

It's Time to Act



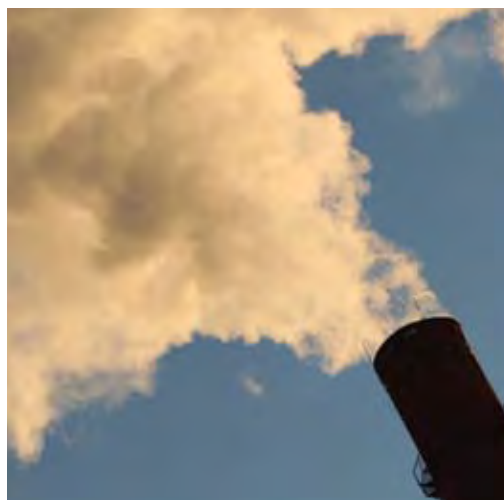
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“Global Warming Leads To 150,000 Deaths Every Year”
“Scholars Predict 50 Million Environmental Refugees By 2010”
“More Than Half of U.S. Population Lives In Counties With Unsafe Air”

These headlines are bringing the health effects of continued environmental degradation to our doorstep. They are no longer abstract events that might occur far into the future. In addition to the 150,000 annual deaths, global warming causes 5 million illnesses annually, and these numbers are projected to double by 2030. Because global warming accelerates the spread of infectious diseases such as malaria and dengue fever, it will hit poor countries the hardest with associated increases in malnutrition and diarrhea. Ironically, it is the poor who are least responsible for the production of greenhouses gases that cause global warming. The gains being made by the Global Fund, by the Millennium Development Project, by the World Health Organization, and related efforts to eliminate poverty and improve health around the globe will be seriously mitigated by global warming.

One result will be a marked increase in the number of environmental “refugees”—people displaced from their homes because of rising sea levels, desertification, dried up aquifers, weather-induced flooding, and related climate changes. Imagine Katrina on a global scale. Red Cross data indicate that more people are now displaced by environmental disasters than by war.

Global warming will also greatly effect the air that we breathe. Smog-related deaths by climate change are projected to increase by about 4.5 percent from the 1990s to 2050. “Health-alert” days among cities in the eastern United States are likely to increase by 68 percent over the coming decades. Smog is directly associated with an increase in a number of respiratory illnesses. Particle pollution is associated with increases in heart attacks, strokes, and emergency room visits for asthma and cardiovascular disease, with children and the elderly particularly at risk. The effects of poverty and racial segregation and discrimination are also a factor, as black Americans are 79 percent more likely than white Americans to breathe unhealthy air because they live in neighborhoods where air pollution is highest.



A multifaceted approach is needed to address these serious threats to our health. Such an approach will require bold research to develop more carbon-neutral energy sources that will eliminate or greatly reduce greenhouse gases; informed regulatory policies that balance competing economic and political interests in order to promote the public interest; a sensitivity to the ethical issues that underlie the inherent existing disparities in health and access to resources among different populations; and enlightened diplomacy to persuade all nations—developed and developing—of our shared obligation to care for the planet.

In this issue of the magazine you will read about what our School is doing to address these and related environmental challenges, using both new and traditional approaches. This includes innovative research using biomarkers for assessing exposure risk; developing new surveillance methods; assessing the impact of the built environment on health; and a number of international initiatives. The School is also participating in campuswide initiatives to develop alternative clean energy sources through the recently announced Energy Biosciences Institute—Berkeley's new \$500 million partnership with the Lawrence Berkeley National Laboratory and the University of Illinois. Faculty are also involved with the Berkeley Institute of the Environment, which was recently established to foster collaboration across disciplines that address environmental problems and to train a new generation of environmental researchers, professionals, and citizens in protecting and nurturing our environment.

We understand the imperative for all of us to act now. We hope you draw inspiration and ideas for your actions from the pages that follow.



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