UNITED NATIONS EDUCATIONAL,
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Address by
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That great historian of the future, and inspirer of many of the futurologists present today, H.G. Wells, wrote toward the end of his life: "human history becomes more and more a race between education and catastrophe". Half a century later, it is hard to be confident that this race is being won. Indeed, were I to quibble with the title suggested for my speech, I would have to argue that the global time bomb caused by the knowledge gap between North and South, East and West has already begun to explode. This is not to say that the catastrophic effects cannot be confronted and repaired but rather that we are already in a situation in which the desperate disparities of wealth and know-how have taken on a dangerous dynamic of their own.

This industrial city is dedicated to the automobile, perhaps the most evocative symbol of this century's capacity to turn scientific knowledge into applied technology and, in turn, to place an entirely new sense of mobility at the centre of our culture. Before the first earth satellite came into being, enough people's cars had rolled off the Volkswagen production line to orbit the globe several times. Now, as the debate rages about the need to adapt our production and consumption of goods to the environment's needs, Wolfsburg is yet again in the forefront of innovative research on producing alternatively powered motor vehicles and ones which are operated on traditional fuels at much higher rates of efficiency. None of this is conceivable in the absence of education at every level. Productivity, as much as it may be furthered by technical innovation - itself the product of knowledge - is a direct result of even very modest levels of education among both agricultural and industrial work forces.

Mr Chairman
Ladies and gentlemen
Participants in the Third International Partnership Initiative Congress,

The exploding global time bomb inherent in the educational gap, between North and South, East and West, concerns us all today because what is at stake is the viability of the global community - its security, the well-being of each man, woman and child on this planet and the freedom of each and every one of us to enjoy our individual human rights and to participate in democratic societies. The inability of the wealthier, industrialized countries in the world's North and West to share their knowledge and therefore their well-being with the South and East will inevitably threaten their own viability.

I underline that this is not a threat but a warning based on phenomena already observable in the here and now. First and foremost, the world's less well off are migrating at unprecedented rates from rural to urban areas and from poorer to richer countries. In the words of Mahbub Ul Huq, Special Adviser to the Administrator of the United Nations Development Programme,
"If opportunity does not go to poverty, then poverty will go to opportunity". Second, international and interregional tensions can only increase as disparities in wealth become so dramatic both within the developing countries and between the Third World and industrialized countries. Third, the collapse of the Berlin Wall symbolizing the hopes for a democratic rebirth in this century should constantly remind us that democracy itself is at stake in the East and in the South as it tries to put down fragile roots. If democracy cannot "deliver the goods", then democracy will not survive in those countries and would be at risk here in Western Europe where domestic and international security considerations could eclipse our hard-won freedoms.

Poverty is the problem. Development is the issue. And I believe that education in all its forms is the solution. The answer is in the human mind and in the political will to develop what have come to be called human resources. To quote the 1992 UNDP Human Development Report, which I strongly recommend to all of you, and which was prepared under the overall guidance of Mr Ul Huq, "It should never be forgotten that poverty needs no passport to travel across international frontiers - in the form of migration, environmental degradation, drugs, disease and political instability". And we here in the wealthier regions of the world are, hopefully unconsciously, widening the gap.

The world's North is a direct beneficiary of this gap and contributor to it. The terms of trade are such that the South is actually working for the North's prosperity and falling deeper into poverty and debt. The global market is such that tariff and other barriers to the marketing of Third World products cost the developing countries some 500 billion dollars per year - six times what the poorer countries spend on such social priorities as basic education, primary health care, clean water and the elimination of malnutrition. In the educational sphere alone, the brain drain from the countries that need talent the most is a striking phenomenon. For example, thirty thousand African Ph.Ds are currently working in industrialized countries while their own continent languishes in the need for advanced training and talent. Similarly, we are all aware of the security considerations and the social tensions created by the sudden and massive migration of scientific and professional groups from East to West and elsewhere.

The gap is widening. While life expectancy, literacy rates and other indicators have improved in comparative perspective between the rich countries and the poor, other indicators show that willy nilly the two worlds are pulling further apart. The differences are increasing: in mean years of schooling, higher education, the number of scientists and technicians per thousand people, expenditure on research and development and telephones and radios per thousand people. You will perhaps be as surprised as I am to have learned that the city of Tokyo has more telephones than the entire African continent.
The training and education gap can be outlined quite briefly based on facts and figures from UNESCO's recently published World Education Report and related sources.

- Seven out of eight children under 15 years of age now live in developing countries, the fastest growth rates are in Sub-Saharan Africa (3.75%), in the Arab States (2.90%), and in Southern Asia (2.02%).

- Approximately 130 million children of school age cannot attend school.

- 950 million adults over 15 are illiterate. Africa has the highest percentage of illiterates but the world's largest number of illiterates is in Asia. In fact, three quarters of the world's illiterates live in the nine largest and most densely populated countries.

- While public expenditure per pupil in industrialized countries comes to about $2,000 per year, expenditure in developing countries is seven to ten times less (and on $70 per pupil in Africa).

- In industrialized countries, 36% of those in the age cohort of secondary school graduates go on to some form of higher education as against 8.3% in the developing countries and only 2.1% in Africa.

The normal biography of a mainstream child in an industrialized society involves pre-school stimulation and nutrition and full-time education and training at least until the age of 18 or 20. Remedial education and services are available throughout the academic career and lifelong opportunities for further education and training are abundant. With all its defects and all who fall through the educational safety net, this is what we have come to strive for and accept as normal and, indeed, as a human right.

Yet in the developing countries and particularly in the least developed, it can be said that our efforts to feed, to inoculate and to cure such basic infantile illnesses as diarrhoea remain unmatched by our educational commitment to a viable child. In other words, we have ensured - or tried to - that the young human organism will survive but we have not taken the radical measures needed to ensure that the child's mind will be stimulated and that the adult's life will be a full one. It is the society as a whole which is condemned to a cycle of poverty. Those who are lucky enough to attend school will be handicapped by overcrowding, poor facilities, lack of basic equipment and material and often by teachers however dedicated who cannot depend on the State for an adequate living.

UNESCO's field experts draw a depressing picture of public education in the Third World. Debt repayment and structural adjustment strategies have unfortunately led to severe cutbacks at all levels of education. Even more alarming is the new trend of a decline in demand for education and training. Seen during colonial times and in the first decades of independence as the gateway to well-paid jobs in the modern economic sector,
schooling is now seen as a potential waste of time in countries particularly in Africa and South Asia - where economic growth is faltering.

Education, however, will be needed not less and less but more and more if developing countries are to confront and solve their problems. Education curbs population growth; education forges attitudes of tolerance and comprehension. Moreover, development today is, by any definition, knowledge-intensive. 95% of the micro-chip - as we know - is immaterial investment. The key to economic success is product and process innovation. The greatest natural resource is no longer what lies in the ground but rather what lies in each individual waiting to be developed - human intellect and creativity. This implies development of education systems as a whole. Knowledge is the source of know-how, and basic education implies some form of higher education to provide a rapid and efficient transfer of advanced knowledge to more and more citizens. There can be no skills without the general knowledge of the principles governing agricultural or industrial technology. All this represents a tremendous challenge to the developing countries. As their raw material prices stagnate and their debts grow, they find themselves trapped in the vicious circle of declining investments in the sector that is the key to development. Yet, representing as they do three-quarters of the world’s population, their potential is enormous - if it can be realized through human development rooted in education, the promotion of economic opportunity and democratic practice.

The notion of human development is essential here. Even in economic terms it no longer makes sense to think of the development of the workforce simply in terms of vocational or professional training. In a context where adaptability and creativity are at a premium, the human factor - attitudes, aspirations, values - becomes crucial. The socio-cultural dimension has come to impinge critically on economic performance. Economic considerations apart, we also have to ask the question: development for what? The answer can only be greater fulfilment for all, not simply more consumption for some. Education for all must develop the whole person to live in freedom in a world where ecological balances and human dignity are universally respected.

In the context of what is currently happening in Africa such sentiments may seem unrealistic. But I know of no alternative if Africa and other parts of the Third World are ultimately to solve the problems of poverty, disease, environmental degradation, debt and population explosion, if the kind of violence we are now seeing in Somalia is not to become a general conflagration threatening the welfare of all.

Investment in education in the Third World - ranging from basic reading, writing and calculating skills right up to the leading edge of scientific knowledge and taking in the socio-cultural dimension to which I have referred - is an
essential task for international co-operation at the present time. The teacher is the key and we must have the honesty to send into the classroom those with up to date knowledge and experience to address the needs and expectations of today's children in the Third World. We must even have the honesty and rigour to admit that our own criticisms of our own universities and high schools and primary schools is so pertinent that we should hesitate to export our models to others. If there is one slogan I would like to leave you with this afternoon, it is please, no more models, particularly no more models imposed! The time has come to experiment and invent new, more effective ways of adapting education to the needs of our own and other societies and cultural settings.

This applies as much to the developing world as to the gap between West and East. Here, the problem is far less one of a quantitative gap in access to education than a qualitative one. The transition - still ongoing - from an overarching ideology enforced by a centralized State to liberty, pluralism and democratic educational perspectives is revolutionary indeed. The need, particularly at university level, is to ensure that talent is developed and rewarded there in the East where it is most needed and that we all resolve to do what must be done to support the human capital without which economic growth and democracy will surely fail.

What does this mean? Simply and practically, it means providing the human and material investment in situ - and in existing institutions - and foreswearing old notions of bringing talent out for lengthy and costly exchanges. First of all, they are unlikely to go home for the most obvious and understandable reasons and second, a Deutsch mark or a dollar has a thirty times multiplier effect in local currencies which permits it to be used for as many people as possible.

The business community has a particular responsibility in the East European context. In developing human resources for a market economy and a democratic society, management, administrative, budgeting and legal skills are at a premium. UNESCO together with the BBC is now offering a cable television course in Moscow for small business management and I only refer to this example to ask for your help in sharing your know-how and experience at all levels of these societies. Imagine inventing a free press where, at best, liberal traditions are two generations distant without any notion of civil liberties law, modern journalistic and media techniques or marketing and advertising. That is why we are involved with a number of publishing and newspaper NGOs in training ventures in Eastern Europe and soon will be holding a seminar in Alma Ata on this subject.
I must underline that Eastern European developments, however important, must not come to eclipse the much larger issue of the North-South divide. Here, I believe, is where the biggest megatonnage of the global time bomb is already beginning its chain reaction.

The answer is sharing - sharing knowledge, transferring knowledge, offering access to knowledge. We all have a contribution to make in this respect which is why I have asked Jacques Delors - who was to address you this morning - to chair UNESCO's Commission on Education and Learning for the 21st Century. The business community, political institutions, the vast civil society of non-governmental organizations all have a stake and a contribution to make in inventing new, more efficient forms of education and better ways of sharing knowledge across the gaps to the South and to the East.

UNESCO offers a number of networking arrangements among schools and universities including the Associated Schools Programme, UNITWIN for the twinning of universities and UNESCO Chairs for the sharing of top flight professors. Newer modalities involve developing innovative short-term intensive training approaches to teachers and specialists in the developing countries and now in Eastern Europe. I am currently exploring ways and means of turning the debt crisis to an educational advantage for developing countries and those of Eastern Europe. Given that much debt will remain uncollectable, can we not transform it into local currency for carefully planned and rigorously monitored investment in schools, teachers salaries, health facilities and other aspects of human resource development.

Just last month, with the direct support of the Federal Republic of Germany, UNESCO launched a new International Project on Technical and Vocational Education. Matching UNESCO's regular programme budget's allocation, the German authorities have provided a grant of up to US $724,000 as from 1 August 1992 to 31 December 1993. The UNEVOC project, as we call it, is designed to create more effective working relationships between UNESCO and such UN specialized agencies as ILO, regional organizations, NGOs, public and private funding sources and, last but certainly not least, the private business community. The aim is to network policy planners, teacher training and technical institutes, teachers, schools and students throughout the world "to assist in reducing the gap between the North and South" in building human resources for development. The Uruguayan idea of a Common market of knowledge, the Bolivar Plan for industry-university interaction...these are examples of new thinking pointing toward the involvement of "civil society". Only with this civil co-operation of actors including the private sector can we overcome the vicious circles and the all too many excuses put forward for inaction.
For the not so distant future, we must better harness computer networking! video fibre optic technologies and interactive modalities to bring often isolated and overstretched specialists in poorer countries into direct electronic contact with colleagues and data bases at the most advanced institutions.

For human resource development, the main investment, like the main outcome, is people. If we are to escape the catastrophe that H.G. Wells feared, then it is up to us to understand fully that what we do today is tomorrow's history and what we do tomorrow is totally within our human ability to reason, to know, to plan and to act. We must dare to know and know to dare. And, I can assure you, as many of you know by experience, the greatest dare is often to teach. That is why Einstein wrote as the motto for a junior college science building "it is the supreme art of the teacher to awaken joy in creative expression and knowledge". Therein lies the key to quality of life for us and our progeny.