



Sixteen Impacts of Population Growth

The world's population has doubled during the last half century, climbing from 2.5 billion in 1950 to 5.9 billion in 1998. This unprecedented surge in population, combined with rising individual consumption, is pushing our claims on the planet beyond its natural limits.

The United Nations projects that human population in 2050 will range between 7.7 billion and 11.2 billion people. We use the United Nations' middle-level projection of 9.4 billion (from *World Population Prospects: The 1996 Revision*) to give an idea of the strain this "most likely" outcome would place on ecosystems and governments in the future and of the urgent need to break from the business-as-usual scenario.

Our study looks at 16 dimensions or effects of population growth in order to gain a better perspective on how future population trends are likely to affect human prospects:

Impacts on Food and Agriculture

1. Grain Production

From 1950 to 1984, growth in the world grain harvest easily exceeded that of population. But since then, the growth in the grain harvest has fallen behind that of population, so per-person output has dropped by 7% (0.5% a year), according to the U.S. Department of Agriculture.

The slower growth in the world grain harvest since 1984 is due to the lack of new land and to slower growth in irrigation and fertilizer use because of the diminishing returns of these inputs.

Now that the frontiers of agricultural settlement have disappeared, future growth in grain production must come almost entirely from raising land productivity. Unfortunately, this is becoming more difficult. The challenge for the world's farmers is to reverse this decline at a time when cropland area per person is shrinking, the amount of irrigation water per person is dropping, and the crop yield response to additional fertilizer use is falling.

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2. Cropland

Since mid-century, grain area—which serves as a proxy for cropland in general—has increased by some 19%, but global population has grown by 132%. Population growth can degrade farmland, reducing its productivity or even eliminating it from production. As grain area per person falls, more and more nations risk losing the capacity to feed themselves.

The trend is illustrated starkly in the world's four fastest-growing large countries. Having already seen per capita grain area shrink by 40%–50% between 1960 and 1998, Pakistan, Nigeria, Ethiopia, and Iran can expect a further 60%–70% loss by 2050—a conservative projection that assumes no further losses of agricultural land. The result will be four countries with a combined population of more than 1 billion whose grain area per person will be only 300–600 square meters—less than a quarter of the area in 1950.

3. Fresh Water

Spreading water scarcity may be the most underrated resource issue in the world today. Wherever population is growing, the supply of fresh water per person is declining.

Evidence of water stress can be seen as rivers are drained dry and water tables fall. Rivers such as the Nile, the Yellow, and the Colorado have little water left when they reach the sea. Water tables are now falling on every continent, including in major food-producing regions. Aquifers are being depleted in the U.S. southern Great Plains, the North China Plain, and most of India.

The International Water Management Institute projects that a billion people will be living in countries facing absolute water scarcity by 2025. These countries will have to reduce water use in agriculture in order to satisfy residential and industrial water needs. In both China and India, the two countries that together dominate world irrigated agriculture, substantial cutbacks in irrigation water supplies lie ahead.

4. Oceanic Fish Catch

A fivefold growth in the human appetite for seafood since 1950 has pushed the catch of most oceanic fisheries to their sustainable limits or beyond. Marine biologists believe that the oceans cannot sustain an annual catch of much more than 93 million tons, the current take.

As we near the end of the twentieth century, overfishing has become the rule, not the exception. Of the 15 major oceanic fisheries, 11 are in decline. The catch of Atlantic cod—long a dietary mainstay for western Europeans—has fallen by 70% since peaking in 1968. Since 1970, bluefin tuna stocks in the West Atlantic have dropped by 80%.

With the oceans now pushed to their limits, future growth in the demand for seafood can be satisfied only by fish farming. But as the world turns to aquaculture to satisfy its needs, fish begin to compete with livestock and poultry for feedstuffs such as grain, soybean meal, and fish meal.

The next half century is likely to be marked by the disappearance of some species from markets, a decline in the quality of seafood caught, higher prices, and more conflicts among countries over access to fisheries. Each year, the future oceanic catch per person will decline by roughly the amount of population growth, dropping to 9.9 kilograms (22 pounds) per person in 2050, compared with the 1988 peak of 17.2 kilograms (37.8 pounds).

5. Meat Production

When incomes begin to rise in traditional low-income societies, one of the first things people do is diversify their diets, consuming more livestock products.

World meat production since 1950 has increased almost twice as fast as population. Growth in meat production was originally concentrated in western industrial countries and Japan, but over the last two decades it has increased rapidly in East Asia, the Middle East, and Latin America. Beef, pork, and poultry account for the bulk of world consumption.

Of the world grain harvest of 1.87 billion tons in 1998, an estimated 37% will be used to feed livestock and poultry, producing milk and eggs as well as meat, according to the U.S. Department of Agriculture. Grain fed to livestock and poultry is now the principal food reserve in the event of a world food emergency.

Total meat consumption will rise from 211 million tons in 1997 to 513 million tons in 2050, increasing pressures on the supply of grain.

Environment and Resources

6. Natural Recreation Areas

From Buenos Aires to Bangkok, dramatic population growth in the world's major cities—and the sprawl and pollution they bring—threaten natural recreation areas that lie beyond city limits. On every continent, human encroachment has reduced both the size and the quality of natural recreation areas.

In nations where rapid population growth has outstripped the carrying capacity of local resources, protected areas become especially vulnerable. Although in industrial nations these areas are synonymous with camping, hiking, and picnics in the country, in Asia, Africa, and Latin America most national parks, forests, and preserves are inhabited or used for natural resources by local populations.

Migration-driven population growth also endangers natural recreation areas in many industrial nations. Everglades National Park, for example, faces collapse as millions of newcomers move into southern Florida.

Longer waiting lists and higher user fees for fewer secluded spots are likely to be the tip of the iceberg, as population growth threatens to eliminate the diversity of habitats and cultures, in addition to the peace and quiet, that protected areas currently offer.

7. Forests

Global losses of forest area have marched in step with population growth for much of human history, but an estimated 75% of the loss in global forests has occurred in the twentieth century.

In Latin America, ranching is the single largest cause of deforestation. In addition, overgrazing and overcollection of firewood—which are often a function of growing population—are degrading 14% of the world's remaining large areas of virgin forest.

Deforestation created by the demand for forest products tracks closely with rising per capita consumption in recent decades. Global use of paper and paperboard per person has doubled (or nearly tripled) since 1961.

The loss of forest areas leads to a decline of forest services. These include habitat for wildlife; carbon storage, which is a key to regulating climate; and erosion control, provision of water across rainy and dry seasons, and regulation of rainfall.

8. Biodiversity

We live amid the greatest extinction of plant and animal life since the dinosaurs disappeared 65 million years ago, at the end of the Cretaceous period, with species losses at 100 to 1,000 times the natural rate. The principal cause of species extinction is habitat loss, which tends to accelerate with an increase in a country's population density.

A particularly productive but vulnerable habitat is found in coastal areas, home to 60% of the world's population. Coastal wetlands nurture two-thirds of all commercially caught fish, for example. And coral reefs have the second-highest concentration of biodiversity in the world, after tropical rain forests. But human encroachment and pollution are degrading these areas: Roughly half of the world's salt marshes and mangrove swamps have been eliminated or radically altered, and two-thirds of the world's coral reefs have been degraded, 10% of them "beyond recognition." As coastal migration continues—coastal dwellers could account for 75% of world population within 30 years—the pressures on these productive habitats will likely increase.

9. Climate Change

Over the last half century, carbon emissions from fossil-fuel burning expanded at nearly twice the rate of population, boosting atmospheric concentrations of carbon dioxide, the principal greenhouse gas, by 30% over preindustrial levels.

Fossil-fuel use accounts for roughly three-quarters of world carbon emissions. As a result, regional growth in carbon emissions tend to occur where economic activity and related energy use is projected to grow most rapidly. Emissions in China are projected to grow over three times faster than population in the next 50 years due to a booming economy that is heavily reliant on coal and other carbon-rich energy sources.

Emissions from developing countries will nearly quadruple over the next half century, while those from industrial nations will increase by

30%, according to the Intergovernmental Panel on Climate Change and the U.S. Department of Energy. Although annual emissions from industrial countries are currently twice as high as from developing ones, the latter are on target to eclipse the industrial world by 2020.

10. Energy

The global demand for energy grew twice as fast as population over the last 50 years. By 2050, developing countries will be consuming much more energy as their populations increase and become more affluent.

When per capita energy consumption is high, even a low rate of population growth can have significant effects on total energy demand. In the United States, for example, the 75 million people projected to be added to the population by 2050 will boost energy demand to roughly the present energy consumption of Africa and Latin America.

World oil production per person reached a high in 1979 and has since declined by 23%. Estimates of when global oil production will peak range from 2011 to 2025, signaling future price shocks as long as oil remains the world's dominant fuel.

In the next 50 years, the greatest growth in energy demands will come where economic activity is projected to be highest: in Asia, where consumption is expected to grow 361%, though population will grow by just 50%. Energy consumption is also expected to increase in Latin America (by 340%) and Africa (by 326%). In all three regions, local pressures on energy sources, ranging from forests to fossil fuel reserves to waterways, will be significant.

11. Waste

Local and global environmental effects of waste disposal will likely worsen as 3.4 billion people are added to the world's population over the next half century. Prospects for providing access to sanitation are dismal in the near to medium term.

A growing population increases society's disposal headaches—the garbage, sewage, and industrial waste that must be gotten rid of. Even where population is largely stable—the case in many industrialized countries—the flow of waste products into landfills and waterways generally continues to increase. Where high rates of economic and population growth coincide in coming decades, as they will in many developing countries, mountains of waste will likely pose difficult disposal challenges for municipal and national authorities.

Economic Impacts and Quality of Life

12. Jobs

Since 1950, the world's labor force has more than doubled—from 1.2 billion people to 2.7 billion—outstripping the growth in job creation. Over the next half century, the world will need to create more than 1.9 billion jobs in the developing world just to maintain current levels of employment.

While population growth may boost labor demand (through economic activity and demand for goods), it will most definitely boost labor supply. As the balance between the demand and supply of labor is tipped by population growth, wages tend to decrease. And in a situation of labor surplus, the quality of jobs may not improve as fast, for workers will settle for longer hours, fewer benefits, and less control over work activities.

As the children of today represent the workers of tomorrow, the interaction between population growth and jobs is most acute in nations with young populations. Nations with more than half their population below the age of 25 (e.g., Peru, Mexico, Indonesia, and Zambia) will feel the burden of this labor flood. Employment is the key to obtaining food, housing, health services, and education, in addition to providing self-respect and self-fulfillment.

13. Income

Incomes have risen most rapidly in developing countries where population has slowed the most, including South Korea, Taiwan, China, Indonesia, and Malaysia. African countries, largely ignoring family planning, have been overwhelmed by the sheer numbers of young people who need to be educated and employed.

If the world cannot simultaneously convert the economy to one that is environmentally sustainable and move to a lower population trajectory, economic decline will be hard to avoid.

14. Housing

The ultimate manifestation of population growth outstripping the supply of housing is homelessness. The United Nations estimates that at least 100 million of the world's people—roughly equal to the population of Mexico—have no home; the number tops 1 billion if squatters and others with insecure or temporary accommodations are included.

Unless population growth can be checked worldwide, the ranks of the homeless are likely to swell dramatically.

15. Education

In nations that have increasing child-age populations, the base pressures on the educational system will be severe. In the world's 10 fastest-growing countries, most of which are in Africa and the Middle East, the child-age population will increase an average of 93% over the next 50 years. Africa as a whole will see its school-age population grow by 75% through 2040.

If national education systems begin to stress lifelong learning for a rapidly changing world of the twenty-first century, then extensive provision for adult education will be necessary, affecting even those countries with shrinking child-age populations.

Such a development means that countries which started population-stabilization programs earliest will be in the best position to educate their entire citizenry.

16. Urbanization

Today's cities are growing faster: It took London 130 years to get from 1 million to 8 million inhabitants; Mexico City made this jump in just 30 years. The world's urban population as a whole is growing by just over 1 million people each week. This urban growth is fed by the natural increase of urban populations, by net migration from the countryside, and by villages or towns expanding to the point where they become cities or they are absorbed by the spread of existing cities.

If recent trends continue, 6.5 billion people will live in cities by 2050, more than the world's total population today.

Actions for Slowing Growth

As we look to the future, the challenge for world leaders is to help countries maximize the prospects for achieving sustainability by keeping both birth and death rates low. In a world where both grain output and fish catch per person are falling, a strong case can be made on humanitarian grounds to stabilize world population.

What is needed is an all-out effort to lower fertility, particularly in the high-fertility countries, while there is still time. We see four key steps in doing this:

Assess Carrying Capacity Every national government needs a carefully articulated and adequately supported population policy; one that takes into account the country's carrying capacity at whatever consumption level citizens decide on. Without long-term estimates of available cropland, water for irrigation, and likely yields, governments are simply flying blind into the future, allowing their nations to drift into a world in which population growth and environmental degradation can lead to social disintegration.

Fill the Family-Planning Gap This is a high-payoff area. In a world where population pressures are mounting, the inability of 120 million of the world's women to get family-planning services is inexcusable. A stumbling block: At the International Conference on Population and Development in Cairo in 1994, the industrialized countries agreed to pay one-third of the costs for reproductive-health services in developing countries. So far they have failed to do so.

Educate Young Women Educating girls is a key to accelerating the shift to smaller families. In every society for which data are available, the more education women have, the fewer children they have. Closely related to the need for education of young females is the need to provide equal opportunities for women in all phases of national life.

Have Just Two Children If we are facing a population emergency, it should be treated as such. It may be time for a campaign to convince couples everywhere to restrict their childbearing to replacement-level fertility.

NO



Stephen Moore

Body Count: Population and Its Enemies

At a Washington reception, the conversation turned to the merits of small families. One woman volunteered that she had just read Bill McKibben's environmental tome, *Maybe One*, on the benefits of single-child families. She claimed to have found it "ethically compelling." I chimed in: "Even one child may put too much stress on our fragile ecosystem. McKibben says 'maybe one.' I say, why not none?" The response was solemn nods of agreement, and even some guilt-ridden whispers between husbands and wives.

McKibben's acclaimed book is a tribute to the theories of British economist Thomas Malthus. Exactly 200 years ago, Malthus—the original dismal scientist—wrote that "the power of population is . . . greater than the power in the earth to produce subsistence for man." McKibben's application of this idea was to rush out and have a vasectomy. He urges his fellow greens to do the same—to make single-child families the "cultural norm" in America.

Now, with the United Nations proclaiming that this month we will surpass the demographic milestone of 6 billion people, the environmental movement and the media can be expected to ask: Do we really need so many people? A recent AP headline lamented: "Century's growth leaves Earth crowded—and noisy." Seemingly, Malthus has never had so many apostles.

In a rational world, Malthusianism would not be in a state of intellectual revival, but thorough disrepute. After all, virtually every objective trend is running in precisely the opposite direction of what the widely acclaimed Malthusians of the 1960s—from Lester Brown to Paul Ehrlich to the Club of Rome—predicted. Birth rates around the world are lower today than at any time in recorded history; Global per capita food production is much higher than ever before. The "energy crisis" is now such a distant memory that oil is virtually the cheapest liquid on earth. These facts, collectively, have wrecked the credibility of the population-bomb propagandists.

Yet the population-control movement is gaining steam. It has won the hearts and wallets of some of the most influential leaders inside and outside government today. Malthusianism has evolved into a multi-billion-dollar industry and a political juggernaut.

Today, through the U.S. Agency for International Development (AID), the State Department, and the World Bank, the federal government pumps

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some 350 million tax dollars a year into population-containment activities. The Clinton administration would be spending at least twice that amount if not for the efforts of two Republican congressmen, Chris Smith of New Jersey and Todd Tiahrt of Kansas, who have managed to cut off funding for the most coercive birth-reduction initiatives.

Defenders of the U.N. Population Fund (UNFPA) and other such agencies insist that these programs "protect women's reproductive freedom," "promote the health of mothers," and "reduce infant mortality." Opponents of international "family planning," particularly Catholic organizations, are tarred as anti-abortion fanatics who want to deprive poor women of safe and cheap contraception. A 1998 newspaper ad by Planned Parenthood, entitled "The Right Wing Coup in Family Planning," urged continued USAID funding by proclaiming: "The very survival of women and children is at stake in this battle." Such rhetoric is truly Orwellian, given that the entire objective of government-sponsored birth-control programs has been to invade couples' "reproductive rights" in order to limit family size. The crusaders have believed, from the very outset, that coercion is necessary in order to restrain fertility and avert global eco-collapse.

The consequences of this crusade are morally atrocious. Consider the one-child policy in China. Some 10 million to 20 million Chinese girls are demographically "missing" today because of "sex-selective abortion of female fetuses, female infant mortality (through infanticide or abandonment), and selective neglect of girls ages 1 to 4," according to a 1996 U.S. Census Bureau report. Girls account for over 90 percent of the inmates of Chinese orphanages—where children are left to die from neglect.

Last year, Congress heard testimony from Gao Xiao Duan, a former Chinese administrator of the one-couple, one-child policy. Gao testified that if a woman in rural China is discovered to be pregnant without a state-issued "birth-allowed certificate," she typically must undergo an abortion—no matter how many months pregnant she is. Gao recalled, "Once I found a woman who was nine months' pregnant but did not have a birth-allowed certificate. According to the policy, she was forced to undergo an abortion surgery. In the operating room, I saw how the aborted child's lips were sucking, how its limbs were stretching. A physician injected poison into its skull, and the child died and was thrown into the trash can."

The pro-choice movement is notably silent about this invasion of women's "reproductive rights." In 1989, Molly Yard, of the National Organization for Women, actually praised China's program as "among the most intelligent in the world." Stanford biologist Paul Ehrlich, the godfather of today's neo-Malthusian movement, once trumpeted China's population control as "remarkably vigorous and effective." He has congratulated Chinese rulers for their "grand experiment in the management of population."

Last summer, Lisa McRee of *Good Morning America* started an interview with Bill McKibben by asking, in all seriousness, "Is China's one-child policy a good idea for every country?" She might as well have asked whether every country should have gulags.

Gregg Easterbrook, writing in the Nov. 23, 1998 *New Republic*, correctly lambasted China for its "horrifying record on forced abortion and sterilization." But even the usually sensible Easterbrook offered up a limp apology for the one-child policy, writing that "China, which is almost out of arable land, had little choice but to attempt some degree of fertility constraint." Hong Kong has virtually no arable land, and 75 times the population density of mainland China, but has one of the best-fed populations in the world.

These coercive practices are spreading to other countries. Brian Clowes writes in the *Yale Journal of Ethics* that coercion has been used to promote family planning in at least 35 developing countries. Peru has started to use sterilization as a means of family planning, and doctors have to meet sterilization quotas or risk losing their jobs. The same is true in Mexico.

In disease-ridden African countries such as Nigeria and Kenya, hospitals often lack even the most rudimentary medical care, but are stocked to the rafters with boxes of contraceptives stamped "UNFPA" and "USAID." UNFPA boasts that, thanks to its shipments, more than 80 percent of the women in Haiti have access to contraceptives; this is apparently a higher priority than providing access to clean water, which is still unavailable to more than half of the Haitian population.

Population-control groups like Zero Population Growth and International Planned Parenthood have teamed up with pro-choice women in Congress—led by Carolyn Maloney of New York, Cynthia McKinney of Georgia, and Connie Morella of Maryland—to try to secure \$60 million in U.S. funding for UNFPA over the next two years. Maloney pledges, "I'm going to do whatever it takes to restore funding for [UNFPA]" this year.

Support for this initiative is based on two misconceptions. The first is the excessively optimistic view that (in the words of a *Chicago Tribune* report) "one child zealotry in China is fading." The Population Research Institute's Steve Mosher, an authority on Chinese population activities, retorts, "[T]his fantasy that things are getting better in China has been the constant refrain of the one-child apologists for at least the past twenty years." In fact, after UNFPA announced in 1997 that it was going back into China, state councilor Peng Peiyun defiantly announced, "China will not slacken our family-planning policy in the next century."

The second myth is that UNFPA has always been part of the solution, and has tried to end China's one-child policy. We are told that it is pushing Beijing toward more "female friendly" family planning. This, too, is false. UNFPA has actually given an award to China for its effectiveness in population-control activities—activities far from female-friendly. Worse, UNFPA's executive director, Nafis Sadik, is, like her predecessors, a longtime apologist for the China program and even denies that it is coercive. She is on record as saying—falsely—that "the implementation of the policy is purely voluntary. There is no such thing as a license to have a birth."

Despite UNFPA's track record, don't be surprised if Congress winds up re-funding it. The past 20 years may have demonstrated the intellectual bankruptcy of the population controllers, but their coffers have never been more flush.

American billionaires, past and present, have devoted large parts of their fortunes to population control. The modern-day population-control movement dates to 1952, when John D. Rockefeller returned from a trip to Asia convinced that the teeming masses he saw there were the single greatest threat to the earth's survival. He proceeded to divert hundreds of millions of dollars from his foundation to the goal of population stabilization. He was followed by David Packard (co-founder of Hewlett-Packard), who created a \$9 billion foundation whose top priority was reducing world population. Today, these foundations are joined by organizations ranging from Zero Population Growth (ZPG) to Negative Population Growth (which advocates an optimal U.S. population size of 150 million—120 million fewer than now) to Planned Parenthood to the Sierra Club. The combined budget of these groups approaches \$1 billion.

These organizations tend to be extremist. Take ZPG. Its board of directors passed a resolution declaring that "parenthood is not an inherent right but a privilege" granted by the state, and that "every American family has a right to no more than two children."

"Population growth is analogous to a plague of locusts," says Ted Turner, a major source of population-movement funding. "What we have on this earth today is a plague of people. Nature did not intend for there to be as many people as there are." Turner has also penned "The Ten Commandments," which include "a promise to have no more than two children or no more than my nation suggests." He recently reconsidered his manifesto, and now believes that the voluntary limit should be even lower—just one child. In Turner's utopia, there are no brothers, sisters, aunts, or uncles. Turner's \$1 billion donation to the U.N. is a pittance compared with the fortunes that Warren Buffett (net worth \$36 billion) and Bill Gates (net worth roughly \$100 billion) may bestow on the cause of population control. Buffett has announced repeatedly that he views overpopulation as one of the greatest crises in the world today. Earlier this year, Gates and his wife contributed an estimated \$7 billion to their foundation, of which the funding of population programs is one of five major initiatives.

This is a massive misallocation of funds, for the simple reason that the overpopulation crisis is a hoax. It is true that world population has tripled over the last century. But the explanation is both simple and benign: First, life expectancy—possibly the best overall numerical measure of human well-being—has almost doubled in the last 100 years, and the years we are tacking on to life are both more active and more productive. Second, people are wealthier—they can afford better health care, better diets, and a cleaner environment. As a result, infant-mortality rates have declined nearly tenfold in this century. As the late Julian Simon often explained, population growth is a sign of mankind's greatest triumph—our gains against death.

We are told that this good news is really bad news, because human numbers are soon going to bump up against the planet's "carrying capacity." Pessimists worry that man is procreating as uncontrollably as John B. Calhoun's famous Norwegian rats, which multiply until they die off from lack of sustenance. Bill McKibben warns that "we are adding another

New York City every month, a Mexico every year, and almost another India every decade."

But a closer look shows that these fears are unfounded. Fact: If every one of the 6 billion of us resided in Texas, there would be room enough for every family of four to have a house and one-eighth of an acre of land—the rest of the globe would be vacant. (True, if population growth continued, some of these people would eventually spill over into Oklahoma.)

In short, the population bomb has been defused. The birth rate in developing countries has plummeted from just over 6 children per couple in 1950 to just over 3 today. The major explanation for smaller family sizes, even in China, has been economic growth. The Reaganites were right on the mark when, in 1984, they proclaimed this truth to a distraught U.N. delegation in Mexico City: (The policy they enunciated has been memorably expressed in the phrase "capitalism is by far the best contraceptive.") The fertility rate in the developed world has fallen from 3.3 per couple in 1950 to 1.6 today. These low fertility rates presage declining populations. If, for example, Japan's birth rate is not raised at some point, in 500 years there will be only about 15 Japanese left on the planet.

Other Malthusian worries are similarly wrongheaded. Global food prices have fallen by half since 1950, even as world population has doubled. (The dean of agricultural economists, D. Gale Johnson of the University of Chicago, has documented "a dramatic decline in famines" in the last 50 years. Fewer than half as many people die of famine each year now than did a century ago—despite a near-quadrupling of the population. Enough food is now grown in the world to provide every resident of the planet with almost four pounds of food a day. In each of the past three years, global food production has reached new heights.

Overeating is fast becoming the globe's primary dietary malady. "It's amazing to say, but our problem is becoming overnutrition," Ho Zhiqian, a Chinese nutrition expert, recently told *National Geographic*. "Today in China obesity is becoming common."

Millions are still hungry, and famines continue to occur—but these are the result of government policies or political malice, not inadequate global food production. As the International Red Cross has reported, "the loss of access to food resources [during famines] is generally the result of intentional acts" by governments.

Even if the apocalyptic types are correct and population grows to 12 billion in the 21st century, so what? Assuming that human progress and scientific advancement continue as they have, and assuming that the global march toward capitalism is not reversed, those 12 billion people will undoubtedly be richer, healthier, and better fed than the 6 billion of us alive today. After all, we 6 billion are much richer, healthier, and better fed than the 1 billion who lived in 1800 or the 2 billion alive in 1920.

The greatest threat to the planet is not too many people, but too much statism. The Communists, after all, were the greatest polluters in history. Economist Mikhail Bernstam has discovered that market-based economies are about two to three times more energy-efficient than Communist,

socialist, Maoist, or "Third Way" economies. Capitalist South Korea has three times the population density of socialist North Korea, but South Koreans are well fed while 250,000 North Koreans have starved to death in the last decade.

Government-funded population programs are actually counterproductive, because they legitimize command-and-control decision-making. As the great development economist Alan Rufus Waters puts it, "Foreign aid used for population activities gives enormous resources and control apparatus to the local administrative elite and thus sustains the authoritarian attitudes corrosive to the development process."

This approach usually ends up making poor people poorer, because it distracts developing nations from their most pressing task, which is market reform. When Mao's China established central planning and communal ownership of agriculture, tens of millions of Chinese peasants starved to death. In 1980, after private ownership was established, China's agricultural output doubled in just ten years. If Chinese leaders over the past 30 years had concentrated on rapid privatization and market reform, it's quite possible that economic development would have decreased birth rates every bit as rapidly as the one-child policy.

The problem with trying to win this debate with logic and an arsenal of facts is that modern Malthusianism is not a scientific theory at all. It's a religion, in which the assertion that mankind is overbreeding is accepted as an article of faith. I recently participated in a debate before an anti-population group called Carrying Capacity Network, at which one scholar informed me that man's presence on the earth is destructive because *Homo sapiens* is the only species without a natural predator. It's hard to argue with somebody who despairs because mankind is alone at the top of the food chain.

At its core, the population-control ethic is an assault on the principle that every human life has intrinsic value. Malthusian activists tend to view human beings neither as endowed with intrinsic value, nor even as resources, but primarily as consumers of resources. No wonder that at last year's ZPG conference, the Catholic Church was routinely disparaged as "our enemy" and "the evil empire."

The movement also poses a serious threat to freedom. Decisions on whether to have children—and how many—are among the most private of all human choices. If governments are allowed to control human reproduction, virtually no rights of the individual will remain inviolable by the state. The consequence, as we have seen in China, is the debasement of human dignity on a grand scale.

Another (true) scene from a party: A radiant pregnant woman is asked whether this is her first child. She says, no, in fact, it is her sixth. Yuppies gasp, as if she has admitted that she has leprosy. To have three kids—to be above replacement level—is regarded by many as an act of eco-terrorism.

But the good news for this pregnant woman, and the millions of others who want to have lots of kids, is that the Malthusians are simply wrong. There is no moral, economic, or environmental case for small families. Period.

If some choose to subscribe to a voluntary one-child policy, so be it. But the rest of us—Americans, Chinese, and everybody else—don't need or want Ted Turner or the United Nations to tell us how many kids to have. Congress should not be expanding "international family planning" funding, but terminating it.

Congress may want to consider a little-known footnote of history. In time, Thomas Malthus realized that his dismal population theories were wrong. He awoke to the reality that human beings are not like Norwegian rats at all. Why? Because, he said, man is "impelled" by "reason" to solve problems, and not to "bring beings into the world for whom he cannot provide the means of support." Amazingly, 200 years later, his disciples have yet to grasp this lesson.





POSTSCRIPT

Do We Face a "Population Problem"?

Janet Raloff, in "Can Grain Yields Keep Pace?" *Science News* (August 16, 1997), notes that many experts believe that although there are genuine difficulties in continuing to produce a food supply that is adequate to feed a growing world population, it can be done. She quotes Gurdev S. Khush, the chief rice breeder at the International Rice Research Institute in Manila, Republic of the Philippines, as saying, "If we manage our resources properly and continue to put money into research, we should be able to meet world food needs for at least the next 30 years." On the other hand, Russell Hopfenberg and David Pimentel, "Human Population Numbers as a Function of Food Supply," *Environment, Development and Sustainability* (No. 3, 2001), say that population grows to meet its food supply. Increasing food production will therefore result in a larger population. To control population, we can either increase "food production and allow biological mechanisms such as malnutrition and disease to limit the population by means of an increased death rate [or] cap the increases in food production and thereby halt the increases in population by means of a reduced birth rate." Since developed nations have lower birth rates, others see the solution in relieving world poverty; see Frederick Turner, "Make Everybody Rich," *Independent Review* (Summer 2002).

Resources and population come together in the concept of "carrying capacity," defined very simply as the size of the population that the environment can support, or "carry," indefinitely, through both good years and bad. It is not the size of the population that can prosper in good times alone, for such a large population must suffer catastrophically when droughts, floods, or blights arrive or the climate warms or cools. It is a long-term concept, where "long term" means not decades or generations, nor even centuries, but millennia or more.

What is Earth's carrying capacity for human beings? It is surely impossible to set a precise figure on the number of human beings the world can support for the long run. As Joel E. Cohen discusses in *How Many People Can the Earth Support?* (W. W. Norton, 1996), estimates of Earth's carrying capacity range from under a billion to over a trillion. The precise number depends on our choices of diet, standard of living, level of technology, willingness to share with others at home and abroad, and desire for an intact physical, chemical, and biological environment, as well as on whether or not our morality permits restraint in reproduction and our political or religious ideology permits educating and empowering women. The key, Cohen stresses, is human choice, and the choices are ones we must make within the next

50 years. Phoebe Hall, "Carrying Capacity," *E Magazine* (March/April 2003), notes that even countries with large land areas and small populations, such as Australia and Canada, can be overpopulated in terms of resource availability.

Andrew R. B. Ferguson, in "Perceiving the Population Bomb," *World Watch* (July/August 2001), sets the maximum sustainable human population at about 2 billion. Sandra Postel, in the Worldwatch Institute's *State of the World 1994* (W. W. Norton, 1994), says, "As a result of our population size, consumption patterns, and technology choices, we have surpassed the planet's carrying capacity. This is plainly evident by the extent to which we are damaging and depleting natural capital" (including land and water).

Yet there is hope. The United Nations Development and Environment Programmes, with the World Bank and World Resources Institute, analyzed world ecosystems and concluded that although there are many signs of trouble, once overuse is controlled many ecosystems can recover. See *World Resources 2000-2001—People and Ecosystems: The Fraying Web of Life* (World Resources Institute, 2000).

