

◆ Plenary Address: Applying Science for International Benefit

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 London, United Kingdom

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Jeffrey Sachs is special adviser to United Nations Secretary-General Kofi Annan on the Millennium Development Goals and director of The Earth Institute at Columbia University. In 1999, then director-general of the World Health Organization Gro Harlem Brundtland asked Sachs to explore how public policy and economics could be bridged to solve the world's health problems. He worked with experts of global caliber, such as Harold Varmus (then director of the National Institutes of Health) and Manmohan Singh (now prime minister of India), and their efforts helped to set the stage for the establishment of the Global Fund to Fight AIDS, Tuberculosis, and Malaria. After the Millennium Summit in 2000, the United Nations established the Millennium Development Goals, a set of internationally agreed-on targets for reducing poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women by 2015. In 2002, Annan asked Sachs to direct the UN Millennium Project, which is to present a plan for meeting the Millennium Development Goals in every country.

At heart, Sachs is a macroeconomist who believes that science can and must be used in practical ways to address the world's most pressing development prob-

lems—poverty, drought, loss of ecosystems and biodiversity, low agricultural productivity, and endemic diseases.

Sachs said that poverty claims 8 million to 10 million lives a year and that one-sixth of the world's population live on less than \$1 a day. Sadly, the international development community has thus far been unable or unwilling to solve those problems. Sachs believes that the world's leaders are not



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compelled to address the needs of the poor, and he called for the mobilization of three constituent groups to end poverty by 2015.

The first constituency is macroeconomists. "The tools I was trained to use as the key instruments of positive change, such as economic reform and exchange rate manipulation, can do only so much in tackling issues that much of the world's poor people face." Sachs noted that when his macroeconomist colleagues think about public policy, they usually focus on their belief that free markets will inevitably lead to solutions for scientific problems.

The second constituency is the world's scientists, who usually do not advocate solutions for global issues, such as habitat preservation, public health, and biodiversity. "Public policy is often antiscience, and the results are disastrous", said Sachs. "The space at the boundary of economics and science is not populated by politicians. In 20 years, I have discovered just how little interface exists between science and pub-

lic policy." Sachs noted that faith-based groups, economists, and military decision-makers have enormous influence in US public policy and that scientists must now demand a place at the table where decisions are made. "The journals *Science*, *The Lancet*, and *Nature* should be required reading for politicians."

The third constituency is the public. According to Sachs, the public is overloaded with information, and people either do not absorb or are unable to discriminate the vast amount of information available to them. "The public is grossly unaware of most science issues" and "religious revival means that science is under attack, and this has significant implications

for the planet". The shocking reality, noted Sachs, is that 50% of people believe that the world is less than 10,000 years old. The anti-science fervor being espoused by religionists and other groups in society is threatening our ability to solve the world's problems.

Sachs believes that it is possible to bring practical, science-based, evidence-based, and targeted policies to bear on public policy. First, he suggested that scientists and science editors make their voices heard in the public-policy arena. Second, he suggested that scientists, science editors, and economists work more closely together. He called for science editors and authors to write coherently across disciplines—to combine, for example, the issues of agronomy and biodiversity and of reproductive medicine and malaria. Taking active steps to end poverty, said Sachs, "is not charity; it is an investment".

Jeffrey D Sachs is the author of *The End of Poverty: Economic Possibilities for Our Time*, published in 2005 by Penguin Press. 

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