

GLOBAL TRANSFORMATION:

SEARCH FOR NEW UNDERSTANDING

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I am greatly honoured to have been invited to give a public lecture here today at the University of Uppsala, a great and ancient centre of learning. You have been about the task of trying to improve the world's understanding of itself for some five centuries. I speak as a representative of one of the world's newest attempts to join that endeavour, the United Nations University. So I make my remarks here with some humility and trepidation.

I want to talk with you today about a world -- only a few steps away from entering the 21st century -- which is in a rapid, bewildering and often frightening state of profound change. We very badly need to make this process of global transformation more manageable and less frightening, and I would like to explore with you what international science and scholarship -- from both old and new centres -- might do together to help bring this about.

The central task that confronts us can be simply stated, but will be formidably challenging: how to arrange our lives in a crowded, competitive and limited world of 8 to 10 billion people beyond the year 2000, in ways that are ecologically sustainable and equitably based on a shared moral consensus that is now lacking.

Over the centuries of its existence, scholars and scientists from Uppsala have immeasurably enriched human life and enlarged the human

spirit. Perhaps "immeasurably" is the wrong word -- for so many of the indispensable measurements by which international science now communicates had their origins in the laboratories and lecture halls of this university. To Uppsala, the world is indebted for the Celsius Scale, the international symbols of chemistry of Berzelius, and the classifications of life itself of Linnaeus -- to cite only a few of the best-known contributions.

It was Linnaeus who concluded, in his monumental work of classification, that man, possessor of the ability to think and reason, should be designated as "Homo sapiens" -- man the wise. While the long list of human follies attests that man has often abdicated that title, it is clearly imperative that we seek to draw on that ability now. For men and women around the world, in ever-increasing measure, will need to think creatively and reason wisely if humanity is somehow to get through the next few perplexing and turbulent decades and enter a 21st century that is more secure, just and humane.

The signs of deep and fundamental change -- of a literal transformation of the global society -- are everywhere at hand, in all parts of the world and in all levels of society. One of the most important things we must learn, if we are to survive and progress in an increasingly insecure, perilous and fragile world, is the art of existing, at more than double population density, in a continuing state of rapid social change accompanied by great common vulnerability.

All societies, the strong and the weak, are now exposed to many forces and processes beyond their control, and all national boundaries have become permeable to the transnational impact of economic and political decisions taken somewhere outside one's own country. The pathology of the

arms race, feeding on irrationality, mistrust and misunderstanding, continues to pose the ultimate threat of extinction of all life on this planet.

All of this poses the question of how we are going to learn to live and manage our fears in such a global condition of vulnerability. What new kinds of institutions and international arrangements must we devise to manage a world in a constant state of risk from many directions and in which no one is in control?

The slim and precarious measure of stability which characterized the post-war world and the period of detente -- built largely on an uneasy and perilous nuclear stalemate -- appears to have disappeared. That stability ignored basic issues of structural change and cultural diversity at both global and national levels. It is no longer possible to put off these issues.

The conventional notions of development of the 1960s and 1970s -- the belief in economic growth and the "trickle down" theory -- have clearly been unable to provide certain minimums of human survival to hundreds of millions around the globe who continue to live a life of squalor, injustice and despair. A restructuring of the world system, one which could offer hope of a life of dignity for all humanity and reduce rather than widen the gap between rich and poor, is long overdue.

The world economy is in a period of markedly slower growth and even stagnation and will manifestly not respond to shop-worn traditional nostrums. More effective instrumentalities for management of the global economy and the international monetary system must be devised.

Major shifts in the global configuration of power are underway, yet

several of the major countries seem unwilling or unable to adjust to new political realities. There is great and obvious danger that when major centres of technological and military might find themselves unable to cope with a new situation they may fall prey to some irrational response -- including the nuclear response.

The industrialized countries are experiencing great problems in overcoming the structural difficulties that stand in the way of adjustment to the post-industrial era and to advancing industrialization of the South. Their political and social institutions were created to solve other, older problems than those we face today. Government bureaucracies, political party machines and trade unions seem increasingly unable any longer to aggregate interests, hold allegiances and mediate between contending forces towards national consensus on many of our present and emerging problems.

Underlying all of these political and economic instabilities in the industrialized countries are very profound cultural changes and value shifts -- manifested, for example, in altered concepts of work or changing consumer expectations and savings habits, but also in the rise of a new religiosity, the search for new life-styles and the emergence of single-issue politics. These are shifts that reflect people's changing conceptions about the meaning of life.

These are forces that are frequently beyond the capabilities of institutions or the control of governments. While they are in many ways healthy and commendable, they also contribute to the general sense of fragmentation, vulnerability and loss of control, of a world where "things are in the saddle and ride mankind."

Equally serious and deep-rooted is the fragmentation and disorder in the third world which is caught up in sharp conflict at home and abroad. As someone from the third world, I believe it is high time for its leaders to face up to this deep fragmentation -- to continue to not do so is counter-productive to the third world's hopes of overcoming the global disparities that hamper and distort its development.

There is clear and troubling evidence of the developing countries' inability to act in unity. Throughout the Second Development Decade, the Group of 77 countries were unable to set up a joint Secretariat, or agree on the establishment of a single research institution that could undergird and buttress their negotiating stance towards the North.

The third world's situation is further complicated by the rise of the newly-industrialized countries, most notably in Latin America but also in East Asia. The rapidity of economic development in many of these countries has led to regional and social disparities of great magnitude, to which the third world has to make its own adjustments.

And there is also, it must be admitted and faced up to, deep trouble internally within developing societies. Many of the first generation of political institutions in the third world proved to be unable to cope with the needs of their societies and have collapsed. The second generation is now about to be tested by problems of succession. Too many of the third world elites continue to be bewitched by outworn assumptions about economic planning, technology transfer, and the modern technocratic state. Too many still view the problems in old power terms -- whereas the real issues are increasingly of a different order, involving social growth, equity, justice, freedom, and alternative industrial trajectories.

All of this fragmentation and strain on political and social systems has put the call for a new international order and the concept of collective self-reliance at impasse -- a logjam of competing interests, values and perspectives. This is hardly a position of strength in which to join the North-South dialogue. And yet the need for such dialogue remains imperative -- for basic structural changes in the world system must be comprehended, agreed upon, and implemented if the peoples of the third world are to have any hope of lifting themselves out of their present state of poverty, inequity and powerlessness.

Thus everywhere -- East and West, North and South -- there is evidence of economic stagnation, social breakdown and political impotence. Everywhere powerful and wholly new processes and deep-seated emotional reactions to the status quo seem to emerge that challenge the traditional institutions' capacity to management.

Equally challenging to conventional management systems is the heedless plunder of the globe's finite resources, often in the name of progress and the advance of science and technology. In the rush to modernization and industrialization, we have recklessly brushed aside considerations of just how fragile and delicate the earth's life-support system is and how much its misuse ultimately affects us all. We must find ways to adjust our behaviour to the carrying capacity of the planet. At the moment, however, we are seriously lacking in institutional capacity to even monitor the changes we are imposing on the environment, much less successfully manage them on a sustainable basis.

Tragically, we are witnessing this widespread disintegration in human solidarity and environmental degradation at a moment when other,

equally compelling forces -- such as communications, world trade, and resource security considerations -- are rapidly increasing the world's interdependence. We seem to be experiencing the paradoxical and disorienting process of our globe both fusing society together and splitting it apart. Clearly such a defiance of basic laws of nature cannot continue for long without serious consequences.

Ironically -- and seemingly even more defiant of natural law -- the first process, interdependence, is actually helping fuel the second, fragmentation. For the increase in global interdependence is due in large measure to the post-war scientific and technological revolution in telecommunications, electronics and transport. Which has, of course, fashioned the "global village" that both heightens the aspirations of the poor of the third world, and, at the same time, makes them all the more keenly aware of the inequity of their own lot.

In attempting to extrapolate the global situation in the decades ahead -- from the present scene of spreading fragmentation and disarray in the world, with the increasing awareness of hundreds of millions of the unacceptability of their present daily lives -- the pragmatist can only conclude that things will undoubtedly get worse before they get better. And the only real practical hope of an eventually better and brighter world seems to me to rest on our ability to make the powers of science and technology serve more consistently humanity's moral and ethical purposes. Certainly one of the most troubling questions of our age is why science and technology, despite their achievements and potential promise, have been unable to make possible the eradication of the hunger, poverty and injustice from which at least half a billion people still

suffer.

The problems we face in the years ahead go beyond questions of development and beyond the North-South dialogue. It comes down really to the question of how we are going to act together to learn to live together in a world with 8 to 10 billion people within the lifetimes of our younger children today.

The harbingers of more serious, more entangled and more stubborn problems are all there in the projections of a number of studies with which I am sure most of you are familiar. One needs to touch upon them only briefly.

There is, of course, the reality of soaring populations. Despite remarkable successes in several countries in reducing fertility rates, rapid population increase is expected to continue -- to the extent that by the year 2000, the world's absolutely poor will number 600 million, 540 million of whom will live in the low-income countries.

The implications of population growth can be read in many other ways than the appalling enumeration of absolutely poverty, all of which will tax our creative ingenuity, management capabilities, and readiness for moral response. It raises the question, for example, of the impact of this growth on an already disturbingly high rate of youth unemployment in many countries, both industrialized and developing. Another is the question of how we will learn to survive under conditions of extremely high population densities: will we need to somehow increase our sense of "inner space," as against the inevitable narrowing of "personal space," to cope with living conditions in such densities?

Population growth will also cast the energy outlook in a far starker

light. The period of cheap energy is over. We will all have to make fundamental adjustments to the high cost of energy for a very long period in the future.

A growing consciousness of increasing resource scarcities -- and not only in energy sources but also other key minerals or food sources -- will trigger increased competition between industrialized countries, between the North and South, and in the third world itself.

Resource transfer will become more and more a political weapon. Much as we might deplore it, resource diplomacy -- using energy, food, other commodities -- will likely be a reality of international negotiation and bargaining.

We are entering a period when what one might call "the geopolitics of resources" will become a major feature of the international scene. We can expect fundamental realignments of regional and national interests based on requirements of resource security. The political alignments which have characterized the post-war period and detente -- which are already beginning to crumble -- will witness even more profound change as countries reposition themselves in order to make sure they have continued access to resources. This is bound to accelerate the fragmentation, already underway, in the international constellation of power.

A particularly disturbing instability emerges from the global energy and food outlook. Here the projections indicate converging tracks -- with spreading and disastrous consequences as rising fuel prices, boosting fertilizer, transportation and other agricultural costs, inevitably push food prices beyond the reach of hundreds of millions of already hungry people.

To combat this, the poorer and most populous countries will have to find ways to grow more food themselves using less energy-intensive methods. They cannot go on buying food and oil without inviting bankruptcy -- and certain countries are already perilously close to that state.

Advances in biotechnology -- biological nitrogen fixation, genetic improvement and the like -- offer promise of ways to increase agricultural yield without high-priced energy inputs. But these are already moving from the laboratory to the profit sector in the West. The third world must move quickly lest a whole new range of dependencies emerge from these biotechnological advances. This speaks to their need to strengthen their own capabilities in the basic sciences and for centres of scientific excellence in the West -- such as Uppsala -- to be willing to co-operate with them in this effort.

Science alone, however, will not provide the solutions to problems such as these. One thing that should have struck us with blinding clarity by now is that science and technology left unchecked -- with no links to moral and ethical purposes -- have brought us so many of our present problems. Science and technology alone cannot help us to reshape the social structures in which hunger, poverty and injustice are embedded unless we learn to make them serve social and ethical goals.

To do this, however, we must also improve our understanding of the social and cultural dimensions of the problem. We need, for example, to know more about the dynamics of community participation, village self-management and farmers' associations. We must pay fuller attention to many hitherto unheard voices -- the marginal farmer, the landless labourers, women and other disadvantaged groups in the countryside.

It is in such groups that one sees today another major force for transformation and value change. Indeed the surging aspirations of the previously powerless are manifest on a worldwide scale. These trace their roots in part to the liberation movements during and after World War II as the peoples of many countries sought to throw off their foreign shackles. The same sort of aspirations fueled the civil rights movements in the United States in the 1950s and 1960s. This new desire to be heard, to have a vote in one's own future, is also in evidence in the environment and peace movements, the women's movement and in the evolution of workers and peasants' associations in many parts of the world.

As is true with so much of the profound social change now occurring all around us, such movements from below are fraying and eroding the capacities of existing institutions and governments to deal with them. And yet they must be dealt with for they are expressions of very profound value changes of great magnitude. Left untended, these expressions of desire for change can be dangerous -- for we have already seen in many parts of the world how easily pent-up dissatisfaction and frustration can explode into violence.

But more importantly, we need to listen to these voices because they may have something very, very significant to say. There is much that is fresh and original in many of these challenges to old assumptions about development and economic growth. We need to think about new instrumentalities that will be more capable of hearing and assimilating into development thinking, these previously unheard voices -- for they represent the aspirations and hopes of vast numbers of mankind.

If this very rough sketch of the state of the world -- today and in

the decades ahead -- has seemed excessively gloomy, let me seek to qualify that. For while it is indeed a troublesome and disquieting world scene, it is by no means a hopeless one. For I firmly believe that we may now be beginning to recognize that out of all the confusion, fragmentation and economic disarray, out of the necessity of living with the high cost of energy, out of the recognition that levels of violence must be reduced, out of the challenges to current life-styles, we may come to see development strategies and trajectories of industrialization that are basically different, and more consonant with human dignity and justice, than those we have followed to date.

We may, in fact, be seeing here a historical process unfolding that could lead to the emergence of alternative, non-Western, modern civilizations in various parts of the world -- possibly the Sinitic, Hindu and Islamic as well as others. They will wish to take their rightful place side by side Western civilizations on a basis of rough parity. These civilizations have much to offer a world that could be both interdependent and richly pluralistic in cultural diversity.

Before such a vision can become reality, however, we will need to set in train a vast global learning process by increasing the learning capacity of nations and societies. Francis Bacon reminds us that wonder is the seed of knowledge -- and so the learning will have to begin with questions. But here we will need the courage and insight to ask ourselves many new and elementary and even disturbing questions. For too long we have been asking the wrong or only partial questions, which of course goes a long way towards explaining why we have been getting the wrong answers.

Perhaps the first question should be: Do we really understand what

is happening to us and what the historical processes in which we are involved really signify?

What are we to make, for example, of the reemergence of the spiritual, manifested in many ways, at many levels of society, around the globe? Is it simply another symptom of the flight from rationality and responsibility -- or is it a change of a more fundamental character, signaling the end of secularism, "the return of the sacred," and the breaking through of new transcendental conceptions of life?

Are we in the process of abandoning concepts of universalism in favour of smaller, primary units of social organization? What would be the implications of this -- economically, politically, culturally, and technologically?

Are we in the first phases of a global transformation that revolves around different kinds of interpersonal relationships -- and therefore different kinds of power relations and different uses of technology? What forms would these new relationships and linkages take?

One thing is clear: science and technology alone cannot answer such questions. Our technological resources cannot be mobilized to solve global problems unless they are related to the sources of morality, and unless our attitudes towards human suffering, justice and violence encompass a spiritual perception as well. Answers to the questions will only begin to emerge, therefore, when they are undergirded with moral and ethical purpose.

But our capacity for moral reasoning is being eroded by the fragmentation of man's perception of himself and his ultimate value. We must refine this moral and ethical capacity and employ it to its fullest in learning

how to live in a world of 8 to 10 billion people in common justice and dignity. We must seek to reorganize ourselves to meet new fundamental requirements to honour both human solidarity and human individuality, as well as cultural and social diversity.

This can be seen as both a management problem and a human problem -- a crisis of personal growth and interpersonal relationships writ large. A crisis also because our present knowledge is simply inadequate to deal with either the managerial or the human dimension.

Our knowledge base is seriously lacking -- too many of our best intentions of helping humanity are beset by fragmented or ill-connected bits of information. Perhaps of all the fragmentation we see around us, the fragmentation of knowledge is the most tragic and consequential -- for it is ultimately a shattering of humanity's perception of itself.

To put it bluntly, we don't really know enough about a great many things -- at a moment when swift transformation in the framework of global interdependence asks for more hard and relevant knowledge and much more finely tuned and morally perceptive views of the world around us. The explosion of knowledge that has taken place has not necessarily added to our capacity to solve some of the most important problems faced by humankind. What we have learned has often been irrelevant to these problems.

The United Nations University was established as a global institution to help expand the knowledge base on which humankind will have to make its decisions about the future. Its Charter directs it to mobilize the "international community of scholars" in this effort -- and thus it seeks to work in close co-operation with such major centres of learning as the

University of Uppsala.

We will all have to work together: sifting and weighing existing relevant knowledge, testing the results of empirical hard research in the crucible of dialogue of many cultures and ideologies, and creating new knowledge, new insights, new understandings and new global perspectives.

In our five and a half years of existence, we have benefited greatly from the wisdom of scientists and scholars from Sweden and the other Scandinavian countries and from the support of the Scandinavian Governments. The UNU is now exploring new and different research activities on a number of the problems I have mentioned here today -- the international economic system, the process of global and social transformation, peace and conflict resolution, human rights, values and freedoms, the interlinkages of food and energy, and the appropriate role of applied as well as basic science and technology in development. It hopes to develop with academic and scientific communities around the world a mutually beneficial and collaborative process of research and education.

Maybe -- just maybe -- if we do work together, we can begin to see more clearly the road we all want to travel towards a more viable, peaceful and equitable international order, with much lower levels of armaments and less destructive and insane violence. We can then begin to hope that this troubled, perilous and changing world can in fact rearrange itself with harmony and dignity for all humanity, and can do so before it is too late. If we can accomplish this, then I think we can rightfully and proudly defend the thesis of Linnaeus that the human species merits the title, "man the wise."