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Gro Harlem Brundtland

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ENVIRONMENT AND DEVELOPMENT:

A CREATIVE CHALLENGE

Ladies and Gentlemen,

We who are assembled here today are living through profound changes in the relationship between our planet and its biosphere and the world of man and its development.

We all know about the population explosion or, to give it its correct name in a world of finite resources, the population implosion. Since the main phase of population growth is still to come during the course of the next few decades, this means we must try during the same short time span, - adjust to a dramatic increase in our numbers - bearing in mind that even though we have laboured long and hard to construct our present world, its environmental foundations and therefore its economic basis are all too shaky. Are you conscious of the fact that more people will be added to the planet in the five thousand days between now and the end of this century than were alive in 1900? That growth is unavoidable. But the growth need not be unmanagable. Beyond the turn of the century, nations can influence the levels at which their populations stabilize, and today most are trying to do just that. According to the UN, the size of the human family could stabilize during the next century at somewhere between 8 and 13 billion people.

To bring about such stabilization, which must take place during the next century, national population policies must now be adopted. And I believe that such policies will be adopted in

the light of the growing awareness of the interlinkage between population numbers and the possibility to develop our human resources. How will we be able to give primary and secondary education to new billions of children over the next few decades?

The projected growth in the world economy is another indicator of the massive changes we face in this generation and the next. We are now approaching a \$ 15 trillion global economy, perhaps 20 times greater in real terms than at the start of this century and over the next half century it could well grow another five, possibly ten times. We and our children must plan to squeeze at least two new human worlds into this only one earth, and to assure them of acceptable living conditions in a very short period of time. We need to do it in ways that are sustainable and that do not lead to our own collapse.

The next short half century is therefore crucial for the future of mankind: Pressures on the environment and the resource base of development are now unprecedented and we are entering a period when those pressures will increase at rates and scales never before seen. These pressures are in many cases forcing us to pursue short-term policies that will in the longer term lead to destruction of the ecological basis for life on this planet. We are running mounting risks to our own survival. At the same time, however, we are developing enormous opportunities for peace and for more sustainable forms of growth and development. New technologies and virtually unlimited access to information offer great promise. But we have remained in the grip of old fashioned ideas, institutions and concepts of sovereignty which act as powerful restraints on sustainable growth and development. The time has now come to break out of these restraints.

Ladies and Gentlemen,

I was deeply honoured and pleased to be invited to present this First Sir Peter Scott lecture within the context of the Wildscreen 86' Festival. Few living figures have so captured the hearts and minds of people and deepened their appreciation of the importance and necessity of maintaining a harmonious balance

between man and nature as Sir Peter. For more than half a century, he has dedicated himself to the cause of conservation, and through his lectures, writings and illustrations has evidenced his own deep understanding of that delicate balance.

In accepting the WWF Gold Medal in Assisi two weeks ago, Sir Peter challenged us to "concentrate on the future and what we can do to ensure that there is a future worth having, for mankind and for the living world". To do this, he said, we need more than ever to get to the decision makers, politicians, businessmen, aid agencies and governments and to make them think on a much longer time scale. And indeed we do.

Inspired by pioneers such as Sir Peter Scott, it is not surprising that the conservation movement has chalked up a vast record of achievement over the past several decades - the creation of IUCN and the World Wildlife Fund, the Stockholm Conference, the launch of the World Conservation Strategy, and the adoption of the World Charter for Nature to name but a few. The Wildscreen Festival represents perhaps the most important arm of the conservation movement - the film media. Free and independent, they bring the issues of conservation into the homes of the world's peoples, personifying them through the lives of the species under threat, including man himself, - underlining in the imperatives for action.

The World Commission on Environment and Development, which I have the honour to lead, believes that the outstanding films from many countries along with their thousands of predecessors, have played a major role in the increased public awareness that has led to action on these issues by governments, by industries and by non-governmental and inter-governmental organizations. The most recent demonstration of this was the worldwide response to the crises in Sub-Saharan Africa. Film and media power were the keys that opened the hearts, minds and pockets of millions of people and public treasuries, and thus enabled a rescue operation that saved millions of lives.

So convinced is the World Commission of the power of this medium, that throughout the two years of our deliberations we have been working with other groups to encourage film makers to produce special series on the critical issues of environment and development that we are addressing. Two of your great institutions were among the first to respond. BBC-2 and Channel 4 are each producing a series to be shown in over 30 countries next year. A US company is also producing a series. They will provide effective airings of our recommendations as they are being debated en route to the General Assembly of the United Nations next Fall.

Ladies and Gentlemen,

The World Commission does not believe that a dismal scenario of mounting destruction of national and global potential for development - indeed, of the earth's capacity to support life - is an inescapable destiny. The problems are planetary - but they are not insoluble. I believe that history will record that in this crisis the two greatest resources, land and people, will redeem the promise of development. If we take care of nature, nature will take care of us. Conservation has truly come of age when it acknowledges that if we want to save part of the system we have to save the system itself. This is the essence of what we call sustainable development.

There are many dimensions to sustainability. First, it requires the elimination of poverty and deprivation. Second, it requires the conservation and enhancement of the resource base which alone can ensure that the elimination of the poverty is permanent. Third, it requires a broadening of the concept of development so that it covers not only economic growth but also social and cultural development. Fourth, and most important, it requires the unification of economics and ecology in decision making at all levels. This may sound obvious, as obvious as it is to live within one's budget without overdrawing one's account, and getting into the red. But until very recently, consideration of the environment was perceived by most governments as something external to the development process. How mistaken were those

views! Soon, they were amply contradicted by unfolding human tragedy and ecological stress.

Indeed, one of the outstanding impressions that we as a Commission have acquired during our visits and deliberations in different continents is precisely the critical role that environment plays in economic, social and political development. Environmental protection and development, far from being in conflict, are in fact closely interdependent - locally, nationally, regionally and globally. Our chosen title reflects this. We are the World Commission on Environment and Development. It is not one or the other, but it is both, or neither.

Julius Nyerere reminded us in Harare recently that he himself and other African leaders, not so many years ago, regarded environmental concerns as ideas imposed from the North, ideas that would hamper development and slow it down, thereby cementing existing structures to the benefit of the North. Now, Nyerere gave a direct appeal on behalf of the environment and concluded that if the World Commission could succeed in placing the environment solidly on the African political agenda, it would in fact have made a major achievement in fulfilling its mandate.

We need high aspirations. If we are to adopt development paths that are sustainable rather than unsustainable, we must mobilize an unusual array of skills, re-inforced by a new sense of vision. This new vision must begin with a deeper appreciation of the Earth and its environment, the source of all life and all development. Sir Peter has been preaching this principle for years. Astronauts, viewing the planet from space have provided us with that essential perspective: The Earth is one.

And although the world of man is not one, this new vision must address squarely the new dominant characteristic of the world of man - interdependence. Until just a few decades ago, nations and even entire continents could more or less go their own way. But today, we live with a global economy, where the economic policies of one country can generate pressure through

international trade and finance on the economies and resource systems of others.

The ecosystems on which these economic patterns depend are similarly linked, and firmly interlocked with our economies and, in fact, the decline or growth of many economies depends increasingly on the decline or enhancement of the ecosystems from which they draw their food, fish, energy, woodproducts, minerals and other materials. Increasingly, however, for modern nations, these ecosystems are to be found within the borders of other nations or in the global commons. And in large parts of the world, these ecosystems are in a state of rapid decline.

These emerging new issues require us to completely change the way in which we think about environment and the economy, and about international co-operation. In the past, our main concern centred 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 one area after another, it is these reverse effects that condition the potential for development.

Local communities have known this for generations. If a community ran out of water, it ran out of economic potential. The same thing is now evident at the regional scale: in Africa for instance, with desertification, famine and ecological refugees. In Asia and Latin America with deforestation. In Europe with acid rain and radioactive fallout. And it is also evident at the global scale: In the dispersion of certain chemicals and their concentration in food chains. In the rapid disappearance of forest cover and in the loss of genetic resources. In the rising levels of greenhouse gases and the growing risk of climate change. And in the loss of soil productivity in both industrialized and developing countries.

In the real world, we are witnessing a complete unification of environment and development and of economics and ecology. In our governments and international institutions, however, and in our industries, which pride themselves on being in touch with the

real world, we find the reverse. Those responsible for managing natural resources and protecting the environment are institutionally divorced from those responsible for managing the economy. The real world won't change. Our insight and institutions must.

Ladies and Gentlemen,

The issues I am raising ought to be the issues for the next election, not the next century, Yet it is characteristic of environment and development problems that they look as if they can wait until something more urgent is dealt with. Until, that is, the situation has become a crisis or clearly catastrophic. Then there is a scramble to find the cheapest solution and take action. Nobody then likes to admit that the cheapest solution would have been to heed the warnings 10 or 15 years before and prevent the situation.

But, you might ask, did we not begin in 1972 with the creation in Stockholm of the United Nations Environment Programme? Do we not have machinery in most governments already functioning? Do we not have various multilateral organizations grappling with trans boundary air pollution, freshwater and marine pollution, potentially toxic chemicals, ozone, carbon dioxide, deforestation and a host of other matters? The answer is yes, of course we do.

But is it all working effectively? The answer definitely is no, it is not.

During the past 15 years, only a few countries have managed to improve the quality of their environment and the ecological basis of their development. Even within these few countries, the improvements have been spread unevenly. Some richer industrialized nations have suffered a severe degradation in parts of their environment and resource base. And all have been left with a long unfinished agenda of older issues: air and water pollution, especially from non-point sources like agriculture, depletion of

groundwater, chemical and hazardous wastes, industrial and nuclear safety.

As for developing countries, they simply have not been able to afford the react-and-cure policies that have dominated approaches to environmental management in industrialized nations. Most have experienced a massive deterioration of their environment as the problems associated with sudden industrialization and explosive urbanization have been added to those associated with underdevelopment and poverty. In fact, in the Commission's view, during the past 15 years the locus of critical environment and development issues has moved South toward developing countries.

Sustainable development can rectify this situation, but achieving it will require a fundamental shift in thinking in many areas. One of the most crucial areas is the way we are able to grasp the time relationship between the environment and economic development. The intellectual fashion that tailored most of our existing environmental institutions, laws and regulations held that investments needed to sustain environmental quality and the natural resources used in development were essentially non-productive.

Whether the development involved an industry, urban transportation, agriculture or energy, any investment to protect the resource base, man and the environment was seen as essentially non-productive, even a luxury. Certainly it had no positive economic contribution to make to the development itself.

This intellectual fashion is not so often defended any more, at least in its raw form. Indeed, my own observations are that the attitudes of many key people in central government agencies, corporate head offices and international organizations - even banks - have changed significantly on this question. They have been disturbed, if not convinced, by the growing evidence in energy production, agriculture and forestry, that development without environmental considerations is often not-sustainable.



Such investments can end up as economic white elephants, reducing rather than increasing the future economic potential of an industry, a sector or a region.

Since environment was seen largely as an add-on economically, agencies which were created nationally and internationally during the -70s were simply tacked on to the existing bureaucratic structure - they were an add-on institutionally and an add-on politically.

They were seen to have a role largely separate from development, a role reflecting a very narrow interpretation of environmental policy. They were asked to deal with the symptoms because the symptoms had got out of hand. They were given a limited role or even no role at all in the formulation or assessment of economic, trade, energy, agricultural, industrial or other policies.

Yet, as we know today, these policies are the real environmental policies, influencing fundamentally the form, character and distribution of the impacts of economic activity on resources and the environment.

Today, the United Nations, and over 140 governments have set up environmental agencies of one kind or another, and a number of international bodies have been established by global or regional treaties. With a few exceptions, hardly any have the institutional capacity, the funding, the political muscle - to argue their case cogently when they encounter colleagues from industry, agriculture, energy and trade and when macro-economic, trade and development policies are formulated. All too often they remain Cinderella agencies - and even though their ecologically minded experts may know a lot about the flows of energy through ecosystems, they seem to be less in command of the pathways of influence through the corridors of power.

The need for a major shift to anticipate-and-prevent strategies has been recognized by some governments, by parts of certain industries, by certain institutes and by non-governmental

organizations. And recognition is important. But if anticipation and prevention is to become a reality, the divorce of those responsible for managing our environment from those responsible for managing our economies must end in industry and government, both nationally and internationally. Indeed what is required is the full integration of the two sets of values, those of environment and those of economics.

An obvious illustration is the case of acid rain - an issue that, if I might say so, both our countries feel strongly about. In southern Scandinavia thousands of lakes and streams have become so acidified that fish population are extinct or in the process of dying. In my country alone, an area 3/4 the size of Switzerland is heavily affected. Another alarming aspect of the acid rain problem is the release of heavy metals into the ecological cycle. In Norway and Sweden concentrations of heavy metals in the livers of wild game is so high that they are unfit for human consumption. Effects on human health could be next. Can there be a better reason why we should rather anticipate and prevent, and can there be a clearer reason why acid rain is on par with trade and defence issues as matters of top-ranking international importance for my country? In Central-Europe, at least 43 500 square miles of forest, or an area almost the size of England, are injured if not dying. In the worst hit country, The Federal Republic of Germany, the overall costs are conservatively estimated at somewhere around \$ 1 billion a year, and corrosion of buildings at more than \$ 500 million, and possibly several times more.

The acid rain problem seems to be spreading widely and fast. There are signs of it in China, Malaysia and Brazil - even of an acid haze over the Arctic. Could there be more vivid evidence that we need to integrate environment and economics, until a unified system of accounting reflects the world outside the window, a seamless world that does not recognize man-made divisions of reckoning?

When we make use of man-made assets, such as equipment and buildings, we write off our use as depreciation. But we forget

to evaluate our environment as productive capital, even though we utilize it as such. When we cut down forests, over-harvest fisheries, over-work croplands until the soil erodes, and utilize our skies as a free garbage can and our rivers as sewers, our measured income as revealed by GNP actually registers an increase! Yet we eventually have to pay, often more heavily than if we had acknowledged the cost in the first place.

An exceptionally graphic instance of the penalties of inadequate environmental accounting can be found in Ethiopia where in 1940, forests covered 25 percent of its land. Today the forest covers only 3 percent. The resulting loss of soil with its plant nutrients can be estimated to cut the country's agricultural output by at least one million tons of food per year, equivalent to two-thirds of all relief food shipped to the country in 1985. Moreover as trees disappear and sources of fuelwood go too, people turn to burning cattle dung and crop residues. So much material is now being used as fuel instead of fertilizer that there is a further loss of agricultural output worth some US \$ 600 million a year, or no less than 30 percent of the agricultural value. To restore tree cover and safeguard topsoil, would, if undertaken in due time, have cost some \$ 50 million a year. Yet in 1985 the outside world spent almost \$ 500 million on relief food alone.

Let us look forward, then, to the day when a finance minister presents a regular total accounting both of a nation's economic transactions and of changes in its natural resource base. The key point - little recognized though it may be - is that the natural resource base ultimately underpins economic activity. Norway is among those countries that have tried to establish natural resource accounts and integrate them as far as possible with macro-economic accounts and planning models. Such resource accounts and budgets were published last year in connection with the government's long term program. We need a similar set of accounts globally, from the World Bank, the United Nations or some other appropriate agency.

There are many examples of economic failure and social tragedy stemming from inadequate or non-existent resource accounting. Energy planners often fail to account for the resource costs of their projects, not just fossil fuels but also hydro. Here there are clear links between deforestation, development and hydro power. Of all electricity now consumed, about one-third comes from hydropower; and the proportion could grow a good deal higher by the end of the century. But a recent World Bank survey of 200 major dams reveals that sedimentation in the reservoirs caused by washoff of soil in the wake of deforestation, leads to an average of 2 percent loss of storage capacity every year. Corresponding reduced output of electricity, were it to be generated by burning oil at a price of \$ 15 a barrel, would cost \$ 7 billion in the single year of 2000 - or a sum equivalent to 20 percent of all OECD and OPEC aid per year right now.

Even though these policy areas are often construed as 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 consequences. The links between the rich, incentive-driven agriculture of the industrialized market economies and the poor and often neglected agriculture of developing countries helps explain the growing degradation of soils and other resources in both.

In most Western nations, agricultural subsidies were introduced mainly for social reasons, to sustain the income of farmers in various ways. Few would disagree with the objective. But the policies to achieve it have gone astray. In order to increase agricultural production and profitability in the short term, the incentive structures have grown in a way that encourages farmers in many areas to occupy marginal lands and to

clear forests and woodlands essential for water and soil conservation.

They induce farmers to over-use pesticides and fertilizers and to mine underground water and waste surface waters for irrigation. In several countries they subsidize practices that accelerate erosion and other forms of permanent degradation of the soil and water base. The result has been lower productivity and great economic loss to the agricultural community.

The system has now become extremely expensive. It has created vast surpluses and a context in which it is politically attractive, and often cheaper, to ship those surpluses at subsidized prices rather than store them.

Among the most serious consequences are the depressive effect on the difficult measures to re-orient agricultural policies in some developing countries. 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, induce erosion and stimulate the spread of deserts.

These are policies, well-intentioned in their origin, that end up accelerating the degradation of the resource base for agriculture not only in the industrialized market economies but also in developing economies. Everyone loses.

Looking to the year 2000 and beyond, it is clear that these policies are not sustainable. They must be changed. Is there any reason why we cannot support farm income in industrialized 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 of agriculture? Is there any reason why we cannot provide essential assistance to governments in Africa and other developing regions in ways that will enable them to create incentive structures for their own

farmers - that would encourage them to reverse ecologically destructive farm practices and to grow more of their own food, knowing that they have an assured market? Is there any reason why we cannot remove 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 re-thought 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 agriculture, economic and trade agendas of national and international bodies. The absurdity of our present behaviour as a world community is obvious.

Let us beware of those who assert that we can somehow get by until we have restored full-blown economic growth, whereupon we shall have the discretionary funds to deal with environmental problems. This view suggests that environmental problems are sideline affairs that can wait until we have the luxury of wealth to spare. But if economic growth is based on misuse and over-use of environmental capital - then we shall find we are undercutting the very capacity of our economies to keep on growing. The question to ask about environmental protection is not can we afford to do it eventually? It is can we afford not to do it immediately? Equally to the point, the question about our economies is not: Shall we forfeit growth in light of the environmental costs? It is: What new forms of growth shall we pursue in order to ensure that growth becomes sustainable?

Ladies and Gentlemen,

Let us also beware of those who underestimate the need for change. The order-of magnitude changes sweeping our us and our biosphere demand quantum changes in our attitudes, our policies, and in the way we run our societies. More importantly, these

changes carry entirely new imperatives for both multilateralism and international co-operation.

The United Nations General Assembly has asked our Commission to consider and make recommendations on strengthening international co-operation on these issues; and our work on this aspect of our mandate has moved into high gear following our recent meeting in Harare. It is clear to us, however, that in the future no nation should be free to pollute the common environment and inflict severe ecological and economic damage on other states. In fact, we need a new concept of national security that goes beyond the narrow confines of military security, to embrace economic and ecological inter-dependence and global environmental hazards. In the field of environment and development there is no such thing as benign neglect. We can no longer live with the pursuit of unilateral advantage at the expense of our common future.

It is also clear that the post-war international economic system has fundamental weaknesses and that our most urgent task is to persuade nations of the need to return to multilateralism. The task of reconstruction after the Second World War was the real motivating power behind the establishment of the post-war economic system. The challenge of environment and development should provide the impetus - indeed the imperative - behind a renewed search for multilateral solutions and a reconstructed international economic system of co-operation.

We must strive to promote a fundamental change of attitude. We know that this cannot come from the top down. Change evolves deep in the hearts of people responding to the elemental vision of life as they see it. And change is on the way. I believe that society's dominant belief structure is ready to shift. The old dominant mind set characteristic of the industrialized west saw the pursuit of "progress" founded on four dominant beliefs: That people dominate the earth. That they are masters of their destiny. That the world is vast and unlimited. And that history is one of progress with every problem solvable.

A new environment and development ethic is being formed. It calls into question those four basic dominant beliefs and emphasises instead concern for the world's environment as the essential basis for sustainable development. It sees citizen participation at all levels in the care of the planet and, based on this deeper and wider perception of the basis of life and human activity, it promises profound changes in economic and social attitudes. The Commission is a symptom of this process and will itself do all it can to facilitate the process that can create a better world for us all.

If Sir Peter will allow me to paraphrase a statement he frequently uses when describing the efforts of conservationists around the world: "We won't accomplish all we should like to, but we shall accomplish a great more than if we've never tried."