Civilization Does Not Have to Fall

Our world cannot sustain itself on its present path of mass consumption and ecological devastation. The combination of rising food prices, climate change, population expansion, illiteracy, and disease are gathering force and will unleash havoc unless we act now to reverse them. Author Lester Brown lays out a monumental — yet very achievable — plan for attaining this goal.


Our civilization is headed the way of the Mayans, the Sumerians, and other powerful societies that collapsed when their consumption outpaced their ecosystems’ ability to sustain it, warns Lester Brown in Plan B 4.0: Mobilizing to Save Civilization. He calls for decisive, globally coordinated action to achieve sustainability.

Brown feels that our global economy is fatally shortsighted. It favors the near term over the long term and produces goods en masse without calculating the indirect costs — human and ecological both — of producing them. It also lacks respect for the actual carrying capacities of natural systems which it routinely overburdens with uncontrolled growth of population centers.

The environment attests to the economy’s mistakes: Water tables are falling year after year in China, the United States, and Yemen, among other countries, due to over-pumping and a warming climate.

Overfishing has put more than three-quarters of the world’s fisheries in danger of exhaustion.

The diversion of grain to produce biofuels, combined with declines in arable farmland and a profusion of deadly storms has led to continuing surges in food prices since 2006. This has aggravated hunger around the globe and will likely push the world’s number of malnourished people to 1.2 billion or more by 2015.

“Ever since civilization began, each generation has left a planet similar to the one it inherited. Our generation may be the first to abandon that tradition,” Brown warns.

Further dangers come from failed and failing states, such as Somalia, Sudan, and Afghanistan. They present dangers to international security: refugee populations, spillover of conflicts into neighboring countries, and disaffected populations that are easily recruited by terrorists. As the numbers of failing states grows, international problems will become bigger and harder to manage. At some point, it will disrupt trade and economic progress. It will also elevate global debt, since failing or failed states’ governments cannot collect taxes or pay their global financial obligations.

Brown notes that “Whereas world leaders in the past used to fear the concentration of too much power in one state, they now worry more about the absence of it.”

Business as usual can not continue for much longer. Our civilization is currently headed for destruction. Survival depends on mitigating hunger and resuscitating failed states. These are lofty goals; we will only be able to achieve them with a wartime-like mobilization. This mobilization is “Plan B,” and, its author tells us, it is our only hope.

Brown’s proposal to confront all of these problems and move the world toward sustainable consumption and food security has four compo-
nents: cutting net carbon dioxide emissions 80% by 2020, stabilizing the world population at 8 billion or lower, eradicating poverty, and restoring the earth’s natural systems.

Cutting carbon emissions can be achieved by dramatically raising energy efficiency worldwide, investing in renewable energy resources, ending deforestation, and planting billions of new trees. The goal is to close all coal-fired plants and replace them with wind farms and other renewables.

The transportation systems will all be electrified: plug-in hybrids, electric cars, and intercity rail.

Population is another urgent issue, since most population growth is taking place in developing countries, whose resource bases are seriously depleted and where vulnerable communities often suffer from hunger. Global support systems are collapsing and will not be able to provide for significantly more people. Unless we preempt it by reducing fertility and family sizes, population growth will only be checked by rising mortality.

Relieving poverty is more than simply the humane thing to do. It is also a prerequisite for transitioning to smaller family sizes and for saving the environment.

The natural systems that support mankind need restoration in the form of soil conservation, an end to deforestation, restoring fisheries, and protecting aquifers by vastly more efficient water use. Unless we reverse present rates of deterioration in these systems, we will be hard pressed to avoid hunger on a massive scale. Indeed, all four goals are interdependent. We will not be able to do one without the others.

They are also relatively feasible. The technologies already exist. Advanced-design wind turbines, gas-electric hybrid automobiles, and light-emitting diode light bulbs, for example, are on the market and perform well against their fossil-fuel-powered counterparts.

South Korea regrew most of its forests and the United States substantially cut its soil erosion using sound conservation practices.

The challenge is to act cooperatively and to act quickly.

“Success depends on moving at wartime speed, restructuring the world energy economy at a pace reminiscent of the restructuring of the U.S. industrial economy in 1942 following the attack on Pearl Harbor,” Brown writes.

If we do not act quickly, growing scarcities of food and water await us. We have essentially created a “food bubble economy” that feeds the current generation lavishly at the expense of the next. Desert expansion in sub-Saharan Africa is displacing millions of residents, who are forced to either move south or migrate to north Africa and, in rarer cases, to Europe. Mexico’s farmlands suffer similar erosion, so more than a hundred thousand Mexicans leave its farms each year bound either for Mexican cities or the United States. South America, China, and Iran are other places where desertification is overtaking villages and forcing mass migrations to squat on settlements in cities.

Suffering will increase still more as the earth’s temperature rises. It is now 0.6° Celsius higher than it was in 1970, and is projected to rise 6 full degrees more by the end of this century. Sea levels are rising too—7 inches in the twentieth century, with another 3-6 feet possible by the end of the twenty-first. If it does, many coastal areas will disappear beneath the waves, forcing hundred of millions of refugees to flee their homes and farms. Rising temperatures, meanwhile, stand to alter ecosystems throughout the earth and might send up to a third of all animal and plant species into extinction. Even animals sheltered in natural wildlife preserves will not escape the thermal
stress. Higher temperatures diminish crop yields, melt mountain glaciers, generate fiercer storms and floods, intensify droughts, spark more wildfires, and in general wreak havoc on ecosystems. Property damage due to extreme weather will be more frequent, as will the insurance claims seeking compensation for it.

While these events are transpiring, we will also witness the draining of most, if not all, of today's oil reserves. Extraction has exceeded new discoveries by progressively widening margins since 1981.

Fortunately, the world is nearing revolutions in energy efficiency and renewable energy. Australia, Canada, and the European Union all enacted phase-outs of incandescent bulbs and their replacement with fluorescents. Europe now derives more energy from renewable systems than from fossil fuels, and U.S. wind generators produced more electricity in 2008 than all U.S. coal plants combined. If the world shifted to more energy-efficient lighting, it would cut its electricity use by 12%. Appliance energy efficiency can be boosted by establishing international efficiency standards. Energy-efficient building design would reduce energy another 20%-50%. All of these gains would take place more quickly if we implemented carbon taxes, which reflect the true costs of burning fossil fuels.

A new economy is emerging now to replace the one based on fossil fuels. Texas, a historically prominent oil-producing state, now leads U.S. states as a generator of wind power. Indonesia is developing 6,900 megawatts of geothermal generating capacity. China will likely make wind one of its top energy sources. These are all reasons for hope. Moreover, many industrialized governments now use mandates, taxes, and tax incentives to promote energy efficiency and clean electricity generation. The twenty-first century will witness a shift from reliance on oil production from relatively few key locations to large numbers of autonomous grids that produce electric power close to where it is used.

Human beings are now a primarily urban species: More than half of us live in cities. Urban design has thus assumed new importance. Some key challenges will include making public transportation the centerpiece of public planning and developing a new urban lifestyle that promotes health and exercise while reducing carbon emissions and air pollution. Much of this is already taking place already: expanded mass transit, recycling of water, and urban gardening are fast becoming popular. A philosophy of new urbanism is gaining ground — one which seeks to design cities for people, and not for automobiles.

The world has a long way to go in reducing poverty. Brazil and China have both made great strides, but India’s progress is mixed. Rising food prices hit poor communities in East Asia, the Middle East, South Asia, and sub-Saharan Africa hard and pushed an additional 130 million people below the poverty line. Illiteracy and disease take further tolls. To reverse these trends will require more funding for education, disease prevention, reproductive health care and family planning, and containment of the HIV epidemic. These initiatives could total $77 billion a year.

The croplands, water tables, and other environmental support systems that sustain human life are all in decline. The earth's forest cover has shrunk by 7 million hectares a year. All countries have the potential to reduce their demands on forests: for example, by recycling existing paper and replacing firewood with solar thermal cookers or electric hotplates powered by alternative energy sources. China, the African Union, and Mongolia have all begun tree planting and shrub-planting initiatives. China has taken the additional step
of asking herders to reduce their flocks of sheep and goats by 40%. Larger and more extensive reforestation, fishery restoration, and wildlife protection will be necessary. We could fund them at, respectively, $9 billion, $13 billion, and $25 billion a year.

As population grows and land becomes scarce, hunger spreads. Conflicts might emerge as nations vie for more land. Things we can do to raise land productivity include: planting high-yield crops, double-cropping, and restriction on biofuels. The global community needs to consume less animal protein, shift to smaller families, and remove incentives for converting food to fuel.

The key to building a global economy that can sustain economic progress is the creation of an "honest" market: reducing taxes on work, raising taxes on carbon emissions and other environmentally harmful activities, thereby incorporating indirect costs into market prices. Several governments — Norway, Costa Rica, and the Maldives — have already announced plans to become carbon neutral.

Many societies change when they are confronted with a catastrophic event — the United States following the Pearl Harbor attack is an example. Others reach a tipping point after an extended period of gradual change in thinking and attitudes, such as Eastern Europe did in the years leading up to the fall of the Berlin Wall and the Eastern Bloc. There are signs that the United States is moving toward a tipping point on climate: shifts to more fuel-efficient cars, declining car sales in general, and expansion of wind and solar energy matched by reduction in fossil-fuel consumption. This is far preferable to waiting for a "Pearl Harbor" moment, since by then it might be too late.

The combined costs of global social development — universal primary education, adult literacy programs, health care in developing countries, family planning services, and AIDS education would cost a total of $77 billion a year. This is a comparatively small sum: just 13% of the global military budget. It is an infinitesimally smaller sum than the costs we will ultimately incur if we do nothing.

Most people know that communities around the world are already suffering from hunger, disease, poverty, and environmental degradation. But it is easy to simply get used to these facts — to accept them as part of "business as usual."

Lester Brown's Plan B 4.0: Mobilizing to Save Civilization states eloquently why business as usual should not be our choice. With compelling anecdotes and statistics to show where present problems are heading — and colorful analogies to the disappearance of Mayas, the fall of the Sumerians, and the onset of World War II (in case readers do not immediately get the point), Brown elucidates the disasters that imperil our civilization if we do not alter our course.

Better still, Brown offers encouraging evidence that the new course is already underway. Many readers will likely be in for a pleasant surprise or two. Most are aware that China suffers from pollution, but not that the Chinese government is taking bold actions to relieve it. It is no secret that sub-Saharan Africa faces widespread disease and famine, but few news stories relate how African governments are responding to them, as Brown does. His convincing and reasonable cost estimates are yet another commendable flourish.

In short, Brown demonstrates conclusively that, while we have a daunting job ahead of us, the tools we need are already available. He not only urges us to act, he empowers us with realistic hope that civilization not only should, but can, be saved. — Rick Docksai