

A Challenge to the World's Scientists

Science has contributed immensely to human progress and to the development of modern society. The application of scientific knowledge continues to furnish powerful means for solving many of the challenges facing humanity, from food security to diseases such as AIDS, from pollution to the proliferation of weapons. Recent advances in information technology, genetics, and biotechnology hold extraordinary prospects for individual well-being and that of humankind as a whole.

At the same time, the way in which scientific endeavors are pursued around the world is marked by clear inequalities. Developing countries, for example, generally spend much less than 1 percent of their gross domestic product on scientific research, whereas rich countries devote between 2 and 3 percent. The number of scientists in proportion to population in the developing countries is 10 to 30 times smaller than in developed countries. Ninety-five percent of the new science in the world is created in the countries comprising only one-fifth of the world's population. And much of that science—in the realm of health, for example—neglects the problems that afflict most of the world's people.

This unbalanced distribution of scientific activity generates serious problems not only for the scientific community in the developing countries, but for development itself. It accelerates the disparity between advanced and developing countries, creating social and economic difficulties at both national and international levels. The idea of two worlds of science is anathema to the scientific spirit. It will require the commitment of scientists and scientific institutions throughout the world to change that portrait to bring the benefits of science to all.

But no bridge that science might build across the gaps between rich and poor is strong enough to withstand the force of violence and war. If science is to reach its full potential and draw on the great minds from every country, we must do more to end and prevent conflict. Scientists themselves have a key role to play here, too. The Pugwash Conference movement, launched by the Russell-Einstein Manifesto of 1955, brought Russian and Western scientists together for more than 40 years to develop common understandings of the dangers of nuclear war and ways of reducing them, and in recent years has constructed a strong dialogue between North and South on the problems of development. "Lab-to-lab" cooperation also helped to lay the groundwork for cooperative nuclear disarmament and arms control between Russia and the United States after the Cold War. Peacemaking and peacebuilding should never be the exclusive preserve of diplomats and politicians.

There are deep similarities between the ethos of science and the project of international organization. Both are constructs of reason, as expressed, for example, in international agreements addressing global problems. Both are engaged in a struggle against forces of unreason that have, at times, used scientists and their research for destructive purposes. We share the experimental method; the United Nations, after all, is an experiment in human cooperation. And both strive to give expression to universal truths; for the United Nations, these include the dignity and worth of the human person and the understanding that even though the world is divided by many particulars, we are united as a single human community.

The scientific community's basic concern for human welfare makes it an indispensable partner of the United Nations. With your help, the world can achieve the "blue revolution" it so urgently needs to deal with current and emerging water crises. Your research can enable Africa to move toward a "green revolution" that will boost agricultural productivity. Your solidarity can help developing countries build up their capacity to participate effectively in negotiations of international treaties and agreements involving science. And your advocacy can help bring about a breakthrough in access to scientific knowledge; for example, through the Health InterNetwork Access to Research Initiative, under which scientific journals are provided to thousands of developing-country institutions, free of charge or at a steep discount.

The agenda is broad and the needs immense, but together we are equal to these challenges. The United Nations system and I personally very much look forward to working with scientists throughout the world to support your work and spread its blessings even further, even deeper, in the years to come.

Kofi Annan

Kofi Annan is Secretary-General of the United Nations.

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