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UNITED NATIONS EDUCATIONAL,
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Address by
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(UNESCO)

on the occasion of the World Science Forum
on “Knowledge, Ethics and Responsibility”

Budapest, Hungary, 10 November 2005

Mr President of the Republic of Hungary,
Mr Minister for Foreign Affairs,
Mr President of the Hungarian Academy of Science,
Mr President of ICSU,
Distinguished Participants,
Ladies and Gentlemen,

It is a great pleasure for me to be in Budapest this morning for the opening of the World Science Forum, Budapest 2005.

Let me first of all express my gratitude to the Government of Hungary for hosting this very important event, and for the warm hospitality with which we have been welcomed.

UNESCO is both honoured and delighted to be a partner in the organization of this Forum, which is organized by the Hungarian Academy of Science in partnership with UNESCO and ICSU. The Forum is the second of the biennial series of global dialogues and an important occasion among the long-standing ties of cooperation between Hungary and UNESCO in the scientific arena, marked in particular by the joint organization of the World Conference on Science in 1999 (which I attended prior to becoming Director-General of UNESCO) and the World Science Forum 2003.

I am particularly glad that the World Science Forum 2005 takes place in the framework of the celebration of the World Science Day for Peace and Development, which provides an annual opportunity to reflect on the responsible and ethical use of science for the benefit of society.

This is also, of course, the International Year of Physics 2005, which commemorates the one-hundredth anniversary of the miracle year of 1905 when Einstein revolutionized our understanding of the universe. Einstein himself was a scientist for whom the ethics of science was a matter of great interest and concern.

Today, we open a major international forum which, over the next three days, will focus on two crucial aspects of knowledge: ethics and responsibility.

Ethical concerns about the use of science are certainly not new. They have arisen in various forms every time power has been increased by scientific advances and technical innovations. Since World War Two, however, the power given to us by modern science confronts us all with acute ethical problems that are truly global in scale and, in some cases, unprecedented in character. For these reasons, the social responsibilities and ethical dimensions of science deserve renewed attention.

Scientific progress has been marked by massive advances in knowledge and by ever-wider applications in the various areas of social life, accompanied by a great improvement in living conditions. In the field of health, for example, a large number of diseases can now be controlled more effectively.

At the same time, some of the uses to which science and technology have been put have raised serious concerns about the exercise of ethical responsibility. For example, while many scientists are convinced that embryonic stem cells hold great promise for the treatment of certain diseases, ethical questions arise such as whether it is acceptable to use cells from a human embryo, and if so, under what conditions.

Today's great issues in science and technology cannot be considered without taking into account their ethical dimension. This was once again acknowledged at the Ministerial Round Table on "The Basic Sciences: The Science Lever of Development" held on 13-14 October 2005 during the 33rd session of the General Conference of UNESCO. The Round Table's Communiqué states that "an ethical dimension to the practice of science is essential" and called upon UNESCO to continue promoting this vital dimension.

In the realm of bioethics, UNESCO has been playing an important standard-setting role in recent years. UNESCO contributed to the formulation of basic principles in bioethics through the adoption of three normative instruments – the Universal Declaration on the Human Genome and Human Rights (1997), the International Declaration on Human Genetic Data (2003) and the Universal Declaration on Bioethics and Human Rights (2005).

As agreed frameworks of international norms, they provide a set of commitments freely entered into by Member States and a reference to guide policy development and professional practice in Member States. I am gratified that UNESCO is playing an important role in this area. The key task now is to promote their implementation and, at the same time, to monitor their impact and learn lessons from their application.

Ladies and Gentlemen,

What is really at stake is how we are to 'do science' in conditions where the ground is shifting under our feet. While recognizing that the pursuit of knowledge for its own sake has been and continues to be one of the most noble and creative human motivations, we can no longer consider knowledge as a simple external tool in relation to the ends which we have set ourselves. We have to admit, whether we like it or not, that the fate of humankind is linked to the advancement of scientific knowledge. Recognition of this requires the assumption of responsibility.

The questions we have to address today are: Knowledge for what? What is the impact of knowledge on human welfare and on living organisms, the environment and future generations? How should knowledge be developed and applied so that its impact is beneficial and enhances both human dignity and human potential?

We have to link knowledge to action. This is a key feature of contemporary civilization. Advances in knowledge today are opening up huge fields for human action. And, in the future, they will open up still other fields which are beyond the horizon of current thinking and imagination.

As a result of these dynamic changes, we are presented with an increasing number of choices whose consequences could have far-reaching implications not only for people alive today but even for the very future of humankind. This means that the advancement of knowledge is leading to increased responsibility on the part of science and scientists. The ethical responsibilities now shouldered by science and technology are collective and individual. Put another way, they are institutional and personal, affecting what is the moral role of science in society and what it means to exercise the profession of scientist.

Ladies and Gentlemen,

As we talk about responsibility, I am happy to see here today a number of young scientists participating in the World Science Forum 2005. I would like to emphasize the responsibility that more senior scientists have towards the formation and orientation of the upcoming generation of scientists. Since young researchers are often at the cutting edge of scientific development, they may be among the first who must face the new ethical challenges created by scientific endeavour. Their professional preparation as scientists, therefore, requires serious attention, especially when ethical considerations have become a central and integral dimension of ‘doing science’.

Taking an active role in training the next generation of scientists should not be optional – it should be part of the definition of a scientist’s work. Senior scientists have the responsibility to create opportunities for young scientists to broaden their professional horizons, for example, by encouraging them to apply their expertise to a wide variety of national and global challenges. By engaging with issues of scarcity, ecology, sustainability and diversity, young scientists can be led towards a mature understanding of their responsibilities.

For its part, UNESCO is committed to meeting this challenge as a moral obligation. Let me give two examples of the Organization’s initiatives focused on young researchers. First, there is the Javed Husain Prize for Young Scientists, which rewards outstanding pure or applied research carried out by scientists under the age of

36 in the natural or social sciences or in technology. Second, the Man and the Biosphere Programme Young Scientists Awards encourages young scientists to conduct interdisciplinary research on ecosystems, natural resources and biodiversity.

Finally, I want junior researchers to know that UNESCO is keen to support initiatives that will help to form the next generation of scientists. For example, we have launched this year, thanks to a generous contribution from the Japanese Government, the Mori Fellowships scheme. This programme will enable 20 PhD candidates from sub-Saharan Africa to finalize their scientific research at the doctoral level by spending two six-month visits, over a period of two years, at the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste, Italy. In addition, UNESCO is actively encouraging the creation of young scientist associations and networks to increase their influence in designing the future of science. It is for this reason that UNESCO has supported the creation of the World Academy of Young Scientists (WAYS).

In closing, I would like to extend to each and every one of you my best wishes for a fruitful exchange. I look forward to interesting discussions over the next three days. I trust that, through the World Science Forum 2005, we will be able to send out a strong message of our shared responsibility to use science to improve the conditions of life for all of humankind, in ways that respect cultural diversity, individual freedom and human dignity.

Thank you.