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Plan B: Building a New Future

As we look to the future, two questions loom large. Is civilizational decline under way? And how can we tell? Among the early social signs of possible decline are a widespread drop in life expectancy, growing numbers of hungry people, and a lengthening list of failed and failing states. For the first time in the modern era, life expectancy for a large segment of humanity—the 750 million people living in sub-Saharan Africa—has dropped precipitously, falling from 61 years to 48 years as a result of the HIV/AIDS epidemic.¹

Over the last half-century, the number of people suffering from hunger was declining, but recently this progress was reversed as the number rose from 826 million in 1998 to 852 million in 2002. With business as usual, the number of hungry will likely continue to rise, reinforcing concerns about food security. And now we have a new wildcard in the food security deck, the fast-growing conversion of foodstuffs, such as wheat, corn, soybeans, and sugarcane, into automotive fuel. As the number of ethanol distilleries and biodiesel refineries multiplies, this threat will expand. Could food supply be the weak link in our modern

civilization, as it was for the Sumerians, the Mayans, and the Easter Islanders?²

Perhaps the most disturbing recent development is the growing list of failed states. The *Foreign Policy* article discussed in Chapter 6 lists some 60 countries that have failed, are failing, or are at risk of failing. Governments are being overwhelmed by demographic and environmental forces. After decades of rapid population growth, many governments are suffering from demographic fatigue. With leaders unable to cope with evergrowing populations, environmental life-support systems are disintegrating and social services are breaking down.³

How many states have to fail before our global civilization fails? Each additional failed state further weakens the capacity of the international community to maintain stability in the monetary system, to control the spread of infectious diseases, and to deal with local famine threats. At some point, as the number of failing states multiplies, global systems begin to fail.

We know that sustaining progress depends on restructuring the global economy, shifting from a fossil-fuel-based, automobile-centered, throwaway economy to one based on renewable energy sources, a diverse transportation system, and a comprehensive reuse/recycle materials system. This can be done largely by restructuring taxes and subsidies. Sustaining progress also means eradicating poverty, stabilizing population, and restoring the earth's natural systems. Securing the additional public outlays needed to reach these goals depends on reordering fiscal priorities in response to the new threats to our security.

In this mobilization, the scarcest resource of all is time. The temptation is to reset the clock, but we cannot. Nature is the timekeeper.

Listening for Wake-up Calls

We are entering a new world. Of that there can be little doubt. What we do not know is whether it will be a world of decline and collapse or a world of environmental restoration and economic progress. Can the world mobilize quickly enough? Where will the wake-up calls come from? What form will they take? Will we hear them?

In the eyes of many, Hurricane Katrina was just such a wakeup call. Until recently, the most costly weather-related events on record were Hurricane Andrew, which struck Florida in 1992, and the flooding in China's Yangtze River basin in 1998, each causing an estimated \$30 billion in damage. When Hurricane Katrina hit the U.S. Gulf Coast in late summer 2005, devastating New Orleans, its estimated cost was \$200 billion—nearly seven times the previous record. Higher surface water temperatures helped make Katrina one of the most powerful storms ever to make landfall in the United States.⁴

In 1995, an intense heat wave in Chicago claimed more than 700 lives, focusing U.S. attention on climate change, but it was a minor event compared with the record 2003 heat wave in Europe that claimed 49,000 lives. France reported 14,800 deaths; Italy more than 18,000. Unfortunately this tragic loss of life was never adequately reported simply because the death toll numbers dribbled out over several months and at different times for each country. Just as the destruction from Hurricane Katrina was several times the previous record, so too the fatalities from this heat wave broke all previous fatality records by severalfold.⁵

Could a wake-up call take the form of a flood of environmental refugees? As noted earlier, political leaders in sub-Saharan Africa are talking about planting a 5-kilometer-wide and 7,000-kilometer-long belt of trees across the continent in front of the desert in an effort to stop its advance. Whether the African countries can establish a Great Green Wall, and do it quickly enough to halt the desert's advance, remains to be seen. If they fail, we are looking at millions of refugees as productive land turns to desert.⁶

In September 2005, scientists reported that the melting of ice in the Arctic may have reached a "tipping point." We may have unknowingly crossed one of nature's thresholds. According to one article, the team of scientists "believe global warming is melting Arctic ice so rapidly that the region is beginning to absorb more heat from the sun, causing the ice to melt still further and so reinforcing a vicious cycle of melting and heating." If the ice in the Arctic Sea melts and the region's climate continues to warm, the ice sheet covering Greenland, in some places a mile and a half thick, will eventually disappear. It would raise sea level by 23 feet, inundating many of the world's coastal cities and rice-growing river floodplains.⁷

If it becomes clear that we have set in motion a rise in sea

level that we cannot arrest or reverse, how will this affect the way we think about ourselves as individuals and as a society? Will we face a social fracturing between generations, between those who caused the rise in sea level and those who must deal with its consequences?

Climate change, whether it is natural or human-induced, is a source of social stress. Jared Diamond notes that drought figured prominently in the collapse and disappearance of the 600-year-old Anasazi civilization in the southwestern United States shortly after 1150. A shrinking food supply led to conflict and cannibalism in this earlier New World civilization. Three centuries later, the Norse settlement in Greenland collapsed and disappeared during a period of extreme cold. For our modern civilization, it is the rise in temperature that is generating social stress in the form of crop-shrinking heat waves, ice melting, rising seas, and more-destructive storms.⁸

Is the record price of oil in late 2005 an aberration or does it reflect something more fundamental—a failure to plan for the depletion of the world's oil reserves? Is it a result of system failure? If so, can the international community pull itself together to stabilize oil prices and avoid both a possible oil-based global economic depression and spreading conflict over access to remaining oil reserves?⁹

Are these wake-up calls? If so, they have not yet awakened us. Have we pushed the snooze button so we can sleep a while longer? Or are these issues just too complicated to comprehend? Are we being overwhelmed by complexity, as Joseph Tainter postulates in his book, *The Collapse of Complex Societies*, that some earlier civilizations were?¹⁰

This chapter is frustratingly difficult to write because it is not about what we need to do or how to do it, but rather about how to mobilize support to do it. How do we convince ourselves of the gravity and urgency of the situation we face? It is partly a matter of overcoming vested interests and social inertia, and partly a matter of raising public understanding of the threats facing civilization.

Facing many threats simultaneously means setting priorities. Terrorism is one of those threats. No question. But it is not even close to being the top threat facing our early twenty-first century civilization. Population growth, climate change, poverty,

spreading water shortages, rising oil prices, and a potential rise in food prices that could lead to unprecedented political instability are the leading threats.

New threats call for new priorities and new responses. Old priorities are hopelessly outmoded. Heavy investments in military power and sophisticated weapons systems, for instance, are of little use in dealing even with terrorism, much less climate change or aquifer depletion. Historically, it was aggressor nations building and concentrating military power that threatened the rest of the world. In contrast, today it is failing states, those that are disintegrating internally, that threaten future progress and stability.

In our new world, we need political leaders who can see the big picture, who understand the relationship between the economy and its environmental support systems. And since the principal advisors to governments are economists, we need economists who can think like ecologists. Unfortunately they are rare. Ray Anderson, founder and chairman of Atlanta-based Interface, a leading world manufacturer of industrial carpet, is especially critical of economics as it is being taught in many universities, noting that "we continue to teach economics students to trust the 'invisible hand' of the market, when the invisible hand is clearly blind to the externalities, and treats massive subsidies, such as a war to protect oil for the oil companies, as if the subsidies were deserved. Can we really trust a *blind* invisible hand to allocate resources rationally?"¹¹

Some point out that neo-classical economics does recognize external costs as something to be avoided. True. But do economics instructors tabulate those costs and analyze their effects on the earth's ecosystem and its capacity to sustain the economy? For example, how many economic courses teach that our fossil-fuel-based, automobile-centered, throwaway economy is simply not a viable economic model for the world? And that the biggest challenge the world faces is to build a new economy that will sustain economic progress?

A Wartime Mobilization

As we contemplate mobilizing to rescue a planet under stress and a civilization in trouble, we see both similarities and contrasts with the mobilization for World War II. In this earlier

mobilization, there was an economic restructuring, but it was temporary. Mobilizing to save civilization, in contrast, requires a permanent economic restructuring.

The U.S. entry into World War II is a fascinating case study in rapid mobilization. Initially, the United States resisted involvement in the war and responded only after it was directly attacked at Pearl Harbor on December 7, 1941. But respond it did. After an all-out commitment, the U.S. engagement helped turn the tide of war, leading the Allied Forces to victory within three-and-a-half years.¹²

In his State of the Union address on January 6, 1942, one month after the bombing of Pearl Harbor, President Roosevelt announced the country's arms production goals. The United States, he said, was planning to produce 45,000 tanks, 60,000 planes, 20,000 anti-aircraft guns, and 6 million tons of merchant shipping. He added, "Let no man say it cannot be done." ¹³

No one had ever seen such huge arms production numbers. But Roosevelt and his colleagues realized that the largest concentration of industrial power in the world at that time was in the U.S. automobile industry. Even during the Depression, the United States was producing 3 million or more cars a year. After his State of the Union address, Roosevelt met with automobile industry leaders and told them that the country would rely heavily on them to reach these arms production goals. Initially they wanted to continue making cars and simply add on the production of armaments. What they did not yet know was that the sale of private automobiles would soon be banned. From the beginning of April 1942 through the end of 1944, nearly three years, there were essentially no cars produced in the United States.¹⁴

In addition to a ban on the production and sale of cars for private use, residential and highway construction was halted, and driving for pleasure was banned. A rationing program was also introduced. Strategic goods—including tires, gasoline, fuel oil, and sugar—were rationed beginning in 1942. Cutting back on consumption of these goods freed up material resources to support the war effort.¹⁵

The year 1942 witnessed the greatest expansion of industrial output in the nation's history—all for military use. Wartime aircraft needs were enormous. They included not only fighters, bombers, and reconnaissance planes, but also the troop and

cargo transports needed to fight a war on two distant fronts. From the beginning of 1942 through 1944, the United States far exceeded the initial goal of 60,000 planes, turning out 229,600 aircraft, a fleet so vast it is hard even today to visualize it. Equally impressive, by the end of the war more than 5,000 ships were added to the 1,000 or so that made up the American Merchant Fleet in 1939.¹⁶

In her book *No Ordinary Time*, Doris Kearns Goodwin describes how various firms converted. A sparkplug factory was among the first to switch to the production of machine guns. Soon a manufacturer of stoves was producing lifeboats. A merry-go-round factory was making gun mounts; a toy company was turning out compasses; a corset manufacturer was producing grenade belts; and a pinball machine plant began to make armor-piercing shells.¹⁷

In retrospect, the speed of this conversion from a peacetime to a wartime economy is stunning. The harnessing of U.S. industrial power tipped the scales decisively toward the Allied Forces, reversing the tide of war. Germany and Japan, already fully extended, could not counter this effort. Winston Churchill often quoted his foreign secretary, Sir Edward Grey: "The United States is like a giant boiler. Once the fire is lighted under it, there is no limit to the power it can generate." ¹⁸

This mobilization of resources within a matter of months demonstrates that a country and, indeed, the world can restructure the economy quickly if it is convinced of the need to do so. Many people—although not yet the majority—are already convinced of the need for a wholesale economic restructuring. The purpose of this book is to convince more people of this need, helping to tip the balance toward the forces of change and hope.

Mobilizing to Save Civilization

Mobilizing to save civilization means restructuring the economy, restoring the economy's natural support systems, eradicating poverty, and stabilizing population. We have the technologies, economic instruments, and financial resources to do this. The United States, the wealthiest society that has ever existed, has the resources to lead this effort. Jeffrey Sachs of Columbia University's Earth Institute sums it up well: "The tragic irony of this moment is that the rich countries are so rich and

the poor so poor that a few added tenths of one percent of GNP from the rich ones ramped up over the coming decades could do what was never before possible in human history: ensure that the basic needs of health and education are met for all impoverished children in this world. How many more tragedies will we suffer in this country before we wake up to our capacity to help make the world a safer and more prosperous place not only through military might, but through the gift of life itself?"¹⁹

It is not possible to put a precise price tag on the changes needed to move our twenty-first century civilization off the overshoot-and-collapse path and onto a path that will sustain economic progress. What we can do, however, is provide some rough estimates of the scale of effort needed.

As discussed in Chapter 7, the additional external funding needed to achieve universal primary education in the more than 80 developing countries that require help, for instance, is conservatively estimated by the World Bank at \$12 billion per year. Funding for an adult literacy program based largely on volunteers will take an estimated additional \$4 billion annually. Providing for the most basic health care in developing countries is estimated at \$33 billion by the World Health Organization. The additional funding needed to provide reproductive health care and family planning services to all women in developing countries is less than \$7 billion a year.²⁰

Closing the condom gap by providing the additional 9.5 billion condoms needed to control the spread of HIV in the developing world and Eastern Europe requires \$2 billion—\$285 million for condoms and \$1.7 billion for AIDS prevention education and condom distribution. The cost of extending school lunch programs to the 44 poorest countries is \$6 billion. An estimated \$4 billion per year would cover the cost of assistance to preschool children and pregnant women in these countries. Altogether, the cost of reaching basic social goals comes to \$68 billion a year.²¹

As noted in Chapter 8, a poverty eradication effort that is not accompanied by an earth restoration effort is doomed to fail. Protecting topsoil, reforesting the earth, restoring oceanic fisheries, and other needed measures will cost an estimated \$93 billion of additional expenditures per year. The most costly activities, protecting biological diversity at \$31 billion and conserving soil on

cropland at \$24 billion, account for over half of the earth restoration annual outlay.

Combining social goals and earth restoration components into a Plan B budget yields an additional annual expenditure of \$161 billion, roughly one third of the current U.S. military budget or one sixth of the global military budget. (See Table 13–1.)²²

Unfortunately, the United States continues to focus on building an ever-stronger military, largely ignoring the threats posed by continuing environmental deterioration, poverty, and popu-

Table 13–1. Plan B Budget: Additional Annual Expenditures Needed to Meet Social Goals and to Restore the Earth

Goals	Funding
	(billion dollars)
Basic Social Goals	
Universal primary education	12
Adult literacy	4
School lunch programs for 44 poorest count	tries 6
Assistance to preschool children and pregna	ınt
women in 44 poorest countries	4
Reproductive health and family planning	7
Universal basic health care	33
Closing the condom gap	2
Total	68
Earth Restoration Goals	
Reforesting the earth	6
Protecting topsoil on cropland	24
Restoring rangelands	9
Stabilizing water tables	10
Restoring fisheries	13
Protecting biological diversity	31
Total	93
Grand Total	161

Source: See endnote 22.

lation growth. Its proposed defense budget for 2006, including \$50 billion for the military operations in Iraq and Afghanistan, brings the U.S. projected military expenditure to \$492 billion. (See Table 13–2.) Other North Atlantic Treaty Organization members spend \$209 billion a year on the military. Russia spends about \$65 billion, and China, \$56 billion. U.S. military spending is now roughly equal to that of all other countries combined. As the late Eugene Carroll, Jr., a retired admiral, astutely observed, "For forty-five years of the Cold War we were in an arms race with the Soviet Union. Now it appears we are in an arms race with ourselves." ²³

It is decision time. Like earlier civilizations that got into environmental trouble, we can decide to stay with business as usual and watch our modern economy decline and eventually

Table 13–2. Comparison of Military Budgets by Country and for the World with Plan B Budget

Country	Budget
	(billion dollars)
United States	492
Russia	65
China	56
United Kingdom	49
Japan	45
France	40
Germany	30
Saudi Arabia	19
India	19
Italy	18
All other	142
World Military Expenditure	975
Plan B Budget	161

Note: The U.S. number is the budget estimate for FY2006 (including the \$50 billion for military operations in Iraq and Afghanistan); Russia and China data are for 2003.

Source: See endnote 23.

collapse, or we can consciously move onto a new path, one that will sustain economic progress. In this situation, no action is actually a decision to stay on the decline-and-collapse path.

It is hard to find the words to convey the gravity of our situation and the momentous nature of the decision we are about to make. How can we convey the urgency of this moment in history? Will tomorrow be too late? Do enough of us care deeply enough to turn the tide now?

Will someone somewhere one day erect a tombstone for our civilization? If so, how will it read? It cannot say we did not understand. We do understand. It cannot say we did not have the resources. We do have the resources. It can only say we were too slow to respond to the forces undermining our civilization. Time ran out.

No one can argue today that we do not have the resources to eradicate poverty, stabilize population, and protect the earth's natural resource base. We can get rid of hunger, illiteracy, disease, and poverty, and we can restore the earth's soils, forests, and fisheries. Shifting one sixth of the world military budget to the Plan B budget would be more than adequate to move the world onto a path that would sustain progress. We can build a global community where the basic needs of all the earth's people are satisfied—a world that will allow us to think of ourselves as civilized.

This economic restructuring depends on tax restructuring, on getting the market to be ecologically honest. The benchmark of political leadership in all countries will be whether or not leaders succeed in restructuring the tax system as, for example, Germany and Sweden have done. This is the key to restructuring the energy economy—both to stabilize climate and to make the transition to the post-petroleum world.²⁴

It is easy to spend hundreds of billions in response to terrorist threats, but the reality is that the resources needed to disrupt a modern economy are small, and a U.S. Department of Homeland Security, however heavily funded, provides only minimal protection from suicidal terrorists. The challenge is not to provide a high-tech military response to terrorism, but to build a global society that is environmentally sustainable and equitable—one that restores hope for everyone. Such an effort would more effectively undermine the support for terrorism

than any increase in military expenditures, than any new weapons systems, however advanced.

As we look at the environmentally destructive trends that are undermining our future, the world is desperately in need of visible evidence that we can indeed turn things around at the global level. Fortunately, the steps to reverse destructive trends or to initiate constructive new trends are often mutually reinforcing or win-win solutions. For example, efficiency gains that reduce oil use also reduce carbon emissions and air pollution. Steps to eradicate poverty simultaneously help eradicate hunger and stabilize population. Reforestation fixes carbon, increases aquifer recharge, and reduces soil erosion. Once we get enough trends headed in the right direction, they will often reinforce each other.

What the world needs now is a major success story in reducing carbon emissions and dependence on oil to bolster hope in the future. If the United States, for instance, were to decide to replace the existing fleet of inefficient gasoline-burning vehicles with super-efficient gas/electric hybrids over the next 10 years, gasoline use could easily be cut in half. Beyond this, a gas/electric hybrid with an additional storage battery and a plug-in capacity sets the stage for using electricity for short distance driving, such as the daily commute or grocery shopping. Then, as suggested in Chapter 10, if we invest in thousands of wind farms, Americans could do most of their short-distance driving essentially with wind energy, dramatically reducing pressures on the world's oil supplies.²⁵

With many U.S. automobile assembly lines idled, it would be a relatively simple matter to retool some of them to produce wind turbines, enabling the country to quickly harness its vast wind energy potential. This would be a rather modest initiative compared with the World War II restructuring, but it would help the world to see that restructuring an economy is entirely doable and that it can be done quickly, profitably, and in a way that enhances national security by reducing dependence on vulnerable oil supplies. Globally, it would help slow the potentially disruptive rise in oil prices. Beyond this, it would reduce carbon emissions, helping to stabilize climate. And, most important, it would restore public confidence in government.

A Call to Greatness

History judges political leaders by whether or not they respond to the great issues of their time. For today's leaders, that issue is how to move the global economy onto an environmentally sound path. We need a national political leader to step forward, an environmental Churchill, to rally the world around this mobilization.

Following the terrorist attacks on the World Trade Center and the Pentagon on September 11, 2001, several world leaders suggested a twenty-first century variation of the Marshall Plan to deal with poverty and its symptoms, arguing that in an increasingly integrated world, abject poverty and great wealth cannot coexist. Gordon Brown, U.K. Chancellor of the Exchequer, notes that, "Like peace, prosperity was indivisible and to be sustained, it had to be shared." Brown sees a Marshall Plan–like initiative not as aid in the traditional sense, but as an investment in the future. ²⁶

French President Jacques Chirac, a political conservative, told the Earth Summit in Johannesburg in September 2002 that "the world needed an international tax to fight world poverty." He suggested a tax on airplane tickets, carbon emissions, or international currency trading. To illustrate his commitment, Chirac announced that over the next five years France would double its development aid, reaching the internationally agreed upon goal of devoting 0.7 percent of gross domestic product to aid. Going beyond economic issues, he also suggested the creation of a world environment organization to coordinate efforts to build an environmentally sustainable economy.²⁷

The urgency of the situation we are now in means that individual countries will simply have to take initiatives on such things as reducing carbon emissions without waiting for a new international agreement to be negotiated. It took the better part of a decade to negotiate the grossly inadequate Kyoto Protocol. We no longer have time for prolonged negotiations.²⁸

In 1999, when the German government decided to launch a tax restructuring that would raise taxes on energy use and reduce those on income, a step designed to both reduce carbon emissions and increase employment, its leaders did not insist that the rest of the world or even other European countries agree to do it. They did it because they thought it was the right

thing to do for Germany. If countries take strong steps to reverse the trends undermining our future, other countries are certain to follow. At this point in history, the best way to lead is by doing.²⁹

Similarly, when Sweden decided on an even more basic environmentally guided restructuring of its tax system, it did not insist that others also do so. It acted on its own and decisively, providing an example for other countries.³⁰

In the United States, frustration with Washington's decision to ignore the Kyoto Protocol has led mayors of more than 180 cities to band together to honor the Protocol's goals of cutting carbon emissions 7 percent below the 1990 level over the next decade. In early June 2005, Fred Pearce wrote in the *New Scientist*, "Last month, in the boldest repudiation of a national government yet, a group of American mayors swept aside the Bush administration's refusal to cut carbon emissions." Among the cities were some of the country's largest: Los Angeles, Denver, and New York. Initiatives to achieve the carbon cutting goals are numerous and vary widely among cities. In Salt Lake City, the city authority is buying wind-generated electricity. New York City is converting its municipal motor fleet to gas-electric hybrid vehicles.³¹

A revolt is also under way at the state level. Nine states in the northeastern United States are negotiating a pact to reduce carbon emissions from power plants. State legislatures elsewhere in the country are adopting renewable portfolio standards, which establish a minimal amount of future electricity that must come from renewable energy sources. Among them are California, Colorado, Iowa, Minnesota, New York, Pennsylvania, Texas, and Wisconsin.³²

Paralleling the need for political leadership is the need for media leadership. Given the urgency of action, and of mobilizing support for these actions, the world faces an unprecedented public education challenge. Turning the tide depends on the communications media rising to the occasion to raise public awareness about the gravity of our situation and the urgency of responding to it. Only the communications media can disseminate information on the scale needed and in the time available. No other institution has this capacity.

This position of the media industry is remarkably similar to

that of the U.S. automobile industry in World War II. Like the auto industry some 60 years ago, this is not a responsibility that publishers and editors have asked for or, indeed, that they necessarily want to assume. But there is no alternative. If the communications media worldwide do not take the lead in raising public environmental understanding, the current mobilization will likely fail. We are facing a situation totally different from any faced before, one that requires an entirely new response.

On January 1, 2005, the *New York Times* took a step in this direction when it devoted four fifths of its op-ed page to a piece by Jared Diamond, based on his book *Collapse: How Societies Choose to Fail or Succeed.* Diamond reflected on the lessons we could draw from earlier civilizations that, like ours, had moved onto an economic path that was environmentally unsustainable.³³

What Diamond learned in researching this book was that moving off the decline-and-collapse path back onto an economic path that is environmentally sustainable is not always easy. Some civilizations are able to read the warning signs and change course quickly. Others fail to do so and collapse.³⁴

This research makes it clear that environmental mismanagement, if it continues long enough, leads to civilizational collapse. Diamond's article helped launch a public dialogue about the environmental parallels between our contemporary global civilization and the earlier civilizations discussed in the book.

Nongovernmental environmental groups are also answering the call. By selecting Wangari Maathai for the 2004 Peace Prize, the Nobel Peace Prize committee was recognizing grassroots environmental leadership at its best. Nearly 30 years ago, Maathai founded the Green Belt Movement, an organization that mobilized people at the local level to plant some 30 million trees in Kenya. As Geoffrey Dabelko wrote in *Grist*, the movement mobilized thousands of women, offering them empowerment, education, and even family planning. In 2002, Maathai was elected to Parliament and was shortly thereafter appointed Deputy Minister of Environment by the new government.³⁵

Corporate leaders are also getting involved. Ted Turner, founder of CNN, broke new ground for individual philanthropy when he announced in 1997 a gift of \$1 billion to the United Nations to support population stabilization, environmental protection, and the provision of health care. He created the UN

Foundation to serve as a vehicle through which the resources could be transferred. Turner could have waited until his death to leave a bequest for the earth, but given the urgency of the situation the world was facing, he argued that billionaires needed to respond now before problems become unmanageable.³⁶

Turner undoubtedly influenced Bill Gates, founder of Microsoft, as well as other newly minted billionaires. Channeling his wealth as the world's richest individual into a foundation and allocating it to improve health in developing countries, including initiatives ranging from massive childhood vaccinations to curbing the HIV epidemic, Gates is saving millions of lives.³⁷

There is a growing sense among the more thoughtful political leaders that business as usual is no longer a viable option, that unless we respond to the environmental threats to our twenty-first century civilization, we are in trouble. The prospect of failing states is growing as mega-threats such as the HIV epidemic, hydrological poverty, and land hunger threaten to overwhelm countries on the lower rungs of the global economic ladder.

You and Me

One of the questions I am frequently asked when I am speaking in various countries is, Given the environmental problems that the world is facing, can we make it? That is, can we avoid economic decline and civilizational collapse? My answer is always the same: it depends on you and me, on what you and I do to reverse these trends. It means becoming politically active. Saving our civilization is not a spectator sport.

We have moved into this new world so rapidly that we have not yet fully grasped the meaning of what is happening. Traditionally, concern for our children has translated into ensuring their health care and getting them the best education possible. But if we do not act quickly to reverse the deterioration of the earth's environmental systems, eradicate poverty, and stabilize population, their world will be declining economically and disintegrating politically. Today, securing our children's future means not only investing in their education and health care, but also investing in a program to reverse the trends that are undermining their future.

As individuals, we should continue our memberships in environmental and population organizations. We need to improve local recycling programs. We need to vote with our pocket-books. For example, buying Green Power certificates helps drive investment in renewable energy. We need to do all the things we are now doing to protect the environment. But they are not enough. We have been doing these things for the last 35 years. We have won a lot of local battles, but we are losing the war.

The two overriding challenges are to restructure taxes and reorder fiscal priorities. Saving civilization means restructuring the economy—and at wartime speed. It means restructuring taxes to get the market to tell the ecological truth. And it means reordering fiscal priorities to get the resources needed to restore the earth, eradicate poverty, and stabilize population. Write or e-mail your elected representative about the need for tax restructuring to create an honest market. Remind him or her that corporations that left costs off the books appeared to prosper in the short run, only to collapse in the longer run.

Or better yet, meet with your elected representatives to discuss why we need to raise environmental taxes and reduce income taxes. Work with like-minded friends and associates toward this goal. Put together a delegation to meet with your elected representative. Feel free to download the information on tax restructuring in the preceding chapter from our Web site to use in these efforts. If we cannot restructure the tax system to enable the market to tell the truth, we almost certainly will not make it.

Let your political representatives know that a world spending nearly \$1 trillion a year for military purposes is simply out of sync with reality in a situation where the future of civilization is in question. Ask them if \$161 billion per year is an unreasonable expenditure to save civilization. Ask them if diverting one sixth of the global military budget to saving civilization is too costly.

If you like to write, try your hand at an op-ed piece for your local newspaper on the need to raise taxes on environmentally destructive activities and offset this with a lowering of income taxes. Try a letter to the editor. Organize a letter writing campaign, urging people to contact their elected representatives and local media outlets on this issue.

Push for the inclusion of poverty eradication, family planning, and reforestation in international assistance programs. Lobby for an increase in these appropriations and a cut in military appropriations, pointing out that advanced weapons systems are useless in dealing with the new threats to our civilization. Someone needs to speak on behalf of our children and grandchildren because it is their world and their futures that are at stake.

Educate yourself on environmental issues and on what happened to earlier civilizations that also found themselves in environmental trouble—and help your friends to become better informed. On this subject I recommend *Collapse* by Jared Diamond and *A Short History of Progress* by Ronald Wright. To understand the case for eradicating poverty, read "Can Extreme Poverty Be Eliminated?" by Jeffrey Sachs in the September 2005 issue of *Scientific American*. To gain a sense of the enormous potential for boosting energy efficiency, read "More Profit with Less Carbon" by Amory Lovins in the same issue.³⁸

Remember, challenging though the situation may be, there are signs of the new economy emerging all over the world. We see them in the wind farms of Europe, the fast-growing U.S. fleet of gas-electric hybrid cars, the reforested hills of South Korea, the family planning program of Iran, the massive eradication of poverty in China, and the solar rooftops of Japan.

What we need to do is doable. Sit down and map out your own personal plan and timetable for what you want to do to move the world from a path headed toward economic decline to one of sustained economic progress. Sketch out a plan for the next year of the things you want to do, how you hope to do them, and whom you can work with to achieve the only goal that really counts—the preservation of civilization. What could be more rewarding?

The choice is ours—yours and mine. We can stay with business as usual and preside over an economy that continues to destroy its natural support systems until it destroys itself, or we can adopt Plan B and be the generation that changes direction, moving the world onto a path of sustained progress. The choice will be made by our generation, but it will affect life on earth for all generations to come.