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GENERAL ASSEMBLY

PROVISIONAL VERBATIM RECORD OF THE FORTY-FIRST MEETING

Held at Headquarters, New York,
on Thursday, 26 October 1989, at 10 a.m.

President: Mr. FEYDER (Luxembourg)
(Vice-President)

- Development and international economic co-operation [82]

  (i) Science and technology for development

    (a) Report of the Intergovernmental Committee on Science and Technology for Development

    (b) Draft resolutions

89-64332/A 4217V (E)

In the absence of the President, Mr. Feyder (Luxembourg), Vice-President, took the Chair.

The meeting was called to order at 10.35 a.m.

AGENDA ITEM 82 (continued)

DEVELOPMENT AND INTERNATIONAL ECONOMIC CO-OPERATION:

(i) SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

(a) REPORT OF THE INTERGOVERNMENTAL COMMITTEE ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (A/44/37)

(b) DRAFT RESOLUTIONS (A/44/37, para. 3, 1 (X))

The PRESIDENT (interpretation from French): On behalf of Mr. Garba, President of the General Assembly, I should like to make the following statement on science and technology for development:

At its forty-second session the General Assembly decided to observe the tenth anniversary of the adoption of the Vienna Programme of Action on Science and Technology for Development and to consider the item on this subject in plenary meeting. In taking that decision, the General Assembly recognized that the question of science and technology was in the forefront of international concerns and should be given a prominent place on the political agenda.

One of the characteristics of the current period is the omnipresence and pervasiveness of science and technology. They are everywhere. They have brought about a radical transformation in the way human beings live, work, trade and even fight. There is no aspect of human life that is not touched in one way or another, positively or negatively, by science and technology. Whether we like it or not, the fact remains that humanity cannot turn its back on them. It is also now fairly well established that the industrialized societies have enormously benefitted from their ability to use this immense potential of science and technology for economic growth and development.

(The President)

It is for that reason that, in spite of differences in cultural environment and difficulties in acquiring technologies, developing societies have to make more efforts to mobilize science-based technologies as a major means of economic leap-frogging, fitting the several stages of economic growth into a short space of time. Nevertheless, they have a lot of ground to cover and their peoples are increasingly impatient with their economic plight and miserable poverty. The international community has relied so far largely on aid, investment and trade as the instruments with which to help uplift the economies of the developing world through accelerated growth and development. While these three variables are important, the sustainability of development can be provided only through knowledge. The scientific and technological asymmetry in the world, in particular the gap between the industrialized and the developing societies, is wider perhaps than the already wide economic gap between them. And it is clear that unless the gap is reduced the majority of developing countries will continue to fall behind the industrialized countries and will have difficulties in becoming full partners in world affairs.

(The President)

Until the adoption, in 1979, of the Vienna Programme of Action international attention in the field of technology had focused primarily on access to and transfer of technology. In other words, technologies were largely left to be developed in the industrialized countries, and developing countries were expected to obtain them - it was hoped on reasonable terms - and adapt them for their own use. It was the Vienna Programme of Action that brought to international attention a new approach and a major new dimension: namely, that, while access to and transfer of, technology on fair and reasonable terms remains valid, it is essential to focus on building the endogenous capacity of developing countries. If developing countries do not have such capacity - which means the ability to choose technologies and to acquire, adapt and utilize them - access will make little difference to their technological dependence and economic underdevelopment. It was this message of the Vienna Programme of Action that added an invaluable dimension to development. It not only remains valid but has become more important.

While there is broad awareness of, and political commitment to, the mobilizing of science and technology as tools of development, many developing countries have been unable to harness technology for development actually and meaningfully. There are several reasons for this and it is important to mention a few of them. As we all know, many developing countries, particularly the least developed countries, most of which are in Africa, are grappling with issues of survival and basic sustenance, such as food, water and shelter. Their meagre resources are already stretched to the limit as they try to meet their immediate needs. We know too that external assistance has been far from forthcoming on the terms and to the extent internationally agreed upon, for example, in the Programme of Action for African Economic Recovery and Development 1986-1990. As a result, these countries have

(The President)

been unable to mobilize the critical mass of human and financial resources necessary to impart momentum to the process of mobilizing science and technology for development.

The international community is rightly preoccupied with saving the endangered Earth and safeguarding our environment. It is not sufficiently appreciated that choice of technology has a lot to do with the present state of affairs and, more important, is a means of preventing and reversing environmental degradation. Similarly, the building of endogenous technological capability in developing countries can also contribute to the solution of the debt problem, by which we are all deeply concerned, by improving the international competitiveness of the agricultural and industrial products of these countries. There is also a need to enhance the ability of developing countries to assess technologies so that they can make a careful socio-economic assessment of the impact and implications of new technologies, thus improving the quality of their technology-choice process.

All these are critical issues which the Assembly should discuss. Such consideration is particularly timely in view of the ongoing processes in connection with the preparation of the fourth international development strategy, the special session of the General Assembly devoted to international economic co-operation, in particular to the revitalization of economic growth of the developing countries, the intergovernmental meeting on the least developed countries, and the proposed United Nations conference on environment and development. To assist us, we have before us the report of the Intergovernmental Committee on Science and Technology for Development, which has proposed a comprehensive resolution for our consideration and adoption.

I note that the Committee proposes to choose its substantive themes from selected items on the agenda of the General Assembly and to provide all delegations with comprehensive technology-assessment analyses of the chosen topics to inform

(The President)

and stimulate debate. I welcome this proposal and, in particular, the decision of the Committee when choosing its substantive theme to focus its work on environmentally sound technologies, the participation of developing countries in the development of these technologies and on their effective transfer to developing countries.

I call on the Secretary-General.

The SECRETARY-GENERAL: I am pleased to participate in this plenary meeting of the General Assembly commemorating the tenth anniversary of the Vienna Programme of Action on Science and Technology for Development.

The world is witnessing far-reaching developments in science and technology that affect practically every aspect of human activity. In many respects this has been a blessing for humanity by prolonging life, conquering diseases and creating the potential for unprecedented material prosperity. But advances in science-based technologies have also brought about new problems.

One area of particular concern relates to the application of science and technology for military purposes. This now accounts for about a quarter of the world's expenditure on research and development. Over half a million of the world's finest scientists and engineers are engaged in the production of weapons and other specialized military equipment. This not only diverts scarce human and financial resources from use for constructive activities but also contributes, in the long run, to destabilization and political tension. I sincerely hope that the easing of international tensions that we are now witnessing will lead to the redeployment of resources to development activities.

Modern technologies are also accentuating the already wide gap between the industrialized and the developing countries. In general terms, this poses a serious challenge to the ability of many countries to participate in the modern

(The Secretary-General)

world economy. But it also has an immediate and specific impact. For example, new materials are replacing the traditional primary commodities the export of which has long been the mainstay of many developing countries. The decline in the rates of consumption in developed countries and generally low prices for raw materials have aggravated the already serious debt crises faced by many developing countries.

The use of science-based technologies is one of the major characteristics of our age. The velocity and range of new discoveries are accelerating exponentially and contribute to the growing interdependence of the world. Information technologies, for example, including computers, satellites and sensors, have created a kind of planetary electronic nervous system. In addition, the time-lag between scientific discovery and technical application has narrowed. New discoveries are now applied in a matter of years rather than decades, and this trend is likely to accelerate.

(The Secretary-General)

The world faces a seminal question: has technology become an independent force, propelled by its own motion and charting its own course, or can it still be channelled, controlled and applied as a means to improve human life?

It was the Vienna Programme of Action that brought science and technology for development to the forefront of international attention. It spread the message that, while access to advanced technologies generated in the developed world is essential, developing countries should also acquire an autonomous capacity to choose, select, adapt, apply and innovate if they are to harness the full potential of technology as a tool for accelerated growth and development. Ten years after Vienna, that message has become more important and more urgent.

Central to any efforts to build endogenous scientific and technological capacities is the development of human resources. Without an adequate number of well-trained scientists, engineers and technicians, both men and women, no country has a chance to accelerate its development process.

One of the important developments that have occurred since the Vienna Conference is the growing awareness in both developing and developed countries of the vulnerability of the environment. Since many problems of environmental degradation have been created through applications of science and technology that are ecologically unwise, scientifically sound options and measures based on environmentally safe technologies must be developed on an urgent basis.

Endogenous scientific and technological capacity is also crucial for sustained and sustainable development. It is only through such capacity that developing countries can optimize the exploitation of their natural resources without the risk of damaging the environment. Developing countries must be able to participate in international co-operation for research and development of environmentally sound technologies. And they must be able to benefit from the rapid and effective transfer of such technologies.

(The Secretary-General)

International co-operation in science and technology is not, of course, limited to the environment but cuts across all sectors. The United Nations system, which encompasses such a wide range of expertise and experience, has a pivotal role to play. More than ever before, it is necessary to harmonize the system's activities in science and technology and to channel our resources towards well-defined and coherent objectives. The Administrative Committee on Co-ordination has recently concluded that the future focus of the United Nations system in science and technology for development should include strengthening the endogenous capacities of the developing countries and assessing new and emerging technologies, and that co-ordination at the country level should be enhanced.

I wish to assure the Assembly that the executive heads of the agencies and I will continue to enhance inter-agency co-operation and co-ordination in order to provide effective support for science and technology for development.

The time has come to integrate the building of endogenous scientific and technological capacity into the mainstream of macro-economic management. This will require deliberate efforts to harmonize it with economic, social and cultural forces so that it can be controlled and put to constructive use. This should be an important consideration at the forthcoming special session of the General Assembly on international economic co-operation and in the preparation of the next international development strategy. I am confident that the deliberations at this session of the General Assembly will impart the necessary political impetus to that end.

The PRESIDENT (interpretation from French): I now call on the Permanent Representative of Bangladesh, who will speak on behalf of the Group of Asian States.

Mr. KABIR (Bangladesh): As Ambassador Karim is unfortunately busy in another meeting, I shall read out a statement on his behalf.

(Mr. Kabir, Bangladesh)

"It is my privilege to speak before the General Assembly on behalf of the Asian Group on the commemoration of the tenth anniversary of the adoption of the Vienna Programme of Action on Science and Technology for Development. The Vienna Programme of Action, adopted in 1979, represents an important landmark. It stresses the critical necessity for promoting the linkages between science and technology in the developing countries and their other pressing socio-economic imperatives. The adoption of the Programme by the General Assembly in 1979 in resolution 34/218 was a remarkable achievement, with great potential to strengthen the scientific and technological capacities of developing countries. The Programme of Action also reflected the much-needed political will to address the disparity in scientific and technological capacities.

"Ironically, 10 years after the adoption of the Programme much still needs to be done and achieved. During that period, contrary to what was expected of the Programme of Action, the gap between the developed and the developing countries has further widened. Scientific and technological innovation has actually contributed to that unfortunate evolution. The paradox of all these years has been that scientific and technical advances have actually taken place side by side with an accentuation of human misery. The scientific and technological revolution has largely by-passed the majority of the developing countries. Even today, most of them find themselves in a situation of serious disadvantage in pursuing their own national development goals. They continue to suffer from the underdeveloped nature of their scientific and technological bases. We firmly share the view that during the years that lie ahead the Vienna Programme of Action and, for that matter, the international community, will increasingly address themselves to redressing this unacceptable imbalance.

(Mr. Kabir, Bangladesh)

"In 1979 we did not foresee many of the drastic economic, political and scientific changes that would characterize the 1980s. These include the relaxation of East-West tensions, significant yet at times disturbing evolutions in the international economic environment, the emergence of an unprecedented third world debt crisis, and a distinct degradation of our ecosystem and environment. Poverty, starvation, malnutrition, overpopulation, disease, illiteracy and other social ills have further tightened their grip on the globe. For many developing countries, the 1980s have indeed been a lost decade. External-debt crisis, net transfer of resources, decline of financial-resource flow, deterioration in the terms of trade, particularly in the primary commodity trade of the developing countries, have adversely affected the capacity of the developing countries to undertake meaningful efforts to develop science and technology and ignite economic and social development.

"Conditions in the least developed countries, which are the weakest partners in the international community, have also worsened during the decade of the 1980s. Science and technology in those countries are still in a rudimentary state, with relatively few practitioners and weak connections between different levels of the scientific and technological system. This serious situation cannot be allowed to take an even more serious turn. The time has now come for all of us to reverse the inexorable process of regression and retrogression that has led to such a situation.

"Nothwithstanding our present problems, the Vienna Programme of Action on Science and Technology for Development still has tremendous potentialities, which have not been fully tapped during the decade that is coming to an end. Looking back, we thus see a tale of promise not redeemed, potential not realized.

(Mr. Kabir, Bangladesh)

"We strongly feel that these unrealized potentials should be fully utilized. We must reaffirm our commitment to do so with a view to marching ahead to meet the new challenges of the coming decade. Urgent actions by the international community are indeed needed to close the technology gap between the developed and developing world. What is required specifically is a policy for both developed and developing countries, aimed at the developing technologies and equitably sharing them to answer to the needs of all. In the process, we must strive to integrate the social and cultural advantages of traditional technologies with the efficiency and scope of advanced modern technology, a blending of modern and traditional technologies. To establish proper links between research and development and production will also be an important aspect. The efforts to encourage the application of science and technology to fight poverty, disease, malnutrition, environmental degradation, floods, cyclones and desertification should command all our energies. Enhanced international scientific and technological co-operation to meet these challenges is a must. An increasing role of developing countries in the development and appropriate application of new and emerging technologies will need special attention. The developing countries should be effectively involved in the development of its various aspects. The process of acquisition, transfer and generating of technology has now assumed critical importance for the developing countries.

"Given these complex challenges, we have closely followed the tenth session of the Intergovernmental Committee on Science and Technology for Development. Its deliberations rightly sought to find viable and innovative options to integrate our activities in the field of science and technology with our development efforts in both the social and the economic arenas. The Intergovernmental Committee, which at its last session considered the

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end-of-decade review in the implementation of the Vienna Programme of Action, reaffirmed quite appropriately the validity of that Programme and its basic goals. It recommended focusing in future on strategies to enhance endogenous capacity-building of the developing countries in science and technology for development and also on the relevant role of the United Nations system in this field. The message of the Vienna Programme of Action that endogenous capacity-building is the mainstay of development at the national, regional and international levels is very much as valid today as it was 10 years ago when that Programme was adopted. We should seriously address ourselves to meeting that challenge.

"Bilateral and multilateral co-operation among countries Members of United Nations has shown the increasing potential for exchange of technological information and technical co-operation and assistance. This is particularly true of the countries in the Asian region. Countries in that region share the urgent need for more effective world-wide co-operation in harnessing science and technology for development. It is in this context that the United Nations needs to consider more seriously ways and means of lending its support to the accomplishment of the objective of such co-operation.

"We acknowledge that the developing countries have the primary responsibility for their own development. However, the United Nations development system, like the international community, has an important catalytic role to play to support the efforts of the developing countries. We hope this support will be more forthcoming in the coming years than it has been in the past decade. Naturally, we are happy to lend our support to the recommendation of the last session of the Intergovernmental Committee that adequate resources on a continuous and assured basis be allocated to foster science and technology for development in accordance with the priorities of

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the developing countries. The Intergovernmental Committee also stressed the importance of increasing science and technology as an important component of the deliberations of some of the most important concerns of the General Assembly during the next few years. These include the deliberations of the special session of the General Assembly on international economic co-operation, the Ad Hoc Committee of the Whole for the consideration of the International Development Strategy for the Fourth United Nations Development Decade, the Second United Nations Conference on the Least Developed Countries, and the proposed United Nations conference on environment and development. It is our sincere hope that the outcome of those deliberations will guide us in our endeavour to strengthen our common efforts in the field of science and technology.

"I should be failing in my duty if I did not mention the commendable role of the United Nations Centre for Science and Technology for Development in promoting and implementing the Vienna Programme of Action. Over the past years the Centre, in spite of various constraints, has brought about new approaches to co-ordination in science and technology and has imparted new dynamism and a sharper focus on this subject. We do, however, wish to see the activities of the Centre more fully co-ordinated with the United Nations Fund for Science and Technology for Development for more effective utilization of their resources. The Centre's activities relating to the national policy dialogues in endogenous capacity-building in various developing countries and the Advanced Technology Alert System are indeed praiseworthy. We hope that the resource situation of the United Nations Centre and the United Nations Fund for Science and Technology for Development will improve in the coming years, which will help them to expand their role in a significant manner.

(Mr. Kabir, Bangladesh)

"I have tried to underscore some of our concerns and hopes in the field of science and technology for development. The recommendations of the tenth session of the Intergovernmental Committee on Science and Technology for Development are modest but they are important steps forward towards ensuring the integration of science and technology in our development process. Our task is not easy. But we are confident that, acting together, the developing and the industrialized countries alike can make a real and important beginning collectively to face our complex challenges. We sincerely wish and hope that the 1990s will mark a new turning-point for all of us, with concrete results."

The PRESIDENT (interpretation from French): I call on the representative of the Byelorussian Soviet Socialist Republic, who will speak on behalf of the Group of Eastern European States.

Mr. PASHKEVICH (Byelorussian Soviet Socialist Republic): I have the honour to speak on behalf of Bulgaria, Czechoslovakia, the German Democratic Republic, Poland, the Union of Soviet Socialist Republics, the Ukrainian Soviet Socialist Republic and the Byelorussian Soviet Socialist Republic.

Since the 1979 Vienna Conference we have been witnessing dynamic progress in science and technology, globalization of a number of problems, increasing interdependence of developed and developing countries and their economies, rapidly changing social structures, increases in population, and urbanization. These developments have had a great impact on the process of implementation of the Vienna Programme of Action aimed at promoting the role of science and technology in social and economic development.

Scientific and technological progress has contributed to the rapid development of the economies of many, mainly developed, countries. Unfortunately, the gap between the developed and the developing countries as a whole - particularly in the

(Mr. Pashkevich, Byelorussian SSR)

levels of their scientific and technological potentials and technologies - has widened.

Although it is generally acknowledged that the Programme's lofty goals remain largely unattained, its main objective, which moved scientific and technological aspects to the top of the agenda for multilateral co-operation, remains vital. Today science and technology are becoming an independent and, in the final analysis, decisive factor in world development. That is why we share the view expressed by many delegations at the tenth session of the Intergovernmental Committee on Science and Technology for Development that the international community has yet to do some serious thinking in order to grasp the meaning of the qualitatively new situation in the world, to work out appropriate machinery for co-operation, and to mobilize the necessary resources, particularly at the national level, in order to utilize the technology and the inexhaustible intellectual capacity of scientists and experts for the benefit of people, particularly in the developing world.

(Mr. Pashkevich, Byelorussian SSR)

As the Secretary-General of the United Nations has just emphasized, scientific and technological achievements should be utilized for peaceful purposes only. It is necessary to create by joint action the proper conditions for mutually beneficial scientific and technological exchange and the transfer of technologies to less advanced countries.

The opportunity to forge a new consensus on growth and development should not be missed, because the international climate has noticeably improved. New political thinking is on the rise and a heightened sense of responsibility in the international community is evident in the light of such major forthcoming events as the elaboration of the international development strategy for the fourth United Nations development decade, the convening of a special session of the General Assembly devoted to international economic co-operation, in particular to the revitalization of economic growth and development of the developing countries, and the United Nations conference on environment and development.

Technological potential, access to new and emerging technologies, particularly in the field of environmental protection, and expanding contacts among scientists, governmental and non-governmental organizations dealing with questions of science and technology are nowadays essential pre-conditions of development. Technology transfer is of special importance.

In our opinion, there is also considerable potential for upgrading the level of scientific and technological development in the exchanges of achievements among third world countries through the setting up of an appropriate machinery of co-operation among them.

The socialist countries are adopting common strategies for their scientific and technological development, taking into account international specialization and co-operation in science and technology.

(Mr. Pashkevich, Byelorussian SSR)

At the same time, the socialist countries are deeply interested in integrating their scientific and technological potential in the world treasury of experience and in collaborating with the developing countries, especially in training. Life demonstrates that the United Nations is a unique instrument capable of uniting the efforts, bilateral as well as regional and international, of different States. Our countries are in favour of improving the conditions of technology transfer and eliminating artificial barriers on this path.

Within the United Nations, the Intergovernmental Committee on Science and Technology for Development has a major contribution to make in this regard. Every effort should be made to ensure that the Committee performs the role of active co-ordinator of United Nations activities in the field of science and technology for development.

In the context of practical realization of the purposes of the Vienna Programme of Action for the forthcoming period, we wish to emphasize specifically the importance of promoting the development of human resources, in particular by providing the best possible training for experts in science and technology from developing countries and machinery for the transfer of technological achievements and know-how. In particular, consideration could be given to setting up a global network of scientific research laboratories and training centres in state-of-the-art technologies at the best universities and scientific centres of developed and newly industrialized countries.

Technology transfer and assistance in developing technological potential should be properly reflected in the new international development strategy for the 1990s, which should reinvigorate the implementation of the Vienna Programme of Action.

Reduction of the technological gap would be beneficial not only to less advanced countries, but to the world economy as a whole.

The PRESIDENT (interpretation from French): I call on the Permanent Representative of Peru, who will speak on behalf of the Group of Latin American and Caribbean States.

Mr. LUNA (Peru) (interpretation from Spanish): It is a pleasure for me to speak on behalf of Latin America and the Caribbean at this plenary meeting celebrating the tenth anniversary of the adoption of the Vienna Programme of Action on Science and Technology for Development.

The recent meeting of the Intergovernmental Committee on Science and Technology showed that the philosophy and postulates of the Vienna Programme of Action are still valid. The Centre for Science and Technology for Development is playing a creative role, as is the Advisory Committee as the consultative body in this area.

Ten years have passed since the international community undertook to promote science and technology for the developing countries. Some progress has been made in carrying out this difficult task. Nevertheless, it must be admitted that because of the extraordinary changes in world production, consumption and trade resulting from the rapid pace of scientific and technological advances, the inequalities between developed and developing countries have been further accentuated. In other words, instead of benefiting from scientific and technological innovation, we the developing countries face the paradox of these innovations exacerbating our marginalization in terms of the world economy.

The picture is even more gloomy if one views the current international economic climate in the correct perspective, in that this has an adverse impact on the ability of our Governments to promote and finance our science and technology activities. Suffice it to mention in this connection the crushing problem of indebtedness, the negative effect of the net transfer of resources from the

(Mr. Luna, Peru)

developing world, the growing protectionism of industrialized countries, and the continual deterioration in the terms of trade.

In a world of clearly increasing interdependence, where science and technology play a significant role in the efforts of our countries to raise the quality of life of our people, it is imperative today to move towards innovative methods of strengthening international co-operation.

We know that in the final analysis the task of promoting the development of science and technology is the primary responsibility of our own countries. For several years our region has been improving its institutional capacity in this area. Latin America and the Caribbean now have national, subregional and regional organizations which formulate science and technology policies, and to a lesser extent directly promote research. At the national level, ministerial offices have been set up, and when these do not exist there are national councils and systems of science and technology. However, none of these efforts will be successful unless we redefine the conceptual and operative foundations of the scientific and technological capacity of our countries so that, on the basis of respect for our history and culture, they can genuinely support development.

(Mr. Luna, Peru)

This is how we understand the development of our countries' endogenous scientific and technical capacity: as a response that can generate and utilize the knowledge with which we can face the challenges of development.

The economic crisis, the deterioration in terms of trade, and the external-debt burden have had a major impact on the scientific and technological capacity of the majority of the countries of the region for the past 10 years, since the Assembly adopted the Vienna Programme of Action. To cope with this situation, there must be a programme of reconstruction and expansion of the scientific and technological infrastructure in Latin America and the Caribbean - and here international co-operation can and should play an extremely important role.

In this connection it is especially disappointing to note - particularly when the region is transfering massive financial resources to industrialized countries - that one of the main pillars of the Vienna Programme of Action, the financial system for science and technology for development, could not be put into practice. This item must be taken up again in order to re-examine the role that international financial co-operation in science and technology for development will play during the next decade. I take the liberty of suggesting to the Secretary-General, on behalf of Latin America and the Caribbean, that an updated report be prepared on the situation of the financing of science and technology for development, stressing the needs of the developing countries, possible mechanisms to channel resources and the role of international co-operation.

We have referred to the urgent need to expand international co-operation in the firm belief that the challenges to be faced in the next decade will be so great the assistance of the international community as a whole will be required.

(Mr. Luna, Peru)

The first of these challenges is to meet the basic needs of our peoples. We believe that science and technology are vital to the elimination of poverty and the improvement of the quality of life. If we hope to incorporate new contingents of the labour force into the productive sector, the development of human resources must be one of the highest priorities in coming years.

The preservation of the environment will be another challenge we shall have to face in the next decade. Fortunately, there are already signs that the international community is aware of this question. We must not forget that the Northern countries' models for industrialization and consumption are the main polluting agents. The transfer of environmentally sound technology and access to research in this field must be the object of future international co-operation to benefit the developing countries.

If we bear in mind that one quarter of the international scientific community is engaged in developing destructive technology, and if each year the expenditure for armaments amounts to the entire external debt of the developing countries, it becomes ethically imperative to eliminate the technology of terror, because it jeopardizes the very survival of mankind. If we could divert these resources, or part of them, to more noble causes - causes that would promote peace and world progress - science and technology could find its real purpose: to serve mankind, not to threaten its existence.

The PRESIDENT (interpretation from French): I call on the Permanent Representative of Kenya, who will speak on behalf of the Group of African States.

Mr. KIILU (Kenya): The Chairman of the African Group is engaged elsewhere. I shall read out a statement on his behalf.

"The decade of the 1980s was ushered in with urgency and momentous activities centred on efforts to enhance and accelerate the rate of scientific and technological development and the capabilities of developing countries.

(Mr. Kiilu, Kenya)

Among the most important of these was the United Nations Conference on Science and Technology for Development, held in Vienna in 1979, which adopted the Vienna Programme of Action. Others include the fifth United Nations Conference on Trade and Development, held in Manila - UNCTAD V - and the third General Conference of the United Nations Industrial Development Organization, held in New Delhi - UNIDO III.

"The participation of African countries in the preparatory processes and in the conferences themselves provided them with the opportunity seriously to examine the state of their scientific and technological development and the urgent need for accelerating the rate of scientific and technological development in Africa. At their meeting in Lagos in 1979, the African Heads of State or Government adopted the Lagos Plan of Action, underscoring the crucial role of science and technology in the development of their continent and emphasizing the need for endogenous capacity-building in science and technology.

"The conclusions at that time and today, 10 years later, are identical. Africa has a long way to go in seriously and effectively harnessing science and technology for development. The Vienna Programme of Action, whose tenth anniversary we are commemorating here today, has a lot in common with the Lagos Plan of Action, in that they both emphasize endogenous capacity-building. In our opinion, both Programmes are still valid and relevant, although their implementation has fallen far short of expectations. Our countries recognize the importance of endogenous capacity-building in science and technology as the corner-stone of our social and economic development, but our efforts in this area have been seriously hampered by the economic crises we have been going through this decade, and by natural disasters that have often forced us to divert resources otherwise meant for

(Mr. Kiilu, Kenya)

long-term development goals, like endogenous capacity-building, to solving the immediate problems of our peoples.

"The tremendous achievements in the development of new and emerging technologies and their application have seriously compounded the problems of African countries in their development efforts and the improvement of the welfare and living conditions of their people. The application of the new technologies in the production of goods and services, and their processes and marketing, has changed the patterns of production and structure of services; that not only has drastically reduced the demand for raw-material exports from Africa but, more seriously, has cut deeply into the African countries' internal markets, reducing domestic productivity and consumption. The combined impact has been a decline - or in some cases a halt - in productive economic activity, resulting in chronic unemployment, poor social services, and degradation of the environment owing to increased pressure on land in the ceaseless struggle for food, water, energy and material for shelter.

(Mr. Kiilu, Kenya)

"African countries understand well that the burden of endogenous capacity-building in science and technology for development in Africa primarily lies on them. The global economy has, however, become interdependent and Africa does not intend to close its market for the products from technologically advanced countries as an alternative strategy to stimulating the African economic activity through increasing domestic production and the consumption of goods and services. We cannot embark on an additional struggle to reinvent the wheel. We therefore seek the understanding of the industrialized countries that interdependence implies a partnership with Africa and assisting Africa through the transfer of the technology and financial resources it needs to supplement its development efforts. Through the Lagos Plan of Action, the African Priority Programme for Economic Recovery and, recently, the African Alternative Framework for Structural Adjustment, among other things, African countries have taken a tremendous initiative and clearly presented their priorities in the global partnership, particularly on science and technology. We are seeking an improved enabling environment for development, especially favourable terms for the transfer of the science and technology we need. Our partners, the developed industrialized countries and the international community, through the United Nations, have an obligation to allow Africa to play a more productive role in the global economy and in enrichment of the interdependence of nations.

"Africa countries are disappointed by the paradox of the growing importance of science and technology and the poor response they have been receiving. We feel that there is need for a framework to be designed to

(Mr. Kiilu, Kenya)

mobilize the means, the political will and the wisdom to marshal the immense power of modern science and technology for the good of humankind, especially the improvement of living conditions in developing countries. The United Nations system should become more involved in the development and dissemination of endogenous capacity in Africa.

"In this regard the efforts of the Centre for Science and Technology to implement endogenous capacity-building projects in Africa are most welcome. I take this opportunity to emphasize the need for support in the six priority areas identified by the Organization of African Unity (OAU) secretariat for co-operation between the United Nations and OAU in the 1990-1991 biennium programme. These areas are: first, economic co-operation and integration, with special focus on the African Economic Community; secondly, food and agriculture; thirdly, refugees, displaced persons and emergencies; fourthly, environment and development; fifthly, human resources development; and, sixthly, science and technology. The meeting between the OAU and senior officials in the United Nations system which the OAU has organized to take place in Addis Ababa should go a long way towards strengthening the co-operation between the two organizations in all fields.

"On the implementation of the Vienna Programme, Africa, like other developing countries, is very disappointed that the financing of projects which was so painstakingly negotiated and agreed on during the preparatory committee sessions and at the Conference itself and followed up in many intergovernmental committee meetings did not live up to expectations and is indeed at present temporarily not in operation. While I should like to emphasize that African peoples have to produce their own scientists, technologists and technicians if they are to solve their own problems,

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multilateral funding systems have a catalytic and supplemental role to play in support of our national efforts. It is our hope that new proposals and commitments to breathe life into a rejuvenated fund, with appropriate structures to satisfy both donors and recipients, will be worked out and implemented soon.

"Our Governments have taken the concept of sustainable development seriously. Efforts are being made to find how best it could be applied in Africa, taking into account our difficult economic conditions and the pressure to meet our peoples' immediate basic needs, such as food, water, energy and shelter. The First African Regional Conference on Environment and Sustainable Development, held in Kampala, Uganda, from 12 to 16 June 1989 at ministerial level, made important progress in understanding the concept in the context of Africa's development priorities.

"Africa is ready to contribute its share in international efforts to stop the degradation of the environment. It is determined to avoid the path followed by today's scientific and technological giants in the development of their current global power in the field at the expense of a clean, healthy global environment. It has chosen co-operation in development. Such a development path however entails, among other things, huge investments in Africa's main asset, its people. We cannot overlook these facts when it comes to sustainable development and hence emphasize the need for co-operation in the transfer of technology.

"Africa has full confidence in the United Nations and its system and will continue faithfully to discharge its responsibilities and commitments to the community of nations. It is our hope that those that are scientifically and

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technologically powerful and advantaged will gather enough courage and wisdom and the political will needed to direct their efforts towards the improvement of humankind and especially the improvement of the living conditions of people in developing countries without making them pay so exorbitantly for it as they must today."

The PRESIDENT (interpretation from French): I call on the Permanent Representative of Malta, who will speak on behalf of the Group of Western European and other States.

Mr. BORG OLIVIER (Malta): It is an honour and a privilege for me to participate in this commemorative session celebrating the tenth anniversary of the adoption of the Vienna Programme of Action on Science and Technology for Development as current Chairman of the Group of Western European and other States.

During the past decade there has been increasing awareness by States of the important role of science and technology in addressing problems of global significance. Emerging science and technologies are clearly relevant to achieving sustainable socio-economic development and preservation of the earth's environment for all humankind. The concept of using science and technology to promote development emanated from the 1979 United Nations Conference on Science and Technology for Development, in Vienna. One of the major outcomes of the Vienna Conference was the fact that technology and science were accorded a more central role in international discussions on economic and social matters.

The Vienna Programme of Action, which was adopted by the Vienna Conference, is based on the idea that the ultimate goal of science and technology is to serve national development and improve the well-being of humanity as a whole. While focusing on strengthening the scientific and technological capacities of developing countries, the Vienna Programme of Action stresses that the primary responsibility for development of developing countries rests upon the countries themselves. In building endogenous capacity, we must emphasize the productive and effective utilization of existing resources. Specific modes of international co-operation were envisaged to assist in the attainment of this objective, including fulfilment of the obligations of the international community, in particular the industrialized countries, in their bilateral, multilateral and United Nations context.

The 10 years since the adoption of the Vienna Programme of Action have provided an opportunity to learn from lessons in its implementation and to seek

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viable and innovative ways to bring science and technology into the mainstream of socio-economic development. There has been progress in the development, transfer and application of technologies in many areas, such as agriculture and health. In addition to their own efforts to strengthen their endogenous capacity in science and technology, developing countries have entered into bilateral and multilateral programmes of co-operation among themselves. Industrialized countries have at the same time, through public assistance programmes and initiatives in the private sectors, entered into bilateral, multilateral and United Nations development systems assistance to help developing countries in their efforts. Recently a large number of Western industrialized countries and other members of the European Group have significantly increased their assistance programme to strengthen the science and technology capacity of developing countries.

Partly as a result of these co-operative efforts, many developing countries, which before the Vienna Programme of Action were recipients of technologies in their development have now become suppliers of such technologies. The provision of software in microelectronics and the provision of expertise in other fields relating to biotechnology are two areas of new and emerging sciences and technologies in which developing countries have become full partners in international economics. Other examples of the contribution that developing countries have made towards the sharing of science and technology development include the newly industrialized countries and the use of CAD/CAM technologies in traditional sectors.

Many States feel, however, that the decade did not fulfil the hopes it raised with regard to development. Some States claim that the Vienna Programme of Action isolated science and technology too much, without placing sufficient emphasis on

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education and a policy favouring investments. Other States contend that the fact that it proved impossible to reach a satisfactory solution on the issue of financing had a negative impact on the work of the Intergovernmental Committee on Science and Technology for Development. Also, it is felt that the Vienna Programme of Action in many ways duplicated existing efforts to promote development through science and technology. The large number of actors and the limited resources available necessitated continuous efforts towards harmonization and co-ordination of activities and a careful selection of the tasks for which the United Nations system was most suitable.

The Vienna Programme of Action is an important policy document for many States. There is a need to act in consonance with the mutual interests of both industrialized and developing countries in the accomplishment of a programme that would benefit all humankind. Any change in organization or ways of implementation of the Vienna Programme should aim at a better use of science and technology for development which can be conducted in harmony with the environment and improvement of human life. Efforts should involve a more pronounced role in these matters by the United Nations system.

The new chapter in the implementation of the Vienna Programme requires concerted efforts on the part of all to provide the same kind of assistance as was needed by the international community 10 years ago. But this action, in order to be effective, needs to be based on co-operative efforts on mutually beneficial terms in the application of science and technology for development. Equally important, we cannot return to where we were 10 years ago and embark upon an over-ambitious plan of action which cannot be achieved.

The members of the Group of Western European and other States, conscious of the needs and aspirations of developing countries, stand ready to develop concrete

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work programmes under the bilateral and multilateral assistance programmes and to participate constructively in the consideration of the role of science and technology in the important General Assembly developments referred to in the decisions of the Intergovernmental Committee on Science and Technology for Development.

The meeting rose at 11.45 a.m.