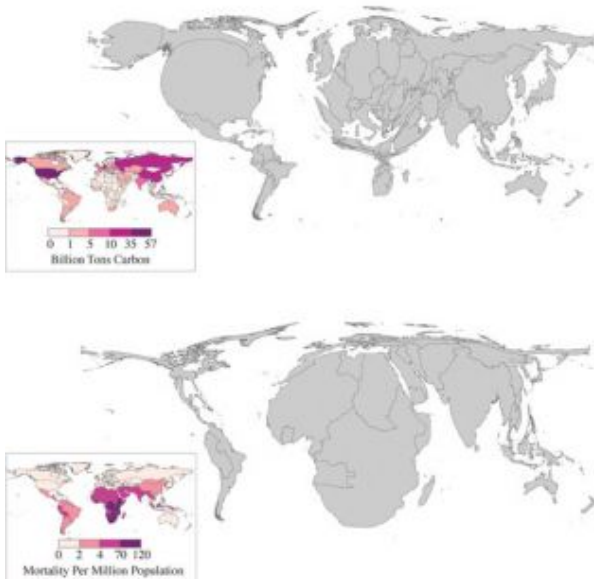


Health toll of climate change seen as ethical crisis



The two world maps schematically represent the contribution of different nations to global warming, as measured in atmospheric carbon output (top) and the health effects of global warming as measured in mortality for diseases and other effects of a warming world climate (bottom). The effort to compare and contrast such measures is one way to illustrate the ethical dimensions of global climate change.

The public health costs of global climate change are likely to be the greatest in those parts of the world that have contributed least to the problem, posing a significant ethical dilemma for the developed world, according to a new study.

In a paper to be published the week of Nov. 12, 2007, in the journal *EcoHealth*, a team of researchers led by environmental public health authority Jonathan Patz of the University of Wisconsin-Madison reports that the health burden of climate change will rest disproportionately on the world's poor.

"Our high consumption of energy is putting a huge disease burden on places that are quite remote from us," explains Patz, a professor in the UW-Madison School of Medicine and Public Health and the Nelson Institute for Environmental Studies. "There are many serious diseases that are sensitive to climate, and as earth's climate changes, so too can the range and transmission of such diseases."

The new study, says Patz, begins to hitch the scientifically quantifiable aspects of climate change to the ethical dimensions of the problem. Some, including Nobel Peace Prize laureate Al Gore, have long argued that the "global warming crisis is not a political issue but a moral one."

According to Patz, who for over a decade has been a lead author for the United Nations Intergovernmental Panel on Climate Change (IPCC), which shared the 2007 Peace Prize with Gore, the scientific debate on global warming is over. The scientific community, he argues, must now turn its attention to dissecting the problem and devising rational solutions.

The authors quantify the ethical dimension of global climate change by measuring per capita carbon emissions and comparing that data with climate-related disease burden for the most affected regions of the world. The results show a stark contrast between those populations causing global warming from those suffering the brunt of the impacts.

Americans, for example, have carbon outputs six times the global average, but a significantly lower relative risk for the health effects of climate change.

Changes in patterns of diseases and other negative outcomes of a warming world, argues Patz, suggests the developed world must begin "to pursue equitable solutions that first protect the most vulnerable population groups."

"Many of these climate-sensitive diseases, such as malaria, malnutrition, and diarrhea, affect children," he explains. "We in the developed world need to recognize how our way of life imposes negative impacts upon poorer nations of the world — especially their children."

The new EcoHealth study also cautions that potential solutions to the world's energy problems may exacerbate the negative health impacts of global warming. In particular, the report cited the rush to biofuels as a phenomenon that could trigger other problems by accelerating deforestation and affecting world food supplies and prices.

"If energy demand drives up the price of corn, for example, this can inflict undue burden on poor or malnourished populations or shift agricultural areas away from other traditional food crops," Patz and his co-authors write.

"Rapid expansion of biofuel crops in the tropics further threatens much of the world's remaining rainforests," says co-author Holly Gibbs of the Center for Sustainability and the Global Environment (SAGE) at UW-Madison, who has studied the effects of land use on deforestation around the world.

In addition to Patz and Gibbs, the new EcoHealth report was co-authored by Jonathan Foley, director of SAGE at UW-Madison, and Kirk R. Smith, a Professor in the School of Public Health at the University of California, Berkeley.

EcoHealth is the official journal of the International Association for Ecology and Health.

Source: University of Wisconsin

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