

# How Big Are We?

by Bill McKibben

We've answered the question How many of us will there be? But to figure out how near we are to any limits, we need to ask something else: How big are we? This is not so simple. Not only do we vary in how much food and energy and water and minerals we consume, but each of us varies over time. William Catton, who was a sociologist at Washington State University before his retirement, once tried to calculate the amount of energy human beings use each day. In hunter-gatherer times it was about 2,500 calories, all of it food. That is the daily energy intake of a common dolphin. A modern human being uses 31,000 calories a day, most of it in the form of fossil fuel. That is the intake of a pilot whale. And the average American uses six times that [186,000 calories]--as much as a sperm whale. We have become, in other words, different from the people we used to be. Not kinder, not deeper or stupider--our natures seem to have changed little since Homer. We've just gotten bigger. We appear to be the same species, with stomachs of the same size, but we aren't. It's as if each of us were trailing a [stomach the size of a] big Macy's parade balloon around, feeding it constantly.

So it doesn't do much good to stare idly out the window of your 737 as you fly from New York to Los Angeles and see that there's plenty of empty space down there. Sure enough, you could crowd lots more people into the nation or onto the planet. The entire world population could fit into Texas, and each person could have an area equal to the floor space of a typical U.S. home. If people were willing to stand, everyone on earth could fit comfortably in to half of Rhode Island. Holland is crowded and doing just fine.

But his ignores the balloons above our heads, our hungry shadow selves, our sperm-whale appetites. As soon as we started farming, we started setting aside extra land to support ourselves. Now each of us needs not only a little plot of cropland and a little pasture for the meat we eat but also a little forest for timber and paper, a little mine, a little oil well. Giants have big feet. Some scientists in Vancouver tried to calculate one such "footprint" and found that although 1.7 million people lived on a million acres surrounding their city, those people required 21.5 million acres of land to support them--wheat fields in Alberta, oil fields in Saudi Arabia, tomato fields in California. People in Manhattan are as dependent on faraway resources as people on the Mir space station.

Those balloons above our heads can shrink or grow, depending on how we choose to live. All over the earth people who were once tiny are suddenly growing like Alice when she ate the cake. In China per capita income has doubled since the early 1980's. People there, though still Lilliputian in comparison with us, are twice their former size. They eat much higher on the food chain, understandably, than they used to: China slaughters more pigs than any other nation, and it takes four pounds of grain to produce one pound of pork. When, a decade ago, the United Nations examined sustainable development, it issued a report saying that the economies of the developing countries needed to be five to ten times as large to move poor people to an acceptable standard of living--with all that this would mean in terms of demands on oil wells and forests.

That sounds almost impossible....

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