



WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

THIRD MEETING

Oslo, 21-28 June 1985

WCED/85/CRD 2

Item 4 of the Provisional Agenda

PROGRESS REPORT  
OF THE SECRETARY GENERAL

WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

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PROGRESS REPORT OF THE SECRETARY GENERAL

1. Following on from the discussions held in Jakarta, the Secretariat has also spent a good deal of time in discussions on the methodology of its work and conducted a major review of the work programmes submitted to the Commission at the Jakarta meeting.
2. Recruitment has also taken up a good deal of the Secretariat's time, but is now almost complete; and consultations with governments, institutes, NGO's and others have continued.
3. Given the short interval between the Commission's Jakarta and Oslo meetings, a substantial portion of my time and that of my colleagues in the Secretariat has also been spent in the substantive preparations for the Oslo meeting.

MEETINGS AND CONSULTATIONS SINCE THE JAKARTA MEETING

4. Since the Jakarta meeting consultations with government Ministers and senior officials have continued:

- On his return from Jakarta, the Vice-Chairman met with senior government officials in the Philippines and delivered a funding request to them. After his return to Europe, he also made a trip to the Middle East where he called upon ministers and senior officials in Saudi Arabia (with the assistance of Dr Al-Athel), Kuwait, Qatar and Abu Dhabi, and delivered funding requests to each of those countries.
- In late April, Dr Okita took the occasion of his trip to the Republic of South Korea to call upon senior government officials there for discussions about the work of the Commission and submitted a funding request to them on behalf of the Chairman.
- On his return from Jakarta, the Secretary General made a stop-over in India to meet with senior government officials in New Delhi concerning the work of the Commission and to discuss the possibility of the Indian Government hosting a meeting of the Commission in New Delhi in early 1986. In addition, the Secretary-General made a trip to Latin America in May during which he had meetings with senior government officials and institutes in Mexico and Brazil. The Secretary General has also had meetings in Geneva with representatives of the governments of Colombia and India regarding meetings of the Commission in those countries and with representatives of the governments of Mexico, the Soviet Union and the Netherlands regarding their contributions to the work of the Commission.

5. Consultations with inter-governmental organizations have also continued:

- Meetings have been held over the last few months with senior officials of OECD, the Commonwealth Secretariat and with Dr Mostafa Tolba, the Executive Director of UNEP.
  - The heads of six UN agencies, i.e. FAO, ILO, WHO, ECE, UNCTAD and GATT as well as the head of CMEA and the Commissioner for Environment from the EEC have received invitations to meet with the Commission in Oslo.
6. Contacts and consultations with non-governmental organizations have also been maintained:
- A press announcement on the Commission's public hearings in Oslo has been circulated to over 600 European environmental NGO's notifying them of the dates of the hearings and advising them that they are welcome to make submissions at them.
  - In late April, the Secretary General and the Director of Information participated in a meeting of the "Geneva Group" convened in Gland, Switzerland by Mr Maurice Strong and hosted by IUCN. Participants included, among others, the ELC, IUCN, the ICC, and WRI.
  - The Secretariat took the occasion of the meeting of the "Geneva Group" to invite Mr Jimoh Omo Fadaka, of the ELC to spend the day at our offices in discussions with the staff concerning the involvement of NGO's in the work of the Commission and possible contributions which the ELC could make in that regard. Those discussions have resulted in our commissioning the ELC to do two reports for the Commission on the past and future role and impact of NGO's on environment and development issues.

- During his visit to India in April, the Secretary General met with representatives of Indian NGO's including, among others, the Gandhi Peace Foundation and the Centre for Science and Environment to discuss the work of the Commission and how they might contribute to it.
- Our Senior Programme Officer, Shimwaayi Muntemba, visited the Netherlands, 23-28 April at the invitation of the National Committee for Information on Development Co-operation and the National World Conservation Strategy group to participate as a featured speaker and panelist in the Netherlands action week, the theme of which was "Hunger is Not Necessary" . In May, Kazo Katu Programme Director, made a visit to Berlin to meet with institutes and senior officials in West and East Germany.

#### RESPONSE TO AND REVISION OF THE MANDATE REPORT

7. As I mentioned to you in my progress report for Jakarta, the publication and distribution of the Mandate document has provoked interest, stimulated offers of co-operation and provided very interesting comments and insights. To date, we have circulated in excess of 5000 copies of that report and there is a continuing ongoing demand for additional copies. Indeed, in the last few weeks we have had to print another 1000 copies to meet those demands.
8. We have now had hundreds of responses on the Mandate document from governments, institutes, NGO's and individuals around the world. To take into account the contents of these responses and the discussions held during the public hearings and the Commission's

meeting in Jakarta, we have revised the Mandate document for re-issuance following the Oslo meeting. A copy of the proposed revision is attached to this report for your review and comments (Annex 1).

#### PROGRAMME PLANNING

9. In furtherance of the Commission's discussions in Jakarta, (in particular the requests it made to the Secretariat to have policy option papers on the Key Issues presented to it for consideration at its meetings) and its expressed desire to have alternative views on those issues brought to its attention, the Secretariat has spent some considerable time over the past several weeks conducting a review of the work programmes adopted for each of the Key Issues and the strategy adopted for implementing the Commission's work in respect of those.
10. In order to ensure the inclusion of a broad spectrum of views in the work being commissioned on each of the Key Issues being considered by the Commission, the Secretariat's Senior Staff were asked to review the work programmes adopted in Jakarta and to consider where in the work programmes additional alternative inputs would be warranted. This process resulted in the identification of a number of additional individuals and institutes around the world whose views will be incorporated into the work planned in the Food Security, Energy and Industry areas, either by commissioning them to do an additional background issue paper on a particular subject or having them provide a critique on an already commissioned paper. The proposed contributions from these additional individuals and

institutes have been incorporated into the Food Security, Energy and Industry work programmes submitted to you in Jakarta. The work programme on human settlements has also been revised since the Jakarta meeting and copies of that revised programme as well as those for Energy and Food Security are attached to this report of your review and comment (Annex 2).

11. To further ensure the injection of alternative views into the Commission's deliberations, we have decided, commencing in Oslo, to invite selected experts to attend and participate in the Commission's discussions on the key issues on the agenda. (See Annotations to the Provisional Agenda, WCED/85/13 Add.1).

#### ADVISORY PANELS

12. As I pointed out in my progress report for Jakarta, by March of this year, the Advisory Panel on Food Security, Agriculture, Forestry and Environment had been established under the chairmanship of Dr M.S. Swaminathan and by Mid-March of this year, had held an informal meeting. Its first formal meeting was held in Geneva on 12-13 May during which it discussed, among other things, the African Crisis and a first preliminary draft of its final report to the Commission.

A report of that meeting is attached to this report (Annex 3).

13. Constitution of the Advisory Panels on Industry and Energy has also now been completed under the chairmanships of Umberto Colombo, President of E.N.E.A., Italy, in the case of Industry and Enrique



Iglesias, the Foreign Minister of Uruguay, in the case of Energy. It is anticipated that these panels will meet two to three times during the next year and that their reports and recommendations will be available for submission to the Commission by the Spring of 1986. The first official meeting of the Energy Panel will take place in Geneva on June 30-July 1 and that of the Industry Panel is expected to take place in Geneva later this summer.

14. Consultations on the chairman and members of the Advisory Panels on Human Settlements and Decision Support Systems are proceeding, and I will be in a position to advise you further on their status during the Oslo meeting.
15. A list of the members of each of the Food Security, Industry and Energy Advisory Panels is attached to this report (Annex 4).

COMMUNICATIONS STRATEGY DURING THE ADVOCACY PERIOD  
BETWEEN THE SPRING AND FALL OF 1987

16. As was mentioned in the Information Strategy submitted to and approved by the Commission at its meeting in Jakarta, it is crucial that, prior to the presentation of the Commission's report to the General Assembly in the Fall of 1987, the recommendations contained therein be made available and fully considered by the Commission's priority audiences. It was noted in the discussions during the Jakarta meeting that if needed support was to be obtained for the Commission's recommendations it was indeed important that opportunities be created during this period for continuing consultations with governments, inter-governmental organizations and

NGO's. We have given this matter considerable thought in the Secretariat and have prepared for your review and comment a paper setting out a proposed communication strategy during the advocacy period, a copy of which is attached to this report (Annex 5).

#### STAFFING

17. A chart containing an up-to-date picture of the Secretariat as of March of this year was attached to my progress report for the Jakarta meeting. Knowing that the Secretariat was entering into its most active period, I have, since Jakarta, been actively seeking to complete the staffing of the Secretariat; and an up to date list of the members of the Secretariat and their functions is attached to this report (Annex 6).

#### FUND RAISING

18. Since the Jakarta meeting, the Secretariat has worked in close co-operation with Dr Mansour Khalid, Chairman of the Finance Committee, in further implementing the fundraising strategy adopted by the Committee at its first meeting in November of last year. As you recall, it has been the intention of the Finance Committee to approach every member country of the United Nations and provide them with the opportunity to support the work of the Commission. Since April, funding requests have been submitted to an additional 117 countries for a total of \$ 5.6 million. A list of those countries to which funding requests have been made to date is contained in the separate Report on Budgetary and Financial Matters (WCED/85/21). To fulfill the Finance Committee's strategy, funding requests still need to

be made to 23 additional countries, and it is hoped that these will be submitted before the Commission's next meeting in Latin America.

19. As shown in the separate Report on Budgetary and Financial Matters, over US \$ 4 million have now been pledged to and/or received by the Commission from 15 governments and we have now reached 50% of the Commission's targeted budget in terms of pledges made.

#### FUTURE SCHEDULE OF MEETINGS

20. In light of the decision taken by the Commission in Jakarta to hold seven additional meetings, including the Oslo meeting, we have further considered the scheduling of those meetings and have had consultations with governments that have expressed an interest in hosting one of them. Taking into account the necessity of having the Commission's final report completed by the end of February 1987 and the time periods required to be maintained between each meeting, we have constructed the following provisional schedule for future meetings:

- 4th Meeting/Latin America	Oct 28 - Nov 4, 1985
- 5th Meeting/India	Jan 26 - Feb 1, 1986
- 6th Meeting/Africa	May 17 - May 23, 1986
- 7th Meeting/Canada	Sept 13 - Sept 19, 1986
- 8th Meeting/to be decided	Dec 5 - Dec 11, 1986
- 9th Meeting/Japan	Feb 14 - Feb 20, 1987

A discussion of the schedule for future meetings is on the agenda for the Oslo meeting and during that meeting you shall have an opportunity to discuss the suitability of this schedule.

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## FOREWORD

The World Commission on Environment and Development held its Inaugural Meeting in Geneva on October 1-3, 1984. It addressed three major questions concerning its future programme of work:

1. What are the Key Issues that the Commission should address, and from what perspectives should it address them?
2. What Strategy should the Commission employ to marshal the information that it will need, and the intellectual, political and organizational resources that need to be tapped in order to achieve its objectives?
3. How do the answers to these questions translate into a practical Workplan that will enable the Commission to achieve its objectives within a reasonable period of time?

Immediately after that meeting the Commission released publicly a report which reflected the initial response of the Commission to these questions and provided a point of departure and guide for launching its work. It did not reflect a definitive judgment on these questions as the Commission decided to keep these questions on its agenda and to reconsider them at each of its future meetings. As will be seen from the Mandate, which it also adopted at its Inaugural Meeting, the Commission will continuously seek advice and support from a broad range of informed opinion. Keeping these questions open will enable it to enrich and refine its approach in the light of this advice and of the results of its initial work.

In order to facilitate participation in its work, the Commission also decided that its processes will be as open as possible for as long as possible. They will be open in terms of sources of information and advice, with effective mechanisms in place for receiving and assessing commissioned reports, and with opportunities for others to submit volunteered reports. They will be open as regards the provision of information, and the public release of reports provided to the Commission.

The previous report was the first tangible result of that decision. It was made widely available to individuals, scientific institutes, non-governmental and intergovernmental organizations, and agencies of national governments concerned with environment and development issues. All were invited to comment on it.

Many did respond, and the "Alternative Agenda" proposed by the Commission was generally endorsed. There were many suggestions on specific key issues, and offers of help on them. There were also some words of caution against trying to do so much in so short a time, accompanied by suggestions for concentrating the work more. While the proposed priorities for concentration varied greatly, few failed to stress their fast-growing concern about the effectiveness of current forms of international co-operation and urged the Commission to focus a lot of attention on ways of improving and extending international co-operation on environment and development issues.

Another view that was expressed repeatedly was that the Commission probably represents the only chance that the world community will have in this century to generate some new and necessary initiatives to significantly strengthen national policies and international co-operation in support of environment protection and sustainable development.

This second report by the Commission is a revised ~~and augmented~~ version of the original report. It has been amended, up-dated and extended to take into account the evolving workplans and views of Members as discussed at subsequent meetings of the Commission as well as the many comments and suggestions received from around the world in response to the original report.

As with the previous report, the Commission will distribute this report free and widely and invites all readers to comment on it as well as to suggest how they might support and contribute to the effort by the Commission to determine practical ways to sustain and expand the environmental and ecological basis for economic and social development.

Geneva, July 1985

Jim MacNeill  
Secretary-General  
World Commission on Environment and Development



MANDATE FOR CHANGE

MANDATE OF THE COMMISSION<sup>1/</sup>

1. The World Commission on Environment and Development has been established at a time of unprecedented growth in pressures on the global environment, with grave predictions about the human future becoming commonplace.
2. The Commission is confident that it is possible to build a future that is more prosperous, more just, and more secure because it rests on policies and practices that serve to expand and sustain the ecological basis of development.
3. The Commission is convinced, however, that this will not happen without significant changes in current approaches: changes in perspectives, attitudes and life styles; changes in certain critical policies and the ways in which they are formulated and applied; changes in the nature of co-operation between governments, business, science and people; changes in certain forms of international co-operation which have proved incapable of tackling many environment and development issues; changes, above all, in the level of understanding and commitment by people, organizations and governments.
4. The World Commission on Environment and Development therefore invites suggestions, participation and support in order to assist it urgently:
  - (i) to re-examine the critical issues of environment and development and to formulate innovative, concrete and realistic action proposals to deal with them;
  - (ii) to strengthen international co-operation on environment and development and to assess and propose new forms of co-operation that can break out of existing patterns and influence policies and events in the direction of needed change;
  - (iii) to raise the level of understanding and commitment to action on the part of individuals, voluntary organizations, businesses, institutes and governments.

<sup>1/</sup> Adopted by the Commission at its Inaugural Meeting in Geneva, 1-3 October 1984.

5. The Commission solicits the views of those individuals; scientific institutes, non-governmental organizations, including business and trade unions, intergovernmental organizations, Specialized Agencies and other bodies of the United Nations, and national governments concerned with environment and development issues. It requests their support and will facilitate their participation in the work of the Commission. It wishes especially to hear the views of youth.
6. In fulfilling its tasks, the Commission will pay careful attention to the Terms of Reference suggested by the General Assembly of the United Nations in resolution 38/161, in which the General Assembly welcomed the establishment of the Commission.

**ANNEX 1**

**to**

**Secretary-General's Progress Report**

**(WCED/85/CRD 2)**

**REVISIONS TO MANDATE DOCUMENT**

MANDATE FOR CHANGE

Key Issues, Strategy and Workplan

July 1985

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AGENDA FOR CHANGE

## AGENDA FOR CHANGE

### I. INTRODUCTION

What are the Key Issues that the Commission should address and from what perspectives should it address them?

1. This question invites a wide variety of responses both on the substance of the issues and on the perspectives from which they should be viewed. Most of these responses are compatible or at least lend themselves to organization along lines that are more or less inclusive and internally consistent. Nevertheless, choices among different approaches have to be made.
2. The Commission discussed these choices at length at its Inaugural Meeting, focussing essentially on two different formulations of the issues. A more or less standard formulation of the issues was considered first, along with its underlying assumptions (see Section III). This formulation has guided most of the work undertaken to date on environmental issues and will necessarily form a point of departure for much of the Commission's work. Given the limitations of this approach (see Section IV), however, when viewed both against the test of results and against the Commission's mandate, the Commission decided to adopt an alternative formulation of the issues as the basis for its initial work. This Commission's decision and new approach was generally welcomed and endorsed by those who commented on the previous WCED report. The alternative formulation and its underlying assumptions and advantages are set in Sections V and VI.
3. The Commission, it should be stressed, did not make a definitive judgment on the question of key issues. Instead, it decided to keep this question on its agenda and to reconsider it at each of its future meetings in order to enrich and refine its approach in the light of the results of its initial work and of further advice which, as emphasized, it is actively soliciting.
4. The question of its strategy and workplan will also remain on its agenda, to be refined in the light of experience. (The broad strategy as developed and revised during the first three meetings, and initial workplan, is set out in the final Chapter of this report.)
5. There are a number of basic perspectives and major themes that the Commission considered essential to its work, transcending and underlying its approach to the key issues. Since they cut across all of the issues, they are discussed first.



II. COMMON PERSPECTIVES AND TRANSCENDING THEMES

6. The Commission will need to agree on some common perspectives on key determinants of future conditions of environment and development. This includes perspectives on and the inter-relationships among, environmental management and economic development; population, environment and sustainable development; and science, technology, environment and sustainable development.
7. As regards the relationship between environmental management and economic development, new perspectives have recently emerged which not only reverse some of the intimidating assumptions and concerns which prevailed a decade ago but also provide a new and supportive basis for the work of the Commission. The experience of the past decade demonstrates that:
  - The benefits generated by environmental measures, including the damage costs avoided, have generally been greater than their costs.
  - The macro-economic effects of environmental policies on investment, productivity and trade have been minor, and often positive.
  - As regards employment, more jobs have been created by environmental measures than have been lost.
  - Benefits for industry have varied. Many of those industries that have borne a significant proportion of the total investment in pollution control have developed new processes, clean technologies and more environmentally efficient products. Those in the forefront of innovation have benefited in terms of plant that is more resource efficient, more energy efficient and, hence today, often more economic and competitive. Many have also found new opportunities for investment, sales and exports.
8. A generally basic perspective for the work of the Commission, therefore, is the mutually supportive relationship between environment and development, wherein the former is both a prerequisite for development and its end result. Experience has shown that the environmental effects of development activities, positive and negative, appear in the short, medium, long and even in the very long term (20 to 50 years). The latter falls outside the normal time frame considered in planning and management. Therefore, an important question before the Commission is the time horizons that should be assumed in dealing with the various issues.

9. This question is closely related to another perspective, that when it comes to the environment and development "problematique", to anticipate and prevent what may occur in the future is a more secure and more cost-effective approach than the present focus on react-and-cure. Moreover, the "react-and-cure" approach can lead to irreversible effects.

PLEASE NOTE:

Add here (two) new paragraphs to reflect evolving views of the Commission

- on population, environment and sustainable development

- on science, technology, environment and sustainable development

10. Another important perspective for the Commission's work reflects the fact that the systemic and complex nature of many environment and development issues requires a multi-disciplinary approach to achieve the inter-disciplinary judgments and evaluations that are needed for decision-making and actions. There has been little success to date, however, in breaking through the institutional barriers and constraints which prevent such approaches being developed and applied.
11. In addition to agreeing on some key common perspectives, there are several transcending themes which the Commission will need to constantly keep in mind in examining the key issues. These include: Interdependence; Education and Communication; Sustainability; Equity; Security and Educational Risks; and Strengthening International Cooperation.

Interdependence

12. The growing interdependence of the international economic and political system is a central concern for the Commission as it examines the critical environment and development issues likely to dominate the world scene into the next century. Long reflected in demography, migration, agriculture, communications, energy, industry, minerals, technology and financial transfers, interdependence has become a dominant characteristic of many issues involving the environment and the ecological basis of development:

- Pollution problems that were once largely local, with impacts largely confined to a particular water basin or airshed, are now regional and even global in scale (e.g. acid rain involving the entire continents of North America and Europe).
  - Environmental effects that once appeared obvious, are now seen to be insidious and uncertain, slowly changing ecological systems critical to economic development and life itself (e.g. the dispersion of certain chemicals globally and their concentration in water systems and food chains).
  - Acute episodes of reversible damage that were once thought to affect mainly the current generation are now seen to seriously compromise the health and welfare of generations to come (e.g. the loss of tropical forests and their genetic resources; radioactive waste disposal).
  - Cities and settlements that once grew more or less in response to employment opportunities, and in pace with basic services, are expanding today in developing countries at a rate which is overwhelming both.
  - Questions of conservation versus development that were once thought to be rather straightforward, subject to "rational" benefit-cost assessment and confined to one or two political jurisdictions, are now seen to be highly complex, involving linkages and feedbacks among agriculture, energy and forestry development and transportation and trade policy, and raising questions of economic gain in the short term versus unsustainable development and massive economic loss and social dislocation in the medium and longer terms.
13. A major implication of economic and ecological interdependence is that as it inevitably increases the ability of governments to deal unilaterally with problems on a national scale with diminish. Consequently, economic, social, energy and other problems with an environmental or ecological basis within countries will prove resolvable or avoidable only through increased co-operation among countries.
14. The most important feature of interdependence is not the isolated components, be they separate issues (subjects, fields, problems) or separate nations or entire regions or even "North-South". The important thing about interdependence, what makes it dynamic, is the connections between and among the components. Similarly, the limiting factor in conceiving policy paths to sustainable development is not the capacity to analyse the component parts of interdependence. The limiting factor is the present incapacity to put it all together in analytical and operational terms.

### Education and Communication

15. The level and nature of education and the opportunities for communication are very important determinants of a society's capacity to deal with environment and development questions. This need was emphasized by many who commented on the earlier WCED report, including the senior trade union official in Africa who declared that "it is important for the workers to understand and appreciate better not only the environmental hazards of the work-place, but also the complex problems related to environment and development faced by their society and the world over. The Commission will therefore consider the need to introduce an environmental perspective at all levels of education, formal and informal, and in on-the-job training in industry, the consulting professions and government.
16. Progress on the issues of environment and development depends, perhaps more than in any other field, on the support of an informed public opinion and that, in turn, depends on open forms of examination and assessment, and on the free flow of resulting information. The Commission will consider existing constraints on these processes and on methods to overcome them.

### Sustainability

17. Policy paths to sustainable development are another central concern that will preoccupy the Commission as it addresses the critical issues. This will compel examination of a range of policies in many directly relevant sectors such as agriculture, energy, fisheries, forestry, industry, domestic and foreign investment, trade and development assistance.
18. In any such examination, a major purpose is to identify those policies that do or can serve to promote development that is sustainable not only in the short-term but also in the medium and longer terms. It will also be necessary to re-examine those policies that induce, compel or reinforce forms and patterns of development and of settlements that are clearly unsustainable in the medium or longer terms. For both, the often neglected feedbacks and linkages with other sectors must be taken more fully into account.

19. In many parts of the world, underdevelopment and poverty are the greatest source of destructive pressures on the environment and also the major effect. It is the poorest countries which most lack the technical and financial resources to protect the environmental and ecological basis of their future economic development. It is the poor within those countries, compelled by their diminished environment and aspirations, who stream in ever increasing numbers into slums and squatter areas in and around major settlements. In these slums and squatter areas a new and cruel cycle of cause and effect occurs, where new environmental and settlement problems are created. In all cases, it is the poor who usually suffer first and the most.

#### Equity

20. There is an unequal distribution of and access to resources needed to satisfy basic human needs within and among nations. Moreover studies show that, as still another world needs to be built on the one existing, the situation will become worse. The reasons are many and include the increase in population, the current structure of international economic relations, and the increase in per-capita consumption by sectors of the world population. It is therefore of the utmost importance to recognize the need for improving the access to and distribution of resources, particularly those necessary to satisfy basic human needs and rights.
21. An important measure of human rights is access to adequate living conditions, in other words to a healthy environment, which can provide for basic human needs and their development in both urban and rural settlements. These rights are linked to a set of responsibilities toward the environment and its development and use on an expanding but sustainable basis. Rights and responsibilities towards the environment must be considered at the level of the individual, the community and the nation state. Participation at all levels in decisions that affect the environment is vital in order to translate these rights and responsibilities into realities.

#### Security and Environmental Risks

22. Security and the need to widen the definition of national security beyond military security to embrace economic and ecological interdependence and global environmental risks, is a further concern that the Commission will consider in assessing the key issues.

23. In various parts of the world ecological degradation and environmental risks are becoming a significant causal factor in economic, social and political unrest. They are manifest in the growing migrations of "ecological" refugees within and across national boundaries; the increasing frequency and intensity of man-induced "natural" disasters; and the social collapse of exploding settlements. While these threats are fundamentally non-military, continued failure to address them adequately could lead to crisis situations in which military force is seen as a way out, at least in the short term. With environmental crises deepening in many parts of the world, environmental degradation could become a serious threat to peace in the future, with military means employed to deal with non-military challenges to security.
24. Warfare, conventional, chemical and nuclear, constitutes an ever present threat to the environment. Historically, the scale and intensity of the threat has been increased constantly by technological developments. Today, warfare presents a clear danger to the survival of man. In 1977 a convention was signed outlawing military or any other hostile use of environmental modification techniques having "widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other state of party". It entered into force in January 1980. The ultimate threat is nuclear war and recently concern has been raised over the short and long-term consequences of the dust, smoke, radioactivity, and toxic vapor that would be generated by nuclear war. The possible creation of a "Nuclear Winter" as a result of multiple nuclear explosions has added an environmental imperative to the prevention of nuclear war.
25. World military expenditures continue to grow at an annual average rate of 3-4 per cent in real terms and are estimated to reach an annual level of one trillion dollars in 1985. In a region like the Middle East, however, the growth rate is about 12 percent. The industrialized world accounts for 77 percent of the total expenditures on arms. This constitutes a gross misallocation of resources and a foreclosure of opportunities for improvement of the human condition which the Commission will also consider.

Strengthening International Cooperation

26. The literature on population, resources, environment and development issues is now enormous, and it seems to be demonstrating that, globally, over the next two or three decades the human environment will deteriorate in all sorts of largely predictable ways. The critical question for the Commission is what actions need to be taken now or in the near future to ensure that development in the medium to long term will be on both an expansive and a more sustainable path; one that promises to restore and gradually improve the human condition. The answer depends less on nature than on nations, and their capacity for co-operation. The problematique is above all a puzzle in international co-operation, a puzzle in which some of the pieces are missing, yet a puzzle the Commission will have to tackle.
27. When the critical environment and development issues are considered against a background dominated by the themes of interdependence, sustainability, equity and security, they emerge as complex geo-political syndromes that challenge existing forms of international discussion and co-operation. Some problems, although global in nature, are a consequence of the development patterns of the industrialized countries. Others result from the voracious material demands of those countries, with the environmental impacts and their economic costs being imposed most heavily on Third World countries. Some reflect the incidental effects of economic, financial, trade and other policies dominated by the industrialized countries. Many are closely related to the North-South debate. Most are amenable to solution only through concerted action of the Sea and, more recently, on Acid Rain, suggest concerted action in the real world of competing economic and political interests, short term accounting and scientific uncertainty.
28. Moreover, so many of the issues that are regional or global in their impact are still handled as if they were primarily "domestic affairs" (even those like population control, pollution, fisheries, energy and monetary policy). Consequently, the responsibility for the issues, and for solving them, must be widely shared among nations. Some of the environmental issues must be raised and managed in their specific regional setting, others require a more general and global approach. As increased international interdependence will involve new possibilities and problems for international co-operation, the Commission will examine both, including appropriate legal principles, mechanisms and procedures for avoiding or resolving disputes.

29. In considering ways to achieve more effective international co-operation, the Commission will give particular attention to the need to use and manage the global commons in a sustainable and equitable manner. In the case of Antarctica, for example, tension persists between the consultative states of the Antarctic Treaty which constitute the management group and those states which view the continent as a universally shared global commons. Questions of environmental protection have been a central issue in the meetings of the consultative states, resulting in the 1972 Convention for the Conservation of Antarctic Seals and the 1981 Convention on the Conservation of Antarctic Marine Living Resources. The Commission will want the broader international issues involved in the light of the recent report on Antarctica by the Secretary-General of the United Nations.
30. The Commission is concerned that the 1970's witnessed a certain turning away from international co-operation. Nations appeared to be turning inward, concentrating on the short term issues of national advantage rather than on the longer terms issues of their common future. The Commission considers that the trend away from international co-operation and commitments must be reversed in order to give renewed momentum to the process of development and to harmonize human development with protection of the environment.
31. In its work on international co-operation, the Commission will build on experience to date with multinational discussions, negotiations, international law and institutions. However, while respecting the complex ecological and geo-political realities of environment and development issues, the Commission also will examine new forms of international co-operation that can break out of existing patterns and influence policies and events in the direction of needed change.

### III. KEY ISSUES: THE STANDARD AGENDA

32. The key issues in environment have emerged over the past two decades. They have been defined in various ways but the standard agenda includes at least three inter-related groups of issues, each one of which has major implications for development. The three groups are: Environmental Pollution Issues; Natural Resources Issues and Human Settlements Issues.



33. Key Environmental Pollution Issues include:

- 33.1 CO<sub>2</sub> and Climatic Change
- 33.2 Air Pollution, including Acid Rain
- 33.3 Water Pollution
- 33.4 Chemicals
- 33.5 Hazardous Waste
- 33.6 Nuclear Waste
- 33.7 Marine and Coastal Waters

34. Key Natural Resource Issues include:

- 34.1 Depletion of Forests, particularly Tropical Forests
- 34.2 Loss of Genetic Resources
- 34.3 Loss of Cropland, Soil Erosion and Desertification
- 34.4 Energy, especially Fuelwood
- 34.5 Efficient Use of Surface Water Resources
- 34.6 Depletion and Degradation of Groundwater Resources
- 34.7 Depletion of Living Marine Resources

35. Key Human Settlements Issues include:

- 35.1 Land Use and Tenure
- 35.2 Shelter
- 35.3 Water Supply and Sanitation
- 35.4 Social, Education and Other Services
- 35.5 Managing Rapid Urban Growth (The Mega-City)

36. To these three groups might be added a fourth group of cross-cutting Management Issues. Some have begun to be addressed relatively recently. Others were raised over a decade ago but were not vigorously pursued and have only been revived again in the last few years. They include:

- 36.1 Environment and International Trade
- 36.2 Environment and Development Assistance
- 36.3 Environment and Transnational Corporations
- 36.4 Global Environmental Monitoring and Reporting
- 36.5 Management of Internationally Shared Resources

37. Still more recently, certain issues have been examined on a more comprehensive and global basis, leading to proposals for innovative and potentially effective national and international strategies. A good example is the World Conservation Strategy advanced in 1980 by the International Union for Conservation of Nature and Natural Resources (IUCN).

IV. LIMITATIONS OF THE STANDARD FORMULATION

38. With few exceptions like the World Conservation Strategy, most of the work to date on the key issues reflected the standard taxonomy described above and consequently, most of the documentation originally available as a basis for the initial work of the Commission reflected the same taxonomy. Given the dominance of this way of looking at the issues, the Commission considered the option of adopting a similar approach in its own report.
39. In considering this, the Commission recalled that this approach was not always "standard" and that to label it "conventional" masks the fact that it has produced innovative solutions to certain environmental problems. Moreover, it has led to some significant achievements in monitoring, in defining the issues in scientific and technical terms, in raising public awareness, and in institutional and policy action, nationally and internationally.
40. It was noted, however, that while some of these achievements were global in nature, most were within and among the richer industrial nations. Many of these countries have seen major improvements in environmental quality over the past decade and a half. This has stemmed from new institutions, legislation, policies and programmes designed largely to clean up a massive backlog of environmental degradation and to react to and cure new situations as they arise. At the same time, the battle against conventional pollution and resource deterioration in these countries is far from won and the economic costs that environmental degradation imposes on them continues to grow.
41. Developing countries, on the other hand, have seen few gains. Instead, most have seen a steady and even rapid increase in environmental degradation added to historic pressures on their resources. Many newly industrialized countries have experienced a massive deterioration of their environment, with environmental problems associated with sudden industrialization and explosive urbanization being added to those associated with underdevelopment and poverty (sanitation, loss of soils, etc.). Action stemming from the standard definition of environmental issues has not served them well.
42. In the meantime, for both developed and developing countries, a new generation of increasingly complex environment and development issues has emerged with potentially heavier social and economic costs, especially if action on them is delayed.

43. When considered globally against the test of results, as well as against the Commission's mandate, the standard agenda appears to have several critical limitations, particularly the four which are briefly described below. First, with few exceptions, the standard agenda tends to focus action on the effects of environmental problems rather than on their sources. This has been a natural evolution. Awareness of the health effects of polluted water or air, for example, gave rise to concern about the pollution, and then to efforts to identify the polluting activities. Further action or, more correctly, re-action, led to the development of curative measures, including add-on technologies, to the assessment of the benefits and costs of those measures and, eventually, to decisions to require additional investment or not.
44. This react-and-cure approach has led to significant achievements on certain issues and will remain an essential part of public policy. Given present trends, however, react-and-cure measures are clearly not sufficient. Unless they are rapidly reinforced by anticipate-and-prevent measures, it is doubtful that even the richer industrial nations will be able to catch up with the environment and development effects of past activities, let alone keep up with those of future activities. Even if some could, they would do so at an unnecessarily high cost. As far as the poorer nations are concerned, experience to date suggest that there is little prospect that they will be able to afford the cost of after-the-fact, react-and-cure strategies in many areas. They must instead look to before-the-fact, anticipate-and-prevent strategies that are more effective, more economic and, in the medium to longer term, more affordable.
45. The need for a major shift to more effective and efficient anticipate-and-prevent strategies (or, in some cases where certain effects are already built into natural systems, to anticipate-and-adapt strategies) has been recognized by many governments, by parts of certain industries, and by an increasing number of scientific institutes and NGO's. Their development, however, has been severely constrained by many factors, conceptual as well as institutional and political, and it needs a new global thrust such as the Commission can provide.
46. Second, much of the work to date has tended to examine the key issues as environmental issues alone, or as resource, conservation or management issues, rather than as development issues, or as joint environment-and-development issues. Yet the implications of many of the issues for development are enormous. Two examples will illustrate the point.

47. The depletion of genetic resources, is proceeding at a pace without precedent in human history. The most serious cause is the destruction of habitats such as wetlands or, in particular, tropical forests. The latter are contracting rapidly as a result of expanding and shifting agriculture, spontaneous settlement, planned colonization, clearance for plantations and ranching, and cutting for fuel and timber. Many developing countries are heavily dependent on the latter: eight of them earn more than \$100 million a year each from exports of timber products alone.
48. Action to put tropical forests on a sustainable development path will be difficult, if possible at all, and costly, but less costly overall than the possible costs of failing to do so. Genetic diversity is a keystone of global economic development, food security and the supply of fibres and many medicines. Over the last three decades, about one third of the gain in agricultural productivity in developed countries resulted from animal and plant breeding, with much of the germplasm originating from tropical and sub-tropical areas.
49. Some developed and many developing countries have been falling further and further behind the goal of food self-sufficiency. While there are many reasons for this, land is not one of them. Indeed, it has been estimated recently that most developing countries have sufficient land suitable for agriculture to become self-sufficient in food and many to become net exporters. Yet the plant species to be employed in this agriculture, future increases in the productivity of these species, and decreases in their vulnerability to pests and diseases and to changes in climate, will depend substantially on future access to new genetic strains. If, in the meantime, the sources of these new strains have been lost, the existing potential for national and global food security will have been seriously undermined and could be lost altogether.
50. Acid rain provides another example. In the short run, measures to address the sources of acid rain will lead to new investment and employment in pollution control facilities which, depending on the jurisdiction concerned, may or may not be offset by the investment and employment effects of somewhat higher electricity prices. In the medium to longer terms, these measures would prevent further damage to property, water ecosystems, forests and human welfare. On the other hand, failure to address acid rain will have the reverse effects, with significant negative impacts on the capacity of the nations most affected to sustain higher levels of production and use.

51. Third, most of the work to date has tended to examine each of the critical issues in isolation. Thus, for example, one report deals with acid rain, another with climatic change induced by higher levels of CO<sub>2</sub> still another with air pollutants in general or with lead in petrol, or with other heavy metals. As noted earlier, this work tends by and large to focus on the effects of the pollution, and on the pathways between polluting sources and their effects. Some work has emerged on the damage costs of effects and on the costs of control, usually with add-on technologies. But it has become abundantly clear that these problems are all tightly linked to one or two common causes: energy policies that favour fossil fuel combustion; or transportation, tax and trade policies that favour large vehicles.
52. Similarly, considerable work has been done on the eutrophication of surface waters, on nitrate pollution of groundwater, and on the degradation of soils. But it has become clear that in many jurisdictions these problems also all share a common cause: agricultural policies which promote and induce an excessive use of chemical fertilizers and pesticides.
53. Soil erosion and the expansion of deserts have also largely been examined from the perspective of trends, effects and their damage costs (e.g. if cropland erosion exceeds new soil formation by x billion tons per year, topsoil reserves will disappear in y years). These problems also need to be examined from the perspective of their principal common policy sources.
54. The same is true of the depletion of tropical forests. Trend analysis can build awareness of a problem and lead to concern that could provoke action. But such action (e.g. plant more trees faster) is not too meaningful in terms of problem interdependence or of promoting sustainable development if it serves only to ameliorate certain effects in the short run. In order to be meaningful it would need to deal with the other sources of the interlocking syndromes of poverty-driven shifting cultivation and re-settlement, of policies favouring destructive colonization or encouraging unsustainable agricultural or timber harvesting practices, as well as with the linkages to other problems such as the loss of genetic resources and watershed management.

55. Fourth, most of the work to date, with its focus on effects and on ways and means to ameliorate effects, reflects a very narrow view of environmental policy and, indeed, of broader policy needs and obligations. Whatever the intentions of a decade ago, with few exceptions, environmental policy has come through as a limited policy field, essentially an "add-on" to other policy fields, with the primary mission of reacting to damage already done and to cure it after the fact.
56. There is clearly a need now to shift the focus from the effects of environmental problems to their policy sources. Such a new and necessary focus was welcomed by nearly everyone who provided comments on the earlier WCED report. As one commentator emphasized, and many others stated in different ways, "the policy framework and institutional setting within which certain sectors are funded and managed have a critical impact on the use and conservation of natural resources. In particular, financial policies, the basis for economic priorities and sector management practices probably have more effect on resource use and environmental damages than the efforts to build environmental planning into individual investments."
57. Environmental policy needs to become a comprehensive, horizontal policy field and an integral component of economic and social policy. The new focus and mission of environmental policy should be not only to anticipate damage and reduce the negative external effects of human activity but also to inform and support economic and social policies that take into account the diversity and uniqueness of specific regional and local situations and expand rather than reduce the basis for sustainable development.

V. KEY ISSUES: AN ALTERNATIVE FORMULATION

How then might the issues best be formulated for the purposes of the Commission's work and review?

58. Given its mandate and the limitations of the standard agenda, the Commission decided that its work on key issues would focus attention primarily on their common sources in sectoral policies and in related economic and trade policies. Three examples are briefly cited below:

Energy, Environment and Development

59. The Commission will, for example, deal simultaneously with several key issues such as Carbon Dioxide, Trace Gases and Climatic Change, Air Pollution and Acid Rain, in terms of their common source in energy policy. There is no known means of preventing the build-up of atmospheric CO<sub>2</sub> with its attendant climatic effects if the use of fossil fuels increases. CO<sub>2</sub> strategies, in common with air pollution and acid rain

strategies, must therefore embrace improved energy efficiency. This is usually the most economic and environmentally benign source of energy. Moreover, while there has been considerable movement in this direction since 1979, end-use analysis nevertheless reveals that the potential has barely been tapped.

60. Improving energy efficiency should in turn embrace a wide range of options available to a society not only in its choice of technologies for energy production and use but also in building economic and social systems which are more energy efficient and less wasteful of energy and other resources. In this connection, environment and development issues related to transportation policies deserve special attention by the Commission.
61. Transportation is a significant end-user of energy (one-sixth to one-third of total national energy consumption in OECD member countries), particularly of fossil fuels, and thus has an important bearing on such issues as carbon dioxide, acid rain and other forms of air and water pollution (including marine pollution caused by maritime transport). On the other hand, various means of transportation, particularly road transport by motor vehicles, compete with other needs for land and alienate a large part of the urban environment. There is an increasing need to provide energy-efficient transportation systems in rapidly growing urban areas as well as other linkages between transportation and urban environmental issues which must also be carefully examined.
62. Approaching the issues in this way will require that the Commission's treatment include conventional energy sources generally, including nuclear, as well as renewable sources such as direct solar, wind, hydro and biomass technologies. Some of these technologies are still on the steep slope of the R and D curve, but could eventually become competitive over a broad range of uses. A critical question, of course, and one relevant to many other issues, is how to remove the institutional, cultural and market biases in many countries under which renewables now suffer relative to fossil fuels.
63. While developing countries share these issues, this approach would also require and enable full consideration of the additional energy, environment and development issues confronting developing countries, especially the shortage of fuel wood and other biomass sources which have caused serious deforestation in many countries and the diversion of plant and animal wastes from use in soil replenishment. Unless effective

measures to replenish these sources are greatly accelerated, environmental degradation in these countries, and the inevitable poverty it entails will increase. In addition to new policy approaches, such measures will require more effective institutions for energy and environmental management and development.

Food Security, Agriculture, Forestry and Environment

64. Similarly, the Commission will approach the key issues of soil erosion, desertification, the loss of cropland, wildlife habitats and tropical forests from the perspective of their common sources in agriculture, land and food policies. Within the same context, the Commission will address the efficient use in agriculture of surface water resources and the depletion and degradation of groundwater resources.
65. As pressures on the land have intensified over the past generation, erosion has increased in all major countries, developed and developing until close to half the world's cropland is losing soil at a debilitating rate. Modern technology, combined with chemicals and driven by often counter-productive economic incentives, is placing more and more agriculture on an unsustainable path.
66. In the world's semi-arid regions, soil degradation readily becomes desertification. The weakness of the response to the anti-desertification programme adopted by the United Nations originally in 1977 caused the Executive Director of UNEP last year to publicly express despair. The weak response to date, however, may stem in part from failure on the part of governments to connect desertification with problems and inadequacies in agricultural, forestry, food and settlements policies.
67. The interrelated issues of tropical forests and biological diversity will similarly be approached from their common sources in agricultural, forestry, trade and aid policies. Although the forestry situation in the developed world now appears relatively stable after centuries of exploitation, forests in developing countries have declined by one half during this century alone, and are shrinking at an increasing rate, largely because of expanding population and agricultural pressures.



68. The actual and potential socio-economic consequences of this are serious, primarily for the countries concerned because of such effects as increased flooding, sedimentation of reservoirs, disruption of irrigation systems and losses of land and agricultural productivity. Overcutting and inadequate investment in forest management and new plantations have changed 23 developing countries from net exporters to net importers of forest products, and put even greater pressure on their balance of payments and future economic prospects. An additional 14 countries are similarly threatened. Moreover, the loss of tropical forests with their extremely rich genetic resources threatens the existence of many existing and potentially useful species which in turn could have a worldwide effect on future agriculture, industry and science, and on human health and welfare generally.

#### International Economic Relations and Environment

69. While there has been an early and continuing concern about the implications of national environmental measures on trade, on investment and its location, and on international economic relations generally, the converse has been largely neglected. Yet it is becoming evident that certain policies and practices governing investment, trade and aid can have serious detrimental effects on environmental conditions and on the potential of certain countries to achieve sustainable development.
70. Policies governing multilateral and bilateral aid, for example, have usually failed to include effective provisions for the prior assessment of the environmental implications of assisted projects. The result, all too frequently, has been that the economic and social costs of avoidable environmental damage have exceeded the economic and social benefits generated by the project.
71. The conditions laid down by the International Monetary Fund as a prerequisite to extending credit can also lead to policies that induce environmentally destructive practices (e.g. forcing the unsustainable exploitation of marginal lands, forests or fisheries in order to increase exports and improve a country's balance of payments in the short term). Moreover, restrictions on access to markets for goods in which developing countries have a comparative advantage not only slows down their development generally, thus extending poverty induced pressures on the environment, but also forces them into the production of alternative goods involving non-sustainable uses of land and other resources.

72. The structure of economic relations between certain developed and developing countries appears to result in the latter bearing an ever-increasing share of the external environmental costs of the transactions. To date no satisfactory means have been devised to enable these costs to be reflected in market prices under internationally competitive conditions, or to ensure that they are shared in an equitable manner. An international version of the Polluter-Pays-Principle has been suggested but has not yet been taken up by governments.
73. An examination of international economic relations from the perspective of environment and sustainable development is long overdue and will be given special attention and priority by the Commission throughout all its work.

The Commission's Working Agenda

74. The above examples serve to illustrate the alternative approach that the Commission proposes to take on the key issues. The work will evolve from an agenda initially set out along the following lines:
- 74.1 Perspectives on Population, Science and Sustainable Development, Technology, Environment
  - 74.2 Energy, Environment and Development
  - 74.3 Industry, Environment and Development
  - 74.4 Food Security, Agriculture, Forestry, and Environment
  - 74.5 Human Settlements, Environment and Development
  - 74.6 International Economic Relations ~~and~~ Environment
  - 74.7 Decision Support Systems for Environmental Management
  - 74.8 International Co-operation

## VII. ADVANTAGES OF THE ALTERNATIVE AGENDA

75. Examining the issues from the perspective of their common sources in economic, social and sectoral policies has several major advantages, especially given the Commission's mandate for change.
76. First, it will permit the Commission to focus on those development goals and sectors that are of primary concern to people and governments (e.g. water, food and agriculture, housing and services, energy, industry, etc.). It will allow the Commission to relate them directly to their environmental and ecological bases, and to draw out some of the changed or new policies needed to achieve sustainable development.
77. Second, it will enable the Commission to address a new and critically important audience, especially those key individuals and agencies in government and industry nationally and internationally who have a major influence on economic and social policies and development.
78. In most developing and some developed countries, regardless of the sophistication of the government structure, the effective decision-making power tends to be narrowly concentrated at the top and in a few central agencies of government (e.g. the Finance Ministry, a National Planning Commission, a Bureau of the Budget, etc.). Within these agencies, decisions are normally made without any consideration of their impact on the environment by decision-makers who know little about the environment. It is vital, however, that decision-makers in these agencies become aware of and sensitive to the implications of their decisions for the environmental basis of sustainable development and, hence, for the national economic goals they espouse themselves for the short and longer term.
79. Beyond central agencies, governments everywhere are organized along the lines of the so-called "productive sectors". Like the central agencies, the sectoral agencies develop advice and decisions daily that are critical to environment and sustainable development. At the same time, while these central and sectoral agencies are sometimes seen as "targets" by environmental agencies inside the government, they are seldom seen as participants in the development of "environmental" policies. "Environmental" policy is frequently considered as something separate and distinct relating to the protection or conservation of water, land, or species or as a react-and-cure "add-on" to economic and sectoral policy. It is seldom included as an essential and integral part of economic and sectoral policies themselves. Few environmental agencies have developed the institutional capacity needed to undertake the analysis required to attract seriously

the attention of these agencies, nor have they acquired the professional resources and expertise needed to argue their case effectively in the interagency committees and corridors of power where advice on macro-economic, trade, agricultural and energy policies is formulated.

81. The same is true of too many environmental non-governmental organizations (NGO's). They usually address themselves to the environment agency or the development assistance agency with whom they share some common goals and can seek mutual support. They seldom address themselves to the central and sectoral agencies whose policies and decisions have such a critical impact on the environmental bases of sustainable development.
82. The Commission therefore considers it important to design its work and develop its conclusions and recommendations in ways that can effectively reach these key central and sectoral agencies. Moreover, it is time to demonstrate clearly that environment and development is not the preserve only of a small environmental agency, local, national or international, whose primary mission it is to react after the fact with proposed measures to cure the damage done. It is also time to demonstrate that environment and development is and must be the responsibility of a whole range of agencies, public and private, from the central economic and financial institutions of government to their agriculture, energy, transport, trade, and other agencies, whose policies and investments have a significant impact on the environment and, indeed, are the source of many of the critical problems.
83. Third, the alternative agenda enables the Commission to consider and propose strategies that are mainly anticipatory and preventive in character, rather than reactive and curative.
84. Anticipate-and-prevent strategies are needed to ensure that the environmental dimension is taken fully into account at the earliest possible stage of a major policy or development decision affecting the environment. Such approaches should be built into the entire development cycle from the phase of initial assessment of the economic and social demands that give rise to the desired development, through the policy, planning, implementation and marketing phases, and even to end-use and disposal phases. Special attention is particularly needed in the forward policy and planning phase. This is true whether the cycle concerns energy (as in end-use planning to encourage renewables, or pricing policies to encourage efficiency of use) or agriculture (as in measures to ensure the early introduction of drainage systems in irrigation works, or taxes to discourage the overuse of chemical fertilizers in sensitive areas).

85. Formulated within a longer-term perspective, anticipate-and-prevent strategies can be pursued through a wider range of instruments than react-and-cure strategies, including research, assessment, planning, investment and economic instruments as well as regulatory instruments. They therefore widen the range of possibilities for the Commission's conclusions and recommendations.
86. Anticipate-and-prevent strategies are also inherently more cost effective than react-and-cure strategies. The reason for this is that by building preventive measures into economic and social policies, or into the plans for an agricultural development or an industry, society usually pays less for those measures than it would pay later when they are added-on through re-design and retrofitting. In addition, while still using the assimilative capacity of the environment as an economic resource, society avoids the downstream costs associated with damage to ecosystems, property and health. These downstream costs are often heavy (e.g. the economic and social impact that uncontrolled forestry operations can have due to increased soil erosion and floods; or that irrigation projects undertaken without proper drainage can have on affected soils and communities; or the adverse effects of acid rain on the productivity of soils and forests).
87. Finally, the alternative agenda provides the Commission with a different and more effective basis for examining existing and new forms of international co-operation. It is generally conceded and often self-evident that many existing forms of institutional and international co-operation are not effective in dealing with some of the key issues. The reasons are many but some certainly stem from the fact that, whatever the intentions a decade and half ago, environmental policy and institutions that serve it have, with few exceptions, emerged as too limited in scope. They have been essentially an "add-on" to other policy fields and to institutional frameworks, national and international. Viewing environmental policy not as an "add-on" but as an integral component of economic and social policy, to be "built-in" into the policies and institutions concerned, could generate innovative thinking on new possibilities for more effective forms of international co-operation.

PART THREE

STRATEGY AND WORKPLAN

## STRATEGY AND WORKPLAN

### I INTRODUCTION

What Strategy should the Commission employ to marshal the information that it will need, and the intellectual, political and organizational resources that it will need to tap, in order to achieve its objectives?

1. At its Inaugural Meeting the Commission agreed that its primary objectives were in three short points:

First, to re-examine the critical issues of environment and development and to formulate innovative, concrete and realistic action proposals to deal with them;

Second, to strengthen international co-operation on environment and development and to assess and propose new forms of co-operation that can break out of existing patterns and influence policies and events in the direction of needed change; and,

Third, to raise the level of understanding and commitment to action on the part of individuals, voluntary organizations, businesses, institutes and governments.

2. The Commission at its Inaugural Meeting discussed and agreed upon the main elements of an initial strategy for its work which, taken together, would serve to achieve these objectives. As noted earlier, however, the question of the strategy would remain on the Commission's agenda and be revised at future meetings in the light of further advice and experience. The main points of the evolving strategy, as discussed and revised at subsequent meetings of the Commission, are briefly presented below.

### II. ELEMENTS OF THE STRATEGY

3. Given the scope and complexity of its mandate and agenda, the Commission needs and will openly and actively seek information, advice and assistance from many institutions, organizations, groups and experts around the world. It has already begun to do so in a variety of ways. Some of the main ones are briefly described below.

Policy Reports on Key Issues

4. For the many reasons cited earlier, the Commission will endeavour to move beyond the perceptions underlying the standard agenda of the key issues. The policy-oriented anticipatory approach made possible by the alternative agenda is particularly needed if the Commission is to reach beyond the traditional and committed environment community to those in governments and industry who are in a position to influence and make policy in key areas of development and environment.
5. This will not be easy. Few institutions have established the broadly based capacity needed to examine the critical environment and development issues from this perspective, and comparatively little work is available. The inadequacy of existing policy and institutional frameworks at the national and international levels was repeatedly raised by many who commented on the previous WCED report. As one expert wrote, even "the best planned projects are rarely successful in the absence of well-developed institutions and good policy frameworks."
6. The Commission will therefore need to ensure not only that the issues are properly structured and competently analyzed, but also that the major and relevant political, economic, strategic and other factors are considered and reflected in policy-oriented reports to and by the Commission. To this end, the Commission will directly support major policy studies by authoritative institutions and experts groups in order to generate the required analysis, synthesis and policy options, as well as openly invite and encourage any other organizations and groups who wish to do so to prepare and submit similar reports for its consideration.
7. For some policy areas, the Commission will enter into co-operative arrangements with one or more existing institutions under which those institutions would undertake or coordinate the necessary analyses and studies and present the results in the form of a report to the Commission.
8. In the case of other policy areas, the Commission has established small and carefully selected Advisory Panels. These Advisory Panels will involve a broad cross-section of senior, world-scale experts and figures, including those with positions of responsibility in the sectors concerned (i.e. energy, agriculture, finance, industry, etc.). To be affordable and manageable, however, the number of such Advisory Panels has had to be severely limited.



9. The Advisory Panels will be responsible for preparing a detailed analysis of the issues and policy areas concerned and for developing conclusions and recommendations for consideration by the Commission. In doing so they will need to review and assess the policy implications of existing state-of-the-art assessment reports as well as receive and review other relevant information submitted to the Commission by various organizations, groups and experts. At least some Advisory Panels will need to be assisted by a recognized consultant or, possibly, even by a small team of experts.
10. All such policy reports prepared for the Commission by co-operating institutions and Advisory Panels, or volunteered by others, should be submitted to the Commission by mid-May 1986 at the latest, and preferably earlier, in order that the Commission may take them fully into account in the preparation of its final report. These reports would be submitted under the responsibility of the institution, organization, Advisory Panel or group which prepared them. They would also be released publicly by the Commission as soon as possible after they are submitted.

#### Co-operation with International Organizations

11. From the outset the Commission has attached special importance to developing close co-operation with the relevant organizations of the United Nations system and with other relevant intergovernmental and non-governmental organizations. At the first two meetings of the Commission, for example, the heads of the following five international organizations accepted the invitation to engage in a direct dialogue and consultation with the Commission: United Nations Environment Programme (UNEP); World Meteorological Organization (WMO); United Nations Centre for Human Settlements (UNCHS); International Union for Conservation of Nature and Natural Resources (IUCN); and the Chairman of UNEP's Inter-governmental Inter-sessional Preparatory Committee (IIPC). Two of those who were unable to attend previous Commission meetings submitted written statements (UNESCO and WHO). Future Commission meetings will provide further opportunities for direct exchanges.
12. Apart from meetings of the Commission, the Chairman and other Members of the Commission have met with the heads and senior officers of other United Nations and inter-governmental and non-governmental organizations, and also addressed some of the major meetings convened by them (including, for example, the World Industry Conference on Environmental Management, the OECD Environment Committee, the Nordic Council of Ministers, the Inter-Parliamentary Union, and the Global Meeting on Environment and Development for Non-governmental Organizations).

### Meetings in Different Capitals Around the World

13. The Commission has already met in Geneva, Jakarta and Oslo and will hold future sessions in other capitals throughout the world. This will provide many opportunities to obtain new information, insights and perspectives on the key issues being considered. In this regard it should be noted that:
  - Several governments have already invited the Commission to meet in their capitals.
  - All potential host governments are requested to provide opportunities, as in Jakarta and Oslo, for scientific institutes, non-governmental and private sector organizations and eminent persons in their country and region to present their views and engage in a dialogue with the Commission.
  - As in Jakarta and Oslo, the Commission will also likely meet with heads of government and relevant ministers and senior executives and experts in government and industry, in the respective host countries.

### Discussions and Visits in Other Countries

14. Between Commission meetings and in travelling to and from them, arrangements will be made wherever possible for Commission Members to visit other countries to meet with ministers, senior government officials and make relevant institutions and organizations, as well as field relevant to the key issues being considered by the Commission.

### National and Regional Activities

15. The Commission will encourage the development of national and regional activities associated with its work. Regional seminars and expert groups could certainly make useful contributions relating to specific regional problems, to different points of view and to possible solutions. At a later stage in the work these regional activities could provide useful feedback on reports released earlier by the Commission.
16. Meetings of the Commission in the respective regions will be used as occasions to consider the results of such activities, including possible visits to specific problem areas.

### Participation at Major Meetings and Events

17. A number of major events are scheduled over the next two years which are directly relevant to the objectives and work of the Commission. These include special international conferences and meetings as well as regular meetings of relevant inter-governmental bodies. The Commission will endeavour to be represented at as many of these major meetings as possible.

### Open Processes

18. The Commission's processes will be as open as possible for as long as possible. They will be open in terms of sources of information and advice, with effective mechanisms (e.g. scientific institutes, expert groups, task forces, advisory panels) in place for receiving and assessing commissioned reports, and with opportunities for others to submit volunteered reports (e.g. government, international agencies, institutes, non-governmental organizations, private sector organizations, unions, etc.). They will also be open as regards the provision of information, and the public release of reports provided to the Commission.
19. There are already two major examples, both unique in the history of world Commissions, of this Commission's commitment to more open processes. Both demonstrate the Commission's open posture and readiness, as an independent global body of inquiry, to seek and receive information, advice and participation from many different sources and people around the world.
20. First, immediately after its Inaugural Meeting, a report was prepared containing the initial views of the Commission on the "Mandate, Key Issues, Strategy and Workplan". Thousands of copies were distributed free to many Ministers and senior government officials, to the heads and experts in inter-governmental and non-governmental organizations, scientific institutes, private corporations, citizens groups and, on request, many individuals. All were invited to provide their comments on it. The many comments and suggestions received were taken into account in preparing this second report. They will also be taken into account in the policy and other studies supported by the Commission. The comments and suggestions of all those now reading this second report are also invited, and can be sent directly to the Commission or to a Commission Member from your country or region. The full address of all Commission Members is provided at the beginning of this report.

21. Secondly, at both its Second Meeting in Jakarta and its Third Meeting in Oslo, the Commission held open public hearings on key environment and development issues in that country and region involving senior government officials, scientists, representatives of non-governmental organizations, industry and citizens groups, and journalists. The Commission intends to hold similar public hearings at future meetings in other countries and regions.

#### Information Activities and Events

22. A heightened public awareness is essential to effect the changes in current approaches to environment and development issues sought by the Commission's mandate. Preventive action, in advance of visible crises and demonstrable economic damage will always be politically difficult, both within countries and internationally. Curative action, in spite of visible crises and demonstrable economic damage, still remains politically difficult even in countries with a heightened public awareness and is almost impossible in countries without it.
23. If a crisis is large enough, of course, nations can marshal the political capacity to respond, however late and inefficiently. Witness the shift in European attitudes towards acid rain since massive forest die-back became visible, and the response to the current emergency in Ethiopia since it obtained the focussed attention of the world's media, especially television.
24. If the politics of cure are unreliable, the politics of prevention have yet to be invented. Clearly, however, they will depend on an aware, educated, articulate and demanding public. The media, therefore, are critically important participants in the Commission's work, both as instruments of public education and as opinion leaders in their own right.
25. The strategy adopted by the Commission for its work includes a number of activities and events that provide, or can be designed to provide, significant interest for the media. There are at least three distinct stages in the Commission's future work, and the interest of the media will likely increase as the Commission moves through these three stages.

26. Through 1985 to about mid-1986 the Commission's dominant posture will be that of "fact finding". Media interest in its work should grow as it moves from that posture to one of "synthesis" and "prescription" between mid-1986 to late 1986. It should increase further, as the Commission moves into its later posture of "recommendation" and "advocacy" which will run from the release of its report in early 1987 to the presentation of its conclusions and recommendations to the United Nations General Assembly in October 1987.
27. Between now and 1987, major activities and events on the Commission's calendar include:
  - Commission Meetings, including site visits and public hearings;
  - Advisory Panel meetings (mid-1985 to mid-1986)
  - Presentation and public release of selected issue papers (mid-1985 to mid-1986);
  - Presentation and public release of Advisory Panel Reports (mid-1986);
  - Preparation of the Commission's Report and Recommendations (mid-1986 to late 1986);
  - Release of the Commission's Report and Recommendations (early 1987);
  - Public debate and advocacy on the Commission's Report and Recommendations up to and including the 42nd session of the United Nations General Assembly.
28. In addition to these, other public activities and events involving the Chairman and Members of the Commission will include: visits to many countries other than those in which Commission Meetings will be held to meet governmental and non-governmental representatives as well as see other problems first-hand; participation in and addresses to major global or regional meetings of international agencies and other inter-governmental bodies, non-governmental organizations, trade and industry associations and scientific bodies; special articles on progress and key issues on the Commission's agenda in newspapers, magazines, and relevant academic and professional journals; and interviews for newspapers and television between and in association with meetings of the Commission.

### III. WORKPLAN AND TIMETABLE

29. After identifying key environment and development issues and formulating its new agenda, an early and necessary task of the Commission was then to develop a practical workplan and timetable. The Commission anticipates the need for nine meetings in different parts of the world in order to complete the global process of inquiry, consultations and analysis, and to prepare its final report and recommendations. The main agenda and work items and proposed schedule are briefly set out in the following chart. Given the intensive pace of that schedule, it will periodically have to be adapted and up-dated as experience and circumstances require.

IV. THE FINAL REPORT OF THE COMMISSION

30. At the Inaugural Meeting the Commission agreed that it would begin at an early stage to consider a basic outline and possible structure for its final report, and adapt and augment it accordingly as the work proceeds.
31. The Commission therefore approved the following steps and schedule for developing its final report:
- |                                 |  |
|---------------------------------|--|
| 3rd Meeting<br>(June 1985)      | - Consider a preliminary outline of the final report   |
| 4th Meeting<br>October 1985)    | - Discuss a revised outline of the final report  |
| 5th Meeting<br>(January 1986).  | - Re-consider the outline of the final report  |
| 6th Meeting<br>(May 1986)       | - Review a detailed outline of the final report  |
| 7th Meeting<br>(September 1986) | - Discuss and adopt a synoptic version of the final report   |
| 8th Meeting<br>(December 1986)  | - Review and complete draft of final report  |
| 9th Meeting<br>(Early 1987)     | - Decide on a strategy for release of the final report and follow-up action<br>- Adopt final report<br>- Re-consider and confirm the strategy for release of final report and follow-up action |
32. The Commission also decided that in order to fulfil its mandate, especially the goal "to raise the level of understanding and commitment to action on the part of individuals, voluntary organizations, businesses, institutes and governments", that the results of its work should be communicated in a variety of different ways in order to reach different target groups and as large a number of people as possible around the world.

33. The Commission is therefore already seriously considering and exploring the feasibility of various alternatives for preparing not only the usual official report, but also more popular versions (including illustrated documentary and atlas-type formats) as well as reaching even wider audiences through radio, film and television programmes. For example, several television producers in Europe, Latin America and North America have been consulted and several have already expressed interest in preparing special programmes highlighting key environment and development issues and the needs and opportunities for changes in policies, institutions and international co-operation.

#### IV. CHALLENGE FOR CHANGE

34. The Members of the Commission are fully committed to responding to the challenge of their mandate for change because, as they themselves are aware and as many others have emphasized in their letters and the many consultations that have already been held, this Commission probably represents the only chance that the world community will have in this century to generate some new and necessary initiatives to significantly strengthen national policies and international co-operation in support of environmental protection and sustainable development.
35. As indicated throughout this report, the Commission cannot fulfill its formidable task and mandate alone and will need the advice, co-operation and support of many other institutions, organizations and experts around the world. This report is one of several ways in which the Commission will try to reach and engage as many people as possible by publicly sharing its evolving thinking, strategy, plans and schedule.
36. All readers of this report are therefore invited to send comments and suggestions directly to the Commission or to a Member of the Commission in their country or region. The names and full addresses of all Commission Members are provided at the beginning of this report. The Commission also welcomes any efforts by other organizations, groups and individuals to organize meetings, other events or information campaigns on the key environment and development issues which can only be effectively tackled through the combined and complementary actions of many different kinds of local, national and international organizations and groups around the world.



# WORKPLAN AND TIMETABLE

## COMMISSION MEETINGS

## WCED SECRETARIAT

OCT.84	1	<ul style="list-style-type: none"> <li>● Adopt terms of reference</li> <li>● Decide on key issues, strategy, overall workplan &amp; timetable</li> <li>● Review financial matters</li> <li>● Meet Heads of International Organizations</li> <li>● Press Conference(s)</li> </ul>	OCT. 84 - MAR. 85	<ul style="list-style-type: none"> <li>● Survey of relevant reports, institutions, experts</li> <li>● Complete staffing, office premises, equipment, etc.</li> <li>■ Develop detailed work programmes and terms of reference for advisory panels</li> <li>■ Complete papers on selected policy issues for WCED/2</li> <li>● Develop detailed information strategy</li> <li>● Revise strategy, workplan &amp; timetable</li> <li>● Complete arrangements for WCED/2</li> </ul>
MAR.85	2	<ul style="list-style-type: none"> <li>● Participate in public hearings</li> <li>■ Discuss papers on selected policy issues</li> <li>● Review progress, strategy &amp; workplans</li> <li>● Review financial matters</li> <li>● Meet Heads of International Organizations</li> <li>● Review proposed information strategy</li> <li>● Press Conference(s)</li> </ul>		
JUN.85	3	<ul style="list-style-type: none"> <li>● Participate in public hearings</li> <li>■ Discuss papers on selected policy issues</li> <li>● Review revised version of earlier WCED report</li> <li>* Consider preliminary outline of final report</li> <li>● Review progress, strategy &amp; workplans</li> <li>● Review financial matters</li> <li>● Meet Heads of International Organizations</li> <li>● Press Conference(s)</li> </ul>	APR. 85 - JUN. 85	<ul style="list-style-type: none"> <li>■ Begin convening advisory panels and associated experts groups</li> <li>● Implement information strategy</li> <li>* Prepare preliminary outline of final report</li> <li>● Prepare revised version of earlier WCED report</li> <li>■ Complete papers on selected policy issues for WCED/3</li> <li>■ Complete arrangements for WCED/3</li> </ul>
OCT.85	4	<ul style="list-style-type: none"> <li>● Participate in public hearings</li> <li>■ Review progress of advisory panels</li> <li>■ Discuss papers on selected policy issues</li> <li>* Discuss revised outline of final report</li> <li>● Review progress, strategy &amp; workplans</li> <li>● Review financial matters</li> <li>● Meet Heads of International Organizations</li> <li>● Press Conference(s)</li> </ul>	JUL. 85 - OCT. 85	<ul style="list-style-type: none"> <li>● Convene and assist advisory panels and associated experts groups</li> <li>● Finalize and publish revised report on WCED</li> <li>■ Complete papers on selected policy issues for WCED/4</li> <li>* Prepare revised outline of final report</li> <li>● Complete arrangements for WCED/4</li> </ul>
JAN.86	5	<ul style="list-style-type: none"> <li>● Participate in public hearings</li> <li>● Review progress of advisory panels</li> <li>■ Discuss papers on selected policy issues</li> <li>* Discuss revised outline of final report</li> <li>● Review progress, strategy and workplans</li> <li>● Review financial matters</li> <li>● Meet Heads of International Organizations</li> <li>● Press Conference(s)</li> </ul>	NOV. 85 - JAN. 86	<ul style="list-style-type: none"> <li>● Convene and assist advisory panels and associated experts groups</li> <li>■ Complete papers on selected policy issues for WCED/5</li> <li>* Revise outline of final report</li> <li>● Complete arrangements for WCED/5</li> </ul>
MAY 86	6	<ul style="list-style-type: none"> <li>● Participate in public hearings</li> <li>■ Receive reports of some advisory panels &amp; discuss their conclusions and recommendations</li> <li>■ Discuss papers on selected policy issues</li> <li>* Review detailed outline of final report</li> <li>● Review progress, strategy &amp; workplans</li> <li>● Review financial matters</li> <li>● Press Conference(s)</li> </ul>	FEB. 86 - MAY 86	<ul style="list-style-type: none"> <li>■ Complete reports of some advisory panels</li> <li>■ Complete papers on selected policy issues for WCED/6</li> <li>* Prepare detailed outline of final report</li> <li>● Complete arrangements for WCED/6</li> </ul>
SEPT.86	7	<ul style="list-style-type: none"> <li>● Participate in public hearings</li> <li>■ Receive remaining reports of advisory panels and discuss their conclusions and recommendations</li> <li>* Discuss and adopt synoptic version of final report</li> <li>● Review strategy and 1987 follow-up</li> <li>● Review financial matters</li> <li>● Meet Heads of International Organizations</li> <li>● Press Conference(s)</li> </ul>	JUN. 86 - SEPT. 86	<ul style="list-style-type: none"> <li>■ Complete remaining reports of advisory panels</li> <li>* Prepare synoptic version of final report</li> <li>● Prepare proposed strategy for release of final report &amp; follow-up</li> <li>● Complete arrangements for WCED/7</li> </ul>
DEC.86	8	<ul style="list-style-type: none"> <li>● Participate in public hearings</li> <li>* Review complete draft of final report</li> <li>* Decide on strategy for release of final report and follow-up</li> <li>● Press Conference(s)</li> </ul>	OCT. 86 - DEC. 86	<ul style="list-style-type: none"> <li>* Prepare complete draft of final report</li> <li>● Prepare revised strategy for release of final report &amp; follow-up</li> <li>● Complete arrangements for WCED/8</li> </ul>
EARLY 87	9	<ul style="list-style-type: none"> <li>● Participate in public hearings</li> <li>* Adopt final report</li> <li>* Confirm strategy for release of final report and follow-up</li> <li>● Press Conference(s)</li> </ul>	EARLY 87	<ul style="list-style-type: none"> <li>* Prepare final draft of report</li> <li>● Complete arrangements for WCED/9</li> </ul>

■ Policy Reports  
\* Final Report

ANNEX 2

to

Secretary-General's Progress Report

(WCED/85/CRD 2)

REVISED WORK PROGRAMMES FOR ENERGY AND FOOD SECURITY

IV. WORK CHART

<u>ISSUE AREA</u>	<u>AUTHOR OF PAPER*</u>	<u>PEER REVIEW*</u>	<u>WRITTEN CRITIQUE*</u>	<u>OTHER CONTRIBUTION</u>
<b>1. <u>FOSSIL FUELS</u></b>				
1.1 The Future of Oil. Coal & Gas	Noreng. Chadwick	Gault. Lönnroth		
1.2 CO <sub>2</sub> . Trace Gases & Climatic Change				
1.2.1 Background Paper	Hare	) Inada. Rose		
1.2.2 Policy Options Paper	Hare. Secretariat	) Goodman		
1.3 Acid Rain				
1.3.1 Background Paper. OECD	Torrens	)		
1.3.2 Background Paper. CMEA	Mészáros	) Torrens. Mészáros		
1.3.3 Background Paper. China	Liuxun	) Goodman		
1.3.4 Background Paper. Developing Countries	Rodhe	) Rose. Rodhe		
1.3.5 Background Paper. Policy Options Paper	Goodman	)		
1.4 Air Pollution				
1.4.1 Regional Study. S. & SE. Asia	Lohani			
1.4.2 Regional Study. L. America	Ceiso do Amaral			
1.4.3 Regional Study. Europe	Weidner			
1.4.4 Regional Study. Japan	Hasimoto. Tokyo			
1.4.5 Regional Study. India	Mathew. India			
1.4.6 Regional Study. USA	Cannon			
1.4.7 Air Pollution. Synthesized Report	Secretariat			
1.5 Marine Pollution by Oil	Keckes. Szekely			
<b>2. <u>NUCLEAR ENERGY</u></b>				
2.1 Nuclear Safety				Blix. Personal present. to Comm.
2.2 Public Acceptance of Nuclear Power	Kasperson	Rose. Pollard	Kirschenmann	
2.3 Radioactive Waste Management	Pasztor	Parker. de Marsily	Hirsch	
2.4 Small Nuclear Reactors	Egan	IAEA		

\*For details of contributors. see attached list

WORK PROGRAMME  
 ENERGY, ENVIRONMENT AND DEVELOPMENT

<u>ISSUE AREA</u>	<u>AUTHOR OF PAPER*</u>	<u>PEER REVIEW*</u>	<u>WRITTEN CRITIQUE*</u>	<u>OTHER CONTRIBUTION</u>
<b>3. <u>RENEWABLE ENERGY</u></b>				
3.1 Renewable Energy. Env. & Dev.	Pasztor	Umaña. Hall. Shiva Kristoferson		
3.2 Energy and Food Supply	Leach		Wisner	
3.3 Evaluation of the Brazilian Alcohol Progr.	La Rovere			
<b>4. <u>MANAGING THE ENERGY TRANSITION</u></b>				
4.1 Macro-economic Impacts of Energy Prices	Kurien			
4.2 Energy Efficiency & Societal Productivity	Johansson	Leach		
4.3 Energy Planning for Development	Raskin		Fleites. Nagao	
4.4 Energy Policies for Rural Development	Suarez	Wisner. Kristoferson		
4.5 Transportation	Pereira			
4.6 Energy & International Cooperation	Hoffman	Kristoferson. Nagao		
4.7 Uncertainty in Energy Policy Analysis	Wynne			
<b>5. <u>ENERGY STRATEGIES FOR SUSTAINABLE DEVELOPMENT</u></b>				
5.1 Advisory Panel's Report to the Commission	Secretariat	Daly. Arbatov. Desai Bognár. Rose		

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V. TIMETABLE

<u>ACTIVITY</u>	<u>DATE DUE</u>
1. Select and invite authors for issue papers	Apr. May 1985
3. Author sends 4-5 page outline with some preliminary bibliography to Secretariat	May 20, 1985
4. Proposed first meeting of the Advisory Panel	June 30 to July 2, 1985
6. Authors mail first draft of issue paper by	Sept. 9, 1985
7. Author receives critique	Sept. 30, 1985
8. Authors mail final version of paper	Nov. 20, 1985
9. Proposed Second Meeting of the Advisory Panel to review issue papers and to prepare draft outline of Synthesis Energy Report	Dec. 9-14, 1985
10. First draft of Synthesis Energy Report sent to Energy Advisory Panel	March 10, 1985
11. Secretariat receives Final Draft of the Synthesis Energy Report	April <u>1986</u>
12. Synthesis Energy Report to Commission for first reading	June 1986
13. Author revises Synthesis Energy Chapter and sends to Energy Advisory Panel	July 1986
14. Final meeting of Energy Advisory Panel	August 1986

WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

DRAFT: WCED/85/7/Rev.1

Food Security, Agriculture, Forestry, and Environment

Co-ordinator: M. S. Muntemba

Special Advisor: E.S. Ayensu

Advisory Panel

Chairman: Dr. M.S. Swaminathan (India), Director of the International Rice Research Institute.  
President of the International Union for Conservation of Nature and Natural Resources and Independent  
Chairman of the FAO Council.

- Members:
1. Dr. Nyle Brady (USA), Senior Assistant Administrator, USAID and former Director of IRRI
  2. Professor Robert Chambers (UK), Development Economist, IDS, Sussex University
  3. Mrs. K. Choudry (India), President, Society for the Promotion of Wasteland Development
  4. Professor Y.F. Dorofeyev (USSR), Director, Vavilov N.I., All Union Research Institute of Plant Industry
  5. Dr. Gilberto Gallopin (Argentina), Director, Department of Natural Resources and Energy, Bariloche Foundation
  6. Dr. Joe Hulse (Canada), Vice President, IDRC and Chairman of ICSU Interunion Commission on the Application of Science to Agriculture, Forestry and Aquaculture
  7. Dr. Kenneth King (Guyana), UNDP Resident Representative in Ethiopia, former Deputy Director General in FAO
  8. Mrs. V. Malima (Tanzania), Director of Agricultural Research, Ministry of Agriculture
  9. Dr. Bede Okigbo (Nigeria) Deputy Director General of the International Institute of Tropical Agriculture Ibadan
  10. Dr. Samir Radwan (Egypt), Senior Economist, International Labour Office, Geneva
  11. Professor Lu Liang Shu (China), President, Chinese Academy of Agricultural Sciences

<u>ISSUE AREA</u>	<u>PRIMARY ASSIGNMENT</u>	<u>PEER REVIEW GROUP</u>	<u>OTHER INPUTS</u>	<u>COMPLETED BY</u>	<u>REPORT TO</u>
1. <u>Food Security, Agriculture and Environment</u>					
1.1 Quantitative and Qualitative Dimensions			FAO (papers, consultations)	Oct. 85	AP
1.2. Land Tenure Systems and Land Use	Richard Odingo Sr. Byron Miranda (CIERA)	Hardroy (IIED) R.J.Dodel/ Higgins (FAO) Tejwani (India) Achola Pala H. West (U.K.)	EMP/RU, ILO (papers) IUCN (Consultation) University of Zimbabwe (Land Management Dept.) (papers)	Oct. 85	AP

<u>ISSUE PAPERS</u>	<u>PRIMARY ASSIGNMENT</u>	<u>PEER REVIEW GROUP</u>	<u>OTHER INPUTS</u>	<u>COMPLETED BY</u>	<u>REPORT TO</u>
1.3. Agrarian Change: 1.3.1. Agrochemicals Agrobiologicals 1.3.2. Irrigation/Salinization	Istuan Szabolcs	D.Ghai (ILO) G. Conway CIDIAT IISA	EMP/RU. ILO (papers) Imperial College of Science and Techno- logy (papers) A.M. Friend (Consul- tation. papers) University of Zambia. (RDSB- papers)	Dec. 85	AP
1.4. Land Degradation: 1.4.1. Desertification 1.4.2. Soil Erosion 1.4.3. Soil Quality	J.Gorz(World Bank) ENEA UNEP	L. Timberlake	Earthscan (papers) IUCN (Consultation papers) UNEP (Consultation papers.public hearings) UNRISD (papers)	Aug. 85 Oct. 85	AP
1.5 Pastoralism and Livestock				Oct. 85	AP
1.6. Women and Food Production	Ruvimbo Chimedza Yolanda Kakabadse	G. Sen Z. Tadesse L. Beneria	FAO (papers) ILO (papers. consul- tations)	Oct. 85	AP
1.7 Science and Technology				Dec. 85	AP
1.8 Utilization of Inland Water				Dec. 85	AP
<u>2. Food Security, Forestry and Environment</u>					
2.1. Tropical Forest Ecosystems	WRI G. Budowsky (CATIE)	ICRAF Otto Solbring Tom Lovejoy T.N. Khoshoo Bell Burley Nogueiro-Neto Julio Carizosa Gomez Pompa	IUCN (Consultation. papers) World Bank IIED IUBS	July 85 Dec. 85	AP
2.2. Rehabilitation of Upland Watersheds	WRI (C. Pereira) J. Bandyopadhyay	Luc Mougeot (NAEA-Univ. of Para) K.G. Tejwani P. Hazelwood F. Sharon W.J. Payne	IIED	July 85 Oct. 85	AP
2.3. Fuelwood and Social Forestry	WRI (John Spears) E.N. Chidumayo	ICRAF IIED P. Sajogyo	ILO (papers) CHIPKO (sketches.film) People's Inst. for Dev. and Training (Public hearings)	July 85 Oct 85	AP
2.4. Industrial Forestry Management	WRI (Michael Asprey) Francis S.P. Ng Per Olof Nilsson	H.O.T. Shubart Winterbottom E. Wing S. Rav R. Copihve F. Wadsworth	World Bank (info)	July 85 Oct. 85	AP

<u>ISSUE PAPERS</u>	<u>PRIMARY ASSIGNMENT</u>	<u>PEER REVIEW GROUP</u>	<u>OTHER INPUTS</u>	<u>COMPLETED BY</u>	<u>REPORT TO</u>
2.5 Wasteland Development	TBS	Vina Mazundar	CWDS (information) SPWD (papers, consul- tation)	Oct. 85	AP
2.6. Policies to Sustain Biological Diversity	Lee Talbot W.B. Banage	Peter Rowen Peter Ashton Tom Lovejoy	WRI	July 85 Oct. 85	AP
3. <u>Alternative agricultural systems</u>	Bede Okigbo			Dec. 85	AP
4. <u>Food Security, Economic Policies, Environment and Development</u>					
4.1. Economic, Fiscal and Pricing Policies and Sustainable Agriculture	WRI (R. Repetto)			Aug. 85	AP
4.2. Investment, Aid Policies and Sustainable Agriculture, Forestry	Bryan Johnson Santa Cruz		World Bank IIED Consumer Association of Penang	Aug. 85	AP
5. <u>Institutional Capacity Building</u>	D. Iyamabo	H.K. Jain A. Taylor G. Castillo T. Abdulla		Oct. 85	AP
6. <u>People's Participation</u>				Oct. 85	AP
7. <u>Advisory Panel Report on Food Security, Agriculture, Forestry and Environment</u>				Spring 86	WCED

ANNEX 2

to

Secretary-General's Progress Report

(WCED/85/CRD 2)

REVISED WORK PROGRAMME FOR HUMAN SETTLEMENTS

## WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

### REVISED WORK PROGRAMME HUMAN SETTLEMENTS, ENVIRONMENT AND DEVELOPMENT

1. A dramatic transformation is taking place in the form and distribution of human settlements. In those regions of the world where total population is growing most rapidly, cities are growing much more rapidly. In short, the developing world is becoming a world of cities.
2. This is not entirely a new phenomenon. But the pace of change and the sheer size of the new mega-cities being created are new. According to the UN estimates, about 25 per cent of the population of the less developed regions of the world lived in cities in 1975. By the year 2000, it will reach 40 per cent. In absolute numbers, the urban population of the less developed regions is expected to increase from 775 million to 1,996 million in 25 years, much of the growth taking place in cities of one million people or more.
3. Consider for a moment how this translates into the task of city building. In 25 years, the world's stock of housing, transport facilities, water supply and sanitation systems, factories, offices and commercial establishments will have to be more than doubled. The same applies to employment, productive capacity, education and health services. While the doubling is taking place, much of the existing stock must be replaced because it is outworn and inadequate to serve the needs of those who depend upon it. It is a herculean task by any standards. If it can be achieved, there will be still much more to do after the year 2000. The proportion of urban population in developing countries may eventually grow to 80 per cent if the pattern of the more developed regions is repeated. An urbanization strategy to accommodate so many people in cities will require policies, management, technology and investment well beyond anything yet seen or perhaps even contemplated.
4. Despite the massive scale of the problems and their complexity, urbanization, even mega-urbanization need not be looked upon as a bad phenomenon in the context of rapidly growing population and development. Cities can and should be positive contributors to environment and development. The problem is not to stop urbanization, but to bring about a pattern of effective, efficient, wealth-creating cities that can be ecologically sustainable and economically viable in the present, and the medium and long term.

5. Two basic themes have been selected under which to organize the main issues to be addressed in the Commission's work.

5.1. Human Settlements, Urbanization, Environment and Development: an Alternative Diagnosis

An alternative approach requires an improved and dynamic diagnosis of the city as a centre of the development process and raises a number of questions that the Commission will wish to address:

- What are the dominant present and future trends in urbanization, settlement growth, shelter, provision of land and basic services, including investment needs for shelter, land and basic services, by region and in selected countries?
- What proportion of future national development does settlement creation, shelter and urban-based activities represent?
- How do the prevalent and emerging patterns of urbanization and the establishment of human settlements affect natural and social systems, as well as the quality of life?
- How do economic, financial, science and technology, regional development, energy, agricultural, industrial policies impact on human settlements development?
- What are the key linkages between these policy domains, and how do they differ in different systems?
- How does the process of policy formulation in these domains now take account of the forces of urbanization and settlement creation, and how could it be modified to enable those policies to guide and/or take advantage of these forces?
- How can urbanization and settlement creation be approached as a dynamic tool for viable development: an opportunity rather than a threat?

- 5.2. Rethinking the Cities of the Future: Given the current characteristics of the urbanization process, particularly in developing countries and the need to find appropriate solutions to the problems it poses, a number of questions may be raised that the Commission will wish to address:

- How can the processes of city development and expansion be changed to make them less expensive in money, time, land, energy and other resources as well as easier and cheaper to administer and maintain?

- How can these processes be made to facilitate social exchanges, promote real community involvement and guarantee certain basic standards (in terms of housing conditions and basic services) are accesible to all?
- How can the official management process be improved, in order to allow for people's and communities' participation?
- How can urban development patterns be changed to include resource saving and conservation mechanisms?
- What changes in education, training and information may be necessary to adjust urbanization within a sustainable economic development process?
- What are the key interventions and institutions which must be put in place to manage rapid urban growth, make cities more responsive to the needs of their inhabitants and help to ensure that the cities of the future are more viable, economically, socially and culturally?

#### WORKPROGRAMME AND TIMETABLE.

Each of the three major themes will end up as a single issue paper, and a policy options paper will be prepared. These four papers represent the basic inputs for discussion by the Commission. They will be the culmination of a process, drawing on several activities carried out by different institutions and individuals. These will include the preparation of specific papers, peer and expert group meetings, and revision by the Advisory Panel. The specific papers may also be presented to the Commission for information. They may also be made public if considered useful and pertinent. The same is true for the theme papers, the policy options paper and for the Panel's report and recommendations to the Commission. A summary Chart and timetable is attached.



WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

Human Settlements, Urbanization, Environment and Development

Advisory Panel

The human settlements programme will be guided by an Advisory Panel of senior people representing different points of view and regions. The following have been selected so far: Ms. Alejandra Moreno Toscano (Mexico), Jacques Bugnicourt(ENDA), Yves Cabannes(France), Adolph Ciborowski (Poland), Charles Corea(India), John E. Cox(Canada), Andrew Hamer(IBRD), Nigel Harris(UK), Richard Kirkby(UK), Mr. Mabagunji(Nigeria), Jorge Wilhelm (Brazil).

<u>THEMES</u>	<u>ASSIGNMENTS</u>	<u>POSSIBLE COOPERATING INSTITUTIONS</u>	<u>COMPLETED BY</u>
1. <u>Human Settlements, Urbanization, Environment and Development: An Alternative Diagnosis</u>	Ian Burton	IFIAS	May 86
a) The urban system's role in development		IIED/CEUR	July 85
b) Sectoral policies which influence the human settlements and linkages among them(illustrative case studies)		IFIAS IIED/CEUR	July 85
c) Settlements trends and trends in the provision of shelter, land and basic services		IIED/CEUR UNCHS	December 85
2. <u>Rethinking the cities of the future</u>			
2.1 Rethinking the Third World city	J.E. Hardoy David Satterthwaite	IIED/CEUR	May 86
a) Shelter and the provision of basic services		IBRD ECLA	July 85
b) Financing shelter and basic services		UNCHS	December 85
c) Managing human settlements: institutional mechanisms and participation		IDB	December 85
d) Resource and environmental conservation in human settlements	Ignacy Sachs	UNU/EHSS	July 85
e) Education, training and information for new and alternative settlements	John Celecia	MAB/UNESCO	July 85
2.2. The Developed World city	Elizabeth Mills	ECE	May 86

WORK PROGRAMME ON HUMAN SETTLEMENTS - TIME TABLE

1985

1986

ACTIVITIES	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Draft of specific issue papers:																			
Review of specific issue papers																			
Draft of partial inputs for the 1st Panel meeting:																			
1st Panel meeting				P															
Review of partial results for presentation to the Commission																			
Commission Meeting in Latin America						C													
New inputs																			
Internal review and preparation of draft policy options paper																			
2nd Panel Meeting								P											
Draft of Panel report and policy options paper																			
Commission Meeting											C								
Final Version of issues papers and policy options paper																			
3rd Panel Meeting														P					
Final report of panel for the Commission																			
Final discussion at the Commission Meeting																C			

P - Panel Meeting  
C - Commission Meeting

ANNEX 3

to

Secretary-General's Progress Report

(WCED/85/CRD 2)

REPORT OF THE FIRST MEETING OF THE FOOD  
SECURITY ADVISORY PANEL

(12 - 13 May 1985)

FOOD SECURITY, AGRICULTURE, FORESTRY AND ENVIRONMENT:

Record of major points emerging from  
the First Meeting of the Advisory Panel, 12-13 May 1985

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1. The meeting, chaired by the Panel's Chairman, Dr. M.S. Swaminathan, was called to briefly introduce the Advisory Panel to the proposed work of the World Commission on Environment and Development including the programme area on Food Security, Agriculture, Forestry and Environment and to the Advisory Panel's terms of reference. The meeting was also to consider the outline of the programme's Final Report to be submitted to the Commission in Spring 1986. In view of the programme's close linkage, analytically, to the current African food crisis, the Panel was called to prepare a brief statement on the crisis for the WCED meeting in Oslo, June 26-28 1985.
2. In welcoming and introducing panel members to the work of the WCED, the Secretary General briefed members on the origin and mandate of the Commission, emphasizing its alternative agenda which takes a broader view of environment in which economic, social and development issues hold critical positions and play crucial roles. Identification and analysis of the root causes were of primary concern in order to allow for recommendation of other approaches which will protect the environment.

The Advisory Panel's terms of reference were briefly stated as:

- i) to prepare a report to go to the Commission on issues relating to the food security, agriculture, forestry and environment, drawing conclusions and making policy-oriented recommendations for incorporation in the Commission's own Final Report;
- ii) to guide the Secretariat's work as it relates to the issues in (i);
- iii) to take account and stock of views relating to the other programme areas; and
- iv) to advise the Commission on an interim basis at its WCED meetings.

3. The outline of the Panel's Final Report was discussed within the context of the Food Security Draft Work Programme. Many panel members observed that the proposed work was broad enough, but it required focus. After much discussion, it became clear that the overwhelming consensus was to make the Panel's work and issues relating to food security centre on poor people. Human needs, in this context access to food, i.e. food entitlement as a basis of security, or simply livelihood should provide the conceptual framework.

It was emphasized that food security should include both availability and distribution as well as the qualitative aspects of food (nutrition, food safety, safe drinking water).

4. Once the focus and framework were identified, the meeting proposed to proceed by identifying the main objective of the programme: to suggest ways of how to hedge the poor against food insecurity (quantitatively and qualitatively) or how to enable them to absorb the shocks, for example those created by recession; natural disasters, inappropriate policies.
5. Methodological questions were raised and discussed to better handle (3) and (4) above. What emerged went along the following lines:
  - i) Within the context of the above concept and focus (attainment of livelihoods by the poorest of the poor in a sustainable environment) and objective (food security) the panel suggested to analyse these, with a view to making useful and practical recommendations, through evaluation of performance and proposals for alternative policy options.

Regarding evaluation:

- a) identification, brief description and analysis of success stories would be made with a view to drawing out lessons.
- b) causes of food insecurity:
  - land distribution, land tenure systems; agricultural organisation; labour use including the question of women.
  - ecological causes
  - technological constraints
  - inappropriate state policies
  - constraints resulting from the international arena
  - aid, trade, etc.

This causal framework would establish priority approaches in space and socio-economic parameters - national, regional, global transformation, international linkages and in time - starting from the short-term to the long-term.

- ii) Based on 5 (i) alternative policies would be suggested. These would be proposed within the perspectives of time horizons opted for (year 2000, 2020 or any other) starting with the short-term to the long-term.
- iii) Strategies to implement the recommendations. The time horizon would also be applied.

The Outline was summarized as follows:

- a) Central issues or objective of report: sustainable agriculture/development for the poorest of the poor.
- b) Analysis of problems and possible solutions - success (unique, universal); constraints.
- c) Action at national, regional, international levels, emphasizing participation and drawing on existing and suggested approaches and trends.

(Outline attached)

- 6. Some gaps were identified and additional areas for enquiry suggested. The following gaps were identified but papers would not be necessary as either they are being dealt with elsewhere in the Secretariat or they will be highlighted in the issue papers already called for in the programme:
  - i) Medium-term population prospects to bring in rural/urban perspectives
  - ii) Labour use and labour markets (in addition to the issues being dealt within some of the commissioned papers, it was suggested and agreed that two panelists - Dr. Chambers and Dr. Radwan - would together prepare a short paper drawing on their vast experience in this area)
  - iii) Social availability of food and food distribution, crucial to the question of distribution being market systems; delivery systems/physical systems; price mechanisms; the relationship between food imports and food availability and distribution (to be captured in the Introduction and 4.1 : Economic, Fiscal and Pricing Policies)
  - iv) Access to and management of common property - communal lands, grazing lands, forests (1.2 : Land Tenure Systems and Land Use and 3.: Alternative Agricultural Systems would capture these)
  - v) Future Scenarios (to be captured in Introduction and 1.1 : Quantitative and Qualitative Dimensions)

Papers would be required on the following topics:

- a) Science and technology, focusing on the emerging areas in technology (for example, biotechnology, institutional back-up of technology)
  - b) Utilization of inland water (aquaculture)
  - c) Pastoralism and livestock, in terms of food availability, buffer cushions and agroforestry and including questions of grazing/over-grazing and desertification.
  - d) People's participation, in making any recommendations regarding implementation meaningful and effective.
7. To facilitate the procedures for drafting the Advisory Panel's Final Report, members each selected issues whose development they will pay special attention to i.e., issue papers will be sent to the specific panel members who will already start working towards the incorporation of the special issue into the Final Report, always within the overall framework as outlined above.

<u>Name</u>	<u>Task</u>
K. King	Forestry issues; international co-operation
V. Malima	Women and food production; institutional capacity building; international co-operation and co-ordination
J. Hulse	Science and technology, institutional capacity building
R. Chambers	Overall framework, population, common property, land use
G. Gallopin	Framework; investment, aid policies
S. Radwan	Land tenure; pricing policies; labour use and labour markets

8. Dates for the next Advisory Panel meeting were set for 10-12 November 1985 at which a preliminary draft report will be the main item on the agenda. It is anticipated that by then panel members will have seen a number of issue papers, at least the first complete drafts.

9. The African Food Crisis

Members of the Panel have been separately concerned with the situation in Africa and welcomed the Commission's invitation to the Panel to prepare a Statement to be read at the Commission's meeting in Oslo, 26-28 June 1985. The Secretary General informed the Panel that its Chairman has been invited to deliver at the meeting the Advisory Panel's views and recommendations to the Commissioners. The Panel addressed the African situation from the short-term and long-term perspectives and within the parameters of genesis, diagnosis and remedy. Enduring food security for the poorest of the poor was the over-riding objective. The points emerging from the discussion are contained in the Interim Report to the WCED signed by the Panel's Chairman.



# WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

## Advisory Panel on Food Security, Agriculture, Forestry and Environment

### Outline of the Final Report

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#### I. Major aims of the Report

- (a) To suggest methods of promoting ecologically sustainable and economically viable pathways of agricultural development which can ensure adequacy of global food supplies and reserves;
- (b) To suggest a framework for national, regional and international action and cooperation which can ensure to all human beings physical and economic access to balanced nutrition and;
- (c) To recommend measures which will help to make the farm and forestry sectors of national economies not only sources of food, income and employment but also powerful instruments of improving continuously the quality of the human environment.

#### II. Structure of the Report

The report will be broadly divided into the following three parts:

##### A. Awareness:

Providing livelihood and the basic human needs of food, water, clothing, shelter and education to all lacking them today will be the principal objective of the measures to be suggested. Helping the poor to come out of the poverty trap in which they now live will be the primary strategy for promoting ecologically and economically sustainable development. Widespread awareness is needed of three basic facts:

1. More than enough is already produced in the world to provide balanced diet for all its inhabitants.
2. People with purchasing power seldom go hungry.

3. Small and subsistence farmers will not produce more than what they need for themselves, unless they are assured cash or goods acceptable in exchange for the surplus.

Mahatma Gandhi in India often said that unless all development efforts derive their roots from the principle of Antyodya (i.e., the analysis of the impact of a development programme in terms of its benefits to the last man, i.e. poorest of the poor) the poor will be bypassed by most development plans. The youth and the poor constitute the two genuine majorities in many developing nations. Hence, any eco-development plan which fails to involve them both as participants and beneficiaries will also fail.

Part I of the Panel's report will hence try to generate awareness of the basic human dimensions of development without destruction.

#### B. Analysis

The second part will undertake an in-depth analysis based on illustrative case studies of key problems and possible solutions. Several of the ecological and economic problems will be unique to some countries and communities, while several others are universal in character. For example, dwindling community assets and resources and vanishing community efforts compound the already complex environmental problems in several countries. There are other problems like CO<sub>2</sub> concentration in the atmosphere, acid rain, water and air pollution, inappropriate technologies, etc., which are more global in character.

The analytical part will hence focus attention on a few selected unique and universal problems and draw attention to possible solutions based on successful efforts and experiences. Particular attention will be paid to the analysis of the constraint responsible for the gap between plans and performance and aspirations and accomplishments. The constraints may be ecological, economic, technological, political, institutional, etc., and a methodology for the precise identification of the constraints operating in each country will be proposed.

Similarly, the analytical portion will cover the consequences of new technologies in terms of ecology, economics, equity, employment and energy needs.

C. Action

The action needed at the national, regional and international levels will have to be stated in different time dimensions - immediate, medium term and infinite. The adequacy and efficacy of existing institutional and organizational structures to promote meaningful international cooperation will have to be examined from the policy angle.

The action plan suggested will have to be structured from the point of view of both political sensitivity and political neutrality. Politically neutral and immediately feasible solutions and action plans will have to be listed separately, so that paralysis by further analysis can be avoided.

In the action plan, emphasis will be placed on optimising the benefits from already existing institutions and infrastructure. For example, the school and university system in many developing countries is a great underutilized resource which can be tapped immediately.

The action plan will be based on successful examples of protecting and enriching the basic life support systems of land, water, flora, fauna and the atmosphere for the purpose of improving quality of life. The supreme consideration of the action plan will be the happiness and well-being of the present and future human populations.

ANNEX 4

to

Secretary-General's Progress Report

(WCED/85/CRD 2)

LIST OF MEMBERS OF FOOD SECURITY, ENERGY  
AND INDUSTRY ADVISORY PANELS

LIST OF MEMBERS OF THE ADVISORY PANEL ON  
FOOD SECURITY, AGRICULTURE, FORESTRY AND ENVIRONMENT

Chairman: Dr. M.S. Swaminathan (India), Director-General of the International Rice Research Institute, President of the International Union for Conservation of Nature and Natural Resources and Independent Chairman of the FAO Council.

- Members:
1. Dr. Nyle Brady (USA)  
Senior Assistant Administrator, USAID and former Director of IRRI
  2. Dr. Gilberto Gallopin (Argentina)  
Director, Department of Natural Resources and Energy, Bariloche Foundation
  3. Dr. Joe Hulse (Canada)  
Vice President, IDRC and Chairman of ICSU Interunion Commission on the Application of Science to Agriculture, Forestry and Aquaculture
  4. Dr. Kenneth King (Guyana)  
UNDP Resident Representative in Ethiopia, and former Deputy Director General in FAO
  5. Dr. Bede Okigbo (Nigeria)  
Deputy Director General of the International Institute of Tropical Agriculture, Ibadan
  6. Dr. Samir Radwan (Egypt)  
Rural Employment Policies Branch  
International Labour Office  
Geneva
  7. Prof. Lov Liang Shu (China)  
President of the Chinese Academy of Agricultural Sciences, Beijing
  8. Mrs. V. Malima (Tanzania)  
Director of Agricultural Research,  
Ministry of Agriculture, Dar-es-Salaam
  9. Dr. Robert Chambers (UK)  
Development Economist, IDS, Sussex
  10. Ms. K. Choudhry, (India)  
President, Society for the Promotion of Wasteland Development, New Delhi

11. Prof. Y.F. Dorofeyev\* (USSR)  
Director, Vavilov N.I., All-Union Research  
Institute of Plant Industry, Leningrad
12. Mr. Shizuo Shigesawa\* (Japan)  
President, Japan Plywood Inspection  
Association
13. Prof. MacWilliam\* (Australia)  
President, International Institute of  
Agricultural Sciences, Canberra

\* Membership still being negotiated.

LIST OF MEMBERS OF THE ADVISORY PANEL ON  
ENERGY, ENVIRONMENT AND DEVELOPMENT

Chairman: Mr. Enrique Iglesias (Uruguay)  
Minister for Foreign Affairs  
Formerly Secretary General of UN-NARSE Conference

- Members:
1. Mr. Abdlatif Y. Al-Hamad (Kuwait)  
Formerly Minister for Energy and Finance;  
Co-Chairman of IIED
  2. Mr. Toyooki Ikuta (Japan)  
President, Energy Economics Institute, Tokyo
  3. Mr. Gu Jian (China)  
Chief Engineer, Wuhan Energy Research Institute
  4. Mr. Al Noor Kassum (Tanzania)  
Minister for Water, Energy, and Minerals
  5. Mr. Ulf Lantske (FRG)  
Formerly Director of IEA-OECD
  6. Mrs. Wangari Maathai (Kenya)  
Former Professor of Biology; Chairman: National  
Council of Women, Green Belt Movement
  7. Mr. Francisco Parra (Venezuela)  
Formerly Secretary General of OPEC
  8. Mr. David Rose (USA)  
Professor of Nuclear Engineering, MIT
  9. Mr. Prem Shankar Jha (India)  
Senior Assistant Editor, The Times of India
  10. Mr. M. Styrikovich (USSR)  
Head of Energy, High Temperature Laboratory  
USSR Academician, Nauk Spokesman for Energy
  11. Mr. Carl Tham (Sweden)  
Chief of National Energy Administration;  
Member, Brandt Commission's Energy Roundtable
  12. Mr. György Vajda (Hungary)  
Director, Electrical Power Research Institute;  
Member, Hungarian Academy of Sciences
  13. Mr. Miguel Wionczek (Mexico)  
Director, Programme on Energy & Development

ANNEX 5

to

Secretary-General's Progress Report

(WCED/85/CRD 2)

STRATEGY FOR PERIOD MAY '87 - NOV '87



Strategy for Period May '87 - Nov '87

1. It is recommended that the Commission take the initiative and hold or participate in public events and meetings in which the report is presented positively, discussed, and where necessary, explained.
2. Invitations should be sought from governments in each major region of the world to host a meeting at which the Commission would present its report and recommendations and discuss it with representatives of as many governments in the region as might attend. Preferably, the meetings should take place before the individual governments issue firm instructions to their delegations to the 1987 General Assembly where the report will be presented.
3. Invitations should also be sought from other bodies such as foundations, professional associations and NGOs to hold suitable meetings in widespread venues around the world. Like the above meetings, these would be occasions for promoting and selling the report itself on TV, radio and through the press.
4. NGOs and industry should be encouraged through the Geneva Group to mount a major world conference/teleconference in July 1987 to ensure that those closely engaged in influencing public opinion and governments, namely NGOs and industry, have the chance to form their opinions in an atmosphere of free discussion.
5. Major scheduled meetings like those of AAAS and other professional bodies should be identified and their organizers persuaded at an early date to put WCED's report on the agenda. Audio-visual aids like short TV spots should be prepared to aid in the presentation of the highlights of the report. Commissioners and senior advisers should be scheduled to present the report at these meetings. The financial implications should be handled in a separate advocacy budget.
6. It should be noted that the Commission has already been approached by certain Latin American governments, the government of Australia and the European Commission. Discussions are going on with other bodies including a foundation from the Federal Republic of Germany.

ANNEX 6

to

Secretary-General's Progress Report

(WCED/85/CRD 2)

UP-TO-DATE SECRETARIAT STAFF LIST

COMMISSION SECRETARIAT

Status Report : June 1985

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I. PROFESSIONALS

<u>Incumbent</u>	<u>Position</u>	<u>Areas of Responsibility</u>
Mr J. MacNeill (Canada)	Secretary General	
Mr. K. Kato (Japan)	Programme Director	Energy and Industry
Mr. W.H. Lindner (USA)	Secretary of the Commission and Director of Administration	Administration
Mr. V. Sanchez (Chile)	Programme Director	Population, Human Settlements, Science and Technology
Mr. P. Stone (UK)	Director	Information
Mr. V. Fernando (Sri Lanka)	Senior Programme Officer	Agriculture and other
Mr. B. Gosovic (Yugoslavia)	Senior Programme Officer	Economics, Trade
Ms. S. Muntemba (Zambia)	Senior Programme Officer	Food Security, Agriculture, Forestry and Environment
Mr. J. Pasztor (Hungary)	Senior Programme Officer	Energy
Ms. E. Monosowski (Brazil)	Consultant	Industry, Human Settlements
Ms. E. Surber (Switzerland)	Finance and Admin. Officer	Personnel, Finance

0018s/06.06.85

## II. GENERAL SERVICE OFFICERS

<u>Incumbent</u>	<u>Position</u>
Mrs. B. Baker (Germany/UK)	Secretary to the Secretary General
Mrs E. Goodship (Canada/Switzerland)	Secretary/Administration Assistant
Mrs T. Harmand (Poland/UK)	Secretary
Ms E. Permato (Philippines)	Secretary/Press Assistant
Ms G. Quesada (Honduras)	Secretary
Mrs. M. Raphoz (Indonesia/Holland)	Secretary
Mrs. K. Streit (Switzerland)	Secretary
Mr. S. Vanderwert (Sri Lanka)	Messenger

Annex 7

to

Secretary-General's Progress

Report

(WCED/85/CRD.2)

SUMMARY REPORT ON THE EXPERTS

MEETING ON ENVIRONMENTAL LAW



## WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

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### WCED EXPERTS MEETING ON ENVIRONMENTAL LAW

4-5 June 1985 at The Peace Palace, The Hague

### SUMMARY REPORT

#### AGENDA AND DOCUMENTS

The Agenda is attached (Annex A). Seven background documents were sent to participants before the meeting (see attached list in Annex B).

As requested, every participant submitted "Summary Data Sheets on Principles Proposed for Discussion" (one data sheet for each principle). An example is attached as Annex C. Copies of another forty-one principles proposed by participants were copied and distributed the first morning.

In addition, there was an expanded and more detailed draft by Dr. Lammers on "Concepts and Principles of International Law concerning the Use of Shared Natural Resources and Transfrontier Environmental Interferences". That draft contained a further 20 principles and rules.

#### PARTICIPATION

Participants were carefully selected and limited in number to expedite an intensive 2-day discussion. Nevertheless, with the exception of Eastern Europe (Dr. Timoshenko of the USSR had originally accepted but later announced he was unable to attend), there were international law experts from all major world regions. The list of participants is attached (Annex D).

The meeting was opened by the President of the International Court of Justice (ICJ), Judge Nagendra Singh, on behalf of the WCED. In addition to Judge Singh, five other Judges of the International Court took part in the opening and at several other times during the meeting.

The meeting was chaired by R. Munro. Dr. Lammers, as the lead author for the project, was the Rapporteur.

#### HIGHLIGHTS AND RESULTS

Among the many points made during the general exchange of views at the start of the meeting, the following significantly influenced the focus and content of the subsequent discussions:

## HIGHLIGHTS AND RESULTS (cont'd)

- International law evolves slowly, and often on the basis of cases where significant damage has already occurred. With the increasing incidence, magnitude and inter-national and even global impacts of environmental problems, international law must be developed more quickly and before rather than after significant damage occurs.
- The WCED work could not and should not duplicate or compete with the relevant work of other international bodies (e.g. International Law Commission, International Law Association, UNEP, etc.) which have been continuously working for years and decades to codify and extend existing international law.
- The WCED work should have a different, larger and more ambitious perspective. The WCED has far less time but also fewer constraints than existing bodies, as well as a longer view "to the year 2000 and beyond". In addition to examining "existing" and "emerging" principles, the meeting agreed to give special attention to what principles and rules ought to be in place now or before the year 2000 to support environmental protection and sustainable development within and among States.
- The principles should initially be formulated in the light of existing and emerging ecological realities and be carefully re-considered later in the light of political realities. The principles should also eventually be formulated to meet two apparently conflicting objectives: the terms should be recognizable to lawyers yet still be understandable to non-lawyers.
- The WCED work should consider not only principles regarding the obligations of States to each other, but also principles regarding the obligations of and among States concerning environmental protection and sustainable development (e.g. obligations to future generations, to other species, the global commons, etc.). Two courageous participants (Kiss; Burhenne) drafted eight such principles overnight between the first and second day.
- The meeting agreed to use the term "transboundary" rather than "trans-frontier" as it seemed to have a wider application not only to natural resources and pollution crossing the frontiers of two or more States, but also to the boundary between areas claimed by national jurisdictions and global or regional commons. Moreover, the term "Transboundary Natural Resources" helped avoid some of the chronic difficulties associated with the term "Shared Natural Resources".
- The meeting also agreed to use the term "Environmental Interferences" to embrace not only traditional transboundary pollution problems but also other environmental modifications with significant transboundary effects (e.g. major changes in streamflows, over-fishing in territorial waters, changes affecting regional or global climate, etc.).

HIGHLIGHTS AND RESULTS (cont'd)

It was difficult in only two days to maintain due speed and due process in the discussions. Nevertheless, the meeting did complete an intensive review of the 20 principles in Dr. Lammer's report (also taking into account the many principles proposed by other participants), and the eight more "global" principles (plus two others proposed during the discussion). Participants also agreed to send additional comments and suggestions directly to Dr. Lammer by June 15th.

The meeting agreed on a basic structure for a revised and consolidated draft to be circulated to participants at mid-July for comment by August 9th. A further draft would be prepared and re-circulated to participants in late August, for comment in writing or as a basis for discussion at a meeting in early September. In subsequent drafts, each principle would be stated as clearly and concisely as possible, and be supported by an explanatory note on the terms employed, appropriate references to major cases, treaties, resolutions of intergovernmental organizations and conferences, and other relevant sources.

Regarding "Alternatives for Accelerating the Development of Relevant International Law and Principles" (Agenda Item 4), each participant was asked to make a short statement on their views and suggestions but time was too limited for a detailed discussion of them. These will be incorporated in a short paper for further consideration either by correspondence or at a future meeting.

A preliminary outline of a related report on "The Settlement of Environmental Disputes" was presented by Dr. Stein and participants undertook to provide comments on it directly to him.

As the discussions had benefitted considerably from the periodic participation of Judge Singh and his colleagues on the International Court, and the meeting arrangements by the Carnegie Foundation and Hague Academy of International Law had worked so smoothly, the participants asked the Chairman to send appropriate letters of appreciation on their behalf.

(The above notes are the Chairman's summary only and have not been checked with other participants).

Stockholm, 10 June 1985



R. D. Munro



## ANNEX A



WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

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EXPERTS MEETING ON ENVIRONMENTAL LAW  
The Hague, 4-5 June 1985

\* EMEL/6/85/1

### PROVISIONAL AGENDA

The meeting will begin at 9:00 a.m. on Tuesday,  
June 4th in Room 20 at the Peace Palace,  
Carnegieplein 2, The Hague

1. INTRODUCTION
2. ADOPTION OF AGENDA
3. IDENTIFICATION AND REVIEW OF EXISTING AND EMERGING  
INTERNATIONAL LEGAL PRINCIPLES RELEVANT TO ENVIRONMENT  
AND SUSTAINABLE DEVELOPMENT
  - 3.1 Criteria for Identifying and Selecting  
Relevant International Legal Principles
  - 3.2 Review and Selection of Relevant Existing and  
Emerging International Legal Principles
4. ALTERNATIVES FOR ACCELERATING THE DEVELOPMENT OF  
RELEVANT INTERNATIONAL LAW AND PRINCIPLES
5. CONTENTS AND STRUCTURE OF THE INITIAL REPORT TO THE WCED
6. FUTURE WORK AND SCHEDULE

## ANNEX B



WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

**EXPERTS MEETING ON ENVIRONMENTAL LAW**  
**The Hague, 4-5 June 1985**

### LIST OF DOCUMENTS

- EMEL/6/85/1      - PROVISIONAL AGENDA AND NOTES ON THE AGENDA
- EMEL/6/85/2      - SUMMARY DATA SHEETS ON PRINCIPLES PROPOSED  
FOR DISCUSSION
- EMEL/6/85/3      - WCED DRAFT PROGRAMME AND WORKPLAN ON  
INTERNATIONAL CO-OPERATION
- EMEL/6/85/4      - RULES OF INTERNATIONAL LAW APPLICABLE TO  
TRANSFRONTIER POLLUTION
- EMEL/6/85/5      - STATUS OF MULTILATERAL CONVENTIONS RELATED  
TO ENVIRONMENT
- EMEL/6/85/6      - LIST OF PARTICIPANTS
- \*\*\*                - WCED MANDATE, KEY ISSUES, STRATEGY AND  
WORKPLAN

ANNEX C  
SUMMARY DATA  
ON PRINCIPLE PROPOSED FOR DISCUSSION  
  
(COMPLETED EXAMPLE)

Statement of the Principle

Riparian States of an international watercourse in principle shall not cause and are obliged to prevent or abate transfrontier pollution of the water of an international watercourse which causes substantial - i.e., not minor or not insignificant - harm to other riparian States. This obligation is a due care or due diligence obligation.

Status of the Principle (Mark all categories that apply)

1. ☒ In customary international law or general principle of international law;
2. ☒ In multilateral treaties or binding acts of governmental international organizations;
3. ☐ In non-binding acts of governmental international organizations;
4. ☒ In non-binding acts of governmental international conferences;
5. ☐ In binding acts of non-governmental international organizations, groups or entities;
6. ☒ In non-binding acts of non-governmental international organizations, groups or entities;
7. ☐ Proposed new principle (none of above categories).

References

(Provide specific references to official documents or cases in support of any of the above categories that you marked.)

- (1) See survey of practice and statements of States ad draft Art.3 of Rules of International Law Applicable to Transfrontier Pollution in Report of the 60th Conference. International Law Association, Montreal, 1982, p.160 et seq.
- (2) See: Frontier treaty concluded between FRG and the Netherlands on 8 April 1960 at The Hague, Art. 58, in 508 UNTS p.26; Agreement concluded between Finland and the USSR concerning Frontier Watercourses, Art.4, in UNTS p.231; and Agreement concluded between Mexico and USA on 30 April 1973 at Mexico City concerning the Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River. in 12 ILM 1973, p.1105.
- (4) See Principle 21 of the 1972 Stockholm Declaration on the Human Environment.
- (6) See Art.2 and, in part, Art.1, of the Rules on Water Pollution in an International Drainage Basin in Report of the 60th Conference. ILA, Montreal, 1982, p.535 et seq.; and, in part, Arts.2 and 3 of the 1979 Athens Resolution of the Institut de Droit International on Pollution of Rivers and Lakes and International Law, in Annuaire of the Institut de Droit International, Vol.58, Part II, p.196.

Name: Dr. Johan Lammers



## ANNEX D

### WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT

**EXPERTS MEETING ON ENVIRONMENTAL LAW**  
**The Hague, 4-5 June 1985**

♦ EMEL/6/85/6

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ANNEX D

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