

Address by

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Chairman

World Commission on Environment and Development

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Mr. Minister, Your Excellencies, Ladies and Gentlemen.

I want to thank the Government of Canada for its generous invitation to the World Commission on Environment and Development to hold its fifth meeting here in Ottawa. During the past few days, the Commission has seen a great deal of your enormous and magnificent country. In Vancouver, Edmonton and Toronto, we met and talked with leaders from all of the Provinces, the Yukon, and Northwest Territories. Next week, the Vice Chairman and other Commissioners will be meeting with leaders in Eastern Canada.

Before we leave, we will have seen and heard about many of your environment and development problems, some of which are very familiar in many other parts of the world. Indeed, if I may be allowed a personal note, during my five years as Minister of Environment, I found that Canada and Norway were almost invariably allies in the battle for a better global environment.

Canada's invitation to host our meetings is further evidence of your leadership on environment and development issues, leadership which began in the mid-1960s, some would say much earlier. You played a prominent role at the Stockholm Conference in 1972. You hosted the Habitat Conference in 1976. And, you have provided many citizens who have achieved distinction as international leaders in environment and development. Maurice Strong, now a member of the Commission; Jim MacNeill, now our Secretary General; David Munro, an active leader on the World Conservation Strategy; and others.

The Commission feels very strongly that it is meeting here among kindred spirits and friends.

The atmosphere is important to us because our meetings this week are the most crucial in the work of the Commission to date.

During the past eighteen months, ladies and gentlemen, the co, has been engaged in a major effort of fact-finding on the critical issues of environment and development. Our meetings this week mark the peak of this phase of our work.

An exciting set of submissions has been prepared for the Public Hearings today and tomorrow. We have been very impressed with them and we are looking forward to meeting with those who are on the leading edge of North American thought and leadership on environment and development questions.

THE GREAT TRANSITION

I doubt that there has ever been a time, including the period prior to the 1972 Stockholm Conference, when the world was in such great need of leadership on the interrelated issues of environment and development.

We are living through a very profound change in relationships between the human world and its development on the one hand, and the planet earth and its biosphere on the other.

For the past two centuries our numbers have increased and our economies have expanded largely on the presumption that the world and its development was comfortably separate from its environment. Develop we must. On that we had no choice. But the environment was something else. On that we had a choice, or so we argued and so we acted. Should we add on measures to protect the environment and sustain and renew our resources or should we not? The truth is, we really never did have that choice. And now we have entered a new phase in the relationships between economic development and the environment, locally, regionally and globally, in which to persist in the myth that we do, places both in

peril. The dominant characteristic of this new phase is interdependence, an accelerating and irreversible interdependence between economic development on the one hand and the ecosystems on which it depends on the other. The two are now completely intermeshed, united by the dynamics of technological, ecological, economic, demographic and other forces.

The momentum of population growth is one measure of this new phase. It is hard to grasp that more people will be added to the planet in the five thousand days remaining between now and the end of this century than existed at the beginning of this century.

Very little can be done about population growth to the end of this century. It is built into today's population structure. What can be influenced is the size of the population at stabilization around the end of the next century. It would be 8 billion, 10.5 billion or 13 billion depending on both development and family planning measures taken now.

Who do we need to worry about the environmental consequences of population growth? The issue is not really that it could pose ultimately unmanageable pressures on global resources. Frankly, the small number of affluent people on the earth consume by far the greater part of the world's resources. The real issue is that population growth is increasingly concentrated in resource-poor households and in regions facing ecological stress. The greater gains from an active development-based population control policy will be the improvement in living standards in such poor households and disadvantaged regions.

But the demographic momentum is only one measure of the great transition through which we are living. The projected growth in the world's economy is another. We are now approaching a \$15 trillion world economy, perhaps twenty times greater in real terms than at the beginning of the

century.

Over the next half century, the world economy could grow another 5 to 10 times, with a corresponding increase in the stock of planetary investment in houses, transport, agriculture, industry. Fortunately, the resource and environment content of growth has gone down, thanks to technological advances and certain economic and other circumstances. And it is vital that the resource and environment content of growth continue to be reduced in the future.

A NEW CLASS OF ISSUES

The transition is evident in many other areas: technological, social, cultural, political, and it has given rise to a new class of issues that are not only quantitatively, but also qualitatively different from anything in our historical experience.

These issues are marked by the same characteristics as the transition itself; a fast, rising pace of change along with an enormous increase in the geographical reach of the impacts of that change. And a growing interdependence between economic development and the ecosystems on which it depends.

The transition has changed the conditions for successful management and created new imperatives for international co-operation. The environmental effects of agriculture, industry, energy and transportation were once largely local in character, and could be managed on that basis. Today, they are inescapably regional and global, and must be managed accordingly.

More important even than that, the transitions has changed completely the way in which we must think about environment and development. In the past, our main concern centered on the effects of development on the environment.

Today, we need to be just as concerned about the links from the environment to the economy. In area after area, it is these reverse effects that condition the potential for development.

The new issues are much more difficult to deal with than those of an earlier generation. Recent events demonstrate, for example, that these issues are plagued by questions of uncertainty and raise fundamental questions about the limits of sovereignty. Does one nation have the right to employ technologies, and processes and designs that impose on its neighbours high levels of risk from accidents, even if the probability of that accident is very low? Does our generation have the right to impose such risks on the next generation, or even to impose the high costs of managing such risks over several generations. Long after any possible economic and social benefits have been captured by our generation?

NEW ISSUES ARE INHERENTLY INTERNATIONAL

The new issues cannot be separated from the policies that underpin them. Even though these policies may be considered matters of strictly national concern, their capacity to undermine the essential ecological basis for development in other countries makes them matters of international concern.

Agriculture is one of the best examples of a sector for which national policies have been designed year after year to secure short-term gains in production and profitability, without regard to their longer term international environmental consequences.

These policies have been on the agenda of many international economic organizations over the years and the recent Summit in Tokyo considered them. In its communiqué, the Summit recognized that the nations of Europe, Japan and North America face a common and highly intractable problem in

agriculture, which also harms the economies of certain developing countries. What the Summit did not recognize was that the world can no longer deal with the international economic and trade consequences of national agricultural policies without at the same time, and on the same agenda, dealing with their environmental consequences.

There are clear links between the incentive-driven farm surpluses of North America and Europe and the growing threats to sustainable agriculture in these regions and in many developing countries.

These policies were originally intended to sustain the income of farmers in various ways, an objective that most nations feel is essential for social, economic and, even, environmental reasons. But these policies have lost their way. In order to increase agricultural productions and profitability in the short-term, they have caused the occupation of marginal lands in many areas and the clearance of forests and woodlands essential for water and soil conservation. They have induced farmers to over-use pesticides and fertilizers, to mine underground and to waste surface waters for irrigation. In a growing number of areas, they have led to erosion and other forms of permanent degradation of the soil and water base. The result has been lower productivity and great economic losses to the agricultural community.

Your own Canadian Senate Committee on Agriculture, Forests and Fisheries recently provided a partial estimate of the cost of the erosion phenomenon here in Canada. According to the Senate Committee, I quote, "Soil degradation is already costing Canadian farmers \$1.0 billion per year in lost farm income, and Canadians are clearly in danger for squandering the very soil resource on which the agricultural industry depends". They go on to say that "the current agricultural system is obviously not a sustainable one. We are effectively 'mining' the soil and are about to reach (in some cases have already reached) the point where the soil is

mined out". Reports from the United States and Europe tell a similar story.

Virtually the entire food cycle in North America and Western Europe now attracts direct or indirect subsidies. The system has become extremely expensive, has created vast surpluses and has also created a context in which it is politically attractive and often cheaper, to ship those surpluses at subsidized prices or as food aid on a permanent basis rather than store them.

Let us be clear - there is no doubt that food aid is essential in emergency situations, and Canada and other countries have a proud record in this regard. But outside of emergency situations, the growing volume of continuing food aid only compounds the real problems of receiving countries.

In fact, the most serious consequence of this cluster of policies is their depressive effect on very difficult but necessary measures to reorient agricultural policies and thus combat rural poverty in receiving nations. Some countries find it easier to receive shipments of food than to improve their own food production, their distribution networks and their storage facilities.

The effects are widespread. Rising numbers of rural poor find themselves remaining on the fringes of the development process. Their marginal status drives them to seek their livelihoods in marginal environments. They over-harvest fuelwood stocks and their livestock over-graze grasslands. They may engage in slash-and-burn farming of forest lands, inducing erosion and stimulating the spread of deserts.

And so this cluster of policies, fragmented in their origin, ends up accelerating the degradation of the resource base for agriculture and food security not only in the industrialized marked economies but also in developing economies. Everyone loses.

Looking to the year 2000 and beyond, it is clear that these policies cannot be sustained. They must be changed. Is there any reason why we cannot sustain farm income in industrialised countries through an incentive structure that both eliminates costly surpluses and encourages farm practices that sustain and even enhance the essential soil and water base for agriculture? Is there any reason why we cannot provide essential assistance to governments in Africa and other developing countries in ways that will enable them to create incentive structures for their farmers - incentive structures that encourage them to reverse ecologically destructive farm practices that remove the forests, erode the land and advance the deserts; incentive structures that would encourage them to grow more of their own food, knowing they have an assured market? Is there any reason why we cannot remove budget-draining protectionist measures against food products such as sugar on which many countries of the third world depend and in which they have a clear comparative advantage?

There are no good reasons. Too many agricultural and related trade and aid policies today, in all countries, are ecologically blind. They need to be rethought and re-oriented. They need to be given new foundations in both environment and economics. The two are inseparable. Environment needs to be built firmly into the agricultural, economic and trade agendas of national and international bodies.

Policies in many other areas tell a similar story. The processes of tropical deforestation and loss of genetic resources are similarly rooted in a complex mix of settlement, economic, aid and trade policies. So are certain processes of industrialization based on old resource and energy consuming, unsafe, environmentally inefficient and, hence, economically uncompetitive technologies.

These processes can all be reversed. We have the means. In every industry, including agriculture and forestry, or chemicals and steel, we have many leading examples of

success in achieving economically and ecologically sustainable forms of development.

Let me turn to another complex of policies centred on energy. Until now, as we all know, air pollution and acidification of the environment have been generally treated as two separate and distinct issues. Measures taken by industrialized countries to control air pollution (high stacks, for example) very often simply transferred the problem to the hinterland of their own country or to another country.

This is quite clear from the rapid rise in transboundary air pollution in Europe and North America and in the widespread acidification of the environment that has followed - sterile lakes, dead forests and, scientists now fear, sour, acid soils. But both air pollution and acid rain are in fact linked through their common sources in the combustion of fissile fuels, whether in stationary power plants, industry and homes, or in mobile transportation.

If we could use less fuel for the same level of economic activity, we would do something significant to lessen both air pollution and acid rain. And on this front there is good news. During the past decade, a unit of growth in the gross national product started to take less than a unit of growth in energy consumption. Economic growth no longer implies a parallel growth in smoke stacks. In fact, the energy content of growth fell, in some countries from 1.2 to 0.5 units. The result is substantial gains in overall economic efficiency and competitiveness, and substantial reductions in environmental damage and the economic costs of that damage.

But the momentum that produced energy efficiency gains of, latterly, 2 per cent per year is now threatened by the third oil shock. With the falling price of oil, the past gains could quickly be lost. That would be tragic because both air pollution and acidification have reached dramatic

levels that now threaten the basis for future development in many areas.

The experience of Tokyo, London, New York, Montreal and many other cities - those in the Ruhr, for example - demonstrate that gross air pollution can be rolled back. But most of the world's cities have not shared in this experience. In fact, in many cities today, air pollution has reached levels that exceed by far the worst cases of the 60's in the western industrialized countries, and they are intensifying daily.

The evidence underlying the urgent need for action on the sources of acid rain is mounting faster than scientists and governments can assess it. Up to now, the greatest damage has been reported over Eastern and Western Europe, which are currently receiving more than one gramme of sulphur on every square metre of ground each year. Scientists tell us that after slowly accumulating over the decades, especially since the second world war, acidification of the environment may now have reached a tripover point, in Eastern and Western Europe and North America.

The numbers of sterile lakes in Europe and North America have been growing for years, but forest death was relatively unknown as late as 10 years ago. In 1982, Germany reported visible damage to around 8 per cent of its trees; in 1983, 34 per cent; in 1985 over 50 per cent. Sweden has reported light to moderate damage in over 30 per cent of its forests. In some cantons of Switzerland, 50 per cent of the trees by count are dying. The worst damage, however, is reported from Eastern Europe.

Evidence of acid rain damage in the newly industrialized countries of Asia and Latin America is also beginning to emerge. China and some other countries basing their industrialization on high sulphur coal, are particularly vulnerable and so, of course, are countries downwind from them, such as Japan. All of these countries have time to

prevent what is happening in North America and Europe.

There is today absolutely no excuse for inaction on the interrelated issues of air pollution and acid rain.

We know the sources. We know the effects. We have the technologies. The costs of inaction are too high to be sustained. Action is easily within our reach. It would generate jobs in the short run and greatly increase the potential for future growth of our economies.

The industrialized countries, we are paying the costs of inaction; we must now begin to pay the costs both of restoring reversible damage and of preventing future damage. Developing countries can't afford to pay the environmental costs of energy development three times. Once is enough. But that means building in prevention from the start.

The experience of the past decade demonstrates that the most effective measure to prevent future damage is to establish energy prices high enough to encourage both a steady increase in energy productivity and a shift away from fossil fuels. If the present low price of oil lasts for too long we could rapidly lose the gains that we have made in these areas over the past decade. Worse still, planning the future on the basis of cheap energy will rebound with a vengeance against both development and environment when prices rise, as they will.

If we could sustain increases in energy productivity over the next 50 years or so, and there is good evidence that we could without any reduction in the tempo of growth, we could halve the output of carbon dioxide globally. This would buy time desperately needed to remove some of the real uncertainties concerning perhaps the greatest pending threat to the global environment - climatic change from rising levels of "green house" gases.

The effect of these emissions on climate has been the

subject of intense assessment. Last October, scientists from 29 industrialized and developed countries reviewed the evidence and warned that these gases could lead to a rise in global mean temperatures in the first half of the next century "greater than any in man's history". A global warming of 1.5° C to 4.5° C at the equator - greater at higher latitudes - should be anticipated within the next 45 years.

The great concern, of course, is that this would lead to a sea level rise of between 25 cms to 1.4 metres, also within the next 45 years. This would inundate low lying coastal cities and agricultural areas. And as the seas invade and modify the levels of shared bays and estuaries and international waterways, local agony could quickly translate into international crisis.

Many governments, many people see nuclear energy as one answer to reducing the environmental costs that arise from fossil fuel consumption. These same nations, however, have found it difficult to come to grips with many of the issues raised by nuclear energy; the issues of risk and safety I mentioned in the beginning; the technology and siting of facilities for the permanent disposal of long-lived, high level nuclear wastes; the separation of peaceful and military uses of the nuclear plants.

The tragedy of Chernobyl ensures that the debate on these issues will continue in all countries. But the perspective will be different. Chernobyl has dramatized once again that, as Marshall McLuhan said, we are living in a Global Village and that our Only One Earth compels us to share a common destiny.

On behalf of the Commission, I asked the Director General of IAEA to provide us with their report on the accident and its implications, and we will be considering it carefully, before drawing our conclusions.

Ladies and Gentlemen,

The United Nations General Assembly asked the Commission to take a fresh look at the critical issues of environment and development and to work out some concrete recommendations for action now.

During our meetings this week, the Commission will receive reports from the Chairmen of the Expert Panels we established to advise on three of the complex issues on the Commission's agenda, namely, energy, food security and industry. We will also be considering international economic relations as they relate to these and other areas on our agenda, including science and technology.

The General Assembly also asked us to consider and make recommendations on strengthening international co-operation on these issues. Our work on this aspect of our mandate will move into high gear after our meeting here in Ottawa, but it is clear that it is in this area that we face the greatest challenge.

The Commission is not a doomsday body - it is a body marked by optimism and realism, based on the remarkable achievements of the past few decades, based on the capacity of science and technology based on the growing awareness of the mutual interdependence of the environment and the economy, and based on the demonstrated capacity of man to adapt and adjust to changing circumstances.

Man will certainly get through the great transition now underway, but if we are to seize more of the opportunities and avoid many of the crises on the road, we will need to consider significant changes in many areas, and most particularly in the area of international co-operation.

There is a large gap between our capacity to change the biosphere through development, which is leaping ahead at unprecedented rates, and our capacity to manage those

changes in the interests of both the biosphere and development. This is true at all levels, local, regional, and global.

And the gap is growing. One of the paradoxes of the past decade has been the decline in commitment to international co-operation and multilateralism in face of the growing need for it. This is perhaps most evident in the fields of environment and development, where the transition carries entirely new imperatives for both multilateralism and international co-operation.

Some of our present difficulties probably arise from the feeling that many of our institutions were designed to deal with an earlier generation of issues. Today's issues require comprehensive approaches, but these are impeded by institutional independence, fragmentation and narrow mandates. And, as we have learned from our Public Hearings, there is today a need for open involvement of citizens groups, non-governmental organizations, and industry with a much more open access to information critical to health, safety and the environment. This is too often impeded by closed processes and secrecy.

We have a twentieth century need and a twenty first century imperative to manage issues that reach across frontiers and that involve the global commons, but this clashes with concepts of sovereignty and security inherited largely from former centuries. We need new concepts of management that both preserve the essential sovereignty of the individual, his culture, community and nation, and permit the degree of management at the regional and global level needed to guide our common destiny on our One Earth.

We have changed the conditions for successfully governing ourselves and our affairs - locally, nationally and internationally. The forces which condition the new reality belong less and less to simple local or national systems and more and more to complex and interdependent regional and

world systems. We must reform and adapt our institutions in time so that we can manage the new issues, confront the challenges and seize the opportunities they present. Only in this way can we build a future that is more just, more secure and more prosperous for us all.