School of International and Public Affairs professor Mary Robinson.

But they also provided hope that circumstances about the Earth’s future, and the vital services of the Earth’s ecosystems.

Achieving these goals is possible, but only under four circumstances, which constitute the over-arching recommendations of the scientists.

• The rich countries must help the poor countries to escape from the trap of poverty, consistent with international obligations of international assistance and cooperation. The first step in this effort should be to meet the Millennium Development Goals, the internationally agreed targets for poverty reduction by the year 2015. The needed financial assistance from the rich countries is of crucial importance for poverty reduction but is modest in size relative to the income of the rich countries, within the international target of 0.7 percent of rich-world GNP in official development assistance.

• Both rich and poor countries must heed the lessons of science and foster the benefits of under-utilized and yet-to-be-developed technologies. Increased national and international scientific and technological efforts are essential to achieve breakthroughs in energy systems, food production, health care and water management. Special effort is needed to address the technological needs of the poorest, as these are often neglected, but also to build and sustain scientific capacity in the poorest countries.

• All key stakeholders must have a voice in approaching these problems in a cooperative and respectful political environment, mindful of international commitments and legal obligations concerning human rights, poverty reduction and the environment. Free-market, profit-driven solutions alone will not be sufficient. Sustainable development will also require governmental leadership; new forms of taxation of social ‘bads’ such as pollution, and budget subsidies of social ‘goods’ such as research and development of new technologies, in order to align social costs and benefits; intergovernmental cooperation; participation by civil society; and greater corporate social responsibility.

• These problems will require multilateral approaches, and a strong United Nations system, since the scale and nature of problems necessarily transcend national boundaries and require global solutions.

Sachs. “There is no tradeoff,” he added, between caring for the world’s poor and the environmental degradation causing and resulting from poverty, as well as pervasive environmental consequences of affluence that must be brought under control. The scientists aimed to identify paths of sustainable development that will permit the poorest of the poor to improve their lives decisively, while permitting the rich to improve their living standards as well, but in both cases in a manner that protects the environment and the vital services of the Earth’s ecosystems.

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The poorest peoples of the world are already struggling for survival and propel the planet away from its greatest dangers, such as abrupt climate change and collapse of critical ecosystems.

For instance, Daniel Schrag, a member of the Earth Institute External Advisory Board and professor at Harvard University, spoke about increasing carbon emissions: “This is an experiment on the Earth’s climate, on the Earth’s atmosphere, that hasn’t been done for millions of years. And the choices we make in the next few decades are really going to determine how far outside the human experience we’re willing to push our planet. The view from the Rover on Mars is pretty interesting, but it’s no place I’d like to spend any time.”

Professor Mary Robinson, the former U.N. High Commissioner on Human Rights, said that the industrialized nations are morally and, in some cases, legally obligated to help Third World nations. “It has been my experience that poverty is the greatest human rights issue on the planet,” she said.

According to most of the attending scientists, it is possible to provide energy, food, water, and good health to poor nations without threatening the planet’s critical ecosystems.

Some speakers indicted the richest countries for not paying even the 0.7 percent of their GNPs that has already been committed to help the poorest of the world to stay alive. William Foege, retired fellow of the Bill and Melinda Gates Foundation, paraphrased Dolly Parton, “You’ll be surprised how much it will cost for us to look this cheap.”

Policy makers from the World Bank, the U.S. Department of Commerce, and the Gates Foundation talked about using existing technology and resources to help lift 2 billion people out of extreme poverty. Robert Shonk, chief scientist at the World Bank, said, “I personally don’t believe that we should tell India, China or a poor country in Africa or Asia that they have to spend more for their energy like we do in the U.S. I believe that if we’re going to push renewable energy technologies, we have to make sure that they are no more expensive than fossil fuel technologies are.”

Many speakers shared E.O. Wilson’s belief that the human race would rise to these challenges. Quoting Abba Eban, E.O. Wilson said, “When all else fails, men turn to reason.”

To learn more about the conference, please visit www.earth.columbia.edu/sop2004.