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92d Congress
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COMMITTEE PRINT

# UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT

## REPORT TO THE SENATE

BY

## SENATOR CLAIBORNE PELL

AND

## SENATOR CLIFFORD CASE

MEMBERS OF THE DELEGATION OF THE UNITED STATES AT THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT, HELD IN STOCKHOLM, JUNE 5–16, 1972

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# LETTER OF TRANSMITTAL

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
*Washington, D.C., July 7, 1972.*

Hon. J. W. FULBRIGHT,
*Chairman, Committee on Foreign Relations,*
*U.S. Senate,*
*Washington, D.C.*

DEAR SENATOR: As two of the eight delegates appointed from the Senate, we had the privilege and the responsibility of representing the United States at the United Nations Conference on the Human Environment in Stockholm from June 5–16, 1972. From our experiences as members of the official delegation, we have become more aware of the growing division between the rich and the poor nations on the subject of environmental quality. It is extremely unfortunate that the desire for development has transformed the unifying potential of environmental concern into a politically divisive issue. We hope that this U.N. Environmental Conference will be a major step in bridging this gap between the developed and developing countries, and will act as a catalyst in formulating action for future international environmental agreements.

This report to the Senate consists of two parts. The first section is a joint report presenting our general observations and recommendations. The second section is an appendix containing the official list of the U.S. delegation and the final report of the conference. We hope that this report will prove useful to the Senate in its consideration of future international environmental agreements.

Sincerely yours,

CLAIBORNE PELL.
CLIFFORD P. CASE.

## BACKGROUND

On December 3, 1968, the General Assembly of the United Nations in response to the initiative of the Swedish Government, unanimously decided that a United Nations Conference on the Human Environment should be convened in Stockholm in 1972. The established aims of this Conference were:

(1) To draw the attention of governments and the public to the importance and urgency of environmental problems;
(2) To identify the aspects of these problems which require international action, and to lay the basis for this action;
(3) To intensify current national, regional and international efforts and to give them a common outlook and direction.

Preparations for this Conference were guided by a 27-nation Preparatory Committee which met four times during the past two years. In addition, five Intergovernmental Working Groups and seven regional seminars were conducted to provide insights into the major areas of environmental concern, and to develop specific action proposals and recommendations needed to respond effectively to these concerns. All of these activities produced 350 basic documents—including 86 national reports—totaling 13,000 pages of Conference documentation.

This information was studied, condensed, and converted into an "Action Plan" which consisted of approximately 138 proposals for international action and over 60 recommendations for national action. These proposals covered the following subject areas:

I. Planning and management of human settlements for environmental quality;
II. Environmental aspects of natural resources management;
III. Identification and control of pollutants of broad international significance;
IV. Educational, informational, social and cultural aspects of environmental issues;
V. Development and environment;
VI. International organizational implications of action proposals.

This "Action Plan" was intended to provide a "blue print" for the launching of a concerted international attack on the problems of preserving and enhancing the human environment. It called for a series of recommedations for a cooperative approach to the assessment of important problems. It was intended to provide opportunities that would place in the hands of decisionmakers the best knowledge that science and technology could make available. As Maurice Strong, the Secretary General of the Conference emphasized, these recommended actions constituted the "crucial first steps" toward the larger goals of environmental action.

In addition to the "Action Plan," the Stockholm Conference was expected to produce a "Declaration on the Human Environment." This document would constitute the first attempt by the nations of the world to agree on principles of international behavior and responsibility on which effective management of global resources could be based.

Its importance would rest on the principle that governments accept the responsibility for the effect of their activities on the environment of others and of the oceans and atmosphere beyond national jurisdiction. It would be designed to set forth guiding principles for world environmental initiative.

The third and most important result anticipated from the Conference was to be the creation of a permanent United Nations environmental unit which would coordinate international activities and give the Conference's recommendations some chance of being translated into action.

The United States during the March meetings of the 4th Preparatory Conference introduced a resolution which would establish this environmental unit as a subsidiary of the United Nations Economic and Social Council (ECOSOC).

At the time of its introduction, the U.S. resolution was well received and the Conference was expected to adopt a measure similar in form.

Early in the preparatory period it was decided that the "Vienna formula" would be utilized to determine which nations would be invited to attend the Stockholm Conference. According to this formula, only those countries which were members of the United Nations or its affiliated agencies would be permitted to attend. Under this rule the Federal Republic of Germany was able to play an active role in the activities of the Conference while the German Democratic Republic (GDR) was excluded. In an effort to emphasize their dissatisfaction with this situation, the governments of the Soviet Union and Czechoslovakia boycotted the entire sessions of the March Preparatory meetings and threatened to avoid the entire Conference.

The United States maintained the position that the Environmental Conference should not be used to bring about a change in the political status of East Germany. Christian A. Herter, Jr., Vice-Chairman of the U.S. Delegation, stated the U.S. position at a press conference on March 10, 1972:

> * * * Political decisions of this kind are for negotiation between the states concerned and for the General Assembly on the recommendation of the Security Council. For this reason the three Western powers with responsibility for Germany oppose the efforts which have been made to misuse the Stockholm Conference as a vehicle for the advancement of the GDR's political interests by seeking to overturn the decision of the United Nations General Assembly.

In May 1972, East Germany made an attempt to gain admittance to the Conference by joining the World Health Organization. While agreeing that the "environmental crisis" was a world problem affecting all nations, the United States still insisted that the Stockholm Conference should not be utilized to bring about a change in the political status of East Germany. As a result of the U.S. opposition, the GDR's

attempt to gain admittance to the Conference was defeated by a vote of 70 to 28 with 25 abstentions.

However, in view of the importance of the Stockholm Conference, the United States, representing the three Western powers with responsibility for Germany, set forth a formula whereby experts from the GDR could attend and participate in the Conference. Although this formula did not grant East Germany voting participation, it did provide that:

(*a*) The GDR would be free to determine the size, level and composition of its delegation.

(*b*) The GDR Delegation would have the right to speak and to have its documents circulated by the Conference Secretariat so long as these documents dealt with the substantive work of the Conference.

This formula was rejected. As a result the U.S.S.R. and the Socialist countries of Eastern Europe with the exception of Romania and Yugoslavia refused to attend the U.N. Conference on the Human Environment. This bloc of nations represented approximately a quarter of the world's industrial capacity and its absence from the deliberations considerably weakened the impact of the Conference's recommendations.

## THE "ACTION PLAN"

The "Action Plan for the Human Environment," as actually adopted, consists of approximately 200 recommendations for national and international action. It attempts to provide a "blueprint" or framework for future environmental agreements.

Any undertaking of this nature can be expected to generate a great deal of criticism for excluding matters which some feel are essential. While the criticisms in some cases are valid, we believe the positive aspects that the "Plan" proposes outweigh its shortcomings in light of the initial nature of the Conference. Therefore, we will highlight only those adopted recommendations which in our opinion seem to be significant achievements.

The first achievement was the adoption of the so-called "Earthwatch" monitoring system, through which the pollution of the world can be continuously assessed. The major elements of this system involve:

1. The establishment of 10 baseline stations to measure the long-term global trends which may ultimately cause climatic changes. These stations would be established in remote areas far from any sources of pollution. The United States plans to operate four of these stations. Two are already in operation at the South Pole and in Hawaii and funds have been provided for two more—one at Point Barrow, Alaska and the other in American Samoa. Although the Soviet Union boycotted the Conference because of the exclusion of East Germany, it indicated that it would be willing to operate three stations. Canada would maintain the remaining three.

2. The establishment of 100 additional stations to monitor the air quality on a regional basis. So far, the United States and Russia have offered to operate 10 stations each, Canada has offered to operate seven, Kenya one, and the Western European coun-

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tries 21. This atmospheric monitoring program has been developing during the past two years and will be coordinated by the World Meteorological Association. During the debate on these recommendations a number of developing countries expressed concern that these stations might be utilized for "subversive purposes." In order to dispel these fears and to assure these countries that their national sovereignty would not be violated, a phrase was inserted into the recommendation guaranteeing that these stations would be established only "with the consent of the countries concerned."

3. The establishment of water borne stations to measure contaminants in major rivers, lakes and seas.

4. The establishment of research centers and biological centers to analyze changes in soil conditions and plant and animal life.

Another achievement of the Conference "Action Plan" was the adoption of the recommendation urging the establishment of a system for an international registry of chemicals. This proposal was particularly important to the Western European countries which are seeking a system whereby they can keep a record of the new chemicals which are being placed in their rivers and seas each year. Under this system, an expert group of scientists would conduct annual reviews of all harmful substances and would assess the risk to the environment. It is hoped that this data will ultimately lead to the establishment of international guidelines for the control of major sources of water pollution.

In addition to the "Earthwatch" system another achievement of the "Action Plan" was the adoption of a recommendation to consider a 10-year moratorium on worldwide commercial whaling. This recommendation was designed to bring pressure on the 14 national International Whaling Commission which met in London. Although this recommendation was hailed as a major achievement, in actual effect it failed to stimulate agreement in London. Almost 80 percent (35,000 out of 42,000) of the worldwide catch last year was brought in by Russian and Japanese whaling fleets. These fleets are expensively equipped and represent a multi-million dollar business. It should be noted that Russia boycotted the Conference and the Japanese abstained from voting on this recommendation. And it was these countries that blocked a moratorium agreement in London.

A joint Peru-New Zealand resolution was adopted which condemned the testing of all nuclear weapons and called upon all nations to cancel future testing in order to prevent further contamination of the environment. This resolution was aimed at France, which is currently conducting atmospheric nuclear tests in the South Pacific. The vote was 48 to 2, with France and China voting against it. The U.S. was among 14 nations abstaining. Its Delegation stated that the U.S. is willing to agree to a resolution condemning atmospheric tests but indicated that it is not ready to renounce underground testing. The debate on this issue was quite intense. Peru, as it did during the 1971 Law of the Sea Preparatory meetings, indicated that it would seriously consider severing its diplomatic ties with France if that nation proceeded with its Pacific testing.

The adoption of the Indian-Libyan recommendation to establish a "Human Settlement Development Fund" was also significant. The

objective of this proposal was to strengthen the national programs in the field of human settlements. This would be done by providing seed capital and extending the necessary technical assistance to enable an effective mobilization of domestic resources for housing and the environmental improvement of human settlements. For such a proposal to be successful, it must receive the support of the wealthy countries. However, voting was split between the developed and the developing nations. Without substantial financial support, the creation of such a fund would not achieve its objective. Apparently the developed nations are unwilling at this stage of history to support such a proposal.

Another recommendation of the "Action Plan" which we feel contained a great deal of promise called upon all Governments to carefully evaluate the likelihood and magnitude of climatic effects from various operations, and to disseminate their findings before undertaking such activities. This recommendation would have represented a recognition, on the part of the world community, of the need for international cooperation in the areas of weather and climate modification.

Unfortunately, this provision was considerably weakened by an amendment introduced by the United States Delegation. The amended version of this recommendation states the following:

> *Recommendation.*—It is recommended that Governments be especially mindful of activities in which there is an appreciable risk of effect on climate; and,
>
> (a) Carefully evaluate the likelihood and magnitude of climatic effects and *to the maximum extent feasible*, disseminate their findings before embarking on such activities,
>
> (b) Consult fully other interested States when activities carrying a risk of such effects are being contemplated or implemented,
>
> (U.S. amendment in italics.)

The U.S. amendment appears to provide a loophole whereby any country could conduct covert military weather modification operations without any form of international control or responsibility. This, we feel, is contrary to a resolution which we and 14 other Senators have introduced in the Senate which expresses the sense of the Senate that the U.S. should seek the agreement of other governments to a proposed treaty prohibiting the use of any environmental modification activity as a weapon of war. We adamantly oppose the use of environmental techniques as weapons of war and strongly urge the Administration to actively promote the negotiation and ratification of such a treaty.

Finally, the Conference in its "Action Plan" agreed to a recommendation which would refer the Ocean Dumping Convention to a final conference to be held in London before November 1972. There had been consideration given to referring the Convention to the Law of the Sea Conference which is not scheduled to be convened until 1973. Fortunately, this course of action was not taken, since it would have stalled final action on an Ocean Dumping Convention for four or five years. By referring the Convention to a final conference to be held later this year, the delegates to the Stockholm conference demonstrated their awareness that the solution of marine pollution is a problem too important to postpone. We are encouraged by the action of the Conference on this issue and hope that future agreements designed to eliminate marine pollution will be actively pursued both within and without the context of the Law of the Sea Conference.

## THE DECLARATION ON THE HUMAN ENVIRONMENT

Maurice Strong, Secretary General of the Conference, in his opening remarks listed the adoption of a U.N. Declaration on the Human Environment as one of the essential elements needed to insure the success of the Stockholm Conference. The Declaration is a "statement of fundamental principles recommended for action by individuals, States, and the international community." It is designed to function as an inspirational and educational device setting forth certain basic principles concerning the environment generally applicable to all nations and peoples.

The U.N. declaration is not a legally binding document, nor does it affect a nation's sovereignty. However, it may provide the basis for the development of various treaties codifying all or some of its principles.

The history of the United Nations Declaration on Human Rights is a good example of the potential role and importance of a U.N. Declaration. A number of its basic principles are now incorporated in 14 Human Rights Conventions. The organizers of the Environmental Conference hope that their Declaration will have a similar effect.

The draft document that was initially submitted to the Stockholm Conference on June 5, represented two years of painstaking work on the part of the 27-nation Preparatory Committee. Although it was generally agreed that this draft declaration represented a realistic attempt to reconcile different views and interests, several delegations continued to express desires to improve certain specific points. The Secretariat of the Conference and a number of delegations, including the United States, were reluctant to reopen this compromise text. They feared that no agreement could be reached before the end of the Conference. It was hoped that the Conference would adopt the draft version, with each country recording its "reservations" on the points with which it did not agree.

However, this plan was thwarted when the People's Republic of China in its first parliamentary move of the Conference introduced a resolution calling for the creation of a committee of all the 113 participants to review the draft Declaration. The Chinese argued that since they had just been admitted into the U.N. in October, they had not had a democratic opportunity to express their views. Despite the warnings voiced by the U.S. and Canada, the Chinese resolution was approved.

Thereafter, a Working Group of the Whole was convened behind closed doors in an attempt to arrive at a compromise text. During the meetings of the Working Group, it was estimated that 60 to 100 amendments were submitted by the various delegations.

At the time several of the delegations felt that an agreement on the Declaration was impossible. China's nine formal amendments and its one additional principle were considered by many to be enough to defeat any chance of a general consensus. However. after six straight days of continuous secret meetings, the Working Group was finally able to arrive at an acceptable compromise.

The final document of the Working Group expanded the draft text from 23 to 26 principles and reflected primarily the influence of the

developing nations. The compromise version retained 10 of the original principles without amendments; added four new elements; amended 11 of the old points; and referred only one point to the General Assembly for further discussion.

Of the four new principles, two dealt with wildlife and ocean protection. Another assured developing countries that stable prices for raw materials would be essential for environmental management. The fourth assured developing nations of their autonomy with respect to environmental standards.

The various amendments ranged from a denunciation of apartheid to a call for all nations to reach a "prompt agreement" on the "elimination and complete destruction" of all weapons of mass destruction.

Several of the delegations, especially the Chinese contingent, objected strenuously to the wording of this latter amendment. China stated that they are developing nuclear weapons solely for the purpose of defense and for breaking the nuclear monopoly of the "great powers." Its delegation emphasized that it could not accept the views of those who "pretend to be impartial and oppose all nuclear tests without making any distinction." They were also opposed to this principle because it did not explicitly repudiate chemical and biological warfare. However, this section of the document was adopted without the Chinese amendment.

Another principle which caused a great deal of controversy, and upon which no agreement was reached, would require nations to provide each other with information on contemplated actions that might affect the environment beyond their national boundaries.

This principle, involving the question of national sovereignty, was strongly opposed by Brazil which is planning to construct a dam on the Parana River close to the border of Argentina. Argentina is quite concerned about the effect of this dam on the water supply to six of its major cities, including Buenos Aires. Thus, this principle was the subject of long and heated debate between these two countries. The issue was never resolved and the disputed matter is now being sent to the General Assembly for further discussion.

Although the Conference unanimously adopted the Declaration on the Human Environment, disputes resulted on various points. These will be registered as formal "reservations" and noted in the official record.

Despite the disagreements, the fact that the Conference was able to finally produce a document is a remarkable achievement. Much of the credit for its adoption should be given to Maurice Strong and his staff for their continuous efforts to smooth out differences and find an acceptable consensus. The Declaration, although weak on many points, does provide some important principles which may someday be incorporated into international law. It is, in the opinion of the Conference members, one of the major accomplishments of this Conference. We were impressed by the sincere efforts of most of the delegates to the Stockholm conference to work for effective solutions to our environmental problems that could be implemented in both the developed and the developing nations of the world. We sincerely hope that this attitude will continue in the formulation of more concrete action on international environmental problems.

## PERMANENT U.N. ENVIRONMENTAL UNIT

The most significant action that was taken by the U.N. Conference on the Human Environment was the creation of a U.N. Environmental Agency.

This unit will be headed by a small secretariat within the United Nations governed by a 54 member council for environmental programs. This council will report annually to the General Assembly through the Economic and Social Council.

Maurice Strong, the Secretary General of the Conference, appears to be the most likely candidate to head the secretariat as its Executive Director. Its headquarters will probably be located in either London or Geneva. However, sites have been offered in Kenya, Malta, Spain and New York.

The expenses of both the secretariat and the Governing Council will be borne by the regular budget of the United Nations while the program expenses will be met through the new U.N. voluntary fund.

An environmental coordinating board, headed by the Executive Director, will be established to further coordinate U.N. environmental activities and to act as a funnel for the views of non-governmental groups.

As was mentioned earlier, the Governing Council will be composed of 54 members elected for three-year terms on the basis of equitable geographical distribution. It will provide general policy guidance for the direction and coordination of environmental programs within the U.N. system.

The weakest point of this Administrative set-up will be the financing. All of the hundred or more action proposals adopted by the Conference as well as any new environmental programs established by the U.N. agencies will be supported only by the U.N. Voluntary Fund This fund is now limited to $20 million a year. This funding proposal, which was introduced by President Nixon in February 1972, calls for a five-year fund of $100 million. At the end of the Conference, pledges to this fund reached only $64 million. The U.S. pledged $40 million; Japan $10 million; Canada $5 to $7.5 million; Sweden $5 million; Australia $2.5 million; and the Netherlands $1.5 million. Additional offers without the commitment to specific sums were made by Austria, Great Britain, Denmark, France, Nigeria, Norway, Panama, Spain, Switzerland, and West Germany.

We feel that the U.N. Environmental Unit is a modest but realistic organizational proposal. While representing the realities of present world politics it does provide enough flexibility for future expansion. We hope that its influence will be expanded as public pressures force national governments to take more concrete international action. We, also, encourage increased contributions to the U.N. Voluntary Fund in order to increase the effectiveness of the new U.N. Environmental Unit.

## DEVELOPED VERSUS DEVELOPING NATIONS

The Conference on the Human Environment emphasized the growing gap between the resources and the thinking of the developed and developing nations. Developing countries appear to be suspicious of

the motives of the more developed countries with respect to environmental protection. Many of these lesser developed countries have implied, in the past, that the more industrialized countries have a vested interest in impeding the economic growth of the poor nations.

The developing nations see global pollution problems as by-products of the intense industrial activity of the highly developed nations. They fear that in their efforts to repair and improve their domestic environments, the rich nations will establish trade barriers to exclude products of an "environmentally inferior" agricultural or manufacturing process.

Because of these fears and suspicions, the "Action Plan" was heavily weighted with recommendations urging financial aid to help developing nations bear the burden of environmental protection. Among the recommendations referred to the Conference were assurances that:

(1) The world's wealthy nations would not invoke environmental matters as a pretext for discriminating trade policies:

(2) GATT (General Agreement on Tariffs and Trade) and UNCTAD (United Nations Conference on Trade and Development) would be allowed to monitor and assess tariff and trade barriers resulting from environmental policies;

(3) Financial and technical assistance would be provided to help poor countries remove such obstacles to their exports; and

(4) Appropriate measures for compensation would be provided where environmental standards have a negative effect on developing nations' exports.

All of these propositions were generally opposed by the highly developed states. Most of these countries, with the exception of the U.S., abstained from voting on a number of the issues.

Unfortunately for the U.S. image, the American delegation was operating under strict instructions from the Administration to vote against any proposals that would increase aid levels to the developing nations. This left the U.S. delegation in singular dissent on a number of occasions and made it difficult, perhaps impossible, to express our views on the central issue in votes at the conference.

There are a number of problems raised by proposals for specific and automatic compensation for adverse effects suffered by polluting industries as a result of enforcement of environment standards in the developed countries.

For example, this policy could hamper the enforcement of higher environmental standards by requiring compensation for adverse effects that may not really be associated with environmental protection at all.

In addition, the policy could result in payments to polluting industries that would only serve to increase the profits of that industry, without offsetting hardships suffered by individual employees of the industry or contributing to the general economy of the country involved.

For these reasons, we believe the U.S. should work within a multinational framework to help developing nations choose a growth pattern that will yield a combination of low environmental risk and high economic gain for the general economy of the nation. The costs of these efforts should be associated with general aid to developing nations, not to specific environmental standards that may be adopted by any of the developed nations.

We agree with Robert McNamara, president of the World Bank, that "human degradation is the most dangerous pollutant there is" and with Dennis L. Meadows, director of MIT's study on growth, that "the horrible straits of the poor are ethically and politically unviable."

But we believe this problem must be dealth with on its own merits, without imposing additional, unwarranted burdens on efforts to improve other environmental standards.

## RECOMMENDATIONS

In view of the foregoing we strongly recommend that the United States:

(1) Give its full support and cooperation to the newly created United Nations Unit, including actively working to increase the contribution to the U.N. Voluntary Environmental Fund in order to increase the effectiveness of this Environmental unit.

(2) Actively encourage and promote multilateral agreements on the regulation of marine pollution. In view of the urgency of this problem, we hope that such agreements will be pursued outside of, as well as within, the context of the Law of the Sea Conference.

(3) Increase its multilateral development assistance. This increase could be utilized to assist developing nations in choosing growth patterns that yield a combination of low invironmental risk and high economic gain for the general economy of the nation.

(4) Recognize the inherent environmental danger in both atmospheric and underground testing of nuclear weapons, and actively promote the cessation of all such testing.

(5) Condemn the use of chemicals, herbicides, and environmental modification techniques as weapons of war.

(6) Actively promote the negotiation and ratification of a treaty eschewing environmental, weather modification and geophysical techniques as weapons of war.

# APPENDICES

## APPENDIX I

### U.S. Delegates and Advisers to Stockholm Conference

Russell E. Train (Chairman) and Chairman, Council on Environmental Quality.

Christian A. Herter, Jr. (Vice Chairman), Special Assistant to the Secretary of State for Environmental Affairs.

Howard Baker, U.S. Senator (Republican of Tennessee), Chairman, Advisory Committee on the U.N. Conference on the Human Environment.

Shirley Temple Black, Alternate U.S. Representative to the U.N. Preparatory Committee for the Conference on the Human Environment.

John A. Blatnik, U.S. Representative (Democrat of Minnesota).

James L. Buckley, U.S. Senator (Conservative-Republican of New York).

Clifford Case, U.S. Senator (Republican of New Jersey).

Bert Cross, Chairman of the National Industrial Pollution Control Council, and Chairman, Minnesota Mining & Manufacturing Co.

John D. Dingell, U.S. Representative (Democrat of Michigan).

Roger Egeberg, Special Assistant for Health Policy to Secretary of HEW; Consultant to the President on Health Policy.

John Ehrlichman, Assistant to the President for Domestic Affairs.

Seymour Halpern, U.S. Representative (Republican of New York).

Jerome Holland, U.S. Ambassador to Sweden.

Frank Ikard, President, American Petroleum Institute.

Samuel C. Jackson, General Assistant Secretary, Department of Housing and Urban Development.

Norman Livermore, Secretary of Resources, State of California.

John A. Love, Governor, State of Colorado.

Gordon MacDonald, Member, Council on Environmental Quality.

Warren G. Magnuson, U.S. Senator (Democrat of Washington).

Robert McClory, U.S. Representative (Republican of Illinois).

Rogers Morton, Secretary of the Interior.

Frank E. Moss, U.S. Senator (Democrat of Utah).

S. Dillon Ripley, Secretary, Smithsonian Institution.

Gaylord Nelson, U.S. Senator (Democrat of Wisconsin).

Claiborne Pell, U.S. Senator (Democrat of Rhode Island).

Laurence S. Rockefeller, Chairman, Citizens Advisory Committee on Environmental Quality; Member, National Park Foundation.

John Rollins, President, Rollins Leasing Corporation.

William Ruckelshaus, Administrator, Environmental Protection Agency.

William Scott, Attorney General, State of Illinois.

Elvis A. Stahr, President, National Audubon Society.

John W. Tukey, Professor of Mathematics, Princeton University.

Ross Vincent, Member, Advisory Committee on the U.N. Conference on the Human Environment; Vice President, Ecology Center, New Orleans, La.

John Whitaker, Deputy Assistant to the President for Domestic Affairs.

Robert White, Administrator, National Oceanic and Atmospheric Administration.

Harrison A. Williams, U.S. Senator (Democrat of New Jersey).

### Technical Advisers

Henry Brodie, Deputy Director for Multilateral Programs, Office of Environmental Affairs, Department of State.

Theodore C. Byerly, Assistant Director, Science and Education, Department of Agriculture.



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Melvin S. Day, Head, Office of Science Information Service, National Science Foundation.

Alden L. Doud, Assistant Legal Adviser, Department of State.

Slator C. Blackiston, Jr., Executive Secretary, Secretary's Advisory Committee.

Simon Bourgin, Science Adviser, USIA.

James R. Fowler, Special Assistant, Office of the Administrator, Agency for International Development.

Stuart P. French, Principal Assistant to the Assistant Secretary of Defense for International Security Affairs.

Fitzhugh Green, Associate Administrator, International Affairs, Environmental Protection Agency.

Richard S. Green, Assistant Surgeon General and Chief Engineer, U.S. Public Health Service, Department of Health, Education and Welfare.

Stanley M. Greenfield, Assistant Administrator for Research and Monitoring, Environmental Protection Agency.

William A. Hayne, Council on Environmental Quality, Executive Office of the President.

Wallace Irwin, Jr., Senior, Adviser, Environmental Affairs, U.S. Mission to the United Nations, New York, N.Y.

Clayton E. Jensen, Chief, Environmental Monitoring, National Oceanic and Atmospheric Administration, Department of Commerce.

Donald R. King, Science Adviser, Office of Environmental Affairs, Department of State.

Saul Levine, Assistant Director, Division of Environmental Affairs, Atomic Energy Commission.

Robert Porter, Science Adviser, Environmental Protection Agency.

John W. McDonald, Jr., Coordinator, Multilateral Development Programs, Bureau of International Organization Affairs, Department of State.

Charles J. Orlebeke, Deputy Under Secretary for Policy Analysis and Program Evaluation, Department of Housing and Urban Development.

Robert B. Rosenstock, Adviser for Legal Affairs, U.S. Mission to the United Nations, New York, N.Y.

Logan H. Sallada, Deputy Director of the Executive Secretariat, Department of Health, Education, and Welfare.

Francis J. Seidner, Deputy Director, Office of International Conferences, Department of State.

Harry Shooshan, Director, Office of International Activities, Department of the Interior.

John Stuart, Press Adviser, U.S. Information Agency.

Lee Talbot, Senior Scientist, Council on Environmental Quality, Executive Office of the President.

John P. Trevithick, Director, Science and Technology, Bureau of International Organization Affairs, Department of State.

Sidney A. Wallace, Captain, USCG, Chief, Marine Environment Protection Division, U.S. Coast Guard, Department of Transportation.

Richard Wilbur, Assistant Secretary of Defense (Health and Environment).

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# APPENDIX II

## United Nations General Assembly

## REPORT OF THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT HELD AT STOCKHOLM, 5–16 JUNE 1972*

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II. Action Plan for the Human Environment.

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*To be issued subsequently as a United Nations publication.

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ABBREVIATIONS USED IN THE REPORT OF THE CONFERENCE AND IN OFFICIAL CONFERENCE DOCUMENTS

ACC—Administrative Committee on Co-ordination (United Nations).
ACMRR—Advisory Committee on Marine Resources Research.
ACOMR—Advisory Committee on Oceanic Meterological Research.
CIAP—Interamerican Committee of the Alliance for Progress.
ECA—Economic Commission for Africa (United Nations).
ECAFE—Economic Commission for Asia and the Far East (United Nations).
ECE—Economic Commission for Europe (United Nations).
ECLA—Economic Commission for Latin America (United Nations).
ENEA—European Nuclear Energy Agency.
FAO—Food and Agriculture Organization of the United Nations.
GARP—Global Atmospheric Research Programme.
GATT—General Agreement on Tariffs and Trade.
GESAMP—Joint Group of Experts on the Scientific Aspects of Marine Pollution (IMCC/FAO/UNESCO/WMO/WHO/IAEA/UN).
GIPME—Global Investigation of Pollution in the Marine Environment.
IAEA—International Atomic Energy Agency.
IAMAP—International Association of Meteorology and Atmospheric Physics.
IARC—International Agency for Research on Cancer.
IATA—International Air Transport Association.
IBP—International Biological Programme.
IBRD—International Bank for Reconstruction and Development.
ICAO—International Civil Aviation Organization.

ICC—International Computing Centre.
ICE—International Centre for the Environment.
ICES—International Council for the Exploration of the Sea.
ICSPRO—Inter-Secretariat Committee on Scientific Problems Relating to Oceanography.
ICSU—International Council of Scientific Unions.
IGOSS—Integrated Global Ocean Station System.
IHD—International Hydrological Decade.
ILO—International Labour Organisation.
IMCO—Intergovernmental Maritime Consultative Organization.
IOC—Intergovernmental Oceanographic Commission.
ISSS—International Society of Soil Science.
ITU—International Telecommunication Union.
IUCN—International Union for Conservation of Nature and Natural Resources.
IUFRO—International Union of Forestry Research Organization.
IVIC—Institute of Scientific Research, Caracas.
IWG—Intergovernmental Working Group.
IWP—Indicative World Plan.
LEPOR—Long-term and Expanded Programme of Oceanic Exploration and Research.
MAB—Man and the Biosphere Programme (UNESCO).
OECD—Organization for Economic Co-operation and Development.
SCOPE—Scientific Committee on Problems of the Environment.
SCOR—Scientific Committee on Ocean Research.
UNCTAD—United Nations Conference on Trade and Development.
UNDP—United Nations Development Programme.
UNESCO—United Nations Educational, Scientific and Cultural Organization.
UNESOB—United Nations Economic and Social Office in Beirut.
UNFPA—United Nations Fund for Population Activities.
UNICEF—United Nations Children's Fund.
UNIDO—United Nations Industrial Development Organization.
UNISIST—World Science Information System.
UNITAR—United Nations Institute for Training and Research.
UNRWA—United Nations Relief and Works Agency for Palestine Refugees.
UNSCEAR—United Nations Scientific Committee on the Effects of Atomic Radiation.
WEI—World Environment Institute.
WFP—World Food Programme.
WHO—World Health Organization.
WMO—World Meteorological Organization.
WWW—World Weather Watch.

## Part 1—Action Taken by the Conference

### I. DECLARATION OF THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT

*The United Nations Conference on the Human Environment,*
*Having met* at Stockholm from 5 to 16 June 1972,
*Having considered* the need for a common outlook and for common principles to inspire and guide the peoples of the world in the preservation and enhancement of the human environment.

I

*Proclaims that—*

1. Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights—even the right to life itself.

2. The protection and improvement of the human environment is a major issue which affects the well-being of peoples and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments.

3. Man has constantly to sum up experience and go on discovering, inventing, creating and advancing. In our time, man's capability to transform his surround-

ings, used wisely, can bring to all peoples the benefits of development and the opportunity to enhance the quality of life. Wrongly or heedlessly applied, the same power can do incalculable harm to human beings and the human environment. We see around us growing evidence of man-made harm in many regions of the earth: dangerous levels of pollution in water, air, earth and living beings; major and undesirable disturbances to the ecological balance of the biosphere; destruction and depletion of irreplaceable resources; and gross deficiences harmful to the physical, mental and social health of man, in the man-made environment, particularly in the living and working environment.

4. In the developing countries most of the environmental problems are caused by under-development. Millions continue to live far below the minimum levels required for a decent human existence, deprived of adequate food and clothing, shelter and education, health and sanitation. Therefore, the developing countries must direct their efforts to development, bearing in mind their priorities and the need to safeguard and improve the environment. For the same purpose, the industrialized countries should make efforts to reduce the gap between themselves and the developing countries. In the industrialized countries, environmental problems are generally related to industrialization and technological development.

5. The natural growth of population continuously presents problems on the preservation of the environment, and adequate policies and measures should be adopted, as appropriate, to face these problems. Of all things in the world, people are the most precious. It is the people that propel social progress, create social wealth, develop science and technology and, through their hard work, continuously transform the human environment. Along with social progress and the advance of production, science and technology, the capability of man to improve the environment increases with each passing day.

6. A point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequence. Through ignorance or indifference we can do massive and irreversible harm to the earthly environment on which our life and well-being depend. Conversely, through fuller knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes. There are broad vistas for the enhancement of environmental quality and the creation of a good life. What is needed is an enthusiastic but calm state of mind and intense but orderly work. For the purpose of attaining freedom in the world of nature, man must use knowledge to build, in collaboration with nature, a better environment. To defend and improve the human environment for present and future generations has become an imperative goal for mankind—a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of world-wide economic and social development.

7. To achieve this environmental goal will demand the acceptance of responsibility by citizens and communities and by enterprises and institutions at every level, all sharing equitably in common efforts. Individuals in all walks of life as well as organizations in many fields, by their values and the sum of their actions, will shape the world environment of the future. Local and national governments will bear the greatest burden for large-scale environmental policy and action within their jurisdictions. International co-operation is also needed in order to raise resources to support the developing countries in carrying out their responsibilities in this field. A growing class of environmental problems, because they are regional or global in extent or because they affect the common international realm, will require extensive co-operation among nations and action by international organizations in the common interest. The Conference calls upon Governments and peoples to exert common efforts for the preservation and improvement of the human environment, for the benefit of all the people and for their posterity.

## II

### PRINCIPLES

*States the common conviction that—*

*Principle 1*

Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuat-

ing *apartheid*, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated.

*Principle 2*

The natural resources of the earth including the air, water, land, flora and fauna and especially representative samples of natural ecosystems must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.

*Principle 3*

The capacity of the earth to produce vital renewable resources must be maintained and, wherever practicable, restored or improved.

*Principle 4*

Man has a special responsibility to safeguard and wisely manage the heritage of wildlife and its habitat which are now gravely imperilled by a combination of adverse factors. Nature conservation including wildlife must therefore receive importance in planning for economic development.

*Principle 5*

The non-renewable resources of the earth must be employed in such a way as to guard against the danger of their future exhaustion and to ensure that benefits from such employment are shared by all mankind.

*Principle 6*

The discharge of toxic substances or of other substances and the release of heat, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems. The just struggle of the peoples of all countries against pollution should be supported.

*Principle 7*

States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

*Principle 8*

Economic and social development is essential for ensuring a favorable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life.

*Principle 9*

Environmental deficiencies generated by the conditions of underdevelopment and natural disasters pose grave problems and can best be remedied by accelerated development through the transfer of substantial quantities of financial and technological assistance as a supplement to the domestic effort of the developing countries and such timely assistance as may be required.

*Principle 10*

For the developing countries, stability of prices and adequate earnings for primary commodities and raw material are essential to environmental management since economic factors as well as ecological processes must be taken into account.

*Principle 11*

The environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all, and appropriate steps should be taken by States and international organizations with a view to reaching agreement on meeting the possible national and international economic consequences resulting from the application of environmental measures.

*Principle 12*

Resources should be made available to preserve and improve the environment, taking into account the circumstances and particular requirements of developing countries and any costs which may emanate from their incorporating environmental safeguards into their development planning and the need for making available to them, upon their request, additional international technical and financial assistance for this purpose.

*Principle 13*

In order to achieve a more rational management of resources and thus to improve the environment, States should adopt an integrated and co-ordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve the human environment for the benefit of their population.

*Principle 14*

Rational planning constitutes an essential tool for reconciling any conflict between the needs of development and the need to protect and improve the environment.

*Principle 15*

Planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obaining maximum social, economic and environmental benefits for all. In this respect projects which are designed for colonialist and racist domination must be abandoned.

*Principle 16*

Demographic policies, which are without prejudice to basic human rights and which are deemed appropriate by Governments concerned, should be applied in those regions where the rate of population growth or excessive population concentrations are likely to have adverse effects on the environment or development, or where low population density may prevent improvement of the human environment and impede development.

*Principle 17*

Appropriate national institutions must be entrusted with the task of planning, managing or controlling the envionmental resources of States with the view to enhancing environmental quality.

*Principle 18*

Science and technology, as part of their contribution to economic and social development, must be applied to the identification, avoidance and control of environmental risks and the solution of environmental problems and for the common good of mankind.

*Principle 19*

Education in environmental matters, for the younger generation as well as adults, giving due consideration to the underprivileged, is essential in order to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension. It is also essential that mass media of communications avoid contributing to the deterioration of the environment, but, on the contrary, disseminate information of an educational nature, on the need to protect and improve the environment in order to enable man to develop in every respect.

*Principle 20*

Scientific research and development in the context of environmental problems, both national and multinational, must be promoted in all countries, especially the developing countries. In this connection, the free flow of up-to-date scientific information and transfer of experience must be supported and assisted, to facilitate the solution of environmental problems; environmental technologies should be made available to developing countries on terms which would encourage their wide dissemination without constituting an economic burden on the developing countries.

*Principle 21*

States have, in accordance with the Charter of the United Nations and the principle of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

*Principle 22*

States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.

*Principle 23*

Without prejudice to such criteria as may be agreed upon by the international community, or to standards which will have to be determined nationally, it will be essential in all cases to consider the systems of values prevailing in each country and the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries.

*Principle 24*

International matters concerning the protection and improvement of the environment should be handled in a co-operative spirit by all countries, big or small, on an equal footing. Co-operation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States.

*Principle 25*

States shall ensure that international organizations play a co-ordinated, efficient and dynamic role for the protection and improvement of the environment.

*Principle 26*

Man and his environment must be spared the effects of nuclear weapons and all other means of mass destruction. States must strive to reach prompt agreement, in the relevant international organs, on the elimination and complete destruction of such weapons.

[21st Plenary Meeting June 16, 1972].

## II. ACTION FOR THE HUMAN ENVIRONMENT

### *A. Framework for environmental action*

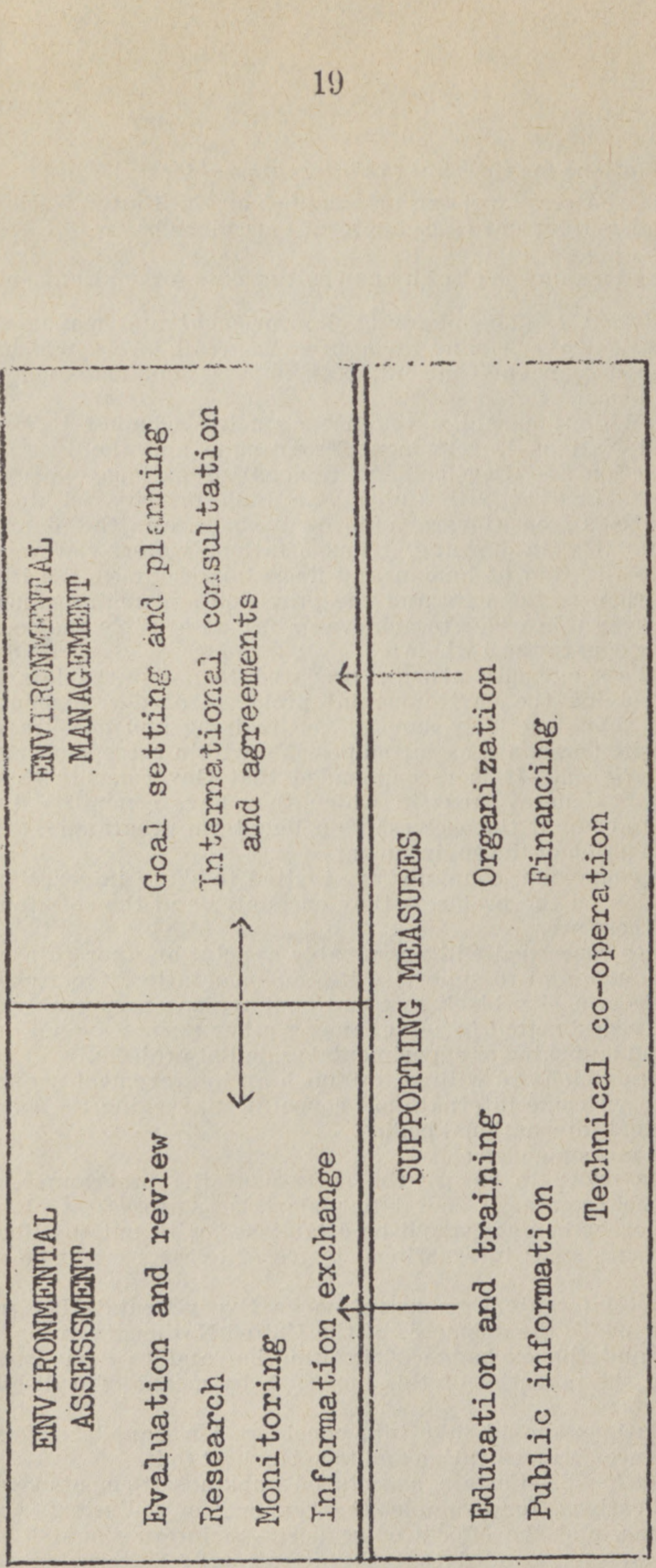
The recommendations adopted by the Conference for the substantive items on the agenda of the Conference are set out in chapter II, section B, below. The recommendations have been grouped, in section C, in an Action Plan that makes it possible to identify international programmes and activities across the boundaries of all subject areas. The broad types of action that make up the Plan are:

(*a*) The global environment assessment programme (Earthwatch);

(*b*) Environmental management activities;

(*c*) International measures to support the national and international actions of assessment and management.

The framework of the Action Plan is illustrated in the following diagram:


ENVIRONMENTAL
ASSESSMENT
Goal setting and planning
International consultation
and agreements
SUPPORTING MEASURES
Organization
Financing
Technical co-operation
ENVIRONMENTAL
ASSESSMENT
Evaluation and review
Research
Monitoring
Information exchange
Education and training
Public information

*B. Recommendations for action at the international level*

The texts of the recommendations adopted by the United Nations Conference on the Human Environment (see chapter X) are given below.

Planning and management of human settlements for environmental quality

*Recommendation 1.*—The planning, improvement and management of rural and urban settlements demand an approach, at all levels, which embraces all aspects of the human environment, both natural and man-made. Accordingly, *it is recommended:*

(*a*) That all development assistance agencies, whether international, such as the United Nations Development Programme and the International Bank for Reconstruction and Development, regional or national, should in their development assistance activities also give high priority within available resources to requests from Governments for assistance in the planning of human settlements, notably in housing, transportation, water, sewerage and public health, the mobilization of human and financial resources, the improvement of transitional urban settlements and the provision and maintenance of essential community services, in order to achieve as far as possible the social well-being of the receiving country as a whole;

(*b*) That these agencies also be prepared to assist the less industrialized countries in solving the environmental problems of development projects; to this end they should actively support the training and encourage the recruitment of requisite personnel, as far as possible within these countries themselves.

*Recommendation 2.*—It is recommended that Governments should designate to the Secretary-General areas in which they have committed themselves (or are prepared to commit themselves) to a long-term programme of improvement and global promotion of the environment.

(*a*) In this connexion, countries are invited to share internationally all relevant information on the problems they encounter and the solutions they devise in developing these areas.

(*b*) Countries concerned will presumably appoint an appropriate body to plan such a programme, and to supervise its implementation, for areas which could vary in size from a city block to a national region; presumably, too, the programme will be designated to serve, among other purposes, as a vehicle for the preparation and launching of experimental and pilot projects.

(*c*) Countries which are willing to launch an improvement programme should be prepared to welcome international cooperation, seeking the advice or assistance of competent international bodies.

It is further recommended:

(*a*) That in order to ensure the success of the programme, Governments should urge the Secretary-General to undertake a process of planning and co-ordination whereby contact would be established with nations likely to participate in the programme; international teams of experts might be assembled for that purpose;

(*b*) That a Conference/Demonstration on Experimental Human Settlements should be held under the auspieces of the United Nations in order to provide for co-ordination and the exchange of information and to demonstrate to world public opinion the potential of this approach by means of a display of experimental projects;

(*c*) That nations should take into consideration Canada's offer to organize such a Conference/Demonstration and to act as host to it.

*Recommendation 3.*—Certain aspects of human settlements can have international implications, for example, the "export" of pollution from urban and industrial areas, and the effects of seaports on international hinterlands. Accordingly, it is recommended that the attention of Governments be drawn to the need to consult bilaterally or regionally whenever environmental conditions or development plans in one country could have repercussions in one or more neighbouring countries.

*Recommendation 4.*—It is recommended that Governments and the Secretary-General, the latter in consultation with the appropriate United Nations agencies, take the following steps:

(*a*) Entrust the over-all responsibility for an agreed programme of environmental research at the international level to any central body that may be given the co-ordinating authority in the field of the environment, taking into account the co-ordination work already being provided on the regional level, especially by the Economic Commission for Europe;

(*b*) Identify, wherever possible, an existing agency within the United Nations system as the principal focal point for initiating and co-ordinating research in each principal area and, where there are competing claims, establish appropriate priorities;

(*c*) Designate the following as priority areas for research:

(i) Theories, policies and methods for the comprehensive environmental development of urban and rural settlements;

(ii) Methods of assessing quantitative housing needs and of formulating and implementing phased programmes designed to satisfy them (principal bodies responsible: Department of Economic and Social Affairs of the United Nations Secretariat, regional economic commissions and United Nations Economic and Social Office in Beirut);

(iii) Environmental socio-economic indicators of the quality of human settlements, particularly in terms of desirable occupancy standards and residential densities, with a view to identifying their time trends;

(iv) Socio-economic and demographic factors underlying migration and spatial distribution of population, including the problem of transitional settlements (principal bodies responsible: Department of Economic and Social Affairs of the United Nations Secretariat (Centre for Housing, Building and Planning), United Nations Educational, Scientific and Cultural Organization, World Health Organization, International Labour Organisation, Food and Agriculture Organization of the United Nations);

(v) Designs, technologies, financial and administrative procedures for the efficient and expanded production of housing and related infra-structure, suitably adapted to local conditions;

(vi) Water supply, sewerage and waste-disposal systems adapted to local conditions, particularly in semi-tropical, tropical, Arctic and sub-Arctic areas (principal body responsible: World Health Organization);

(vii) Alternative methods of meeting rapidly increasing urban transportation needs (principal bodies responsible: Department of Economic and Social Affairs of the United Nations Secretariat (Resources and Transport Division and Centre for Housing, Building and Planning));

(viii) Physical, mental and social effects of stresses created by living and working conditions in human settlements, particularly urban conglomerates, for example the accessibility of buildings to persons whose physical mobility is impaired (principal bodies responsible: International Labour Organisation; World Health Organization, United Nations Educational, Scientific and Cultural Organization, Department of Economic and Social Affairs of the United Nations Secretariat).

It is further recommended that Governments consider co-operative arrangements to undertake the necessary research whenever the above-mentioned problem areas have a specific regional impact. In such cases, provisions should be made for the exchange of information and research findings with countries of other geographical regions sharing similar problems.

*Recommendation 5.*—It is recommended:

(*a*) That Governments take steps to arrange for the exchange of visits by those who are conducting research in the public or private institutions of their countries;

(*b*) That Governments and the Secretary-General ensure the acceleration of the exchange of information concerning past and on-going research, experimentation and project implementation covering all aspects of human settlements, which is conducted by the United Nations system or by public or private entities including academic institutions.

*Recommendation 6.*—It is recommended that Governments and the Secretary-General give urgent attention to the training of those who are needed to promote integrated action on the planning, development and management of human settlements.

*Recommendation 7.*—It is recommended:

(*a*) That Governments and the Secretary-General provide equal possibilities for everybody, both by training and by ensuring access to relevant means and information, to influence their own environment by themselves;

(*b*) That Governments and the Secretary-General ensure that the institutions concerned shall be strengthened and that special training activities shall be established, making use of existing projects of regional environmental development, for the benefit of the less industrialized countries, covering the following:

(i) Intermediate and auxiliary personnel for national public services who, in turn, would be in a position to train others for similar tasks (principal

bodies responsible: World Health Organization, Department of Economic and Social Affairs of the United Nations Secretariat (Centre for Housing, Building and Planning), United Nations Industrial Development Organization, Food and Agriculture Organization of the United Nations);

(ii) Specialists in environmental planning and in rural development (principal bodies responsible: Department of Economic and Social Affairs of the United Nations Secretariat (Centre for Housing, Building and Planning), Food and Agriculture Organization of the United Nations);

(iii) Community developers for self-help programmes for low-income groups (principal body responsible: Department of Economic and Social Affairs of the United Nations Secretariat (Centre for Housing, Building and Planning));

(iv) Specialists in working environments (principal bodies responsible: International Labour Organisation, Department of Economic and Social Affairs of the United Nations Secretariat (Centre for Housing, Building and Planning), World Health Organization);

(v) Planners and organizers of mass transport systems and services, with special reference to environmental development (principal body responsible: Department of Economic and Social Affairs of the United Nations Secretariat (Resources and Transport Division)).

*Recommendation 8.*—It is recommended that regional institutions take stock of the requirements of their regions for various environmental skills and of the facilities available to meet those requirements in order to facilitate the provision of appropriate training within regions.

*Recommendation 9.*—It is recommended that the World Health Organization increase its efforts to support Governments in planning for improving water supply and sewerage services through its community water supply programme, taking account, as far as possible, of the framework of total environment programmes for communities.

*Recommendation 10.*—It is recommended that development assistance agencies should give higher priority, where justified in the light of the social benefits, to supporting Governments in financing and setting up services for water supply, disposal of water from all sources, and liquid-waste and solid-waste disposal and treatment as part of the objectives of the Second United Nations Development Decade.

*Recommendation 11.*—It is recommended that the Secretary-General ensure that during the preparations for the 1974 World Population Conference, special attention shall be given to population concerns as they relate to the environment and, more particularly, to the environment of human settlements.

*Recommendation 12.*—It is recommended that the World Health Organization and other United Nations agencies should provide increased assistance to Governments which so request in the field of family planning programmes without delay.

It is further recommended that the World Health Organization should promote and intensify research endeavour in the field of human reproduction, so that the serious consequences of population explosion on human environment can be prevented.

*Recommendation 13.*—It is recommended that the United Nations agencies should focus special attention on the provision of assistance for combating the menace of human malnutrition rampant in many parts of the world. Such assistance will cover training, research and development endeavours on such matters as causes of malnutrition, mass production of high-protein and multipurpose foods, qualitative and quantitative characteristics of routine foods, and the launching of applied nutrition programmes.

*Recommendation 14.*—It is recommended that the intergovernmental body for environmental affairs to be established within the United Nations should ensure that the required surveys shall be made concerning the need and the technical possibilities for developing internationally agreed standards and measuring and limiting noise emissions and that, if it is deemed advisable, such standards shall be applied in the production of means of transportation and certain kinds of working equipment, without a large price increase or reduction in the aid given to developing countries.

*Recommendation 15.*—It is recommended that the Secretary-General, in consultation with the appropriate United Nations bodies, formulate programmes on a world-wide basis to assist countries to meet effectively the requirements of growth of human settlements and to improve the quality of life in existing settlements: in particular, in squatter areas.

*Recommendation 16.*—The programmes referred to in recommendation 15 should include the establishment of subregional centres to undertake, *inter alia*, the following functions: (*a*) Training; (*b*) Research; (*c*) Exchange of information; and (*d*) Financial, technical and material assistance.

*Recommendation 17.*—It is recommended that Governments and the Secretary-General take immediate steps towards the establishment of an international fund or a financial institution whose primary operative objectives will be to assist in strengthening national programmes relating to human settlements through the provision of seed capital and the extension of the necessary technical assistance to permit an effective mobilization of domestic resources for housing and the environmental improvement of human settlements.

*Recommendation 18.*—It is recommended that the following recommendations be referred to the Disaster Relief Co-ordinator for his consideration, more particularly in the context of the preparation of a report to the Economic and Social Council:

1. It is recommended that the Secretary-General, with the assistance of the Disaster Relief Co-ordinator and in consultation with the appropriate bodies of the United Nations system and non-governmental bodies:

(*a*) Assess the over-all requirements for the timely and widespread distribution of warnings which the observational and communications networks must satisfy;

(*b*) Assess the needs for additional observational networks and other observational systems for natural disaster detection and warnings for tropical cyclones (typhoons, hurricanes, cyclones etc.) and their associated storm surges, torrential rains, floods, tsunamis, earthquakes etc.;

(*c*) Evaluate the existing systems for the international communication of disaster warnings, in order to determine the extent to which these require improvement;

(*d*) On the basis of these assessments, promote, through existing national and international organizations, the establishment of an effective world-wide natural disaster warning system, with special emphasis on tropical cyclones and earthquakes, taking full advantage of existing systems and plans, such as the World Weather Watch, the World Meteorological Organization's Tropical Cyclone Project, the International Tsunami Warning System, the World-Wide Standardized Seismic Network and the Desert Locust Control Organization;

(*e*) Invite the World Meteorological Organization to promote research on the periodicity and intensity of the occurrence of droughts, with a view to developing improved forecasting techniques.

2. It is further recommended that the United Nations Development Programme and other appropriate international assistance agencies give priority in responding to requests from Governments for the establishment and improvement of natural disaster research programmes and warning systems.

3. It is recommended that the Secretary-General ensure that the United Nations system shall provide to Governments a comprehensive programme of advice and support in disaster prevention. More specificially, the question of disaster prevention should be seen as an integral part of the country programme as submitted to, and reviewed by, the United Nations Development Programme.

4. It is recommended that the Secretary-General take the necessary steps to ensure that the United Nations system shall assist countries with their planning for pre-disaster preparedness. To this end:

(*a*) An international programme of technical co-operation should be developed, designed to strengthen the capabilities of Governments in the field of pre-disaster planning, drawing upon the services of the resident representatives of the United Nations Development Programme;

(*b*) The Office of Disaster Relief, with the assistance of relevant agencies of the United Nations, should organize plans and programmes for international co-operation in cases of natural disasters;

(*c*) As appropriate, non-governmental international agencies and individual Governments should be invited to participate in the preparation of such plans and programmes.

## Environmental Aspects of Natural Resources Management

*Recommendation 19.*—It is recommended that the Food and Agriculture Organization of the United Nations, in co-operation with other relevant interna-

tional organizations, should include in its programme questions relating to rural planning in relation to environmental policy, since environmental policy is formulated in close association with physical planning and with medium-term and long-term economic and social planning. Even in highly industrialized countries, rural areas still cover more than 90 per cent of the territory and consequently should not be regarded as a residual sector and a mere reserve of land and manpower. The programme should therefore include, in particular:

(*a*) Arrangements for exchanges of such data as are available;

(*b*) Assistance in training and informing specialists and the public, especially young people, from primary school age onwards;

(*c*) The formulation of principles for the development of rural areas, which should be understood to comprise not only agricultural areas as such but also small- and medium-sized settlements and their hinterland.

*Recommendation 20.*—It is recommended that the Food and Agriculture Organization of the United Nations, in co-operation with other international agencies concerned, strengthen the necessary machinery for the international acquisition of knowledge and transfer of experience on soil capabilities, degradation, conservation and restoration, and to this end:

(*a*) Co-operative information exchange should be facilitated among those nations sharing similar soils, climate and agricultural conditions:

(i) The Soil Map of the World being prepared by the Food and Agriculture Organization of the United Nations, the United Nations Educational, Scientific and Cultural Organization and the International Society of Soil Science should serve to indicate those areas among which transfer of knowledge on soil potentialities and soil degradation and restoration would be most valuable;

(ii) This map should be supplemented through the establishment of international criteria and methods for the assessment of soil capabilities and degradations and the collection of additional data based upon these methods and criteria. This should permit the preparation of a World Map of Soil Degradation Hazards as a framework for information exchange in this area;

(iii) Information exchange on soil use should account for similarities in vegetation and other environmental conditions as well as those of soil, climate, and agricultural practices;

(iv) The FAO Soil Data-Processing System should be developed beyond soil productivity considerations, to include the above-mentioned data and relevant environmental parameters, and to facilitate information exchange between national soil institutions, and eventually soil-monitoring stations.

(*b*) International co-operative research on soil capabilities and conservation should be strengthened and broadened to include:

(i) Basic research on soil degradation processes in selected ecosystems under the auspices of the Man and the Biosphere Programme. This research should be directed as a matter of priority to those arid areas that are most threatened;

(ii) Applied research on soil and water conservation practices under specific land-use conditions with the assistance of the Food and Agriculture Organization of the United Nations and, where appropriate, other agencies (United Nations Educational, Scientific and Cultural Organization, World Health Organization and International Atomic Energy Agency);

(iii) Strengthening of existing research centres and, where necessary, establishment of new centres with the object of increasing the production from dry farming areas without any undue impairment of the environment; and

(iv) Research on the use of suitable soils for waste disposal and recycling: the United Nations Industrial Development Organization, the Food and Agriculture Organization of the United Nations, and the World Health Organization should enter into joint consultations regarding the feasibility of an international programme in this area.

(*c*) These efforts for international co-operation in research and information exchange on soils should be closely associated with those of the UNDP/WMO/FAO/UNESCO programme of agricultural biometeorology, in order to facilitate integration of data and practical findings and to support the national programmes of conservation of soil resources recommended above;

(*d*) It should moreover be noted that in addition to the various physical and climatic phenomena which contribute to soil degradation, economic and social factors contribute to it as well; among the economic contributory factors, one

which should be particularly emphasized is the payment of inadequate prices for the agricultural produce of developing countries, which prevents farmers in those countries from setting aside sufficient savings for necessary investments in soil regeneration and conservation. Consequently, urgent remedial action should be taken by the organizations concerned to give new value and stability to the prices of raw materials of the developing countries.

*Recommendation 21.*—It is recommended that Governments, the Food and Agriculture Organization of the United Nations and the World Health Organization, in co-operation with the United Nations Educational, Scientific and Cultural Organization and the International Atomic Energy Agency, strengthen and co-ordinate international programmes for integrated pest control and reduction of the harmful effects of agro-chemicals:

(*a*) Existing international activities for the exchange of information and co-operative research and technical assistance to developing countries should be strengthened to support the national programmes described above, with particular reference to:

(i) Basic research on ecological effects of pesticides and fertilizers (MAB);

(ii) Use of radio-isotope and radiation techniques in studying the fate of pesticides in the environment (joint IAEA/FAO Division);

(iii) Evaluation of the possibility of using pesticides of biological origin in substitution for certain chemical insecticides which cause serious disturbances in the environment;

(iv) Dose and timing of fertilizers' application and their effects on soil productivity and the environment (Food and Agriculture Organization of the United Nations);

(v) Management practices and techniques for integrated pest control, including biological control (Food and Agriculture Organization of the United Nations and World Health Organization);

(vi) Establishment and/or strengthening of national and regional centres for integrated pest control, particularly in developing countries (Food and Agriculture Organization of the United Nations and World Health Organization).

(*b*) Existing expert committees of the Food and Agriculture Organization of the United Nations and the World Health Organization on various aspects of pest control should be convened periodically:

(i) To assess recent advances in the relevant fields of research mentioned above;

(ii) To review and further develop international guidelines and standards with special reference to national and ecological conditions in relation to the use of chlorinated hydrocarbons, pesticides containing heavy metals and the use and experimentation of biological controls.

(*c*) In addition, *ad hoc* panels of experts should be convened, by the Food and Agriculture Organization of the United Nations, the World Health Organization and, where appropriate, the International Atomic Energy Agency, in order to study specific problems, and facilitate the work of the above-mentioned committees.

*Recommendation 22.*—It is recommended that the Food and Agriculture Organization of the United Nations, under its "War on Waste" programme, place increased emphasis on control and recycling of wastes in agriculture:

(*a*) This programme should assist the national activities relating to:

(i) Control and recycling of crop residues and animal wastes;

(ii) Control and recycling of agro-industrial waste;

(iii) Use of municipal wastes as fertilizers.

(*b*) The programme should also include measures to avoid wasteful use of natural resources through the destruction of unmarketable agricultural products or their use for improper purposes.

*Recommendation 23.*—It is recommended that Governments, in co-operation with the Food and Agriculture Organization of the United Nations and other agencies and bodies, establish and strengthen regional and international machinery for the rapid development and management of domesticated livestock of economic importance and their related environmental aspects as part of the ecosystems, particularly in areas of low annual productivity, and thus encourage the establishment of regional livestock research facilities, councils and commissions, as appropriate.

*Recommendation 24.*—It is recommended that the Secretary-General take steps to ensure that the United Nations bodies concerned co-operate to meet the needs

for new knowledge on the environmental aspects of forests and forest management:

(*a*) Where appropriate, research should be promoted, assisted, co-ordinated, or undertaken by the Man and the Biosphere Programme (UNESCO), in close co-operation with the Food and Agriculture Organization of the United Nations and the World Meteorological Organization, and with the collaboration of the International Council of Scientific Unions and the International Union of Forestry Research Organizations;

(*b*) Research on comparative legislation, land tenure, institutions, tropical forest management, the effects of the international trade in forest products on national forest environments, and public administration, should be sponsored or co-ordinated by FAO, in co-operation with other appropriate international and regional organizations;

(*c*) The Food and Agriculture Organization of the United Nations, in conjunction with the United Nations Educational, Scientific and Cultural Organization and other appropriate international organizations, should give positive advice to member countries on the important role of forests with reference to, and in conjunction with, the conservation of soil, watersheds, the protection of tourist sites and wildlife, and recreation, within the over-all framework of the interests of the biosphere.

*Recommendation 25.*—It is recommended that the Secretary-General take steps to ensure that continuing surveillance, with the co-operation of Member States, of the world's forest cover shall be provided for through the programmes of the Food and Agriculture Organization of the United Nations and the United Nations Educational, Scientific and Cultural Organization.

(*a*) Such a World Forest Appraisal Programme would provide basic data, including data on the balance between the world's forest biomass and the prevailing environment, and changes in the forest biomass, considered to have a significant impact on the environment;

(*b*) The information could be collected from existing inventories and on-going activities and through remote-sensing techniques;

(c) The forest protection programme described above might be incorporated within this effort, through the use of advanced technology, such as satellites which use different types of imagery and which could constantly survey all forests.

*Recommendation 26.*—It is recommended that the Food and Agriculture Organization of the United Nations co-ordinate an international programme for research and exchange of information on forest fires, pests and diseases:

(*a*) The programme should include data collection and dissemination, identification of potentially susceptible areas and of means of suppression; exchange of information on technologies, equipment and techniques; research, including integrated pest control and the influence of fires on forest ecosystems, to be undertaken by the International Union of Forestry Research Organizations; establishment of a forecasting system in co-operation with the World Meterological Organization; organization of seminars and study tours; the facilitation of bilateral agreements for forest protection between neighbouring countries, and the development of effective international quarantines;

(*b*) Forest fires, pests and diseases will frequently each require separate individual treatment.

*Recommendation 27.*—It is recommended that the Food and Agriculture Organization of the United Nations facilitate the transfer of information on forests and forest management:

(*a*) The amount of knowledge that can usefully be exchanged is limited by the differences of climatic zones and forest types;

(*b*) The exchange of information should however be encouraged among nations sharing similarities; considerable knowledge is already exchanged among the industrialized nations of the temperate zone;

(*c*) Opportunities exist, despite differences, for the useful transfer of information to developing countries on the environmental aspects of such items as: (i) the harvesting and industrialization of some tropical hardwoods; (ii) pine cultures; (iii) the principles of forest management systems and management science; (iv) soils and soil interpretations relating to forest management; (v) water régimes and water-shed management; (vi) forest industries pollution controls, including both technical and economic data; (vii) methods for the evaluation of forest resources through sampling techniques, remote sensing, and data-processing; (viii) control of destructive fires and pest outbreaks; and (ix) co-ordination in the area of the definition and standardization of criteria and methods for the economic appraisal of forest environmental influences and for the comparison of alternative uses.

*Recommendation 28.*—It is recommended that the Food and Agriculture Organization of the United Nations strengthen its efforts in support of forestry projects and research projects, possibly for production, in finding species which are adaptable even in areas where this is exceptionally difficult because of ecological conditions.

*Recommendation 29.*—It is recommended that the Secretary-General ensure that the effect of pollutants upon wildlife shall be considered, where appropriate, within environmental monitoring systems. Particular attention should be paid to those species of wildlife that may serve as indicators for future wide environmental disturbances, and an ultimate impact upon human populations.

*Recommendation 30.*—It is recommended that the Secretary-General ensure establishment of a programme to expand present data-gathering processes so as to assess the total economic value of wildlife resources.

(*a*) Such data would facilitate the task of monitoring the current situation of animals endangered by their trade value, and demonstrate to questioning nations the value of their resources;

(*b*) Such a programme should elaborate upon current efforts of the Food and Agriculture Organization of the United Nations and might well produce a yearbook of wildlife[1] statistics.

*Recommendation 31.*—It is recommended that the Secretary-General ensure that the appropriate United Nations agencies co-operate with the Governments of the developing countries to develop special short-term training courses on wildlife[1] management:

(*a*) Priority should be given to conversion courses for personnel trained in related disciplines such as forestry or animal husbandry;

(*b*) Special attention should be given to the establishment and support of regional training schools for technicians.

*Recommendation 32.*—It is recommended that Governments give attention to the need to enact international conventions and treaties to protect species inhabiting international waters or those which migrate from one country to another:

(*a*) A broadly-based convention should be considered which would provide a framework by which criteria for game regulations could be agreed upon and the overexploitation of resources curtailed by signatory countries;

(*b*) A working group should be set up as soon as possible by the appropriate authorities to consider these problems and to advise on the need for, and possible scope of, such conventions or treaties.

*Recommendation 33.*—It is recommended that Governments agree to strengthen the international whaling commission, to increase international research efforts, and as a matter of urgency to call for an international agreement, under the auspices of the international whaling commission and involving all Governments concerned, for a 10-year moratorium on commercial whaling.

*Recommendation 34.*—It is recommended that Governments and the Secretary-General give special attention to training requirements on the management of parks and protected areas:

(*a*) High-level training should be provided and supported:

(i) In addition to integrating aspects of national parks planning and management into courses on forestry and other subjects, special degrees should be offered in park management; the traditional forestry, soil and geology background of the park manager must be broadened into an integrated approach;

(ii) Graduate courses in natural resources administration should be made available in at least one major university in every continent.

(*b*) Schools offering courses in national park management at a medium-grade level should be assisted by the establishment or expansion of facilities, particularly in Latin America and Asia.

*Recommendation 35.*—It is recommended that the Secretary-General take steps to ensure that an appropriate mechanism shall exist for the exchange of information on national parks legislation and planning and management techniques developed in some countries which could serve as guidelines to be made available to any interested country.

*Recommendation 36.*—It is recommended that the Secretary-General take steps to ensure that the appropriate United Nations agencies shall assist the develop-

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[1] Whereas elsewhere in this report the expression "wildlife" is meant to include both animals and plants, it should be understood here to be restricted to the most important animals.

ing countries to plan for the inflow of visitors into their protected areas in such a way as to reconcile revenue and environmental considerations within the context of the recommendations approved by the Conference. The other international organizations concerned may likewise make their contribution.

*Recommendation 37.*—It is recommended that Governments take steps to coordinate, and co-operate in the management of, neighbouring or contiguous protected areas. Agreement should be reached on such aspects as mutual legislation, patrolling systems, exchange of information research projects, collaboration on measures of burning, plant and animal control, fishery regulations, censuses, tourist circuits and frontier formalities.

*Recommendation 38.*—It is recommended that Governments take steps to set aside areas representing ecosystems of international significance for protection under international agreement.

*Recommendation 39.*—It is recommended that Governments, in co-operation with the Secretary-General of the United Nations and the Food and Agriculture Organization of the United Nations where indicated, agree to an international programme to preserve the world's genetic resources:

(*a*) Active participation at the national and international levels is involved. It must be recognized, however, that while survey, collection, and dissemination of these genetic resources are best carried out on a regional or international basis, their actual evaluation and utilization are matters for specific institutions and individual workers; international participation in the latter should concern exchange of techniques and findings;

(*b*) An international network is required with appropriate machinery to facilitate the interchange of information and genetic material among countries;

(*c*) Both static (seed banks, culture collection etc.) and dynamic (conservation of populations in evolving natural environments) ways are needed.

(*d*) Action is necessary in six interrelated areas:

(i) Survey of genetic resources;
(ii) Inventory of collections;
(iii) Exploration and collecting;
(iv) Documentation;
(v) Evaluation and utilization; and
(vi) Conservation, which represents the crucial element to which all other programmes relate.

(*e*) Although the international programme relates to all types of genetic resources, the action required for each resource will vary according to existing needs and activities.

*Recommendation 40.*—It is recommended that Governments, in co-operation with the Secretary-General of the United Nations and the Food and Agriculture Organization of the United Nations where indicated, make inventories of the genetic resources most endangered by depletion or extinction:

(*a*) All species threatened by man's development should be included in such inventories;

(*b*) Special attention should be given to locating in this field those areas of natural genetic diversity that are disappearing;

(*c*) These inventories should be reviewed periodically and brought up to date by appropriate monitoring;

(*d*) The survey conducted by FAO in collaboration with the International Biological Programme is designed to provide information on endangered crop genetic resources by 1972, but will require extension and follow-up.

*Recommendation 41.*—It is recommended that Governments, in co-operation with the Secretary-General of the United Nations and the Food and Agriculture Organization of the United Nations where indicated, compile or extend, as necessary, registers of existing collections of genetic resources:

(*a*) Such registers should identify which breeding and experiment stations, research institutions and universities maintain which collections;

(*b*) Major gaps in existing collections should be identified where material is in danger of being lost;

(*c*) These inventories of collections should be transformed for computer handling and made available to all potential users;

(*d*) In respect of plants:

(i) It would be expected that the "advanced varieties" would be well represented, but that primitive materials would be found to be scarce and require subsequent action;

(ii) The action already initiated by FAO, several national institutions, and international foundations should be supported and expanded.

(*e*) In respect of micro-organisms, it is recommended that each nation develop comprehensive inventories of culture collections:

(i) A cataloguing of the large and small collections and the value of their holdings is required, rather than a listing of individual strains;

(ii) Many very small but unique collections, sometimes the works of a single specialist, are lost;

(iii) Governments should make sure that valuable gene pools held by individuals or small institutes are also held in national or regional collections.

(*f*) In respect of animal germ plasm, it is recommended that FAO establish a continuing mechanism to assess and maintain catalogues of the characteristics of domestic animal breeds, types and varieties in all nations of the world. Likewise, FAO should establish such lists where required.

(*g*) In respect of aquatic organisms, it is recommended that FAO compile a catalogue of genetic resources of cultivated species and promote intensive studies on the methods of preservation and storage of genetic material.

*Recommendation 42.*—It is recommended that Governments, in co-operation with the Secretary-General of the United Nations and the Food and Agriculture Organization of the United Nations where indicated, initiate immediately, in co-operation with all interested parties, programmes of exploration and collection wherever endangered species have been identified which are not included in existing collections:

(*a*) An emergency programme, with the co-operation of the Man and the Biosphere Programme, of plant exploration and collection should be launched on the basis of the FAO List of Emergency Situations for a five-year period;

(*b*) With regard to forestry species, in addition to the efforts of the Danish/FAO Forest Tree Seed Centre, the International Union of Forestry Research Organizations, and the FAO Panel of Experts on Forest Gene Resources, support is needed for missions planned for Latin America, West Africa, the East Indies and India.

*Recommendation 43.*—It is recommended that Governments, in co-operation with the Secretary-General of the United Nations and the Food and Agriculture Organization of the United Nations where indicated:

1. Recognize that conservation is a most crucial part of any genetic resources programme. Moreover, major types of genetic resources must be treated separately because:

(*a*) They are each subject to different programmes and priorities;

(*b*) They serve different uses and purposes;

(*c*) They require different expertise, techniques and facilities.

2. In respect of plant germ plasms (agriculture and forestry), organize and equip national or regional genetic resources conservation centres:

(*a*) Such centres as the National Seed Storage Laboratory in the United States of American and the Vavilov Institute of Plant Industry in the Union of Soviet Socialist Republics already provide good examples;

(*b*) Working collections should be established separately from the basic collections; these will usually be located at plant and breeding stations and will be widely distributed;

(*c*) Three classes of genetic crop resources must be conserved:

(i) High-producing varieties in current use and those they have superseded;

(ii) Primitive varieties of traditional pre-scientific agriculture (recognized as genetic treasuries for plant improvement);

(iii) Mutations induced by radiation or chemical means;

(*d*) Species contributing to environmental improvement, such as sedge used to stabilize sand-dunes, should be conserved;

(*e*) Wild or weed relatives of crop species and those wild species of actual or potential use in rangelands, industry, new crops, etc. should be included.

3. In respect of plant germ plasms (agriculture and forestry), maintain gene pools of wild plant species within their natural communities. Therefore:

(*a*) It is essential that primeval forests, bushlands and grasslands which contain important forest genetic resources be identified and protected by appropriate technical and legal means; systems of reserves exist in most countries, but a strengthening of international understanding on methods of protection and on availability of material may be desired;

(*b*) Conservation of species of medical, aesthetic or research value should be assured;

(*c*) The network of biological reserves proposed by UNESCO (Man and the Biosphere Programme) should be designed, where feasible, to protect these natural communities;

(*d*) Where protection in nature becomes uncertain or impossible, then means such as seed storage or living collections in provenance trials or botanic gardens must be adopted.

4. Fully implement the programmes initiated by the FAO Panels of Experts on forest gene resources in 1968 and on plant exploration and introduction in 1970;

5. In respect of animal germ plasms, consider the desirability and feasibility of international action to preserve breeds or varities of animals:

(*a*) Because such an endeanvour would constitute a major effort beyond the scope of any one nation, FAO would be the logical executor of such a project. Close co-operation with Governments would be necessary, however. The International Union for Conservation of Nature and Natural Resources might, logically, be given responsibility for wild species, in co-operation with FAO, the Man and the Biosphere Programme (UNESCO), and Governments;

(*b*) Any such effort should also include research on methods of preserving, storing, and transporting germ plasm;

(*c*) Specific methods for the maintenance of gene pools of aquatic species should be developed;

(*d*) The recommendations of the FAO Working Party Meeting on Genetic Selection and Conservation of Genetic Resources of Fish, held in 1971, should be implemented.

6. In respect of micro-organism germ plasms, co-operatively establish and properly fund a few large regional collections:

(*a*) Full use should be made of major collections now in existence;

(*b*) In order to provide geographical distribution and access to the developing nations, regional centres should be established in Africa, Asia and Latin America and the existing centres in the developed world should be strengthened.

7. Establish conservation centres of insect germ plasm. The very difficult and long process of selecting or breeding insects conducive to biological control programmes can begin only in this manner.

*Recommendation 44.*—It is recommended that Governments, in co-operation with the Secretary-General of the United Nations and the Food and Agriculture Organization of the United Nations where indicated, recognize that evaluation and utilization are critical corollaries to the conservation of genetic resources. In respect of crop-breeding programmes, it is recommended that Governments give special emphasis to:

(*a*) The quality of varieties and breeds and the potential for increased yields;

(*b*) The ecological conditions to which the species are adapted;

(*c*) The resistance to diseases, pests and other adverse factors;

(*d*) The need for a multiplicity of efforts so as to increase the chances of success.

*Recommendation 45.*—It is recommended that Governments, in co-operation with the Secretary-General of the United Nations and the Food and Agriculture Organization of the United Nations where indicated:

1. Collaborate to establish a global network of national and regional institutes relating to genetic resource conservation based on agreements on the availability of material and information, on methods, on technical standards, and on the need for technical and financial assistance wherever required:

(*a*) Facilities should be designed to assure the use of the materials and information: (i) by breeders, to develop varieties and breeds both giving higher yields and having higher resistance to local pests and diseases and other adverse factors; and (ii) by users providing facilities and advice for the safest and most profitable utilization of varieties and breeds most adapted to local conditions;

(*b*) Such co-operation would apply to all genetic resource conservation centres and to all types mentioned in the foregoing recommendations;

(*c*) Standardized storage and retrieval facilities for the exchange of information and genetic material should be developed:

(i) Information should be made generally available and its exchange facilitated through agreement on methods and technical standards;

(ii) International standards and regulations for the shipment of materials should be agreed upon;

(iii) Basic collections and data banks should be replicated in at least two distinct sites, and should remain a national responsibility;

(iv) A standardized and computerized system of documentation is required.

(*d*) Technical and financial assistance should be provided where required; areas of genetic diversity are most frequently located in those countries most poorly equipped to institute the necessary programmes.

2. Recognize that the need for liaison among the parties participating in the global system of genetic resources conservation requires certain institutional innovations. To this end:

(*a*) It is recommended that the appropriate United Nations agency establish an international liaison unit for plant genetic resources in order:

(i) To improve liaison between governmental and non-governmental efforts;

(ii) To assist in the liaison and co-operation between national and regional centres, with special emphasis on international agreements on methodology and standards of conservation of genetic material, standardization and co-ordination of computerized record systems, and the exchange of information and material between such centres;

(iii) To assist in implementing training courses in exploration, conservation and breeding methods and techniques;

(iv) To act as a central repository for copies of computerized information on gene pools (discs and tapes);

(v) To provide the secretariat for periodic meetings of international panels and seminars on the subject; a conference on germ plasm conservation might be convened to follow up the successful conference of 1967;

(vi) To plan and co-ordinate the five-year emergency programme on the conservation of endangered species;

(vii) To assist Governments further, wherever required, in implementing their national programmes;

(viii) To promote the evaluation and utilization of genetic resources at the national and international levels.

(*b*) It is recommended that the appropriate United Nations agency initiate the required programme on micro-organism germ plasm:

(i) Periodic international conferences involving those concerned with the maintenance of and research on gene pools of micro-organisms should be supported;

(ii) Such a programme might interact with the proposed regional culture centres by assuring that each centre places high priority on the training if scientists and technicians from the developing nations; acting as a necessary liaison; and lending financial assistance to those countries established outside the developed countries;

(iii) The international exchange of pure collections of micro-organisms between the major collections of the world has operated for many years and requires little re-enforcement;

(iv) Study should be conducted particularly on waste disposal and recycling, controlling diseases and pests, and food technology and nutrition.

(*c*) It is recommended that the Food and Agriculture Organization of the United Nations institute a programme in respect of animal germ plasm to assess and maintain catalogues of the economic characteristics of domestic animal breeds and types and of wild species and to establish gene pools of potentially useful types;

(*d*) It is recommended that the Man and the Biosphere project on the conservation of natural areas and the genetic material contained therein should be adequately supported.

*Recommendation 46.*—It is recommended that Governments, and the Secretary-General in co-operation with the Food and Agriculture Organization of the United Nations and other United Nations organizations concerned, as well as development assistance agencies, take steps to support recent guidelines, recommendations and programmes of the various international fishing organizations. A large part of the needed international action has been identified with action programmes initiated by FAO and its Intergovernmental Committee on Fisheries and approximately 24 other bilateral and multilateral international commissions, councils and committees. In particular these organizations are planning and undertaking:

(*a*) Co-operative programmes such as that of LEPOR (Long-Term and Expanded Programme of Oceanic Research), GIPME (Global Investigation of Pollution in the Marine Environment) and IBP (International Biological Programme);

(*b*) Exchange of data, supplementing and expanding the services maintained by FAO and bodies within its framework in compiling, disseminating and co-ordinating information on living aquatic resources and their environment and fisheries activities;

(*c*) Evaluation and monitoring of world fishery resources, environmental conditions, stock assessment, including statistics on catch and effort, and the economics of fisheries;

(*d*) Assistance to Governments in interpreting the implications of such assessments, identifying alternative management measures, and formulating required actions;

(*e*) Special programmes and recommendations for management of stocks of fish and other aquatic animals proposed by the existing international fishery bodies. Damage to fish stocks has often occurred because regulatory action is taken too slowly. In the past, the need for management action to be nearly unanimous has reduced action to the minimum acceptable level.

*Recommendation 47.*—It is recommended that Governments, and the Secretary-General of the United Nations in co-operation with the Food and Agriculture Organization of the United Nations and other United Nations organizations concerned, as well as development assistance agencies, take steps to ensure close participation of fishery agencies and interests in the preparations for the United Nations Conference on the Law of the Sea. In order to safeguard the marine environment and its resources through the development of effective and workable principles and laws, the information and insight of international and regional fishery bodies, as well as the national fishery agencies are essential.

*Recommendation 48.*—It is recommended that Governments, and the Secretary-General in co-operation with the Food and Agriculture Organization of the United Nations and other United Nations organizations concerned, as well as development assistance agencies, take steps to ensure international co-operation in the research, control and regulation of the side effects of national activities in resource utilization where these affect the aquatic resources of other nations:

(*a*) Estuaries, intertidal marshes, and other near-shore and in-shore environments play a crucial role in the maintenance of several marine fish stocks. Similar problems exist in those fresh-water fisheries that occur in shared waters;

(*b*) Discharge of toxic chemicals, heavy metals, and other wastes may affect even high-seas resources;

(*c*) Certain exotic species, notably the carp, lamprey and alewife, have invaded international waters with deleterious effects as a result of unregulated unilateral action.

*Recommendation 49.*—It is recommended that Governments, and the Secretary-General of the United Nations in co-operation with the Food and Agriculture Organization of the United Nations and other United Nations Organizations concerned, as well as development assistance agencies, take steps to develop further and strengthen facilities for collecting, analysing and disseminating data on living aquatic resources and the environment in which they live:

(*a*) Data already exist concerning the total harvest from the oceans and from certain regions in respect of individual fish stocks, their quantity, and the fishing efforts expended on them, and in respect of their population structure, distribution and changes. This coverage needs to be improved and extended;

(*b*) It is clear that a much greater range of biological parameters must be monitored and analysed in order to provide an adequate basis for evaluating the interaction of stocks and managing the combined resources of many stocks. There is no institutional constraint on this expansion but a substantial increase in funding is needed by FAO and other international organizations concerned to meet this expanding need for data;

(*c*) Full utilization of present and expanded data facilities is dependent on the co-operation of Governments in developing local and regional data networks, making existing data available to FAO and to the international bodies, and formalizing the links between national and international agencies responsible for monitoring and evaluating fishery resources.

*Recommendation 50.*—It is recommended that Governments, and the Secretary-General of the United Nations in co-operation with the Food and Agriculture Organization of the United Nations and other United Nations organizations

concerned, as well as development assistance agencies, take steps to ensure full co-operation among Governments by strengthening the existing international and regional machinery for development and management of fisheries and their related environmental aspects and, in those regions where these do not exist, to encourage the establishment of fishery councils and commissions as appropriate.

(*a*) The operational efficiency of these bodies will depend largely on the ability of the participating countries to carry out their share of the activities and programmes;

(*b*) Technical support and servicing from the specialized agencies, in particular from FAO, is also required;

(*c*) The assistance of bilateral and international funding agencies will be needed to ensure the full participation of the developing countries in these activities.

*Recommendation 51.*—It is recommended that Governments concerned consider the creation of river-basin commissions or other appropriate machinery for co-operation between interested States for water resources common to more than one jurisdiction.

(*a*) In accordance with the Charter of the United Nations and the principles of international law full consideration must be given to the right of permanent sovereignty of each country concerned to develop its own resources;

(*b*) The following principles should be considered by the States concerned when appropriate:

(i) Nations agree that when major water resource activities are contemplated that may have a significant environmental effect on another country, the other country should be notified well in advance of the activity envisaged;

(ii) The basic objective of all water resource use and development activities from the environmental point of view is to ensure the best use of water and to avoid its pollution in each country;

(iii) The net benefits of hydrologic regions common to more than one national jurisdiction are to be shared equitably by the nations affected.

(*c*) Such arrangements, when deemed appropriate by the States concerned, will permit undertaking on a regional basis:

(i) Collection, analysis, and exchanges of hydrologic data through some international mechanism agreed upon by the States concerned;

(ii) Joint data-collection programmes to serve planning needs;

(iii) Assessment of environmental effects of existing water uses;

(iv) Joint study of the causes and symptoms of problems related to water resources, taking into account the technical, economic, and social considerations of water quality control;

(v) Rational use, including a program of quality control, of the water resources as an environmental asset;

(vi) Provision for the judicial and administrative protection of water rights and claims;

(vii) Prevention and settlement of disputes with reference to the management and conservation of water resources;

(viii) Financial and technical co-operation of a shared resource.

(*d*) Regional conferences should be organized to promote the above considerations.

*Recommendation 52.*—It is recommended that the Secretary-General take steps to ensure that appropriate United Nations bodies support government action where required:

1. Reference is made to the Food and Agriculture Organization of the United Nations, the World Health Organization, the World Meteorological Organization, the Department of Economic and Social Affairs of the United Nations Secretariat (Resources and Transport Division), the United Nations Educational, Scientific and Cultural Organization/International Hydrological Decade, the regional economic commissions and the United Nations Economic and Social Office in Beirut. For example:

(*a*) The Food and Agriculture Organization of the United Nations has established a Commision on Land and Water Use for the Middle East which promotes regional co-operation in research, training and information, *inter alia* on water management problems;

(*b*) The World Health Organization has available the International Reference Centre for Waste Disposal located at Dübendorf, Switzerland, and International Reference Centre on Community Water Supply in the Netherlands:

(*c*) The World Meteorological Organization has a Commission on Hydrology which provides guidance on data collection and on the establishment of hydrological networks;

(*d*) The Resources and Transport Division of the Department of Economic and Social Affairs, United Nations Secretariat, has the United Nations Water Resources Development Centre;

(*e*) The United Nations Educational, Scientific and Cultural Organization is sponsoring the International Hydrological Decade programme of co-ordinated research on the quality and quantity of world water resources.

2. Similar specialized centres should be established at the regional level in developing countries for training research and information exchange on:

(*a*) Inland water pollution and waste disposal in co-operation with the World Health Organization, the Food and Agriculture Organization of the United Nations, the United Nations regional economic commissions and the United Nations Economic and Social Office in Beirut;

(*b*) Water management for rain-fed and irrigated agriculture, by the Food and Agriculture Organization of the United Nations in co-operation with the regional economic commissions and the United Nations Economic and Social Office in Beirut;

(*c*) Integrated water resources planning and management in co-operation with the Department of Economic and Social Affairs of the United Nations Secretariat (Resources and Transport Division), the regional economic commissions, and the United Nations Economic and Social Office in Beirut.

*Recommendation 53.*—It is recommended that the Secretary-General take steps to ensure that the United Nations system is prepared to provide technical and financial assistance to Governments when requested in the different functions of water resources management:

(*a*) Surveys and inventories;

(*b*) Water resources administration and policies, including:

(i) The establishment of institutional frameworks;

(ii) Economic structures of water resources management and development;

(iii) Water resources law and legislation.

(*c*) Planning and management techniques, including;

(i) The assignment of water quality standards;

(iii) More efficient use and re-use of limited water supplies.

(*d*) Basic and applied studies and research;

(*e*) Transfer of existing knowledge;

(*f*) Continuing support of the programme of the International Hydrological Decade.

*Recommendation 54.*—It is recommended that the Secretary-General take steps to establish a roster of experts who would be available to assist Governments, upon request, to anticipate and evaluate the environmental effects of major water development projects. Governments would have the opportunity of consulting teams of experts drawn from this roster, in the first stages of project planning. Guidelines could be prepared to assist in the review and choices of alternatives.

*Recommendation 55.*—It is recommended that the Secretary-General takes steps to conduct an exploratory programme to assess the actual and potential environmental effects of water management upon the oceans, define terms and estimate the costs for a comprehensive programme of action, and establish and maintain as far as possible:

(*a*) A world registry of major or otherwise important rivers arranged regionally and classified according to their discharge of water and pollutants;

(*b*) A world registry of clean rivers which would be defined in accordance with internationally agreed quality criteria and to which nations would contribute on a voluntary basis:

(i) The oceans are the ultimate recipient for the natural and man-made wastes discharged into the river systems of the continents;

(ii) Changes in the amount of river-flow into the oceans, as well as in its distribution in space and time, may considerably affect the physical, chemical and biological régime of the estuary regions and influence the oceanic water systems;

(iii) It would be desirable for nations to declare their intention to have admitted to the world registry of clean rivers those rivers within their jurisdiction that meet the quality criteria as defined and to declare their further intention to ensure that certain other rivers shall meet those quality criteria by some target date.

*Recommendation 56.*—It is recommended that the Secretary-General provide the appropriate vehicle for the exchange of information on mining and mineral processing.

(*a*) Improved accessibility and dissemination of existing information is required; the body of literature and experience is already larger than one would think.

(*b*) Possibilities include the accumulation of information on: (i) the environmental conditions of mine sites; (ii) the action taken in respect of the environment; and (iii) the positive and negative environmental repercussions.

(*c*) Such a body of information could be used for prediction. Criteria for the planning and management of mineral production would emerge and would indicate where certain kinds of mining should be limited, where reclamation costs would be particularly high, or where other problems would arise.

(*d*) The appropriate United Nations bodies should make efforts to assist the developing countries by, *inter alia*, providing adequate information for each country on the technology for preventing present or future environmentally adverse effects of mining and the adverse health and safety effects associated with the mineral industry, and by accepting technical trainees and sending experts.

*Recommendation 57.*—It is recommended that the Secretary-General take steps to ensure proper collection, measurement and analysis of data relating to the environmental effects of energy use and production within appropriate monitoring systems.

(*a*) The design and operation of such networks should include, in particular, monitoring the environmental levels resulting from emission of carbon dioxide, sulphur dioxide, oxidants, nitrogen oxides ($NO_x$), heat and particulates, as well as those from releases of oil and radioactivity:

(*b*) In each case the objective is to learn more about the relationships between such levels and the effects on weather, human health, plant and animal life, and amenity values.

*Recommendation 58.*—It is recommended that the Secretary-General take steps to give special attention to providing a mechanism for the exchange of information on energy:

(*a*) The rationalization and integration of resource management for energy will clearly require a solid understanding of the complexity of the problem and of the multiplicity of alternative solutions;

(*b*) Access to the large body of existing information should be facilitated:

(i) Data on the environmental consequences of different energy systems should be provided through an exchange of national experiences, studies, seminars, and other appropriate meetings;

(ii) A continually updated register of research involving both entire systems and each of its stages should be maintained.

*Recommendation 59.*—It is recommended that the Secretary-General take steps to ensure that a comprehensive study be promptly undertaken with the aim of submitting a first report, at the latest in 1975, on available energy sources, new technology, and consumption trends, in order to assist in providing a basis for the most effective development of the world's energy resources, with due regard to the environmental effects of energy production and use: such a study to be carried out in collaboration with appropriate international bodies such as the International Atomic Energy Agency and the Organization for Economic Cooperation and Development.

*Recommendation 60.*—It is recommended that the Secretary-General, in cooperation with Governments concerned and the appropriate international agencies, arrange for systematic audits of natural resource development projects in representative ecosystems of international significance to be undertaken jointly with the Governments concerned after, and where feasible before, the implementation of such projects.[2]

*Rcommendation 61.*—It is recommended that the Secretary-General, in cooperation with Governments concerned and the appropriate international agencies, provide that pilot studies be conducted in representative ecosystems of international significance to assess the environmental impact of alternative approaches to the survey, planning and development of resource projects.

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[2] Projects might include new agricultural settlement of subtropical and tropical zones, irrigation and drainage in arid zones, tropical forestry development, major hydroelectric developments, land reclamation works in tropical lowland coastal areas, and settlement of nomads in semi-arid zones. The cost of audits in developing countries should not be imputed to the costs of the resource development projects but financed from separate international sources.

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*Recommendation 62.*—It is recommended that the Secretary-General, in co-operation with Governments concerned and the appropriate international agencies, provide that studies be conducted to find out the connection between the distribution of natural resources and people's welfare and the reasons for possible discrepancies.

*Recommendation 63.*—It is recommended that the Secretary-General take steps to ensure that international development assistance agencies, in co-operation with recipient Governments, intensify efforts to revise and broaden the criteria of development project analysis to incorporate environmental impact considerations.

*Recommendation 64.*—It is recommended that the Secretary-General take steps to ensure that the United Nations agencies concerned undertake studies on the relative costs and benefits of synthetic *versus* natural products serving identical uses.

*Recommendation 65.*—It is recommended that the Man and the Biosphere Programme be vigorously pursued by the United Nations Educational, Scientific and Cultural Organization in co-operation with other United Nations organizations and other international scientific organizations.

*Recommendation 66.*—It is recommended that World Meteorological Organization initiate or intensify studies on the interrelationships of resource development and meteorology.

*Recommendation 67.*—It is recommended that the Secretary-General, in co-operation with interested Governments and United Nations specialized agencies, take the necessary steps to encourage the further development of remote-sensing techniques for resources surveys and the utilization of these techniques on the basis of proper international arrangements.

*Recommendation 68.*—It is recommended that the Secretary-General, in co-operation with the appropriate agencies of the United Nations and other international organizations, promote jointly with interested Governments the development of methods for the integrated planning and management of natural resources, and provide, when requested, advice to Governments on such methods, in accordance with the particular environmental circumstances of each country.

*Recommendation 69.*—It is recommended that the Food and Agriculture Organization of the United Nations expand its present programme on the stabilization of marginal lands.

## Identification and Control of Pollutants of Broad International Significance

### *A. Pollution generally*

*Recommendation 70.*—It is recommended that Government be mindful of activities in which there is an appreciable risk of effects on climate, and to this end:

(*a*) Carefully evaluate the likelihood and magnitude of climate effects and disseminate their findings to the maximum extent feasible before embarking on such activities;

(*b*) Consult fully other interested States when activities carrying a risk of such effects are being contemplated or implemented.

*Recommendation 71.*—It is recommended that Governments use the best practicable means available to minimize the release to the environment of toxic or dangerous substances, especially if they are persistent substances such as heavy metals and organochlorine compounds, until it has been demonstrated that their release will not give rise to unacceptable risks or unless their use is essential to human health or food production, in which case appropriate control measures should be applied.

*Recommendation 72.*—It is recommended that in establishing standards for pollutants of international significance, Governments take into account the relevant standards proposed by competent international organizations, and concert with the other concerned Governments and the competent international organizations in planning and carrying out control programmes for pollutants distributed beyond the national jurisdiction from which they are released.

*Recommendation 73.*—It is recommended that Governments actively support, and contribute to, international programmes to acquire knowledge for the assessment of pollutant sources, pathways, exposures and risks and that those Governments in a position to do so provide educational, technical and other forms of assistance to facilitate broad participation by countries regardless of their economic or technical advancement.

*Recommendation 74.*—It is recommended that the Secretary-General, drawing on the resources of the entire United Nations system, and with the active support of Governments and appropriate scientific and other international bodies:

(*a*) Increase the capability of the United Nations system to provide awareness and advance warning of deleterious effects to human health and well-being from man-made pollutants;

(*b*) Provide this information in a form which is useful to policy-makers at the national level;

(*c*) Assist those Governments which desire to incorporate these and other environmental factors into national planning processes;

(*d*) Improve the international acceptability of procedures for testing pollutants and contaminants by:

(i) International division of labour in carrying out the large-scale testing programmes needed;

(ii) Development of international schedules of tests for evaluation of the environmental impact potential of specific contaminants or products. Such a schedule of tests should include consideration of both short-term and long-term effects of all kinds, and should be reviewed and brought up to date from time to time to take into account new knowledge and techniques;

(ii) Development and implementation of an internaional intercalibration programme for sampling and analytical techniques to permit more meaningful comparisons of national data;

(iv) Develop plans for an International Registry of Data on Chemicals in the Environment based on a collection of available scientific data on the environmental behaviour of the most important man-made chemicals and containing production figures of the potentially most harmful chemicals, together with their pathways from factory *via* utilization to ultimate disposal or recirculation.

*Recommendation 75.*—It is recommended that, without reducing in any way their attention to nonradioactive pollutants, Governments should:

(*a*) Explore with the International Atomic Energy Agency and the World Health Organization the feasibility of developing a registry of releases to the biosphere of significant quantities of radioactive materials;

(*b*) Support and expand, under the International Atomic Energy Agency and appropriate international organizations, international co-operation on radioactive waste problems, including problems of mining and tailings and also including co-ordination of plans for the siting of fuel-reprocessing plants in relation to the siting of the ultimate storage areas, considering also the transportation problems.

*Recommendation 76.*—It is recommended:

(*a*) That a major effort be undertaken to develop monitoring and both epidemiological and experimental research programmes providing data for early warning and prevention of the deleterious effects of the various environmental agents, acting singly or in combination, to which man is increasingly exposed, directly or indirectly, and for the assessment of their potential risks to human health, with particular regard to the risks of mutagenicity, teratogenicity and carcinogenicity. Such programmes should be guided and co-ordinated by the World Health Organization;

(*b*) That the World Health Organization co-ordinate the development and implementation of an appropriate international collection and dissemination system to correlate medical, environmental and family-history data;

(*c*) That Governments actively support and contribute to international programmes for research and development of guidelines concerning environmental factors in the work environment.

*Recommendation 77.*—It is recommended that the World Health Organization, in collaboration with the relevant agencies, in the context of an approved programme, and with a view to suggesting necessary action, assist Governments, particularly those of developing countries. in undertaking co-ordinated programmes of monitoring of air and water and in establishing monitoring systems in areas where there may be a risk to health from pollution.

*Recommendation 78.*—It is recommended that internationally co-ordinated programmes of research and monitoring of food contamination by chemical and biological agents be established and developed jointly by the Food and Agriculture Organization of the United Nations and the World Health Organization, taking into account national programmes, and that the results of monitoring be expeditiously assembled, evaluated and made available so as to provide early information on rising trends of contamination and on levels that may be considered undesirable or may lead to unsafe human intakes.

*Recommendation 79.*—It is recommended:

(*a*) That approximately 10 baseline stations be set up, with the consent of the States involved, in areas remote from all sources of pollution in order to monitor long-term global trends in atmospheric constituents and properties which may cause changes in meteorological properties, including climatic changes;

(*b*) That a much larger network of not less than 100 stations be set up, with the consent of the States involved, for monitoring properties and constituents of the atmosphere on a regional basis and especially changes in the distribution and concentration of contaminants;

(*c*) That these programmes be guided and co-ordinated by the World Meteorological Organization;

(*d*) That the World Meteorological Organization, in co-operation with the International Council of Scientific Unions (ICSU), continue to carry out the Global Atmospheric Research Programme (GARP), and if necessary establish new programmes to understand better the general circulation of the atmosphere and the causes of climatic changes whether these causes are natural or the result of man's activities.

*Recommendation 80.*—It is recommended that the Secretary-General ensure:

(*a*) That research activities in terrestrial ecology be encouraged, supported and co-ordinated through the appropriate agencies, so as to provide adequate knowledge of the inputs, movements, residence times and ecological effects of pollutants identified as critical;

(*b*) That regional and global networks of existing and, where necessary, new research stations, research centres, and biological reserves be designated or established within the framework of the Man and the Biosphere (MAB) in all major ecological regions, to facilitate intensive analysis of the structure and functioning of ecosystems under natural or managed conditions;

(*c*) That the feasibility of using stations participating in this programme for surveillance of the effects of pollutants on ecosystems be investigated;

(*d*) That programmes such as the Man and the Biosphere Programme be used to the extent possible to monitor: (i) the accumulation of hazardous compounds in biological and abiotic material at representative sites; (ii) the effect of such accumulation on the reproductive success and population size of selected species.

*Recommendation 81.*—It is recommended that the World Health Organization, together with the international organizations concerned, continue to study, and establish, primary standards for the protection of the human organism, especially from pollutants that are common to air, water and food, as a basis for the establishment of derived working limits.

*Recommendation 82.*—It is recommended that increased support be given to the Codex Alimentarius Commission to develop international standards for pollutants in food and a code of ethics for international food trade, and the capabilities of the Food and Agriculture Organization of the United Nations and the World Health Organization to assist materially and to guide developing countries in the field of food control be increased.

*Recommendation 83.*—It is recommended that the appropriate United Nations agencies develop agreed procedures for setting derived working limits for common air and water contaminants.

*Recommendation 84.*—It is recommended that Governments make available, through the International Referral System established in pursuance of recommendation 101 of this Conference, such information as may be requested on their pollution research and pollution control activities, including legislative and administrative arrangements, research on more efficient pollution control technology, and cost-benefit methodology.

*Recommendation 85.*—It is recommended that any mechanism for co-ordinating and stimulating the actions of the different United Nations organs in connexion with environmental problems include among its functions:

(*a*) Development of an internationally accepted procedure for the identification of pollutants of international significance and for the definition of the degree and scope of international concern;

(*b*) Consideration of the appointment of appropriate intergovernmental, expert bodies to assess quantitatively the exposures, risks, pathways and sources of pollutants of international significance;

(*c*) Review and co-ordination of international co-operation for pollution control, ensuring in particular that needed measures shall be taken and that measures taken in regard to various media and sources shall be consistent with one another;

(*d*) Examination of the needs for technical assistance to Governments in the study of pollution problems, in particular those involving international distribution of pollutants;

(*e*) Encouragement of the establishment of consultation mechanisms for speedy implementation of concerted abatement programmes with particular emphasis on regional activities.

*B. Marine pollution*

*Recommendation 86.—It is recommended* that Governments, with the assistance and guidance of appropriate United Nations bodies, in particular the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP):

(*a*) Accept and implement available instruments on the control of the maritime sources of marine pollution;

(*b*) Ensure that the provisions of such instruments are complied with by ships flying their flags and by ships operating in areas under their jurisdiction and that adequate provisions are made for reviewing the effectiveness of, and revising, existing and proposed international measures for control of marine pollution;

(*c*) Ensure that ocean dumping by their nationals anywhere, or by any person in areas under their jurisdiction, is controlled and that Governments shall continue to work towards the completion of, and bringing into force as soon as possible of, an over-all instrument for the control of ocean dumping as well as needed regional agreements within the framework of this instrument, in particular for enclosed and semi-enclosed seas, which are more at risk from pollution;

(*d*) Refer the draft articles and annexes contained in the report of the intergovernmental meetings at Reykjavik, Iceland, in April 1972 and in London in May 1972 to the United Nations Committee on the Peaceful Uses of the Seabed and the Ocean Floor beyond the Limits of National Jurisdiction at its session in July/August 1972 for information and comments and to a conference of Governments to be convened by the Government of the United Kingdom of Great Britain and Northern Ireland in consultation with the Secretary-General of the United Nations before November 1972 for further consideration, with a view to opening the proposed convention for signature at a place to be decided by that Conference, preferably before the end of 1972;

(*e*) Participate fully in the 1973 Intergovernmental Maritime Consultative Organization (IMCO) Conference on Marine Pollution and the Conference on the Law of the Sea scheduled to begin in 1973, as well as in regional efforts, with a view to bringing all significant sources of pollution within the marine environment, including radioactive pollution from nuclear surface ships and submarines, and in particular in enclosed and semi-enclosed seas, under appropriate controls and particularly to complete elimination of deliberate pollution by oil from ships, with the goal of achieving this by the middle of the present decade;

(*f*) Strengthen national controls over land-based sources of marine pollution, in particular in enclosed and semi-enclosed seas, and recognize that, in some circumstances, the discharge of residual heat from nuclear and other power-stations may constitute a potential hazard to marine ecosystems.

*Recommendation 87.*—It is recommended that Governments:

(*a*) Support national research and monitoring efforts that contribute to agreed international programmes for research and monitoring in the marine environment, in particular the Global Investigation of Pollution in the Marine Environment (GIPME) and the Integrated Global Ocean Station System (IGOSS);

(*b*) Provide to the United Nations, the Food and Agricultural Organization of the United Nations and the United Nations Conference on Trade and Development, as appropriate to the data-gathering activities of each, statistics on the production and use of toxic or dangerous substances that are potential marine pollutants, especially if they are persistent;

(*c*) Expand their support to components of the United Nations system concerned with research and monitoring in the marine environment and adopt the measures required to improve the constitutional, financial and operational basis under which the Intergovernmental Oceanographic Commission is at present operating so as to make it an effective joint mechanism for the Governments and United Nations organizations concerned (United Nations Educational, Scientific and Cultural Organization, Food and Agriculture Organization of the United Nations, World Meteorological Organization, Inter-Governmental Mari-

time Consultative Organization, United Nations) and in order that it may be able to take on additional responsibilities for the promotion and co-ordination of scientific programmes and services.

*Recommendation 88.*—It is recommended that the Secretary-General, together with the sponsoring agencies, make it possible for the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP) :

(*a*) To re-examine annually, and revise as required, its "Review of Harmful Chemical Substances", with a view to elaborating further its assessment of sources, pathways and resulting risks of marine pollutants ;

(*b*) To assemble, having regard to other work in progress, scientific data and to provide advice on scientific aspects of marine pollution, especially those of an interdisciplinary nature.

*Recommendation 89.*—It is recommended that the Secretary-General ensure:

(*a*) That mechanisms for combining world statistics on mining, production, processing, transport and use of potential marine pollutants shall be developed along with methods for identifying high-priority marine pollutants based in part on such data ;

(*b*) That the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP), in consultant with other expert groups, propose guidelines for test programmes to evaluate toxicity of potential marine pollutants ;

(*c*) That the Food and Agriculture Organization of the United Nations, the World Health Organization, the Intergovernmental Oceanographic Commission and the International Atomic Energy encourage studies of the effects of high-priority marine pollutants on man and other organisms, with appropriate emphasis on chronic, low-level exposures ;

(*d*) That the Intergovernmental Oceanographic Commission, with the Food and Agriculture Organization of the United Nations and the World Health Organization, explore the possibility of establishing an international institute for tropical marine studies, which would undertake training as well as research.

*Recommendation 90.*—It is recommended that the Intergovernmental Oceanographic Commission, jointly with the World Meteorological Organization and, as appropriate, in co-operation with other interested intergovernmental bodies, promote the monitoring of marine pollution, preferably within the framework of the Integrated Global Ocean Station System (IGOSS), as well as the development of methods for monitoring high-priority marine pollutants in the water, sediments and organisms, with advice from the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP) on intercomparability of methodologies.

*Recommendation 91.*—It is recommended that the Intergovernmental Oceanographic Commission :

(*a*) Ensure that provision shall be made in international marine research, monitoring and related activities for the exchange, dissemination, and referral to sources of data and information on baselines and on marine pollution and that attention shall be paid to the special needs of developing countries ;

(*b*) Give full consideration, with the Food and Agriculture Organization of the United Nations, the World Meteorological Organization, the Inter-Governmental Maritime Consultative Organization, the World Health Organization, the International Atomic Energy Agency, the International Hydrographic Organization and the International Council for the Exploration of the Sea and other interested and relevant organizations, to the strengthening of on-going marine and related data and information exchange and dissemination activities ;

(*c*) Support the concept of development of an interdisciplinary and inter-organizational system primarily involving centres already in existence :

(*d*) Initiate an interdisciplinary marine pollution data and scientific information referral capability.

*Recommendation 92.*—It is recommended :

(*a*) That Governments collectively endorse the principles set forth in paragraph 197 of Conference document A/CONF.48/8 [3] as guiding concepts for the Conference on the Law of the Sea and the Inter-Governmental Maritime Consultative Organization (IMCO) Marine Pollution Conference scheduled to be held in 1973 and also the statement of objectives agreed on at the second session of the Intergovernmental Working Group on Marine Pollution, which reads as follows :

> "The marine environment and all the living organisms which it supports are of vital importance to humanity, and all people have an interest in

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[3] See annex III.

> assuring that this environment is so managed that its quality and resources are not impaired. This applies especially to coastal area resources. The capacity of the sea to assimilate wastes and render them harmless and its ability to regenerate natural resources are not unlimited. Proper management is required and measures to prevent and control marine pollution must be regarded as an essential element in this management of the oceans and seas and their natural resources.",

and that, in respect of the particular interest of coastal States in the marine environment and recognizing that the resolution of this question is a matter for consideration at the Conference on the Law of the Sea, they take note of the principles on the rights of coastal States discussed but neither endorsed nor rejected at the second session of the Intergovernmental Working Group on Marine Pollution and refer those principles to the 1973 Inter-Governmental Maritime Consultative Organization Conference for information and to the 1973 Conference on the Law of the Sea for such action as may be appropriate;

(*b*) That Governments take early action to adopt effective national measures for the control of all significant sources of marine pollution, including land-based sources, and concert and co-ordinate their actions regionally and where appropriate on a wider international basis;

(*c*) That the Secretary-General, in co-operation with appropriate international organizations, endeavour to provide guidelines which Governments might wish to take into account when developing such measures.

*Recommendation 93.*—It is recommended that any mechanism for co-ordinating the actions of the different United Nations organs in connexion with environmental problems include among its functions over-all responsibility for ensuring that needed advice on marine pollution problems shall be provided to Governments.

*Recommendation 94.*—It is recommended that the Secretary-General, with the co-operation of United Nations bodies, take steps to secure additional financial support to those training and other programmes of assistance that contribute to increasing the capacity of developing countries to participate in international marine research, monitoring and pollution-control programmes.

Educational, Informational, Social and Cultural Aspects of Environmental Issues

*Recommendation 95.*—It is recommended that the Secretary-General make arrangements for the United Nations system:

(*a*) To provide countries on request with the necessary technical and financial assistance in preparing national reports on the environment, in setting up machinery for monitoring environmental developments from the social and cultural standpoint and, in particular, in drawing up national social, educational and cultural programmes;

(*b*) To support and encourage projects for continuing co-operation among national social, educational and cultural programmes, including their economic aspects, in an international network. The organizations of the United Nations system, including the regional economic commissions and the United Nations Economic Social Office in Beirut, will be called upon to participate in this activity, as will other international governmental and non-governmental agencies;

(*c*) To organize the exchange of information on experience, methods and work in progress in connexion with continuous social diagnosis, particularly at the regional level and between regions with common problems;

(*d*) To facilitate the development of social and cultural indicators for the environment, in order to establish a common methodology for assessing environmental developments and preparing reports on the subject;

(*e*) To prepare, on the basis of the national reports on the state of, and outlook for, the environment, periodic reports on regional or subregional situations and on the international situation in this matter.

The activities described above could be co-ordinated by the new bodies for environmental co-ordination, taking into account the priorities agreed upon according to the resources available. International bodies responsible for technical and financial co-operation and assistance could also help in carrying out these tasks.

*Recommendation 96.*—It is recommended that the Secretary-General, the organizations of the United Nations system, especially the United Nations Educational, Scientific and Cultural Organization, and the other international agencies concerned, should, after consultation and agreement, take the necessary steps to establish an international programme in environmental education, interdiscip-

linary in approach, in school and out of school, encompassing all levels of education and directed towards the general public, in particular the ordinary citizen living in rural and urban areas, youth and adult alike, with a view to educating him as to the simple steps he might take, within his means, to manage and control his environment. A programme of technical and financial co-operation and assistance will be needed to support this programme, taking into account the priorities agreed upon according to the resources available. This programme should include, among other things:

(*a*) The preparation of an inventory of existing systems of education which include environmental education;

(*b*) The exchange of information on such systems and, in particular, dissemination of the results of experiments in teaching;

(*c*) The training and retaining of professional workers in various disciplines at various levels (including teacher training);

(*d*) Consideration of the formation of groups of experts in environmental disciplines and activities, including those concerning the economic, sociological, tourist and other sectors, in order to facilitate the exchange of experience between countries which have similar environmental conditions and comparable levels of development;

(*e*) The development and testing of new materials and methods for all types and levels of environmental education.

It is further recommended that United Nations Educational, Scientific and Cultural Organization, under the Man and the Biosphere Programme, the World Health Organization, the Food and Agricultural Organization of the United Nations, the United Nations Industrial Development Organization, the World Meteorological Organization and all the organizations concerned, including the scientific unions co-ordinated by the International Council of Scientific Unions, should develop their activities in studying desirable innovations in the training of specialists and technicians and, in collaboration with the United Nations Development Programme, should encourage the institution, at the regional and the international level, of courses and training periods devoted to the environment.

It is further recommended that international organizations for voluntary service, and, in particular, the International Secretariat for Volunteer Service, should include environmental skills in the services they provide, in consultation with the United Nations Development Programme through the United Nations Volunteer Programme.

*Recommendation 97.*—It is recommended that the Secretary-General make arrangements:

(*a*) To establish an information programme designed to create the awareness which individuals should have of environmental issues and to associate the public with environmental management and control. This programme will use traditional and contemporary mass media of communication, taking distinctive national conditions into account. In addition, the programme must provide means of stimulating active participation by the citizens, and of eliciting interest and contributions from non-governmental organizations for the preservation and development of the environment;

(*b*) To institute the observance of a World Environment Day;

(*c*) For the preparatory documents and official documents of the Conference to be translated into the widest possible range of languages and circulated as widely as possible;

(*d*) To integrate relevant information on the environment in all its various aspects into the activities of the information organs of the United Nations system;

(*e*) To develop technical co-operation, particularly through and between the United Nations regional economic commissions and the United Nations Economic and Social Office in Beirut.

It is also recommended that the Secretary-General and the development agencies make arrangements to use and adapt certain international development programmes—provided that this can be done without delaying their execution—so as to improve the dissemination of information and to strengthen community action on environment problems, especially among the oppressed and underprivileged peoples of the earth.

*Recommendation 98.*—It is recommended that Governments, with the assistance of the Secretary-General, the Food and Agricultural Organization of the United Nations, the United Nations Educational Scientific and Cultural Organization and the other international and regional intergovernmental and non-governmental agencies concerned, should continue the preparation of the present

and future conventions required for the conservation of the world's natural resources and cultural heritage. In the course of this preparatory work, Governments should consider the possibility of putting into operation systems of protection for elements of the world heritage, under which those Governments that wish to save elements of their national heritage of universal value would be able to obtain from the international community, on request, the technical and financial assistance required to bring their efforts to fruition.

*Recommendation 99.*—It is recommended that Governments should:

(*a*) Noting that the draft convention prepared by United Nations Educational, Scientific and Cultural Organization concerning the protection of the world natural and cultural heritage marks a significant step towards the protection, on an international scale, of the environment, examine this draft convention with a view to its adoption at the next General Conference of UNESCO;

(*b*) Whenever appropriate, sign the Convention on Conservation of Wetlands of International Importance;

It is recommended that the Secretary-General, in consultation with the competent agencies of the United Nations system and the non-governmental organizations concerned, make arrangements for a detailed study of all possible procedures for protecting certain islands for science;

It is recommended that a plenipotentiary conference be convened as soon as possible, under appropriate governmental or intergovernmental auspices, to prepare and adopt a convention on export, import and transit of certain species of wild animals and plants.

*Recommendation 100.*—It is recommended that the Secretary-General make arrangements:

(*a*) To be kept informed of national pilot schemes for new forms of environmental management;

(*b*) To assist countries, on request, with their research and experiments;

(*c*) To organize the international exchange of information collected on this subject.

*Recommendation 101.*—It is recommended that the Secretary-General take the appropriate steps, including the convening of an expert meeting, to organize an International Referral Service for sources of environmental information, taking into account the model described in paragraphs 129 to 136 of the report on educational, informational, social and cultural aspects of environmental issues (A/CONF.48/9), in order to assist in the successful implementation of all the recommendations made in respect to those aspects of environmental issues and of most of the recommendations envisaged in the other substantive subject areas covered in the Conference agenda.

## Development and Environment

*Recommendation 102.*—It is recommended that the appropriate regional organizations give full consideration to the following steps:

(*a*) Preparing short-term and long-term plans at regional, subregional and sectoral levels for the study and identification of the major environmental problems faced by the countries of the region concerned as well as the special problems of the least developed countries of the region and of countries with coastlines and inland lakes and rivers exposed to the risk of marine and other forms of pollution;

(*b*) Evaluating the administrative, technical and legal solutions to various environmental problems in terms of both preventive and remedial measures, taking into account possible alternative and/or multidisciplinary approaches to development;

(*c*) Preparation, within the framework of international agreements, of legislative measures designed to protect marine (and fresh-water) fisheries resources within the limits of their national jurisdiction;

(*d*) Increasing and facilitating, in the context of development and as proposed in the World Plan of Action for the Application of Science and Technology to Development, the acquisition and distribution of information and experience to member countries through global and regional co-operation, with particular emphasis on an international information referral network approach and on a regular exchange of information and observation among the regional organizations;

(*e*) Establishing facilities for the exchange of information and experience between less industrialized countries which, although situated in different re-

gions, share similar problems as a result of common physical, climatic and other factors;

(*f*) Encouraging the training of personnel in the techniques of incorporating environmental considerations into developmental planning, and of identifying and analyzing the economic and social cost-benefit relationships of alternative approaches;

(*g*) Establishing criteria, concepts and a terminology of the human environment through interdisciplinary efforts;

(*h*) Establishing and disseminating information on the significant environmental problems of each region and the nature and result of steps taken to cope with them;

(*i*) Providing and co-ordinating technical assistance activities directed towards establishing systems of environmental research, information and analysis at the national level;

(*j*) Assisting developing countries, in co-operation with appropriate international agencies, in promoting elementary education, with emphasis on hygiene, and in developing and applying suitable methods for improving health, housing, sanitation and water supply, and controlling soil erosion. Emphasis should be placed on techniques promoting the use of local labor and utilizing local materials and local expertise in environmental management.

(*k*) Encouraging the appropriate agencies and bodies within the United Nations to assist the developing countries, at their request, in establishing national science, technology and research policies to enable the developing countries to acquire the capacity to identify and combat environmental problems in the early planning and development stages. In this respect, special priority should be accorded to the type of research, technology and science which would help developing countries speed up, without adverse environment effects, the exploration, exploitation, processing and marketing of their natural resources.

*Recommendation 103.*—It is recommended that Governments take the necessary steps to ensure:

(*a*) That all countries present at the conference agree not to invoke environmental concerns as a pretext or discriminatory trade policies or for reduced access to markets and recognize further that the burdens of the environmental policies of the industrialized countries should not be transferred, either directly or indirectly, to the developing countries. As a general rule, no country should solve or disregard its invironmental problems at the expense of other countries;

(*b*) That where environmental concerns lead to restrictions on trade, or to stricter environmental standards with negative effects on exports, particularly from developing countries, appropriate measures for compensation should be worked out within the framework of existing contractual and institutional arrangements and any new such arrangements that can be worked out in the future;

(*c*) That the General Agreement of Tariffs and Trade, among other international organizations, could be used for the examination of the problems, specifically through the recently established Group on Environmental Measures and International Trade and through its general procedures for bilateral and multilateral adjustment of differences;

(*d*) That whenever possible (that is, in cases which do not require immediate discontinuation of imports), countries should inform their trading partners in advance about the intended action in order that there might be an opportunity to consult within the GATT Group on Environmental Measures and International Trade, among other international organizations. Assistance in meeting the consequences of stricter environmental standards ought to be given in the form of financial or technical assistance for research with a view to removing the obstacles that the products of developing countries have encountered;

(*e*) That all countries agree that uniform environmental standards should not be expected to be applied universally by all countries with respect to given industrial processes or products except in those cases where environmental disruption may constitute a concern to other countries. In addition, in order to avoid an impairment of the access of the developing countries to the markets of the industrialized countries because of differential product standards, Governments should aim at world-wide harmonization of such standards. Environmental standards should be established, at whatever levels are necessary, to safeguard the environment, and should not be directed towards gaining trade advantages;

(*f*) That the Governments and the competent international organizations keep a close watch on medium- and long-term trends in international trade and take measures with a view to promoting:

(i) The exchange of environmental protection technologies;

(ii) International trade in natural products and commodities which compete with synthetic products that have a greater capacity for pollution.

*Recommendation 104.*—It is recommended that the Secretary-General ensure:

(*a*) That appropriate steps shall be taken by the existing United Nations organizations to identify the major threats to exports, particularly those of developing countries, that arise from environmental concerns, their character and severity, and the remedial action that may be envisaged;

(*b*) That the United Nations system, in co-operation with other governmental and non-governmental agencies working in this field, should assist Governments to develop mutually acceptable common international environmental standards on products which are considered by Governments to be of significance in foreign trade. Testing and certification procedures designed to ensure that the products conform to these standards should be such as to avoid arbitrary and discriminatory actions that might affect the trade of developing countries.

*Recommendation 105.*—It is recommended that the General Agreement of Tariffs and Trade, the United Nations Conference on Trade and Development and other international bodies, as appropriate, should, within their respective fields of competence, consider undertaking to monitor, assess, and regularly report the emergence of tariff and non-tariff barriers to trade as a result of environmental policies.

*Recommendation 106.*—It is recommended:

(*a*) That the Secretary-General, in co-operation with other international bodies as appropriate, should examine the extent to which the problems of pollution could be ameliorated by a reduction in the current levels of production and in the future rate of growth of the production of synthetic products and substitutes which, in their natural form, could be produced by developing countries; and make recommendations for national and international action;

(*b*) That Governments of the developing countries consider fully the new opportunities that may be offered to them to establish industries and/or expand existing industries in which they may have comparative advantages because of environmental considerations, and that special care be taken to apply the appropriate international standards on environment in order to avoid the creation of pollution problems in developing countries;

(*c*) That the Secretary-General, in consultation with appropriate international agencies, undertake a full review of the practical implications of environmental concerns in relation to distribution of future industrial capacity and, in particular, to ways in which the developing countries may be assisted to take advantage of opportunities and to minimize risks in this area.

*Recommendation 107.*—It is recommended that the Secretary-General, in collaboration with appropriate international agencies, ensure that a study be conducted of appropriate mechanisms for financing international environmental action, taking into account General-Assembly resolution 2849 (XXVI).

*Recommendation 108.*—It being recognized that it is in the interest of mankind that the technologies for protecting and improving the environment be employed universally, it is recommended that the Secretary-General be asked to undertake studies, in consultation with Governments and appropriate international agencies, to find means by which environmental technologies may be made available for adoption by developing countries under terms and conditions that encourage their wide distribution without constituting an unacceptable burden to developing countries.

*Recommendation 109.*—It is recommended that the Secretary-General, in collaboration with appropriate international agencies, take steps to ensure that the environmental consideration of an international nature related to the foregoing recommendations be integrated into the review and appraisal of the International Development Strategy for the Second Development Decade in such a way that the flow of international aid to developing countries is not hampered. Recommendations for national action, proposed by the Secretary-General of the Conference, shall be referred to Governments for their consideration and, when deemed appropriate, should be taken into account in the review and appraisal process during the consideration of matters for national action as included in the International Development Strategy. It should further be ensured that the preoccupation of developed countries with their own environmental problems should not affect the flow of assistance to developing countries, and that this flow should be adequate to meet the additional environmental requirements of such countries.

C. *The Action Plan*

All of the recommendations approved by the Conference for action at the international level (see section B above) are rearranged in the following Action Plan for the Human Environment within the approved framework (see section A above). The recommendations which, before and during the Conference, had been dealt with sectorally, by subject area, are redistributed below, according to function, into the three components of the Action Plan: the global environmental assessment programme (Earthwatch), the environmental management activities, and the supporting measures.

Environmental Assessment (Earthwatch)

This category includes the functions listed below:

*Evaluation and review.*—To provide the basis for identification of the knowledge needed to determine that the necessary steps be taken:

Recommendations 4(1), 11, 14, 18, 41, 48, 54, 55, 60, 61, 62, 63, 70, 73, 74, 75, 81, 85, 88, 91, 92, 94, 95, 106, 109.

*Research.*—To create new knowledge of the kinds specifically needed to provide guidance in the making of decisions:

Reommendations 4, 12(2), 13, 16, 18, 20, 23, 24, 26, 28, 41, 42, 43, 44, 45, 48, 49, 51, 52, 53, 59, 62, 64, 65, 66, 68, 73, 76, 78, 79, 80, 84, 87, 88, 89, 94, 95, 102, 106, 108.

*Monitoring.*—To gather certain data on specific environmental variables and to evaluate such data in order to determine and predict important environmental conditions and trends:

Recommendations 18, 25, 29, 30, 40, 46, 51, 55, 57, 67, 73, 74, 76, 77, 78, 79, 80, 87, 90, 91, 94, 95, 105.

*Information exchange.*—To disseminate knowledge within the scientific and technological communities and to ensure that decision-makers at all levels shall have the benefit of the best knowledge that can be made available in the forms and at the times in which it can be useful:

Recommendations 2, 4(2), 5, 16, 19, 20, 26, 27, 35, 41, 45, 46, 49, 51, 52, 53, 56, 58, 74, 84, 91, 95, 96(1), 97(2), 100, 101, 102.

Environmental Management

This category covers functions designed to facilitate comprehensive planning that takes into account the side effects of man's activities and thereby to protect and enhance the human environment for present and future generations.

Recommendations 1, 2, 3, 9, 12, 13, 14, 15, 17, 18(3), 18(4), 19, 21, 22, 23, 27, 32, 33, 36, 37, 38, 39, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 61, 63, 68, 69, 70, 71, 72, 75, 81, 82, 83, 84, 85, 86, 92, 93, 94, 96(3), 98, 99, 102, 103, 104, 105, 106, 108, 109.

Supporting Measures

This category relates to measures required for the activities in the other two categories (environmental assessment and environmental management).

*Education, training and public information.*—To supply needed specialists, multidisciplinary professionals and technical personnel and to facilities the use of knowledge in decision-making at every level.

Recommendations 6, 7, 8, 13, 16, 19, 31, 34, 73, 89, 94, 96, 97, 102.

*Organizational arrangements.*—Recommendations 4(1), 7, 16, 17, 18(4), 23, 31, 33, 41, 42, 43, 45, 49, 50, 51, 52, 85, 87, 93, 101, 102.

*Financial and other forms of assistance.*—Recommendations 1, 10, 16, 17, 18(3), 18(4), 42, 43(6), 45, 49, 50, 53, 73, 87, 94, 95, 96, 107.

## III. RESOLUTION ON INSTITUTIONAL AND FINANCIAL ARRANGEMENTS

### 1(I). Institutional and Financial Arrangements

*The United Nations Conference on the Human Environment,*

*Convinced* of the need for prompt and effective implementation by Governments and the international community of measures designed to safeguard and enhance the human environment for the benefit of present and future generations of Man,

*Recognizing* that responsibility for action to protect and enhance the human environment rests primarily with Governments and, in the first instance, can be exercised more effectively at the national and regional levels,

*Recognizing* that environmental problems of broad international significance fall within the competence of the United Nations system,

*Bearing in mind* that international co-operative programmes in the environment field must be undertaken with due respect to the sovereign rights of States and in conformity with the Charter of the United Nations and principles of international law,

*Mindful* of the sectoral responsibilities of the organizations of the United Nations system,

*Conscious* of the significance of regional and subregional co-operation in the field of the human environment and of the important role of the regional economic commissions and other regional intergovernmental organizations,

*Emphasizing* that problems of the human environment constitute a new and important area for international co-operation and that the complexity and interdependence of such problems requires new approaches,

*Recognizing* that the relevant international scientific and other professional communities can make an important contribution to international co-operation in the field of the human environment,

*Conscious* of the need for processes within the United Nations system which would effectively assist developing countries to implement environmental policies and programmes compatible with their development plans, and to participate meaningfully in international environmental programmes,

*Convinced* that, in order to be effective, international co-operation in the field of the human environment requires additional financial and technical resources,

*Aware* of the urgent need for a permanent institutional arrangement within the United Nations for the protection and improvement of the human environment.

## I

### GOVERNING COUNCIL FOR ENVIRONMENTAL PROGRAMMES

1. Recommends that the General Assembly establish the Governing Council for Environmental Programmes composed of 54 members, elected for three-year terms on the basis of equitable geographical distribution.

2. Recommends further that the Governing Council have the following main functions and responsibilities:

(*a*) To promote international co-operation in the environment field and to recommend, as appropriate, policies to this end;

(*b*) To provide general policy guidance for the direction and co-ordination of environmental programmes within the United Nations system;

(*c*) To receive and review the periodic reports of the Executive Director on the implementation of environmental programmes within the United Nations system;

(*d*) To keep under review the world environmental situation in order to ensure that emerging environmental problems of wide international significance should receive appropriate and adequate consideration by Governments;

(*e*) To promote the contribution of the relevant international scientific and other professional communities to the acquisition, assessment and exchange of environmental knowledge and information and, as appropriate, to the technical aspects of the formulation and implementation of environmental programmes within the United Nations system;

(*f*) To maintain under continuing review the impact of national and international environmental policies and measures on developing countries, as well as the problem of additional costs that might be incurred by developing countries in the implementation of environmental programmes and projects, to ensure that such programmes and projects shall be compatible with the development plans and priorities of those countries;

(*g*) To review and approve annually the programme of utilization of resources of the Environment Fund referred to in section III below.

3. Recommends further that the Governing Council report annually to the General Assembly through the Economic and Social Council, which would transmit to the General Assembly such comments on the report as it may deem necessary, particularly with regard to questions of co-ordination and to the relationship of environment policies and programmes within the United Nations system to overall economic and social policies and priorities.

## II

### ENVIRONMENT SECRETARIAT

4. Recommends that a small secretariat be established in the United Nations to serve as a focal point for environmental action and co-ordination within the United Nations system in such a way as to ensure a high degree of effective management.

5. Recommends further that the environment secretariat be headed by the Executive Director, who shall be elected by the General Assembly on the nomination of the Secretary-General, and who shall be entrusted, *inter alia*, with the following responsibilities:

(*a*) To provide substantive support to the Governing Council;

(*b*) Under the guidance of the Governing Council, to co-ordinate environmental programmes within the United Nations system, to keep under review their implementation and assess their effectiveness;

(*c*) To advise, as appropriate and under the guidance of the Governing Council, intergovernmental bodies of the United Nations system on the formulation and implementation of environmental programmes;

(*d*) To secure the effective co-operation of, and contribution from, the relevant scientific and other professional communities from all parts of the world;

(*e*) To provide, at the request of all parties concerned, advisory services for the promotion of international co-operation in the field of the environment;

(*f*) To submit to the Governing Council, on his own initiative or upon request, proposals embodying medium- and long-range planning for United Nations programmes in the environment field;

(*g*) To bring to the attention of the Governing Council any matter which he deems to require consideration by it;

(*h*) To administer, under the authority and policy guidance of the Governing Council, the Environment Fund;

(*i*) To report on environment matters to the Governing Council;

(*j*) To perform such other functions as may be entrusted to him by the Governing Council.

## III

### THE ENVIRONMENT FUND

6. Recommends that, in order to provide for additional financing for environmental programmes a voluntary fund be established in accordance with existing United Nations financial procedures;

7. Recommends further that, in order to enable the Governing Council to fulfill its policy guidance role for the direction and co-ordination of environmental activities, the Environment Fund finance wholly or partly the costs of the new environmental initiatives undertaken within the United Nations system. These will include the initiatives envisaged in the Action Plan [1] adopted by the United Nations Conference on the Human Environment, with particular attention to integrated projects, and such other environmental activities as may be decided upon by the Governing Council. The Governing Council shall review these initiatives with a view to taking appropriate decisions as to their continued financing;

8. Recommends that the Fund be used for financing such programmes of general interest as regional and global monitoring, assessment and data-collecting systems, including, as appropriate, costs for national counterparts; improvement of environmental quality management; environmental research; information exchange and dissemination; public education and training; assistance for national, regional and global environmental institutions; promotion of environmental research and studies for the development of industrial and other technologies best suited to a policy of economic growth compatible with adequate environmental safeguards; and such other programmes as the Governing Council may decide upon. In the implementation of such programmes due account should be taken of the special needs of the developing countries;

9. Recommends that the costs of serving the Governing Council and providing the small core secretariat be borne by the regular budget of the United Nations. Operational programme costs, programme support and administrative costs of the Fund shall be borne by the Fund;

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[1] See chapter II above.

10. Recommends that, in order to ensure that the development priorities of developing countries shall not be adversely affected, adequate measures should be taken to provide additional financial resources on terms compatible with the economic situation of the recipient developing country: To this end, the Executive Director, in co-operation with competent organizations, will keep this problem under continuing review;

11. Recommends that the Fund, in pursuance of the objectives stated in paragraphs 7 and 8 above, be directed to the need for effective co-ordination in the implementation of international environmental programmes of the organizations of the United Nations system and other international organizations;

12. Recommends that, in the implementation of programmes to be financed by the Fund, organizations outside the United Nations system, particularly those in the countries and regions concerned, also be utilized as appropriate, in accordance with the procedures established by the Governing Council; such organizations are invited to support the United Nations environmental programmes, by complementary initiatives and contributions;

13. Recommends that the Governing Council formulate such general procedures as are necessary to govern the operations of the Fund;

## IV

### CO-ORDINATION

14. Recommends that in order to provide for the maximum efficient co-ordination of United Nations environmental programmes, an Environmental Co-ordinating Board, chaired by the Executive Director, be established under the auspices and within the framework of the Administrative Committee on Co-ordination;

15. Recommends further that the Environmental Co-ordinating Board meet periodically for the purpose of ensuring co-operation and co-ordination among all bodies concerned in the implementation of environmental programmes and that it report annually to the Governing Council;

16. Invites the organizations of the United Nations system to adopt the measures that may be required to undertake concerted and co-ordinated programmes with regard to international environmental problems, taking into account existing procedures for prior consultation, particularly on programme and budgetary matters;

17. Invites the regional economic commissions and the Economic and Social Office in Beirut, in co-operation where necessary with other appropriate regional bodies, to intensify further their efforts directed towards contributing to the implementation of environmental programmes in view of the particular need for rapid development of regional co-operation in this field;

18. Invites also other intergovernmental and those non-governmental organizations which have an interest in the field of the environment to lend their full support and collaboration to the United Nations with a view to achieving the largest possible degree of co-operation and co-ordination;

19. Calls upon Governments to ensure that appropriate national institutions shall be entrusted with the task of co-ordination of environmental action, both national and international;

20. Recommends that the General Assembly review, as appropriate, at its thirty-first session, the institutional arrangements which it may decide upon in pursuance of this recommendation, bearing in mind, *inter alia*, the responsibilities of the Economic and Social Council under the Charter of the United Nations.

[17th Plenary Meeting, June 15, 1972].

## IV. OTHER RESOLUTIONS ADOPTED BY THE CONFERENCE [1]

### 2(I). World Environment Day

*The United Nations Conference on the Human Environment,*

*Recognizing* that all States participating in the Conference have determined to work together for the preservation and enhancement of the human environment,

*Further recognizing* that the Governments and peoples of the world have the responsibility to safeguard the human environment for future generations,

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[1] See also part three, chapter X, sections D and E.

*Convinced* that the Conference should serve to recall the renewal of the determination of the Governments and peoples of the World to recognize their responsibility for the human environment and to undertake continuing efforts to preserve and enhance it,

*Taking note* of Recommendation 97 adopted by the Conference.

*Recommends* that the General Assembly of the United Nations designate 5 June as "World Environment Day" and decide that on that day every year the United Nations system and the Governments of the world undertake world-wide activities reaffirming their concern for the preservation and enhancement of the human environment, with a view to deepening environmental awareness and to pursuing the determination expressed at the Conference.

[14th Plenary Meeting June 13, 1972].

## 3(I). Nuclear Weapons Tests

*The United Nations Conference on the Human Environment,*

*Considering* that there is radioactive contamination of the environment from nuclear weapons tests,

*Taking* into account the reports of the United Nations Scientific Committee on the Effects of Atomic Radiation,

*Believing* that all exposures of mankind to radiation should be kept to the minimum possible and should be justified by benefits that would otherwise not be obtained,

*Considering* that the United Nations has endorsed world treaties such as the Partial Test Ban Treaty and the Sea-Bed Denuclearization Treaty and regional treaties such as the Tlatelolco Treaty for the Denuclearization of Latin America, and has repeatedly called for the cessation of nuclear weapons tests,

*Resolves.*—(*a*) To condemn nuclear weapons tests, especially those carried out in the atmosphere; (*b*) To call upon those States intending to carry out nuclear weapons tests to abandon their plans to carry out such tests since they may lead to further contamination of the environment.

[16th Plenary Meeting, June 14, 1972].

## 4(I). Convening of a Second United Nations Conference on the Human Environment

*The United Nations Conference on the Human Environment,*

*Noting with satisfaction* the truly global nature of the preparatory process for the first United Nations Conference on the Human Environment held at Stockholm from 5 to 16 June 1972,

*Noting further* that the preparatory process comprised world-wide activities that initiated interest in the assessment of environmental problems at the national and regional levels,

*Realizing* the need for maintaining these world-wide activities with a view to discovering further areas of common interest, and means of international cooperation, in environmental studies,

*Convinced* that the first United Nations Conference on the Human Environment held at Stockholm and the activities associated with it provided an excellent platform for intensive international consultations and the exchange of views regarding steps to be taken for establishing a balance between the maintenance of environmental quality and the needs of present and future generations,

1. *Recommends* that the General Assembly of the United Nations decide to convene a second United Nations Conference on the Human Environment:

2. *Recommends further* that the new environmental machinery referred to in the recommendations of the first United Nations Conference on the Human Environment be entrusted with the preparation for the second United Nations Conference on the Human Environment.

[17th Plenary Meeting, June 15, 1972].

## 5(I). Expression of Thanks[2]

*The United Nations Conference on the Human Environment,* Expresses its deep appreciation to the Royal Government and people of Sweden for making possible the holding of the Conference at Stockholm and for their generous hospitality and great contribution to the successful completion of the work of the Conference.

[21st Plenary Meeting, June 16, 1972].

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[2] Resolution adopted by acclamation at the closing meeting of the Conference.

### V. REFERRAL TO GOVERNMENTS OF RECOMMENDATIONS FOR ACTION AT THE NATIONAL LEVEL

The Conference at its 20th plenary meeting, held on 16 June 1972, formally adopted the provisional decision it had taken at its 1st plenary meeting on 6 June 1972 that it should directly commend the recommendations for action at the national level contained in the Conference documents to the attention of Governments for their consideration and for such action as they might deem appropriate.

## PART 2.—BACKGROUND

### VI. CONSTITUTION OF THE CONFERENCE

The question of convening an international conference on the environment was raised by the Economic and Social Council at its forty-fifth session. In a resolution on the subject (1346 (XLV)), the Council underlined, *inter alia*, the urgent need for intensified action at the national and the international level, to limit and, where possible, to eliminate the impairment of the human environment. It emphasized that due attention to problems of the human environment was essential for sound economic and social development; and recommended that the General Assembly, at its twenty-third session, consider the desirability of convening a United Nations conference on problems of the human environment.

Endorsing the Council's recommendations, the General Assembly at its twenty-third session decided (resolution 2398 (XXIII)) to convene a United Nations conference on the human environment in 1972. It requested the Secretary-General, in consultation with the Advisory Committee on the Application of Science and Technology to Development, to submit to the Assembly at its twenty-fourth session, through the Economic and Social Council at its forty-seventh session, a report covering the main problems which the Conference should consider and the preparatory process which should be engaged. It futher recommended that the Secretary-General, in preparing the report, consult with States Members of the United Nations and members of the specialized agencies and of the International Atomic Energy Agency and appropriate organizations of the United Nations system, and draw on contributions from appropriate intergovernmental and non-governmental organizations.

In his report to the Economic and Social Council at its forty-seventh session (E/4667), the Secretary-General recommended that the Conference be conceived as an important means of stimulating and providing guidelines for action by national Governments and international organizations in their attempts to achieve concrete and valid solutions to the problems of the human environment. He further recommended that the Conference should not be involved in narrow technical discussions, but should address itself to broad topics of general human concern. He also emphasized the great importance which he placed on the need to establish a conference organization at as early a stage as possible.

The Economic and Social Council, in its resolution 1448 (XLVII), recommended to the General Assembly the adoption of a resolution by which it would endorse in general the proposals contained in the Secretary-General's report (E/4667) and take the necessary steps to prepare a conference on the human environment.

The General Assembly at its twenty-fourth session affirmed, in resolution 2581 (XXIV) that "it should be the main purpose of the Conference to serve as a practical means to encourage, and to provide guidelines for, action by Governments and international organizations designed to protect and improve the human environment and to remedy and prevent its impairment, by means of international co-operation, bearing in mind the particular importance of enabling the developing countries to forestall the occurrence of such problems". The Assembly endorsed in general the proposals contained in the report of the Secretary-General regarding the purposes and objectives of the Conference. It further entrusted the Secretary-General with over-all responsibility for organizing and preparing for the Conference and requested him to set up immediately a small conference secretariat and to appoint, at the appropriate time, a Secretary-General of the Conference. It accepted the invitation of the Government of Sweden to hold the Conference in Sweden in June 1972. The General Assembly also established a Preparatory Committee—consisting of representatives nominated by the Governments of Argentina, Brazil, Canada, Costa Rica, Cyprus, Czechoslovakia, France, Ghana, Guinea, India, Iran, Italy, Jamaica,

Japan, Mauritius, Mexico, the Netherlands, Nigeria, Singapore, Sweden, Togo, the Union of Soviet Socialist Republics, the United Arab Republic,[1] the United Kingdom of Great Britain and Northern Ireland, the United States of America, Yugoslavia and Zambia—to advise the Secretary-General.

The Preparatory Committee held four sessions.[2] During its first session, held in New York from 10 to 20 March 1970, the Committee defined the programme content and selection of topics of the Conference and established recommendations for action. It also considered the organizational structure of the Conference and reviewed the documentation requirements. At its second session, held at Geneva from 8 to 19 February 1971, the Committee prepared a provisional agenda for the Conference, discussed the possible form and content of a declaration on the human environment, and recommended the establishment of an intergovernmental working group on the declaration. It also carried out a preliminary examination of the question of marine pollution, monitoring or surveillance, pollutant release limits, conservation, soils, training, information exchange and gene pools, and recommended the establishment of intergovernmental working groups to deal respectively with marine pollution, monitoring, conservation and soils. It considered further the organization and structure of the Conference. At its third session, held in New York from 13 to 24 September 1971, the Preparatory Committee reviewed the progress of the substantive work of the Conference and discussed the draft declaration. The Committee held a fourth session in New York from 6 to 17 March 1972, at which it dealt primarily with the international organizational implications of recommendations for action, including the financial implications, and with the draft Declaration on the Human Environment.

The documentation for the Conference was based on a great volume of contributions from Governments, the United Nations system, intergovernmental organizations, nongovernmental organizations and individual experts. A total of 86 Governments submitted national reports outlining their environmental experience and concerns. The specialized agencies and other United Nations bodies submitted basic papers drawing on their knowledge and experience in their various areas of responsibility. A wide variety of other governmental and non-governmental sources—organizations and individuals—provided still more basic materials on subjects relevant to their fields of competence and interest. All of this material was received by the Conference secretariat with the assistance of United Nations agencies, consultants and experts from Governments, under the general guidance of the Preparatory Committee.

In complying with the intent of Economic and Social Council resolution 1536 (XLIX) and of General Assembly resolution 2657 (XXV), which reaffirmed, in particular, that environmental policies should be considered in the context of economic and social developments, taking into account the special needs of the developing countries, particular stress was laid on the needs and on the active participation of those countries in the preparatory process for the Conference. Thus, with the major exception of the Symposium on Problems of Environment held by the Economic Commission for Europe at Prague from 2 to 15 May 1971, nearly all the regional seminars and special meetings convened prior to the Conference were focused on the interrelationship between development and the environment.

The Panel of Experts on Development and Environment, which met at Founex, Switzerland, from 4 to 12 June 1971, provided an opportunity to consider the protection and improvement of the environment in the context of the urgent need of the developing countries for development. The report of the Panel made it clear that environmental considerations should be an integral part of the development process. The report of the Founex meeting became the focus of discussion at a series of regional seminars on development and environment convened by the Economic Commission for Africa (Addis Ababa, 23 to 28 August 1971); the Economic Commission for Asia and the Far East (Bangkok, 17 to 22 August 1971); the Economic Commission for Latin America (Mexico City, 6 to 11 September 1971); and the Economic and Social Office in Beirut (Beirut, 27 September to 2 October 1971). Other meetings of special interest to developing countries included a meeting of world scientists organized at Canberra from 24 August to 3 September 1971, at the request, and with the co-operation, of the Conference secretariat, to bring together members of the Special Committee

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[1] Now designated Egypt.

[2] For the reports of the sessions, see A/CONF.48/PC.6, A/CONF.48/PC.9 and Corr.1, A/CONF.48/PC.13 and Corr.1 and A/CONF.48/PC.17.

on Environmental Problems of the International Council of Scientific Unions, members of the United Nations Advisory Committee on the Application of Science and Technology to Development and a number of specially invited scientists from the developing countries.

At its twenty-sixth session, the General Assembly adopted a resolution (2849 (XXVI)) in which it affirmed that development plans should be compatible with a sound ecology and that adequate environmental conditions could best be ensured by the promotion of development, at both the national and the international level. The General Assembly also stressed, *inter alia*, that the action plan and action proposals to be submitted to the Conference should respect fully the sovereign rights of each country; recognize that environmental policies should avoid adverse effects on the development possibilities of developing countries, including the international trade position of those countries, international development assistance and the transfer of technology; and promote programmes designed to assist the developing countries, including the provision of additional technical assistance and financial resources. The General Assembly further urged States possessing nuclear weapons to put an end to the testing of those weapons in all spheres and stressed the necessity of prohibiting the production and use of nuclear, chemical and biological weapons and of ensuring the early destruction of such weapons. The General Assembly also called for increases in the volume and softening of the terms of the economic assistance provided by international financial institutions to enable developing countries to plan and implement projects which might be justifiable on environmental terms. It further requested the Secretary-General to submit a report to the Conference on a scheme of voluntary contributions which would provide additional financing by the developed to the developing countries for environmental purposes, beyond the resources already contemplated in the International Development Strategy.

In another resolution adopted at its twenty-sixth session (2850 (XXVI)), the General Assembly approved the provisional agenda and the draft rules of procedure for the Conference and recommended the rules for adoption by the Conference. It requested the Secretary-General to invite the States Members of the United Nations or members of specialized agencies or of the International Atomic Energy Agency to participate in the Conference. It further requested the Secretary-General to circulate in advance of the Conference a draft declaration on the human environment; a draft action plan constituting a blueprint for international co-operation to protect and enhance the present and future quality of the environment for human life and well-being; such other draft proposals as might be ready for consideration by the Conference; and draft proposals for organizational and financing arrangements needed to pursue effectively the work of the United Nations system of organizations in the environmental field. It also requested the Conference to consider the drafts submitted to it and to take such appropriate action as it desired, and requested the Secretary-General of the United Nations to report on the results of the Conference to the General Assembly at its twenty-seventh session and to transmit his report to the Economic and Social Council. The General Assembly further requested the Secretary-General to make the necessary arrangements for the work that would have to be undertaken after the Conference pending consideration of the recommendations of the Conference by the General Assembly at its twenty-seventh session.

## Part 3—Proceedings of the Conference

### VII. ATTENDANCE AND ORGANIZATION OF WORK

The United Nations Conference on the Human Environment was held at Stockholm from 5 to 16 June 1972.

*A. Participants*

Representatives of the following 113 States invited in accordance with General Assembly resolution 2850 (XXVI) took part in the Conference: Afghanistan, Algeria, Argentina, Australia, Austria, Bahrein, Bangladesh, Belgium, Bolivia, Botswana, Brazil, Burundi, Cameroon, Canada, Central African Republic, Ceylon, Chad, Chile, China, Colombia, Congo, Costa Rica, Cyprus, Dahomey, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Federal Republic of Germany, Fiji, Finland, France, Gabon, Ghana, Greece, Guatemala, Guinea, Guyana, Haiti, Holy See, Honduras, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Ivory Coast, Jamaica, Japan, Jordan, Kenya, Kuwait,

Lebanon, Lesotho, Liberia, Libyan Arab Republic, Liechtenstein, Luxembourg, Madagascar, Malawi, Malaysia, Malta, Mauritania, Mauritius, Mexico, Monaco, Morocco, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Peru, Philippines, Portugal, Republic of Korea, Republic of Viet-Nam, Romania, San Marino, Senegal, Singapore, South Africa, Spain, Sudan, Swaziland, Sweden, Switzerland, Syria, Arab Republic, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Uganda, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, United States of America, Uruguay, Venezuela, Yemen, Yugoslavia, Zaire, Zambia.

The Secretary-General of the United Nations was present at the Conference. The Conference was attended also by representatives of the Secretary-General from the Department of Economic and Social Affairs, the regional economic commissions, the United Nations Economic and Social Office in Beirut, the United Nations Conference on Trade and Development, and the United Nations Industrial Development Organization. A representative of the United Nations Institute for Training and Research was also present.

The following specialized agencies were represented: International Labour Organization. Food and Agriculture Organization of the United Nations, United Nations Educational and Scientific and Cultural Organization, International Civil Aviation Organization, World Health Organization, International Bank for Reconstruction and Development, International Monetary Fund, Universal Postal Union, International Telecommunication Union, World Meteorological Organization, and Inter-Governmental Maritime Consultative Organization. The International Atomic Energy Agency and the General Agreement on Tariffs and Trade were also represented.

Observers from a number of intergovernmental organizations participated in the Conference.

Representatives of numerous international non-governmental organizations invited to the Conference also participated.

*B. Opening of the Conference*

The Conference was opened by the Secretary-General of the United Nations.

At its 1st plenary meeting it also heard an address by the Secretary-General of the Conference (see chapter VIII below) and a report by the Chairman of the Preparatory Committee on pre-Conference consultations.

*C. Election of the President*

At its 1st plenary meeting, on 5 June 1972, the Conference elected Ingemund Bengtssen (Sweden) as President of the Conference. The President then addressed the Conference.

*D. Rules of Procedure*

At its 1st plenary meeting, on 5 June 1972, the Conference adopted with two amendments the draft rules of procedure approved by the General Assembly (A/CONF. 48/3) : in rule 6 it increased the number of Vice-Presidents from 3 to 27 and it changed the title of the Rapporteur of the Conference to "Rapporteur General."

*E. Election of Officers Other Than the President*

At its 1st plenary meeting, the Conference elected the following 26 Vice-President:[1] Mohamed Khaled Kheladi (Algeria), Eduardo Bradley (Argentina), Peter Howson (Australia), Ingrid Leodolter (Austria), Jack Davis (Canada), Tank Ke (China), Mostafa Tolba (Egypt), Robert Poujade (France), Alfredo Obiols Gómez (Guatemala), C. Subramanian (India), Eskandar Firouz (Iran), Motoo Ogiso (Japan), A. Al-Adwani (Kuwait), Francisco Vizcaino Murray (Mexico), Adebayo Adedeji (Nigeria), S. G. Bakhash Raisani (Pakistan), J. Llost Pautrant (Peru), Florin Iorgulescu (Romania), Habib Thiam (Senegal), A. B. Gamedze (Swaziland), Peter Walker (United Kingdom of Great Britain and Northern Ireland), Russell E. Train (United States of America), S. García Pintos (Uruguay), Z. Petrinovic (Yugoslavia), B. Engulu (Zaire), S. Kalulu (Zambia).

It elected Keith Johnson (Jamaica) as Rapporteur General.

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[1] At its 18th Plenary Meeting, on June 15, 1972, the Conference decided that the two posts of Vice-President of the Conference and Vice-Chairman of the First Committee that had been left vacant when the Conference elected its officers at its plenary meeting should not be filled.

It elected the chairmen and rapporteurs of the three main committees, and the vice-chairman of the Second and Third Committees. The officers elected were as follows:

*First Committee.*[1]—Helena Benítez (Philippines), *Chairman*; S. Bedaya-Ngard (Central African Republic), *Rapporteur*

*Second Committee.*—J. Odero Jowl (Kenya), *Chairman*; Ahmed Al-Chelebi (Iraq), *Vice-Chairman*; L. J. Mosterman (Netherlands), *Rapporteur*

*Third Committee.*—Carlos Calero Rodrigues (Brazil), *Chairman*; Yilmaz Gurer (Turkey), *Vice-Chairman*; A. M. Ali-Hassan (Sudan), *Rapporteur*

*F. Adoption of the Agenda*

The Conference, at its 1st plenary meeting, adopted the following agenda (A/CONF.48/1):

1. Opening of the Conference.
2. Election of the President.
3. Adoption of the rules of procedure.
4. Constitution of committees.
5. Election of the officers other than the President.
6. Credentials of representatives to the Conference:
   (*a*) Appointment of the Credentials Committee
   (*b*) Report of the Credentials Committee
7. Adoption of the agenda.
8. General debate.
9. Declaration on the Human Environment.
10. Planning and management of human settlements for environmental quality (subject area I).
11. Environmental aspects of natural resources management (subject area II).
12. Identification and control of pollutants of broad international significance (subject area III).
13. Educational informational, social and cultural aspects of environmental issues (subject area IV).
14. Development and environment (subject area V).
15. International organizational implications of action proposals (subject area VI).
16. Adoption of plan of action.
17. Adoption of the report of the Conference.

*G. Constitution of Subsidiary Bodies*

In accordance with rule 4 of the rules of procedures, the Conference, at its 1st plenary meeting, established a Credentials Committee, composed, in accordance with rule 5, of the following States: Australia, Colombia, France, Ireland, Liberia, Sudan, Syrian Arab Republic, United States of America and Yugoslavia.[2]

In accordance with rule 44 of the rules of procedures, the Conference at its 1st plenary meeting established three main committees to study the substantive items of its agenda:

It allocated to the First Committee the following agenda items:

Planning and management of human settlements for environmental quality (agenda item 10)

Educational, informational, social and cultural aspects of environmental quality (agenda item 13)

Draft recommendations 85, 98 (*b*) and 99 contained in document A/CONF.48/7.

It allocated to the Second Committee the following items:

Environmental aspects of natural resources management (agenda item 11)

Development and environment (agenda item 14)

It allocated to the Third Committee the following agenda items:

Identification and control of pollutants of broad international significance (agenda item 12)

International organizational implications of action proposals (agenda item 15)

The report of the Credentials Committee is given in annex I.

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[2] "Rule 5 of the rules of procedure of the Conference provided that the composition should be the same as that of the Credentials Committee of the General Assembly at its twenty-sixth session. As Mongolia, Somalia and the Union of Soviet Socialist Republics, members of the General Assembly's Credentals Committee, were not represented at the Conference, it was agreed that their places should be taken by the Sudan, the Syrian Arab Republic and Yugoslavia."

At its 7th plenary meeting, on 8 June 1972, the Conference decided to set up a Working Group on the Declaration on the Human Environment.[1] The report of the Working Group is given in annex II.

## VIII. BRIEF SUMMARY OF THE GENERAL DEBATE

In a statement to the Conference at its 1st plenary meeting, on 5 June 1972, the Secretary-General of the Conference, Maurice F. Strong, stated that the high level of participation in the Conference was most encouraging; it was greatly to be hoped that the reasons for the absence from the Conference of some countries which had played such an important role in the preparatory process—reasons which were not related to environmental issues—would soon be resolved, and that those countries would be actively involved in dealing with the tasks presented by the problems of the human environment.

The Conference was launching a new liberation movement to free men from the threat of their thraldom to environmental perils of their own making. The movement could succeed only if there was a new commitment to liberation from the destructive forces of mass poverty, racial prejudice, economic injustice, and the technologies of modern warfare. Mankind's whole work and dedication must be towards the ideal of a peaceful, habitable and just planet.

The Conference could not deal with all the ills of the world, but if it successfully accomplished the important work before it, it would establish a new and more hopeful basis for resolving the seemingly intractable problems that divided mankind. It had to be recognized that the physical interdependence. Better means would have to be devised for making knowledge available to decision-makers and to those who would be affected by decisions.

Developing countries could ill afford to put uncertain future needs ahead of their immediate needs for food, shelter, work, education and health care. The problem was how to reconcile those legitimate immediate requirements with the interests of generations yet unborn. Environmental factors must be an integral part of development strategy; one of the most encouraging outcomes of the preparatory process had been the emergence of a new synthesis between development and environment.

The concept of "no growth" could not be a viable policy for any society, but it was necessary to rethink the traditional concepts of the basic purposes of growth.

The vast benefits which the new technological order had produced were undeniable, but man's activities had created serious imbalances. Not only each society but the world as a whole must achieve a better balance among the major elements that determined the level and quality of life it could provide for its members—population and its distribution, available resources and their exploitation, and pressures placed on the life systems that sustained it.

Conference action was required on the proposed Declaration on the Human Environment; on the proposed Action Plan for the Human Environment; on the proposed Environment Fund—which would be additional to monies which Governments made available for development programmes; and on the vitally needed organizational and financial machinery by which it would be possible to continue the work begun with the calling of the Conference.

Certain priorities that required urgent and large-scale action had emerged from the preparatory process; these included water supplies, ocean and sea pollution, and the urban crisis. In addition, there were other areas for priority action: the need for understanding and controlling the changes man produced in the major ecological systems; the need for accelerating the dissemination of environmentally sound technologies and for developing alternatives to existing harmful technologies; the need to avoid commitment to new technologies before adequately assessing their environmental consequences: the need to encourage broader international distribution of industrial capacity; and the need to assist developing countries to minimize environmental risks in their development strategies.

Looking beyond the Conference, he stressed the need for:

(*a*) New concepts of sovereignty, based not on the surrender of national sovereignties but on better means of exercising them collectively, and with a greater sense of responsibility for the common good;

(*b*) New codes for international law which the era of environmental concern required, and new means of dealing with environmental conflicts;

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[1] See chapter IX.

(*c*) New international means for better management of the world's common property resources;

(*d*) New approaches to more automatic means of financing programmes of international co-operation, which could include levies and tolls on certain forms of international transport or on the consumption of certain non-renewable resources.

The general debate covered a vast range of environmental problems confronting nations and individuals, organizations and institutions. In the course of 11 plenary meetings held from 6–12 June 1972, the Conference was addressed by representatives of Member States, United Nations bodies, intergovernmental organizations and non-governmental organizations.

Throughout the general debate, speakers expressed their gratitude to the Government of Sweden for its initiative and hospitality, to the President for his distinguished conduct of the Conference, and to the Chairman and members of the Preparatory Committee and the Secretary-General of the Conference and his staff for their invaluable work in the preparatory process. Several speakers said that, as the problems the world was facing were universal, those problems could only be resolved by universal action. They regretted the fact that certain nations were not present at the Conference. Other delegations underlined the fact that in the convening of the Conference the fundamental principle of universality enshrined in the Charter of the United Nations had not been respected. The following brief summary of a lengthy and deeply informed debate attempts to emphasize the dominant themes.

*Development and environment*

Considerable emphasis was placed by speakers from developing countries upon the fact that for two thirds of the world's population the human environment was dominated by poverty, malnutrition, illiteracy and misery, and that the urgent task facing mankind was to solve those immediate and formidable problems. The priority of developing countries was development. Until the gap between the poor and the rich countries was substantially narrowed, little if any progress could be made in improving the human environment. Many speakers from developing countries agreed, however, that environmental considerations would have to be incorporated into national development strategies in order to avoid the mistakes made by developed countries in their development, to utilize human and natural resources more efficiently, and to enhance the quality of life of their peoples. Many speakers endorsed the statement of the Secretary-General of the Conference that there need be no clash between the concern for development and the concern for the environment, that support for environmental action must not be an excuse for reducing development, and that there must be a substantial increase in development assistance with due consideration for environmental fatcors. There was also general agreement that a philosophy of "no growth" was absolutely unacceptable.

Many speakers from developing countries stated that there was exploitation of their natural resources by developed countries for their own purposes; some protested against the activities of certain multinational corporations. Many representatives also stressed that there was exploitation of international marine resources by developed countries, which had a direct effect upon developing countries.

The need for more effective and less wasteful utilization of natural resources was underlined by several speakers.

In the opinion of many speakers, the only criterion of the success of environmental programmes was the substantial improvement of the conditions of life of the vast majority of mankind. To achieve this, there must be an entirely new attitude on the part of the developed countries towards their responsibilities. Many speakers from developing countries urged the relaxation of protectionist trade barriers against their products, and several warned against the danger that developed countries might raise the prices of their goods to meet costs incurred in environmental reforms; it would be intolerable if the nations which had created the world's environmetal problems should expect others to meet the cost.

Many speakers, from both developing and developed countries, agreed that the ruthless pursuit of gross national product without consideration for other factors, produced conditions of life that were an affront to the dignity of man. The requirements of clean air, water, shelter and health were undeniable needs and rights of man.

The need for regional co-operation among developing countries was mentioned by many speakers. Some said that it was only through national initiatives and work that the problems of developing countries could be solved; others added that such initiatives and work should be undertaken with regional and global co-operation. The need for technical and scientific assistance for the developing countries was emphasized by many speakers, as was the importance of effective international dissemination of information.

Several speakers expressed concern at the inadequacy of existing knowledge concerning environmental problems, and stressed the urgent need to initiate international research programmes the results of which would be freely available to all. Some speakers considered that the establishment of such programmes would be the most important single contribution that the proposed body, which would be charged with the work that the Conference had initiated, could make in its formative stage. Several speakers considered however that that would not be sufficient, and that the basic need was for a major programme of education in the poorer countries, as it was only through the eradication of illiteracy and ignorance in all sectors of society that mankind could hope to improve its opportunities and conditions of life.

*Draft Declaration on the Human Environment*

Many speakers stressed the importance which they attached to the proposed Declaration on the Human Environment. Several expressed the hope that the draft Declaration set out in document A/CONF.48/4 would not be amended, and that the carefully constructed consensus achieved in pre-Conference consultations would not be imperilled. Others, while expressing dissatisfaction with parts of the Declaration—particularly in regard to what they considered to be its inadequate appreciation of the needs of developing countries—accepted the Declaration. Others, however, took the view that the Declaration was of such importance that those countries which had not had the opportunity of expressing their opinions in the course of the preparatory process should be entitled to express them during the Conference and propose alterations.

*Action Plan*

The Action Plan outlined in document A/CONF.48/5 was in general well received; many speakers emphasized that the value of the preparatory process and of the Conference would be completely negated unless they resulted in positive action by individual nations, regional organizations, intergovernmental organizations, non-governmental organizations, and the United Nations. Many speakers pointed out that different problems required different solutions, and that any realistic plan must take full note of that fact. The importance of the active involvement of the scientific community was stressed by many speakers, and the value to all mankind of the Earthwatch programme was emphasized. Many speakers referred to the necessity for public involvement, particularly that of youth, and the support of public interest, in environmental matters; action would not be taken unless there was public demand for it, and it would not be effective unless it had public support.

*Institutional arrangements*

The proposal for the establishment of an intergovernmental body on the human environment was generally welcomed. Some speakers considered that it should be a body of the General Assembly, while others argued that it should be a commission of the Economic and Social Council. Some speakers were in favour of a body composed of 27 members; other considered that number too small. Emphasis was placed by many speakers on the need for effective regional co-operation, since many environmental problems were capable of solution only by regional collaborative action. Several speakers pointed to the danger of duplication of effort inherent in the creation of too many organizations. Representatives of the specialized agencies draw attention to their existing programmes.

The proposal for a small permanent secretariat unit for the new intergovernmental body was also generally supported. In the debate, some speakers mentioned United Nations locations in New York and Geneva; speakers from Austria, India, Kenya, Malta, Mexico, Spain and the United Kingdom of Great Britain and Northern Ireland invited such a secretariat to establish itself in their countries.

*Environment Fund*

The proposed Environment Fund was supported by many speakers. Several delegations announced their intention of making contributions to the Fund. Con-

cern was expressed by some representatives of developing countries that the Fund might be regarded by some developed countries as an alternative to development assistance. Some speakers emphasized the need to use the Fund to help developing countries meet the additional environmental costs incurred in their development programmes. Several speakers endorsed the argument that "the polluter must pay".

In addition to discussing the Fund, several speakers agreed with the proposal of the Secretary-General of the United Nations for the provision of levies as a source of finance for the Fund. It was also proposed that a world housing programme should be established to extend technical assistance to developing countries in the many-faceted aspects of human settlements.

*Population*

Several speakers expressed regret that population problems took so minor a place in the agenda of the Conference. They argued that all strategies for development and environment would be fatally damaged unless the rate of population increase was reduced. Other speakers said that the population increase was not the problem; the real challenge was the fact that so large a number of the people of the world had such a small expectation for a fruitful, happy and long life. In the opinion of certain delegations there was no incompatibility between population growth and preservation of the environment.

*Conservation*

It was emphasized by several speakers that conservation of natural resources must be an integral part of sound development and environmental programmes, and that this was not a luxury but an absolute necessity. Many speakers described actions taken in their countries to protect areas of land and its wildlife. The preservation of all forms of life on the planet was described by many speakers as being a crucial part of the strategy to enhance and protect the human environment now and in the future.

*Marine pollution*

The problem of marine pollution was stressed by many speakers. Contamination of the oceans had global consequences, affecting peoples many thousands of miles away from the source of pollution. Mention was made of natural disasters at sea, oil discharges, excessive use of pesticides, and atmospheric pollution, which eventually contaminated the sea. Several speakers welcomed recent international action to curtail ocean-dumping. Particular reference was also made to the problems of certain seas, which could be solved only by regional co-operation and action.

*Other issues*

A considerable number of important matters affecting the human environment—both immediately and in the future—were raised in the general debate. Many speakers described actions which their countries or organizations had taken or proposed to take in order to solve particular national, regional and international environmental problems. The environmental effects of pesticides and fertilizers were mentioned by several speakers, some of whom urged the development of safe and cheap alternatives to those pesticides and fertilizers that had been found to be harmful. Some speakers were highly critical of the development of supersonic aircraft, which, they claimed, could have harmful global effects. Others pointed to the ever present problem of natural disasters, and put forward suggestions for improved advance warning and for steps to limit damage. The difficulties of agricultural countries were described and analysed, as were those of nations with substantial urban problems. Many speakers stressed the importance of preventive action and the necessity of taking early steps to discover and prevent serious environmental hazards. To that end, the importance of the exchange of scientific and technological information and experience, through the proposed referral system, was mentioned by several representatives. These were also suggestions for annual reminders to the public, by means of named dates or a week, of the importance of preventing environmental hazards.

The representative of Iran announced that his country had selected an area of 130,000 hectares constituting an ecosystem of global importance, which it was prepared to place in joint trust with an appropriate international agency to conserve and administer for the benefit of all mankind. He further announced the establishment by Iran of an annual prize of $20,000, for the most outstanding

contribution in the field of the human environment, to be awarded through the good offices of the Secretary-General of the Conference.

Some delegations emphasized that any discussion of the problems of the human environment could not exclude international conflicts, the suppression of human rights, *apartheid*, nuclear testing, the offensive presence of foreign naval forces in seas near their countries, and the proliferation of armaments. References were made to the situations in Indo-China, the Middle East, and in southern Africa. Other representatives argued that such matters, although of substantial importance, should be discussed in other organs of the United Nations and were not appropriate to the Conference. Several representatives expressed strong criticism of the decision of certain nations participating in the Conference which proposed to continue nuclear testing. Others said that the armaments race and stockpiling of arms of mass destruction—nuclear, chemical, bacteriological and conventional weapons—should be condemned since they represented a menace to the environment and to humanity itself.

With reference to the proposal for the convening of a second United Nations Conference on the Human Environment, Canada and Mexico offered to act as host.

The view was often expressed that man possessed the skills to foresee and avert ecological misfortunes and to create a much happier and richer world, but that no positive advances could be made without the political will. It was repeatedly emphasized that it was only by means of global co-operation, understanding, sympathy and assistance that mankind could achieve the results that his talents could provide.

## IX. ESTABLISHMENT OF THE WORKING GROUP ON THE DECLARATION OF THE HUMAN ENVIRONMENT

The Working Group on the Declaration on the Human Environment was established by the Conference at its 7th plenary meeting, following a debate on a draft resolution submitted by China, which read as follows:

*The Conference on the Human Environment,*

*Considering that* the Declaration on the Human Environment is an important statement of guiding principles and the main document of this Conference,

*Considering that* the Declaration affects the interests of the peoples of various countries and the future responsibilities of, and guidelines for action by, Governments, and should therefore give full expression to the views of various countries,

*Resolves to* devote more time, as appropriate, to the discussion of the draft Declaration, and for this purpose to set up an *ad hoc* committee.

The representative of China explained that in submitting its draft resolution, China had been motivated by the following considerations:

(a) The preservation and improvement of the human environment was an important matter affecting the development of the peoples of the world;

(b) The Declaration, the main document for discussion at the Conference, was an important document of guiding principles which would have to be dealt with seriously, discussed thoroughly, and rally the support of the majority if it were to have any moral effect;

(c) The existing draft Declaration did not reflect the views of all the States members of the Conference; even the preliminary work of the Preparatory Committee had not resulted in complete agreement;

(d) Since the Declaration should play the leading role, the discussion on that subject was more important than the work of the three committees;

(e) The issue would have to be settled on the basis of equality among all countries and it was in that spirit that China had submitted its draft resolution.

The representative of Iran said that although the existing draft represented a careful balance resulting from discussions by representatives of various groups with different ideas, the points made by the representative of China were valid. He proposed an amendment to the Chinese draft resolution, which he understood to be acceptable to China, namely replacement of the words "*ad hoc committee*" at the end of the operative paragraph by the words "a working group open to all States participating in the Conference".

The representative of the United States of America expressed concern lest the work of the Conference be overburdened with discussions on the draft Declaration, which had been negotiated over eight months. His delegation would not, however, oppose the Chinese draft resolution. He recalled the warning of the Secretary-General of the Conference with respect to the fragility of the compromise already reached.

The representative of Tunisia stated that the African group would support the Chinese draft resolution but proposed an amendment defining the composition of the committee, as follows: the four permanent members of the Security Council present at the Conference, eight representatives from Asia, eight from Latin America, nine from Africa, six from Western Europe and one from Eastern Europe. Such a committee would also be open to any delegation which wished to make a statement or propose an amendment. In a spirit of conciliation, the representative of Tunisia subsequently withdrew his amendment.

The representative of Italy recalled that the draft Declaration was the result of nearly one year's negotiation and compromise; any changes introduced in one part of the document risked compromising the rest of the document. Italy would, however, support the establishment of a committee open to all.

The representative of Argentina supported the Chinese draft resolution as amended by Iran on the grounds that the draft Declaration had not been approved, but merely transmitted, by the Preparatory Committee.

The representative of Sudan, speaking on behalf of the African group, supported the establishment of an *ad hoc* body; said he thought that the practice of discussing important matters in groups before they reached the plenary meeting should be followed; expressed the belief that Africa was entitled to provide the chairman of the proposed committee; said he thought that the composition of the committee should be the subject of intergroup consultations; and appealed to China to keep the composition of the committee flexible.

The representative of the Philippines, speaking for the Asian group, supported the establishment of a special working group with membership open to all countries wishing to air views or submit amendments and suggested that the group should report to the Conference at its plenary meeting on 13 June 1972.

The representative of Canada stated that the Declaration was more than an inspirational message or an educational tool: it represented the first essential step in developing international environmental law. He felt that any delegation that disturbed the delicate balance of the existing draft would carry a heavy responsibility. However, he could not deny delegations which had not participated in the elaboration of the draft Declaration the opportunity to express their views. Canada therefore supported in principle that draft resolution submitted by China. He drew attention to the fact that, to protect national positions, certain choices other than amendments were open to delegations, for example, reservations on principles could be satisfied by statements of interpretation.

The representative of Norway, speaking also on behalf of Denmark, appealed to the Conference to take a unanimous decision on the matter and avoid a vote.

The representative of Yugoslavia expressed concern about re-opening the discussion on the draft Declaration. He favoured an open-ended working group. He also favoured having all interpretations included in an annex to the Declaration.

The representative of Singapore said that although he appreciated the spirit of the draft resolution, he would abstain because the terms of reference of the proposed working group were unclear. The Declaration was not a perfect document but it represented a delicate balance between the interests of the developing and the developed countries. He would have liked to have seen the amendments to the draft Declaration before deciding on the establishment of a working group.

The representative of Switzerland stated that he was prepared to accept the existing draft Declaration but would, none the less, agree to the draft resolution submitted by China.

The President of the Conference, in the absence of any objections, declared that the draft resolution, as amended by Iran, was approved and that the Working Group on the Declaration on the Human Environment would begin its deliberations on 9 June 1972.

## X. ACTION ON REPORTS OF COMMITTEES AND OF THE WORKING GROUP ON THE DECLARATION ON THE HUMAN ENVIRONMENT

The recommendations set forth in the basic Conference documents[1] were considered, together with amendments and new proposals, by the three committees

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[1] In the debate in committee and in plenary, the draft recommendations were identified by the numbers of the paragraphs in which they appeared in the basic Conference document for the subject area concerned. New draft recommendations were identified by additional numbers in the same series or by letters added to the numbers of the original draft recommendations contained in the Conference document. For the correspondence between the numbers of the recommendations as adopted by the Conference and the numbers as they appear in the final version given in this report, see annex V.

and the Working Group on the Declaration established by the Conference (see chapters VII and IX above). The reports of the committees and of the Working Group were considered by the Conference in plenary. An account of the action taken in plenary is given below.

*A. First Committee*

The report of the First Committee on subject areas I and IV was considered by the Conference at its 14th and 15th plenary meetings, on 13 and 14 June 1972. The report was introduced by the Rapporteur of the First Committee, Simon Bedaya-Ngano (Central African Republic).

*Planning and management of human settlements for environmental quality (subject area I)*

The report indicated that the Committee had considered the draft recommendations for international action contained in the report on planning and management of human settlements for environmental quality (A/CONF.48/6) and had taken the following action with regard to them.

It had approved without objection the following draft recommendations as amended in the Committee: 136, 137, 138, 140, 141, 144, 148, 150.

The voting on other recommendations had been as follows:

Recommendation 149 had been approved by 35 votes to 1, with 13 abstentions.

Recommendation 152, as amended, had been approved by 41 votes to 2, with 3 abstentions.

Recommendation 153, as amended, had been approved by 47 votes to 1, with 1 abstention.

Recommendation 154 had been approved by 55 votes to none, with 1 abstention.

New recommendation 155, as amended, had been approved by 23 votes to 17, with 12 abstentions.

New recommendation 156, as amended, had been approved by 34 votes to none, with 9 abstentions.

New recommendation 157, as amended, had been approved by 45 votes to none, with 4 abstentions.

New recommendation 158 had been approved by 27 votes to 12, with 16 abstentions.

New recommendation 159 had been approved by 24 votes to 19 with 9 abstentions.

The Committee had also decided by consensus to refer to the plenary Conference the following text submitted by India and the Libyan Arab Republic:

"It is further recommended that the Governments and the Secretary-General take immediate steps towards the establishment of an international fund or a financial institution whose primary operative objectives will be to assist in strengthening of national programmes in this field through the provision of seed capital and the extension of the necessary technical assistance to enable an effective mobilization of domestic resources for housing and the environmental improvement of human settlements."

The Conference in plenary considered together all of the texts of the draft recommendations approved by the First Committee.

*Recommendations 136, 137, 138, 140, 141, 144, 146, 148, 149, 152, 153, 154, 155.*— Switzerland stated that development projects should include an economic and social cost-benefit analysis. That was particularly relevant to recommendation 155.

The United States of America supported all of the original recommendations contained in A/CONF.48/6 as well as the new recommendations 154, 155, 156, 157, and 158. Concerning recommendation 159, the United States of America opposed the establishment of subregional centres, on the grounds that such action was premature. It attached importance to the amendment by India and the Libyan Arab Republic but opposed it because he thought that more preparation was necessary and that there would be a risk of confusion with the establishment of the proposed Environment Fund.

The Conference adopted the following recommendations without objection: 136, 137, 138, 140, 141, 144, 146, 148, 149, 152, 153 and 154.

With reference to recommendation 155, the Central African Republic considered that family planning and the domographic explosions were concepts on which the Conference should not take a position. It was in favour of retaining the recommendation with the following amendments: the replacement of the words "family

planning" by the words "family health" in the first sentence and the deletion of the last phrase of the second sentence, after the words "human reproduction".

France was of the opinion that a distinction should be made between the conditions in over-populated countries and those in under-populated countries. It proposed that the words "population explosion" in the second sentence be replaced by the words "over-population and under-population".

Ecuador considered that the 1974 Population Conference was the proper forum for discussion of those problems. Ecuador supported the first part of the amendment proposed by the Central African Republic.

Argentina considered the recommendation premature. It proposed the deletion of the recommendation and requested a roll-call vote on it.

In the opinion of Dahomey, the population explosion was not a universal problem ; in Africa, population density was still weak. Dahomey supported the amendment proposed by the Central African Republic.

Uganda considered recommendation 155 to be among the most important recommendations of the Conference. As population was the essential resource, population increase should be planned accordingly. Uganda supported the recommendation as it stood.

Romania supported the first sentence of the recommendation, but urged the deletion of the second sentence.

Ethiopia was opposed to the recommendation. It considers that recommendation 154 contained all appropriate action concerning population. It supported Argentina in requesting the deletion of the recommendation.

In the opinion of Pakistan, human reproduction meant physio-pathological phenomena which, in fact, increased population. The amendment proposed by the Central African Republic was not acceptable, as the sentence would then mean that an increase in the population was wanted. The recommendation was one of the most important of the Conference, and should be retained.

India supported retention of the recommendation as population increase was a major source of economic problems. Research on the population explosion was important for all countries. Under-populated countries might have to face those problems in the future, and could profit from that research.

Belgium supported the first sentence of the recommendation. Concerning the second sentence, it supported the French amendment but also suggested the deletion of the words "in the field of human reproduction".

The representative of the Holy See stated that the relationship between excess of population and environmental deterioration had not yet been clearly elucidated. For instance, the first countries to suffer from environmental degradation had problems of over-population. He supported the Argentine amendment and expressed interest in the Belgian amendment.

The United Kingdom of Great Britain and Northern Ireland stated that the 1974 Population Conference would deal with the problem. In the recommendation, the World Health Organization was requested to give advice on family planning on request and to undertake more research. The United Kingdom wished to retain the first sentence; concerning the second sentence, it agreed with the amendment proposed by the Central African Republic.

Norway stated that the text was in conformity with scientific evidence.

Nigeria expressed strong support for the recommendation.

The Argentine amendment calling for deletion of recommendation 155 was put to the vote by roll-call.

The amendment was rejected by 45 votes to 12, with 20 absentions. The voting was as follows:

*In favour:* Argentina, Brazil, Burundi, Ecuador, Ethiopia, Holy See, Ireland, Portugal, Romania, Spain, Venezuela and Zaire.

*Against.*—Australia, Bahrein, Belgium, Canada, Ceylon, Denmark, Dominican Republic, Federal Republic of Germany, Fiji, Finland, Ghana, Iceland, India, Indonesia, Iran, Israel, Jamaica, Japan, Kenya, Liberia, Luxembourg, Madagascar, Malaysia, Mauritius, Morocco, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Republic of Korea, Republic of Viet-Nam, San Marino, Senegal, Singapore, South Africa, Swaziland, Sweden, Switzerland, Thailand, Uganda, United Kingdom of Great Britain and Northern Ireland, United States of America, Yugoslavia and Zambia.

*Abstentions.*—Algeria, Austria, Central African Republic, Chile, Dahomey, France, Greece, Iraq, Italy, Ivory Coast, Libyan Arab Republic, Liechtenstein, Mexico, Monaco, Philippines, Sudan, Syrian Arab Republic, Togo, Trinidad, Tobago and Turkey.

The amendment proposed by the Central African Republic calling for the replacement of the words "family planning" by the words "family health" was rejected by 41 votes to 28, with 7 abstentions.

The amendment proposed by Romania calling for deletion of the second sentence of the recommendation was rejected by 50 votes to 16, with 9 abstentions.

The amendment proposed by Belgium calling for replacement of the words after "reproduction", in the second sentence, by the words "so as to avoid serious repercussions on human environment of over-population and under-population" was rejected by 41 votes to 28, with 7 abstentions.

The amendment proposed by the Central African Republic calling for deletion of the words after "human reproduction" was rejected by 40 votes to 23, with 8 abstentions.

The amendment proposed by France, by which the words "population explosion" would be replaced by the words "over-population", was rejected by 28 votes to 22, with 24 abstentions.

The Conference adopted recommendation 155 by 55 votes to 18, with 4 abstentions.

The Holy See explained that it had abstained on the Belgian amendment because the World Health Organization was already intensifying its genetic research.

*Recommendation 150.*—Kenya proposed the addition of the words "periodicity and intensity of the" in the last item of the first paragraph of recommendation 150, after the words "research on the".

The Conference adopted, by 32 votes to 3, with 4 abstentions, an amendment by Kenya calling for the insertion of the word "over-all" after the words "assess the" in the first item of the first paragraph.

The Conference adopted, by 62 votes to none, with 18 abstentions, the Kenya amendment calling for the addition of the words "periodicity and intensity of the".

The Conference adopted recommendation 150, as amended, by 84 votes to none, with 1 abstention.

*Recommendation 156.*—The recommendation was adopted without dissent.

*Recommendation 157.*—Uganda proposed the following amendments to recommendation 157: (1) replacement of the word "limitations" by the word "standards"; (2) deletion of the word "large" in the last phrase; (3) replacement of the word "applied" by the words "recommended for application".

The Netherlands proposed that the words "large price increase or" be deleted.

The Conference adopted by 47 votes to 7, with 26 abstentions, the amendment proposed by Uganda replacing the word "limitations" by "standards".

The Conference rejected, by 22 votes to 21, with 26 abstentions, the amendment proposed by Uganda replacing the word "applied" by the words "recommended for application".

The Conference rejected, by 32 votes to 24, with 17 abstentions, the amendment proposed by the Netherlands deleting the words "large price increase or".

The Conference rejected, by 38 votes to 14, with 25 abstentions, the amendment proposed by Uganda deleting the word "large".

The Conference adopted recommendation 157, as amended, by 73 votes to none, with 11 abstentions.

*Recommendation 158.*—The Conference adopted recommendation 158 without dissent.

*Recommendation 159.*—The Conference adopted recommendation 159 by 70 votes to 10, with 6 abstentions.

*New recommendation proposed by India and the Libyan Arab Republic*

With reference to the text submitted by India and the Libyan Arab Republic, India stated that the proposal for an international fund to improve the quality of human settlements reflected the fact that the basic environmental problem in developing countries was poverty. The most important objective of the Conference was to give hope to two thirds of humanity through environmental programmes. The need of developing countries was not expertise but resources, and the Conference should offer solutions, not diagnoses. Three weeks before the Conference, the Economic and Social Council had referred the question of the creation of a human sttlements fund to the Conference. The terms of reference of the environmental fund did not even mention encouragement of national programmes. A multicurrency fund for human settlements would open a new era of international co-operation.

Canada reminded the Conference that it had voted in the Committee for recommendations 157 and 158, and that it had supported and amended recommendation 137. It could not support the amendment by India and the Libyan Arab Republic as it had no mandate to support a separate fund in addition to the environmental fund. Canada was, however, always ready to consider new forms of aid for progress oriented towards action.

The Philippines supported the joint amendment. The urgent need was for seed capital. The International Bank for Reconstruction and Development extended long-term loans only to "sites and services" projects. The proposal for a new international fund had two aspects: the provision of long-term loans to developing countries as seed capital; and the provision of technical assistance in funding so that the developing countries could efficiently use those loans for housing. The fund should be in addition to the environmental fund.

The United Kingdom of Great Britain and Northern Ireland endorsed the principles of the Conference document on human settlements (A/CONF.48/6) but said it would vote against the amendment. Housing problems could be solved only through genuine economic development, and international aid should be directed towards the promotion of such development. The United Kingdom rejected that sectoral approach, especially at a time when the United Nations Development Programme, through its country programming procedure, could now give high priority to the requests of individual countries.

Italy said that it would not support a new fund. It proposed the following as an amendment to the text:

"It is further recommended that the Secretary-General undertake, in consultation with the United Nations specialized agencies, international financial institutions and the Committee on Housing, Building and Planning of the United Nations Economic and Social Council, an exhaustive review of international financing arrangements with, as its primary objective, the strengthening of national programmes in this field through the provision of seed capital and the extension of the necessary technical assistance to permit effective mobilization of domestic resources for housing and the environmental improvement of human settlements, taking account of development priorities of the developing countries."

Sweden stressed that it was much in sympathy with the objectives behind the amendment submitted by India and the Libyan Arab Republic but that it would vote against the text proposed. The existing organs should be used. The creation of a new fund for human settlements might have negative consequences.

The Central African Republic said that recommendations 158 and 159 contained a description of a programme but that no means were given. The text given in the joint amendment provided the means. A special programme on human settlements had to have high priority.

Kenya strongly supported the joint amendment. The developed countries must listen to the arguments of the developing countries. Developing countries must not follow the priorities of developed countries. The gap in understanding between developed and developing countries must be filled.

Jamaica strongly supported the text set forth in the joint amendment.

Uganda stated that the problem of human settlements had not received sufficient priority at the Conference. In Uganda the need to organize human settlements was paramount, while the available resources were wholly inadequate. It strongly supported the proposed fund.

Senegal supported the proposal made by India and the Libyan Arab Republic. If the proposal was rejected. some funds within the environmental fund should be earmarked for human settlements.

The text proposed by India and the Libyan Arab Republic was adopted by a roll-call vote of 50 to 15, with 13 abstentions. The voting was as follows:

*In favour.*—Afghanistan, Algeria, Bahrein, Botswana, Brazil, Burundi, Central African Republic, Ceylon, Chile, Dahomey, Ecuador, Egypt, Ethiopia, Fiji, Finland, Gabon, Ghana, Guyana, Iceland, India, Indonesia, Iran, Iraq, Israel, Jamaica, Kenya, Kuwait, Lebanon, Liberia, Libya, Arab Republic, Madagascar, Malaysia, Mauritius, Mexico, Morocco, Nigeria, Peru, Philippines, Republic of Vietnam, Romania, San Marino, Senegal, Singapore, Sudan, Swaziland, Syrian Arab Republic, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Uganda, United Arab Emirates, United Republic of Tanzania, Venezuela, Yugoslavia, Zaire, Zambia.

*Against.*—Australia, Canada, Denmark, Federal Republic of German, France, Ireland, Italy, Japan, Liechtenstein, Luxembourg, Monaco, Sweden, Switzer-

land, United Kingdom of Great Britain and Northern Ireland, United States of America.

*Abstentions.*—Argentina, Austria, Belgium, Dominican Republic, Greece, Holy See, Netherlands, New Zealand, Norway, Portugal, Republic of Korea, South Africa, Spain.

Australia stressed that although it had voted against the proposal, because it was not convinced of the need for a new fund, it fully supported the principle of the need to plan human settlements. It drew attention to its own work in that field, and referred to the positive spirit with which the Conference had approached the subject.

Kenya emphasized that the text adopted would put to the test the principle of international cooperation and show whether there were two earths, the developing and the developed, or only one.

In view of the decision of the plenary Conference, the alternative test proposed by Italy was not put to the vote.

The Conference adopted the amendment by 30 votes to 12, with 29 abstentions. It then adopted recommendation 114, as amended, by 76 votes to none, with 2 abstentions.

*Recommendations 115, 116, 119, 120.*—The Conference adopted recommendations 115, 116, 119 and 120 without amendments.

*Recommendation 124.*—With reference to recommendation 124, Ecuador stated that it was opposed to mentioning "present" conventions in the text. It wished to deal only with "future" conventions.

The Conference adopted recommendation 124 by 74 votes to 1, with 2 abstentions.

*Recommendations 125 and 126.*—The Conference adopted recommendations 125 and 126 without amendments.

*Recommendation 137.*—In recommendation 137 the representative of Romania proposed the insertion of the word "also" after the words "taking account". The amendment was rejected by 18 votes to 16, with 41 abstentions.

The Conference adopted recommendation 137 by 78 votes to none, with 1 abstention.

*Action on the draft resolution*

The Conference considered the draft resolution on International Environment Day submitted by the Committee. As one of the sponsors of the draft resolution in the Committee, Senegal proposed that the name "International Environment Day" should be changed to "World Environment Day" and that certain drafting changes be introduced in the last paragraph of the draft resolution.

The representative of Ethiopia supported the proposal for the establishment of a Day but suggested that a more appropriate date for the celebration of the International Environment Day might be the date of the conclusion of the Conference, 16 June.

The representative of Japan said that he could accept the Ethiopian proposal. He asked that the draft resolution be adopted by the Conference by acclamation.

*Educational, informational, social and cultural aspects of environmental issues (subject area IV)*

The report stated that the First Committee had considered the recommendations for international action contained in the report on educational, informational, social and cultural aspects of environmental issues (A/CONF.48/9), as well as a large number of amendments and proposals for new recommendations submitted in committee.

It had approved the following recommendations, as amended, without objection and had recommended them to the Conference for adoption: 111, 114, 115, 116, 119, 120, 124, 125, 126, 137.

The first Committee had also referred to the plenary Conference the text of a draft resolution submitted by Japan and Senegal proposing a world environment day, which the Committee had approved by acclamation.

*Action on draft recommendations*

The United Kingdom of Great Britain and Northern Ireland stressed in the plenary meeting, as it had done in the Committee, its particular interest in the proposed international referral service for environment information and offered London as a place for the expert meeting referred to in draft recommendation 137. India stated that the existence of surplus computer facilities in a country should not be the basis for locating the referral service there. A developing country with the necessary infrastructure should be seriously considered.

The Federal Republic of Germany suggested that the Convention on the Conservation of Wetlands of International Importance, referred to in draft recommenation 125, should be studied further. The representative of Iran explained that UNESCO had accepted to serve as depositary and that the Convention would soon be opened for signature in Iran.

*Recommendation 111.*—Recommendation 111 was adopted without objection.

*Recommendation 114.*—Concerning recommendation 114, Italy introduced an amendment calling for the insertion of the words: "and activities including those concerning the economic, sociological and tourism sectors" after the word "disciplines" in the fourth item of the second paragraph.

While supporting the spirit of the draft resolution, New Zealand considered that there should be some flexibility to allow countries to arrange suitable activities at times other than the official date proposed: in New Zealand, 5 June was mid-winter; 6 June was the Queen's Birthday; and a whole week was already dedicated to earth conservation in August. It therefore proposed that the words "appropriate to their situation and . . ." be inserted in the operative paragraph of the draft resolution, after the words "world-wide activities".

Singapore had no objection to the substance of the proposal but found that the operative paragraph was somewhat ambiguous. What should be stressed on Environment Day was the reaffirmation by Governments of their concern for environmental activities. It suggested that the words "related to" be replaced by "reaffirming their concern for" in the operative paragraph.

Senegal agreed with Singapore that some redrafting of the operative paragraph was necessary. What was important was the establishment of a world-wide day relating to the environment.

India considered the New Zealand objections irrelevant. There should be a single day observed not only by the United Nations system and Governments but by all people everywhere.

Libya favoured 16 June since it was the results of the Conference that were important, not its beginning.

The representative of Kenya stressed that the idea of a commemorative day should be agreed on in principle before the date was discussed.

The amendment proposed by New Zealand was rejected by 26 votes to 16, with 35 abstentions.

The amendment proposed by Singapore was adopted by 57 votes to 3, with 23 abstentions.

The amendment proposed by Ethiopia was rejected by 35 votes to 22, with 24 abstentions.

The draft resolution, as amended, was adopted by acclamation. For the text of the resolution see chapter IV, section A.

*B. Second Committee*

The report of the Second Committee on subject areas II and V was considered by the Conference at its 14th, 16th and 18th plenary meetings on 13, 14 and 15 June 1972. The report was introduced by the Rapporteur of the Second Committee, J.J. Mostertman (Netherlands).

*Environmental aspects of natural resources management (subject area II)*

The report stated that the Committee had considered the draft recommendations contained in the report on environmental aspects of natural resources management (A/CONF.48/7 and Corr. 1) and amendments to them and also a number of new draft recommendations proposed in the Committee. It had taken the following action with regard to them.

It had approved by consensus a new draft recommendation submitted by France, draft recommendations 46, 47, 48, a new draft recommendation submitted by Nigeria; draft recommendations 66, 67, 81, 82, 83, 84, 85, 95, 96, 97, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 131, 132, 133, 134, 135, 204 and 227.

It approved unanimously draft recommendations 203 and 207 and a new draft recommendation proposed by the Federal Republic of Germany.

It had approved draft recommendation 86 by 53 votes to none, with 3 abstentions.

It had approved draft recommendation 98 by 45 votes to 1, with 1 abstention.

It had approved draft recommendation 159 by 43 votes to 2, with 7 abstentions.

It had approved draft recommendation 160 by 44 votes to 9, with 2 abstentions.

It had approved draft recommendation 175 by 34 votes to 1.

It had approved draft recommendation 196 by 41 votes to none, with 3 abstentions.

It had approved draft recommendation 201 by 37 votes to 3, with 3 abstentions.

In the debate in plenary, the representative of Kenya said that the report contained recommendations that were largely scientific in nature. His delegation believed that environmental policies and programmes must be implemented within the context of development. Consequently, he wished to stress that adequate and trained manpower must be available in the developing countries in order to put the recommendations into effect.

The representative of the United States of America explained, in relation to draft recommendation 46, that his delegation did not consider that the position relating to the pricing of agricultural produce was relevant to the main point. There could be no assurance that price stabilization would lead to improved soil regeneration and conservation. He suggested that other international organizations might be more appropriate for dealing with the question of prices for agricultural produce. With regard to recommendation 98 (*b*), he expressed the concern that Governments, in setting aside ecosystems of international significance, should not devise rules for their use that were inconsistent with international law.

All of the draft recommendations that had been approved by consensus or unanimously, with the exception of 46 and 116, were considered together and were adopted.

*Recommendation 46.*—With reference to draft recommendation 46, the representative of India proposed that the following words be inserted after subparagraph (b) (iii):

"Strengthening of existing research centres and, where necessary, establishing new centres with the object of increasing the production from dry farming areas without any undue impairment of the environment".

The amendment, which was supported by Australia, Canada, Iran and Kenya, was adopted unanimously.

Recommendation 46 as amended was adopted unanimously.

*Recommendation 116.*—The representative of India proposed that the second paragraph and its subparagraph be replaced by a new paragraph reading as follows:

"To provide geographical distribution and access to the developing nations, regional centres should be established in Africa, Asia and Latin America and the existing centres in the developed world should be strengthened."

The amendment was adopted.

Draft recommendation 116, as amended, was adopted unanimously.

*Recommendation 86.*—Recommendation 86 was adopted by 53 votes to none, with 12 abstentions.

Japan explained that while it was favourable to a moratorium on commercial whaling, it had abstained in the vote because the whole question was to be considered by the International Whaling Commission on the basis of available scientific information.

*Recommendation 98.*—Recommendation 98 was adopted by 64 votes to none, with 5 abstentions.

*Recommendation 159.*—The representative of Argentina introduced an amendment to the title of the recommendation, proposing that "an International River-basin Commission or other" be added following "the creation of".

The amendment was adopted by 16 votes to 8, with 43 abstentions.

The representative of Argentina also proposed that the words "In accordance with the Charter of the United Nations and the principles of international law" be inserted at the beginning of paragraph 1.

The amendment was adopted by 23 votes to 7, with 36 abstentions.

The representative of Kenya proposed that the words "right of permanent sovereignty" be used instead of "sovereign rights" in paragraph 1.

The amendment was adopted by 20 votes to 10, with 36 abstentions.

In the first subparagraph of the second paragraph the representative of Uganda proposed the insertion of the word "major" before "water resources activities" and the insertion of the phrase "a significant" before "environmental effect", with the word "an" deleted.

The amendment was adopted by 29 votes to 13, with 24 abstentions.

Two proposals, calling for replacement of the term "hydrological regions" in the last item of the second paragraph, by either "river basins" (Uganda), or "rivers" (Switzerland), were rejected, respectively, by 25 votes to 16, with 29 abstentions, and by 27 votes to 12, with 30 abstentions.

Recommendation 159, as amended, was approved by 64 votes to 2, with 8 abstentions.

*Recommendation 160.*—Recommendation 160 was adopted unanimously.

*Recommendation 175.*—Recommendation 175 was adopted unanimously.

*Recommendation 196.*—The representative of Argentina introduced two amendments to the first paragraph of part (a), one calling for replacement of the words "effects of" by the words "environmental levels resulting from"; and the other for replacement of the words "the effects of" by the words "those from". In the second paragraph, the representative of Argentina also proposed the insertion of the words "relationships between such levels and" before the words "the effects on weather".

The amendments were approved by 59 votes to 3, with 8 abstentions.

The representative of Belgium proposed that in the first paragraph, the words: "oxidants nitrogen oxides ($NO_x$)" should be added following the words "sulphur dioxide".

The amendment was adopted by 64 votes to none, with 6 abstentions.

Recommendation 196, as amended, was adopted unanimously.

*Recommendation 201.*—Recommendation 201 was approved by 73 votes to none, with 1 abstention.

*Statements and reservations*

The representative of Argentina stressed that for all those recommendations in which mention was made of studies of ecosystems, work on methodologies should be carried out in those countries where it was considered to be appropriate or which had initiated—or were about to initiate—ecological studies related to the question of natural resources, thus making it possible to obtain data likely to be appropriately used in quantitative integrated models. Those methodologies should be developed in accordance with the priorities and capacities of each of the countries or regions concerned. He also pointed out that the object of the Conference was improvement of the environment, and that other methodologies, perhaps less sophisticated but equally useful, should also be used, providing a basis for the sound management of the natural resources of the developing countries.

The representative of Japan reported reservations with regard to recommendation 86, and stated that the implementation of the recommendation should be made on the basis of the available scientific information.

*Development and environment (subject area V)*

The report indicated that the Second Committee had considered the draft recommendations contained in the report on development and environment (A/CONF.48/10) and had taken the following action.

It had approved draft recommendations 31, 33, 34 and 38 by consensus.

It had approved draft recommendation 32 by 36 to 2, with 4 abstentions.

It had approved draft recommendation 36 by 57 votes to 1, with 1 abstention.

It had approved recommendation 39 by 40 votes to none, with 2 abstentions.

It had approved draft recommendation 40 by 30 votes to none, with 8 abstentions.

The Committee had recommended all of the draft recommendations to the plenary Conference for adoption.

The Conference considered the report of the Second Committee on subject area V and took the action indicated below.

*Recommendation 31.*—At the 16th plenary meeting, the representative of Kenya proposed the following amendments to recommendation 31.

(*a*) Reword the preamble to read as follows:

"It is recommended that regional economic commissions and UNESOB, regional and subregional organizations give full consideration to the following";

(*b*) Reword the first subparagraph to read as follows:

"Preparation of short- and long-term plans at regional, subregional and sectoral levels for the study and identification of the major environmental problems faced by the countries of the regions concerned as well as the special problems of the least developed countries of the region and of countries with coastlines and inland lakes and rivers exposed to the risk of marine and other forms of pollution;"

(*c*) Reword the second subparagraph to read as follows:

"Evaluation of the administrative, technical and legal solutions to various environmental problems in terms of both preventive and remedial measures, taking into account possible alternative and/or multidisciplinary approaches to development;"

(*d*) Reword the third subparagraph to read as follows:

"Preparation, within the framework of international agreements, of legislative measures designed to protect marine (and fresh-water) fisheries resources within the limits of their national jurisdiction;"

(*e*) Reword the fourth subparagraph to read as follows:

"Increasing and facilitating, in the context of development and as proposed in the "World Plan of Action for the Application of Science and Technology to Development", the acquisition and distribution of information and experience to member countries . . ."

(*f*) Add a new paragraph 11 reading as follows:

"Encouraging the appropriate agencies and bodies within the United Nations system to assist the developing countries, at their request, in establishing national science, technology and research policies to enable the developing countries to acquire the capacity to identify and combat environmental problems in the early planning and development stages. In this respect, special priority should be accorded to the type of research, technology and science which would help developing countries speed up, without adverse environment effects, the exploration, exploitation, processing and marketing of their natural resources."

The representative of France proposed that the beginning of recommendation 31 be amended to read:

"*It is recommended* that the appropriate regional organizations give full consideration to the following steps."

The French amendment was adopted by 31 votes to 9, with 28 abstentions.

The representative of Kenya withdrew his amendment to the preamble.

The amendment proposed by Kenya to the first subparagraph was adopted by 35 votes to 1, with 21 abstentions.

The amendment proposed by Kenya to the second subparagraph was adopted by 51 votes to none, with 17 abstentions.

The amendment proposed by Kenya to the third subparagraph was adopted by 57 votes to none, with 11 abstentions.

The Kenyan amendment to the fourth subparagraph was adopted by 51 votes to 1, with 19 abstentions.

The Kenyan amendment adding a new paragraph 11 was adopted by 56 votes to none, with 11 abstentions.

Algeria submitted an amendment by which the penultimate subparagraph would be amended to read:

"— assisting developing countries, in co-operation with appropriate international agencies, in promoting elementary education, with emphasis on hygiene, and in developing and applying suitable methods for improving health, housing, sanitation and water supply, and controlling soil erosion. Emphasis should be placed on techniques promoting the use of local labour and utilizing local materials and local expertise in environmental management."

The Algerian amendment was adopted by 68 votes to none, with 2 abstentions.

Recommendation 31 as a whole, as amended, was adopted by 77 votes to none, with 2 abstentions.

*Recommendation 32.*—The representative of France proposed the addition of a paragraph at the end of draft recommendation 32 concerning the role of Governments and international organizations in following trends in international trade, reading as follows:

"—the competent international organizations keep a close watch on medium- and long-term trends in international trade with a view to promoting:

(*a*) The exchange of environmental protection technologies; and

(*b*) International trade in natural products and raw materials which can compete with synthetic products that have a greater capacity for pollution."

He also introduced oral amendments to his amendment changing the words "the competent international organizations" to read "Governments and the competent international organizations".

He further suggested the addition of the words "and take measures" after the words "international trade" in the first paragraph of his amendment. Nigeria, while agreeing with the French amendment as a whole, suggested the replacement of the words "which can compete" by the words "which compete" in subparagraph (*b*) of the French text. France provided a further explanation on that point. The Republic of Viet-Nam agreed with the Nigerian suggestion that the word "can" be deleted in subparagraph (*b*) of the French text and also suggested the replacement of the words "raw materials" by the word "commodities".

The Nigerian amendment deleting the word "can" in subparagraph (*b*) of the French amendment was adopted by 48 votes to none, with 26 abstentions.

The amendment proposed by the Republic of Viet-Nam was adopted by 15 votes to 2, with 59 abstentions.

The French amendment, as a whole, as amended, was adopted by 75 votes to none, with 5 abstentions.

Recommendation 32, as amended, was adopted by 75 votes to 1, with 8 abstentions.

*Recommendation 33.*—Algeria proposed the addition of the words "particularly those of developing countries" after the words "threats to exports" in the first paragraph of recommendation 33. The amendment was adopted by 66 votes to none, with 14 abstentions.

Recommendation 33, as amended, was adopted by 76 votes to none, with 1 abstention.

*Recommendation 34.*—Recommendation 34 was adopted without discussion.

*Recommendation 36.*—Zaire proposed an amendment to paragraph 2 replacing the word "regulations" by the word "standards" in the English version. The amendment was adopted by 23 votes to 5, with 49 abstentions.

Recommendation 36, as amended, was adopted by 65 votes to none, with 8 abstentions.

*Recommendation 38.*—Recommendation 38 was adopted without discussion.

*Recommendation 39.*—Recommendation 39 was adopted by 80 votes to none, with 1 abstention.

*Recommendation 40.*—Brazil and Sweden introduced an amendment to recommendation 40 calling for the addition of the following sentence, after the words "developing countries":

"Recommendations for national action, proposed by the Secretary-General of the Conference, shall be referred to Governments for their consideration and, when deemed appropriate, should be taken into account in the review and appraisal process during the consideration of matters for national action as included in the International Development Strategy."

India suggested the addition of the following sentence at the end of the recommendation:

"It should further be ensured that the preoccupation of developed countries with their own environmental problems should not affect the flow of assistance to developing countries, and that this flow should be adequate to meet the additional environmental requirements of such countries."

The United States of America was of the opinion that that point had already been covered in the Third Committee. The Federal Republic of Germany agreed that measures to protect the environment should in no way reduce development assistance.

The amendment submitted by India was adopted by 55 votes to 7, with 17 abstentions.

The amendment submitted by Brazil and Sweden was adopted by 72 votes to 1, with 7 abstentions.

Recommendation 40, as a whole, as amended, was adopted by 71 votes to none, with 7 abstentions.

*Explanation of votes*

While endorsing the report of the Second Committee as a whole, the representative of the United States of America felt that he must explain his delegation's reservations concerning recommendations 32, 36 and 40. Operative paragraph 2 of recommendation 32 was unacceptable because his delegation was opposed, as a matter of principle, to compensating nations for declines in their export earnings regardless of cause. His Government was prepared to consider this question, however, in the context of its GATT obligations and in accordance with GATT procedures. Moreover, the United States Government intended to take all practical steps in implementing its environmental policies to avoid creating new barriers to trade. His delegation considered the proposed studies called for by recommendation 36 unfeasible and of little practical value for policy guidance. Finally, his delegation had reservations on recommendation 40 because it contained a provision on aid flows that had been dealt with in another committee of the Conference.

The United Kingdom of Great Britain and Northern Ireland had abstained in the vote on recommendation 32 as a whole because it thought that paragraph 2 of the text was not appropriate and that it was unworkable. It had also abstained in the vote on recommendation 40 because it considered the amendment by India too broad.

While supporting the general principles set forth in recommendation 32, Switzerland had abstained in the vote on that recommendation.

Japan also indicated that it could not associate itself with paragraph 2 of recommendation 32. Moreover, the reference in that paragraph to new contractual and institutional arrangements was not necessary as the current arrangements were sufficient.

Italy was of the opinion that recommendations 32 and 36 were not entirely clear.

Sweden had abstained in the vote on recommendation 40 for the same reasons as those indicated by the United Kingdom of Great Britain and Northern Ireland.

France had voted in favour of recommendation 32, but had reservations concerning the implementability of the recommendations. The notion of compensation was vague and the concept of "indirect responsibility" difficult to interpret. Many problems raised in the recommendation still needed to be resolved.

*C. Third Committee*

The report of the Third Committee on subject areas III and VI was considered by the Conference at its 16th and 17th plenary meetings, on 14 and 15 June 1972. The report was introduced by the Rapporteur of the Third Committee, A.M.A. Hassan (Sudan).

*Identification and control of pollutants of broad international significance (subject area III)*

The report indicated that the Committee had considered the draft recommendations for international action contained in the report on identification and control of pollutants of broad international significance (A/CONF.48/8 and Add. 1 and Corr. 1) and also a number of amendments and draft recommendations submitted in the Committee. It had taken the following action.

It had approved by consensus the following draft recommendations and had recommended them to the Conference for adoption:

(*a*) Concerning pollution in general: draft recommendations 218, 219, 220, 222, 223, 223a, 224, 225, 226, 227, 228, 228a, 229, 230, 231, 232;

(*b*) Concerning marine pollution: draft recommendations 233, 234, 235, 236, 237, 238, 239, 240 and 241.

The report stated that, at the request of a number of delegations, the Third Committee had considered a joint statement on nuclear weapons tests submitted by Canada, Ecuador, Fiji, Japan, Malaysia, New Zealand, Peru and the Philippines.

The Committee had also considered a draft resolution on nuclear weapons testing submitted by New Zealand and Peru and had approved it, by 48 votes to 2, with 14 abstentions, for consideration by the Conference in plenary.

*Action on draft recommendations*

In the debate on the report in plenary, several delegations explained their position with regard to specific recommendations.

The United States of America generally endorsed the report of the Third Committee, but explained its position on several of the recommendations. With regard to recommendation 223, it indicated that it did not oppose the proposed International Registry of Data on Chemicals in the Environment but felt that the Registry should not include all the information called for in the recommendation. It was noted that recommendation 223a was based on a proposal put forward by the United States of America in 1970. The United States felt that the first subparagraph of recommendation 233 should have been qualified and that the second and third subparagraphs should be interpreted in the light of the existing law of the sea. With reference to recommendation 239, in particular the first subparagraph, the United States thought it would be preferable for the principles and objectives to be referred to the Conference on the Law of the Sea and the 1973 IMCO Conference, rather than endorsed by the United Nations Conference on the Human Environment.

Greece had strong reservations on the first subparagraph of recommendation 233 because it feared possible interference with the principle of freedom of the seas and because it felt that that subparagraph, as well as the second and third subparagraphs might come into conflict with other rules of international law, particularly the traditional law of the sea.

Japan was not in favour of recommendation 239, believing that it is too soon to consider the principles referred to therein and that the United Nations Conference on the Human Environment should not deal with those basic principles

of the law of the sea. It had voted for the draft resolution on nuclear weapons testing; prior to the approval of the text, Japan had joined eight other countries in the joint statement on exposure to radiation; Japan requested that the text of that statement be included in the Conference report.

The recommendations contained in the report were adopted unanimously.

*Action on the draft resolution*

The United States of America stated that it would abstain from voting on the draft resolution on nuclear weapons testing because the wording with regard to the applicability of the recommendation to underground weapons testing was ambiguous and because it felt that the subject of arms control should be dealt with in other, more appropriate, forums.

The Republic of Korea assumed that the draft resolution on nuclear weapons testing was directed against China as well as against France.

The Netherlands would have wished to see the words "especially those" in operative paragraph 1 of the draft resolution deleted, so that the resolution would explicitly condemn tests carried out in the atmosphere. It would, however, vote in favour of the resolution.

China claimed that the superpowers were stepping up the arms race and that China must carry out weapons tests in self-defense, but, unlike the super Powers, it had pledged not to be the first to use nuclear weapons. While strongly opposing the draft resolution, China insisted that it had called for, and would continue to advocate, complete destruction and total prohibition of all nuclear weapons.

Australia was in favour of banning all atmospheric tests, but it considered that the Conference was not the appropriate forum for discussion of disarmament. It did not, therefore, like the wording of the draft resolution but would nevertheless support it.

France stressed the limits that it imposed on its testing, never exceeding the level at which the tests might become dangerous to human health or to the environment. France had a comprehensive radiation monitoring system, the results of which were made available annually to UNSCEAR, and protests had never been received from that body. Moreover, it had consulted with scientists from several other countries concerning its tests.

Mexico considered the draft resolution too restrictive and thought that Governments should insist that all nuclear weapons tests be condemned; it also felt that the transportation of nuclear weapons, whatever the vehicle concerned, should be controlled.

Belgium agreed with Mexico that the whole spectrum of nuclear weapons should be banned. However, it preferred the strengthening of principle 21 of the draft Declaration on the Human Environment to the expression of those ideas in the form of a resolution. It would abstain on the draft resolution, since it was only partial and did not cover all nuclear weapons tests.

Argentina would support the draft resolution despite what it considered certain inadequacies in the text and the fact that radio-active contamination from nuclear tests was of lesser concern than other forms of contamination. It underlined the importance it attached to the third preambular paragraph.

Tunisia had abstained in the vote on the subject in the Third Committee because it disagreed with the limitation of the text to atmospheric testing. Although dissatisfied with the wording, it would, nevertheless, vote in favour of the draft resolution.

While not approving of any nuclear tests or of the state of psychosis produced by fear of nuclear weapons, Gabon did not approve of the draft resolution. It would have wished to advocate prohibition of all tests, explicitly including underground tests.

Romania agreed that all tests should be condemned, but added that even condemnation of all nuclear tests was not enough; all stock-piling should be condemned as well.

The delegation of Italy also requested the Rapporteur General to indicate in the report that the Government of Italy had worked ceaselessly for a ban on all types of nuclear weapons testing. Believing, however, that it was inappropriate to take up the question of disarmament at the Conference and that such consideration might impede progress in other arenas, Italy had decided to abstain on the draft resolution.

The draft resolution was put to the vote by roll-call. The draft resolution was adopted by 56 votes to 3, with 29 absententions. The voting was as follows:

*In favour.*—Afghanistan, Argentina, Australia, Austria, Botswana, Brazil, Burundi, Canada, Ceylon, Chile, Denmark, Ecuador, Egypt, Ethiopia, Fiji, Finland, Ghana, Holy See, Iceland, India, Iran, Iraq, Ireland, Jamaica, Japan, Kenya, Kuwait, Lebanon, Liberia, Malaysia, Mexico, Nepal, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Panama, Peru, Philippines, Portugal, Republic of Korea, Republic of Viet-Nam, Romania, Sweden, Switzerland, Thailand, Trinidad and Tobago, Tunisia, Uganda, United Republic of Tanzania, Uruguay, Venezuela, Yugoslavia, Zaire, Zambia.

*Against.*—China, France, Gabon.

*Abstentions.*—Bahrein, Belgium, Central Africa Republic, Cyprus, Dahomey, Dominican Republic, Federal Republic of Germany, Greece, Guyana, Indonesia, Italy, Ivory Coast, Jordan, Libyan Arab Republic, Liechtenstein, Luxembourg, Madagascar, Mauritius, Morocco, San Marino, Senegal, Singapore, South Africa, Spain, Sudan, Syrian Arab Republic, Togo, United Kingdom, United States of America.

The President also put to the Conference the request of Japan concerning the inclusion in the report of the joint statement submitted by Canada, Ecuador, Fiji, Malaysia, New Zealand, Peru and the Philippines. It was decided that the statement should be included.[1]

*International organizational implications of action proposals (subject area VI)*

The report of the Third Committee stated that the Committee had considered the report on international organizational implications of action proposals (A/CONF.48/11), the views of the Preparatory Committee on the subject (A/CONF.48/11/Add.1) and a consolidated document on the United Nations system and the human environment submitted by the Administrative Committee on Coordination (A/CONF.48/12). It had approved for adoption by the Conference in plenary a draft resolution on institutional and financial arrangements. (The text, as amended in plenary, is given in chapter III.)

The Committee had agreed, in connexion with paragraph 4 of the draft resolution, to suggest to the plenary Conference that, in the event that no agreement was reached on a recommendation concerning the location of the headquarters of the proposed environment secretariat, the Conference might consider it advisable to request the Secretary-General of the Conference to prepare a factual report, to be submitted to the General Assembly at its twenty-seventh session, containing the necessary technical background information regarding all the locations formally offered.

In connexion with paragraphs 2(*e*) and 5(*d*) of the draft resolution, the Committee had agreed that it would be premature to suggest any permanent mechanism for the provision of scientific and other relevant advice, and that the General Assembly should address itself to that issue at a later date.

Reference had been made in the Committee to the desirability of holding a second United Nations Conference on the Human Environment. The Committee felt that the plenary meeting was the proper place for a discussion of that matter.

The discussion in plenary centered on five main topics: the size of the proposed Governing Council, the location of the headquarters of the proposed environment secretariat, the matter of contributions to the fund, the possibility of convening a second United Nations Conference on the Human Environment and the role of United Nations agencies. Certain additional observations were also made.

Size of the Governing Council

The representative of Australia proposed, on behalf of Argentina, Australia, Guyana, India, Indonesia, Iran, Nigeria, Pakistan, Romania, Spain and Thailand, an amendment to operative paragraph 1 of the draft resolution, whereby the size of the Governing Council would be increased from 48 to 54 member States. The delegations of Austria, Colombia, France, India, Peru, the Philippines, Portugal, Spain, Tunisia, Uganda and Venezuela indicated that they were among those which supported the larger figure; Malta also stated that it was not opposed to the change. The United States of America was opposed to a council of 54, indicating that it had already compromised from 27 to 37 to 48; and Brazil, Sudan and Sweden which had originally been in favour of the larger number,

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[1] The joint statement read as follows: "The Governments associated with this appeal, believing that all exposure to radiation should be kept to the minimum possible, call upon those States intending to carry out nuclear weapons tests which may lead to further contamination of the environment to abandon their plans to carry out such tests."

considered that 48 had been accepted by the Committee in a spirit of compromise and good faith and should be kept.

The amendment was approved by 56 votes to 11, with 14 abstentions.

## Location of the Secretariat

Several delegations reiterated their proposals for location of the headquarters of the proposed new environment secretariat in their countries; among the cities mentioned were Nairobi, Kampala, Madrid, Mexico City, Valetta and Vienna. The delegation of Norway also suggested Geneva for the first time officially during the Conference. There were other proposals outstanding, including London, New Delhi and New York. In the draft resolution as set forth in the report of the Third Committee, paragraph 4 contained brackets for the possible insertion by the plenary Conference of the name of a city. It was, however, decided that the matter should be left for future consideration by the General Assembly, as suggested by the Committee. It was therefore agreed that the Secretary-General of the Conference should be requested to prepare a factual report on all proposals of locations formally offered. Upon the recommendation of the President, it was also agreed that any further proposals, in order to be considered, must be submitted to the secretariat within 30 days of the closing of the Conference, that is, by 16 July 1972.

## Financing

In addition to contributions already pledged by other countries,[1] three Governments offered specific contributions: Canada announced that it would contribute from $5 million to $7.5 million to the new fund subject to parliamentary approval, $100,000 of which would be transferred immediately; Australia announced, subject to parliamentary approval, that it would contribute $2.5 million over five years; and the Netherlands pledged to give a maximum of $1.5 million, subject to parliamentary approval, over a five-year period. Several other delegations also expressed their support; France, Panama and Spain said they would contribute, and Austria promised a "substantial contribution".[2]

The representative of Israel strongly insisted that a voluntary fund was not adequate to the scale of the problem, and wished it to be supplemented by an additional method of financing. His specific proposal was that slightly more than 3 per cent of any special drawing rights created by the International Monetary Fund should be used to promote action for environmental amelioration. That would benefit the developed and developing nations alike and would have universal approval. Such a decision could not be taken at the Conference, but the representative was convinced that there should be a will and intention to explore and study the approach.[2]

## Proposal for a Second United Nations Conference on the Human Environment

The plenary Conference considered a proposal by Egypt and nine other delegations for a second United Nations Conference on the Human Environment. Egypt put forward an oral amendment to the text, deleting the words "in 1977", so that there would be no date specified. Japan offered a suggestion to the effect that the matter should not be decided at that time but that there might be a recommendation that the General Assembly consider the desirability and necessity of holding such a second conference. A formal proposal was also offered by Kenya, recommending that the General Assembly convene another conference in 1977 "in the context of the goals and objectives of the Second United Nations Development Decade". Canada and Mexico repeated their offers to host the next conference.

The Egyptian amendment received explicit support from the United States of America, Italy, Algeria, Portugal and the Sudan. The United Kingdom of Great Britain and Northern Ireland and Switzerland expressed their approval of the suggestion by Japan, although it was not a formal proposal, and Singapore suggested to the delegation of Kenya that its amendment would be better expressed as a preambular paragraph.

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[1] In the course of the general debate, Japan had pledged up to 10 percent of the target amount if major developed countries made substantial contributions; Sweden announced a contribution of $5 million and the United States of America stated that it would provide, on a matching basis, up to $40 million over a five-year period.

[2] Similar expressions of support had been made in the general debate by Botswana, Denmark, the Federal Republic of Germany, Nigeria, Norway, Switzerland and the United Kingdom of Great Britain and Northern Ireland. Italy also indicated that it would support the new fund.

The Kenya-Singapore amendment was rejected by 27 votes to 14, with 14 abstentions.

The Egyptian proposal was then adopted by 75 votes to 1, with 3 abstentions.

### Role of Agencies

Towards the beginning of the discussion, the Secretary-General of the Conference stated that, as far as the United Nations Secretariat was concerned, there was no doubt whatsoever that the ultimate authority for the approval of programmes rested within the agencies concerned and their respective governing bodies. The functions assigned to any United Nations intergovernmental body and to its secretariat must be understood and exercised in the context of principles of co-operation, co-ordination and concerted action. The question of international environmental co-operation within the United Nations system also came up at the end of the discussion, when the floor was given to the representative of the International Atomic Energy Agency to express the views of his agency on the organizational question; he particularly emphasized the position that any new machinery set up should not infringe the Charter rights and obligations of IAEA.

### Other Comments

During the course of the discussion, several delegations raised additional points. Algeria submitted an oral amendment to paragraph 10 of the draft resolution, recommending the assurance of "additional financial resources for assisting developing countries in the implementation of their big environmental projects"; as the amendment engendered procedural and other objections, Algeria later agreed that it be withdrawn, provided that due mention of it would be made in the report of the Conference. Australia, the United Kingdom of Great Britain and Northern Ireland and several other delegations made reference to the need to have representation on the Governing Council reflect ecological as well as geographical attributes and the interest that countries had in the Council and the institution as a whole: these were not, however, advanced as formal amendments. Furthermore, many developing countries not only insisted upon high priority being given to economic and social development in environment programmes, but also expressed the sincere hope that the secretariat headquarters would be located and a second United Nations Conference on the Human Environment would be held in a developing country.

With regard to the Committee's comments on paragraphs 2(*e*) and 5(*d*), delegations agreed that, while it would be premature to suggest at that stage any permanent mechanism to provide scientific and other relevant advice, the General Assembly should address itself to the issue at a later date.

Virtually every delegation praised the spirit of compromise and co-operation that had characterized the work of the Third Committee on the organizational question. As the Swedish representative observed, "Peoples and nations have entered a dialogue on the human environment"; and, as the Egyptian representative added, a spirit of "convergence" prevailed throughout.

### *D. Working Group on the Declaration on the Human Environment*

The report of the Working Group on the Declaration on the Human Environment (see annex II) was considered at the 21st plenary meeting of the Conference, on 16 June 1972. The report was introduced by the Rapporteur of the Working Group, T.C. Bacon (Canada).

The text of the draft Declaration which the Working Group submitted to the Plenary Conference included 21 of the 23 recommendations produced by the Preparatory Committee of the Conference. The group had added four new principles. It had been unable to reach agreement on principles 20 and 21, but had agreed on a procedure to be followed in respect of those two principles. As far as principle 20 was concerned, it had been agreed that in view of the importance of the subject, it should be referred to the General Assembly at its twenty-seventh session for consideration. With regard to principle 21, the Working Group had agreed to refer the matter to the General Assembly for action.

As regards the draft preamble, a number of specific proposals and comments had been made by Sweden. On the basis of informal negotiations with other delegations, some modifications had been made in the Swedish text. It had been proposed by the Working Group that the preamble, together with the draft principles, should be forwarded to the Conference in plenary on the understanding that Sweden would consult further with other delegations to achieve consensus on the first sentence of paragraph 5.

In the debate on the report in plenary, the representative of India said that the Declaration represented an important milestone in the history of the human race and he expressed the hope that the Governments of countries not represented at the Conference would also subscribe to the principles enshrined in the text. The draft Declaration was not perfect but reflected a number of compromises and points of view. He laid stress on the problems of poverty and development and on the genuine fears of developing countries that environmental issues could divert attention from those major issues. He emphasized that peace was the most urgent and fundamental need of mankind and reaffirmed India's opposition to the testing of nuclear biological and chemical weapons. The Declaration was a starting-point in the task of making the planet a fit place for future generations. In a spirit of conciliation, India was prepared to agree to the draft Declaration as it stood.

The representative of the United Republic of Tanzania explained the position of his delegation on principle 21 and strongly denounced the continued use of chemical and biological weapons in certain parts of the world. The formulation contained in the draft Declaration was not satisfactory.

The representative of China stressed that the Chinese Government and people were actively in support of the Conference and that the delegation of China had made unremitting efforts to arrive at positive results. The Declaration was an international document of concern to the people of all countries and it should be discussed fully through careful consultation. He recalled that China had requested the setting up of the Working Group and said that in the course of the Group's work many delegations had made constructive amendments. There were still some questions of principle which it had not been possible to discuss fully. He emphasized that the draft Declaration had failed to point out the main reason for pollution of the environment: the policy of plunder, aggression and war carried out by imperialist, colonialist and neo-colonialist countries, especially by the super-Powers. Accordingly, China could not agree with a number of views embodied in the Declaration. More specifically, he thought it essential that principle 21 should be rewritten as follows:

"In order to protect mankind and the human environment it is imperative to firmly prohibit the use and thoroughly destroy the inhuman biological and chemical weapons which seriously pollute and damage the environment; to completely prohibit and thoroughly destroy nuclear weapons and, as the first step, to reach an agreement by the nuclear States on the non-use of nuclear weapons at no time and in no circumstances".

He referred to Japan as a nuclear base of the United States of America and to New Zealand, which had not opposed the mass production of nuclear weapons. Should no consensus be reached on the principles, he thought that the Conference should continue to seek common ground and set aside differences. If the Conference should insist on maintaining in the text principles on which agreement had not been reached, the Chinese delegation would not participate in the voting. Finally, the Chinese delegation was optimistic for the future. Governments working for the welfare of the people would obtain good results. China was willing to participate in the common endeavour.

The representative of the Holy See said that one approach would be to view the Declaration as a fundamental document, a kind of Magna Carta, but he did not think it could be so viewed in its existing form. A number of improvements and clarifications had been made in the new version. However, the legitimate concern to have development reconciled with ecology had altered the balance that had existed in the original version. The Holy See regretted that some basic principles such as that of "The polluter must pay", and the concept of moral and ecological justice, had not found a place in the Declaration. Nevertheless, in a spirit of co-operation, the Holy See supported the Declaration.

The representative of the Philippines said that he had refrained from adding to the amendments. However, the Philippines considered three principles to be basic and thought they should be included in any declaration: (*a*) the primacy of human over physical factors; (*b*) the needs of developing countries and the necessity for them to have resources to cope with additional environmental concerns: poverty was the worst polluter; and (*c*) nuclear weapons and stockpiles should be destroyed and nuclear warfare banned. In the opinion of the Philippines, the draft Declaration did not measure up to those principles. The revised version contained some improvements but was still less than satisfactory. However, the Declaration constituted an adequate basis for mankind's concern not only for a clean earth but for a better life. The Universal Declara-

tion of Human Rights adopted by the United Nations General Assembly in 1948 was formulated in the shadow of nuclear war; today the Declaration on the Human Environment was being adopted in the shadow of ecological disaster.

The representative of the Sudan said that the African group had stressed that five concepts should be reflected in the Declaration: rejection of segregation, racism, *apartheid* and expansionism; rejection of colonialism and foreign domination as having a strong adverse effect on the environment of the oppressed; emphasis on the fact that the terms of trade in primary produce had a direct connexion with the management of water, soils and other natural resources; emphasis on the sovereign right of every country to exploit its own natural resources; and strong condemnation of the development, testing and use of nuclear biological and chemical weapons as the most destructive of all environmental threats. He expressed the gratification of many African States that those ideas had been incorporated into the draft Declaration to a satisfactory degree. He was disappointed that some ideas had not been adequately reflected but believed that the present Declaration was the best that could be achieved at the current stage.

The representative of Canada, regretted that it had not been possible to reach agreement on all issues. However, the draft before the plenary was a first step toward the development of international environmental law. He referred to a number of important new concepts reflected in the draft and stated that in the view of the Canadian Government principle 21 in fact accorded with existing international law as did the principle of the duty of States to inform one another of the environmental effects of their activities. He stressed Canada's strong support for the stopping of all nuclear weapons testing and joined with other nations in regretting the continuing differences of view on that aspect of the draft.

The representative of Uruguay said that man's question whether he could survive on this planet was beginning to receive a positive reply through the Declaration. He wished to enter a reservation on principle 2, however; in his view, much more than "representative samples" of ecosystems must be safeguarded—it was essential to preserve, maintain the balance and ensure the rational exploitation of ecosystems as a whole.

The representative of Yugoslavia said that the Conference and, more specifically, the Declaration was the first step in many international and bilateral consultations to define the responsibilities of the international community. The absence of principle 21, however, made it fall short of the expectations of humanity.

The representative of the United Kingdom of Great Britain and Northern Ireland welcomed the Declaration, but considered that certain references to highly political matters contained in it were out of place. The United Kingdom had come to Stockholm not to discuss strategic issues but to look for a consensus on priorities for action. The real task would begin after the Conference when the hopes would have to be turned into actions not only of a defensive type but of an offensive type in order to provide a good environment for all. There was a general will to move in that direction and the Conference must be regarded as a success. Together the Countries had accepted the notion that nature was man's most precious possession, that no nation was an environment island, and that the common estates (air, water) must be tackled on an international level. Although grave issues still divided the countries, the message must be conveyed, especially to the young, that a new beginning had been made together.

The representative of Zambia stated that the draft Declaration surpassed all earlier expectations although some took issue with the text and others preferred the earlier draft. It should be clear that over-population was not the only cause of poverty. More often it was the lack of resources and poor soil. New ideas could still be discussed, but discussion should not be reopened on the existing principles. The fact that it had been decided that principle 20 should be referred to the General Assembly showed the inability of the Conference to achieve miracles, but a consensus should emerge by the time the General Assembly discussed that principle. Zambia attached great importance to peace and deplored the absence of a reference to the use of biochemical and other weapons and to the war in South-East Asia.

The representative of Kenya praised the large measure of success achieved by the Working Group and stated that he would support the Declaration because it represented the best that could be achieved at that stage. He expressed concern, however, at the emphasis which the Conference had given to the physical

as opposed to the social environment of man. He regretted that this latter aspect of the environment was not adequately reflected in the Declaration. He also regretted that the preamble to the Declaration made no explicit reference to the pollution of the minds of men which resulted in policies such as that of *apartheid*.

The representative of Egypt expressed his satisfaction that the Declaration included all the ideas and principles identifying the major problems affecting man and his environment, with special emphasis on the situation of the developing countries. He stressed what he felt was the unanimity of views on arresting the production of all kinds of weapons of mass destruction, the use of which, in his view, stood at the top of the list of activities that carried the greatest threat to the human environment. He felt that principle 26 (ex 21) should make reference to the fact that man must be spared the effects of nuclear and other mass destruction weapons including, *inter alia*, the effects of the use of such weapons. He hoped that the Conference would unanimously adopt the Declaration, including principle 26.

The representative of Pakistan expressed the gratitude of his delegation for the contribution which the delegation of China had made in elaborating the new text of the Declaration as well as for the attitude of the developed countries which had accepted the changes that had been introduced into the earlier draft. He appealed to the Conference to adopt the Declaration by acclamation while noting such reservations and declarations as had been made by various participants.

The representative of Chile felt that the Declaration constituted a point of departure for a process which would continue well into the future. He emphasized the great importance which he attached to the work that would have to follow in the wake of the Declaration. He thought, however, that while the Declaration was satisfactory as a first step, the document in itself fell short of what might have been hoped for, inasmuch as a number of important ideas had not been included in it. He was, nevertheless, prepared to approve the Declaration so long as it was considered to be a provisional document that might be improved in the future.

The representative of Japan stated that the Japanese people, as the only ones to have suffered from atomic bombs, wanted to prevent an atomic war. Japan was therefore particularly interested in principle 26 (ex 21) and had co-sponsored a joint resolution referring to proposed nuclear tests. Japan accepted the wording of principle 26, having stated for the record its interpretation that principle 26 as approved definitely implied prohibition of testing of nuclear weapons since dangers to the human environment arose particularly from atmospheric testing. Without such a principle, the Declaration would be meaningless. Japan was in favour of having principle 26 adopted note being taken of the statement made. It also felt that since China was not prepared to participate in a vote, the text could be adopted without a vote, by acclamation. With reference to the remarks made by the representative of China, the representative of Japan stated that it was the firm policy of Japan not to allow deployment of nuclear weapons on its territory.

South Africa was in full accord with the original draft and the new ideas added to it regarding the need for rapid development, protection of nature, and control of marine pollution. South Africa wished to place on record, however, its reservation that the Conference was not competent to include the new draft of principle 1 of the Declaration as that principle clearly constituted interference in the internal affairs of a Member State, in direct conflict with the Charter of the United Nations. Subject to that proviso, South Africa would support the Declaration as a whole.

Sweden stated that the Working Group had strengthened the Declaration and broadened its scope. Sweden had hoped to see a stronger condemnation of nuclear testing and of the use of means of some destruction. It attached decisive importance to the general principle that States should accept responsibility for damage caused beyond their jurisdiction and to the vital relationship between environmental protection and the economic development process. After consultation with several delegations, it proposed that the first sentence of paragraph 5 of the preamble, dealing with population, be amended to read as follows:

"The natural growth of population continuously presents problems on the preservation of the environment and adequate policies and measures should be adopted, as appropriate, to face these problems."

The representative of Thailand appreciated the tremendous effort and constructive spirit shown in the drafting of the Declaration and offered his Government's support.

The representative of Algeria spoke of the environmental despoliation of colonialism and of the oppression that were still going on in the world. Algeria appreciated however the considerable evolution of the concept of environment that had occurred during the Conference, especially among the developed countries. He pointed out, however, that certain principles that should have been reflected in the Declaration were missing. One was the need to end the misuse of natural resources by certain Powers, another was the need to maintain certain necessary balances in human affairs for the sake of ecological balance. There was also the need to ensure a balance in the use of resources and not to commit vast resources to weapons of destruction. Finally, a balance should be established in the social and ecological well-being of different areas of the globe.

The representative of Peru emphasized that the Declaration must establish a clear condemnation of all weapons of mass destruction.

The representative of the United States of America submitted the following statement of interpretation on principles 2, 12, 21 and 26:

"*Principle 2.* The United States of America places emphasis on the word "representative" which, in our view, ensures that the phrase means retention of a complete system with all of the complex interrelationships intact, not a portion thereof. Moreover, the size of the sample must be sufficient to represent the size of the whole.

"*Principle 12.* The United States of America does not regard the text of this principle, or any other language contained in the Declaration, as requiring it to change its aid policies or increase the amounts thereof. The United States of America accepts the idea that added costs in specific national projects or activities for environmental protection reasons should be taken into account.

"*Principle 21.* The United States of America considers it obvious that nothing contained in this principle, or elsewhere in the Declaration, diminishes in any way the obligation of States to prevent environmental damage or gives rise to any right on the part of States to take actions in derogation of the rights of other States or of the community of nations. The statement on the responsibility of States for damage caused to the environment of other States or of areas beyond the limits of national jurisdiction is not in any way a limitation on the above obligation, but an affirmation of existing rules concerning liability in the event of default on the obligation.

"*Principle 26.* The United States of America fully supports the purpose, aspirations, and ultimate goals contained in this paragraph. We are constantly striving to meet such goals in all relevant fora including for example SALT, which has recently achieved such success. We regard our commitment under this principle as identical to the treaty obligation we have assumed in connexion with the Treaty on the Non-Proliferation of Nuclear Weapons, specifically article VI, including the requirement of 'strict and effective international control'. We believe it obvious that agreements called for in the principle must be adequately verifiable or they will not be soundly enough based to achieve the purposes of this principle."

The Conference took the following action on the text of the draft Declaration submitted by the Working Group:

It adopted by acclamation the preamble, including the reformulation of the first sentence of paragraph 5 proposed by Sweden and adopted in plenary.

It adopted by acclamation all of the principles, including the new principle 26 the text of which appeared in paragraph 7 of the Working Group's report, while noting the statements that had been made with regard to that principle.

It referred to the General Assembly for consideration the text of principle 20 as contained in document A/CONF.48/4:

"Relevant information must be supplied by States on activities or developments within their jurisdiction or under their control whenever they believe, or have reason to believe, that such information is needed to avoid the risk of significant adverse effects on the environment in areas beyond their national jurisdictions."; together with the following amendments:

(*a*) An amendment proposed by Brazil, calling for the addition of the following sentence after the existing text:

"No State is obliged to supply information under conditions that, in its founded judgement, may jeopardize its national security, economic development or its national efforts to improve environment";

(*b*) An amendment proposed by Algeria, Burundi, Cameroon, Congo, Egypt, Guinea, Kenya, Libya, Mauritania, Senegal, Sudan, United Republic of Tanzania

and Zambia calling for the deletion of the words: "they believe, or have reason to believe that" and of the word "significant".

The Conference then adopted by acclamation the Declaration as a whole, subject to the observations and reservations made by the members of the Conference, which the President had assured them would be duly reflected in the report.

The representative of China reminded the Conference of the reservations on principle 26 (ex 2) which he had expressed earlier.

For the text of the Declaration as adopted by the Conference see chapter I.

*E. Credentials Committee*

The report of the Credentials Committee (see annex I) was considered by the Conference at its 20th plenary meeting, held on 16 June 1972. The report was introduced by the Chairman of the Committee, T.S. O'Hodhrain (Ireland).

The representative of Pakistan said that his country had not recognized the authorities in Dacca and he expressed reservations with regard to their credentials. The representative of Bangladesh said that his country had been formally recognized by more than 76 States and had been admitted to WHO and UNCTAD his country was attending the Conference in full right.

The representative of China supported the statement of Pakistan concerning Bangladesh and added that the presence of the representatives of Viet-Nam and Korea was illegal.

The representatives of the Republic of Korea and the Republic of Viet-Nam said that the Chinese delegation had made groundless allegations. The representative of India stated that Bangladesh had every right to be at the Conference.

The Conference adopted the draft resolution approving the report of the Credentials Committee, noting the reservations that had been expressed. The resolution read as follows:

"CREDENTIALS OF REPRESENTATIVES TO THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT

"*The United Nations Conference on the Human Environment Approves* the report of the Credentials Committee".

## XI. ADOPTION OF THE ACTION PLAN FOR THE HUMAN ENVIRONMENT

At its 1st plenary meeting, held on 5 June 1972, the Conference decided to adopt as the basis for its consideration of recommendations for action at the international level, the framework for environmental action suggested by the Secretary-General of the Conference and described in Conference document A/CONF.48/5.

At its 20th plenary meeting, held on 16 June 1972, the President of the Conference proposed that the Conference, having accepted the framework for environmental action and having adopted recommendations for action at the international level, entrust the Secretary-General of the Conference with the task of fitting the recommendations which the Conference had adopted into the framework,[1] and that, on that understanding, the Action Plan for the Human Environment be approved for inclusion in the report of the Conference.

The President's proposal was adopted by the Conference.

## XII. ADOPTION OF REPORT OF THE CONFERENCE

At its 21st plenary meeting, held on 16 June 1972, the Conference, having adopted individually all the sections of the report except those giving an account of the action of the Conference on the report of the Credentials Committee, on the Action Plan, and on the report of the Working Group on the Declaration, authorized the Rapporteur General of the Conference to include those sections in the appropriate parts of the report, to make any editorial changes of a technical nature that seemed appropriate, and to ensure that all reservations would be duly reflected in the report. On that understanding, the Conference adopted its report.

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[1] See chapter II.

# ANNEXES

## ANNEX I

### REPORT OF THE CREDENTIALS COMMITTEE

1. At its 1st plenary meeting, held on 5 June 1972, the United Nations Conference on the Human Environment, in accordance with rule 4 of its rules of procedure, appointed a Credentials Committee. The Committee was composed of the following States: Australia, Colombia, France, Ireland, Liberia, Sudan, Syrian Arab Republic, United States of America and Yugoslavia.

2. The Credentials Committee met on 15 June 1972 with all members present. It unanimously elected T. S. O'Hodhrain (Ireland) as Chairman.

3. The following information was provided to the Committee by the Secretary-General of the Conference:

(*a*) Formal credentials from 88 States, signed by the Head of State, Head of Government or Foreign Minister, had been submitted in accordance with rule 3 of the rules of procedure of the Conference;

(*b*) Cables had been received from 16 States, signed by the Head of State, Head of Government or Foreign Minister, informing the Secretary-General of the Conference cf the accreditation of the delegation and indicating that formal credentials were being submitted;

(*c*) Cables had been received from 2 States, signed by the Head of State, Head of Government or Foreign Minister, informing the Secretary-General of the Conference of the accreditation of the delegation and requesting that the cable be accepted as credentials. In his reply, the Secretary-General of the Conference indicated that while the cable might be accepted provisionally, formal credentials in accordance with rule 3 of the rules of procedure should be submitted;

(*d*) With respect to 4 States, the Secretary-General of the Conference had received assurances from the Heads of Delegations concerned that credentials in due form had been established and were being transmitted to him.

5. Representatives of 3 States whose names had been forwarded to the Secretary-General of the Conference but for whom no formal credentials had been received were no longer present at the Conference. The Secretary-General of the Conference had received an indication that another State would participate but it was not represented at the Conference.

6. The Chairman proposed that, in accordance with usual United Nations practice and the practice of conferences convened under its auspices, the Committee should adopt the following draft resolution:

"*The Credentials Committee*,

"*Having* examined the credentials of the representatives to the United Nations Conference on the Human Environment,

"*Accepts* under the terms of rule 3 of the rules of procedures the credentials of all representatives to the United Nations Conference on the Human Environment and recommends to the Conference that it approve the report of the Credentials Committee."

7. The draft resolution proposed by the Chairman was adopted unanimously.

8. The Chairman then proposed that the Credentials Committee should recommend to the Conference the adoption of the following draft resolution:

"*The United Nations Conference on the Human Environment Approves* the report of the Credentials Committee."

9. The Committee unanimously approved the recommendation.

10. The Credentials Committee accordingly recommends to the Conference the adoption of the draft resolution given in paragraph 8 above.

## ANNEX II

### REPORT OF THE WORKING GROUP ON THE DECLARATION ON THE HUMAN ENVIRONMENT

1. The Working Group on the Declaration on the Human Environment was established by the United Nations Conference on the Human Environment at its 7th plenary meeting, on 8 June 1972, in accordance with a proposal of China as orally modified by Iran. Under that revised proposal, the Conference had resolved to devote more time, as appropriate, to the discussion of the draft Declaration, and

for that purpose, to set up a working group open to all States participating in the Conference.

2. The Working Group elected the following officers: Taieb Slim (Tunisia), Chairman; Fereydoun Hoveyda (Iran) and Benítez Vinveza (Ecuador), Vice-Chairmen; and T. C. Bacon (Canada), Rapporteur.

3. The Working Group had before it the draft Declaration on the Human Environment prepared by the Intergovernmental Working Group (A/CONF.48/4) and submitted to the Conference by the Preparatory Committee for consideration and further action.

4. The Working Group held a total of 15 meetings, from 9 to 15 June 1972. After a general discussion of the scope and content of the proposed Declaration, it proceeded to a detailed examination of the preambular paragraphs and specific principles and of new proposals and suggested amendments. Informal consultations were also held.

5. A number of amendments and proposals were adopted by the Working Group and included, as approved, in the draft text. The resulting text, which represents the general consensus of the Group, is appended to this report. Reservations were expressed with respect to the principle 1 by South Africa, principle 2 by Uruguay, principle 15 by Portugal and the United States of America, principle 21 by Turkey and principle 24 by China.

6. It was not possible to obtain agreement on the text of principle 20 as contained in the basic text (A/CONF.48/4), and the amendments submitted during the Conference. The Working Group agreed, on the proposal of Uruguay, that it should recommend to the plenary Conference the referral of the principle to the United Nations General Assembly for consideration.

7. With regard to principle 21 of the text proposed in document A/CONF.48/4, the Group was informed that, in spite of private negotiations, no consensus could be confirmed. The basis for discussion was a suggested formulation reading as follows:

"Man and his environment must be spared the effects of nuclear weapons and all other means of mass destruction. States must strive to reach prompt agreement, in the relevant international organs, on the elimination and complete destruction of such weapons."

One delegation opposed the text, considering it inadequate, and underlined the necessity of referring also to biological and chemical weapons and of providing for the nonutilization of nuclear weapons and other means of mass destruction. It suggested that fuller discussion was needed. It was agreed that the matter should be referred to the plenary Conference for action.

## APPENDIX

### DRAFT DECLARATION ON THE HUMAN ENVIRONMENT

*The United Nations Conference on the Human Environment,*

*Having met* at Stockholm from 5 to 16 June 1972,

*Having considered* the need for a common outlook and for common principles to inspire and guide the peoples of the world in the preservation and enhancement of the human environment,

I

*Proclaims that:*

1. Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights—even the right to life itself.

2. The protection and improvement of the human environment is a major issue which affects the well-being of people and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments.

3. Man has constantly to sum experience and go on discovering, inventing, creating and advancing. In our time man's capability to transform his surroundings, if used wisely, can bring to all peoples the benefits of development and the opportunity to enhance the quality of life. Wrongly or heedlessly applied, the

same power can do incalculable harm to human beings and the human environment. We see around us growing evidence of man-made harm in many regions of the earth : dangerous levels of pollution in water, air, earth and living beings ; major and undesirable disturbances to the ecological balance of the biosphere ; destruction and depletion of irreplaceable resources ; and gross deficiencies harmful to the physical, mental and social health of man, in the man-made environment, particularly in the living and working environment.

4. In the developing countries most of the environmental problems are caused by underdevelopment. Millions continue to live far below the minimum levels required for a decent human existence, deprived of adequate food and clothing, shelter and education, health and sanitation. Therefore, the developing countries must direct their efforts to development, bearing in mind their priorities and the need to safeguard and improve the environment. For the same purpose, the industrialized countries should make efforts to reduce the gap between themselves and the developing countries. In the industrialized countries, environmental problems are generally related to industrialization and technological development.

5. The natural growth of population continuously presents problems on the preservation of the environment, but with the adoption of appropriate policies and measures these problems can be solved. Of all things in the world, people are the most precious. It is the people that propel social progress, create social wealth, develop science and technology and, through their hard work, continuously transform the human environment. Along with social progress and the advance of production, science and technology, the capability of man to improve the environment increases with each passing day.

6. A point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequences. Through ignorance or indifference we can do massive and irreversible harm to the earthly environment on which our life and well-being depend. Conversely, through fuller knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes. There are broad vistas for the enhancement of environmental quality and the creation of a good life. What is needed is an enthusiastic but calm state of mind and intense but orderly work. For the purpose of attaining freedom in the world of nature, man must use knowledge to build in collaboration with nature a better environment. To defend and improve the human environment for present and future generations has become an imperative goal for mankind—a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of world-wide economic and social development.

7. To achieve this environmental goal will demand the acceptance of responsibility by citizens and communities and by enterprises and institutions at every level, all sharing equitably in common efforts. Individuals in all walks of life as well as organizations in many fields, by their values and the sum of their actions, will shape the world environment of the future. Local and national governments will bear the greatest burden for large-scale environmental policy and action within their jurisdictions. International co-operation is also needed in order to raise resources to support the developing countries in carrying out their responsibilities in this field. A growing class of environmental problems, because they are regional or global in extent or because they affect the common international realm, will require extensive co-operation among nations and action by international organizations in the common interest. The Conference calls upon the Governments and peoples to exert common efforts for the preservation and improvement of the human environment, for the benefit of all the people and for their posterity.

## II

### PRINCIPLES

*States the common conviction that:*

1. (ex 1) Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuating *apartheid*, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated.

2. (ex 2) The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.

3. (ex 3) The capacity of the earth to produce vital renewable resources must be maintained and wherever practiable restored or improved.

4. (new) Man has a special responsibility to safeguard and wisely manage the heritage of wildlife and its habitat which are now gravely imperilled by a combination of adverse factors. Nature conservation including wildlife must therefore receive importance in planning for economic development.

5. (ex 4) The non-renewable resources of the earth must be employed in such a way as to guard against the danger of their future exhaustion and to ensure that benefits from such employment are shared by all mankind.

6. (ex 5) The discharge of toxic substances or of other substances and the release of heat, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems. The just struggle of the peoples of all countries against pollution should be supported.

7. (new) States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

8. (ex 6) Economic and social development is essential for ensuring a favourable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life.

9. (ex 7) Environmental deficiencies generated by the conditions of underdevelopment and natural disasters pose grave problems and can best be remedied by accelerated development through the transfer of substantial quantities of financial and technological assistance as a supplement to the domestic effort of the developing countries and such timely assistance as may be required.

10. (new) For the developing countries, stability of prices and adequate earning for primary commodities and raw material are essential to environmental management since economic factors as well as ecological processes must be taken into account.

11. (ex 8) The environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all, and appropriate steps should be taken by States and international organizations with a view to reaching agreement on meeting the possible national and international economic consequences resulting from the application of environmental measures.

12. (ex 9) Resources should be made available to preserve and improve the environment, taking into account the circumstances and particular requirements of developing countries and any costs which may emanate from their incorporating environmental safeguards into their development planning and the need for making available to them, upon their request, additional international technical and financial assistance for this purpose.

13. (ex 10) In order to achieve a more rational management of resources and thus to improve the environment, States should adopt an integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve the human environment for the benefit of their population.

14. (ex 11) Rational planning constitutes an essential tool for reconciling any conflict between the needs of development and the need to protect and improve the environment.

15. (ex 12) Planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all. In this respect projects which are designed for colonialist and racist domination must be abandoned.

16. (ex 13) Demographic policies, which are without prejudice to basic human rights and which are deemed appropriate by Governments concerned, should be applied in those regions where the rate of population growth or excessive population concentrations are likely to have adverse effects on the environment or development, or where low population density may prevent improvement of the human environment and impede development.

17. (ex 14) Appropriate national institutions must be entrusted with the task of planning, managing or controlling the environmental resources of States with the view to enhancing environmental quality.

18. (ex 15) Science and technology, as part of their contribution to economic and social development, must be applied to the identification, avoidance and control of environmental risks and the solution of environmental problems and for the common good of mankind.

19. (ex 16) Education in environmental matters, for the younger generation as well as adults, giving due consideration to the underprivileged, is essential in order to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension.

20. (ex 17) Scientific research and development in the context of environmental problems both national and multinational, must be promoted in all countries, especially the developing countries. In this connexion, the free flow of up-to-date scientific information and experience must be supported and assisted, to facilitate the solution of environmental problems; environmental technologies should be made available to developing countries on terms which would encourage their wide dissemination without constituting an economic burden on the developing countries.

21. (ex 18) States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

22. (ex 19) States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.

23. (new) Without prejudice to such general principles as may be agreed upon by the international community, or to the criteria and minimum levels which will have to be determined nationally, it will be essential in all cases to consider the systems of values prevailing in each country, and the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries.

24. (22) International matters concerning the protection and improvement of the environment should be handled in a co-operative spirit by all countries, big or small, on an equal footing. Co-operating through multilateral or bilateral arrangements or other appropriate means is essential to prevent, eliminate or reduce and effectively control adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States.

25. (ex 23) States shall ensure that international organizations play a coordinated, efficient and dynamic role for the protection and improvement of the environment.

## Annex III

### GENERAL PRINCIPLES FOR ASSESSMENT AND CONTROL OF MARINE POLLUTION [1]

A set of general principles for assessment and control of marine pollution should be accepted and endorsed by Governments.

The definition of marine pollution employed by the United Nations is "the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality for use of sea water, and reduction of amenities".

The following principles were suggested by the Intergovernmental Working Group on Marine Pollution (November 1971) as guiding concepts representing a basis for general agreement.

(1) Every State has a duty to protect and preserve the marine environment and, in particular, to prevent pollution that may affect areas where an internationally shared resource is located.

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[1] Excerpt from document A/CONF.48/8, para. 197.

(2) Every State should adopt appropriate measures for the prevention of marine pollution, whether acting individually or in conjunction with other States under agreed international arrangements.

(3) States should use the best practicable means available to them to minimize the discharge of potentially hazardous substances to the sea by all routes, including land-based sources such as rivers, outfalls and pipelines within national jurisdiction, as well as dumping by or from ships, aircraft and platforms.

(4) States should ensure that their national legislation provides adequate sanctions against those who infringe existing regulations on marine pollution.

(5) States should assume joint responsibility for the preservation of the marine environment beyond the limits of national jurisdiction.

(6) The States at higher levels of technological and scientific development should assist those nations which request it, for example by undertaking programmes, either directly or through competent agencies, intended to provide adequate training of the technical and scientific personnel of those countries, as well as by providing equipment and facilities needed in areas such as research, administration, monitoring or surveillance, information, waste disposal, and others, which would improve their ability to discharge their duties consisting of protecting the marine environment.

(7) States should discharge, in accordance with the principles of international law, their obligations towards other States where damage arises from pollution caused by their own activities or by organizations or individuals under their jurisdiction and should co-operate in developing procedures for dealing with such damage and the settlement of disputes.

(8) Every State should co-operate with other States and competent international organizations with regard to the elaboration and implementation of international agreed rules, standards and procedures for the prevention of marine pollution on global, regional and national levels.

(9) States should join together regionally to concert their policies and adopt measures in common to prevent the pollution of the areas which, for geographical or ecological reasons, form a natural entity and an integrated whole.

(10) International guidelines and criteria should be developed, both by national Governments and through intergovernmental agencies, to provide the policy framework for control measures. A comprehensive plan for the protection of the marine environment should provide for the identification of critical pollutants and their pathways and sources, determination of exposures to these pollutants and assessment of the risks they pose, timely detection of undesirable trends, and development of detection and monitoring systems.

(11) Internationally agreed criteria and standards should provide for regional and local variations in the effects of pollution and in the evaluation of these effects. Such variables should also include the ecology of sea areas, economic and social conditions, and amenities, recreational facilities and other uses of the seas.

(12) Primary protection standards and derived working levels—especially codes of practice and effluent standards—may usefully be established at national levels, and in some instances, on a regional or global basis.

(13) Action to prevent and control marine pollution (particularly direct prohibitions and specific release limits) must guard against the effect of simply transferring damage or hazard from one part of the environment to another.

(14) The development and implementation of control should be sufficiently flexible to reflect increasing knowledge of the marine ecosystem, pollution effects, and improvements in technological means for pollution control and to take into account the fact that a number of new and hitherto unsuspected pollutants are bound to be brought to light.

(15) Every State should co-operate with other States and with competent international organizations with a view to the development of marine environmental research and survey programmes and systems and means for monitoring changes, in the marine environment, including studies of the present state of the oceans, the trends of pollution effects and the exchange of data and scientific information on the marine environment. There should be similar co-operation in the exchange of technological information on means of preventing marine pollution including pollution that may arise from offshore resource exploration and exploitation.

(16) International guidelines should also be developed to facilitate comparability in methods of detection and measurement of pollutants and their effects.

(17) In addition to its responsibility for environmental protection within the limits of its territorial sea, a coastal State also has responsibility to protect ad-

jacent areas of the environment from damage that may result from activities within its territory.

(18) Coastal States should ensure that adequate and appropriate resources are available to deal with pollution incidents resulting from the exploration and exploitation of seabed resources in areas within the limits of their national jurisdiction.

(19) States should co-operate in the appropriate international forum to ensure that activities related to the exploration and exploitation of the seabed and the ocean floor beyond the limits of national jurisdiction shall not result in pollution of the marine environment.

(20) All States should ensure that vessels under their registration comply with internationally agreed rules and standards relating to ship design and construction, operating procedures and other relevant factors. States should co-operate in the development of such rules, standards and procedures, in the appropriate international bodies.

(21) Following an accident on the high seas which may be expected to result in major deleterious consequences from pollution or threat of pollution of the sea, a coastal State facing grave and imminent danger to its coastline and related interests may take appropriate measures as may be necessary to prevent, mitigate, or eliminate such danger, in accordance with internationally agreed rules and standards.

(22) Where there is a need for action by or through international agencies for the prevention, control or study of marine pollution, existing bodies, both within and outside the United Nations system, should be utilized as far as possible.

(23) States should assist one another, to the best of their ability, in action against marine pollution of whatever origin.

## Annex IV

### LIST OF DOCUMENTS BEFORE THE CONFERENCE

*Official conference documents*

A/CONF.48/1—Provisional agenda.
A/CONF.48/2—Annotations to the provisional agenda.
A/CONF.48/3—Provisional rules of procedure.
A/CONF.48/4—Draft Declaration on the Human Environment.
A/CONF.48/5—An action plan for the human environment.
A/CONF.48/6—Planning and management of human settlements for environmental quality (subject area I).
A/CONF.48/7 and Corr.1—Environmental aspects of natural resources management (subject area II).
A/CONF.48/8 and Corr.1—Identification and control of pollutants of broad international significance (subject area III).
A/CONF.48/8/Add.1—Draft articles of a convention on ocean dumping.
A/CONF.48/9—Educational, informational, social and cultural aspects of environmental issues (subject area IV).
A/CONF.48/10—Development and environment (subject area V).
A/CONF.48/11—International organizational implications of action proposals (subject area VI).
A/CONF.48/11/Add. 1—Views of the Preparatory Committee for the Conference.
A/CONF.48/12—The United Nations system and the human environment: consolidated document submitted by the Administrative Committee on Co-ordination.
A/CONF.48/13 and A/CONF.48/13/Rev. 1—Bibliography.
A/CONF.48/14—Report of the United Nations Conference on the Human Environment.

*Information documents*

A/CONF.48/INF.1—Information on Conference documents.
A/CONF.48/INF.2—Recommendations for action.
A/CONF.48/INF.3—List of abbreviations.
A/CONF.48/INF.4—General information.
A/CONF.48/INF.5—Provisional list of participants.
A/CONF.48/INF./Rev.1 [1]—List of participants.
A/CONF.48/INF.6—List of NGO observers.
A/CONF.48/INF.7 [1]—List of Conference room papers before the Conference.

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[1] To be issued.

## ANNEX V

### TABLE SHOWING THE CORRESPONDENCE BETWEEN THE NUMBERS OF THE RECOMMENDATIONS AS THEY APPEAR IN THE REPORT OF THE CONFERENCE AND THE NUMBERS OF THE RECOMMENDATIONS AS ADOPTED BY THE CONFERENCE

In the Conference documents and throughout the discussion at the Conference, the draft recommendations were identified by the numbers of the paragraphs in which they appeared in the basic Conference document for the subject area concerned. New draft recommendations were identified by additional numbers in the same series or by letters added to the numbers of the original draft recommendations contained in the Conference document. After the texts had been adopted by the Conference, the recommendations were renumbered serially as they now appear in chapter II, section B, above. The correspondence between the new numbers as given in chapter II, section B, and the former numbers appearing in the respective Conference documents indicated below is shown in the following table.

*Planning and management of human settlements for environmental quality (A/CONF.48/6)*

| *New number* | *Former number* | *New number* | *Former number* |
|---|---|---|---|
| 1 | 136 | 10 | 153 |
| 2 | 137 | 11 | 154 |
| 3 | 138 | 12 | New |
| 4 | 140–141 | 13 | New |
| 5 | 144 | 14 | New |
| 6 | 146 | 15 | New |
| 7 | 148 | 16 | New |
| 8 | 149 | 17 | New |
| 9 | 152 | 18 | 150 |

*Environmental aspects of natural resources management (A/CONF.48/7 and Corr. 1)*

| *New number* | *Former number* | *New number* | *Former number* |
|---|---|---|---|
| 19 | New | 45 | 119–120 |
| 20 | 46 | 46 | 131 |
| 21 | 47 | 47 | 132 |
| 22 | 48 | 48 | 133 |
| 23 | New | 49 | 134 |
| 24 | 66a | 50 | 135 |
| 25 | 66b | 51 | 159 |
| 26 | 67a | 52 | 160(a) |
| 27 | 67b | 53 | 160(b) |
| 28 | New | 54 | 160(c) |
| 29 | 81 | 55 | 160(d) |
| 30 | 82 | 56 | 175 |
| 31 | 83 | 57 | 196(a) |
| 32 | 84 | 58 | 196(b) |
| 33 | 86 | 59 | 196(c) |
| 34 | 95 | 60 | 201(a) |
| 35 | 96 | 61 | 201(b) |
| 36 | 97 | 62 | New |
| 37 | 98a | 63 | 203(b) |
| 38 | 98c | 64 | 203(c) |
| 39 | 107 | 65 | 203(d) |
| 40 | 108 | 66 | 204 |
| 41 | 109 | 67 | 207(b) |
| 42 | 110 | 68 | New |
| 43 | 111–117 | 69 | 227 |
| 44 | 118 | | |

*Identification and control of pollutants of broad international significance (A/CONF.48/8 and Corr. 1)*

| *New number* | *Former number* | *New number* | *Former number* |
|---|---|---|---|
| 70 | 218 | 83 | 230 |
| 71 | 219 | 84 | 231 |
| 72 | 220 | 85 | 232 |
| 73 | 222 | 86 | 233 |
| 74 | 223 | 87 | 234 |
| 75 | New | 88 | 235 |
| 76 | 224 | 89 | 236 |
| 77 | 225 | 90 | 237 |
| 78 | 226 | 91 | 238 |
| 79 | 227 | 92 | 239 |
| 80 | 228 | 93 | 240(a) |
| 81 | New | 94 | 240(b) |
| 82 | 229 | | |

*Educational, informational, social and cultural aspects of environmental issues (A/CONF.48/9)*

| *New number* | *Former number* | *New number* | *Former number* |
|---|---|---|---|
| 95 | 111 | 99 | 125 |
| 96 | 114–116 | 100 | 126 |
| 97 | 119–120 | 101 | 137 |
| 98 | 124 | | |

*Development and environment (A/CONF.48/10)*

| *New number* | *Former number* | *New number* | *Former number* |
|---|---|---|---|
| 102 | 31 | 106 | 36 |
| 103 | 32 | 107 | 38 |
| 104 | 33 | 108 | 39 |
| 105 | 34 | 109 | 40 |

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