

Maurice Strong, Secretary-General, UN Conference on Environment and Development

WORLD METEOROLOGICAL DAY 1991

ADDRESS BY MAURICE STRONG

First, let me congratulate Secretary-General Obasi and the World Meteorological Organization on this World Meteorological Day celebrating the 41st anniversary of the establishment of the World Meteorological Organization. I am deeply grateful to Professor Obasi, and your staff association, for extending to me the high compliment of inviting me to join you in celebrating this important occasion.

I am all the more pleased in that it gives me the opportunity of paying tribute to WMO as one of the finest and most effective specialized agencies of the United Nations and one of the oldest in the sense that its origins go back to the International Meteorological Organization established in 1873. I have had the privilege personally of associating closely with WMO for more than 20 years, since the days of preparation for the Stockholm Conference in which we benefited so much from the support and guidance of WMO and I had the opportunity of working closely with Professor Obasi's eminent predecessor, Sir Arthur Davies. Since then, WMO has become an even more central actor as climate change and ozone depletion have moved to the centre of the environmental agenda and the international community has been relying more and more on WMO for leadership in diagnosing these issues and defining the measures required to deal with them.

As indicated in the very good booklet prepared for this occasion, WMO's response to these challenges has been impressive by any standard. Working in close partnership with the United Nations Environment Programme, WMO made a vitally important contribution to the processes by which international agreement has been reached on meas-

ures to counter depletion of atmospheric ozone through the Montreal Protocol and the landmark agreement in London last June on strengthening that agreement. And, of course, WMO's role in respect of climate change is a central one as the principal source of the professional knowledge and expertise that has guided the processes of international co-operation in evaluating this critical issue and defining the measures required to deal with it and as sponsor of the Intergovernmental Panel on Climate Change and the World Climate Conferences.

WMO's responsibility and programmes extend into other key areas which are directly relevant to the purposes and agenda of the UN Conference on Environment and Development to be held in Rio de Janeiro in June 1992. These include water, which I foresee as an increasingly important issue in the period ahead. Here again, WMO is taking the lead in sponsoring the International Water Conference to be held in Dublin, Ireland, in January 1992. All of this makes WMO one of our most important partners in preparing for the 1992 Conference. And the decisions taken by the Conference will undoubtedly lend further support and impetus to the work and the mission of WMO. I am very pleased and deeply grateful for the constructive and congenial co-operation we are receiving from Secretary-General Professor Obasi and his impressive professional team and the opportunity it has provided of renewing the close association with WMO which I enjoyed and appreciated so much at the time of the Stockholm Conference and in the early days of UNEP.

The theme of World Meteorological Day 1991 is *The atmosphere of the living planet Earth*. There could be no more

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appropriate theme as it reminds us of a basic truth that is not always fully appreciated—that the Earth's capacity to sustain and nourish life depends primarily on the qualities and composition of its atmosphere. There is nothing more global. Human activities have now reached a level at which they are impacting on the atmosphere to an extent which can affect these qualities and alter the balancing systems within the atmosphere that produce the conditions which make life on Earth possible. This, indeed, is what makes the Earth so unique. Relatively but a small and obscure speck in the vastness of the universe, it is the only planet on which we have any evidence that a human form of life can exist, and even on Earth the conditions that have made this possible have existed for only a small portion of the geologic history of our planet. We cannot take the continuance of these conditions for granted and must now act to manage and discipline our impacts on these conditions so as to protect the atmosphere against the kind of changes that could jeopardize the future of life on Earth.

The precious envelope we call atmosphere is clearly the key to life on Earth. We know, of course, that the atmosphere is subject to a continuing process of natural change. We know too that human activities are now adding to these processes of natural change, giving rise to depletion of atmospheric ozone and to increasing the quantities of CO₂ and other greenhouse gases which constitute the filter that determines the heat balance on which, in turn, climate depends. We do not know exactly how these man-induced changes will interact with the natural processes of change to affect climate and the other conditions of life on Earth, but there is strong evidence, as pointed out in the first report of the Intergovernmental Panel on Climate

Change, that human activities are giving rise to increased risks of accelerated climate change. These risks are clearly of critical, perhaps decisive, importance to the human future and we must, therefore, act to reduce them on the best evidence now available. If there is any area in which the precautionary principle must be applied it is surely in this area in which it is the very survival of life on Earth that is at stake. We simply cannot afford to wait for the *post-mortem* on planet Earth to determine if the current diagnosis is correct.

The processes by which human activity interacts with the atmosphere to affect climate and the related conditions on which life depends are highly complex and systemic in nature and cannot be effectively understood or dealt with except in the larger context of the human society which produces these impacts and will experience their consequences. Thus, I would like now to draw your attention to this larger context in which our common efforts to protect the atmosphere from the kind of changes that would threaten human life take place.

As we begin this final decade of the 20th century we are caught up in a series of dramatic and fundamental changes which will shape the future of the world community in the 21st century. Many of the basic elements of these changes are already deeply entrenched in the existing patterns and dynamics of our economic, political and social life. These changes will exert a powerful influence on our future; but it is our response to them which will ultimately determine that future. The basis for that response, the will and the capacity to respond decisively and positively to the challenge of the 21st century must be established in this final decade of the 20th century.

For reasons which will emerge in the course of my remarks, I am deeply convinced that the future of human life on

Earth will be determined by the ways in which we respond to these challenges. And, I am equally convinced that what we do, or fail to do, in this decade will have a critical, perhaps decisive effect on the prospects that we will meet these challenges successfully.

Inertia is as powerful a force in human affairs as it is in the physical world. Changes in mood can occur relatively quickly in modern societies. Fundamental changes in values, in behaviour and in institutions take much longer. Yet, this is the kind of change now required of us if we are to manage successfully the forces now operating to shape our future rather than being swept along by them to a future that would be at best chaotic and could well be tragic. For perhaps the single most important distinguishing feature of our age is that we have become the architects of our own future. The unprecedented increases in human population and the even greater increases in the scale and intensity of human activity which have occurred largely in this century, have been brought about by our growing mastery of science and its applications through technology. This has produced prosperity, standards of life and expanded opportunities beyond the imagination of earlier generations. It has also produced damage to and deterioration of the principal ecological systems and wide-spread destruction of the natural resource base on which human life and well-being depend.

The benefits of these dramatic changes have accrued largely to the minority of the world's people who live in the highly industrialized countries. They also bear prime responsibility for the damage that has accompanied these changes and the new risks to the human future to which they have given rise. The majority of the world's people, living in the less developed countries, share the costs and

the risks of these changes. But they are for the most part remote from their immediate concerns and priorities. For these people remain at the early stages of economic development which they see as the only means of achieving their expectations and aspirations for a better life. And, many continue to live in a state of dire and debilitating poverty in which the day-by-day imperatives of survival drive them to exploitive practices which destroy the resource base on which their future depends.

The plight of sub-Saharan Africa illustrates this tragic dilemma dramatically. Growing human and animal populations escalate pressures on the land resulting in destruction of trees, over-grazing and degradation of soil. As a result, millions of square miles of formerly productive land are lost to the relentless march of the desert each year. People deprived of their livelihoods due to the expanding desert are driven to eke out a marginal existence on new lands often more fragile and vulnerable than the ones left behind or in the festering slums of cities and towns. The result is more poverty and more pressure on a diminishing natural resources base. It is a vicious circle.

These conditions were exacerbated when in 1985 and '86 seventeen years of below average rainfall combined with pervasive poverty and world economic recession to turn drought into famine. Many thousands died and hundreds of thousands suffered. But of the more than 30 million whose lives were at risk at the height of the famine, most survived thanks to their own indomitable will to survive and to the unprecedented international relief effort which delivered to them the food and emergency supplies they needed in time.

Now, as a new tragedy threatens Ethiopia and Sudan, world attention has, unfortunately, turned away from Africa. While Africans have made impressive

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progress in rehabilitating their own economies by making many of the changes in their policies and priorities that the world community had exhorted them to do, they continue to face a daunting challenge and an uncertain future. Their future can only be secured by a transition to sustainable development including a large-scale programme for *greening* of desert areas. And can only be achieved by a combination of local commitment and sound management reinforced by sustained international support. Only time will tell if Africa will be the first major beneficiary of the transition to sustainable development or a grim testimony to the failure of human will and a sobering portent for "Our Common Future".

The world's population is now eight times greater than it was at the beginning of the last century and has more than tripled in this century alone. But the intensity of human activity has accelerated even more dramatically. Industrial production has grown more than one hundred times, human emissions of a number of toxic metals, including cadmium and lead have grown to several times the levels emitted from natural sources and more than 70 000 new chemical substances, which find their way into the environment, have been created by humans.

All of the environmental deterioration we have experienced to date, and the risks to which it has given rise, have occurred at levels of population and human activity that are only a modest fraction of what they are bound to be in future. Even at reduced rates of population growth, the world's population is likely to double towards the middle of the next century. Economic activity will have to grow by a factor of four to five times if the needs and aspirations of the more than three-quarters of the world's population which lives in the developing

world are to be met. Their right to grow cannot be denied or constrained by new forms of conditionality imposed in the name of environment. Neither can it be achieved by following the growth pathways taken by the more developed countries that we now know are destructive and unsustainable.

Of all the serious imbalances that have been created by technology-driven change, the gap between rich and poor is the most critical. It is difficult to conceive that the major environmental and social imbalances which technological change have produced can be addressed successfully unless the gross imbalance between rich and poor is redressed. This is clearly an issue that is subject to human control. However, to exercise that control will demand of us in the period ahead a dramatic shift of our individual and collective mind set, in our priorities and our methods of relating to each other on this planet that is without precedent in human experience. It confronts us with the greatest single moral and political challenge of our times, indeed of all time. For the very survival of our species depends on it.

The changes which have so drastically recast the economic and political landscape of our planet are underlain by a phenomenon of a fundamental nature which will be pervasive in shaping the future of the world community. This is the global system of interacting cause and effect relationships which we call interdependence. Interdependence is no longer a mere rhetorical concept but the dominant reality of our times. Advances in technology have created a global system of information flows, of production and distribution, of investment and finance which have rendered traditional concepts of national sovereignty and national interest inoperable.

All of this will require a vast strengthening of the multilateral system, notably

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the United Nations. Its inadequacies, its lack of the capacity and means in many cases to do its job, are largely a function of the severe constraints imposed on both its mandates and its budgets by Member States. Yet, the world needs the UN today more than ever. If the United Nations did not exist, it would have to be invented. And the same difficulties that make governments reluctant to accord to it the powers and resources required to do its work would make it difficult to recreate. There is clearly no substitute for the United Nations. It is the only multilateral organization that is universal in its membership and global in its mandate. There is, therefore, no practical alternative but to accord to it the support it must have to provide in the period ahead the services to the world community which can be provided in no other way.

The United Nations Conference on Environment and Development, to be held in June 1992 on the 20th anniversary of the first global environmental conference held in Stockholm in 1972, will focus attention of the world community on the complex of issues I have been describing. And it must provide the basis for the new era of international co-operation that is necessary to secure our common future. The UN General Assembly, at its last session, decided that governments would be represented at the 1992 Conference at the level of their heads of state or government. This will make it the world's first truly "Earth Summit" at which the leaders of the Earth will be gathered together to take the decisions that could well determine the future of the Earth. It is an opportunity we cannot afford to miss.

This will be no mere nostalgic or commemorative event. Rather it will be a means of mobilizing the political will of the nations of the world to take a number of concrete actions to redress the environmental and related economic

imbalances that threaten our future and set the world community on a new and more hopeful course. It will provide new impetus and new focus for efforts already underway in the United Nations. These include international agreements on prevention and mitigation of climate change, on protecting the biological diversity of our planet and measures to protect the world's forests. These, with a series of other measures to be incorporated in an agreed agenda for action in the period following the Conference and leading into the 21st century—Agenda 21—will provide the basic elements for a new alliance to secure the future of our planet and our species. It will be the ultimate security alliance.

And essential to the achievement of this new alliance will be agreement on provision of the means to ensure implementation of agreements reached and especially to provide to developing countries access on a sustained and dependable basis to the substantial additional capital and environmentally-sound technologies they will need to incorporate the environmental dimension into their economic development policies and practices.

Stabilization of world population is a critical imperative for the next century. This primarily depends on reduction of population growth rates in developing countries. It is in the interests of these countries themselves to adopt population policies which will enable them to create a viable balance between population levels, the needs and aspirations of their people and the resources available to meet these. But population policies clearly will only work when the motivations of individuals correspond with the interests of society as a whole. And there is abundant evidence that economic and social development provide the best motivation for effective population control.

As the report of the World Commission on Environment and Development makes

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clear, a transition to sustainable development is the only viable pathway to the new era of economic growth which the world requires. This means achieving a positive synthesis between economics and environment in the establishment of our economic policies and in managing their implementation in every sector of our economic life. It will mean, too, a massive shift of economic growth towards developing countries. While this is bound to be disruptive and difficult to the traditional industrialized countries, it will ultimately provide them with greater economic opportunity as well as security. Translating the immense unmet needs of the people of the developing world into markets represents surely the best prospect of achieving a new era of sustained economic growth in the world economy as a whole.

Industrialized countries must lead the way in effecting the transition to sustainable development. Fortunately, some of the processes already underway are moving us in this direction. Under the impetus of higher energy prices and potential resource shortages, the energy and raw materials content of industrial production has been reduced dramatically in industrialized countries during recent years. Japan, for example, used only 60 per cent as much raw materials for every unit of industrial production in 1984 as it used in 1973 and only about half the energy per unit of production as the United States. The principal source of added value today is the application of human knowledge and intelligence to products and services. These must be directed more and more to meeting the non-material needs and aspirations of people in the fields of culture, education, spiritual development and recreation.

Energy is at the heart of some of the principal environmental risks we face. This is particularly true of climate change. The unprecedented economic

growth that has occurred, largely in the industrialized countries in this century, based largely on advances in science and technology, has depended to a very great extent on availability of low-cost energy, principally in the form of fossil fuels. Modern society has become particularly addicted to petroleum and it will not be easy to break this addiction. While petroleum is a non-renewable resource which will eventually be depleted, it is still the dominant energy source and will remain a primary, though diminishing portion of the energy mix for the foreseeable future. And coal, the most environmentally offensive of all the fossil fuels, is in even more abundant supply and provides the most economic and available source of new energy supplies in a number of important areas of the world, notably China and India.

Curbing our appetite for fossil fuels is clearly the most important single action that must be taken to reduce risks of global warming. But because this requires fundamental shifts in consumer and industrial practices that are deeply entrenched and a movement away from the era of cheap energy to one of higher energy costs, the transition will be a difficult one. This is bound to be reflected in negotiations on the climate change convention which have just begun. The most promising areas for early progress are those which involve greater efficiency of energy use. The feasibility and economic advantages of this have already been demonstrated by the notable progress made in countries like Japan and Germany. In concentrating initially in those areas where economic and environmental considerations reinforce each other, we must be undertaking measures which establish the basis for a transition to a new energy economy in which fossil fuels will play a much less prominent role. This requires a massive redeployment of research and development efforts

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towards new and renewable sources of energy, including alternatives to petroleum as motor fuel, particularly for vehicles in areas of high concentration. The recent measures taken by the City of Los Angeles, the home of the automobile culture, are a portent of these changes. Clearly, our efforts to protect the atmosphere from changes that will jeopardize the life-sustaining capacity of the Earth depend directly on our ability to effect these changes in our energy economy.

The Stockholm Conference in 1972 clearly articulated the intrinsic link between economic growth and the protection and enhancement of the environment. Experience since then has deepened our understanding of the integrated nature of the environment-development relationship and of the degree to which our future depends on striking a viable balance between the two. The case for it was documented cogently in the 1987 report of the World Commission on Environment and Development. It made clear that continued economic growth is essential, primarily for the people of the developing world who are still at the early stages of economic development. But it made equally clear that such growth will not be feasible if we continue to pursue traditional growth patterns which we now realize are destructive and unsustainable. It called for a historic transition to new modes of environmentally-sound or "sustainable development". And it made a series of basic recommendations as to what we must do to effect this transition through an integration of the environmental factor into every aspect of our economic, social and political life, from policy and decision-making to industrial practice, consumer behaviour and individual lifestyles.

The need for the co-operation of developing countries to ensure our common environmental security adds a new and

compelling dimension to the traditional moral and political rationale for increasing the flow of resources to them. However valid it remains, this traditional rationale has lost much of its public and political appeal in the USA and other industrialized countries. A breakthrough in this area will be the key to the success of the 1992 Brazil Conference. Equally, failure to achieve decisive progress in this key area could produce the greatest setback to North-South relations and a severe, perhaps decisive, blow to the prospects for the new dimensions of global co-operation required to ensure our common future.

The road to Brazil 1992 will not be an easy one. The debates in the UN General Assembly which preceded the decision to hold the 1992 Conference demonstrated the divisive nature of the key issues of resource flows and technology transfer. There is clearly no consensus on these issues at this point. Building that consensus is the principal challenge that confronts us during the period of less than 15 months which we have to prepare for the Conference. The preparatory process is now well underway under the direction of the Preparatory Committee set up by the General Assembly and consisting of its entire membership of over 160 nations. The Second Substantive Session of the Committee and its working groups is now underway in Geneva and, I am pleased to report, is making good progress in defining and preparing the issues that will be presented to the leaders of the world when they gather in Rio in June 1992.

However difficult this will be there are some hopeful portents. Most political leaders today, including Presidents Bush and Gorbachev, acknowledge the central importance of these issues and the special responsibilities of the more developed nations to lead the way in resolving them.

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World Meteorological Day 1991 — The atmosphere of the living planet Earth

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But to achieve the objectives of the Conference will take nothing less than a fundamental shift in the existing political inertia and in our economic and security priorities. This will be an immense challenge to our political will and our capacity for diplomatic dexterity and institutional innovation. It will require the active engagement and participation of people at all levels of society—citizen groups, educators, voluntary and public interest organizations of all kinds—and, of course, the media. The recent dramatic upsurge of public interest in and concern for environment provides a promising basis for this.

I believe we can draw some encouragement from our own history which tells us that people and nations have always been willing to give priority to threats to their own security and to find the resources needed to meet these threats. The risks to our security that we now face collectively are as great as any we have in the past faced from each other and in many ways more difficult to deal with. For the threat of nuclear war is like that of a heart attack or stroke; up to the very moment it happens it is still possible to avoid it. While threats to the Earth's life systems and our environmental security are like a cancer spreading quietly and pervasively through the body of our society which, by the time its effects become acute, will be too late to cure.

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The atmosphere is the principal medium through which human activity is interacting to shape the conditions on which the future of life on our planet depends. Protection of the atmosphere is, therefore, the most important environmental priority. And the role of the World Meteorological Organization and its global constituency of professional communities is a central and indispensable one. Its contributions to the recommendations that will be placed before

world leaders at the Earth Summit in 1992 will have a major impact on the results of that Conference. These results will, in turn, provide the basis for a major shift in the current inertia and set the human community on the high road to the more secure, sustainable and promising future that can await us in the 21st century.

World Meteorological Day is celebrated each year on 23 March to commemorate the coming into force of the Convention of WMO on that date in 1950.