the Soviet Union, America briefly addressed the population issue in the late 1960s and early 1970s. During the Nixon years, a commission was empaneled under the

chairmanship of John Rockefeller III to study the impact of population growth and make recommendations about what our nation should do. In Nixon's July 18, 1969 transmittal letter for "The Report of The Commission on Population Growth and the American Future," the President said that "One of the most serious challenges to human destiny in the last third of this century will be the growth of the population. Whether man's response to that challenge will be a cause for pride or for despair in the year 2000 will depend very much on what we do today. If we now begin our work in an appropriate manner, and if we continue to devote a considerable amount of attention and energy to this problem, then mankind will be able to surmount this challenge as it has surmounted so many during the long march of civilization."²

However, the Rockefeller report recommended liberal access to abortion, which alienated Catholic and other religious support. From then onward, particularly after the Supreme Court's 1973 decision (in *Roe v. Wade*), the Federal Government in the United States became so politically conflicted that the U.S. Senate passed (also in 1973) an amendment to the U.S. Foreign Assistance Act that prohibited government funds from being used overseas for abortions. Then under President Reagan the so-called "Mexico City Policy"—the predecessor to the current "global gag rule"—prohibited non-governmental organizations (NGOs) in other countries from receiving U.S. funds if, even with their own funds and in accordance with the laws of their own sovereign countries, they "performed or actively promoted abortion as a method of family planning."

While efforts in the 1970s and early 1980s were made by those in the U.S. government (such as USAID Population Director Reimart T. Ravenholt) to augment family planning, the result of those two 1973 events has been that the U.S. never again exercised cohesive leadership in family planning, which many claim that to succeed must include access to safe, legal abortion.³

Although President William Clinton removed the "Mexico City Policy," President George W. Bush immediately reinstated it when he took office, and undertook many other anti-family-planning actions. It is not our purpose to dwell on policies, except to point out that the history of the U.S. government since 1973 has not been one of international leadership in promoting the importance of family planning and population control.

Humane solutions to the population growth problem were supported vigorously until 1973 at the highest levels of corporate, government, and educational America. Since then, the issue has largely been ignored or dismissed by those who make policy decisions in the

U.S. While the rate of population growth has slowed, more than 75 million humans are currently added to the planet yearly, a situation that likely will create the climate for much more discord in this century.

The evidence is growing daily that humanity may not survive for even a few centuries at the present rate of global population growth, resource utilization, and environmental destruction. After reading the record humans are compiling (as reported by so many credible sources), one immediately recalls Cormac McCarthy's 2007 Pulitzer Prize-winning novel *The Road*, which depicts the sad state of the Earth after an apocalypse. The biblical definition of apocalypse in the Book of Revelation is "the final destruction of the world." Obviously, the absence of human life would not mean the destruction of the planet, which would undoubtedly regenerate new life forms over time. However, the cumulative pressure of resource overuse by expanding human numbers has been understood by the majority of scientists for years, exceptions coming mainly from studies funded by commercial sources.

Michael Chabon, who reviewed the McCarthy book in *The New York Review of Books* (February 15, 2007), touches only lightly on this excellent work as depicting a human apocalypse as a possible reality. After reviewing the long list of authors who treat, as science fiction, the subject of a real Apocalypse, this brilliant member of the literati did not admit what some, including this writer, see as a distinct, foreseeable, and even likely relatively near-term chance for such a cataclysm. But he concludes by saying that, "It is in the audacity and single-mindedness with which *The Road* extends the metaphor of a father's guilt and heartbreak over abandoning his son to shift for himself in a ruined, friendless world that *The Road* finds its great power to move and horrify the reader."⁴

Publicity about the threat posed by global warming has created some interest in the need to protect the global environment on which we as humans depend, although the argument that the warming is primarily due to excessive human production of carbon has been challenged by some respected scientists who believe that current temperature changes have solar roots. Regardless of the outcome of this debate, actions necessary to control industrial emissions are unlikely to be adopted by the new polluters, China and India. Articles by respected researchers make the point that world oil production has peaked while energy supplies from alternative sources—such as wind, sun, nuclear, ethanol, and shale oil—are seen either as inadequate short-term fixes or as being far from technologically feasible.^{5,6}

That the number of people on the planet will grow to what many scientists regard as unsustainable levels in just 50 years has yet to be taken seriously by many governments in large countries, China being the possible exception: in January 2008, *The Washington Post* reported that the Chinese had expelled 500 members from the Communist Party for ignoring the one-child limit.⁷

“So what?” say the optimists, “Everyone can plainly see that there are vast uninhabited areas, which while largely wasteland could perhaps be watered and opened for human use.” However, it is evident that the arable, most livable spaces for human habitation have now been occupied. Even the continental U.S., beginning with European colonization four centuries ago, has expanded its population until it is now facing problems of water shortages, due to the imbalance between increased population and natural resources; and water shortage threatens many areas, notably the Middle East. Global deforestation and the loss of soil have in recent decades become a widespread threat to the environment and its ability to support advanced life forms.

Most of the established agencies interested in the environment have shown only slight interest in the population issue. Their names are familiar since their direct mail campaigns never cease. Their coffers seem amply filled by their direct mail and individual donor gifts; but perhaps they find that supporting family planning and choice might alienate donors of some religious persuasions. However, to not address the issue when the impact on resources is so great is arguably immoral and completely unconnected to the reality of our global crisis. The same reasoning unfortunately seems to prevail on the part of many of the agencies whose mandate is to offer services, research, and education on the urgency of the population crisis: Don’t jeopardize the cash flow that keeps us afloat.^{8, 9} Environmental groups, as well, have also chosen to ignore the immigration issue.

The urgent impact of the population issue has been brought forward by the Global Footprint Network, which speaks about the sustainability of the planet. In its comprehensive working series of charts and diagrams prepared for its October 2, 2007 meeting at the Carnegie Endowment for Peace in Washington, D.C., GFN asked a key question: “How is population related to the footprint?” (“footprint” being the product of population times *per capita* consumption times the availability of resources). At present levels of population, GFN claims the Earth’s resources are already well oversubscribed. Adding up the resource allocations, GFN reports that “Humanity’s Ecological Footprint exceeds Earth’s bio-

logical ability to sustain us. While some of us are living rich, healthy, pleasant and safe lives, massive numbers of people are not.”¹⁰

The humanitarian efforts of developed countries’ governments and large private charities such as the Gates Foundation to feed the hungry and provide better health care will not solve this fundamental shortfall of resources.¹¹ Indeed, they work to aggravate it. When population growth outstrips resources the result is poverty. The sights and smells of human poverty and degradation cannot be fully understood by visitors to such places as Calcutta, but only by those living daily in those dreary places; even then, familiarity with such adverse conditions can perhaps inure those poor souls to the abnormality of their plights.

While argument is rife on how humanity will find alternative energy when fossil fuels are depleted, the issue is clearly on the table. Could it be that whatever system created by humans that over time exceeds their capacity to sustain the vital supplies of life—however unfairly or fairly divided—will ultimately lead to worldwide disaster? Clearly, many experts from diverse fields have raised concerns, but few have suggested an ultimate cataclysm.¹²

The seminal question can now be reasonably asked: When will the war to save the planet truly begin? Certainly the war to destroy the planet has already begun. The question of how to save it has been posed by many before, but never with the knowledge we now have to see the limits of our world so clearly.¹³

Humane solutions have been proposed for decades, ever since the population began to explode from about two billion in 1931. Developed nations have sought to offer help to those that are less developed. The rise of population in many poor and undeveloped nations has been supported by the West, financially and technologically, and now threatens the developed nations of the West. Medical assistance has held back disease, nature’s pruning fork. Development and family planning programs have been promoted to counterbalance the increased pressure of population that has resulted, but have met with only partial success because of lack of adequate funding, inept or corrupt management by donors and recipients alike, and attacks from ideological and religious enemies of family planning. The question of whether enough restraint will be shown to bring population levels into balance with resources has already been answered in too many countries where poverty, disease, and hopelessness breed indifference to the future of the world. Optimists are rare among those who have intensively looked at the realities in which billions try

to survive; they are rare among the experts on nuclear proliferation at NTI (who are right in warning us about nuclear proliferation) or the folks at the Global Footprint Network, previously cited.

In fact, so many experts have produced learned papers that we can quickly summarize their main points. A report from the Population Institute, on whose board this author served for many years, entitled “The Population Challenge: Key to Global Survival,” by Terry M. Redding, succinctly documents the best scholarship about what steps are needed to avert disaster.¹⁴ Some are covered here:



- Modern birth control reaches low percentages of women in the countries where population growth is greatest. The relatively low-level resources required to meet fertility demands have not been provided, and the U.S. has conspicuously failed in taking a leadership role, especially since the end of the Nixon administration. This was due to the ideological attacks on family planning and abortion by the religious right. For a relatively modest \$4 billion from the U.S., coupled with assistance from other developed and developing nations, modern family planning could be provided worldwide. The U.S. contribution now, however, is about \$400 million.

- The rapid increase in world population in many developing nations has meant a failure of education systems, including those that would ensure literacy. High birthrates obviously impinge heavily on the health of entire families, not just on the mothers who bear too many children they do not want and know they cannot properly care for. That the average age in many developing countries is under 20 leaves many young people without work or prospects. They are thus highly subject to terrorist recruitment. On January 20, 2008, *The New York Times* reported that many Arab youngsters are joining terrorist groups and offering to be martyrs.

- Governance of many countries has failed at least partially because of runaway population growth. There is now a sizeable list of perhaps as many as fifty states that provide safe harbors for terrorist cabals and fertile places for recruiting young acolytes, represented by the present spate of suicide bombers.

- Damage to the world environment by emerging giants such as China and India joins that done by already-developed nations in such areas as the global impact on air, water, basic sanitation, food security, etc. Those who travel to China, where the air quality in Beijing is almost unbearable, become aware of the effect of its industrialization not only there but as its sputum spreads far beyond its borders into the world's lungs.

- As human density grows, with the resulting large uneducated and irate masses, failed states, and failure to bring decent living conditions to more and more of the eight billion who will be here by 2050, the threat to global security increases. A feature of this growing phenomenon is massive immigration. According to recent reports, the number of international migrants is at an all-time high, with the number of international migrants in industrialized countries more than doubling between 1985 and 2005 from about 55 million to 120 million.

Into this volatile mix comes the clash of cultures and religions, part of the breakdown of stable societies. As Edgar Allen Poe so eloquently depicted in his short story, “The Masque of the Red Death,” there will shortly be no safe hiding places, even for the elites who so often believe that their gated communities and the massive force of a defense establishment will protect them if a widespread breakdown of world order occurs.

- That Iran and other currently non-nuclear nations will keep trying to join the Nuclear Club seems unstoppable. In November 2006, Pakistan tested a missile capable of delivering a nuclear weapon. The fragile state of that government suggests that less responsible leaders could readily emerge there. Many fear that the spread of nuclear technology will not be contained, especially fol-

lowing the dispersal of information by Pakistan's now-disgraced chief nuclear scientist Abdul Qadeer Khan.¹⁵

The bottom line is that population pressure, besides promoting extremist activities, is taking our planet to its limits. A recent comprehensive report from the U.N., relayed widely but reported relatively sparsely by the U.S., comes as a bombshell about Planet Earth. This is the October, 2007 report from The United Nations' Global Environment Outlook-4 report. From it, we get an authoritative scientific summary of the planet's health. This report found "water, land, air, plants, animals and fish stocks are all in 'inexorable decline' as 2007 became the first year in human history when most of the world's population lived in cities.

UN estimates of world population growth indicate something like 9.5 billion people on our planet by 2050, but the present 6.83 billion world population "has reached a stage where the amount of resources needed to sustain it exceeds what is available." Further, climate change, the collapse of fish stocks, and the extinction of species "may threaten humanity's very survival."¹⁶ In addition, environmental exposures are now causing almost one-quarter of all diseases, including respiratory disease, cancers, and emerging animal-to-human disease transfer. Pressure on the global water supply has also become a serious threat to human development as the demand for irrigated crops soars. The report also estimates that many of the world's most important rivers will shortly fail to reach the sea all year round because of upstream irrigation demands.

Each person's "environmental footprint" has on average grown to 22 hectares of the planet, although the report estimates the "biological carrying capacity" is somewhere between 15 and 16 hectares per person. Critically, fish stocks, a key protein source for several billion people, are in crisis. About 30 percent of global fish stocks are classed as "collapsed" and 40 per cent are described as "over-exploited."

The exploitation of land for agriculture has hugely increased as populations grow and living standards rise. A hectare of land that once produced 1.8 tons of crops in 1987 now produces 2.5 tons. But that rise in productivity has been made possible by a greater use of fertilizers and water, leading to land degradation and pollution. "The food security of two-thirds of the world's people depends on fertilizers, especially nitrogen," the report says. In turn, the nutrients running off farmland are increasingly causing algae blooms. In the Gulf of Mexico and the Baltic Sea these have created huge "dead zones" without oxygen.

The will to participate with responsible govern-

ments around the world to help rein in the expanding populations is simply not reflected in the U.S. policy agenda. U.S. and Western policy has promoted the current world explosion of population rather than the reverse, and in my view, has been a key in leading the planet into multiple non-nuclear wars and even pandemics like HIV/AIDS. These events in aggregate are currently doing little to stem population growth to the levels predicted by many reputable sources. If all those presently infected with HIV/AIDS died tomorrow, deaths numbering perhaps 40 million would only be slightly more than half of the net yearly population growth of 75 million worldwide (2009). Long-term treatments for HIV/AIDS make such a cataclysmic death toll unlikely.

The prospect of a major effort on the part of the rich nations, led by the U.S., for a war on unwanted fertility is not bright. While China has set a laudable example, India barrels forward toward a population that seems likely to exceed China's in the not too distant future. China's family planning officials, worried about a baby boom that could further strain the country's resources, have been trying to crack down on parents who have more children than they are permitted under the law. The law is not a strictly a "one child" law, but has some flexibility for special circumstances; however, the point is clear. Governments that can exercise such power will do so. However, Africa and India are not on board and may not be in the foreseeable future.

Democracies such as the U.S. and too many nations in the West have shown an ambivalence about taking humane leadership. Mired in the orthodoxy of "Endless growth is good," the U.S. has imported since 1965, when its immigration laws were drastically changed, nearly 50 million immigrants and their subsequent offspring. The immigrants are mostly people of low skills and predominantly of Latino origin. While Western Europe expresses concern about its low birthrates, it has allowed the importation of multitudes of low-skilled, multiethnic workers. For example, Spain now takes in over 700,000 (mostly Africans) every year, many of whom move into other parts of Europe. Japan, with its island mentality and goal of ethnic purity, sees its population aging, but probably will handle this transition better than the U.S. and Europe. Not only are people living longer, but they are capable of working longer at jobs that do not require the kind of physical stamina of younger workers. Furthermore, Japan and South Korea have launched major programs to introduce robotics and automation to maintain productivity and also to take care of the elderly.

Will the world melting pot be able to digest these transitions without a human apocalypse? Frankly,

this author's view is that nothing sufficiently substantive is likely to be achieved before massive disasters occur, environmental, economic, or military, such as the unleashing of several nuclear bombs. At the time the Rockefeller Commission report was issued in 1972, the promotion of global family planning offered a worldwide insurance policy for the Planet Earth that would have carried a cheap premium. This is something that the U.S. and the developed world could then easily have afforded. Sadly, accepting that policy still is not seen as the proper way to go.

There is indeed much expert opinion that sees disaster in the world's future. Two years ago, paleontologist Michael Novacek observed that "news of environmental traumas assails us from every side—unseasonal storms, floods, fires, drought, melting ice caps, lost species of river dolphins and giant turtles, rising sea levels potentially displacing inhabitants of Arctic and Pacific islands, and hundreds of thousands of people dying every year from air pollution." He commented: "That's just doomsday saying, say those who insist that economic growth and human technological ingenuity will eventually solve our problems. But in fact, the scientific take on our current environmental mess is hardly so upbeat."¹⁷



Edward O. Wilson

One now unmeasured dimension that is seeming to emerge is the arrival of diseases caused by environmental pollutants from a variety of sources. As WHO's

Director General, Dr. Margaret Chan, noted, "one of the changes affecting human health was increasingly intensive poultry farming, which may account for the global spread of bird flu."¹⁸

One author, Alan Weisman, has written an amusing book, *The World Without Us*, an account of how mankind simply outruns resources and disappears. He describes the future of man's works after mankind no longer exists on the planet.

Many different ways to reduce population growth have been offered. Playing God will be done brutally: it will not be done by God, but by harsh actions that will be without moral distinction or fairness. Delivery of family planning services remains the primary answer, but only if it is approached like a business, with enough money to saturate the market. Sadly, political and religious forces will make that virtually impossible in too many developing nations. Many U.S. and Western aid agencies really don't want to be involved in providing the vital delivery of clinical services and modern contraceptives which are so much in demand. Getting such services to the world's neediest women remains hard and is certainly unheralded by government and private funders who too often prefer more visible public relations-oriented capers such as HIV/AIDS programs and the curing of diseases that are nature's harsh way of maintaining a balance between population and environment.

Among those who regard the possibility of human extinction is biologist Edward O. Wilson, who sees the loss of our biodiversity as leading us to a post-human planet.^{19, 20} It is comforting to hear the optimistic solutions offered by many, including Lester Brown, but these solutions require political actions that were not even discussed by the candidates from either party in the 2008 U.S. presidential election. Real action will require totally out-of-the-box thinking and action by our elected officials, as well as a concerted effort on the part of world leadership to focus on this rapidly approaching tipping point, where human actions will not stop the changes in climate or the devastation of planetary reactions to the overbearing human footprint. As the Leonardo DiCaprio documentary *The 11th Hour* so vividly emphasizes, we are at a time when action is mandatory, but when sufficient action is apparently not forthcoming.

What might be the fuse that could ignite the ultimate human worldwide disaster? Will it be the conflicts among well-organized, secularized, monotheistic religions? An overwhelming percentage of the world's population is affiliated with one or another of these monotheistic major faiths, each of which contains large branches that are highly prone to divisive actions, regardless of

consequences for the world. Examples abound, and the present clashes provide evidence that with the added pressure of population on increasingly short resources, matters can get much worse very rapidly. ■

Endnotes

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