

NEW CHALLENGES FOR HIGHER EDUCATION

by

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It has become increasingly clear that, as we approach the 21st Century, the human condition is changing in a very fundamental way.

In the first place the high cost of the arms race and of worldwide strategic commitments have begun to force both superpowers to review their strategic postures. The growing realisation that many problems in the world do not lend themselves to a military solution and that nuclear arms have only very limited political application have reinforced this trend.

We are now on the basis of the INF treaty, for the first time witnessing the beginnings of actual arms reduction. This and other instances of mutual accommodation in the Third World especially, have raised the hope that a new period of real detente has become possible, providing the superpowers keep moving towards deep cuts in their strategic arsenals and the seduction of the so-called modernisation of nuclear arms can be resisted. For the first time after a long period of deep anxieties and of about 150 wars or armed conflict since the end of world war II, primarily in the Third World, we now have to learn not only to live in peace but with peace.

Some of the reactions we observe today show how difficult that transition is for many people in each of our countries, for it involves the shedding of many firmly held notions about national and international security, and the development of new security concepts like common security. This transition one imagines might be even of a larger scale than when in 1648 the Peace of Westphalia put an end to 3 decades of religious wars in Europe and people learned to live peacefully with religious differences.

I think that the realisation that a new threat has appeared on the horizon, whose challenge dwarfs that of the traditional Soviet one, and which threatens all of us, i.e. the threat to human survival, helps to reinforce the trend towards greater cooperation between traditional adversaries.

This threat is essentially the result of the intersection of three processes of change: rapid population growth, the globalisation of national economies and changes in the global ecology. All these changes are driven by the very rapid advances in science and technology. These changes that are affecting all sectors of human life, and all parts of the world simultaneously, now force us to realize the profound and complex interdependencies that tie all

countries and peoples in the world together, requiring new ways of looking at what has been properly called our common future.

I suppose you all know the projections. If present trends continue world population will rise to between 8 - 10 billion and hopefully stabilise at that level in the second half of the next century. About 80 % of that increase will take place in the developing countries.

I also suppose that we are all aware of the disparities that exist between industrial countries and developing countries in terms of livingstandards. That gap developed as the result of the industrial revolution in Europe in the 19th century , and has continued to exist

The gap now has 3 dimensions. It is a gap between the rich and poor countries , between those people who have access to modern knowledge and those who don't and between those who have work, and those who don't. In addition the gap is no longer limited to countries, but increasingly also exists within countries, in the industrial North as well as - on a much larger scale- between the rich and poor within countries.

This gap , which was the result of the industrialisation of Europe, was further widened becauseof the impact of the 3d industrial revolution (based on advances in biotechnology, micro-processors and informatics, and materials technology), primarily benefitting the already industrialised countries who could make use of these technologies, while the developing world was just moving into its first or second industrial revolution (the first of which being based on steam and steel, and the second on electricity and chemistry).

If these large disparities in population growth rates and in standards of living continues - and the gap continues to widen, as is generally the case at present, with the exception of the 4 little dragons of the newly industrializing economies.- we should be prepared for a significant increase in pressure towards immigration into the rich industrial countries. That pressure is already greatest at the border between the US and Mexico, and on the borders between the Northern and Southern Mediterranean states. Unless something is effectively done about reducing these disparities this pressure might well develop into a veritable tidal wave that will be difficult

to contain.. Global population redistribution - because that may well be the scale on which these processes will develop - will also be driven by increasing environmental degradation and exhaustion of agricultural land in which massive poverty is both its cause and its result. - and continuing insecurity because of armed conflicts. Massive border crossings in Africa and Asia are already taking place, leading to new violent conflicts. Population movements within the larger developing countries are already taking place, for instance in China, India and Indonesia.

It is obvious that humankind is faced with a difficult choice. Either to revive and increase development support by a significant factor in order to reduce and eventually overcome the gap in living standards. Or to allow the free flow of people in the same way that in most countries the free flow of goods, services and capital has become accepted. This would mean the gradual acceptance of multiracial and multireligious states everywhere.

A massive development effort in the Third World however would inevitably raise major environmental problems. Already now the greenhouse effect has made global warming inevitable. The major question before us is not how to prevent it - that possibility is already behind us - but how to slow it down to the point where human beings, flora and fauna can adjust to it. The Third World is determined to industrialize, whatever the cost. They see industrialisation as their only salvation.

But already China is the 3d largest producer of carbondioxide, and though well advanced in some ways, she is only at the beginning of her industrialisation effort. Third world industrialisation at the present state of technology will therefore seriously accelerate the greenhouse effect. On the other hand no one can deny the right of the Third World to industrialise. The problem therefore is collectively to develop - and make available - the technologies that are less harmful to the global environment. This holds for developing and industrial countries alike. A recent study has shown how unlikely it is that present nuclear technology will be an adequate response. There are in addition the difficult problems of storage of nuclear waste. More promising are nuclear fusion and the so-called soft technologies.

A massive, worldwide cooperative R. and D. effort to develop these is therefore called for, as part of a global energy regime, aimed at slowing down and lowering as much as possible the rise in temperature. Such a regime should also include compensatory measures for those developing countries in whose territory the humid tropical forests are located. The cost of such a R. and D. effort should be delinked from the price of oil, but compared to the cost of changing weather patterns on agriculture and

that of moving major coastal cities to higher places in light of the likely rise in sealevels.

There are of course many other environmental problems that should also be considered in a regional as well as in a global context: acid rain, the hole in the ozone layer, the storage of toxic wastes are all problems that require international action.

The point to be made here however is that the population problem, economic development, and their impact together on the environment has become a global problem with tremendous consequences for industrial and developing countries alike.

There is a second reason that turns the development effort of developing countries into a global problem.

The internationalisation of national economies and financial markets with their rapid and massive movements of capital across borders that is no more related to trade and the fluctuations of the exchange rate, have made it impossible to look at economic development as an effort that takes place within the boundaries of a single nation state. The debt problem has in many cases wiped out the developmental progress made so far. In addition as we all know this problem has led to a reverse resource flow from developing countries to the North that is beginning to bleed these countries white. If this trend is to continue, the economic and political consequences may have major international consequences.

Stabilisation of the international economy in ways that take full account of the interests of the Third World, is therefore an urgent necessity. So is the resumption of a massive resource flow from the industrial to the developing countries that would be needed for the Third World to resume economic growth.

The interaction between population, the international economy and changes in the global environment therefore makes it very clear that there is not going to be a separate future for the rich industrialised countries and one for the poor countries in the world. Development cooperation and aid are no longer questions of charity, but a practical necessity. What is now at stake are the continued governability of human society and the continued habitability of the earth. These are going to be the dominant problems of the 21st century, transcending problems of national and international security.

Interdependence has now become total. It has spawned a transnational sphere that globally commands access to capital, skills, management and information, and is not accountable to any government or any other national or international institution. It has released powerful homogenizing forces around the globe, pushing towards a "world without boundaries". At the

same time powerful reactions have set in as well: the rise economic nationalism, moves towards regional economic integration, but also stubborn insistence of national, religious and cultural identities and interests, that are most likely to enhance the pluralistic and diverse character of the human community.

We are most likely moving into a skewed, quite unstable, complex, anarchic, very competitive and fragile world system in which no single country or group of countries is in control. We will have to devise the instrumentalities that will make the effective management of interdependence under such conditions possible. The level of cooperation and coordination that is called for will constitute an unprecedented degree of intrusion into affairs that in the past have been considered the exclusive prerogative of national sovereignty. What is going to be needed is a willingness on the part of nationstates to blunt the sharper edges of national sovereignty in order to make such cooperation possible. This in fact is already happening in the effort at integrating regional markets that is now going on.

Humankind may be on the verge of a second Copernican revolution in which the world as a system of autonomous nationstates cooperating together only to the extent that they have mutual interests, is becoming a system in which each nationstate revolves around a common core of values that pertain to human survival and solidarity.

In this kind of interdependent world there is little room for any major power to conduct a policy of going it alone, nor for unilateralism or the use of unpredictability as an instrument of policy. What is needed is an improved capacity for persuasion, for forging and maintaining the bonds of mutuality and trust between coalitions of equals and friends, not only in terms of security arrangements but also for global cooperation on problems all of humankind share. We will have to learn to develop more effective ways of cooperating with adversaries, in dealing with the overarching twin problems of international poverty, i.e. of choosing between international development and population redistribution, and of the environment in order to ensure its continued habitability of this small planet of ours.

It goes without saying that such a heightened effort at international cooperation is impossible as long as defense expenditures and related R. and D. expenditures remain at the present level. The continuation of detente and disarmament therefore are essential preconditions for effectively addressing the new challenges of the 21st century.

The inadequacies of the national and international political systems that we know, of whatever ideological persuasion, in dealing timely and effectively with these problems has become quite obvious. The rapidity of the social

changes in our own societies and in their international environments have clearly outstripped the capacity of our political and social institutions to adjust. Obsolete forms of organisation and management of the public sector, rigidities in management- labor relations are examples of this problem.

The effective management of interdependence then requires a major effort at political and institutional innovation and inventiveness. The cumbersome negotiating procedures followed in the negotiations about the New International Economic Order are obviously out of date. More effective negotiating mechanisms will have to be devised. A number of very important suggestions are already being made by a number of countries, including the Soviet Union, and by a number of non governmental institutions. This effort should however not be limited to governmental and intergovernmental institutions, within or outside the United Nations. In as much as governments have, to an important extent, lost control over transnational activities and processes, it may be necessary to develop institutions that can hold both governments and transnational actors accountable for their actions or lack of action in the international sphere in cases involving problems of human survival, human rights and human solidarity, the effective management of the global environmental systems and the global commons. This suggests the importance of developing regional and global parliaments or informal quasi-parliaments to represent the peoples of the United Nations rather than their governments, that could accompany intergovernmental global and regional organisations.

The need to give precedence to problems of common human survival and of the management and preservation of the global life support systems, also involve global and individual learning needs for the human community. So far the human response to global change has been inadequate. These needs are cognitive as well as attitudinal and behavioral, i.e. involving human values.

As to the first, a great deal of knowledge is already available. However the uncertainties resulting from contradictory theories and explanations are such that there is no analysis of what is happening in the world today and what is happening with it, that can command international consensus, - an essential condition for international action. We are as Edgar Pisani, former European Commissioner once said : in a " crisis of intelligibility" Economic theory as well as political philosophy have failed us dismally here.

We should also be aware of the degree of legitimate scientific uncertainty regarding a number of problems at this confluence of different interdependent systems. We can in many cases not afford to wait for the scientific evidence to come in, given the long leadtime necessary to organise international action and for those actions to take effect. We will therefore have to learn to make decisions in conditions of scientific uncertainty and social instability, most likely by making decisions sequentially, so as not permanently to foreclose any options that might be important later, by committing oneself irrevocably to a single course of action.

Apart from stimulating the kind of research that would reduce as much as possible , and as soon as possible, the areas of scientific uncertainty , serious efforts should be made to develop what could be called a new economics that could relate, in the longer term especially, economic theory to the micro- and macro environmental systems, to technology and culture, as well as to new concepts of security, if we want a firmer basis for international consensus and international action.

A great deal of new integrative thinking is needed now that the great ideologies that have given shape and direction to the course of history in the first part of this century , have exhausted themselves. In more immediate terms, more effective tools will also have to be developed that integrate developmentplanning to natural resource planning and environmental management.

Some of the learningneeds have to do with different ways of thinking.
- to learn to think globally, i.e. not only in terms of one's own nation's or group's interest, and to learn to think of, and perceive and empathise with the human race as a diverse but single unit.

-to learn to extend one's moral horizon so as to develop a perspective of human solidarity that embraces the whole of the human race and temporally, extends to future generation. We will collectively have to help articulate a common framework for the ethics of human survival and solidarity.

-to learn to accept the inherent complexity of natural and social systems; to accept the fact that we are part of the globe's interaction between natural and social systems, and that we are inside it, not outside, and that we can not control the systems in which we are imbedded. At most we can learn how to influence the probabilities of outcomes from within the system.

- to learn to live with civility, rationally with rapid social change, complexity and vulnerability, as the inevitable conditions of modern life, and to learn to do so without recourse to oversimplification, reductionism, dogmatism or single factor explanations.

- in the search for proper responses to global change and to the total character of interdependence we will have to learn to discern the ethical dimension of the problems to be addressed, and learn to deal with those dimensions not as residual problems, to be addressed after the technocrats have had their say, but to define those problems in the first place as ethical problems and then challenge the technocrats to come up with solutions that satisfactorily meet these ethical dimensions. In the final analysis, to use the words of the Dutch philosopher Van Peursen, "the future is an ethical category."

-In that sense we will have to re-establish the link between policy and ethics, between power and morality. To develop the kind of moral reasoning that this calls for requires a new kind humanities, that enables those concerned with the central values of our societies not to speak as technological and scientific illiterates. Similarly the new humanities should help sensitize people to other modes of being and other value configurations in different cultures. They should also be able to see the relativity of their own culture in a world that is looking for answers to unprecedented changes in the human condition.. Likewise ways must be found that our technologists, our engineers and natural scientists become sensitive to the social and ethical implications of their inventions and to their responsibility in that regard. The study of bio-ethics has to be supplemented with the study of techno-ethics.", for each technology choice is in the final analysis a value choice, a cultural choice. For that choice and the manner of its application will very much determine what kind of society we will eventually live in, at the national as well as at the global level.

For all the knowledge that is available, we are still short on the kind of knowledge that would help assure us of a chance to survive. The policy

instruments that could turn the development effort into more ecologically sustainable development are still in a rather rudimentary stage.

We still are a long way from the integration of development planning and natural resource planning, and far from determining the scale of the various international efforts that have to be undertaken in the various fields. We still don't know for sure what the various points of irreversibility are in processes of environmental damage, for instance.

How do we instill in new generations the realisation how much their own future is bound up with humankind's collective capacity to tend the earth and its peoples. We will have to learn to prepare succeeding generations for life in a very crowded, competitive, hungry and rapidly changing world. We will have to work out new balances between our longer range environmental responsibilities to future generations and our shortterm needs and shortterm political processes; between the rights of the individual and his or her obligations to the larger community; between the need for growth and development and the need for equity, between personal or group needs and the need for common survival.

At an even more fundamental level we will have to learn to accept limits, and develop a corresponding sense of proportion, fairness and humility, flowing from the reality of global interdependence, however skewed, and from humankind's essential interconnectedness with, and dependency on nature. This may be a break with the kind of hubris that characterized much of modern culture in the early part of this century.

The generation of the kind of knowledge that will be needed in the extremely fluid world into which we are moving, with the profound and all-encompassing shifts in values and worldviews constitute a major challenge

to the universities all over the world. More than any other part of the educational system, the universities will have to respond creatively to this massive challenge. Without such response there will be no substance to the role the rest of the educational system and the media could play in undertaking this effort at mass-education for a different world.

Whether the universities can make the necessary adjustments to these new requirements is an open question. Universities are not known for flexibility. Departmental rigidities and the tendency to protect academic turf will be major obstacles to develop the kind of interdisciplinary effectiveness that will be needed to deal with major problems that lie at the interface between the various disciplines or between different scientific fields. Already universities all over the world are struggling to redefine their function in a very competitive, rapidly changing and unstable globalised world economy and its continuously shifting skill requirement of a technology-driven changing labor market. Universities will also have to accommodate themselves to the increasingly shorter distance between basic research and industrial application in light of the need for each country to achieve or maintain the necessary level of international competence and competitiveness.

Very few universities have begun to organize themselves to deal systematically with the global issues of human survival, development and welfare in its various dimensions and in their interrelationship with national problems. Nor has there been much interest in relating those issues to the values of their own societies and those of other societies in the world, in order to build up that capacity of moral reasoning and ethical reflection in a national as well as in a global context that will so much be needed in the years to come.

In that sense the UN- University headquartered in Tokyo with its global mandate and its perspective of human solidarity may well be an early precursor of a new generation of institutes of higher learning that the world desperately needs.

The hour is late. As events in Central America and many other places in the world have shown, there is a limit to the social sustainability of societies. If the pace or the scale of change surpasses the adjustment capacity of a society and its institutions, polarisation sets in and guerilla warfare begins, setting in motion an almost unending spiral of violence and counterviolence. There are now too many problems around the corner for which we simply have no answer. What to do with the massive under- and unemployment in the Third World when technological evolution seems increasingly to become laborsaving? What to do with the hundred of millions of peasants in the

world when the inevitable impact of biotechnology will destroy the viability of traditional agriculture that mankind has known for more than 15.000 years.?

The mutation in the human condition resulting from mankind's capacity to destroy itself and the life that - in the words of Carl Sagan- graces our earth, now makes it imperative that we all work towards the re-ordering of mankind 's collective priorities, and towards the articulation of a broad international consensus in order better to ensure the survival of the human species and its welfare in peace and justice. The business of building an international consensus around an ethic of human survival and solidarity is essentially a learning process. The contribution universities around the world could make in directing and shortening that process, may well be decisive.

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