

Update On an Old Warning

Beware the coming shortages as world population soars toward 9 billion

by David R. Francis

Dennis Meadows warned 32 years ago that the world would run short of resources within a century, putting the planet at risk of expanding hunger as well as economic and social disaster.

Today, that danger is more imminent, says Mr. Meadows, one of the authors of *The Limits to Growth*, a book published in 1972 and now just updated.

Within 30 years, world living standards could start falling, Meadows predicts. "We are living on borrowed time." The rising expense of protecting the rising population from starvation, pollution, soil erosion, and shortages of nonrenewable resources will cut into the capital available for boosting industrial output, Meadows says.

His book, coauthored with Donella Meadows, his late wife, and Jorgen Randers, was a

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publishing sensation, selling 30 million copies in 30 languages. But the book was widely scorned, especially after the food and oil shortages of the mid-1970s turned into surpluses.

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The critics, though, were often ignoring the 100-year timetable the authors used.

"The Club of Rome [which commissioned the book] got the whole picture right," maintains Matthew Simmons, a prominent Texas oil consultant.

In their update, the authors note, humanity has "squandered the opportunity" to correct its current course over the last 30 years. The entire world, rich and poor, faces political and economic turmoil likely to arise from a grim situation.

Signs of global trouble are brewing:

- The gap between rich and poor nations is 10 times what it was 30

years ago. During the 1990-2001 period, 54 countries already experienced declines in per capita gross domestic product. This gap could help keep terrorism going, warns Meadows.

- Demand from prospering China has caused shortages of oil and metals. If 9 billion people on earth were to consume materials at the American rate, world steel production would need to rise fivefold, copper eightfold, and aluminum ninefold. It's not possible or necessary, the authors hold.

- World food production per capita peaked about 1990. Total food production will stop growing about 2020, predicts Meadows. A global assessment of soil loss, based on studies of hundreds of experts, has found that 38 percent, or nearly 1.4 billion acres, of currently used agricultural land has been degraded. Key aquifers in the U.S., China, and India are drying up. This will hit farm output.

- In 1972, the world's population was less than 4 billion. Today it is 6.4 billion and headed toward 9 billion by 2050, the United Nations projects. Meadows maintains the planet can sustain only 2 billion

people at a Western standard of living.

“The ‘population bomb’ hasn’t fizzled,” he says. “It has already exploded.”

Because of their wealth, Americans and inhabitants of other rich nations will likely “buy their way out” from the worst aspects of looming disasters, he says. “The U.S. will be pretty well off.”

But he expresses concern that the U.S. will not tackle seriously

such universal problems as climate change, depletion of the world’s fisheries, or nuclear proliferation. “The quality of public discussion has declined over the last 30 years,” he says.

Using computer models, Meadows generates one hopeful scenario where society adopts a desired family size of two children and sets a fixed goal for industrial output per capita, adopts technologies to abate pollution,

conserves resources, increases land yield, and protects agricultural land. Then the resulting society of nearly 8 billion people can live with high human welfare and a continuously declining footprint on the ecology.

But this has to be done soon, he insists. The problem is that people tend to ignore the impact of events with consequences they perceive as far in the future. They look to the now. •

A Note from the Publisher

Paul Hewitt, in his “Depopulation and Aging in Europe and Japan,” (*The Social Contract*, Summer, 2004, p. 282) states, “Like it or not, our current economic and social organization depends on continuing economic expansion.”

As Hamlet says in his soliloquy, “Ay, there’s the rub.”

Is perpetual physical growth possible on our finite orb? That is the question. And in the answer, we find mankind’s take “to be or not to be.”

This farm boy, trained in biology and medicine, thinks he sees limits already upon us, and others looming in the near future. Hewitt points out in detail the consequences if the current economic system fails to grow perpetually. Like a car designed to run on gasoline, it “won’t go” absent the fuel of constant growth.

Is see us between a rock and a hard place, between Scylla and Charybdis, with the irresistible force of the conventional economy opposed to the immovable object of an inherently limited resource system. Others, like Hewitt, envision physical growth forever. Pay your nickel and take your choice.

I believe we will end up making the transition to an economic system based on conservation rather than consumption. I do not know how we will get there, or how it will work, but hard necessity will force it. This anonymous little ditty will become the economic maxim:

Use it up, wear it out!

Make it do or do without!¹

The promotion of consumption will give way to advocating satisfaction with what we already have.

The great boon of cheap liquid fossil fuel of the last 150 years seems certain to begin subsiding into memory. Human populations, after cresting at 8 billion or so at mid-century, will likely begin to subside to whatever level is sustainable with daily income energy from the Sun.

My guess is that the human race will exit the 21st century with about as many members as it entered the 20th – 1.5 billion, plus or minus a few hundred million.

JOHN H. TANTON

Publisher

1. *Familiar Quotations*, John Bartlett, 15th edition, p.924.