washingtonpost.com

The Risks of Too Much City

By Jeremy Rifkin
Sunday, December 17, 2006; B07

The coming year marks a great milestone in the human saga, a development similar in magnitude to the agricultural era and the Industrial Revolution. For the first time in history, a majority of human beings will be living in vast urban areas, many in megacities and suburban extensions with populations of 10 million or more, according to the United Nations. We have become "Homo Urbanus."

Two hundred years ago, the average person on Earth might meet 200 to 300 people in a lifetime. Today a resident of New York City can live and work among 220,000 people within a 10-minute radius of his home or office in midtown Manhattan.

Only one city in all of history -- ancient Rome -- boasted a population of more than a million before the 19th century. London became the first modern city with a population over 1 million in 1820. Today 414 cities boast populations of a million or more, and there's no end in sight.

As long as the human race had to rely on solar flow, the winds and currents, and animal and human power to sustain life, the population remained relatively low to accommodate nature's carrying capacity: the biosphere's ability to recycle waste and replenish resources. The tipping point was the exhuming of large amounts of stored sun, first in the form of coal deposits, then oil and natural gas.

Harnessed by the steam engine and later the internal combustion engine and converted to electricity and distributed across power lines, fossil fuels allowed humanity to create new technologies that dramatically increased food production and manufactured goods and services. The unprecedented increase in productivity led to runaway population growth and the urbanization of the world.

No one is really sure whether this turning point in human living arrangements ought to be celebrated, lamented or merely acknowledged. That's because our burgeoning population and urban way of life have been purchased at the expense of vast ecosystems and habitats.

Cultural historian Elias Canetti once remarked that each of us is a king in a field of corpses. If we were to stop for a moment and reflect on the number of creatures and the amount of Earth's resources and materials we have expropriated and consumed in our lifetime, we would be appalled at the carnage and depletion used to secure our existence.

Large populations living in megacities consume massive amounts of the Earth's energy to maintain their infrastructures and daily flow of human activity. The Sears Tower in Chicago alone uses more electricity in a single day than the city of Rockford, Ill., with 152,000 people. Even more amazing, our species now

consumes nearly 40 percent of the net primary production on Earth -- the amount of solar energy converted to plant organic matter through photosynthesis -- even though we make up only one-half of 1 percent of the animal biomass of the planet. This means less for other species to use.

The flip side of urbanization is what we are leaving behind on our way to a world of hundred-story office buildings, high-rise residences and landscapes of glass, cement, artificial light and electronic interconnectivity. It's no accident that as we celebrate the urbanization of the world, we are quickly approaching another historic watershed: the disappearance of the wild. Rising population; growing consumption of food, water and building materials; expanding road and rail transport; and urban sprawl continue to encroach on the remaining wild, pushing it to extinction.

Scientists tell us that within the lifetime of today's children, the wild will disappear from the face of the earth. The Trans-Amazon Highway, which cuts across the entire expanse of the Amazon rain forest, is hastening the obliteration of the last great wild habitat. Other remaining wild regions, from Borneo to the Congo Basin, are fast diminishing with each passing day, making way for growing human populations in search of living space and resources.

It's no wonder that (according to Harvard biologist E.O. Wilson) we are experiencing the greatest wave of mass extinction of animal species in 65 million years. We are losing 50 to 150 species to extinction per day, or between 18,000 and 55,000 species a year. By 2100 two-thirds of the Earth's remaining species are likely to be extinct.

Where does this leave us? Try to imagine 1,000 cities of a million or more just 35 years from now. It boggles the mind and is unsustainable for Earth. I don't want to spoil the party, but perhaps the commemoration of the urbanization of the human race in 2007 might be an opportunity to rethink the way we live.

Certainly there is much to applaud about urban life: its rich cultural diversity and social intercourse and its dense commercial activity. But the question is one of magnitude and scale. We need to ponder how best to lower our population and develop sustainable urban environments that use energy and resources more efficiently, are less polluting and better designed to foster living arrangements on a human scale.

In the great era of urbanization we have increasingly shut off the human race from the rest of the natural world in the belief that we could conquer, colonize and utilize the riches of the planet to ensure our autonomy without dire consequences to us and future generations. In the next phase of human history, we will need to find a way to reintegrate ourselves into the rest of the living Earth if we are to preserve our own species and conserve the planet for our fellow creatures.

Jeremy Rifkin is the author of "The Age of Access" and president of the Foundation on Economic Trends.